

EIOPA-BoS-19/465  
15 October 2019

**Consultation Paper**  
**on the**  
**Opinion on the 2020 review of**  
**Solvency II**

# Table of Contents

<b>Responding to this paper .....</b>	<b>5</b>
<b>Executive summary .....</b>	<b>6</b>
<b>1. Introduction .....</b>	<b>12</b>
<b>2. LTG measures and measures on equity risk.....</b>	<b>15</b>
2.1. Introduction .....	15
2.2. Extrapolation of risk-free interest rates.....	17
2.3 Matching adjustment.....	53
2.4 Volatility adjustment .....	69
2.5 Dynamic volatility adjustment in internal models .....	183
2.6 Transitionals measures on the risk-free interest rates and on technical provisions.....	200
2.7 Risk-management provisions on LTG measures .....	210
2.8 Disclosure on LTG measures.....	217
2.9 Long-term and strategic equity investments.....	224
2.10 Symmetric adjustment to the equity risk charge .....	261
2.11 Transitional measure on equity risk .....	266
2.12 Extension of the recovery rate .....	268
<b>3. Technical provisions .....</b>	<b>273</b>
3.1 Best estimate .....	273
3.2 Risk margin.....	295
<b>4. Own funds .....</b>	<b>316</b>
4.1 Extract from the call for advice .....	316
4.2 Tiering and ancillary own funds.....	316
4.3 Undue volatility .....	327
4.4 Clarity of availability criteria .....	330
4.5 Correct attribution of items .....	333
<b>5. Solvency Capital Requirement standard formula .....</b>	<b>343</b>
5.1 Interest rate risk.....	343
5.2 Spread risk .....	355
5.3 Property risk .....	366
5.4 Correlation matrices .....	371
5.5 Counterparty default risk .....	380

5.6 Calibration of underwriting risk .....	393
5.7 Catastrophe risk .....	395
5.8 Risk mitigation techniques .....	400
5.9 Reducing reliance on external ratings .....	410
5.10 Transitional on government bonds.....	417
<b>6. Minimum Capital Requirement.....</b>	<b>419</b>
6.1 Extract from the call for advice .....	419
6.2 Previous advice.....	419
6.3 Relevant legal provisions .....	419
6.4 Calculation of the Minimum Capital Requirement.....	420
6.5 Non-compliance with the Minimum Capital Requirement .....	424
<b>7. Reporting and disclosure .....</b>	<b>433</b>
7.1 Introduction .....	433
7.2 Regular supervisory reporting.....	433
7.3 Group reporting and disclosure .....	440
<b>8. Proportionality .....</b>	<b>467</b>
8.1 Thresholds for exclusion from Solvency II .....	467
8.2 Proportionality in pillar 1 .....	478
8.3 Proportionality in pillar 2.....	487
8.4 Proportionality in pillar 3.....	503
<b>9. Group supervision .....</b>	<b>504</b>
9.1 Introduction .....	504
9.2 Overview of policy options included in this chapter .....	506
9.3 Identification of the issues .....	513
<b>10. Freedom to provide services and freedom of establishment.....</b>	<b>610</b>
10.1 Extract from the call for advice .....	610
10.2 Previous advice.....	610
10.3 Relevant legal provisions.....	611
10.4 Other regulatory background .....	611
10.5 Identification of the issues.....	611
10.6 Efficient information gathering during the authorisation process.....	612
10.7 Information exchange between home and host supervisors in case of material changes in the FoS activities .....	614
10.8 Enhanced role for EIOPA in complex cross-border cases where NSAs fail to reach a common view in the cooperation platform .....	615

10.9 Cooperation between home and host NSAs during ongoing supervision .....	617
10.10 Explicit power of the host supervisor to request information in a timely manner .....	619
10.11 Enhanced reporting requirements and exchange of information .....	620
<b>11. Macroprudential policy .....</b>	<b>621</b>
11.1 Extract from the call for advice .....	621
11.2 Relevant legal provisions.....	622
11.3 Identification of the issue .....	622
11.4 Analysis .....	632
<b>12. Recovery and resolution.....</b>	<b>662</b>
12.1 Introduction .....	662
12.2 Identification of the issue .....	663
12.3 Analysis .....	668
12.4 Triggers .....	703
<b>13. Insurance guarantee schemes .....</b>	<b>710</b>
<b>14. Other topics of the review .....</b>	<b>711</b>
14.1 Other transitionals.....	711
14.2 Fit and proper requirements .....	719
<b>Annexes .....</b>	<b>727</b>



## **Responding to this paper**

EIOPA welcomes comments on this consultation paper on the opinion on the 2020 review of Solvency II and on the background document on the impact assessment.

Comments are most helpful if they:

- respond to the question stated, where applicable;
- contain a clear rationale; and
- describe any alternatives EIOPA should consider.

Please send your comments to EIOPA in the provided templates for comments, by email [cp-19-006@eiopa.europa.eu](mailto:cp-19-006@eiopa.europa.eu), by 15 January 2020.

Contributions not provided in the templates for comments, or sent to a different email address, or after the deadline will not be processed.

## **Publication of responses**

Contributions received will be published on EIOPA's public website unless you request otherwise in the respective field in the template for comments. A standard confidentiality statement in an email message will not be treated as a request for non-disclosure.

Please note that EIOPA is subject to Regulation (EC) No 1049/2001 regarding public access to documents and EIOPA's rules on public access to documents<sup>1</sup>.

Contributions will be made available at the end of the public consultation period.

## **Data protection**

Please note that personal contact details (such as name of individuals, email addresses and phone numbers) will not be published. They will only be used to request clarifications if necessary on the information supplied.

EIOPA, as a European Authority, will process any personal data in line with Regulation (EU) 2018/1725. More information on data protection can be found at <https://eiopa.europa.eu/> under the heading 'Legal notice'.

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<sup>1</sup> [Public Access to Documents](#)

## **Executive summary**

This consultation paper sets out technical advice for the review of Solvency II Directive. The advice is given in response to a call for advice from the European Commission. EIOPA will provide its final advice in June 2020.

The call for advice comprises 19 separate topics. Broadly speaking, these can be divided into three parts.

Firstly, the review of the long term guarantee measures. These measures were always foreseen as being reviewed in 2020, as specified in the Omnibus II Directive. A number of different options are being consulted on, notably on extrapolation and on the volatility adjustment.

Secondly, the potential introduction of new regulatory tools in the Solvency II Directive, notably on macro-prudential issues, recovery and resolution, and insurance guarantee schemes. These new regulatory tools are considered thoroughly in the consultation.

Thirdly, revisions to the existing Solvency II framework including in relation to freedom of services and establishment; reporting and disclosure; and the solvency capital requirement. Given that the view of EIOPA is that overall the Solvency II framework is working well, the approach here has in general been one of evolution rather than revolution. The principal exceptions arise as a result either of supervisory experience, for example in relation to cross-border business; or of the wider economic context, in particular in relation to interest rate risk.

The main specific considerations and proposals of this consultation paper are as follows:

- Considerations to choose a later starting point for the extrapolation of risk-free interest rates for the euro or to change the extrapolation method to take into account market information beyond the starting point.
- Considerations to change the calculation of the volatility adjustment to risk-free interest rates, in particular to address overshooting effects and to reflect the illiquidity of insurance liabilities.
- The proposal to increase the calibration of the interest rate risk sub-module in line with empirical evidence. The proposal is consistent with the technical advice EIOPA provided on the Solvency Capital Requirement standard formula in 2018.
- The proposal to include macro-prudential tools in the Solvency II Directive.
- The proposal to establish a minimum harmonised and comprehensive recovery and resolution framework for insurance.

A background document to this consultation paper includes a qualitative assessment of the combined impact of all proposed changes. EIOPA will collect data in order to assess the quantitative combined impact and to take it into account in the decision on the proposals to be included in the advice. Beyond the changes on interest rate risk EIOPA aims in general for a balanced impact of the proposals.

The following paragraphs summarise the main content of the consulted advice per chapter.

### Long-term guarantees measures and measures on equity risk

EIOPA considers to choose a later starting point for the extrapolation of risk-free interest rates for the euro or to change the extrapolation method to take into account market information beyond the starting point. Changes are considered with the aim to avoid the underestimation of technical provisions and wrong risk management incentives. The impact on the stability of solvency positions and the financial stability is taken into account.

The paper sets out two approaches to calculate the volatility adjustment to the risk-free interest rates. Both approaches include application ratios to mitigate overshooting effects of the volatility adjustment and to take into account the illiquidity characteristics of the insurance liabilities the adjustment is applied to. One approach also establishes a clearer split between a permanent component of the adjustment and a macroeconomic component that only exists in times of wide spreads. The other approach takes into account the undertakings-specific investment allocation to further address overshooting effects.

Regarding the matching adjustment to risk-free interest rates the proposal is made to recognise in the Solvency Capital Requirement standard formula diversification effects with regard to matching adjustment portfolios.

The advice includes proposals to strengthen the public disclosure on the long-term guarantees measures and the risk management provisions for those measures.

The advice includes a review of the capital requirements for equity risk and proposals on the criteria for strategic equity investments and the calculation of long-term equity investments. Because of the introduction of the capital requirement on long-term equity investments EIOPA intends to advise that the duration-based equity risk sub-module is phased out.

### Technical provisions

EIOPA identified a larger number of aspects in the calculation of the best estimate of technical provisions where divergent practices among undertakings or supervisors exist. For some of these issues, where EIOPA's convergence tools cannot ensure consistent practices, the advice sets out proposals to clarify the legal framework, mainly on contract boundaries, the definition of expected profits in future premiums and the expense assumptions for insurance undertakings that have discontinued one product type or even their whole business.

With regard to the risk margin of technical provisions transfer values of insurance liabilities, the sensitivity of the risk margin to interest rate changes and the calculation of the risk margin for undertakings that apply the matching adjustment or the volatility adjustment were analysed. The analysis did not result in a proposal to change the calculation of the risk margin.

### Own funds

EIOPA has reviewed the differences in tiering and limits approaches within the insurance and banking framework, utilising quantitative and qualitative assessment. EIOPA has found that they are justifiable in view of the differences in the business of both sectors.

### Solvency Capital Requirement standard formula

EIOPA confirms its advice provided in 2018 to increase the calibration of the interest rate risk sub-module. The current calibration underestimates the risk and does not take into account the possibility of a steep fall of interest rate as experienced during the past years and the existence of negative interest rates.

The review of the spread risk sub-module, of the correlation matrices for market risks, the treatment of non-proportional reinsurance, and the use of external ratings did not result in proposals for change.

### Minimum Capital Requirement

Regarding the calculation of the Minimum Capital Requirement it is suggested to update the risk factors for non-life insurance risks in line with recent changes made to the risk factors for the Solvency Capital Requirement standard formula. Furthermore, proposals are made to clarify the legal provisions on non-compliance with the Minimum Capital Requirement.

### Reporting and disclosure

The advice proposes changes to the frequency of the Regular Supervisory Report to supervisors in order to ensure that the reporting is proportionate and supports risk-based supervision. Suggestions are made to streamline and clarify the expected content of the Regular Supervisory Report with the aim to support insurance undertakings in fulfilling their reporting task avoiding overlaps between different reporting requirements and to ensure a level playing field. Some reporting items are proposed for deletion because the information is also available through other sources.

The advice includes a review of the reporting templates for insurance groups that takes into account earlier EIOPA proposals on the templates of solo undertakings and group specificities.

EIOPA proposes an auditing requirement for balance sheet at group level in order to improve the reliability and comparability of the disclosed information. It is also suggested to delete the requirement to translate the summary of that report.

### Proportionality

EIOPA has reviewed the rules for exempting insurance undertakings from the Solvency II Directive, in particular the thresholds on the size of insurance business. As a result, EIOPA proposes to maintain the general approach to exemptions but to reinforce proportionality across the three pillars of the

Solvency II Directive. Regarding thresholds EIOPA proposes to double the thresholds related to technical provisions and to allow Member States to increase the current threshold for premium income from the current amount of EUR 5 million to up to EUR 25 million.

EIOPA had reviewed the simplified calculation of the standard formula and proposed improvements in 2018. In addition to that the advice includes proposals to simplify the calculation of the counterparty default risk module and for simplified approaches to immaterial risks.

Proposals are made to improve the proportionality of the governance requirements for insurance and reinsurance undertakings, in particular on key functions, own risk and solvency assessment, written policies and administrative, management and supervisory bodies.

Proposals to improve the proportionality in reporting and disclosure of Solvency II framework were made by EIOPA in a separate consultation in July 2019.

#### Group supervision

EIOPA proposes a number of regulatory changes to address the current legal uncertainties regarding supervision of insurance groups under the Solvency II Directive. This is a welcomed opportunity as the regulatory framework for groups was not very specific in many cases while in others it relies on the *mutatis mutandis* application of solo rules without much clarifications.

In particular, there are policy proposals to ensure that the definitions applicable to groups, scope of application of group supervision and supervision of intra-group transactions, including issues with third countries. Other proposals focus on the rules governing the calculation of group solvency, including own funds requirements as well as any interaction with the Financial Conglomerates Directive. The last section of the advice focuses on the uncertainties related to the application of governance requirements at group level.

#### Freedom to provide services and freedom of establishment

EIOPA further provides suggestions in relation to cross border business, in particular to support efficient exchange of information among national supervisory authorities during the process of authorising insurance undertakings and in case of material changes in cross-border activities. It is further recommended to enhance EIOPA's role in the cooperation platforms that support the supervision of cross-border business.

#### Macro-prudential policy

EIOPA proposes to include the macroprudential perspective in the Solvency II Directive. Based on previous work, the advice develops a conceptual approach to systemic risk in insurance and then analyses the current existing tools in the Solvency II framework against the sources of systemic risk identified, concluding that there is the need for further improvements in the current framework.

Against this background, EIOPA proposes a comprehensive framework, covering the tools initially considered by the European Commission (improvements in Own Risk and Solvency Assessment and the prudent person principle, as well as

the drafting of systemic risk and liquidity risk management plans), as well as other tools that EIOPA considers necessary to equip national supervisory authorities with sufficient powers to address the sources of systemic risk in insurance. Among the latter, EIOPA proposes to grant national supervisory authorities with the power to require a capital surcharge for systemic risk, to define soft concentration thresholds, to require pre-emptive recovery and resolution plans and to impose a temporarily freeze on redemption rights in exceptional circumstances.

### Recovery and resolution

EIOPA calls for a minimum harmonised and comprehensive recovery and resolution framework for (re)insurers to deliver increased policyholder protection and financial stability in the European Union. Harmonisation of the existing frameworks and the definition of a common approach to the fundamental elements of recovery and resolution will avoid the current fragmented landscape and facilitate cross-border cooperation.

In the advice, EIOPA focuses on the recovery measures including the request for pre-emptive recovery planning and early intervention measures. Subsequently, the advice covers all relevant aspects around the resolution process, such as the designation of a resolution authority, the resolution objectives, the need for resolution planning and for a wide range of resolution powers to be exercised in a proportionate way. The last part of the advice is devoted to the triggers for early intervention, entry into recovery and into resolution.

### Other topics of the review

The review of the ongoing appropriateness of the transitional provisions included in the Solvency II Directive did not result in a proposal for changes.

With regard to the fit and proper requirements of the Solvency II Directive EIOPA proposes to clarify the position of national supervisory authorities on the ongoing supervision of propriety of board members and that they should have effective powers in case qualifying shareholders are not proper. Further advice is provided in order to increase the efficiency and intensity of propriety assessments in complex cross-border cases by providing the possibility of joint assessment and use of EIOPA's powers to assist where supervisors cannot reach a common view.

### Impact assessment

This consultation paper is accompanied with a background document setting out an analysis of the costs and benefits of the main options considered in each section of the consultation paper. Such analysis includes a qualitative assessment of the costs and benefits for stakeholders, including policyholders, industry and supervisors. For technical options on certain topics, it also includes a quantitative assessment of costs. In addition, a holistic impact assessment has been developed to provide a comprehensive overview of the combined impact of the proposed legislative changes in all areas concerned; including the impact on the objectives of the 2020 review of the Solvency II Directive and the expected costs for the industry. The qualitative analysis will be supplemented with the analysis of the data gathered through the information request to national supervisory authorities

and insurance and reinsurance undertakings in parallel to the public consultation. In 2020 EIOPA will also collect data on the combined impact of the proposed changes.

#### Length of the consultation document

The consultation paper is a long document. This reflects the unprecedentedly wide number of topics on which advice is sought as well as EIOPA's desire to be transparent on the basis for its proposed opinion by for example including significant amounts of analysis of different policy options.

To aid the reader the chapters have a common structure. Moreover, EIOPA's proposed advice is highlighted in a blue box towards the end of each chapter, and these blue boxes are a good place to start for those readers who do not need to consider some or all of the issues in detail.

## 1. Introduction

- 1.1 On 1 January 2016, Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance<sup>2</sup> (hereafter "Solvency II Directive") entered into application.
- 1.2 The Solvency II Directive provides that certain areas of the framework should be reviewed by the European Commission at the latest by 1 January 2021, namely:
  - long-term guarantees measures and measures on equity risk,
  - methods, assumptions and standard parameters used when calculating the Solvency Capital Requirement standard formula,
  - Member States' rules and supervisory authorities' practices regarding the calculation of the Minimum Capital Requirement,
  - group supervision and capital management within a group of insurance or reinsurance undertakings.
- 1.3 Against that background, the European Commission issued a request to EIOPA for technical advice on the review of the Solvency II Directive in February 2019 (call for advice – CfA). The CfA covers 19 topics. In addition to topics that fall under the four areas mentioned above, the following topics are included:
  - transitional measures
  - risk margin
  - Capital Markets Union aspects
  - macroprudential issues
  - recovery and resolution
  - insurance guarantee schemes
  - freedom to provide services and freedom of establishment
  - reporting and disclosure
  - proportionality and thresholds
  - best estimate
  - own funds at solo level
- 1.4 EIOPA is requested to provide technical advice by 30 June 2020.
- 1.5 EIOPA will provide its technical advice in the form of an opinion, in line with the requirement of Article 77f(2) of the Solvency II Directive to provide an opinion on the assessment of the application of the long-term guarantees measures and measures on equity risk.

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<sup>2</sup> OJ L 335, 17.12.2009, p.1.



- 1.6 This consultation paper sets out advice on all of these topics except two where advice was put into consultation at an earlier date:
- reporting and disclosure with regard to general issues, individual quantitative reporting templates, the Solvency and Financial Condition Report, narrative supervisory reporting and financial stability reporting,
  - insurance guarantee schemes.
- 1.7 Consultation papers on both topics were published on 12 July 2019. The consultation will end on 18 October 2019.
- 1.8 The review of Solvency II is broad but will leave the fundamentals of Solvency II unchanged. As stated by the European Commission in the letter accompanying the CfA:  
*"[...] the fundamental principles of the Solvency II Directive should not be questioned in the review (including the confidence level underlying the calibration of capital requirements and the market-consistent valuation) [...]"*
- 1.9 This approach is in line with EIOPA's perception that the introduction of Solvency II has largely been a success. In particular, a risk-based approach to assess and mitigate risks is applied, the insurance industry has better aligned capital to the risks it runs, governance models and their risk management capacity have been significantly strengthened and insurers throughout Europe use harmonised templates for supervisory reporting, instead of a patchwork of national templates.
- 1.10 EIOPA bases its contribution to the review also on its previous work, in particular on:
- annual reports on the long-term guarantees measures and measures on equity risk for the years 2016 to 2018,
  - technical advice on the on the review of specific items in the Solvency II Delegated Regulation (SCR review) in 2017 and 2018,
  - three papers on macroprudential policy in insurance 2017 to 2018,
  - an Opinion on recovery and resolution in 2017,
  - a discussion paper on guarantee schemes 2018,
  - a report on group supervision and capital management 2018,
  - a discussion paper on systemic risks and macroprudential policy in insurance 2019.
- 1.11 EIOPA is committed to include in its technical advice an impact assessment of all relevant effects, qualitative and quantitative, both for the individual proposals and for the combination of all proposals (holistic impact assessment). At this stage of the review, however, the holistic impact can primarily be assessed only qualitatively. EIOPA will carry out information request to national supervisory authorities (NSAs) and the insurance industry

in parallel to this consultation as well as in 2020 in order to collect the necessary data for the impact assessment.

1.12 Responding to this consultation is not the only way stakeholders are involved in the review. In particular, a stakeholder event on the review is planned for December 2019.

1.13 More information on EIOPA's approach to the impact assessment and stakeholder involvement in the review can be found in the background document on the impact assessment that was published together with this consultation paper.

## 2. LTG measures and measures on equity risk

### 2.1. Introduction

2.1 The Solvency II Directive includes the following long-term guarantees measures (LTG measures) and measures on equity risk:

Articles	Name of the measure
77a	Extrapolation of the risk-free interest rates
77b, 77c	Matching adjustment (MA)
77d	Volatility adjustment (VA)
106	Symmetric adjustment mechanism to the equity risk charge
138(4)	Extension of the recovery period
304	Duration-based equity risk sub-module
308c	Transitional on the risk-free rate
308d	Transitional on technical provisions

2.2 The LTG measures were introduced in the Solvency II Directive through Directive 2014/51/EU of the European Parliament and of the Council of 16 April 2014 amending Directives 2003/71/EC and 2009/138/EC and Regulations (EC) No 1060/2009, (EU) No 1094/2010 and (EU) No 1095/2010 in respect of the powers of the European Supervisory Authority (European Insurance and Occupational Pensions Authority) and the European Supervisory Authority (European Securities and Markets Authority) (Omnibus II Directive)<sup>3</sup> in order to ensure an appropriate treatment of insurance products that include long-term guarantees. The measures on equity risk should ensure an appropriate measurement of the risks arising from changes in the level of equity prices in setting the capital requirement for insurance and reinsurance undertakings.

2.3 Article 77f of the Solvency II Directive requires a review of the LTG measures and the measures on equity risk by 1 January 2021. The review consists of the following elements:

- EIOPA annually reports on the impact of the application of the LTG measures and the measures on equity risk to the European Parliament, the Council and the Commission.
- EIOPA provides an opinion on the assessment of the application of the LTG measures and the measures on equity risk to the Commission.

2.4 Based on the opinion submitted by EIOPA the European Commission submits a report on the impact of the LTG measures and the measures on equity risk

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<sup>3</sup> OJ L 153, 22.05.2014, p.1

to the European Parliament and to the Council. The report will be accompanied, if necessary, by legislative proposals.

- 2.5 EIOPA has provided reports on LTG measures and the measures on equity risk (LTG reports) for the years 2016, 2017 and 2018.<sup>4</sup> The report for 2019 will be published in December 2019. EIOPA will provide the last LTG report in December 2020.
- 2.6 The LTG reports are factual and do not include recommendations on the measures. They present information on the use of the measures and on their impact on the financial position of undertakings, on policyholder protection, on the investments of undertakings, on consumers and products, on competition and level playing field in the EU insurance market and on financial stability. In addition the first three reports had different thematic foci. The LTG report 2016 analysed in particular the approval processes for the measures and the technical information on the relevant risk-free interest rate term structures and on the symmetric adjustment to the equity risk charge. The LTG report 2017 put a focus on the public disclosure on the measures by undertakings and the LTG report 2018 on the risk management of undertakings in relation to the measures. The LTG reports are in particular based on the responses to annual information requests to NSAs and insurance and reinsurance undertakings.
- 2.7 Related to the review of the LTG measures and measures on equity risk EIOPA received a Call for Information from the European Commission in April 2018.<sup>5</sup> Accordingly, EIOPA should provide information on the liquidity of insurance liabilities, on the asset management of insurance undertakings, in particular the holding period of assets, on LTG measures and on the market valuation of insurance liabilities. EIOPA will respond to the call in December 2019. The response will be published on EIOPA's website. In order to collect information for response EIOPA issued a request to stakeholders for feedback on illiquid liabilities in 2018.<sup>6</sup>
- 2.8 For the purpose of this Opinion EIOPA carried out an information request to the NSAs and to the insurance industry from May to June 2019 on the LTG measures, the dynamic volatility adjustment and long-term illiquid liabilities.<sup>7</sup>
- 2.9 The draft advice on LTG measures and measures on equity risk provided in this consultation paper is in particular based on that information request, the

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<sup>4</sup> See [https://eiopa.europa.eu/Publications/Responses/EIOPA-BoS-16-279\\_LTG\\_REPORT\\_2016.pdf](https://eiopa.europa.eu/Publications/Responses/EIOPA-BoS-16-279_LTG_REPORT_2016.pdf), <https://eiopa.europa.eu/Publications/Reports/2017-12-20%20LTG%20Report%202017.pdf> and [https://eiopa.europa.eu/Publications/Reports/2018-12-18%20\\_LTG%20AnnualReport2018.pdf](https://eiopa.europa.eu/Publications/Reports/2018-12-18%20_LTG%20AnnualReport2018.pdf).

<sup>5</sup> See <https://eiopa.europa.eu/Publications/Requests%20for%20advice/Request%20for%20information%202018-04-25.pdf>.

<sup>6</sup> See <https://eiopa.europa.eu/Pages/News/EIOPA-CP-18-004-Request-for-feedback-on-Illiquid-Liabilities---Request-for-information-from-the-European-Commissio1029-9509.aspx>.

<sup>7</sup> See <https://eiopa.europa.eu/regulation-supervision/insurance/long-term-guarantees-review>.

LTG reports 2016 to 2018 and the preparatory work to respond to the Call for Information.

## **2.2. Extrapolation of risk-free interest rates**

### **2.2.1. Extract from the call for advice**

#### **3.1. Extrapolation of the Risk-Free Interest Rate term structure (Art. 77a)**

*In order to ensure that the rules applicable to the last liquid point in the Solvency II Risk-free interest rate term structure ensure its stability in different market situations, including market crisis situations and periods of increasing interest rates, EIOPA is asked to provide evidence, for all currencies of the Union, on criteria to determine the last liquid point. As a minimum, evidence should be provided on the value of the last liquid point in accordance with the following criteria*

- the depth, liquidity and transparency of swap and bond markets in a currency;*
- the ability of insurance and reinsurance undertakings to match with bonds the cash-flows which are discounted with non-extrapolated interest rates in a currency;*
- for all relevant maturities, the cumulative value of bonds with maturities larger than or equal to the relevant maturity in relation to the volume of bonds in the market.*

*This evidence should be provided at the very least for the time period 2016-2018, and ideally several years further in the past, including to the extent possible periods of market stresses and increased interest rates, and be accompanied by a variation analysis of those parameters relevant for determining the last liquid point per currency.*

*If EIOPA's analysis suggests inappropriateness of any currently implemented last liquid points, EIOPA is requested to provide a comprehensive impact assessment of potential modifications to these last liquid points on volatility of insurance and reinsurance undertakings' own funds and solvency coverage ratio, as well as on financial stability. This impact assessment should be provided in a sufficient level of detail, as a minimum on country level.*

### **2.2.2. Previous advice**

2.10 In October 2009 CEIOPS issued technical advice to the European Commission in respect of the determination of risk-free interest rates for the valuation of technical provisions. This included, amongst others, a set of criteria which the relevant risk-free interest rate term structure should meet:

- No credit risk: the rates should be free of credit risk.
- Realism: it should be possible to earn the rates in practice.
- Reliability: the determination of the rates should be reliable and robust.

- d) High liquidity: the rates should be based on financial instruments from deep, liquid and transparent markets.
- e) No technical bias: the rates should have no technical bias.

2.11 Regarding long maturities, CEIOPS stated that the extrapolation of the risk-free curve significantly impacts the present value of long term insurance liabilities and that therefore the technique of extrapolation needs to adhere to these criteria, with the exception of liquidity. Moreover, CEIOPS noted that “high volatility of long-term discount rates can cause substantial changes in the value of liabilities and thereby lead to procyclical effects”. Therefore, CEIOPS proposed that next to meeting the above criteria, the choice of the extrapolation technique should also take into account the effect on financial stability. CEIOPS did not prescribe a method for extrapolation at this stage but intended to set out a set of principles during the Level 3 process.

2.12 This advice was followed by a quantitative impact study (QIS 5) in 2010 where a concrete set of interest rate term structures had to be determined. For that purpose, the non-extrapolated part of the risk-free interest rate curves was delivered by the industry. Instead of basing the curve on available government bond rates (as CEIOPS had advised), inter-bank swap rates adjusted for credit risk were used as an input for the non-extrapolated part of the curve. The extrapolation based on this input was performed by EIOPA<sup>8</sup>. For that purpose, a macroeconomic extrapolation technique was chosen to arrive at the extrapolation beyond the last available data point. This technique is quite similar to the current way of extrapolating the interest rate term structure as it was already based on the Smith-Wilson methodology and the assumption of an ultimate forward rate (UFR) which was at those days set at 4.2% for most of the currencies.

2.13 The discussion on the adequacy of the extrapolation method and its parametrization continued following the QIS5 exercise and was part of the negotiations on the Omnibus II Directive on the “LTG package” starting in 2011. A further impact study, the so-called long-term guarantees assessment, was performed by EIOPA at request of the legislator, and technical findings<sup>9</sup> were provided in 2013, including technical findings on the extrapolation. The focus of this assessment was the specification of the convergence speed to the UFR, not the setting of the UFR nor the choice of the last liquid point (LLP) being the maturity where the extrapolation starts.<sup>10</sup> Therefore, EIOPA did not provide recommendations in this respect. The report however noted, in line with the previous CEIOPS advice, that the

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<sup>8</sup> For further background see [https://eiopa.europa.eu/Publications/QIS/ceiops-paper-extrapolation-risk-free-rates\\_en-20100802.pdf#search=CEIOPS%20interest%20rate](https://eiopa.europa.eu/Publications/QIS/ceiops-paper-extrapolation-risk-free-rates_en-20100802.pdf#search=CEIOPS%20interest%20rate)

<sup>9</sup> See

[https://eiopa.europa.eu/Publications/Reports/EIOPA\\_LTGA\\_Report\\_14\\_June\\_2013\\_01.pdf#search=long%2Dterm%20guarantee%20assessment](https://eiopa.europa.eu/Publications/Reports/EIOPA_LTGA_Report_14_June_2013_01.pdf#search=long%2Dterm%20guarantee%20assessment)

<sup>10</sup> The Terms of Reference for the long-term guarantees assessment stipulated that only a proposal for the speed of convergence should be tested

extrapolation technique has a strong influence on the variability over time of technical provisions of insurance contracts providing long-term guarantees. The report reflected that an appropriate balance is necessary in order to reconcile the aim of financial stability (overcoming volatility) with the aim to provide for a realistic valuation according to market practices (prevention of bad risk management incentives).

### **2.2.3. Relevant legal provisions**

- 2.14 The determination of the risk-free interest rate term structure and in particular the extrapolation is specified in Article 77a of the Solvency II Directive and Articles 43 to 48 of Commission Delegated Regulation (EU) 2015/35 of 10 October 2014 supplementing Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II)<sup>11</sup> (Delegated Regulation). According to Art. 43 of the Delegated Regulation, insurance and reinsurance undertakings shall be able to earn the rates in a risk-free manner in practice and the rates shall be reliably determined based on financial instruments traded in a deep, liquid and transparent financial market. The preference as reference instrument is set out to be interest rate swap rates (cf. Article 44 (1) of the Delegated Regulation). The extrapolation method is based on forward rates converging to a UFR that takes account of expectations of the long-term real interest rate and of expected inflation (cf. Article 77a, 4th sentence of the Directive and Article 47 of the Delegated Regulation). Further specifications on the UFR are set out in Article 47 of the Delegated Regulation.
- 2.15 With respect to the UFR, EIOPA developed a methodology allowing for a regular quantification of the size of the UFR, which was published in April 2017.<sup>12</sup> The determination of the risk-free interest rate term structures, including the setting of the UFR and the determination of the currently applied last liquid points for all currencies is set out in EIOPA's technical documentation on the risk-free interest rate<sup>13</sup>.
- 2.16 The last liquid points for all currencies are derived on the basis of a "DLT assessment" which analyses whether the individual maturities of the reference instruments can be derived from deep, liquid and transparent (DLT) markets. Only financial instruments which are considered to stem from DLT markets are included in the determination of the risk-free interest rate term structure. The interest rates for the missing maturities are interpolated and extrapolated on the basis of the Smith-Wilson method. Article 77a of the

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<sup>11</sup> OJ L 12, 17.1.2015, p.1.

<sup>12</sup> See <https://eiopa.europa.eu/Pages/News/EIOPA-sets-out-the-Methodology-to-Derive-The-Ultimate-Forward-Rate.aspx>

<sup>13</sup> See [https://eiopa.europa.eu/Publications/Standards/Technical Documentation %2831 Jan 2018%29.pdf](https://eiopa.europa.eu/Publications/Standards/Technical%20Documentation%202831%20Jan%202018%29.pdf)

Solvency II Directive sets out that the determination of the relevant risk-free rate term structure should also take into account whether the market for bonds is deep, liquid and transparent. It stipulates that for maturities where the markets for the relevant financial instruments or for bonds are no longer DLT, the relevant risk-free interest rate term structure shall be extrapolated.

- 2.17 Recital 30 of the Omnibus II Directive specifies that the LLP for the euro under market conditions similar to those at the date of entry into force of that Directive to be at a maturity of 20 years. It also sets a target for the determination of the risk-free interest rate term structure in outlining that it should avoid artificial volatility of technical provisions and eligible own funds and provide an incentive for good risk management.
- 2.18 Recital 21 of the Delegated Regulation further specifies the so-called “residual volume criterion” for the euro. This states that „...the market for bonds denominated in euro should not be regarded as deep and liquid where the cumulative volume of bonds with maturities larger than or equal to the last maturity is less than 6 percent of the volume of all bonds in that market.”
- 2.19 The risk-free interest rates for the euro are derived from swap rates. The LLP applied for these interest rates is currently 20 years. The choice of this LLP is not based on the liquidity of swap markets, but as mentioned above the result of several provisions of Solvency II that restrict the LLP:
- 2.20 Article 77a requires that bond markets are deep, liquid and transparent up to the LLP, also where the interest rates are derived from swaps.<sup>14</sup>
- 2.21 Recital 30 of the Omnibus II Directive states that it should be possible to match liability cash-flows up to the LLP with bond cash-flows (matching criterion).
- 2.22 Recital 30 further states that under market conditions similar to those at the date of entry into force of the Omnibus II Directive the LLP for the euro should be 20 years.
- 2.23 In June 2017 EIOPA adopted a new methodology for carrying out the deep, liquid and transparent assessment of financial markets (DLT assessment). According to that methodology, as applied on data for 2016 and 2017, the maturities for which the swap market for the euro is deep, liquid and transparent are 1 to 15, 20, 25, 30, 40 and 50 years. The assessment further showed that the depth and liquidity for the maturity of 30 years was higher than that of 20 years.

#### **2.2.4. Identification of the issue**

- 2.24 Reliability and robustness of the term structure (also in times of market turbulence or crisis) are important prerequisites to ensure a robust supervisory system. Limiting volatility of long-term discount rates might limit

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<sup>14</sup> See also recital 21 of the Delegated Regulation



pro-cyclical effects and thus have a positive impact on financial stability. On the other hand, market consistency and the use of market information from deep, liquid and transparent markets foster adequate risk management and ensure an adequate level of technical provisions also having a positive impact on financial stability.

- 2.25 In the last years, EIOPA gathered NSAs experience with the different LTG measures including the extrapolation and shared these findings via the yearly LTG reports. Different experience was reported by NSAs mirroring the above-mentioned conflict between market consistency and stability of the interest rate term structure.<sup>15</sup> Responses received particularly focussed on the LLP being set to 20 years for the euro. NSAs did not emphasise the need to reassess the current derivation of the UFR or the choice of the speed of convergence.
- 2.26 The European Systemic Risk Board (ESRB) published a report on the macro prudential consequences of regulatory risk-free yield curves in August 2017.<sup>16</sup> The report identified four requirements for regulatory risk-free interest rates: realistic estimate of the time value of money, consistent application, adequate risk management and limiting procyclicality. Based on these requirements the report proposes with regards to Solvency II in particular to extend the LLP for the euro from 20 to 30 years, extending the convergence speed from 40 to 100 years and blending the extrapolated part of the curve partly with market data. Under current market conditions these proposals would result in lower risk-free interest rates. The report notes that the exact impact of changes to the risk-free interest rates on the insurers' solvency should be carefully assessed before arriving at a conclusion. The following sub-sections outline a number of issues which are relevant for an assessment of the setting of the LLP for the euro.
- 2.27 The information requests performed in the last couple of years by EIOPA on the impact of the extrapolation on undertaking's solvency position captured the sensitivity with respect to the LLP as well as of the convergence speed and UFR. Of those three parameters, the results identified the LLP to be the most sensitive one in terms of impact on undertaking's solvency position.
- 2.28 Against this background, the LLP for the euro being set at 20 years was identified to be the major issue to review with respect to extrapolation of risk-free interest rates. However, it is noted that any implications of the LLP always need to be considered jointly with the setting and calibration of the convergence speed and UFR.

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<sup>15</sup> See for example page 81 of [LTG report 2018](#)

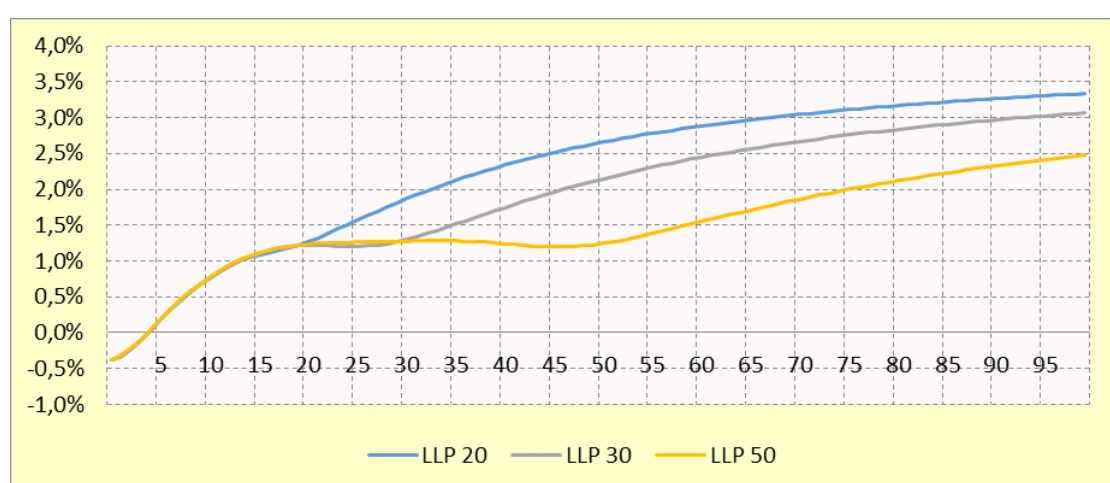
<sup>16</sup> See ESRB: Regulatory risk-free yield curve properties and macro prudential consequences, August 2017, [https://www.esrb.europa.eu/pub/pdf/reports/esrb.reports170817\\_regulatoryriskfreeyieldcurveproperties.en.pdf](https://www.esrb.europa.eu/pub/pdf/reports/esrb.reports170817_regulatoryriskfreeyieldcurveproperties.en.pdf).

2.29 The following sub-sections outline a number of issues which are relevant for an assessment of the setting of the LLP for the Euro.

### 2.2.4.1. Issue I – Underestimation of technical provisions

2.30 The setting of the LLP implicitly impacts the size of interest rates in the extrapolated part of the interest rate term structure. Starting with the LLP, the extrapolation method ensures that interest rates converge smoothly to the ultimate forward rate. Market information for maturities after the LLP are not taken into account in the interest rate term structure; the extrapolated interest rates can therefore significantly diverge from market rates.

2.31 The following graph illustrates the difference in interest rate term structures as at year-end 2018 for the euro comparing the LLP of 20 years with an LLP of 30 or 50 years.



2.32 After the LLP interest rates converge to the UFR, which is set at 4.05% at year-end 2018. As the UFR is higher than the interest rate at the LLP, this leads to an increase of interest rates after the LLP; the larger this difference the steeper the increase after the LLP. This effect is symmetric - if the UFR was lower than the level of the interest rate at the LLP, the extrapolation would lead to a decrease of interest rates after the LLP. The size of such effects depends on how the current interest rate level at the LLP compares to the level of the UFR – the nearer they are, the flatter the forward rate curve in the extrapolated part and the less relevant is the choice of the LLP for the extrapolated interest rates becomes.

2.33 The same holds for the convergence speed. The current setting of the convergence speed to 40 years leads to a situation that the UFR is reached after 60 years for the euro. Where the convergence speed would be reduced, e.g. to 100 years as proposed by the ESRB, more weight would be given to the market rates and the UFR would be reached far later. This would also increase market consistency.

2.34 In the current low interest rate environment, the difference between the UFR (since end of March 2019 at 3.90% for the euro) and the level of swap rates

at 20, 30 or 50 years is still high, resulting in a high difference between the observed level of swap rates and the extrapolated rates. This fosters the supervisory concern that the technical provisions are underestimated as interest rates for long-term maturities (and thus long-term liabilities) are discounted with too optimistic interest rate assumptions. In a situation where a transfer of liabilities is necessary (e.g. where an undertaking no longer complies with its SCR and/or MCR ), this leads to the risk that technical provisions may not be sufficient to transfer the liabilities which might then put policyholders at risk where rights need to be cut.

- 2.35 In the undertakings' balance sheet, this deficiency would show up in those future years where the difference between observed swap rates and extrapolated rates persists and undertakings actually earn a lower rate than the interest rate used to calculate their technical provisions. In that situation, the undertakings incur losses each year that reduce their own funds. Where insurers have long-term liabilities valued with risk-free interest rates that are too high, persisting losses from inappropriate discounting (where extrapolated rates are persistently higher than market rates) may make their financial situation deteriorate and put policyholders at risk. Similarly, if extrapolated rates would be below market rates undertaking incur yearly gains, increasing their own funds every year.
- 2.36 This deficiency could also put at risk the protection of policyholders and beneficiaries where undertakings pay out dividends or do other voluntary capital distributions in times where technical provisions are underestimated. This would lower the capital basis although this amount of own funds could still be required to ensure sustainable solvency positions in the future where interest rates persist to be lower than the extrapolated risk-free interest rates.
- 2.37 Future decreases of the UFR mitigates the issue but does not solve it since the level of the UFR is only decreasing slowly and will stay above current market rates because. The reason for the slow decrease is that the UFR changes at maximum by 15 bps per year and that its real rate component is a long-term average (since 1961). Furthermore the UFR includes an inflation component of 2 percentage points and only gets lower than that amount when the long-term historical average of real rates becomes negative.

#### **2.2.4.2. Issue II – Risk management incentives**

- 2.38 The determination of the LLP is not only relevant for the magnitude of risk-free interest rates and consequentially the size of technical provisions and the solvency position of undertakings. There are wider implications for the governance of an undertaking.
- 2.39 Where the extrapolated risk-free interest rates differ from the market rates, undertakings need to decide whether they hedge the risk as it is reflected in their solvency balance sheet or whether they hedge the risk that actually

exists in the financial markets. Whether this makes a difference depends on whether undertakings have liabilities with maturities exceeding the LLP. Where the hedging is based on the extrapolated risk-free interest rates<sup>17</sup>, it reduces the volatility of Solvency II own funds, at least in the short term, but may leave the insurer exposed to the risks of financial markets in the long run. On the other hand, where undertakings decide to hedge the risks of the financial market, it may increase the volatility of their Solvency II own funds. For that reason the lower LLP may incentivise undertakings to base the hedging on the extrapolated risk-free interest rates instead of hedging the actual risk in financial markets.

2.40 The differences between hedging the risks of financial markets and hedging the extrapolated term structure is illustrated by a sensitivity analysis. The figure below shows the interest rate sensitivities measured in basis point value (PVBP) to euro swap rates with different maturities if the euro liability cash flows were discounted with the current basic risk free rate term structure for the euro (LLP: 20) or a term structure based on market interest rates with a flat extrapolation after a maturity of 50 years (market flat). The euro liability cash-flows were taken from the illiquidity information request<sup>18</sup> (see the next figure below). The discounted value of these cash flows with the current basic risk free rate term structure equals 3,600 billion euros.

2.41 As an example, a decrease in all DLT swap rates with maturities 8 to 12 years with one basis point would increase the discounted value of these cash flows by approximately 1 billion euros. To hedge against changes in swap rates with these maturities undertakings would have to buy bonds or swaps with these maturities and match this basis point value. Similarly, a decrease of the 15 year euro swap rate with one basis point implies a, counterintuitive, decrease in the discounted value of the liabilities of 1 billion euros. Where undertakings hedge the extrapolated term structure against changes in the swap rate with a maturity of 15 years they would have to (short-)sell bonds and swaps with a 15 year maturity to match this negative basis point value. (Short-)selling bonds and swaps would match the sensitivity of the regulatory valuation of the liabilities, but is not a cash flow match as the cash flows around the maturity of 15 years are all positive. Matching the regulatory value of the liabilities would also imply to buy 4 billion euro PVBP of bonds and swaps with a maturity of 20 years and no bonds and swaps beyond the LLP of 20 years. These sensitivities are a consequence of the Smith-Wilson extrapolation method in which the 15-20 year swap rate difference affects the extrapolation after the LLP of 20 years. On the other hand, where

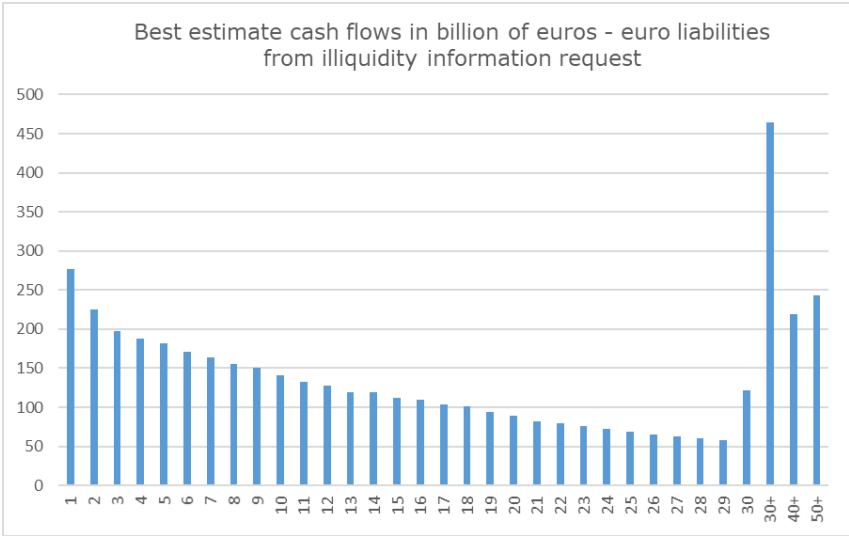
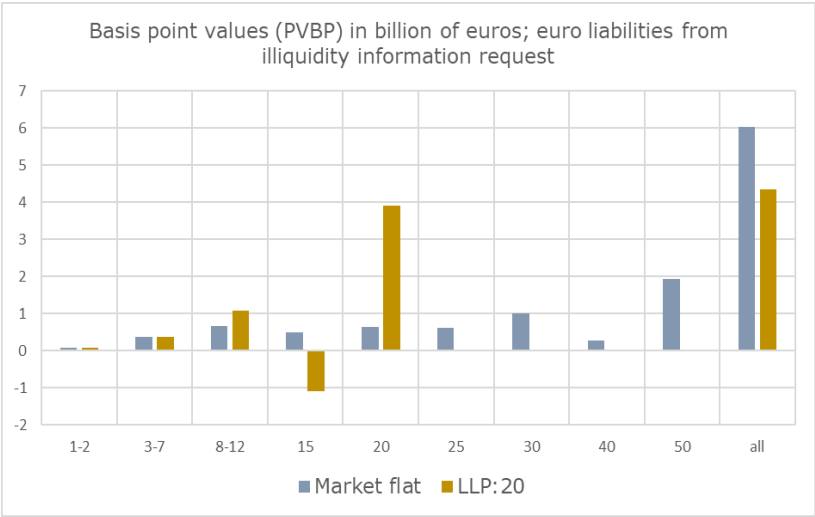
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<sup>17</sup> See for example: Greenwood, Robin M. and Vissing-Jorgensen, Annette, The Impact of Pensions and Insurance on Global Yield Curves (December 29, 2018). Harvard Business School Finance Working Paper No. 18-109. Available at SSRN: <https://ssrn.com/abstract=3196068> or <http://dx.doi.org/10.2139/ssrn.3196068>

<sup>18</sup> See <https://eiopa.europa.eu/regulation-supervision/insurance/long-term-guarantees-review>.

undertakings do hedge the risk in financial markets it would however have unintended consequences in the solvency balance sheets.

2.42 The column 'all' is the total interest rate sensitivity measured in PVBP if all DLT swap rates decrease by 1 basis point. In such a scenario the discounted value of the euro liability cash flows increases by a bit over 4 billion euros. The current basic risk free interest rate term structure for the euro thus reduces the total interest rate sensitivity to interest rate changes with approximately 30 percent, from 6 billion euros to a bit over 4 billion euros. To hedge the total interest rate sensitivity undertakings it would thus suffice to just match the liability cash flows for 70 percent. Thus, undertakings hedging the risks in financial markets for more than 70 percent will typically experience a higher volatility of excess of assets over liabilities than undertakings that hedge for 70 percent.



- 2.43 If no sufficient bonds and loans are available to match liability cash-flows for maturities beyond the LLP undertakings may use derivatives to hedge these risks. Provided that the hedging instruments are understood by the insurer, their application can be an effective risk-mitigation technique.
- 2.44 Overall, the LTG reports illustrated that the relevance of Solvency II requirements in the decision making process of insurance undertakings' investment decisions differ across different markets in Europe.<sup>19</sup> The relevance of Solvency II requirements was identified to depend on local pre-requisites, such as e.g. the presence and design of local statutory requirements or national tax regulations.
- 2.45 However, where the Solvency II requirements play a relevant role in investment decisions of insurance undertakings, any deviation of the interest rate term structure used for the valuation of technical provisions from observable market prices may give the wrong incentives for adequate risk management.
- 2.46 This was reported to be the case for one NSA which identified that the ALM considerations and resulting decisions are particularly relevant when the SCR ratio falls below a threshold; i.e. after an SCR breach an undertaking matching its liabilities beyond the LLP to a large extent may feel itself forced to reduce the amount of cash flow matching as the large extent of cash flow matching implies higher regulatory own fund volatility and may thus further weaken its solvency position.
- 2.47 No specific observations or evidence on negative risk management incentives were observed by the other NSAs.

#### **2.2.4.3. Issue III – Stability of the solvency position and impact on financial stability**

- 2.48 The volatility of interest rates used for the valuation of technical provisions affects the volatility of technical provisions. The extent to which the volatility of interest rates translates to a volatility of technical provisions and own funds depends on the specifics of the risk profile of the undertaking concerned, on the term of the liabilities and in particular on the degree of matching between asset and liability cash flows.
- 2.49 Where undertakings are closely matched for all maturities, a deviation of the interest rate curve for the valuation of technical provisions from market information increases the volatility of own funds. Where undertakings have very long-term liabilities and are not closely matched with corresponding assets, an early start of the extrapolation increases the stability of technical provisions and own funds.

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<sup>19</sup> See in particular the thematic focus on risk management in the LTG report 2018

- 2.50 There are concerns that undertakings in that situation may exhibit procyclical investment behaviour when interest rates fall. The undertakings could buy long-term swaps in order to improve their matching and reduce their interest risk charge. This could put further pressure on the swap rates. Such behaviour was analysed by the Bank for International Settlements<sup>20</sup> and it was found that “declining long-term interest rates tend to widen the negative duration gap between the assets and liabilities of insurers and pension funds, and any attempted rebalancing by increasing asset duration results in further downward pressure on interest rates.” The study also acknowledges that “duration-matching strategies of long-term investors can amplify movements in long-term interest rates”.
- 2.51 On the other hand, the study also shows that this behaviour does not depend on market-consistent regulatory requirements. The study reports that from 2009 to 2014, i.e. before Solvency II when regulatory discount rates in Germany were static, “German insurance firms have tended to exhibit an abnormally strong demand response to a change in the price of long duration bonds; that is they demanded more bonds with higher duration when their prices (yields) were rising (falling).” A change of the LLP of risk-free interest rates may therefore have no impact on this behaviour. The ESRB found mixed evidence on whether market-consistent regulatory requirements lead to procyclical behaviour of insurance undertakings.<sup>21</sup> Furthermore, the concerns about procyclicality have to be assessed in the view of the total impact of extending the LLP on financial stability. A key feature usually identified to strengthen the financial system is to reduce maturity mismatches. Undertakings having matched their cash flows to a larger extent in advance, experience lower losses from declining rates and are less forced to procyclically reduce their risks by extending their asset duration and subsequently further reduce rates.
- 2.52 There are also concerns that a late start of the extrapolation may put current business practices of long-term life insurance at risk which mitigate risks not only on the basis of a well-diversified portfolio but also over time. The early start of the extrapolation allows undertakings to sell long-term business against rates above the current market interest rates while not suffering a regulatory loss or even realizing an increase in regulatory own funds. Pricing new business against higher rates than current market rates would result in losses with a later start of the extrapolation – at least in the current low-yield environment; a later start of the extrapolation may thus increase the price of long-term business. There are however different views whether Solvency II should facilitate such business practices because they may not be sustainable when interest rates are persistently low.

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<sup>20</sup> See <https://www.bis.org/publ/work519.pdf>, see also the study referred to in footnote 17

<sup>21</sup> See ESRB: Regulatory risk-free yield curve properties and macroprudential consequences.

#### **2.2.4.4. Issue IV – Evidence on DLT assessments**

2.53 In the current legal framework, several provisions are relevant to specify the LLP for the different currencies, see also description in section 3.

2.54 These CfA lists the following requirements:

##### *The depth, liquidity and transparency of swap and bond markets*

2.55 For the swap market, that implies a consideration on the number and notional amount of trades to identify those maturities where the swap market is DLT. This assessment is centrally performed by EIOPA consistently across currencies based on specific thresholds chosen.

2.56 For the bond market the DLT conditions of Article 77a of the Directive are equally important and primarily assessed on the basis of trade volume and trade frequency.

2.57 Irrespective of whether swaps or government bonds are used to derive the risk-free interest rates, the depth, liquidity and transparency of bond markets limit the LLP for that derivation.

##### *Matching criterion:*

2.58 The criterion is about the ability of insurance and reinsurance undertakings to match with bonds the cash-flows which are discounted with non-extrapolated interest rates.

2.59 This criterion is reflected in recital 30 of the Omnibus II Directive and is motivated by the idea that sufficient bonds should be available to match the insurance cash flows up to the LLP. For the purpose of implementing this criterion bond cash flows and liability cash flows are compared per maturity to assess the maturity when no longer sufficient bond volume is available on the market to match the liabilities.

##### *Residual volume criterion:*

2.60 The residual volume criterion states that the cumulative value of bonds with maturities larger than or equal to the relevant maturity in relation to the volume of bonds in the market. This criterion is only applicable to the euro.

2.61 According to recital 21 of the Delegated Regulation the residual volume criterion is part of assessing the depth, liquidity and transparency of bond markets for the euro. For the criterion the maturity up to when most of the bond volume (based on a threshold of 6%) is available on the market is calculated. The bond market is not considered deep, liquid and transparent at and beyond that maturity.

2.62 These three criteria are assessed in the following paragraphs to assess their impact and relevance with respect to the stability of the interest rate term structures used for the valuation of technical provisions. The aim of this analysis is to include times of increases in interest rates and periods of



market stresses, so where data was available the analysis includes historical data up to 2006.

2.63 In 2017 EIOPA revised the methodology for the DLT assessment with the aim to improve objectivity of outcomes and their consistency across currencies and to make use of newly available data like swap trade data and liability cash-flow data.

2.64 The revision resulted in the following main changes:

- The DLT assessment for swaps is carried out on the basis of swap trade data and in accordance with specified, uniform thresholds for all currencies.
- The assessment of the bond market was fully specified, including a specification of the matching criterion.
- The DLT assessment for government bond markets and general bond markets is primarily based on trade volume and trade frequency of those instruments.

2.65 The methodology is set out in annex 2.1.

#### **2.2.4.4.1. DLT assessment of the swap market**

2.66 The following tables set out the results of the DLT assessment of swap markets for 2016 and 2017. Maturities for which the depth, liquidity and transparency of swap markets could be verified are marked green. For maturities beyond 50 years the swap markets were not found to be deep and liquid.

2.67 For years before 2016 appropriate swap trade data to assess the depth and liquidity of swap markets per maturity are not available.

2.68 Annex 2.3 sets out a sensitivity analysis of the results with regard to the thresholds for depth and liquidity.

## Outcome of swap DLT assessment 2016

Maturity	EUR	AUD	BRL	CAD	CHF	CLP	CNY	COP	CZK	GBP	HKD	HUF	INR	JPY	KRW	MXN	MYR	NOK	NZD	PLN	RON	RUB	SEK	SGD	THB	TRY	TWD	USD	ZAR	
1Y	1	1	1	1	0	0	1	0	0	1	1	0	1	1	1	1	1	1	1	1	0	0	0	1	1	1	0	0	1	1
2Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1	1
3Y	1	1	1	1	0	0	0	1	0	1	1	0	1	1	1	1	0	1	1	0	0	0	1	1	0	0	0	1	1	
4Y	1	1	1	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0	1	0	0	0	1	0	0	0	0	0	1	0
5Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1	
6Y	1	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7Y	1	1	1	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0
8Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
9Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
10Y	1	1	0	1	1	0	0	1	1	1	1	1	0	1	1	1	0	1	1	1	0	0	1	1	0	0	0	1	1	
11Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
13Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
21Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
26Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
31Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40Y	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50Y	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

## Outcome of swap DLT assessment 2017

Maturity	EUR	AUD	BRL	CAD	CHF	CLP	CNY	COP	CZK	GBP	HKD	HUF	INR	JPY	KRW	MXN	MYR	NOK	NZD	PLN	RON	RUB	SEK	SGD	THB	TRY	TWD	USD	ZAR	
1Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	0	1	1
2Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1
3Y	1	1	1	1	0	0	0	1	0	1	1	1	1	1	1	1	0	1	1	0	0	0	1	1	0	0	0	1	1	
4Y	1	1	1	1	0	0	0	0	0	1	0	0	1	1	1	1	0	1	1	0	0	0	1	0	0	0	0	1	0	
5Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1
6Y	1	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0
7Y	1	1	0	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	1	0	0	0	1	0	0	0	0	0	1	0
8Y	1	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
9Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
10Y	1	1	0	1	1	0	0	1	1	1	1	1	0	1	1	1	0	1	1	1	1	0	0	1	1	0	0	1	1	1
11Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12Y	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
13Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14Y	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20Y	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
21Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25Y	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
26Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
27Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30Y	1	1	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
31Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40Y	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49Y	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50Y	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

### 2.2.4.4.2. DLT assessment of the bond market and the government bond market

2.69 The following table set out the results of the DLT assessment for the government bond market for 2016 to 2018. The assessment is carried out by NSAs.

	2016	2017	2018
CHF	1 to 15 years	1 to 15 years	1 to 15 years

CZK	1 to 15 years	1 to 15 years	1 to 12 years
GBP	1 to 50 years	1 to 50 years	1 to 50 years
HRK	1 to 5, 7 to 9, 11, 15 years	2-4, 6, 7, 9 and 13 years	1 to 12 years
HUF	1 to 15 years	1 to 15 years	1 to 15 years
ISK	1, 2, 5, 7, 11, 13 years	2, 4, 7, 10 and 13 years	1, 4, 7, 10, 12 years
NOK	1, 2, 4, 6 to 10 years	1, 2, 4, 6 to 10 years	1 to 10 years
PLN	1 to 10 years	1 to 10 years	1 to 10 years
RON	1 to 5, 7, 8, 10 to 12, 15 years	1 to 5, 7, 8, 10 to 12 and 15 years	1 to 15 years
SEK	N/A	1, 2, 5, 7 and 10 years	1 to 10 years

2.70 The results for both the whole bond market coincide with those for the government bond market.

2.71 For the euro and for non-EEA currencies comparable assessment have not been carried out because trade volume and trade frequency data for government bonds of those currencies are not available. With regard to the euro a particular obstacle to the assessment is that there are no consistent data across the euro area countries.

#### **2.2.4.4.3. Matching criterion**

2.72 The following tables set out the result of the matching criterion calculations for 2016 to 2018. The matching criterion sets a limit to the LLP. The table provides that limit or, where no limit applies, a dash. The calculation was carried out for the whole best estimate as referred to in recital 30 of the Omnibus II Directive and for an alternative where cash-flows from best estimates for unit-linked and index-linked insurance are not included in the comparison. The alternative approach results in the same or in higher limits.

2.73 The calculation is based on liability data from the regular supervisory reporting of undertakings and bond data from the Centralised Securities Database (CSDB)<sup>22</sup>. The liability data for 2016, the first year when undertakings had to provide cash-flow information, may be affected by reporting errors. The liability data for 2018 may not be complete because of late data reporting. Adding additional liability data could reduce the LLP limits that the matching criterion produces.

2.74 Compared to the LLPs currently used to derive the risk-free interest rates, the calculated limits would have an impact on the LLP for the euro, the

<sup>22</sup> <https://www.ecb.europa.eu/pub/pdf/other/centralisedsecuritiesdatabase201002en.pdf>

Hungarian forint, the Norwegian krone and the Swedish krone by reducing the LLP.

2.75 Details on the underlying asset and liability cash flows can be found in annex 2.4.

#### Limit to the LLP resulting from the matching criterion

	Maximum LLP according to the matching criterion					
	All best estimate cash-flows			Without cash-flows from best estimates for UL/IL insurance		
	2016	2017	2018	2016	2017	2018
<b>EUR</b>	10	15	15	10	15	23
<b>CHF</b>	-	-	-	-	-	-
<b>CZK</b>	24	27	19	24	27	22
<b>GBP</b>	-	-	-	-	-	-
<b>HRK</b>	10	15	14	10	15	14
<b>HUF</b>	16	14	13	16	14	13
<b>ISK</b>	-	-	-	-	-	-
<b>NOK</b>	10	10	7	10	10	9
<b>PLN</b>	13	12	11	13	12	11
<b>RON</b>	11	10	13	11	10	13
<b>SEK</b>	10	6	5	10	9	10

#### 2.2.4.4.4. Residual volume criterion

2.76 EIOPA calculates the residual volume criterion on the basis of CSDB data which provides a limited data history. In order to assess the residual bond criterion for a longer historical time period, a subset of the bond universe was assessed based on information from Bloomberg. This subset was considered sufficiently large and representative to investigate the results of the residual bond criterion over time.

2.77 Based on the bond data from Bloomberg, the residual bond criterion was assessed for the euro and other currencies. The outstanding volumes of bond cashflows are displayed in annex 2.5. Based on a threshold of 6%, the results are displayed in the following table.

#### Limit to the LLP resulting from the residual bond criterion – threshold 6%<sup>23</sup>

	EUR	USD	AUD	JPY	CHF	GBP	RON	HRK
<b>2006</b>	22	25	13	19	43	49	14	n/a
<b>2007</b>	22	25	14	19	29	48	13	n/a
<b>2008</b>	21	25	13	19	28	47	12	n/a

<sup>23</sup> EIOPA has also analyzed the total amount outstanding of bonds and jumps in the resulting LLP are usually paired with jumps in the total amount outstanding in a certain currency.

<b>2009</b>	20	26	12	20	27	46	20	n/a
<b>2010</b>	20	27	12	20	26	45	19	10
<b>2011</b>	18	27	14	23	25	44	10	9
<b>2012</b>	20	27	15	24	25	43	15	8
<b>2013</b>	20	27	14	25	20	39	14	7
<b>2014</b>	20	27	15	24	19	38	13	6
<b>2015</b>	20	27	14	26	20	38	12	11
<b>2016</b>	21	27	14	27	21	39	11	10
<b>2017</b>	22	27	13	27	20	38	10	11
<b>2018</b>	22	27	10	27	20	37	10	11

	<b>ISK</b>	<b>HUF</b>	<b>NOK</b>	<b>CZK</b>	<b>PLN</b>	<b>SEK</b>
<b>2006</b>	19	14	26	30	22	16
<b>2007</b>	18	16	25	30	15	21
<b>2008</b>	25	15	24	29	21	20
<b>2009</b>	25	16	21	28	20	30
<b>2010</b>	25	15	15	27	19	29
<b>2011</b>	23	17	15	26	18	28
<b>2012</b>	22	16	14	25	17	27
<b>2013</b>	37	10	10	26	15	10
<b>2014</b>	36	11	10	25	14	11
<b>2015</b>	35	10	10	20	11	10
<b>2016</b>	34	11	10	19	11	10
<b>2017</b>	31	10	10	18	11	10
<b>2018</b>	32	9	12	17	10	10

2.78 Annex 2.5 also includes a sensitivity analysis with respect to the threshold.

#### **2.2.4.4.5. Implications of the DLT assessment**

2.79 The DLT assessment evidence has the following implications for the financial instruments used to derive the risk-free interest rates with significant impact. The matching criterion was not taken into account in the implications.

	<b>Status quo on instruments used and LLP</b>	<b>DLT assessment implication</b>
CHF	Swaps, LLP 25	New LLP 10
CZK	Swaps, LLP 15	New LLP 10
HUF	Government bonds, LLP 15	Change to swaps, new LLP 10
PLN	Government bonds, LLP 10	Change to swaps, LLP 10
RON	Government bonds, LLP 10	New LLP 15
USD	Swaps, LLP 50	New LLP 30

2.80 EIOPA will carry out an information request to insurance and reinsurance undertakings in order to assess the impact of those changes on the solvency position of undertakings.

## **2.2.5. Analysis**

### **2.2.5.1. Options considered**

2.81 In view of the descriptions above, EIOPA has considered several policy options on the determination of the LLP.

#### **Option 1: No change**

#### **Option 2: The LLP stays at 20 years for the euro and additional safeguards are introduced in pillar 2 and 3**

2.82 This option would target identified issues on risk management incentives with the help of additional requirements in pillar 2 or pillar 3. The requirements are as follows:

- Insurance and reinsurance undertakings should be required to perform prescribed sensitivity analyses on an extension of the LLP for the euro to 50 and include the results in the regular supervisory reporting (RSR)<sup>24</sup>.
- Undertakings report the results of this sensitivity analyses in the SFCR to foster transparency and market discipline.
- Where an undertaking does not meet its SCR or MCR if the LLP is moved to 50, undertakings should – upon request from their NSAs – provide evidence that their dividend payments or other voluntary capital distributions do not put at risk the protection of policyholders and beneficiaries. Where NSAs are not convinced by undertakings' demonstrations, NSAs are able to limit or withhold the capital distribution to ensure that the solvency position of the undertakings concerned is sustainable.

2.83 Under this option the criteria for the determination of the LLP would be left unchanged, in particular the reference to the bond markets.

#### **Option 3: The LLP is increased to 30 years for the euro**

2.84 The option aims to strike a balance between, on the one hand, improving the market-consistency of technical provisions and avoiding problematic risk management incentives and, on the other hand, the stability of technical provisions and own funds.

2.85 The option would be implemented by introducing a general ceiling for the LLP. Where the DLT assessment would show that financial instruments for maturities beyond 30 are traded in deep, liquid and transparent market, as

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<sup>24</sup> This could be implemented by adding another column in S.22.01. in the annual QRT.

currently for the euro swaps of maturities 40 and 50 years, they would not be taken into account in deriving the extrapolated rates.

- 2.86 The assessment of the depth, liquidity and transparency of the bond market, including the matching criterion and the residual volume criterion would not be used anymore to determine which maturities of the swap market should be used to derive the risk-free interest rates.
- 2.87 This option would target identified issues on risk management incentives with the help of additional requirements in pillar 2 or pillar 3. The requirements are as follows:
- Insurance and reinsurance undertakings should be required to perform prescribed sensitivity analyses on an extension of the LLP for the euro to 50 and include the results in the regular supervisory reporting (RSR)<sup>25</sup>.
  - Undertakings report the results of this sensitivity analyses in the SFCR to foster transparency and market discipline.
  - Where an undertaking does not meet its SCR or MCR if the LLP is moved to 50, undertakings should – upon request from their NSAs – provide evidence that their dividend payments or other voluntary capital distributions do not put at risk the protection of policyholders and beneficiaries. Where NSAs are not convinced by undertakings' demonstrations, NSAs are able to limit or withhold the capital distribution to ensure that the solvency position of the undertakings concerned is sustainable.

#### **Option 4: The LLP is increased to 50 years**

- 2.88 This option is in line with the outcome of the DLT assessment for euro swap markets which shows that 50 years is the largest maturity for which swaps are traded in deep, liquid and transparent markets.
- 2.89 The assessment of the depth, liquidity and transparency of the bond market, including the matching criterion and the residual volume criterion would not be used anymore to determine which maturities of the swap market should be used to derive the risk-free interest rates.

#### **Option 5: An alternative extrapolation method is adopted**

- 2.90 Rather than moving the LLP, EIOPA has analysed an alternative extrapolation method, specified in annex 2.6. This option would not only affect the risk-free interest rate term structure for the euro, but for all currencies.
- 2.91 The alternative extrapolation method takes into account market data beyond the current LLP; in the alternative extrapolation method the LLP is referred

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<sup>25</sup> This could be implemented by adding another column in S.22.01. in the annual QRT.



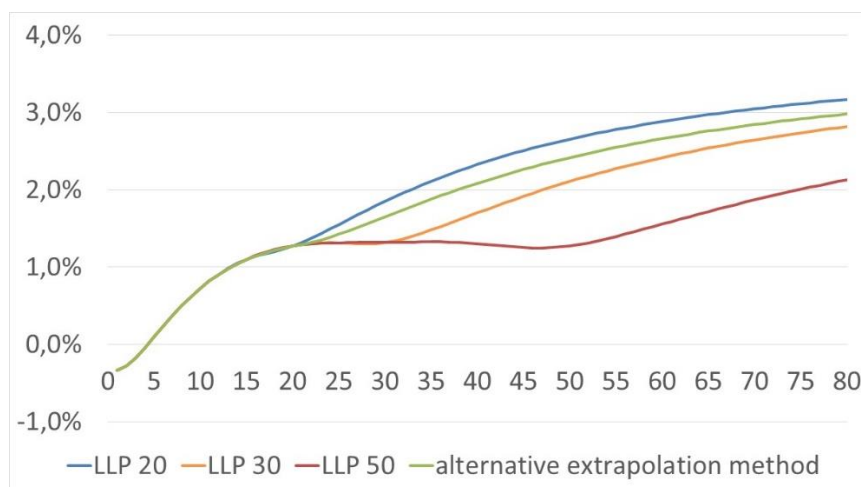
to as the first smoothing point, FSP. The weight of these data corresponds to their reliability measured by the DLT assessment.

2.92 Under this option, the criteria for the determination the maturities for which market are deep, liquid and transparent would be left unchanged. The reference to bond markets would remain and be implemented by means of the residual volume criterion for all currencies. The matching criterion would no longer be required.

2.93 This option would target identified issues on risk management incentives with the help of additional requirements in pillar 2 or pillar 3. The requirements are as follows:

- Insurance and reinsurance undertakings should be required to perform prescribed sensitivity analyses on an extension of the LLP, in this method the FSP, to the latest DLT maturity for swaps (for the euro this is a move of the FSP from 20 to 50) and include the results in the regular supervisory reporting (RSR)<sup>26</sup>.
- Undertakings report the results of this sensitivity analyses in the SFCR to foster transparency and market discipline.
- Where an undertaking does not meet its SCR or MCR if the FSP is moved to the latest DLT maturity for swaps, undertakings should – upon request from their NSAs – provide evidence that their dividend payments or other voluntary capital distributions do not put at risk the protection of policyholders and beneficiaries. Where NSAs are not convinced by undertakings’ demonstrations, NSAs are able to limit or withhold the capital distribution to ensure that the solvency position of the undertakings concerned is sustainable.

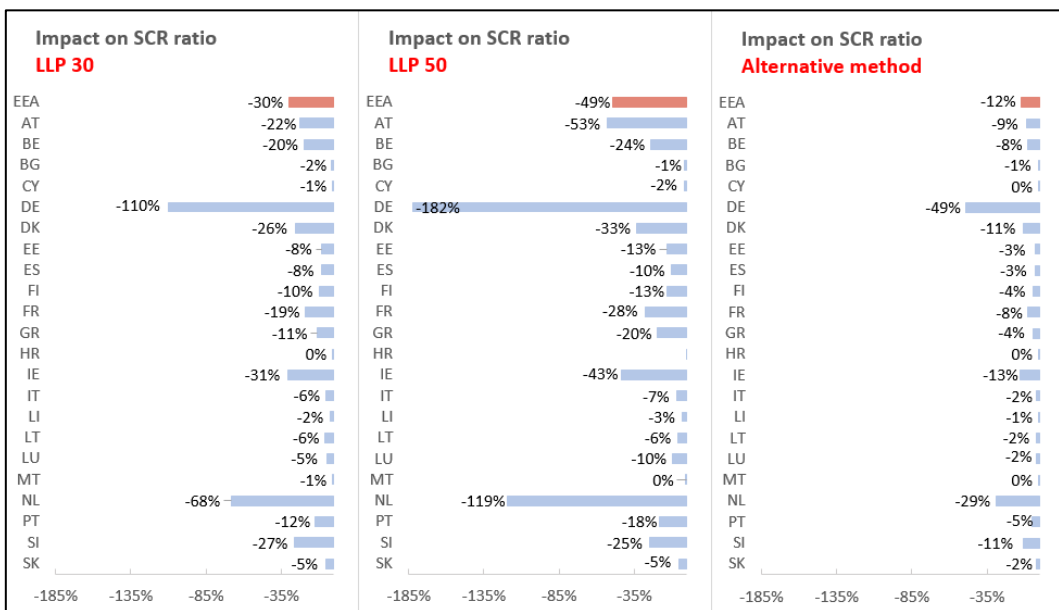
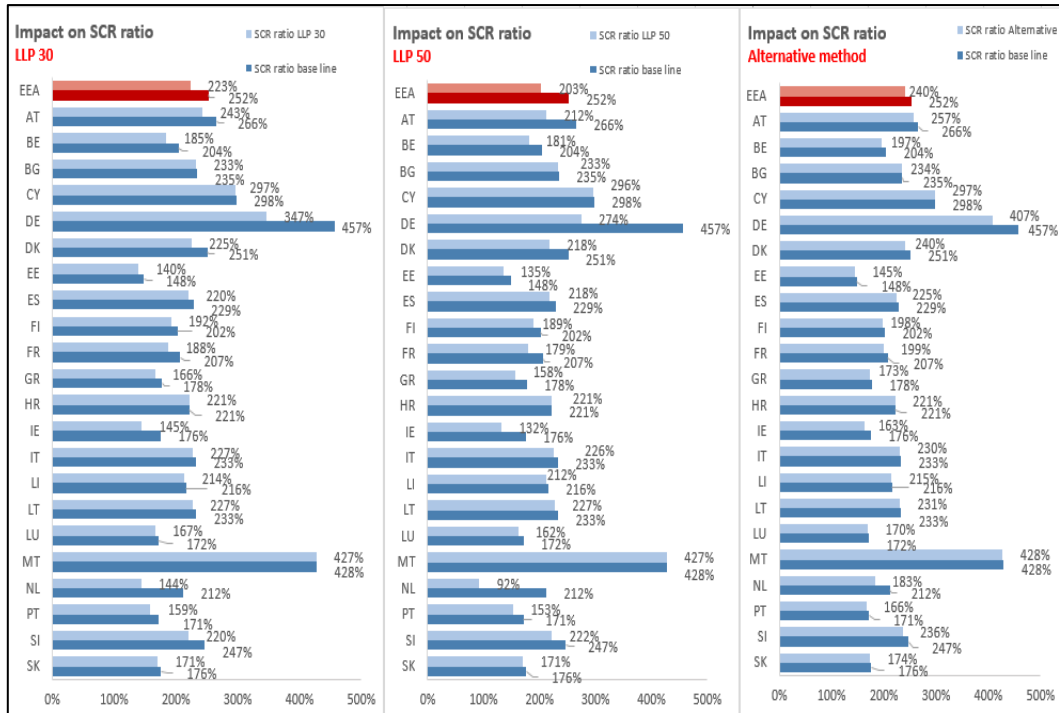
2.94 The impact of these options on risk-free interest rate term structure is disclosed in the following graph.



<sup>26</sup> This could be implemented by adding another column in S.22.01. in the annual QRT.

### **2.2.5.2. Impact of the options on the financial position**

- 2.95 For the LTG reports 2017 and 2018 EIOPA has assessed the impact on undertakings' solvency position of increasing the LLP for the euro to 30 years. Accordingly, at the end of 2016 the increase of the LLP would have reduced the SCR ratio of undertakings with long-term cash flows on average from 240% to 211%. At the end of 2017 the SCR ratio of undertakings with long-term cash flows would have fallen on average from 238% to 215%.
- 2.96 For this advice EIOPA has carried out an information request to 299 insurance and reinsurance undertakings with long-term liabilities about the impact of an increase of the LLP for the euro to 30 years and to 50 years for the end of 2018. The impact varies across countries. At the end of 2018 large reductions can be observed for Germany (from 457% to 347% for an LLP of 30 years) and the Netherlands (from 212% to 144% for an LLP of 30 years) while for other countries of the euro area the impact is on average around 11 percentage points for an LLP of 30 years.
- 2.97 The impact of an increase of the LLP on the SCR ratio of undertakings is shown in the following diagrams. The first diagrams compare the current SCR ratio with an SCR ratio resulting from an increase of the LLP to 30 and 50 years. The second set of diagrams show the absolute impact on the SCR ratio in percentage points. The third diagram shows the impact of the alternative extrapolation methodology on the SCR ratio. As the method was not included in the information request, EIOPA has approximated the impact by interpolation. For that purpose the alternative term structure is considered as a combination of the term structure with an LLP of 20 and an LLP of 30. On average over the different maturities, the alternative method is approximately equal to 60 percent of the term structure with an LLP of 20 years plus 40 percent of the term structure with an LLP of 30 years. The eligible own funds and the SCR under the alternative term structure are then calculated as 60 percent of these values in the scenario with the LLP of 20 years and 40 percent of these values in the scenarios with an LLP of 30 years.
- 2.98 It should be noted that all SCR ratios include the impact of the transitionals where it is applied. Furthermore, it should be noted that that the impact displayed does not include the impact on the SCR of possible changes to the interest rate risk calibration (see section 5.1). A change of the LLP or extrapolation method could also have an impact on the interest rate risk calibration.

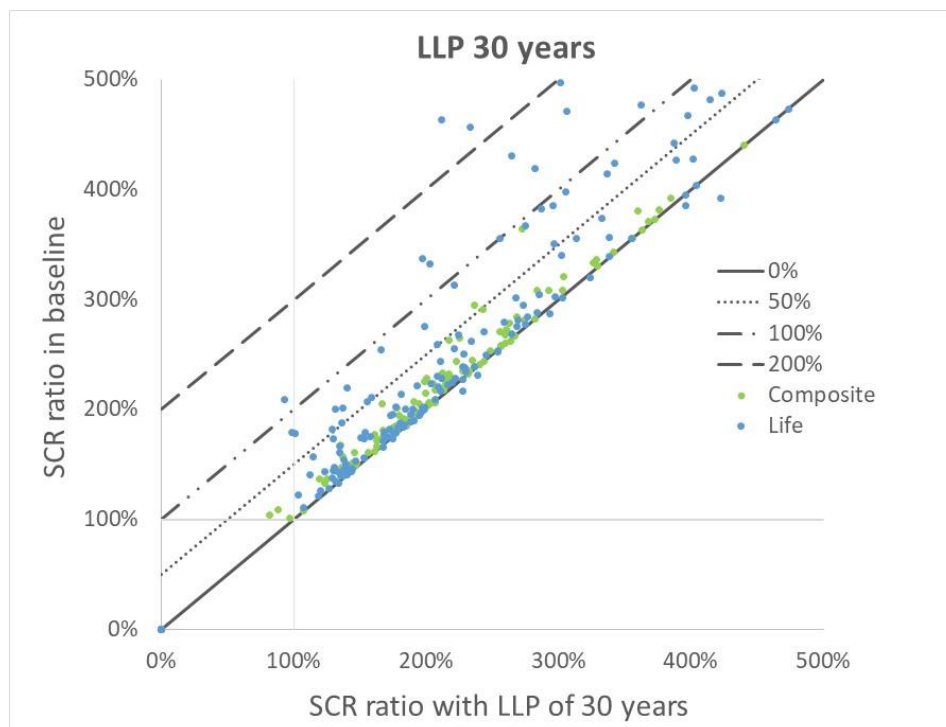


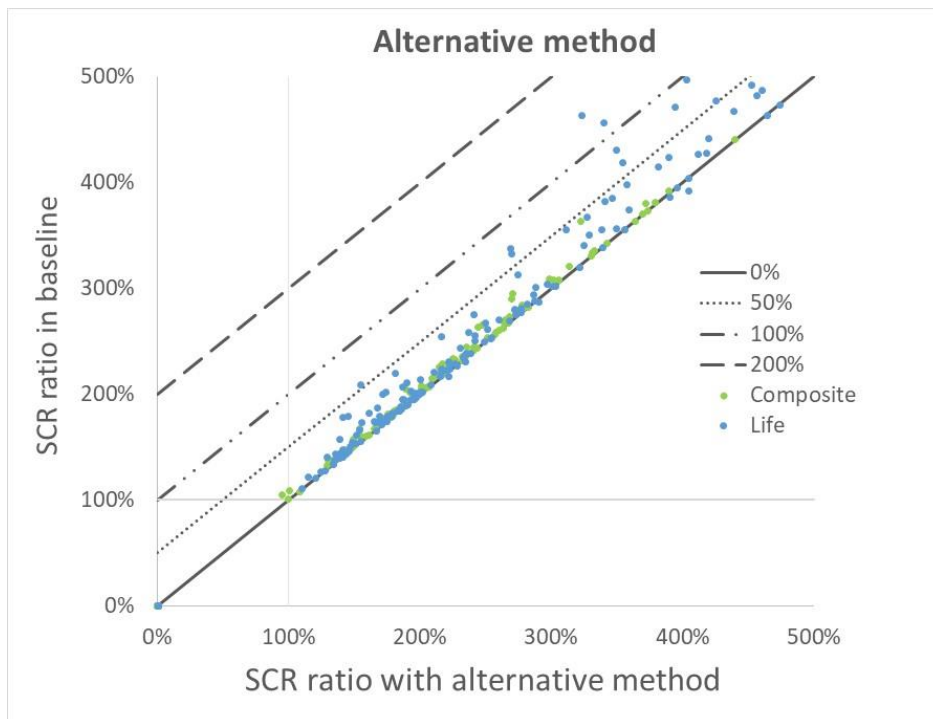
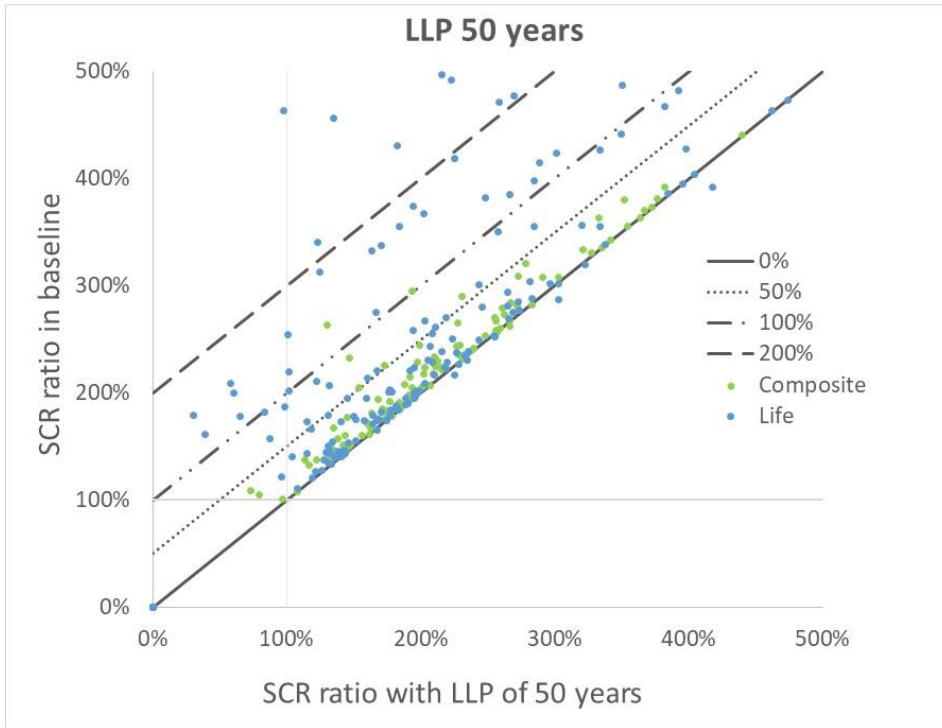
2.99 At EEA level, option 3 would result in a reduction of the SCR ratio by 30 percentage points, option 4 would result in a reduction of the SCR ratio by 49 percentage points and option 5 would result in a reduction of the SCR ratio by 12 percentage points. The average change in SCR ratios is the highest for undertakings in Germany and the Netherlands.

2.100 For each undertaking in the sample, the following graphs show the individual solvency ratios in the baseline (including all other LTG measures and measures on equity risk) against the solvency ratios in each of the options (option 3 (LLP 30), option 4 (LLP 50) and option 5 (alternative extrapolation method)).

2.101 Each dot in the diagrams represents one undertaking. The type of each undertaking is indicated by the colour of the dot. The horizontal axis relates to the SCR ratio in the individual options. The solvency ratios in the baseline are shown on the vertical axis. The SCR ratio of 100% that undertakings are required to have under Solvency II is indicated by additional vertical and horizontal lines. The more an undertaking is located away from the diagonal line, the bigger the impact of the measures. The broken diagonal lines correspond to an absolute impact of 50, 100 and 200 percentage points on the SCR ratio.

2.102 The graphs show that the impact is very diverse across undertakings. Note that only those undertakings are displayed in the graphs that do not exceed 500% of solvency ratio in the baseline or the scenario considered.

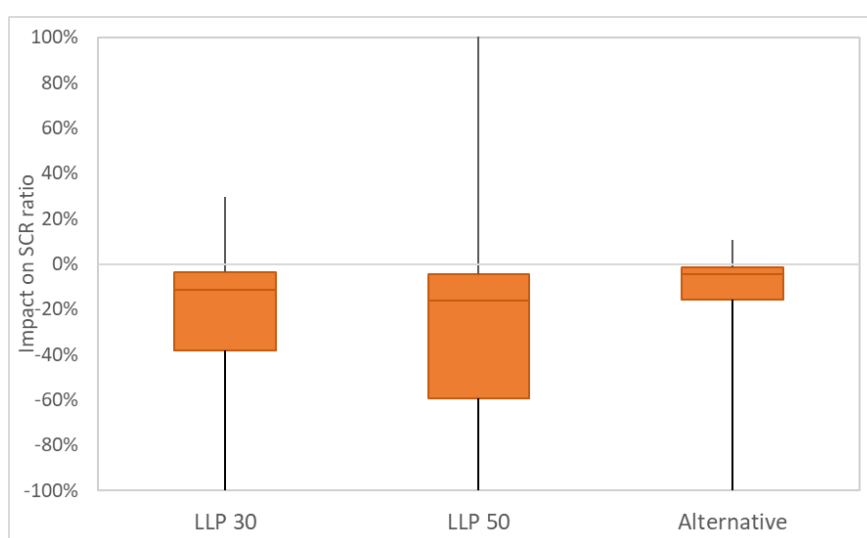




2.103 In terms of SCR ratio, 27 undertakings reported an absolute impact of more than 100 percentage points for changing the LLP to 30 years. For an increase of the LLP to 50 years, this was the case for 56 undertakings and for introducing an alternative extrapolation method for 7 undertakings. The vast majority thus reported an absolute impact lower than 100 percentage points for all scenarios.

2.104 5 undertakings reported an SCR ratio below 100% for an LLP of 30 years. This is the case for 13 undertakings in case of an LLP of 50 years and for 2 undertakings under the alternative extrapolation method.

2.105 The box-plots below illustrate how the impact of the options compared to the baseline (including VA, MA and measures on equity risk and equity transitional) is distributed across undertakings, by showing the 1st and 3rd quartiles and the median of reported impacts in percentage points. The median of reported impacts does not differ significantly across the three options, however the distribution of the first and second quartiles does vary considerably. The widest distribution is observed for the increase of the LLP to 50 years, followed by the increase to the LLP to 30 years and it is smallest for the alternative extrapolation method. A number of outliers are observable with impacts even below -100%.



2.106 Regarding the alternative method (option 5), an impact assessment also has to be made for other currencies than the euro. The table below shows that for more than half of the currencies the LLP coincides with the First Smoothing Point (FSP) used in the alternative method. For these currencies the difference between the two curves is negligible. Also for currencies where the FSP is earlier and market data is used until the LLP, but weighted based on liquidity, the impact does not seem to be large. Annex 2.7 provides an overview of the interest rate term structures for various currencies under the current and the alternative method.

2.107 In general, the new methodology would result in no material change or slight increase of technical provisions for the majority of the currencies; however, a decrease of technical provisions would be expected for AUD, USD and GBP.

	<b>LLP</b>	<b>First smoothing point</b>	<b>Market data used until</b>
<b>EUR</b>	20	20	50
<b>USD</b>	50	25	50
<b>AUD</b>	30	15	30
<b>JPY</b>	30	30	30
<b>CHF</b>	25	20	25
<b>GBP</b>	50	40	50
<b>RON</b>	10	10	10
<b>HRK</b>	9	9	9
<b>HUF</b>	15	10	15
<b>NOK</b>	10	10	10
<b>CZK</b>	15	10	15
<b>PLN</b>	10	10	10
<b>SEK</b>	10	10	10

### **2.2.5.3. Assessment of the options in view of the issues identified**

#### **2.2.5.3.1. Impact of options on Issue I – Underestimation of technical provisions**

2.108 The graph included in section 2.2.4.1 already outlined the differences in interest rates for the extrapolated part compared to market rates.

2.109 Option 4 (LLP of 50 years) would remove the underestimation issue. Option 3 (LLP of 30 years) and option 5 would partially address the issue while option 2 (LLP of 20 years with safeguards) would not address the issue at all. The following table sets out the difference between technical provisions calculated on the basis of all available data from deep and liquid swap markets (as derived with a LLP of 50 years) and technical provisions derived with LLPs of 20 and 30 years as well as with the alternative extrapolation method. The figures relate to 299 insurance and reinsurance undertakings with long-term liabilities and reference date 31 December 2018. The results derived for the alternative extrapolation method were not part of the information request but are interpolated based on these data.

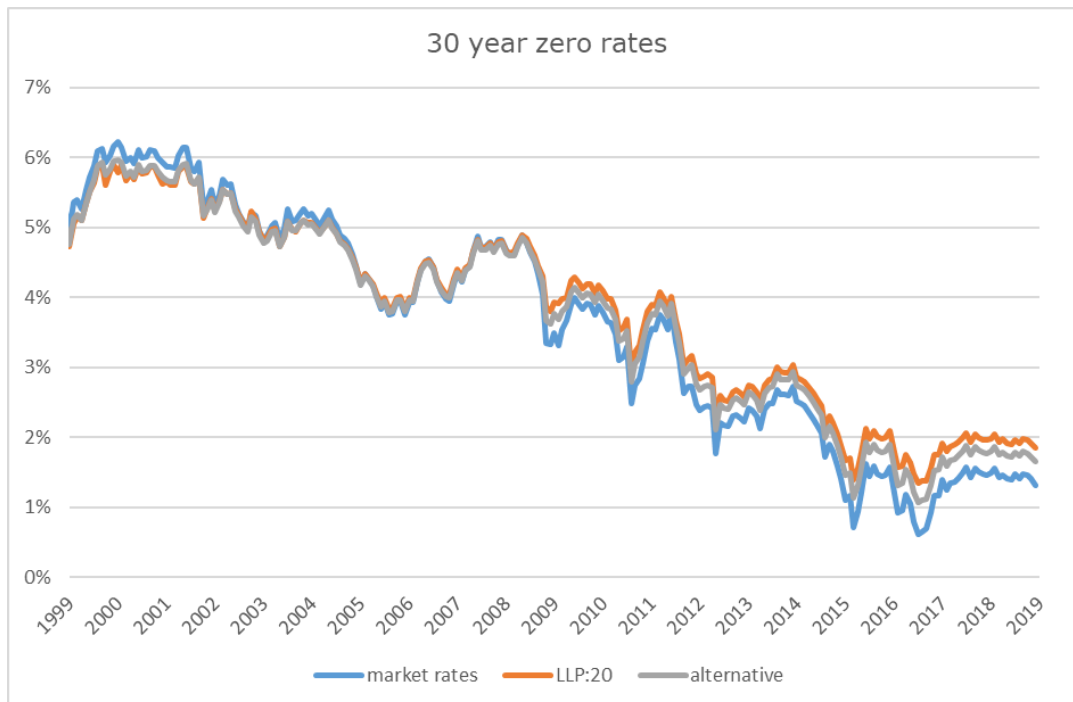
	Difference between technical provisions with LLP 50 years and LLP 30 years [EUR bn]	Difference between technical provisions with LLP 50 years and LLP 20 years [EUR bn]	Difference between technical provisions with LLP 50 years and with the alternative extrapolation method [EUR bn]
FR	3,1	11,4	8,1
AT	1,9	3,6	2,9
CY	0,0	0,0	0,0
DE	12,3	23,7	19,2
DK	0,5	1,4	1,1
EE	0,0	0,0	0,0
ES	0,2	0,9	0,6
FI	0,1	0,3	0,2
GR	0,0	0,1	0,1
HR	0,0	0,0	0,0
IT	0,4	2,2	1,5
LI	0,0	0,0	0,0
LT	0,0	0,0	0,0
LU	0,1	0,3	0,2
MT	0,0	0,0	0,0
NL	6,5	15,6	12,0
SI	0,0	0,0	0,0
SK	0,0	0,0	0,0
BE	0,4	2,6	1,7
PT	0,0	0,0	0,0
IE	0,3	1,1	0,8
BG	0,0	0,0	0,0
<b>Total</b>	<b>25,1</b>	<b>59,6</b>	<b>46,0</b>

2.110 An analysis of the materiality of the potential of future unwind of losses needs to be considered over time respecting the “lifetime” of a long-term guarantee product in insurers balance sheets.

2.111 The following graph outlines the extrapolated rates for maturity 30 and the observed market rates for the time-period Q1 1999 – Q3 2018. This analysis takes into account the effect of changes to the ultimate forward rate (UFR) on the extrapolated rates<sup>27</sup>.

<sup>27</sup> See also page 95 of the LTG report 2018, [https://eiopa.europa.eu/Publications/Reports/2018-12-18%20\\_LTG%20AnnualReport2018.pdf](https://eiopa.europa.eu/Publications/Reports/2018-12-18%20_LTG%20AnnualReport2018.pdf)





2.112 As outlined in at the beginning of this chapter the extrapolation is symmetric, extrapolated rates may exceed or be lower than observed market rates. As can be seen in the graph during times of higher interest rates the extrapolated rates tended to be lower than market rates, whereas in current times of low interest rates the extrapolated rates exceed the observed market rates. So, whether technical provisions are over- or underestimated can change through the life-time of the contract. If market forward rates beyond the applicable LLP increase to the level of the UFR (currently 3.9% but decreasing) then underreserving will disappear.

2.113 As outlined in section 2.2.4.1, where undertakings earn lower rates than the interest rates used to calculate their technical provisions, deficiencies show up in the balance sheet (and vice versa for surpluses). Where undertakings earn sufficient returns exceeding risk-free market rates, no deficiencies will arise. However, undertakings need to take risks to actually earn such excess returns to compensate the decrease of own funds over time; they no longer can meet their liabilities risk-free. On top of that, if during the lifetime of the liabilities the undertaking breaches its SCR and/or MCR, the liabilities may need to be transferred, but cannot be transferred because of the underreserving that is then still in place.

### 2.2.5.3.2. Impact of options on Issue II – Risk Management Incentives

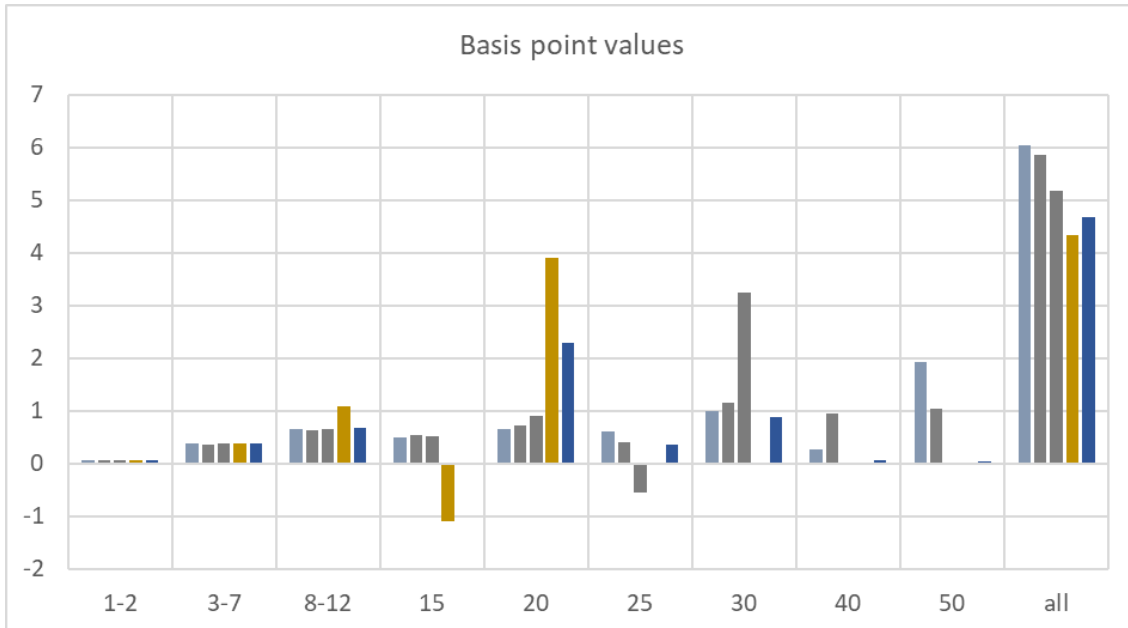
2.114 The figure below shows that the options with an LLP of 30 or 50 years or the alternative extrapolation method reduce the wrong risk management incentives described in section 2.2.4.2 as they bring the interest rate sensitivity of the extrapolated term structure closer to market reality. With

an LLP of 30 years the negative interest rate sensitivity moves to the 25 year rates, but decreases compared to the term structure with an LLP of 20 years. For the LLP of 50 years and for the alternative method, on an aggregate level, there are no longer negative interest rate sensitivities. All options increase the interest rate sensitivity to 30 year rates, but this increase is modest for the alternative method, while it is significantly larger for the option with an LLP of 30 years. In contrast to hedging the risks in financial markets, hedging the regulatory value of the liabilities undertakings would require to buy more 30 year bonds and swaps under the option with an LLP of 30 years than under the alternative method as well as under the option with an LLP of 50 years. If the alternative method would be implemented undertakings would have to replace part of their 20 year swaps and bonds with 25 and 30 year bonds and swaps.

2.115 The total interest rate sensitivity if all swaps decrease by 1 basis point, presented in the column 'all', increases for all options, but is modest for the alternative method. Under the alternative method matching the cash flows for 75 percent would hedge the interest rate sensitivities of the regulatory value of the liabilities whereas this is 70 percent under the current LLP of 20 years; the total interest rate sensitivity increases from a bit over 4 billion euros to 4.5 billion euros compared to a total PVBP of 6 billion euros under pure market interest rates (market flat). To hedge the total interest rate sensitivities under the option with an LLP of 30 years the total PVBP of the assets would have to increase to a bit over 5 billion euros; i.e. a cash flow hedge of approximately 85 percent would make the regulatory valuation of the liabilities insensitive to changes in the swap rates. With an LLP of 50 years the cash flow match would need to be almost 100 percent to match the interest rate sensitivities of the liabilities.

2.116 Although the alternative method relies on the 40 and 50 year swap rates, there is hardly any exposure to these rates. This is due to the fact that the weights of these rates are based on the extent of illiquidity; the liquidity of the 40 and 50 years swap rates is significantly lower than the liquidity of the 30 year swap rate and therefore the 30 year swap rate sensitivity dominates the 40 and 50 year sensitivities. In this way, the alternative method automatically adjusts the interest rate demand for less liquid maturities if the liquidity of a specific maturity increases or decreases.

• **Figure XX Interest rate sensitivities of insurer's liabilities cash flow**



Interest rate sensitivities in terms of basis points values for the respective swap rates at the x-axis for the different extrapolation methods based on 60 equal annual cash flows of 100; 'all' indicates the total interest rate sensitivity.

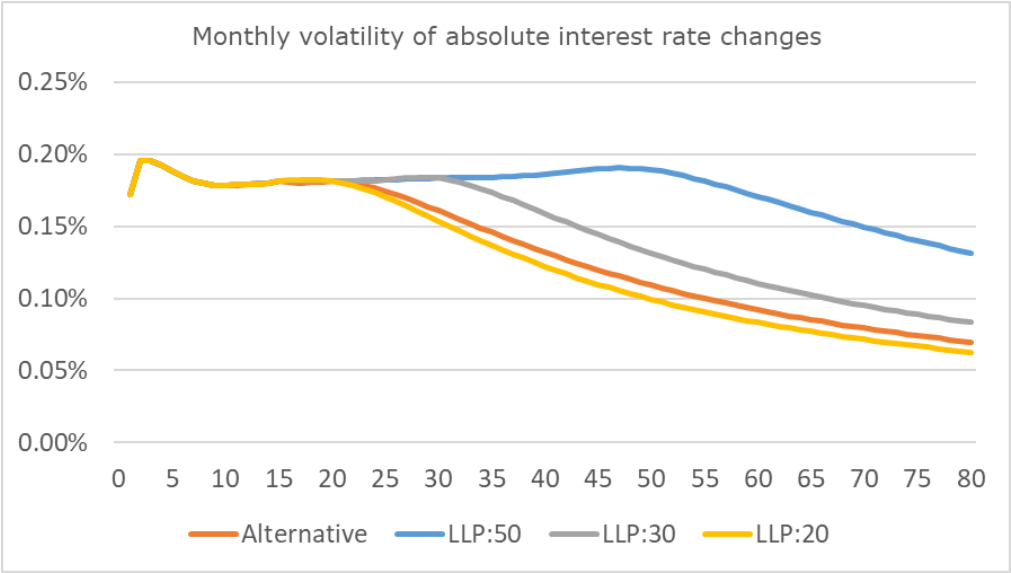
**2.2.5.3.3. Impact of options on Issue II – Stability of the solvency position and impact on financial stability**

2.117 For the LTG report 2018 EIOPA has also analysed the impact of changes to the LLP on the volatility of risk-free interest rates and own funds. The analysis showed that the volatility of interest rates decreases with increasing maturity after the LLP.

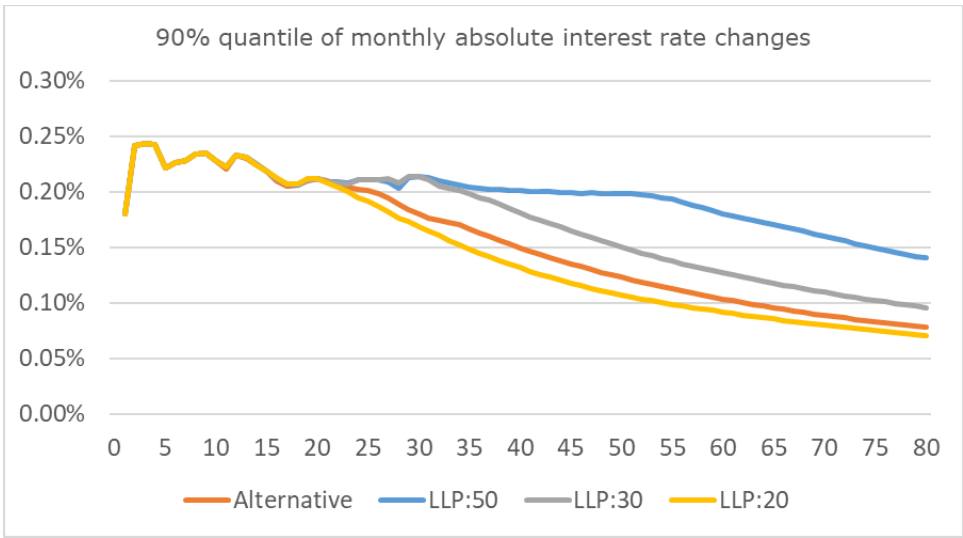
2.118 The following graph shows the monthly volatility of the absolute changes in interest rates. Compared to the results shown in the LTG report 2018<sup>28</sup> the graph also shows the results for an LLP of 50 years and the alternative extrapolation method. The historical rates for the alternative method were derived by fixing the weights to the most recent weights. Euro swap rates for the current DLT maturities were available from December 1998 with the exception of the 40 and 50 year swap rates that were available from September 2000; before September 2000 the 40 and 50 year rates were set equal to the 30 year swap rate at that time. For the interest rates with an LLP of 30 and LLP of 50 an increase in standard deviation is observable beyond 20 years compared to an LLP of 20 years. For the alternative extrapolation method, the long-term interest rates are slightly more volatile

<sup>28</sup> Cf. page 98 of [https://eiopa.europa.eu/Publications/Reports/2018-12-18%20\\_LTG%20AnnualReport2018.pdf](https://eiopa.europa.eu/Publications/Reports/2018-12-18%20_LTG%20AnnualReport2018.pdf)

than under the current method for a LLP of 20 years, but are significantly less volatile than compared to the other proposed options.



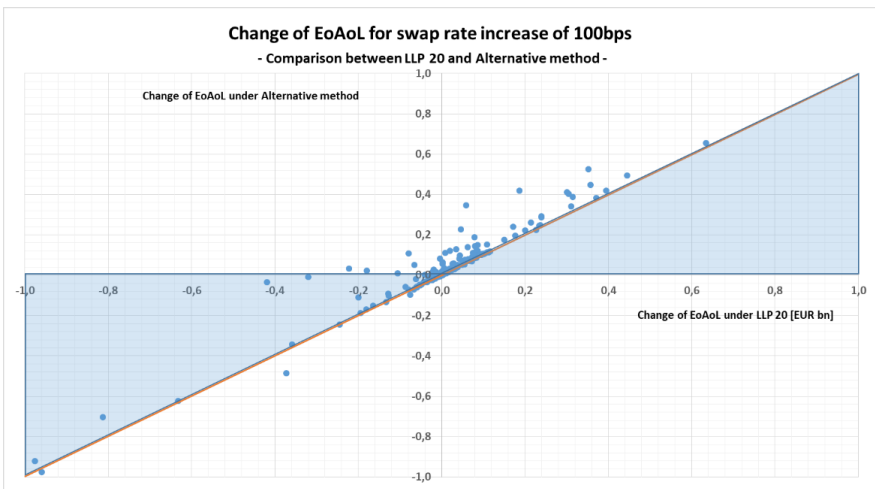
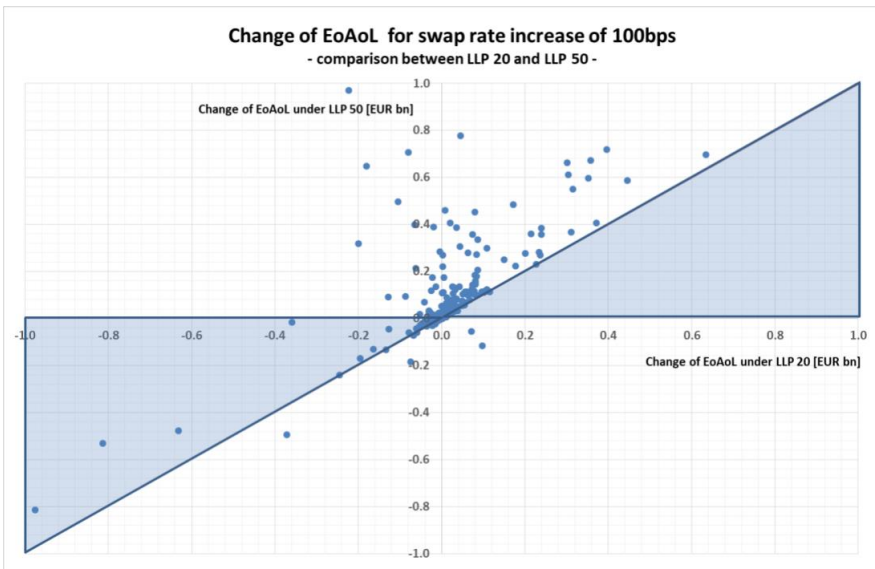
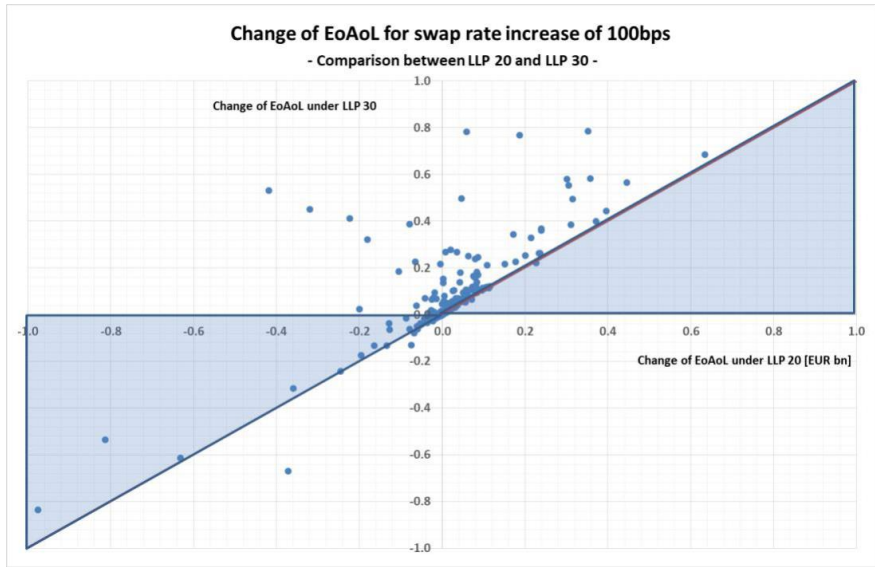
2.119 In addition to the observation of quarterly changes in spot rates, the analysis also considered maximum and 90% quantile of quarterly changes of spot rates as a relevant metric to assess and compare volatility of interest rates (reflecting “jumps” in interest rates of one monthly to another). The following graph outlines the empirical 90% quantile of quarterly changes in spot rates. Again, compared to the results shown in the LTG report 2018, the graph now also includes the results for an LLP of 50 and the alternative extrapolation method.



2.120 For option 4 it can be observed that the 90% quantile increases for the whole extrapolated part of the risk-free term structure compared to the base

case. The increase is different for option 3 where a higher increase in results can be observed in particular for maturities 20 to 37. Under both options, the quantiles would still usually be lower than that of the not-extrapolated rates.

- 2.121 The available data in 2018 were not sufficient to draw conclusions on what the impact of an increased LLP on the volatility of own funds would be.
- 2.122 For the Opinion on the 2020 review EIOPA has therefore carried out an information request to insurance and reinsurance undertakings about the impact of an increase of the LLP for the euro to 30 years and to 50 years as well as for the alternative extrapolation method for the end of 2018.
- 2.123 The following diagrams set out first results from the volatility analysis. Undertakings were asked to assess the effect of an increase of swap rates by 100 bps on their assets and liabilities under different LLPs for the euro. The diagrams show the impact of the increase in swap rates on the excess of assets over liabilities (EoAoL). Each dot in the diagrams represents an undertaking. The horizontal position of a dot corresponds to the impact on EoAoL under an LLP of 20 years. The vertical position of a dot corresponds to the impact on EoAoL under an LLP of 30 years (first diagram), 50 years (second diagram) or the alternative extrapolation method (third diagram). The results derived for the alternative extrapolation method are interpolated based on results for the LLP of 30 and 50 years.
- 2.124 For undertakings positioned on the red diagonal of the first diagram, the impact of the 100 bps increase is the same under an LLP of 20 years and an LLP of 30 years. For the undertakings in the blue marked triangular areas the impact is lower under an LLP of 20 years than under an LLP of 30 years. The same interpretation applies to the second and third diagram.
- 2.125 Undertakings in the upper left (or lower right) quadrant of the diagrams experience a loss under the LLP of 20 years and a gain under the LLP of 30 years or 50 years or alternative extrapolation method (and vice versa).
- 2.126 It should be noted that the measured impact reflects the current interest rate risk hedging of undertakings. Changing the LLP may have an impact on the hedging strategy and the volatility caused by interest rate shocks.



2.127 The following tables set out the pros and cons of Options 2, 3, 4 and 5 compared to the status quo (Option 1).

<b>Option 2: The LLP stays at 20 years and additional safeguards are introduced in pillar 2 and 3</b>	
<b>Pros</b>	<b>Cons</b>
Additional safeguards may mitigate issue II and concerns with respect to issue III, but effectiveness is unclear.	<i>None identified (compared to the status quo)</i> <sup>29</sup>

<b>Option 3: The LLP is increased to 30 years</b>	
<b>Pros</b>	<b>Cons</b>
Would improve market-consistency of the risk-free interest rate term structure and thereby partially mitigate the risk of underestimation of technical provisions.	Would increase volatility of own funds (but not as much as Option 4). There are concerns that this increased volatility could have procyclical effects where insurers are not closely matched.
Closer to outcome of DLT assessment of euro swap market than current LLP of 20 years.	The LLP would not be derived on the basis of a DLT methodology
Would reduce wrong incentives for risk management, but not fully remove them	

<b>Option 4: The LLP is increased to 50 years</b>	
<b>Pros</b>	<b>Cons</b>
Would ensure market consistency of the risk-free interest rate term structure and avoid the underestimation of technical provisions.	Would increase volatility of own funds. There are concerns that the increased volatility could have procyclical effects where insurers are not closely matched.
In line with outcome of DLT assessment of euro swap market. One single DLT method for all currencies, no longer an exemption for the euro.	
Would remove wrong incentives for risk management.	

<b>Option 5: An alternative extrapolation method is adopted</b>	
<b>Pros</b>	<b>Cons</b>
Would slightly improve market-consistency of the risk-free interest rate term structure and thereby partially mitigate the risk of underestimation of technical provisions.	Moderate increase of volatility of own funds. There are concerns that the increased volatility could have procyclical effects where insurers are not closely matched.

<sup>29</sup> See issues identified in section 4 with respect to the cons of the status quo

Slightly closer to outcome of DLT assessment of euro swap market than current LLP of 20 years.	
Would reduce wrong incentives for risk management, but not fully remove them.	
Would be applicable to all currencies and an exemption for the euro would no longer be required.	



### Questions to stakeholders

**Q2.1:** What is your view on the options on the last liquid point for the euro (including the alternative extrapolation method) set out in this section?



## 2.3. Matching adjustment

### 2.3.1. Diversification benefits

#### 2.3.1.1. Extract from the call for advice

##### **3.2. Matching adjustment (Art. 77b, 77c) and volatility adjustment (Art. 77d)**

[...]

##### *b) Matching adjustment*

*EIOPA is asked to provide an assessment of the quantitative impact on the calculation of the best estimate and the solvency position of insurance undertakings of the following approaches for the calculation/application of the matching adjustment:*

- *Approach 1: a change in the current assumption of no diversification benefits (including full diversification); where EIOPA assesses assumptions of partial diversification, it should provide criteria and methods to determine the appropriate level of diversification;*
- [...]

#### 2.3.1.2. Relevant legal provisions

2.128 The MA portfolio is characterized by being a separated portfolio of assets and liabilities in which cash flows are matched, and assets assigned to that portfolio are exclusively devoted to cover the best estimate of the liabilities included in the portfolio.

2.129 Article 77b of the Solvency II Directive specifies the MA portfolio. The regulation does not require that the MA portfolio is a ring fence fund, as clarified in recital 36 of Directive 2014/51/EU (Omnibus II).

2.130 The legal texts clarify that the separated portfolio should be understood in an economic sense and a legal ring fenced fund is not required.

2.131 Nevertheless, according to Article 217 of the Delegated Regulation MA portfolios and ring-fenced funds are treated in the same way in the calculation of the SCR standard formula. In particular, the SCR of an undertaking with MA portfolios is the sum of notional SCRs calculated for those portfolios and for any other business.

2.132 The assets assigned to the separated portfolio are exclusively devoted to cover the best estimate of liabilities (expected losses) included in that portfolio, and are never used to cover any other losses. But the assets backing the SCR (they are other assets than the ones assigned to the MA portfolio) can be used to cover any unexpected loss, given there is only one SCR.

2.133 On the other hand, although assets included in the MA portfolio cannot be used to cover losses from the rest of the undertaking, assets from the remaining part of the undertaking can be used to pay for liabilities included in the MA portfolio if necessary.

### **2.3.1.3. Identification of the issue**

2.134 Article 13(37) of the Solvency 2 Directive states:

*'diversification effects' means the reduction in the risk exposure of insurance and reinsurance undertakings and groups related to the diversification of their business, resulting from the fact that the adverse outcome from one risk can be offset by a more favourable outcome from another risk, where those risks are not fully correlated;*

2.135 Diversification benefit arises when two processes are not completely dependent on each other, and a bad (good) outcome for one process does not necessarily mean a bad (good) outcome for the other. In general, this diversification benefits are recognized in Solvency II through correlation matrices, in which correlation 1 is rare, what means that the aggregation of capital charges of different risks is usually smaller than the addition.

2.136 The limitation to the diversification benefits stated in Article 217 of the Delegated Regulation may discourage the use of the MA because it requires a higher amount of capital. There are examples where the loss of diversification in the SCR exceeds the increase of own funds resulting from the use of the MA in the calculation of technical provisions.

2.137 This restriction does not exist in other analogous cases in the Solvency II regime:

- Undertakings with internal models approved: approved internal models allow for diversification benefit between the MA portfolio and the remaining part of the undertaking. The restriction stated in Article 217 of the Delegated Regulation is applicable only to standard formula users.
- Mono-liner undertakings do not suffer this limitation. For undertakings devoted only to MA business, lack of diversification benefits is not a problem at all if they have the whole business under MA in one unique portfolio. But if this is not the case, diversification benefits will be lost with the current regulation. This may introduce an inappropriate disincentive to undertakings that want to diversify their risk exposure.
- Composites: composite undertakings are obligated to keep a separate management for life and non-life insurance, but there is a single SCR for which diversification benefits among life and non-life business are recognized (Articles 73 and 74 of the Solvency II Directive). To calculate the group SCR the diversification benefits between life and non-life undertakings are considered.

### 2.3.2. Analysis

2.138 Where the business of an insurance undertaking is divided into different sub-portfolios, a risk event to which the undertaking is exposed to could affect these sub-portfolios in different ways. In case where a risk event leads to a loss in one sub-portfolio, but to a gain in another sub-portfolio, in order to net off such gains and losses the undertaking would generally need to transfer assets between these portfolios. Where assets assigned to a sub-portfolio cannot be used to cover losses arising from risks on other sub-portfolios, the undertaking may not be able to realize the full diversification effects between the different sub-portfolios. Therefore, restrictions on diversification benefits can be economically justified in such a setting.

However, in the specific context of the MA EIOPA considers that for the reasons set out below restrictions on diversification benefits would not be justified:

- Assets assigned to the MA portfolio have to cover the best estimate of liabilities included in the portfolio (Article 77b(1)(a)).

2.139 The cash flow matching is only possible if cash-flows derived from assets and liabilities are predictable. Strict criteria are stated in the regulation to allow the matching adjustment only where these criteria are met. Cash flows derived from fixed income assets can only cover expected payments derived from insurance obligations, because only expected payments are predictable in time and size. In the context of the MA, a cash flow matching with regard to unexpected payments would not be possible. In the Solvency II framework, expected cash flows are allocated to the technical provisions, specifically to the best estimate, and unexpected losses (payments) in the SCR. According to this, Article 77 b(1)(a) of the Solvency II Directive points out that the assets assigned to the matching portfolio have to cover the best estimate of the portfolio of insurance or reinsurance obligations.

- And these assets covering the best estimate cannot be used to cover losses arising from other activities of the undertakings (Article 77b(1)(b)).

2.140 Assets assigned to the matching portfolio have to cover the expected payments (BE) and no additional payments. This is a logical consequence of the cash-flow matching: if these assets were used to cover losses arising from other activities of the undertaking (i.e. activities outside the matching portfolio), the cash flow matching would be in danger.

- The assets assigned to a matching portfolio only need to cover the expected payments (best estimate) from the business included in that portfolio. Therefore, it is not necessary to have assets to cover either the risk margin or the SCR for the business included in the matching portfolio.

2.141 Payments covered by the risk margin or SCR are not predictable. Therefore, it is not possible to match these payment with the cash flows derived from fixed income assets. For this reason, risk margin and SCR are

out of the scope of the matching portfolio. This is confirmed by the point 1.5 of the introduction of the Guidelines on ring-fenced funds (EIOPA BOS 14/169), that points out that “the requirement to calculate a notional SCR in respect of a ring-fenced fund does not require undertakings to maintain an amount of own funds within a ring-fenced fund equal to or greater than the notional SCR”. Therefore, it is only mandatory to have assets in the MA portfolio to cover the best estimate.

- Current legislation does not require a specific SCR for the unexpected risks to which the matching portfolio is exposed, but is limiting the diversification benefits, what can be translated as the requirement of a higher amount of SCR.

2.142 According to Article 217 of the Delegated Regulation, the SCR of an undertaking with MA portfolios is the sum of notional SCRs calculated for those portfolios and for any other business (the notional SCR is an intermediate step to calculate the unique SCR for the whole undertaking). But some diversification benefits are lost with this calculation (leading to a higher SCR), specifically diversification benefits among the matching portfolio and the rest of the undertaking. The diversification benefits in question do not relate to the best estimate but to the SCR, which is reflecting the unexpected losses. For that reason, the existence of diversification benefits cannot affect or reduce the assets covering the best estimate (the assets covering the SCR are different to the ones covering the best estimate).

2.143 MA portfolios and ring-fenced funds are treated in the same way in the calculation of the SCR standard formula. However, as mentioned above, the matching portfolio is not a legal ring fenced fund. This is because the features of such a fund do not apply to the matching portfolio: the business included in the matching portfolio is not a particular business that requires a separated treatment in the undertaking. The separated portfolio is justified because a cash flow matching is applied to this business. In order to guarantee that the obligations are paid at maturity, it is necessary that the assets devoted to that target are effectively used, and are not used for other objectives. There is not necessity for an SCR specific for the matching portfolio because it is not a ring fenced fund.

- The existence of diversification benefits cannot affect or reduce the assets covering the best estimate. The limitation of diversification benefits implies a higher amount of SCR for the undertaking that is using the MA, and it could be in contradiction with Article 101(3) of the Solvency II Directive.

2.144 The diversification benefits relate to the SCR, not the technical provisions. The SCR covers unexpected risk of different nature: underwriting risk, market risk, counterparty risk, operational risk. If the regulation does not recognize diversification benefits for the SCR derived from the MA portfolio then, it can be argued, it should be based on evidence of higher correlation for that portfolio with the rest of the undertaking. But there seems to be no

higher correlation because including business in an MA portfolio does not change its correlation with the other risks.

- 2.145 For instance, the longevity risk included in the matching portfolio (MP) doesn't change its correlation with the mortality risks existing in business outside the MP only because its expected cash flows are matched with the ones derived from fixed income assets. The bonds included in the MP doesn't change its correlation with other assets (equities, real estate, another bonds) if you take these bonds out of the MP, the correlation will be the same. The same rationale is valid for other risks. EIOPA has not found reasons to justify a partial limitation of the diversification benefits.
- 2.146 Therefore this higher amount of SCR cannot be based in a different correlation among risks.
- 2.147 One could think that this higher amount of SCR is justified because the unexpected risks affecting the MP are bigger. But this is not the case either. In a MA portfolio there is lower interest and spread risks than in a non-matched portfolio (in fact, there is not market risk, the "hold to maturity" substitutes the market risk for default risk). These lower interest and spread risk are a natural consequence of the cash flow matching and this lower risk is reflected in the SCR of MA users.
- 2.148 The only underwriting risks connected to the portfolio of insurance or reinsurance obligations are longevity risk, expense risk, revision risk and limited mortality risk (Article 77b(1)(e)). This limited scope guarantees the predictability and illiquidity of the liabilities under MA. As in any other portfolio of life insurance liabilities, these risks can have a better or worse performance but not all will materialize in a 99.5% VaR scenario at the same time.
- 2.149 Furthermore, the strict requirements of the MA prevent losses from forced sales. These requirements guarantee the illiquidity and predictability of the liabilities included in the MA portfolio. The surrender option for the policyholder does not exist or if this exists, the surrender value is the market value of assets backing the liabilities.
- 2.150 If any underwriting risk, for example the longevity risk, has a performance worse than expected, it means that the insured person lives longer than expected and it is necessary to make additional payments not foreseen initially. This does not break the matching; the assets matched will be used to pay the expected payments. For the unexpected payments, more asset will be integrated in the MA portfolio, assets coming from the SCR, as in any other portfolio (with or without cash-flow matching). A MA portfolio does not bear higher longevity risk than a non-matched portfolio: obviously, the inclusion or not inclusion of an obligation in a MA portfolio does not alter the likelihood of better or worse performance of longevity risk. Even in the case of a worse than expected performance of longevity risk, the discount of the best estimate (the expected payments) with the MA will not create a problem.

2.151 Therefore, if there is not a different correlation among the risks by the mere fact of the existence of a MA portfolio in the undertaking, and the market risk derived from the MA portfolio is lower than in a non-matched portfolio (being the underwriting risk equal), the higher amount of SCR required by a user of the MA should be justified or, if this justification is not found, it would provide an argument for removing it. The essence of Solvency II is that each undertaking has to keep reserves according to its risks. If there is not higher correlation, if there is not higher risk (in fact, market risk is lower in a MA portfolio, as recognized in the SCR standard formula), the provisions of Article 217 of the Delegated Regulation could be contradicting Article 101(3) of the Solvency II Directive.

- A removal of current diversification restrictions in the SCR standard formula calculations would be in line with findings from the calculation of the SCR in internal models

2.152 EIOPA has carried out an information request to MA users which among others has asked internal model users to explain the treatment of diversification in the internal model and to quantify the difference between the current calculation of the SCR and a calculation that would allow for full diversification benefits.

2.153 As a result, it was found that in internal models the effects of any non-diversification that may arise through the requirement that the assigned assets in a MA portfolio cannot be used to cover losses arising from other activities of the undertakings is typically not material. As reasons for this effect, internal model users mentioned that existing surplus within the MA portfolio is typically small in relation to the MA portfolio's contribution to the SCR, and that it is unlikely that further surpluses would arise in the MA portfolio in scenarios which are adverse for other business. Moreover, in the case of deficits arising in the MA portfolio, assets would be transferred into the MA portfolio from the non-MA portfolio.

2.154 Therefore, removing restrictions on diversification for the standard formula would lead to a more consistent treatment of diversification between standard formula users and users of internal models.

2.155 Overall, EIOPA considers that removing the limitation in the diversification benefits will ensure a level playing field through sufficient harmonized rules, improving transparency and better comparability. At the same time, it will avoid unjustified constraints:

- to the availability of insurance and reinsurance, in particular insurance products with long-term guarantees (in benefit of policyholders and consumers), and
- to hold long-term investments by insurance and reinsurance undertakings (in benefit of the European economy).

### **2.3.2.1. Options considered**

2.156 In view of the descriptions above, EIOPA has considered two main options:

**Option 1:** No change: Maintain the limitation to diversification benefits for MA portfolios in the SCR standard formula

**Option 2:** Remove the limitation to diversification benefits for MA portfolios in the SCR standard formula

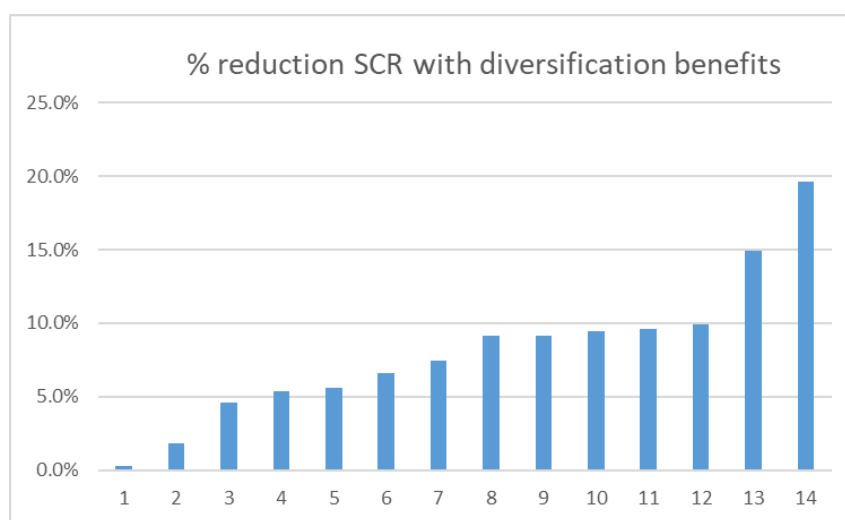
### 2.3.2.2. Impact of options

2.157 EIOPA collected data on the impact of Option 2. Results from that data collection, covering 14 Spanish and 18 UK undertakings, show that the adoption of Option 2 would reduce the SCR of MA users as follows:

- for UK undertakings between 0% and 6.15%, with a weighted average of 0.29%,
- for Spanish undertakings between 0.3% and 19.6%, with a weighted average of 8,5%. It would mean a reduction of 0.9% of the overall SCR for the Spanish market.

2.158 5 out of 18 UK undertakings are full internal model users and a further 9 are on partial internal models. For the 5 undertakings on full internal models and 5 of the undertakings on partial internal models, there is zero impact. This is because the internal models have assessed that there are no meaningful restrictions to diversification in the SCR calculation. Of the remaining 4 partial internal model firms, 3 show an impact of less than 0.5% and the last firm shows an impact of 1.87%. The impact on the 4 UK undertakings applying the standard formula ranges from 0.4% to 6.15% and the weighted average is 2.59%. All Spanish insurers of the sample apply the standard formula.

#### Spanish data



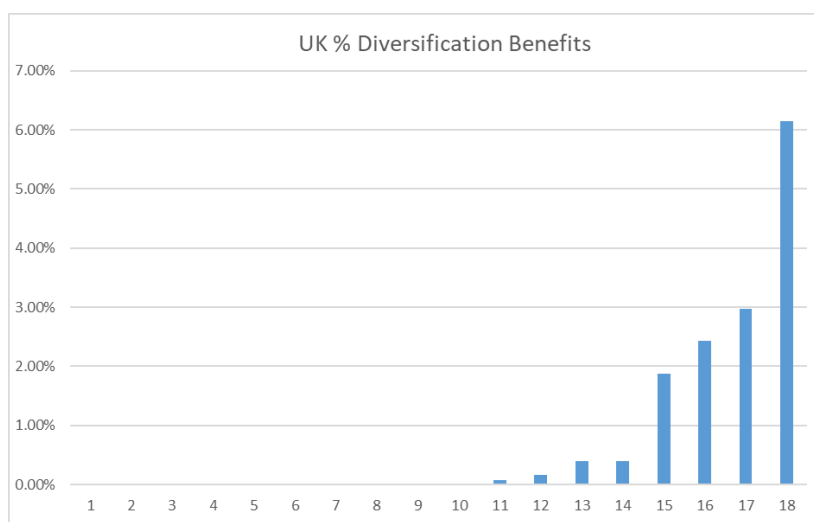
Min	0,3%
Max	19,6%
Median	8,3%
Average	8,1%
Weighted average	8,5%

2.159 In terms of solvency ratio, the improvement after considering diversification benefits is in the following table:

Min	+0.0pp
Max	53.8pp
Median	18.4pp
Average	20.3pp
Percentile 25	12.7pp
Percentile 75	29.4pp

2.160 If we consider the overall Spanish market, the option 2 would imply an increase of the solvency ratio of 1.8%.

UK Data



Min	0.00%
Max	6.15%
Median	0.00%
Average	0.80%
Weighted Average	0.29%



2.161 In terms of solvency ratio, the improvement after considering diversification benefits is in the following table:

Min	+0.0pp
Max	+12.0pp
Median	+0.0pp
Average	+1.5pp
Percentile 25	+0.0pp
Percentile 75	+0.6pp

2.162 The impact on the SCR Ratio for the 4 UK firms using the standard formula ranges from +0.6% points to +12.0% points and the weighted average is +4.4% points.

### 2.3.3. Advice

2.163 The assets included in the MA portfolio are devoted exclusively to cover the best estimate (expectation of insurance liabilities) of the liabilities included in that portfolio. If as a consequence of the evolution of assets and liabilities included in the MA portfolio a profit is derived from those assets, that profit cannot be used to cover losses outside the MA portfolio. Different to the best estimate is the SCR, devoted to cover unexpected losses, and for which there are different assets, outside of the MA portfolio. Unexpected losses are not suitable for a cash-flow matching, assets covering those kind of losses are backing the unique SCR in the undertaking. Maintaining restrictions for diversifications benefits for the SCR of a MA user would imply the requirement of an SCR higher to the 99.5 VaR, what is not supported neither by the regulation nor for evidences of a bigger risk (in fact, the market risk is lower in a MA portfolio). Removing the limitations doesn't imply additional risk for the payment of the best estimate. Internal models support this conclusion.

2.164 EIOPA advises to remove the limitations to the diversification benefits according to the option 2.

2.165 In order to implement that change references to matching adjustment portfolios in Articles 70, 81, 216, 217 and 234 should be removed.

## 2.3.4. Asset eligibility criteria

### 2.3.4.1. Extract from the call for advice

#### **3.2. Matching adjustment (Art. 77b, 77c) and volatility adjustment (Art. 77d)**

[...]

##### *b) Matching adjustment*

*EIOPA is asked to provide an assessment of the quantitative impact on the calculation of the best estimate and the solvency position of insurance undertakings of the following approaches for the calculation/application of the matching adjustment:*

- [...]
- Approach 2: a review of the criteria for eligible assets for the use of the matching adjustment, including their cash flow characteristics and credit quality.

### 2.3.4.2. Relevant legal provisions

2.166 The relevant legal provisions for the topic of the matching adjustment's (MA) asset eligibility criteria are:

- Recital 31 of the Omnibus II Directive
- Article 77b of the Solvency II Directive
- Article 132 of the Solvency II Directive
- Article 2 of Commission Implementing Regulation (EU) 2015/500

### 2.3.4.3. Identification of the issue

2.167 The rationale for the MA is explained in recital 31 of the Omnibus II Directive. This sets out that undertakings that hold bonds or similar assets to maturity are not exposed to the risk of changing spreads on those assets. This justifies an adjustment to own funds to reflect that undertakings are not exposed to the risk of short term movements in asset values. Underlying this thinking are assumptions such as:

- Undertakings are able to obtain additional risk-free returns via a buy-and-hold strategy.
- Matched cash flows permit the undertaking to avoid selling when spreads are high.
- Undertakings will earn the MA so long as the fundamental spread allows for costs of default and managing the portfolio to maturity.

2.168 In order to benefit from this treatment it is essential that the undertaking can rely on earning specific returns by holding the assets to maturity.

Contrast the situation with real assets (e.g. property, commodities etc.) whose returns are not guaranteed, because markets for those assets can be dislocated away from their fundamentals for substantial and unpredictable lengths of time (and indeed the concept of 'fundamental value' can be redefined over time for such assets). The absence of this 'pull to par' effect for some assets justifies that there should be criteria to limit the types of asset that can be included in a MA portfolio (MAP).

2.169 Specifically, Solvency II requires assets included in the MAP to meet two requirements:

1. They must be "bonds or other assets with similar cash flow characteristics" (Article 77b(1a)) and
2. They have to have "fixed cash flows" as defined in Article 77b(1h).

2.170 EIOPA's annual LTG reports have assessed the losses in MA portfolios compared against the fundamental spread provisions.<sup>30</sup> Every year it has been observed that the fundamental spread significantly exceeds the losses from default and downgrade within those portfolios, indicating that undertakings are earning the MA as expected, arising from the assets held. This provides some reassurance that the measure is operating as expected.

2.171 Nevertheless, there have been borderline cases which present a challenge to the application of the asset eligibility requirements (and indicate that the requirements could be improved).

2.172 For example, undertakings can attempt to overcome these requirements by providing assets whose legal form appears to ensure that the asset is "bond-like" (e.g. are legally loans) and which technically have a fixed schedule of cash flows, but which expose undertakings to the same risks as the ineligible assets. It is likely that these assets will be incompatible with Solvency II requirements, such as the Prudent Person Principle and NSAs should challenge undertakings accordingly. Nevertheless the current absence of a targeted provision leaves NSAs having to rely on an indirect tool to ensure the adequacy of assets in the MAP.

2.173 Separately, there are assets with some uncertainty as to the timing of the first/last cash flows but with a limited range of cash flow patterns and therefore more akin to bonds than to real assets. These assets are suitable for backing annuity liabilities and include callable bonds or loans that have fixed cash flows only after an uncertain start date (e.g. as used to back infrastructure projects). Nevertheless, a literal reading of the "fixed cash flow" requirement would penalise such assets by treating them as if they had the same uncertainty as real assets. Therefore it is appropriate to consider if an alternative treatment can be devised within the matching adjustment framework for these assets.

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<sup>30</sup> For example, section II.3 'Impact on policyholder protection' in the [YE2018 report](#)

### 2.3.5. Analysis

2.174 For clarity, the proposed 'look-through' and 'yield to worst' approaches (described in more detail below) would only be relevant for assets which satisfy the Directive's Prudent Person Principle (PPP) and risk management provisions, and where firms meet the rest of the MA eligibility criteria. Article 132 in particular requires undertakings to "only invest in assets and instruments whose risks the undertaking concerned can properly identify, measure, monitor, manage, control and report." Moreover "Assets held to cover technical provisions must be invested in a manner appropriate to the nature and duration of the liabilities."

#### Look-through principle

2.175 Following a 'look-through' approach could aid undertakings and NSAs when assessing the suitability of restructured assets to be included in the MAP. The proposal is to clarify a look-through principle to help identify asset structures where the underlying assets are not suitable to match MA liabilities, in particular because they are not sufficiently fixed in term. In the examples below we focus on securitisations as an example of such assets, but it is important to note that many other types of structures can function similarly. Therefore it is important not to limit this approach to securitisations.

2.176 The look-through principle will comprise some considerations relevant to the underlying (unrestructured) asset and others relevant to the nature of the restructuring. It should allow assessment of the asset against four criteria:

*1) The underlying asset provides a sufficiently fixed level of income*

2.177 Structured assets can be suitable to back MA-eligible liabilities, where the underlying assets are appropriate given the fixed nature and duration of the liabilities. For example securitisations backed by residential mortgages (RMBS) are ubiquitous, have well established price histories and can achieve high ECAI ratings. In this case the underlying assets are loans with fixed terms, but subject to prepayment risk which likely renders them ineligible for inclusion in the MAP.

2.178 As noted in previous EIOPA Q&A, it is possible to restructure a portfolio of such mortgages in such a way that the resulting senior notes meet MA eligibility requirements; conversely, it is also possible for those securitisations to not meet the MA criteria and remain ineligible<sup>31</sup>. Where the resulting RMBS meet the MA eligibility conditions, the securitisation will have eliminated the part of the mortgage spreads that corresponds to idiosyncratic

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<sup>31</sup> EIOPA Questions & Answers [ID #1090 and #1091] related to Long-Term Guarantees Assessment available at: [https://eiopa.europa.eu/Publications/QIS/20130313\\_Published\\_QA\\_01.pdf](https://eiopa.europa.eu/Publications/QIS/20130313_Published_QA_01.pdf).

risk (e.g. prepayment on an individual loan via a loss-absorbing junior tranche, which is not eligible for inclusion in the MAP).

2.179 At the other end of the spectrum, it would not be appropriate to securitise real assets (e.g. property) that do not match the nature of MA liabilities. In these cases the undertaking still remains exposed to the risk of changing spreads on the underlying assets and cash flows will be dependent on the realisable value of the underlying asset.

2.180 Looking back at the underlying assumptions of the MA (recital 31 of the Omnibus II Directive), we can see that the key difference relates to whether the securitised asset provides a mechanism for the undertaking to earn risk-free returns as a buy-and-hold investor. Therefore any cash flows derived from securitising real assets will not provide sufficiently fixed cash flows. In other words, the risk profile of such underlying assets is not sufficiently quantifiable such that the credit risk arising from a restructuring of these assets can be assessed in a way that allows an appropriate Fundamental Spread to be assigned to the restructured asset.

*2) the restructured asset cash flows are supported by loss absorbency features such that those cash flows are sufficiently fixed in term and will remain so even as operating conditions change*

2.181 Where an asset has been structured into a range of tranches, the junior tranches should provide loss absorbency to protect the senior note payments, e.g. a proportion of the cash flows accruing to the junior note in the early years of the transaction being kept in reserve in case of subsequent losses that reach the senior notes. In this way the lower rated structured notes provide genuine loss absorbency and ensure that the senior note is only exposed to default and downgrade risks such that it is MA-eligible.

2.182 It would not be satisfactory, for example, if the underlying assets were unsuitable for a buy-and-hold strategy and required frequent buying and selling or removing from the structure. Rather any subsequent deterioration in the security of the MA-eligible senior note(s) should be reflected through the regular process of reviewing and updating the rating of the restructured asset without impeding running off the asset to maturity<sup>32</sup>.

2.183 Therefore it is necessary to look through to the underlying assets of any re-structure to verify that the asset cash flows are sufficiently fixed in term and amount and that they will remain so even as operating conditions change.

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<sup>32</sup> This is notwithstanding the fact that it should be possible to rebalance downgraded assets out of the MAP. The key point here is that any such rebalancing should be done at a time of the undertaking's choosing, purely for risk management reasons. At no point should undertakings be forced sellers of assets where the MA is applied.

3) *Financial guarantees do not give rise to MA*

- 2.184 It has been noted above that underlying assets that provide direct exposure to real assets cannot provide the basis for genuinely fixed cash flows for MA purposes. Similar considerations apply where the exposure to those assets is indirect via embedded guarantees.
- 2.185 Where the underlying assets include a written guarantee on the performance of other assets, then they are subject to an increased level of risk compared to an equivalent asset without such a guarantee. Therefore such a guarantee will also increase the amount of spread that should properly be attributed to risks retained by the firm and in consequence this element of spread should not give rise to MA benefit.
- 2.186 Where the underlying asset includes embedded financial guarantees, undertakings should be able to demonstrate to NSAs that the additional retained risks have not resulted in additional MA benefit, e.g. because they have been appropriately reflected in the fundamental spread of the MA-eligible senior notes, or because they are borne by the loss absorbing junior or equity tranches and are therefore reflected in their value.

4) *Undertaking is able to properly identify, measure, monitor, manage, control and report the underlying risks*

- 2.187 Article 77b(1)(b) requires that the portfolio of assets assigned to cover the best estimate of the portfolio of obligations should be identified, organised and managed separately from the rest of the undertaking. In order to properly manage any restructured assets it is important for the undertaking to be able to understand and mitigate the risks to which they (and hence the MAP) are exposed.
- 2.188 In addition, undertakings are required to comply with the Directive's risk management and Prudent Person Principle (PPP) provisions. Article 132 in particular requires undertakings to "only invest in assets and instruments whose risks the undertaking concerned can properly identify, measure, monitor, manage, control and report."
- 2.189 This entails several underlying considerations for the suitability of the underlying assets to be included in MAPs. For example, undertakings must retain the ability to understand and mitigate the risks pertaining to the underlying asset. Undertakings should look through to the underlying assets to ensure that these are suitable for the nature and duration of the MA liabilities
- 2.190 Undertakings should consider carefully the prudence of any transactions or arrangements they enter into for the purposes of the MA, including their behaviour under stress, and whether the associated risks are well understood and appropriately managed.

### 'Yield to worst' approach

- 2.191 As explained under 'Identification of the issue' the range of asset classes in undertakings' MAPs has been constrained by following a literal interpretation of the Directive requirement (Article 77b(1h)): "the cash flows of the assigned portfolio of assets are fixed and cannot be changed by the issuers of the assets or any third parties." Assets, such as certain callable bonds, could be suitable for backing annuity liabilities but do not have strictly fixed cash flows due to the call option(s); i.e. the exact timing of the redemption payment is unknown and coupon payments after the next call date (NCD) may not be received; or alternatively the asset may continue paying scheduled cash flows until the Final Maturity Date (FMD).
- 2.192 Beyond callable bonds, there are other assets where there is some uncertainty regarding the timing of cash flows, and that might benefit from a similar treatment. Notably certain infrastructure investments where a loan finances the construction phase (e.g. of a hospital, a toll road etc.) and repayments only commence when the physical asset goes into the operating phase. For large projects there can be some uncertainty of the possible start date of operation (e.g. because the asset may take 4 years to build instead of the planned 3), but investors are guaranteed that the operating phase (and hence the loan repayments) will commence by a certain date (e.g. year 5).
- 2.193 EIOPA considered whether it would be appropriate to allow such assets to enter the MA portfolio based on a 'yield to worst' treatment where an undertaking would assume whichever call date were the most onerous in the calculation of the MA to produce the lowest MA benefit. However there were considerable difficulties in allowing such a treatment whilst maintaining consistency with the underlying principles of MA which require the matching of fixed cash flow liabilities by fixed cash flow assets.
- 2.194 In particular, a yield to worst approach would expose the undertaking to the risk that cash flows might not arise at the time they were expected (e.g. the risk that the bond might be called at NCD when the MA calculations assumed FMD, or vice-versa). In these cases, even if the new cash flows resulted in higher MA benefit, the undertaking might be required to sell the asset in order to restore cash flow matching, might struggle to meet liability cash flows, or might be exposed to reinvestment risk. EIOPA considers that these risks are incompatible with the MA framework that is based on earning risk-free returns as a buy-and-hold investor, and would pose an obstacle to undertakings being able to demonstrate compliance with the MA criteria.
- 2.195 EIOPA considered mitigants such as requiring the undertaking to demonstrate sufficient liquidity within the MAP (i.e. by holding cash) to ensure it could meet liability cash flows and mitigate the risk of a change to the timing of the early asset cash flows. However these mitigants were considered to be either inappropriate (in that they would permit other less

suitable assets to be included in the MA portfolio) or ineffective (in that they would significantly dilute the resulting MA benefit).

2.196 EIOPA investigated other alternatives, such as permitting the assumption of reinvestment at the current forward risk-free rates, but this was found to have similar deficiencies. As a result EIOPA decided not to propose a change in approach at this stage.

### **Efficiency and Effectiveness of presented approach**

2.197 The MA treatment of assets is one of the influences of an undertaking's selection of assets to back its long-term liabilities. Those assets were purchased with the intention to hold to maturity and it would be disruptive (and contrary to the very principles underlying the MA) to alter the MA rules in a way that requires a forced sale. To avoid market disruption, the proposed 'look through' approach should be implemented prospectively (i.e. not retroactively to assets already in MA portfolios).

2.198 The intent of the look-through principle would be to help ensure that undertakings only include in MA portfolio assets which can earn additional risk-free returns when held to maturity. The primary impact would be to mitigate the risk of unsuitable assets being included in the MAP. This would support the supervision of the two existing requirements in points (a) and (h) of Article 77b(1). A principles-based approach would be better able to address different types of restructuring, compared with measures to block specific types of restructuring. For most structured assets, EIOPA expects the principle will be straightforward for undertakings and NSAs to implement and ensure a level playing field. Complex structures may possibly pose a challenge to a consistent implementation of the look-through principle, but these would pose a greater challenge under the current position without a targeted provision to assess these situations.

2.199 An additional benefit of the look-through is that through applying the principle (and gaining assurance that both the underlying and restructured assets are appropriate for inclusion in the MAP) NSAs will gain a better understanding of the risks facing the asset.

2.200 For undertakings there would be some cost of providing additional information about underlying assets, but arguably this is a necessary cost to bear to demonstrate asset eligibility. The process to assess the MA suitability of a complex restructured asset already requires NSA resource and the look-through principle with its specific criteria would make this supervisory process more efficient, instead of a reliance on general requirements such as the Prudent Person Principle.



## 2.3.6. Advice

2.201 EIOPA advises that an additional requirement is introduced in the Delegated Regulation to clarify the eligibility of restructured assets:

*For assets whose cash flows depend on the performance of other underlying financial assets, undertakings shall be able to demonstrate that, in addition to meeting the other MA eligibility criteria,*

- 1. the underlying assets provide a sufficiently fixed level of income;*
- 2. the restructured asset cash flows are supported by loss absorbency features such that those cash flows are sufficiently fixed in term and will remain so even as operating conditions change;*
- 3. where the underlying assets include financial guarantees, those guarantees do not result in additional matching adjustment;*
- 4. the undertaking is able to properly identify, measure, monitor, manage, control and report the underlying risks.*

## 2.4. Volatility adjustment

### 2.4.1. Extract from the call for advice

#### **3.2. Matching adjustment (Art. 77b, 77c) and volatility adjustment (Art. 77d)**

*EIOPA is asked to assess the efficient functioning of the volatility adjustment and the matching adjustment as mechanisms to prevent pro-cyclical behaviour on financial markets and to mitigate the effect of exaggerations of bond spreads, in view of a level playing field in the EU and policyholder protection.*

*The Commission services are envisaging to assess possible approaches to review the design, calibration and functioning of the adjustments, whilst not precluding the possibility of a single adjustment mechanism.*

#### *a) Volatility adjustment*

*EIOPA is asked to provide an assessment of the quantitative impact on the calculation of the best estimate and the solvency position of insurance undertakings of the following approaches for the calculation/application of the volatility adjustment:*

- Approach 1: the application of an adjustment that takes into account the illiquidity features and/or duration of insurers' liabilities, while maintaining the current concept of representative portfolios. That adjustment may rely on different "application ratios";*
- Approach 2: the application of an adjustment that takes into account the weights of own assets holdings of each insurer; that adjustment may rely*

*on different "application ratios" depending on the level of cash-flow matching of insurance liabilities portfolios. When applying this approach, EIOPA should specify the assumptions regarding diversification benefits in the calculation of the Solvency Capital Requirement.*

*In addition, EIOPA is asked to review the functioning of the increased volatility adjustment per country given its purpose and suggest amendments to the measure where necessary.*

## **2.4.2. Previous advice**

2.202 EIOPA carried out an assessment of long-term guarantees measures for the European Parliament, the European Council and the European commission in 2013. In the findings of the assessment EIOPA suggested the introduction of a volatility balancer. The volatility balancer is a permanent and predictable adjustment to risk-free interest rates with the objective to deal with unintended consequences of volatility. The volatility balancer as in particular the following features:

- Based on a currency-specific reference portfolio, the adjustment is derived from the spread difference to the relevant risk-free rate less the portion related to default risk.
- In exceptional circumstances, this adjustment may not reflect the reality of a given market. Where this is the case, e.g. the spread of a national reference portfolio exceeds two times the spread of the currency specific reference portfolio and this national spread is at least 100 bps, the spread is additionally adjusted for that market by adding the amount that the national spread exceeds two times the currency spread.
- The calculated spread (already excluding the portion linked to default risk) is adjusted to account for risk associated with the implementation of the adjustment by means of an application factor of 20%.
- The adjustment affects own funds by the introduction of a special own funds item.

## **2.4.3. Relevant legal provisions**

2.203 The VA is motivated in recital 32 of the Omnibus II Directive and specified in Article 77d of the Solvency II Directive. The calculation of the VA is further detailed in Articles 49 to 51 of the Delegated Regulation.

## **2.4.4. Technical improvements of VA calculation**

### **2.4.4.1. Relevant legal provisions**

2.204 Article 77d(2) Solvency II Directive specifies the calculation of the VA. This specification is further detailed the Delegated Regulation, specifically in Article 49(1), Article 49(3)(a) and Article 50.

#### **2.4.4.2. Identification of the issue**

2.205 As part of the current EIOPA methodology for the computation of the VA on basis of representative portfolios, information on spreads and yields per individual “buckets” in the fixed income investments of insurers need to be aggregated to average spreads and yields at the level of the overall government bonds or corporate bonds portfolios.

2.206 To investigate the robustness of this aggregation mechanism under different economic environments, EIOPA has simulated a computation of the VA for the time period January 2007 to February 2019.

2.207 This exercise revealed two technical deficiencies in the current aggregation mechanism, which are related to the following technical aspects:

- the fact that the representative portfolios is only updated at a yearly basis, which requires a “freeze” of assumptions on the representative portfolio during this period; and
- the disallowance of negative average spreads for the government bond and corporate bond portfolios.

2.208 These deficiencies are described in more detail in subsections 2.4.4.2.3 and 2.4.4.2.4, below. Subsections 2.4.4.2.1 and 2.4.4.2.2 include a description of the general approach used by EIOPA to aggregate interest rates, and of the need to “freeze” assumptions on the representative portfolio. A description of the historic simulation of VA values which EIOPA conducted is included in annex 2.12.

#### **2.4.4.2.1. General approach to aggregation of interest rates**

2.209 For the aggregation of interest rates across the individual buckets of the representative portfolio, a so-called “zero coupon bond” approach is used.

2.210 This means that, at the level of the individual bucket, the portfolio is modelled as a (single) zero-coupon bond (ZCB). The aggregation is then carried out on basis of the modelled zero-coupon bonds per bucket.

2.211 Note that a ZCB is fully specified by the maturity of the bond and the cash flow at maturity (or notional amount), henceforth denoted by  $CF$ . Moreover, for a zero-coupon bond (ZCB), the (Macaulay) duration coincides with its maturity. So a ZCB can be determined by specifying its duration (henceforth denoted by  $Dur$ ) and its nominal cash-flow.

2.212 Suppose now that the market value ( $MV$ ) of a ZCB, and the interest rate  $IR$  to which this market value relates are known, so that:

$$MV = CF \cdot (1 + IR)^{-Dur}$$

2.213 In such a situation, to determine the ZCB it is sufficient to specify the duration  $Dur$  of the bond, since then the cash flow  $CF$  is given by:

$$CF = MV \cdot (1 + IR)^{Dur}$$

2.214 The EIOPA-methodology makes use of this observation by selecting information on the (relative) market-value  $MV_i$ , the (average) interest rate  $IR_i$  and the (average) duration  $Dur_i$  at the level of the individual buckets  $i$  in the corporate bond (respectively, government bond) portfolio.

2.215 The aggregated interest rate  $IR$  at portfolio level is then calculated as the (single) rate that, when used to discount the cash flows, gives the sum of market values across the individual buckets. This means that  $IR$  is the solution of the following equality:

$$\sum_i CF(i) \cdot (1 + IR)^{-Dur} = \sum_i CF(i) \cdot (1 + IR(i))^{-Dur(i)} = \sum_i MV(i)$$

2.216 Note that this equation simplifies to

$$\sum_i CF(i) \cdot (1 + IR)^{-Dur} = 1$$

in case the market values  $MV(i)$  are chosen as relative weights, so that

$$\sum_i MV(i) = 1$$

#### **2.4.4.2.2. "Freezing" of assumptions on representative portfolios**

2.217 For the calculation of the VA, EIOPA uses the following information for modelling the ZCB's of the individual buckets of the representative portfolio:

- interest rates (yields, risk-free rates, fundamental spreads);
- the proportion (weight) of the market value of the bucket within the overall portfolio; and the
- average (modified) duration of assets in the bucket.

2.218 The information on the (average) modified durations is used to set the assumption on the Macaulay duration  $Dur(i)$  of the ZCB that models the bucket.

2.219 Whereas the VA is calculated at a monthly basis, the information on the duration and the market value weights is only updated at longer intervals (currently, every 12 months). Therefore, during these intervals, there is the need to freeze the assumptions on any two of the following three items concerning the ZCB used to model the bucket:

- the (Macaulay) duration  $Dur(i)$  of bucket  $i$ ;
- the market value weight  $MV(i)$ ; or
- the cash flow (nominal value)  $CF(i)$  for assets in bucket  $i$ .

2.220 Such "freezing" could lead to a significant misestimation of aggregated spreads and yields. Hence, a careful assessment of the implications of such an approach appears necessary.

2.221 At current, EIOPA uses an approach where market value weights  $MV(i)$  and durations  $Dur(i)$  are frozen at a certain point in time  $t_0$ . In the following, we will refer to this approach as the  $MV$  (market value)-Freeze approach.

2.222 The MV-Freeze approach assumes that, for each bucket, the duration and the (relative) market value of the bucket remain constant during the freeze. Cash-flows  $CF(i,t)$  at time  $t$  per bucket  $i$  are determined as

$$CF(i,t) = MV(i,t_0) \cdot (1 + IR(i,t))^{Dur(i,t_0)}$$

2.223 This means that, under the MV-Freeze approach, the weight of the cash flows in bucket  $i$  (relative to the overall amount of cash flows across all buckets) is given by

$$(1) \quad CF_{weight}(i,t) = \frac{MV(i,t_0) \cdot (1+IR(i,t))^{Dur(i,t_0)}}{\sum_j MV(j,t_0) \cdot (1+IR(j,t))^{Dur(j,t_0)}}$$

2.224 The aggregated interest rate  $IR(t)$  at time  $t$  is then determined by the equation<sup>33</sup>:

$$(2) \quad \sum_i CF(i,t) \cdot (1 + IR(t))^{-Dur(i,t_0)} = 1,$$

which is equivalent to

$$(3) \quad \sum_i MV(i,t_0) \cdot \left( \frac{1+IR(t)}{1+IR(i,t)} \right)^{-Dur(i,t_0)} = 1$$

#### 2.4.4.2.3. Deficiencies of the MV-Freeze approach

2.225 As described in the previous sub-section, the MV-Freeze approach assumes that the relative weights of the market values of the buckets that constitute the representative portfolio are constant over time. At the same time, it assumes that the weight of the cash flows in the individual buckets change when there is a change in interest rates.

2.226 In case where, for a given bucket  $i$ , the interest rate  $IR(i,t)$  applicable to this bucket increases, the cash flow

$$CF(i,t) = MV(i,t_0) \cdot (1 + IR(i,t))^{Dur(i,t_0)}$$

in bucket  $i$  (and the relative weight  $CF_{weight}(i,t)$  of this cash flow) will increase as well. Vice versa, in case the interest rate  $IR(i,t)$  decreases, the cash flow  $CF(i,t)$  and its relative weight  $CF_{weight}(i,t)$  also decrease.

2.227 In reality, however, a change in interest rate will ceteris paribus lead to a change in market values, whereas cash flows will remain constant. Specifically, where the interest rate  $IR(i,t)$  increases, it would be expected that the market value  $MV(i,t)$  of investments in bucket  $i$  (and the relative

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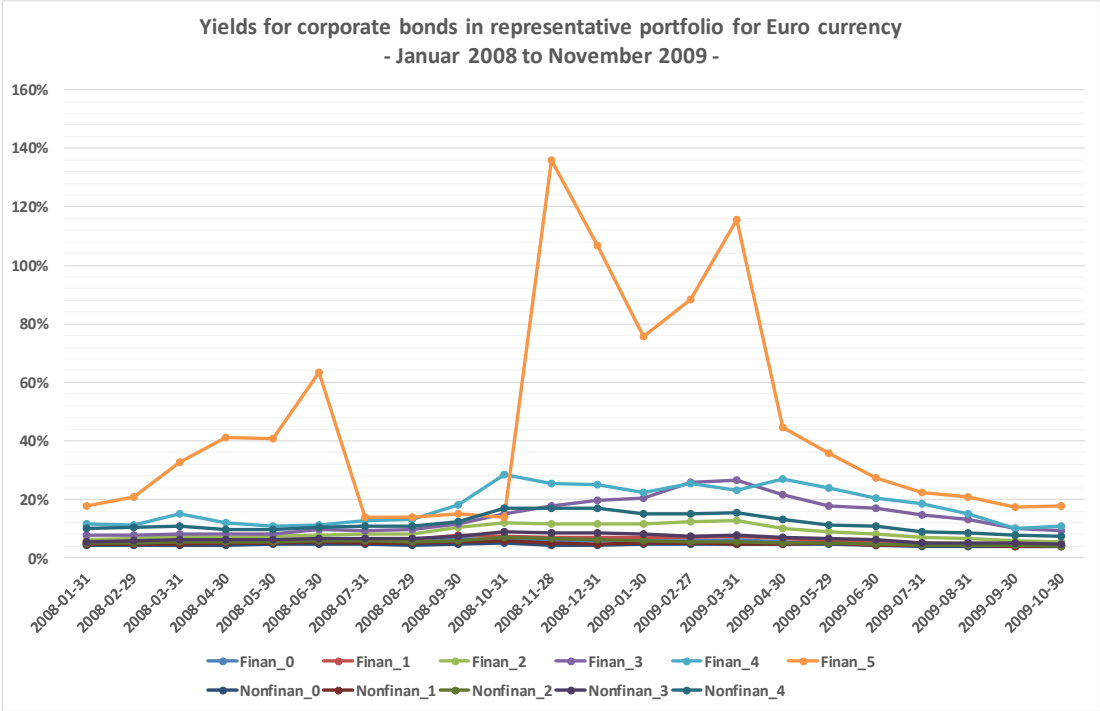
<sup>33</sup> where we assume that the market values  $MV(i,t_0)$  are chosen as relative weights

market value weight of investments) would not remain constant, but decrease. This means that the MV-Freeze approach could lead to an over-estimation of the weight of buckets with high interest rates.

2.228 To assess the extent of this potential over-estimation, EIOPA has assessed the aggregation of interest rates using the MV-Freeze methodology using a simulated calculation of the VA over the time horizon January 2007 to February 2019. Note that this time horizon includes periods of extreme interest rate movements, in particular during the financial crises 2008-2009 and during the sovereign debt crises 2010-2012.

2.229 This assessment revealed that the MV-Freeze approach is indeed prone to lead to over-estimation effects, but only in cases of extreme interest rate spikes.

2.230 To illustrate this, the following diagram shows the yields for the individual buckets in the corporate bonds portfolio of the representative portfolio for the Euro currency during the time period January 2007 to November 2008. Note that the corporate bond portfolio is subdivided in 12 buckets according to the credit quality of the investments and a distinction between financial and non-financial bonds.<sup>34</sup>



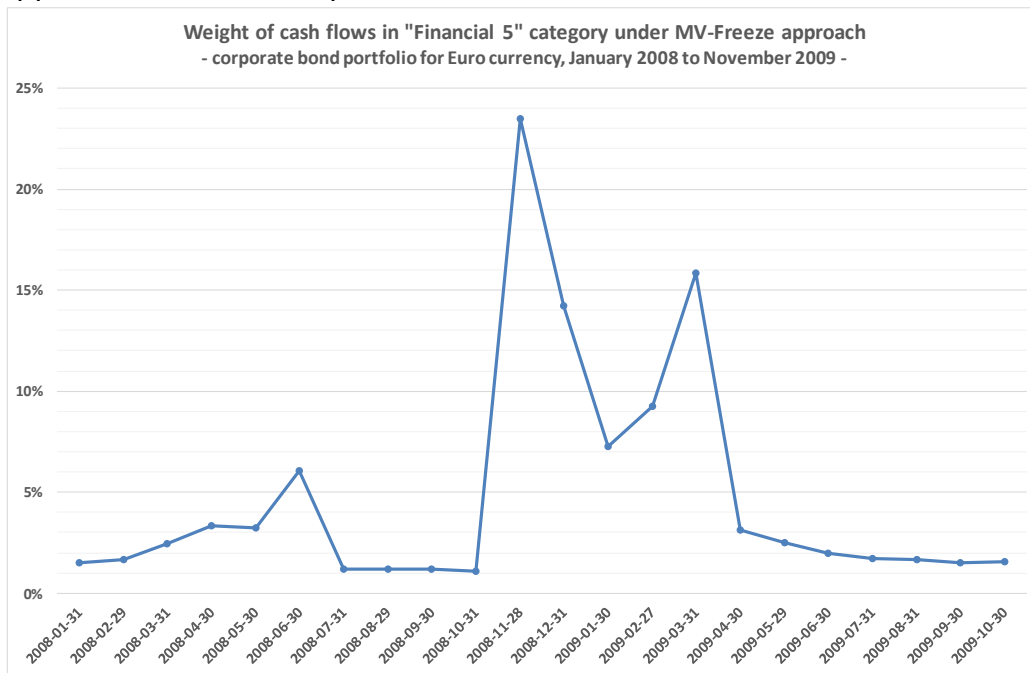
2.231 Note that this period is characterised by an extreme spike in the level of yields for corporate bonds in the “Financial 5” category (financial bonds with average “B” rating). Between end October 2008 and end November 2008 –

<sup>34</sup> in the diagram below, only 10 buckets are shown, since the “Nonfinancial 5” and “Nonfinancial 6” categories carry a zero weight in the representative portfolio used in the simulation

i.e. within just a month – the average spreads for corporate bonds<sup>35</sup> increased from 14% to 136%.

2.232 In reality, this meant that the market value of bonds in this category would have significantly decreased. However, as outlined above, the MV-Freeze approach would assume that the market value weight of the “Financial 5” bucket<sup>36</sup> would remain unchanged.

2.233 At the same time, the MV-Freeze approach would assume that the weights of the cash flows in the buckets of the corporate bond portfolio would be impacted by the changes in yield. The following diagram shows the proportional weights of the cash flows assumed under the MV-Freeze approach in the same period:



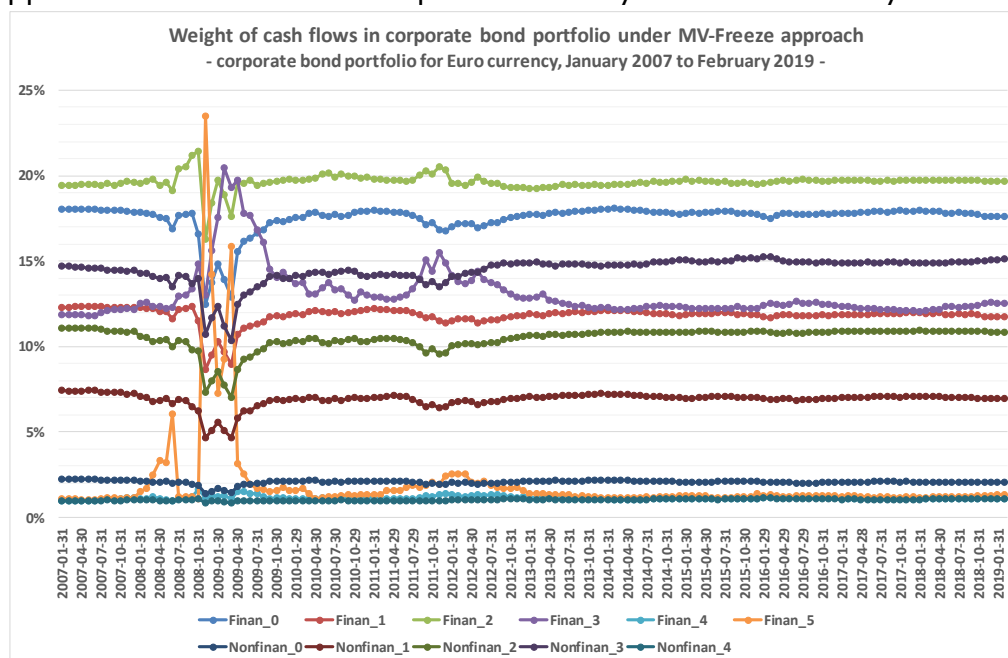
2.234 This shows that, during the peaks of the yields for bonds in the “Financial 5” category, the MV-Freeze approach would assume that the weight of cash flows for these bonds – relative to the volume of cash flows for all corporate bonds – would increase significantly. In particular, between end October 2008 and end November 2009, the weight of cash flows for “Financial 5” bonds would have increased from 1.1% to 23.5%. This would only be possible under a scenario where insurers would massively shift their corporate bond investments into this category, or where there would be a very massive (and sudden) deterioration of ratings. However, such a scenario seems unrealistic.<sup>37</sup>

<sup>35</sup> with an average duration of 4,6 years as assumed in the representative portfolio which was used in the simulation

<sup>36</sup> which amounts to 1% in the representative portfolio used for the simulation

<sup>37</sup> It could be expected that a sudden and extreme increase of spreads would lead, instead, to a “flight to quality”, i.e. to a shift into other investment classes with higher credit quality

2.235 As mentioned above, the tendency of the MV-Freeze approach to over-estimate the weights of buckets with high interest rates is less significant in a situation where interest rate levels are not extreme. To illustrate this, the following diagram visualises the weights of cash flows under the MV-Freeze approach for the whole time period January 2007 to February 2019:



2.236 This shows that, apart from the aforementioned period January 2008 to November 2009 (i.e. the height of the financial crises) and the sovereign debt crises 2011-2012, the weights of the buckets in the corporate bond portfolio remained relatively stable.

#### 2.4.4.2.4. Disallowance of negative spreads for corporate and government bond portfolios

2.237 According to Article 50 of the Delegated regulation, the spread for the representative portfolio shall be calculated as

$$(4) \quad S = w_{gov} \cdot \max(S_{gov}, 0) + w_{corp} \cdot \max(S_{corp}, 0)$$

where

- $w_{gov}$  denotes the ratio of the value of government bonds included in the reference portfolio;
- $S_{gov}$  denotes the average currency spread on government bonds included in the reference portfolio;
- $w_{corp}$  denotes the ratio of the value of bonds other than government bonds, loans and securitisations included in the reference portfolio;
- $S_{corp}$  denotes the average currency spread on bonds other than government bonds, loans and securitisations included in the reference portfolio.

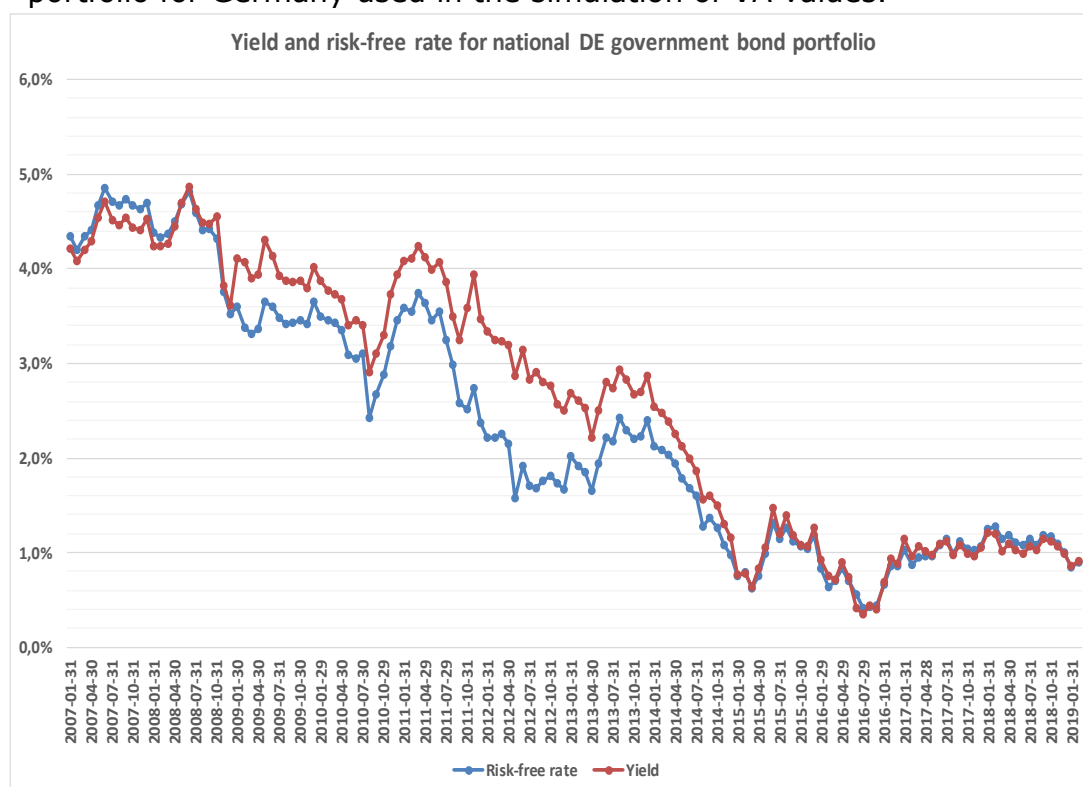


2.238 This means that, for calculating the overall spread for the representative portfolio, the aggregated spreads for the portfolios of government bonds and of corporate bonds are subject to a lower bound of zero.

2.239 Such an approach does not appear economically justified. Instead, in case where the risk-free rates exceed the yield, an allowance for a negative spread would be a better reflection of the economic characteristics of the investments.

2.240 To assess the relevance of this issue, EIOPA has analysed how often the zero value floor for the spreads for the government and corporate bond portfolios (as shown in equation (4)) becomes effective on basis of the simulation of VA values during 2007 to 2019. This simulation comprised 4088 aggregations of corporate bond and government bond portfolios.<sup>38</sup> Out of these, in 402 cases (9,8%) the aggregation would have resulted in a negative aggregated spread. All of these cases are related to government bond portfolios.

2.241 For illustration, the following diagram shows the evolution of aggregated risk-free rates and yields for government bond in the national representative portfolio for Germany used in the simulation of VA values.<sup>39</sup>

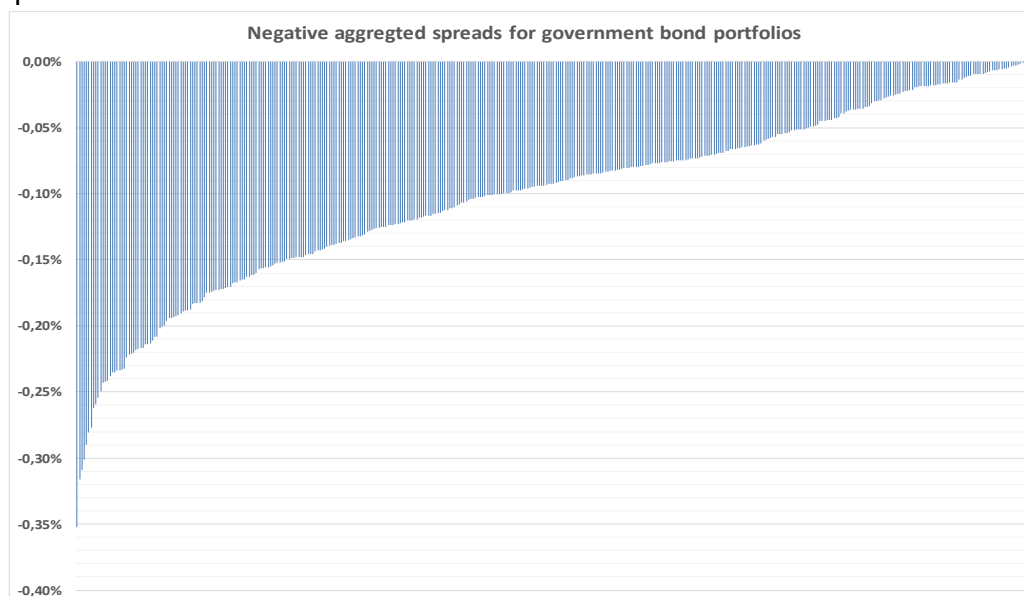


<sup>38</sup> consisting of 14 government bond and 14 corporate bond portfolios over 146 monthly calculations

<sup>39</sup> note that the government bond portfolio in the national representative portfolio for Germany does not only contain German sovereign bonds, but is representative for all government bonds which insurers are invested in to cover the best estimate for obligations of products sold in German insurance market and denominated in euro.

2.242 This shows that negative spreads occurred during 2007 until April 2008, and then during most of the time period from mid July 2017 to February 2019.

2.243 For assessing the relevance of negative spreads, not only the frequency but also the severity of aggregated negative spreads is of interest. The following diagram shows the size of negative the 402 cases of negative spreads observed in the simulation of historic VA values:



This shows that, in most cases, the size of the negative spread is rather small. In 50% of cases, the size is below 9 BPS, and in 75% of all cases it is below 15 BPS.<sup>40</sup>

### 2.4.4.3. Analysis

#### 2.4.4.3.1. Deficiencies of the MV-Freeze approach

2.244 On this issue, the following two options have been identified:

**Option 1:** no change

**Option 2:** use of a cash flow (CF)-Freeze approach instead of a MV-Freeze approach

#### Description of the CF-Freeze approach

2.245 Under a CF-Freeze approach, the cash flows  $CF(i)$  and durations  $Dur(i)$  are frozen.<sup>41</sup> Hence this approach assumes that, for each bucket, the duration and the (relative) volume of cash flows in the bucket remain constant during the freeze. The market value of bucket  $i$  at time  $t$  is then determined as

$$MV(i, t) = CF(i, t_0) \cdot (1 + IR(i, t))^{-Dur(i, t_0)}$$

<sup>40</sup> i.e., in 50% of cases the negative spread is greater or equal to -9 BPS, and in 75% of all cases it is greater or equal to -15 BPS.

<sup>41</sup> in the following, we use the notation introduced earlier in this section.

2.246 Under this approach, the aggregated interest rate  $IR(t)$  is determined as the solution of the equation

$$(5) \quad \sum_i CF(i, t_0) \cdot (1 + IR(t))^{-Dur(i, t_0)} = \sum_i MV(i, t),$$

which is equivalent to

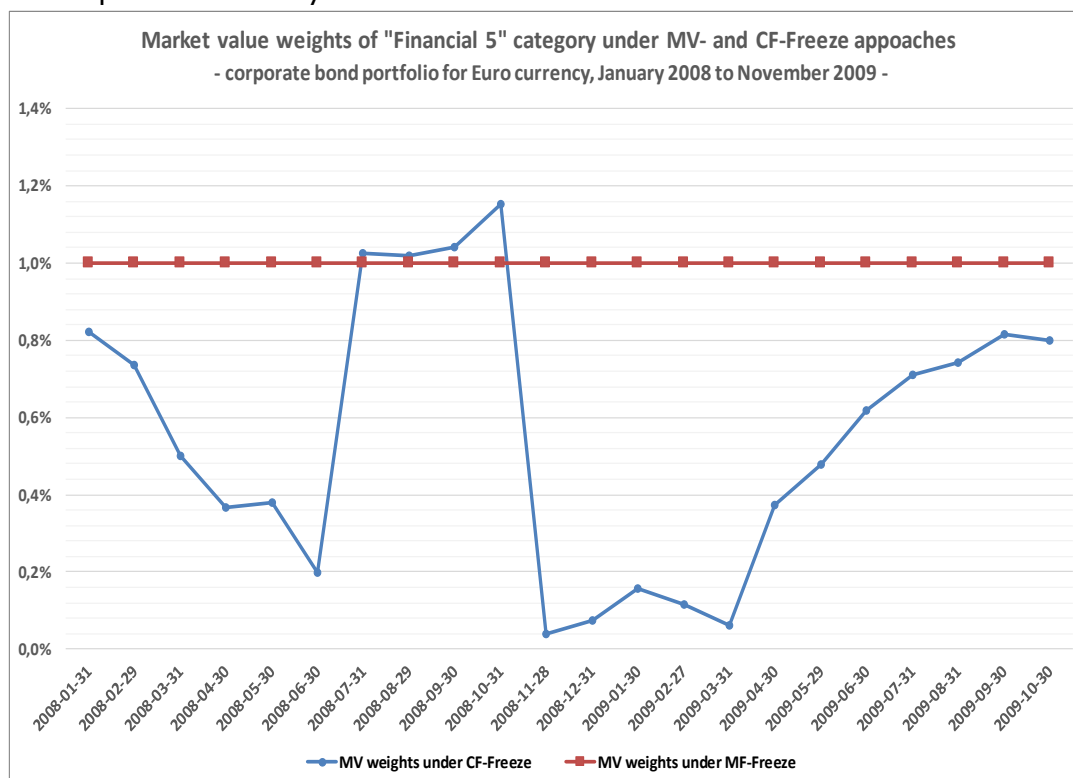
$$(6) \quad \sum_i W(i, t) \cdot \left( \frac{1+IR(t)}{1+IR(i, t)} \right)^{-Dur(i, t_0)} = 1,$$

where the weights  $W(i, t)$  are defined as

$$(7) \quad W(i, t) = \frac{MV(i, t)}{\sum_j MV(j, t)}$$

2.247 Note that equation (6) is similar to equation (3) which defines the MV-Freeze approach. In contrast to the MV-Freeze approach, however, the weights  $W(i, t)$  are not constant, but vary with varying levels of interest rates  $IR(i, t)$ .

2.248 The following diagram compares the market value weights under the MV-Freeze approach with the weights  $W(i, t)$  for the same investment bucket and time period as analysed before.<sup>42</sup>

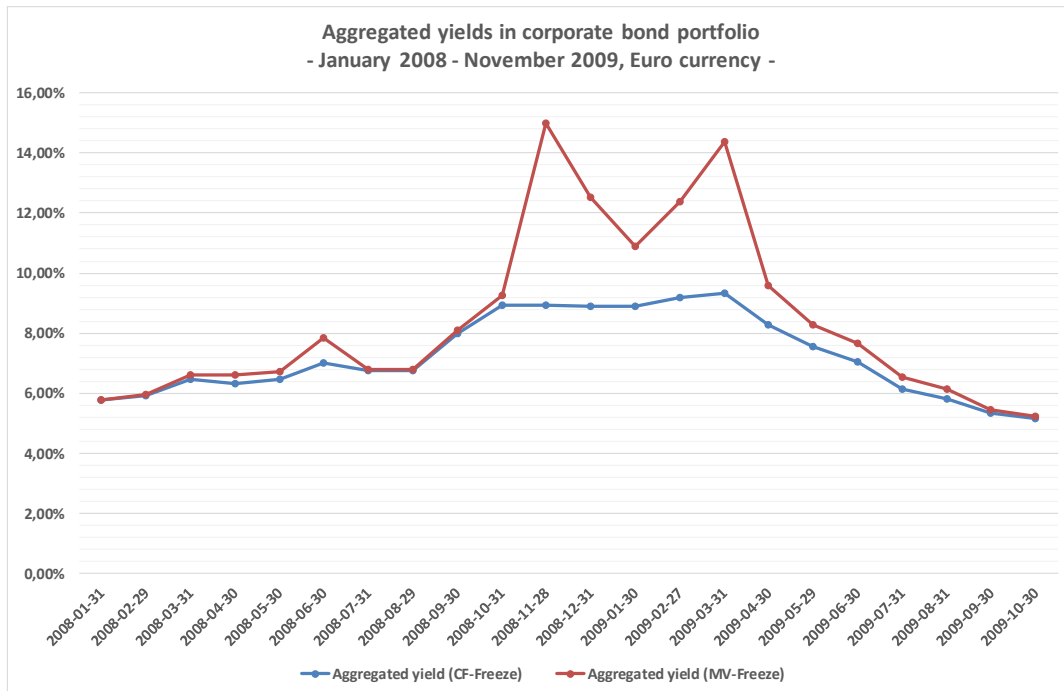


2.249 This shows that under the CF-Freeze approach, where yields in the "Financial 5" investment bucket peaked, the market value weight of this bucket decreased, which is consistent with economic expectations.

2.250 Note that, through allowing a reflection of a change in the market value weights, the CF-Freeze approach avoids a potential over-estimation of high interest rates in buckets with small weight. The following diagram shows for

<sup>42</sup> "Financial 5" category of corporate bonds in the representative portfolio for the Euro currency during the time period January 2007 to November 2008.

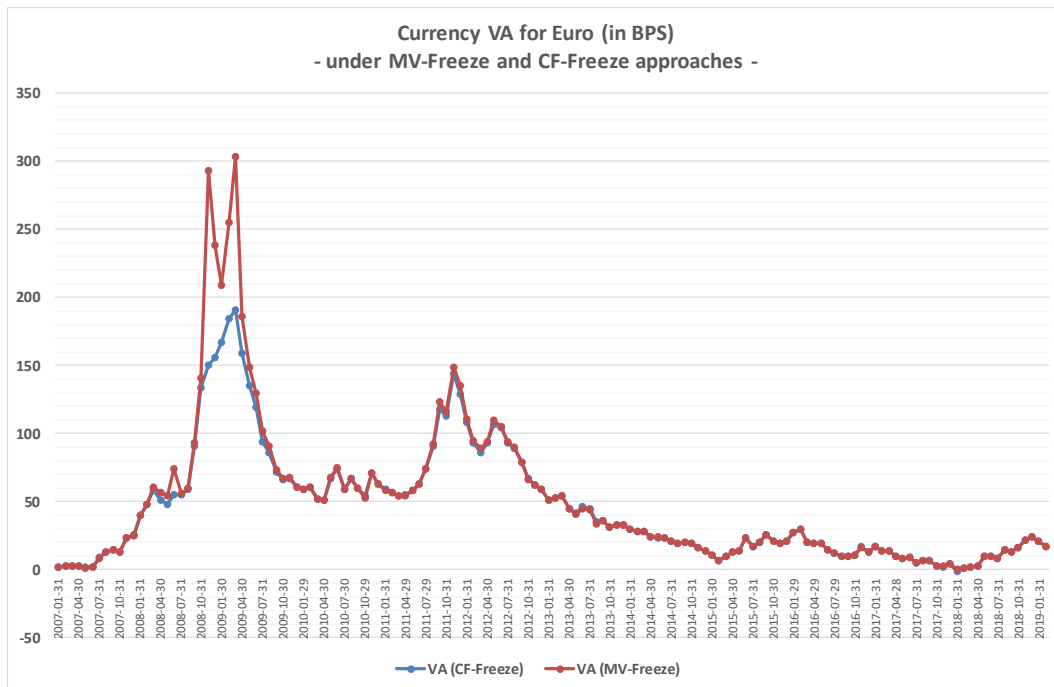
comparison the aggregated yield resulting from the MV-Freeze and CF-Freeze approaches for the corporate bond portfolio during the same time period:



2.251 This shows that, whereas overall the aggregated yields are similar, the yields computed under the CF-Freeze avoid the peaks of the aggregated yields under the MF-Freeze approach which result from the over-estimation of the weight of "Financial 5" category yields under this approach. E

2.252 IOPA has also found that in situations as above (i.e. high interest rate increases in buckets of small weight), the aggregated interest rates computed under the MV-Freeze approach are much less robust than the aggregated interest rates under the CF-Freeze approach. With the MV-Freeze approach, small changes in the assumed market value weights can lead to significant changes of the aggregated rate.

2.253 Notwithstanding these effects in cases of extreme interest rate movements, the differences between the two approaches tend to be insignificant in case of non-extreme interest rate environments. To illustrate this, the following diagram shows the (simulated) value of the VA for the Euro currency for the whole time period 2007-2019 for both the MV-Freeze and the CF-Freeze method:



2.254 This shows that the computed VA-values for the two approaches are very close to another except for the afore-mentioned period of extreme interest rate movements. There are also differences – although to a much smaller degree – during the financial debt crises 2010-2012.

#### Comparison of the options

2.255 The preferred option for this issue is the use of a CF-Freeze approach instead of a MV-Freeze approach. The differences between these two approaches are expected to be negligible except in cases of extreme interest rate movements where the CF-Freeze approach leads to a more robust aggregation of interest rates that avoids potential over-estimation effects that could result when using the MV-Freeze approach.

2.256 To base the calculation of the VA on the CF-Freeze approach instead of the MV-Freeze approach does not require a change to the legal framework of Solvency II.



#### **Questions to stakeholders**

**Q2.2:** Should the calculation of the VA be based on the CF-Freeze approach or the MV-Freeze approach? Please explain your view.

#### **2.4.4.3.2. Disallowance of negative spreads for corporate and government bond portfolios**

2.257 On this issue, the following two options have been identified:

- **Option 1:** no change

- **Option 2:** allowance of negative aggregated spreads for corporate and government bond portfolios

2.258 The preferred policy option for this issue is to allow negative aggregated spreads for corporate and government bond portfolios to have a better economic reflection of the spreads in the representative portfolio. EIOPA expects that this has only a small impact on the calculated VA values.

#### 2.4.4.4. Advice

2.259 EIOPA advises to amend the first sentence of Article 50 of the Delegated Regulation as follows:

*"For each currency and each country the spread referred to in Article 77d(2) and (4) of Directive 2009/138/EC shall be equal to the following*

$$S = W_{gov} \cdot S_{gov} + W_{corp} \cdot S_{corp}$$

*where [...]"*

#### 2.4.5. Design of the VA

##### 2.4.5.1. Identification of the issue

2.260 EIOPA has carried out an extensive review of the efficient functioning of the volatility adjustment since the start of Solvency II. This review took into account the observations on the impact of the application of the VA as contained in the EIOPA reports on long-term guarantees measures and measures on equity risk for the years 2016, 2017 and 2018. These reports capture the overall impact of the LTG measures and measures on equity risk on the financial position of the undertakings, the impact on policyholder protection, the impact on investments, the impact on consumer protection and availability of products, the impact on competition and level playing field in the EU insurance market and the impact on financial stability.

2.261 EIOPA identified the following main objectives that can be attributed to the VA:

1. Prevent procyclical investment behaviour;
2. Mitigate the impact of exaggerations of bond spreads on own funds; and
3. Recognise illiquidity characteristics of liabilities in the valuation of technical provisions.

2.262 Against these objectives, EIOPA identified the following main deficiencies in the current design of the VA:

	Potential deficiency	Relation to VA objectives
1	Impact of VA may over- or undershoot impact of spread exaggerations on asset side (e.g. due to asset allocation, credit quality, duration mismatches)	Impairs fulfilling objectives 1 and 2
2	Application of VA does not take into account illiquidity characteristics of liabilities	Impairs fulfilling objectives 2 and 3
3	Cliff effect of country-specific increase, activation mechanism does not work as expected	Impairs fulfilling objectives 1 and 2
4	Misestimation of risk correction of VA	Impairs fulfilling objectives 2 and 3
5	VA almost always positive; not symmetric, i.e. no resilience build up in "good times"	Impairs fulfilling objective 1
6	Underlying assumptions of VA unclear	No direct relation to VA objectives, but impairs supervision of the VA application
7	Risk-free interest rates with VA not market-consistent	No direct relation to VA objectives, but impairs supervision of the VA application

2.263 These deficiencies are described in more detail in the following subsections.

#### **2.4.5.1.1. Deficiency 1 - Over- or undershooting effect of the VA**

2.264 Under the market-consistent valuation foreseen in Solvency II, a change in bond spreads directly influences the market value of the assets and thereby the solvency position of the undertakings. Where bond spreads are exaggerated, this could lead to artificial volatility in the insurer's solvency position which may trigger pro-cyclical investment behaviour.

2.265 In this context, the VA has a dampening effect: where credit spreads increase, the VA increases as well. This leads to a decrease in the value of technical provisions to which the VA is applied, which dampens the effect of the loss in the market value of assets. Through this mechanism, the VA intends to mitigate the effect of an exaggeration of bond spreads.

2.266 This dampening effect of the VA may have unintended consequences in case of an "overshooting" impact of the VA. An overshooting effect occurs in particular where, under a scenario of widening credit spreads, the dampening

effect of the VA exceeds the effect of a loss in the market value of fixed-income assets.

2.267 As the VA should only adjust for exaggerations of bond spreads, thus not for the whole spreads, and has an application ratio of 65%, also a full compensation of asset losses or an almost full compensation of asset losses may be considered as overcompensation. Whether that view is adopted depends on the objectives attributed to the VA.

2.268 Under its current design, the compensation effect of the VA varies with the following undertaking-specific aspects:

- *The allocation to fixed income assets:* The lower the amount of fixed income assets compared to the amount of insurance liabilities, the higher the compensation by the VA. For low allocations to fixed income, credit spread changes may be overcompensated. For example, where an insurer has a fixed-income allocation of 10 percent of the total best estimate liabilities, the loss in the market value of assets due to a spread increase may be smaller than the decrease of the best estimate liabilities to which the VA is applied.
- *The mismatch between the effective spread duration of the assets and the effective duration of the liabilities:* The longer the duration of the liabilities, the higher the compensation by the VA. For large asset-liability duration mismatches, credit spread changes may be overcompensated. For example, where an insurer has an effective spread duration of 5 years within its fixed income assets, but a duration of best estimate liabilities of 15 years, the loss in the market value of assets due to a spread increase may be smaller than the decrease of the best estimate liabilities. Undertakings investing in exactly the same portfolio of fixed income assets, but with a different duration of their liabilities get a different compensation of their losses on their, equal, fixed income portfolios. The undertaking with a higher duration of its liabilities will get a higher compensation of the losses on its fixed income assets, even if the duration of the liabilities of both undertakings exceed the spread duration of their fixed income assets. There is no justification for a different compensation of losses on the same fixed income portfolios.
- *The extent with which the credit quality of the fixed income allocation deviates from the credit quality of the reference portfolio:* When spreads increase market wide, the increase is typically smaller for higher credit quality assets than for lower credit quality assets<sup>43</sup>. The spread on the reference portfolio, which reflects an average mix in the credit quality of fixed-income assets, therefore typically increases to a larger extent than the spread on high credit quality assets. Hence for an insurer with a high

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<sup>43</sup> There have even been cases where the spreads of high quality fixed income assets decrease, while assets with a lower credit quality experience a spread increase, the so-called flight to quality. In these situations the VA may only slightly increase or not increase at all. In these cases undertakings with high quality assets will see their fixed income assets increase in value, while the best estimate liabilities decrease in value.



credit quality of fixed income assets, the compensation of the VA will be higher than for an insurer with a low credit quality of fixed income assets. For very high credit quality allocations, spread changes may be overcompensated.

- 2.269 It is noted, that overshooting could also cause unintended incentives in risk and investment management. This is especially relevant in the context of a dynamic modelling of the VA, which amplifies the impact from overshooting by transporting it to the SCR (see sections 2.47 and 2.5).
- 2.270 EIOPA carried out an information request on the overshooting issue to a European sample of insurance and reinsurance undertaking that apply the VA. Undertakings were asked to assess the impact of an increase of market spreads by 100 basis points on their assets and liabilities. Under this scenario, the value of the VA would increase by 47 basis points for the Euro.
- 2.271 The table below shows the impact of this shock on the assets and, via the VA, on the liabilities. On average 66.5 percent of the market value losses due to the spread increase are compensated; the change in net deferred taxes due to this loss imply an average total, post-tax, compensation of 70.6 percent. The average compensation per jurisdiction varies between 30 percent and more than 100 percent

**Pre- and post-tax compensation of losses due to credit spread changes**

	Number of undertakings	Assets exposed to spread risk - incl. UL	Net TP incl. UL and incl. FDB	Delta assets	Delta TP	Compensation (pre-tax)	Delta DT	Tax compensation (implied tax rate)	Compensation (post-tax)
<b>Total</b>	<b>156</b>	<b>3,134,399</b>	<b>2,963,459</b>	<b>-178,072</b>	<b>-118,393</b>	<b>66%</b>	<b>7,272</b>	<b>12%</b>	<b>71%</b>
AT	2	37,113	37,115	-2,133	-2,032	95%	44	44%	97%
BE	5	153,318	147,142	-9,318	-6,172	66%	814	26%	75%
BG	5	628	543	-31	-13	43%	1	6%	46%
CY	2	82	87	-2	-1	75%	-	0%	75%
CZ	3	5,764	4,424	-225	-115	51%	20	18%	60%
DE	21	524,424	332,156	-48,152	-20,435	42%	2,229	8%	47%
DK	3	40,235	43,559	-2,023	-1,534	76%	-30	0%	74%
ES	24	122,179	134,655	-11,060	-3,635	33%	403	5%	37%
FI	4	45,633	43,210	-938	-866	92%	61	50%	99%
FR	25	1,131,522	1,131,416	-57,852	-45,911	79%	1,770	15%	82%
GR	7	9,329	8,654	-385	-177	46%	52	25%	60%
IE	3	62,959	58,546	-1,036	-753	73%	21	7%	75%
IT	15	331,811	319,149	-17,297	-12,635	73%	1,144	25%	80%
LI	2	1,565	1,160	-52	-31	59%	-0	0%	59%
LU	6	51,122	49,519	-1,104	-1,108	100%	56	0%	105%
NL	17	321,686	332,426	-17,116	-15,342	90%	324	18%	92%
NO	3	88,319	107,450	-3,350	-2,108	63%	290	23%	72%
PT	2	5,731	5,502	-114	-62	55%	10	19%	64%
SE	1	15,362	16,128	-229	-263	115%	-	0%	115%
SK	2	2,106	1,702	-118	-53	45%	17	25%	59%
UK	4	183,511	188,918	-5,539	-5,145	93%	47	12%	94%

Number of undertakings, total assets exposed to spread risk (including unit-linked), net technical provisions (including unit-linked), the delta in these assets and technical provisions, via the VA, after a spread increase of 100 basis points and per jurisdiction from the VA overshooting information request. The pre-tax compensation is the share of the delta TP of the delta assets. Delta DT indicates the change in the net deferred taxes after the 100 basis points spread increase, the tax compensation (implied tax rate) is the loss due to the change in assets and technical provisions that is being compensated by a change in net deferred taxes. The post-tax compensation is the share of the delta TP and the change in net deferred taxes of the change in assets.

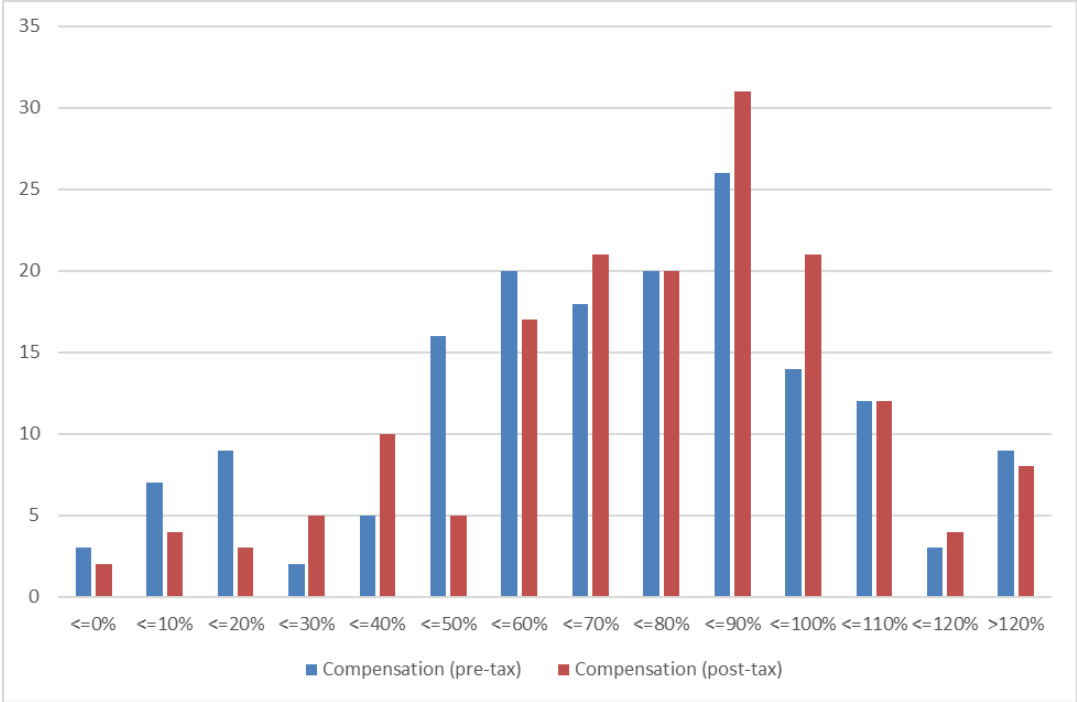
2.272 The figure below shows the pre- and post- tax compensation of the spread increase by the VA. The compensation varies from a negative compensation to a compensation of more than 100 percent for 15 percent of the undertakings; more than 45 percent of the undertakings get compensated for more than 80 percent, pre-tax. Pre-tax numbers can be better compared across jurisdictions and undertakings as differences in tax regimes and current net deferred taxes imply different tax effects of pre-tax losses and gains.

2.273 Pre- and post-tax numbers can be compared as follows.

- A pre-tax asset loss of 100 million would imply a loss of 80 million if the VA were not applied and the tax rate equals 20%; in the graph below this would be reflected as a 0% pre-tax compensation and a 20% post-tax compensation.
- However, if applying the VA would have resulted in a decrease in liabilities of 50 million, the pre-tax loss in own funds of 50 million would then be compensated by 20%, i.e. 10 million; a total loss of own funds of 40 million would remain and the post-tax compensation equals 60%.
- If applying the VA in this case would result in a decrease in liabilities of 150 million, a pre-tax increase in own funds of 50 million would occur, i.e. a pre-tax compensation of 150%; the pre-tax increase in own funds of 50 million would equal 40 million post tax in this case and the post-tax compensation equals 140%.

2.274 In short, pre-tax compensations below 100% increase to higher compensation ratios below 100%, while overcompensations above 100% decrease, but ratios remain above 100%.

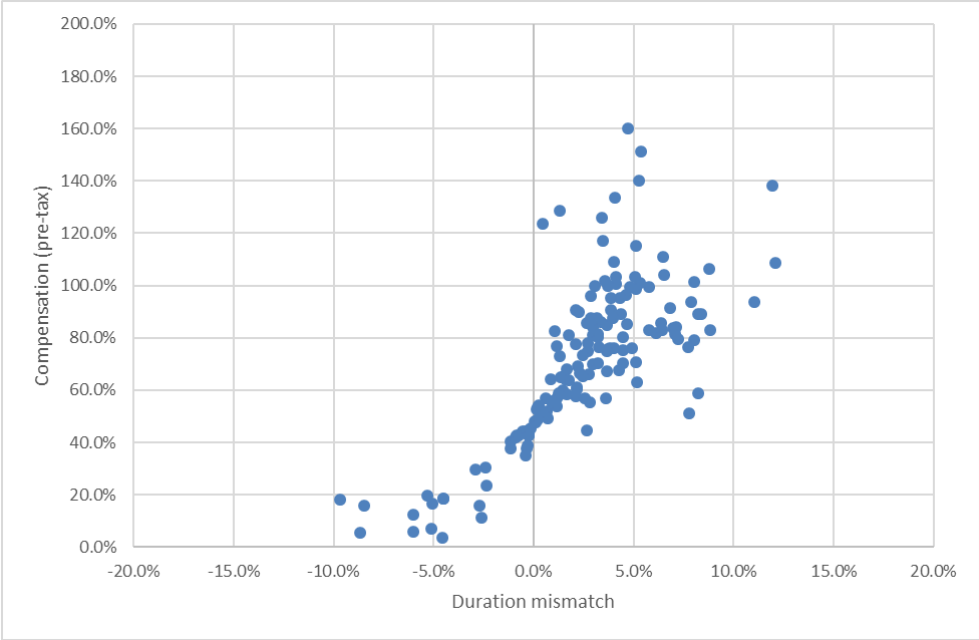
**Pre- and post tax compensation of losses due to 100 basis points market wide increase in credit spreads**



*Histogram of the pre- and post-tax compensation of applying the VA when credit spreads increase by 100 basis points market wide. The pre-tax compensation is defined as the percentage ratio of the following amounts: (1) the change in value of the technical provisions including unit-linked and future discretionary benefits without deferred taxes and (2) the change in value of the assets without deferred taxes. The post-tax compensation is defined as the percentage ratio of the following amounts (1) the change in value of the technical provisions including unit-linked and discretionary benefits plus the change in the net deferred taxes and (2) the change in value of the assets without deferred taxes. The <x% bars indicate the percentage of undertakings with a compensation below the indicated percentage x, but above the percentage indicated by the bar left from it.*

2.275 The figure below shows a scatter plot of the pre-tax compensation versus the duration mismatch between the effective spread duration of the assets and the effective interest rate duration of the liabilities: the higher this duration mismatch the higher the pre-tax compensation by the VA.

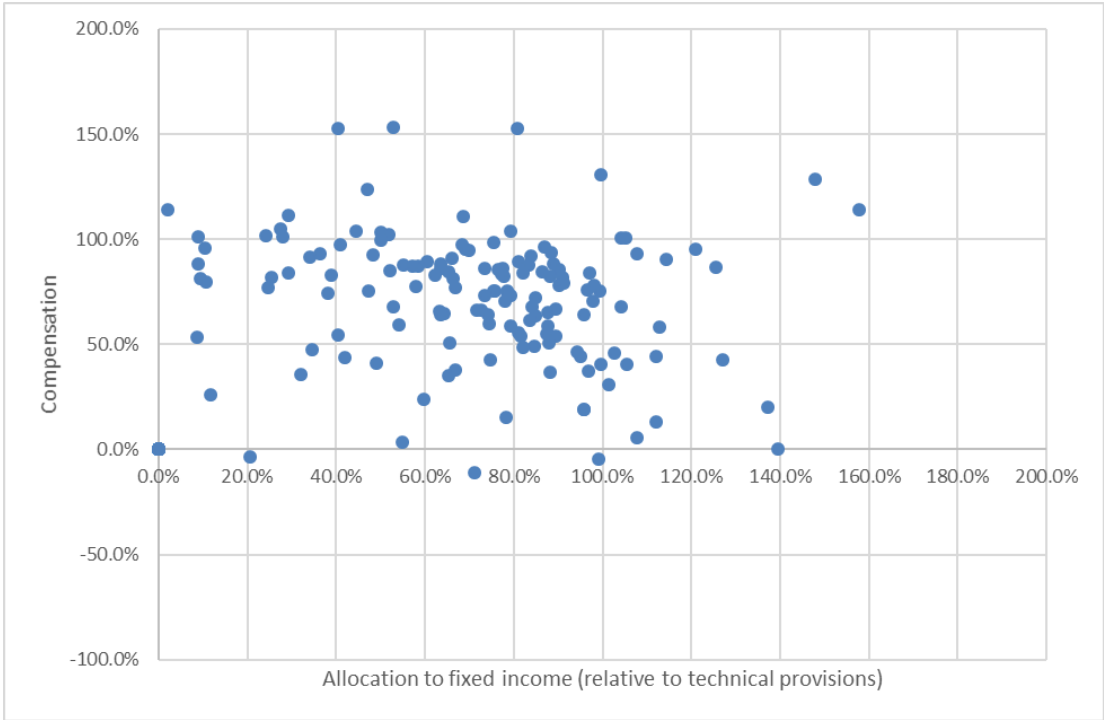
**Scatter plot of pre-tax compensation versus duration mismatch**



*Scatter plot of the pre-tax compensation of applying the VA when credit spreads increase by 100 basis points market wide versus the duration mismatch. The pre-tax compensation is defined as the percentage ratio of the following amounts: (1) the change in value of the technical provisions including unit-linked and future discretionary benefits without deferred taxes and (2) the change in value of the assets without deferred taxes. The duration mismatch is approximated using the spread duration of the assets and the duration of the technical provisions, including unit-linked and future discretionary benefits. The spread duration is approximated as the change in value of the assets due to the increase in spreads by 100 basis points, divided by the initial value of the total assets. The duration of the technical provisions is approximated by the change in their value due to the increase in the VA by 47 basis points, divided by the initial technical provisions and divided by 47 percent to align the 47 basis points change with a 100 basis points change. The duration mismatch is then defined as the duration of the total assets times the ratio of total assets to technical provisions minus the duration of the technical provisions.*

2.276 The figure below shows a scatter plot of the pre-tax compensation versus the allocation to fixed income. Although the assumption is that a lower allocation to fixed income increases the compensation of credit spread changes, the figure does not provide a clear indication of such a relationship.

**Scatter plot of pre-tax compensation versus allocation to fixed income**



*Scatter plot of the pre-tax compensation of applying the VA when credit spreads increase by 100 basis points market wide versus the allocation to fixed income (as a percentage of the technical provisions, measured as the total assets minus the excess of assets over liabilities). The pre-tax compensation is defined as the percentage of the change in value of the excess of assets over liabilities minus DTA and DTL of the change in value of the assets.*

**2.4.5.1.2. Deficiency 2 - Application of VA does not take into account illiquidity characteristics of liabilities**

2.277 The VA in its current form can be applied by insurance undertakings irrespective of the characteristics of their liabilities. As a macroprudential tool, the size of the VA does not depend on the characteristics of the liabilities. In particular, the current VA does not account for the illiquidity characteristics of the liabilities, i.e. the extent to which the insurance cash flows are predictable and stable.

2.278 Where liabilities are illiquid, they can be valued by replication with illiquid assets that may yield an additional illiquidity premium; put differently, undertakings may be able to realize an additional return as stable insurance cash flows allow them to invest with limited risk of forced selling and therefore limited risk of realizing short-term market value losses on the assets.

2.279 In such a situation, this additional return is reflected in the application of the VA. Under the current design of the VA, however, undertakings also

benefit from the application of a VA where the insurance cash flows are hardly illiquid, i.e. relatively unpredictable. In such a case, the liabilities cannot be replicated with illiquid assets that may yield an additional illiquidity premium or, put differently, the undertaking may be exposed to forced selling and may not be able to earn this additional illiquidity premium/spread on their assets. The fact that the current VA does not differentiate according to the illiquidity characteristics of liabilities and the undertaking's exposure to forced selling is a deficiency that impairs fulfilling the identified objective of the VA to recognise the illiquid characteristics of liabilities in the valuation of technical provisions. Also, this deficiency impairs fulfilling the intended objective of the VA to mitigate the impact of exaggerations of bond spreads on own funds as under the current design of the VA spread exaggerations are mitigated irrespective of whether the undertaking – due the nature of its liabilities - is actually able to sustain short term exaggerations in bond spreads or not. If an undertaking runs the risk of being forced to sell it cannot withstand the spread exaggerations and may actually suffer the market value losses due to these spread exaggerations; correcting for spread exaggerations in these circumstances is not justified.

#### **2.4.5.1.3. Deficiency 3 – Cliff effect of country specific increase**

2.280 Solvency II includes a country-specific increase of the VA, which mitigates the effects of a widening of spreads that affects only one or a few national markets, but not the majority of national markets that are invested in bonds denominated in the same currency. This is in particular relevant for the countries of the euro area. The country component is activated whenever the country risk-corrected spread (computed on the basis of a country reference portfolio) is higher than 100 bps and it is at least twice the currency risk-corrected spread (computed on the basis of the currency reference portfolio). The legislator has decided bps on in the context of the European Supervisory Authorities (ESAs) review that the absolute trigger be lowered to 85. This modification is expected to enter into force by the end of the first half of 2020.

2.281 Analysis of historical data covering the period 2007-2018 shows that these two conditions of activation are simultaneously met only in the following cases:<sup>44</sup>

- For Greece in the period between April 2010 and March 2017
- For Italy, in the period between August and October 2013 and throughout most of the period from August to November 2018
- For Spain, throughout most of the period between May 2012 and January 2014

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<sup>44</sup> Please note that, for the purposes of this analysis, simplified assumptions were made (same fixed reference portfolio throughout time period January 2007 to February 2019). As a consequence, the identified cases of triggering of the VA during the time period January 2016 to February 2019 are not fully consistent with the actual EIOPA data on the VA during that period. Note also that in the analysis the VA was computed at a monthly (not quarterly) basis.

— For Portugal, in the period between February 2011 and December 2013

2.282 Most of these situations are related to the sovereign debt crises from 2011 to 2013.

2.283 Under the current activation mechanism, in periods where the spreads of a single Member State fluctuate around the trigger point the country-specific increase of the VA can alternate between situations of activation and non-activation, causing a “cliff effect” for the VA. In particular, when the risk-corrected spread of a country experiencing market turmoil increases, undertakings based in that country experience a decrease of asset values that, as long as the country add-on does not activate, is not compensated by an additional decrease of the value of the liabilities on top of the decrease due to the currency VA. When the thresholds are reached, the country component activates and the discount rate for liabilities increases, leading to a jump in own funds. If the country spread fluctuates around the absolute threshold for an extended period of time, the uncertainty of the activation of the country component translates into a larger volatility of own funds, with increased uncertainty on meeting the solvency capital requirements. This deficiency undermines the ability of the VA to achieve its intended objective of mitigating the impact of exaggerations of bond spreads on own funds by decreasing the volatility of own funds.

2.284 Moreover, the lack of activation of the country component can lead to undershooting effects in countries where the spreads on the investments increase to a larger extent than the spreads on the currency reference portfolio. In these cases only a small portion of the losses due to the increase in spreads on the investments may be compensated. This feature is similar to the third source of overshooting, deviations from the reference portfolio, but the other way around: increases in spreads on investments are larger than the average spread increase on the currency reference portfolio. The method of construction of the currency reference portfolio does not take into account that the composition of bond portfolios varies across countries. This implies that, when national spreads increase and the country component does not activate, the size of the increase of the currency component of the VA may only partially compensate the decrease of the value of assets of undertakings based in the country affected by the spreads. This may also prevent the VA to achieve its intended objective of a countercyclical measure.



### Questions to stakeholders

**Q2.3:** What is your view on the identified deficiencies of the current VA?

**Q2.4:** What is your view on this deficiency of the country-specific component of the VA? How should it be addressed? (You may want to take into account in particular the options 1, 7 and 8 set out in the following section.)



#### 2.4.5.1.4. Deficiency 4 – Misestimation of risk correction of VA

2.285 The current VA is determined as 65 percent of the risk-corrected spread of the reference portfolio. This risk-corrected spread equals the current spread minus a risk-correction. The risk-correction has been set equal to the fundamental spread (FS) for the MA. For corporate bonds, the FS is the maximum of

- 35 percent of the long-term average spread calculated in relation to a period of 30 years;
- expected loss and cost-of-downgrade; these calculations are based on long-term migration/default matrices.

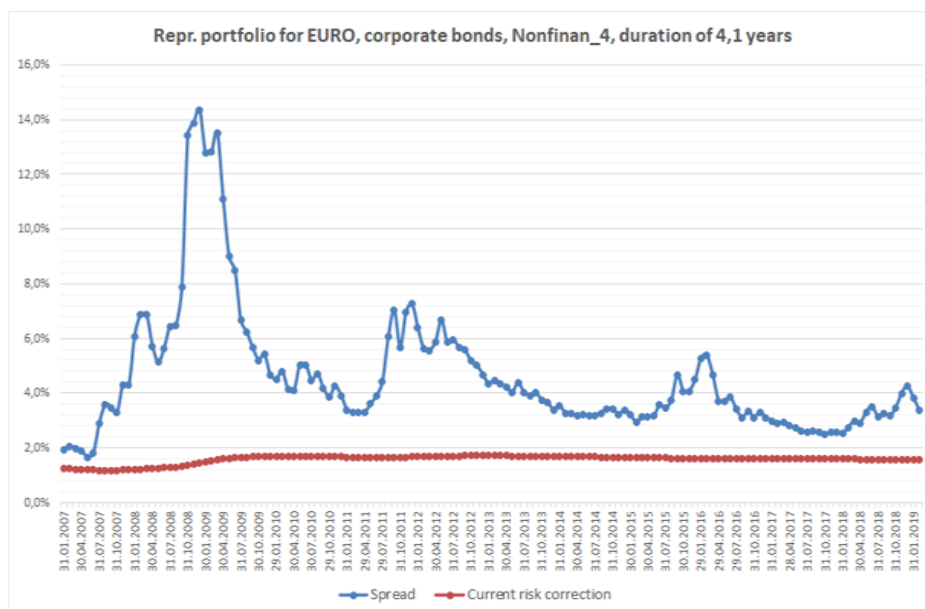
2.286 For government bonds, the fundamental spread is equal to 30 percent of the long-term average spread.

2.287 Several potential deficiencies with this risk-correction have been identified:

- *Almost insensitive to credit spread changes:*

2.288 Under the current design of the VA, the risk-correction hardly changes with credit spread changes. This is a consequence of the risk-correction being the maximum of two numbers that hardly vary over time: 30 or 35 percent of the long-term average credit spread and expected losses based on long-term migration/default matrices.

2.289 This effect is illustrated in the diagram below, which shows the evolution of the VA risk correction under the current VA design for the portfolio of Euro corporate bonds in the “non-financial 4” category<sup>45</sup> with average duration of 4.1 years:



- *Does not reflect actual default losses:*

<sup>45</sup> I.e. non-financial bonds with credit quality step 4 (corresponding to a BB rating).

2.290 The figure above shows that defaults of structured finance increased during the crisis in 2008 and thereafter, but the risk-correction, red line in the right figure below, hardly increased during that time. A possible consequence is that the VA was too high during this crisis and did not take account of the increased losses from defaults; undertakings would not have been able to earn the high VA because of these defaults.

2.291 Historical evidence of credit spread movements indicate that when spreads increase, also the number of defaults increase; in that respect credit spread changes cannot be considered fully as exaggeration or artificial.

2.292 Academic research indicates that defaults take up approximately 50 percent of the credit spreads<sup>46</sup>.

- *Does not reflect credit risk premium for unexpected losses:*

2.293 Article 77d of the Solvency II Directive states that the risk-corrected currency spread shall be calculated as the difference between the spread and the portion of that spread that is attributable to a realistic assessment of expected losses or unexpected credit or other risk of the assets. The credit spread reflects a compensation for expected losses, a credit risk premium for unexpected losses, a liquidity risk premium and potentially a compensation/correction for other risks/options. The risk-correction now only intends to correct for expected losses and the cost-of-downgrade.

- *Unnecessarily reflects cost-of-downgrade:*

In MA portfolios downgrades can result in actual losses because downgraded assets may need to be replaced to maintain the cash-flow matching between assets and liabilities. This risk does not exist in the application of the VA as there are no cash-flow matching requirements for the VA.

#### **2.4.5.1.5. Deficiency 5 – VA almost always positive**

2.294 Procyclical behaviour with regard to spreads could typically occur in two types of situation:

- In a scenario in which spreads increase suddenly and significantly: insurers would then be affected via a decrease of their solvency ratio and may decide to sell bonds. The selling of the bonds could, depending on the size and number of the insurers concerned, amplify the initial increase in spreads (and decrease in prices), therefore leading to procyclicality
- In a scenario in which spreads are low and compressed, insurers would be looking to increase their investment return ("search for yield") and would increase their exposure towards risky bonds. By doing so, they would compress spreads even more, leading to procyclicality and exposing them

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<sup>46</sup> K. Giesecke, F. Longstaff, S. Schaefer, I. Strebulaev, 2011. Corporate Bond Default Risk: A 150-Year Perspective. *Journal of Financial Economics*, 102(2), 233-250, reference from "The Matching Adjustment: Theory and practice", 8 February 2013, by Insurance Europe

further to the risk of a reassessment of the risk premia: they would become more vulnerable to increases in spreads.

2.295 In the first case, the VA has been designed to help to dampen the impact of spreads volatility and therefore contributes to preventing procyclical behaviour.

2.296 In the second case, the VA remains almost always a positive adjustment, which incentivises insurers to delay replacing their risky assets with assets of better credit quality, thereby amplifying the consequences of spreads compression. In such cases, a negative VA would contribute to prevent procyclical behaviour: it would discourage an unsustainable build-up of exposures and increase the resilience of insurers against subsequent spreads increase.

#### **2.4.5.1.6. Deficiency 6 – underlying assumptions of VA unclear**

2.297 There are different ways of interpreting the motivation of the current VA. The VA can be considered as a compensation for exaggerations in bond spreads, potentially independent from the liability characteristics of an insurer. Alternatively, it can be considered to represent an additional illiquidity premium on assets that replicate the liabilities; or put differently, an additional premium insurers acting as long-term investors (with respective liabilities) are able to earn. The assumptions underlying the VA are based on the interpretation chosen and without an interpretation these underlying assumptions are at current not perfectly clear cut. This has negative implications on the effectiveness of pillar II of Solvency II, where sensitivity analysis on the assumptions underlying the VA is required in risk management and a capital add-on can be applied, where the underlying assumptions are not met. This impairs effective and consistent supervision of the VA application.

#### **2.4.5.1.7. Deficiency 7 – risk free interest rates with VA not market consistent**

2.298 Market consistency of technical provisions is required in Article 76 of the Solvency II Directive which stipulates that “the calculation of technical provisions shall make use of and be consistent with information provided by the financial markets and generally available data on underwriting risks”

2.299 The valuation of technical provisions intends to reflect a market value (transfer value) of insurance liabilities. As insurance liabilities are typically not traded on financial markets frequently enough to have an observable market price, a model is required to value technical provisions. The concept of the valuation is adopted from the determination of a market value of an asset, e.g. in case of a bond its cash flows are discounted with the risk free curve adjusted for credit risk (mark to model valuation). Discounting insurance liabilities with a risk free curve is based on the assumption that the

insurance liabilities can be replicated by risk free assets with otherwise similar characteristics. The idea is that if the value of an insurance liability differs from a financial instrument, or combination or dynamic strategy thereof, with equal cash flow and risk characteristics there is an arbitrage opportunity. The valuation of the liabilities therefore does not rely on return assumptions of the assets or other characteristics of the undertaking. This ensures a consistent valuation of the same liabilities across different undertakings.<sup>47</sup> Any adjustment to the replicating, risk-free assets, i.e. risk-free rates, in particular where an adjustment is included that is based on undertaking specific asset returns, therefore implies a deviation from the market consistent valuation of the insurance liabilities.

2.300 Finally, applying the VA to the risk-free rates results in a situation where two risk-free curves are applied under Solvency II for each currency: one curve with VA and one curve without VA. These two curves are derived using the same market data and eligible firms can use either one or the other to calculate their technical provisions, thus there is no unique transfer value for undertakings with similar liabilities. This is contradictory with the market consistency principle since markets provide for only one value for a given financial instrument, otherwise arbitrage is possible.

## **2.4.5.2. Analysis**

### **2.4.5.2.1. EIOPA's assessment of design options for the VA**

2.301 EIOPA has assessed a number of options to review the design, calibration and functioning of the adjustment, and to address the deficiencies as outlined in section 2.4.5.1.

2.302 The following table provides a summary description of these options and how they relate to the deficiencies. A detailed description of these options is given in the following sections. Note that these options have been developed on basis of the technical improvements to the VA calculation described in section 2.4.4. Therefore, these technical improvements should be included in each these options, where applicable.

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<sup>47</sup> Where insurance liabilities include FDB which are based on the evolution of the undertaking's assets, there is no complete independency, however still, the assumptions on risk-free rates need to be applied.

	<b>Options</b>	<b>Relation to deficiencies</b>
1	Undertaking-specific VA - calculating the VA based on the undertaking-specific asset weights. For each asset class, the spreads used in the calculation of the VA would still be the same for all undertakings and taken from market indices.	Mitigates deficiency 1. Addresses deficiency 3 – country-specific increase would not be needed anymore.
2	Middle bucket approach – in addition to the current VA an undertaking-specific VA is introduced, but subject to strict application criteria that relate to the asset liability management of the undertaking.	Mitigates deficiency 1 for those undertakings which apply this option.
3	Asset driven approach – instead of applying the VA to the risk-free interest rates of technical provisions it would be used to revalue the bonds held by the undertaking by adjusting the bond spreads by the VA. The difference in the value of the bonds without and with the VA adjustment is recognised as an own funds item.	Mitigates deficiencies 1. Addresses deficiency 7.
4	An adjustment that takes into account the amount of fixed-income assets and the asset-liability duration mismatch by means of application ratios	Mitigates deficiency 1.
5	An adjustment that takes into account the illiquidity features of liabilities by means of an application ratio	Mitigates deficiency 2.
6	The risk-correction to the spread is decoupled from the fundamental spread, and instead calculated as a fixed percentage of the spread.	May mitigate deficiency 4.
7	Amend the trigger and the calculation of country-specific increase of the VA	Mitigates deficiency 3 and, in some circumstances, deficiency 1.
8	Establish a clearer split of the VA between its function as a crisis and a permanent tool	Mitigates deficiency 6. Might provide a better basis to simultaneously address deficiencies 1, 2 and 3. Could address deficiency 5.

2.303 We note that the options relate to different aspects of the calculation and application of the VA. Some options would affect several of such aspects. The following list provides an overview.

- *Which part of the spread is the VA based on?*

2.304 The current VA is based on a risk-corrected spread that should correspond to the portion of the spread that is not attributable to a realistic assessment of expected losses or unexpected credit or other risk of the assets. Under Option 5, the VA may be based on a reduced spread that corresponds to the illiquidity premium included in the spread. Option 6 envisages a change to the applicable spread by modifying the calculation of the risk correction to the spread.

- *To what extent does the adjustment depend on the own assets of the undertaking?*

2.305 The current VA is derived from assets of a representative portfolio. It is independent from the assets of the individual undertaking. Under Option 1, the VA would be based on the allocation and duration of the undertaking's assets. The same holds for Option 2, but restricted to undertakings that meet application criteria similar to, but less strict than those of the matching adjustment. Under Option 3 the VA would at least take into account the duration of the undertaking's assets. Under Option 4, the VA would depend on the overall amount of fixed-income assets and the asset-liability duration mismatch. Under Option 5, the VA would remain independent from the assets of the undertaking.

- *What does the application ratio applied to the VA depend on?*

2.306 The current VA is based on a general application ratio (GAR) of 65% which is the same for all undertakings. This general application ratio is maintained for all options assessed by EIOPA. The choice of the value of GAR is analysed as a horizontal issue in section 2.4.6.

2.307 In addition to the general application ratio, Option 4 and Option 5 specify own application ratios that are undertaking-specific. Under Option 5 the application ratio depends on the illiquidity of the undertaking's liabilities. Under Option 4 the application ratio is dependent on the amount of fixed income assets and on the asset and liability duration mismatch of the undertaking.

- *Is the VA applied to risk-free interest rates or assets?*

2.308 The current VA is an adjustment to the risk-free interest rates applied in the calculation of the best estimate of technical provisions. Under Option 3, the VA would be applied to the assets in order to derive an adjustment to own funds.

- *What is the VA in a crisis situation?*

2.309 In a crisis situation the current VA includes a country-specific increase that is derived from an asset portfolio representative for the country instead of

the currency. Under Option 7, the trigger mechanism and size of the country-specific increase is modified. Under Option 1 the country-specific increase would not be necessary anymore because the VA is based on the undertaking's own assets.

2.310 The same holds for Option 2 with regard to the undertakings that apply the middle-bucket VA. Option 8 provides for a clearer split between the permanent and the crisis element of the VA by designing the trigger mechanism on country basis of a comparison of the current spread level with the average spread level over a defined time horizon.

### **Possible combinations of options**

2.311 As mentioned above, the options described above relate to specific aspects of the design of the VA. For a "full" specification of the VA, several of these VA options could be combined.

2.312 For considering such combinations, it the design of a permanent VA should be distinguished from the design of a macro-economic VA. If a macro-economic VA is introduced, this would supplement the permanent VA and would only apply in a crisis situation.

#### *Combinations of options to design a permanent VA*

2.313 EIOPA has assessed the following two combinations of options to design a permanent VA:

- Approach 1: Under this approach, the permanent VA would be determined by combining options 4, 5 and 6
- Approach 2: Under this approach, the permanent VA would be determined by combining options 1, 4 and 5<sup>48</sup>

2.314 Note that these approaches can be regarded as possible implementations of Approach 1 and 2 as described in the Commission's call for advice on the Solvency II Review.

2.315 A description of these two approaches is contained in sections 2.4.5.2.3 and 2.4.5.2.4.

#### *Design of a macro-economic VA*

2.316 The options to design a macro-economic VA depend on the choice of the design option for the permanent VA. Under design option 1, a macro-economic VA would not be necessary anymore because the VA is based on the undertaking's own assets. Therefore, where Approach 2 is chosen for the design of a permanent VA, an additional macro-economic VA is obsolete.

2.317 Where Approach 1 is used for the design of a permanent VA, EIOPA considers that a macro-economic VA based on Option 8 should supplement

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<sup>48</sup> Note that, under option 1, the risk corrected spread is already calculated as a percentage of the spread, so that an additional application of option 6 is obsolete

the permanent VA. The description of Approach 1 set out in section 2.4.5.2.3 includes a description of such a supplementary macro-economic VA.

#### **2.4.5.2.2. Options**

##### **Option 1 – undertaking specific VA**

###### **Description**

2.318 Under this option, the VA is based on the undertaking-specific asset weights<sup>49</sup>, rather than on the asset weights of a representative portfolio. EIOPA would centrally provide a set of risk-corrected spreads based on market indices differentiating between asset type, credit qualities, durations and currencies, which should be used to calculate the VA. The VA is then derived from these risk-corrected spreads, weighted by the assets effectively held by the undertaking.

2.319 The option results in a value of the VA per currency of the liabilities of the undertaking, based on the weights of the undertaking's investments in that currency. This same VA per currency is then applied to all portfolios of liabilities of that currency.

2.320 Note that this option foresees a calculation of the risk correction as a percentage of the spread, as described in option 6. The specific implementation of this risk correction calculation differs from the description under option 6 in that the correction factors for corporate bonds differ between different credit quality classes. This differentiation is part of the safeguards built into this option, as described below.

###### **Addressing deficiencies**

2.321 This option mitigates the over- and undershooting deficiencies of the current VA due to deviations of an undertaking's investments to the reference portfolio, both in credit quality and total allocation to fixed income.

2.322 This option does not address over- or undershooting deficiency which arise from a mismatch between the effective spread duration of the assets and the effective duration of the liabilities. This deficiency is targeted by option 4, which can be combined with option 1.

2.323 Under this option, a country-specific increase would no longer be necessary as this undertaking specific VA already accounts for any potential crisis in the country of the undertaking that is reflected in higher spreads of its investments.<sup>50</sup>

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<sup>49</sup> As per the Approach 2, as referred to in European Commission's call for advice 3.2 a.

<sup>50</sup> Therefore, under this option, deficiency 3 (cliff effect of country-specific increase, activation mechanism does not work as expected) no longer applies



## Potential for wrong incentives

2.324 The main concern related to this option is that, in the absence of appropriate safeguard mechanisms, it can provide potential wrong risk-management and investment incentives. These incentives stem from the fact that investments in riskier fixed income assets, which usually have higher spreads, become more attractive as they imply a higher VA and as such higher regulatory own funds. These incentives are reduced by the fact that riskier fixed income investments have higher capital requirements. However, if this increase in capital requirements is smaller than the increase in own funds, an undertaking may increase its SCR ratio by investing in riskier assets

## Safeguards

2.325 The following safeguard mechanisms are suggested to overcome the potential wrong incentives:

- a) the sub-investment grade corporate bonds (Credit Quality Level 4 - indicatively BB - and lower) are assigned to the weight of the CQS 3 portfolio (i.e. the spread generated by these assets is limited to a BBB rating activity level );
- b) Risk-corrections that increase with higher credit quality steps for corporate bonds;
- c) additional safeguards in the context of Pillars II and III of Solvency II. For instance, the undertaking should report its asset allocation in the ORSA and the SFCR, highlighting and explaining the changes occurred in the year.

2.326 The safeguards b) and c) are described in more detail below. It should be noted that these safeguards (with exception of the Pillar II and Pillar III safeguards mentioned under c)) do not address the wrong incentives with regard to government bonds, in particular for undertakings that apply the standard formula to calculate the SCR. If such an undertaking disinvests from government bonds with a low spread and invests instead in government bonds with a high spread, then its SCR ratio improves.

## Calculation of the risk-corrected spreads

2.327 The risk-corrected spread  $S$  equals the credit spread  $CS$  minus the risk-correction  $RC$ . The risk correction should be set so as to measure the spread that is attributable to a realistic assessment of expected losses or unexpected credit or other risk of the assets (see Art. 77d (3) of Directive). For every currency  $c$ , credit quality  $j$  and duration  $D$  such a risk-corrected spread  $S_{c,j,D}$  has to be determined by EIOPA. By setting a higher risk-correction  $RC_{c,j,D}$  for lower credit qualities  $j$ , the wrong risk-management and investment incentives to invest in lower credit qualities may be reduced. These higher risk-corrections for lower credit quality are not only justified by reducing

those 'wrong' incentives, but also by the fact that the risks for bonds of lower credit quality are actually higher than for bonds with a higher credit quality.<sup>51</sup>

2.328 Under this option, EIOPA suggests to use the following risk corrections for credit quality steps 0 to 3:<sup>52</sup>

<b>CREDIT QUALITY STEP (CQS)</b>	<b>RISK-CORRECTION AS A PERCENTAGE OF THE CURRENT SPREADS PER CQS*</b>
0	30%
1	40%
2	50%
3	60%

2.329 For all EEA sovereigns issued in the domestic currency, this relative risk-correction should be set at the same percentage established for investments in CQS 0 (i.e. 30% of the issuing country specific spread as provided by Bloomberg), irrespective of their actual rating.<sup>53</sup>

2.330 The relative risk-correction is key here to keep the right incentives in times when spreads are low and when spreads are high. The current, relatively stable, risk-correction would imply increasing 'wrong' incentives, when spreads increase as the effective application ratio is then the same for all credit quality steps and the higher the effective application ratio the more attractive a credit quality becomes.

### **Safeguards - Pillar II**

2.331 In addition to the requirements already in place, further requirements are added:

- The ORSA should contain specific sensitivity analysis. In particular, the impact of the variation of VA on the undertaking's financial and solvency position, with focus on variations linked to a change in the average credit quality of the bond portfolio. Specifically, where changes in the average credit quality of the bond portfolio are observed, undertakings could perform a sensitivity analysis with a VA computed on the previous year's asset allocation.
- The ORSA should provide an explanation of the changes occurred in the asset allocation, with special focus on the average credit quality of the bond portfolio.

<sup>51</sup> See also considerations on the risk correction of bond spread for option 6

<sup>52</sup> For a description of the calibration of the risk correction we refer to annex 0

<sup>53</sup> For all other government bonds, the treatment suggested for corporate bonds should apply

- The written policy on risk management should contain a description of the use of the VA to manage risks, with particular attention on credit risk, introducing internal safeguards (such as control and monitoring systems) to avoid that the average credit quality of the investment portfolio would be lowered with the only intend to improve the solvency position of the undertaking.

### Safeguards - Pillar III

2.332 In addition to what EIOPA proposes with respect to the public disclosure of the general use of LTG measures<sup>54</sup>, the following requirements for the SFCR specific to the use of option 1 can be introduced:

- current asset allocation: in particular, for each currency, publication of the composition of the bond portfolio in terms of issuer (for government bonds) and in terms of economic sector (Financial/Non-financial), CQS, duration (this information is already produced by undertakings in the reporting, therefore no additional effort is required)
- explanation of the changes occurred in the asset allocation, with special focus on the average credit quality of the bond portfolio as well as the consequence of these changes on the VA
- sensitivity analysis reported in the ORSA (see above).

### Safeguards - supervisory powers

2.333 Where the supervisor observes that a change in the asset allocation has been performed only to improve the solvency position of the undertaking benefitting from a higher VA, it can impose the undertaking to apply a VA equal to the one computed with the previous years' composition of investments.



#### Questions to stakeholders

**Q2.5:** What is your view on the safeguards to avoid wrong investment incentives? In particular, how can wrong incentives with regard to investments in government bonds best be avoided?

### Calculation<sup>55</sup>

2.334 The undertaking i investments' specific VA under this approach for liabilities in currency c is calculated as

$$VA_{i,c}^{Option\ 1} = GAR \cdot RC_{S_{i,c}} \cdot \min\left(\frac{MV_{i,c}^{FI}}{BEL_{i,c}}; 1\right)$$

<sup>54</sup> See section 2.8.

<sup>55</sup> For a more detailed technical specification of the calculation of option 1 we refer to annex 2.8

where

- $GAR$  is the general application ratio, currently 65%
- $RC_{S_{i,c}}$  is the undertaking-specific risk corrected spread for currency  $c$
- $MV_{i,c}^{FI}$  denotes the market value of the fixed income investments of undertaking  $i$  in currency  $c$
- $BEL_{i,c}$  is the best estimate of the liabilities in currency  $c$  of undertaking  $i$ , valued using the basic risk-free interest rates

2.335 The undertaking-specific risk-corrected spread  $RC_{S_{i,c}}$  is calculated as

$$RC_{S_{i,c}} = \sum_{d,g} W_{d,g,i,c} \cdot RC_{S_{d,g,c}}^{gov} + \sum_{d,r,f} W_{d,r,f,i,c} \cdot RC_{S_{d,r,f,c}}^{corp}$$

where

- $W_{d,g,i,c}$  are the weights<sup>56</sup> of undertaking's  $i$  investments in government bonds<sup>57</sup> of issuer country  $g$  with duration in duration bucket  $d$  in currency  $c$
- $W_{d,r,f,i,c}$  are the weights of undertaking's  $i$  investments in corporate bonds with credit quality step  $r$  and duration in duration bucket  $d$  in currency  $c$ , where  $f$  is either 'financial' or 'non-financial'
- $RC_{S_{d,g,c}}$  is the risk corrected spread on government bonds of country  $g$  with duration bucket  $d$  in currency  $c$
- $RC_{S_{d,r,f,c}}$  is the risk corrected spread on corporate bonds with credit quality step  $r$  and duration bucket  $d$  in currency  $c$ , where  $f$  is either 'financial' or 'non-financial'

The risk corrected spreads on government bonds and corporate bonds are calculated as

$$RC_{S_{d,g,c}}^{gov} = \begin{cases} (1 - RC\%_{gov}) \cdot S_{d,g,c}^{gov} & \text{in case } S_{d,g,c}^{gov} \geq 0 \\ S_{d,g,c}^{gov} & \text{else} \end{cases}$$

and

$$RC_{S_{d,r,f,c}}^{corp} = \begin{cases} (1 - RC\%_{corp,r}) \cdot S_{d,r,f,c}^{corp} & \text{in case } S_{d,r,f,c}^{corp} \geq 0 \\ S_{d,r,f,c}^{corp} & \text{else} \end{cases}$$

where

- $RC\%_{gov}$  is the risk-correction for government bonds, relative to the current bond spreads
- $RC\%_{corp,r}$  is the risk-correction for corporate bonds with credit quality step  $r$ , also relative to the current bond spreads

<sup>56</sup> Relative to the market value of the undertaking's fixed income investments in currency  $c$

<sup>57</sup> EEA government bonds issued in the domestic currency, other government bonds are treated as in the case of corporate bonds

- $S_{d,g,c}$  is the current spread on government bonds of country  $g$  with duration bucket  $d$  in currency  $c$
- $S_{d,r,f,c}$  is the current spread on corporate bonds with credit quality step  $r$  and duration bucket  $d$  in currency  $c$ , where  $f$  is either 'financial' or 'non-financial'

2.336 The term

$$\min\left(\frac{MV_{i,c}^{FI}}{BEL_{i,c}}\right)$$

is introduced to deal with situations where an undertaking would only invest a small amount in low rated bonds with high yields and then apply this high VA to a large amount of liabilities in that currency. This term then ensures that the VA is only recognised relative to the amount of the investment. Where this option is combined with option 4, this term becomes obsolete.

2.337 Undertakings do not have to assign investments to either backing or not backing the liabilities.

2.338 The definition of the different asset classes that are used to sub-divide the corporate and government bond portfolios is the same as currently used in the derivation of the VA (on the basis of RFR technical documentation). See annex 2.8 for a list of the admissible assets for this undertaking investments' specific VA.

2.339 The set of currencies for which VA values can be calculated would be the same range of currencies for which EIOPA currently provides a VA (on the basis or RFR technical documentation).

2.340 For government bonds, a distinction between different issuers is made. The calculation of the spreads could be based on data provided by Bloomberg (as referred to in the RFR technical documentation) currently used in the determination of the country specific increase of the VA.

2.341 For corporate bonds, further than the duration, the following dimensions are considered:

- Asset classes, with a differentiation among 'financial' and 'non-financial exposures',
- Credit quality steps as set out in the Delegated Regulation (from 0 to 6),
- Currencies.

2.342 For each of these classes, information on spreads contained in the indices currently used for the calculation of the VA (Markit – iBoxx indices) could be used.

2.343 For each currency, undertakings would first need to identify all investments in that currency for the calculation of the best estimate of the insurance or reinsurance liabilities denominated in that currency, when applying the VA.

2.344 The VA for the given currency would then be calculated on the basis of all fixed income assets in that currency. This VA could then be applied as an “add on” to the risk-free rate interest term structure used for the valuation of technical provisions of that currency.

**Implications for the SCR standard formula calculation**

2.345 No change to the SCR standard formula calculation is required. However, where the increase in capital requirements does not exceed the increase in own funds when moving to riskier fixed income investments a possible solution would be to change the capital requirements to fix this.

**Pros and cons**

2.346 The following table provides a list of the advantages as well as of the relative criticisms of the proposal. Note that the assessment is performed against the status quo calculation of the VA:

Pros	Cons
Mitigates over- or undershooting effects of the VA that stem from deviations between the representative portfolio and the undertakings individual asset mix.	Where rating information is used, approach leads undertakings to higher dependence on external ratings in the determination of the VA.
Since the option allows the reflection of undertaking-specific asset information, a country-specific increase of the VA would no longer be needed.	The option will increase the complexity and costs of the application and supervision of the VA.
	<p>Potentially provides wrong risk-management incentives where investments in lower rated assets lead to a higher solvency ratio. Could also make it more difficult for undertaking to de-risk asset risk (in case e.g. of a breach of the SCR).</p> <p>For corporate bonds, these potential wrong incentives are intended to be mitigated by Pillar I safeguards mechanisms; this mechanism is intended to ensure that lower rated bonds still imply higher own funds and the increase in SCR is smaller than this increase in own funds, but the SCR ratio would still decrease with lower rated bonds.</p>

	Wrong investment incentives with respect to government bonds are only addressed by Pillar II and III.
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## **Option 2 – middle bucket approach**

### **Description**

2.347 This Option would be part of a framework where undertakings should allocate their insurance liabilities to three buckets (the matching adjustment bucket, the middle bucket and the remainder bucket) to which different adjustments to the risk-free interest rates apply.

2.348 In particular, for liabilities falling in the middle bucket, an undertaking-specific VA is introduced, but subject to strict application criteria that relate to the level of cash-flow matching of insurance liabilities portfolios, in order to ensure that the undertaking can earn the adjusted discount rate which is usually higher than the basic risk-free interest rate For the middle bucket VA calculation is based on Weighted Average of Multiple Portfolios (WAMP). This approach would coexist with the current MA (full criteria required, 100% application ratio), but would imply to define a proper adjustment to the remainder bucket to guarantee declining benefits with decreasing level of cash-flow matching. The application ratio for the middle bucket would be fixed between 65% and 100% (concrete calibration to be discussed).

### **Criteria:**

- a) The portfolio of assets to cover (re)insurance obligations included in the OA bucket is clearly identified and together with the corresponding liabilities, it is organized and managed separately from other activities of the undertaking.<sup>58</sup>
- b) The contracts underlying the insurance liabilities do not include future premiums or include only future premiums which are within the contract boundaries (qualifying future premiums).
- c) The portfolio of insurance liabilities include no surrender option for the policyholder or only a surrender option where the surrender value does not exceed the value of the assets covering the insurance liabilities at the time the surrender option is exercised. However, surrender options where the surrender value exceeds the value of assets may be included where the lapse risk they expose the portfolio to is not material.

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<sup>58</sup> For OA Bucket the separate management of assets does not refer to a legal ring fencing but to a portfolio segmentation of clearly identified assets that would support an identified group of insurance liabilities over their lifetime. This does not preclude changes in investments within a portfolio in the normal course of business

(Materiality test: lapse risk capital charge does not represent more than e.g. 5% of the current estimate of the liabilities of the portfolio in the situation where cash flows would be discounted using the basic risk-free interest rate).

- d) Insurance contracts are not split into different parts when assessing eligibility for the Middle Bucket (no unbundling).<sup>59</sup>
- e) The expected cash flows of the identified portfolio of assets and qualifying future premiums replicate the expected cash flows of the portfolio of insurance liabilities within 2 years maturity bands in the same currency up to the LLP of the risk-free yield curve for the relevant currency. Any mismatch between maturity bands, which cannot be addressed through the carry forward of cash generated from excess of asset cash flows at previous maturities, does not give rise to material risks. Carry forward of cash is limited to 10% the total undiscounted liability cash flows up to the LLP. For the purpose of assessing this matching criterion, duration bands have been defined with a two-year range.
- f) It is not mandatory to hold to maturity the assets backing the (re)insurance obligations included in this bucket, if the assets sold are substituted by other fixed income assets and the requirement of letter b) is still met.

### **Implications for the SCR standard formula calculation**

2.349 No change to the SCR standard formula calculation is required.

#### **Pros and cons**

Pros	Cons
Being the discount rate based on own assets weight via an average function of rating and duration i.e. WAMP, over/undershooting is strongly mitigated.	The option will increase the complexity of the application of the VA.
National VA component issues such as the cliff effect would be solved.	Approach may give rise to wrong investment incentives in case where investments in lower rated assets lead to a higher solvency ratio; could also make it more difficult for undertaking to de-risk asset risk (in case e.g. of a breach of the SCR).

<sup>59</sup> Unbundling can generally be defined as the separation of the insurance liabilities of an insurance contract into different parts, in order for one of them to have a portion that would virtually meet the requirements of the MA or OA bucket. Unbundling is, in general, not allowed. However, unbundling of Unit Linked contracts into two parts as described can be accepted, provided that one part of the unbundled contract is then valued using financial instruments for which a reliable market value is observable



Criteria can help to ensure that undertakings can actually “earn” the VA”.	Where rating information is used, approach leads to higher dependence on external ratings.
	<p>An implementation of this option may give rise to a number of challenges, e.g.:</p> <ul style="list-style-type: none"> <li>• Where rating-information is used, the treatment of non-rated bonds</li> <li>• Where duration-information is used, the treatment of perpetual bonds or bonds with options</li> </ul> <p>The availability of the chosen asset characteristics (such as rating or durations) in case of investments in funds.</p>
	Option may require prior supervisory approval, in particular regarding the matching criteria, and increase the complexity of supervision.

2.350 In view of the disadvantages of the option, it was not taken into account in the further assessment of the VA.

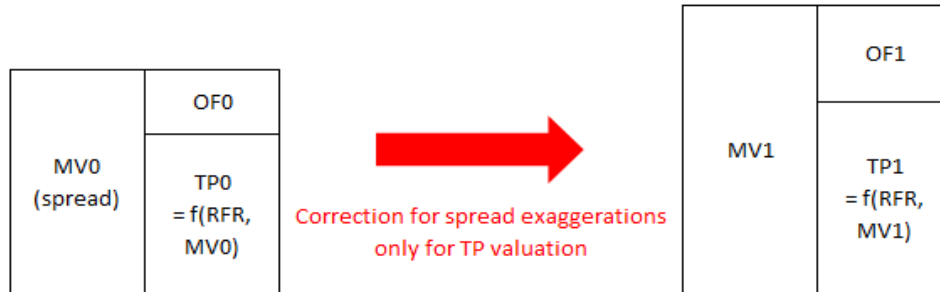
### **Option 3 – asset driven approach**

#### **Description**

2.351 This option targets the application to the VA. Instead of applying the VA to the risk-free interest rate term structure, this option adjusts the value of own funds directly. This option does not suggest an alternative to calculating the VA, but it may be combined with one of the other options that suggest so. It is a possible alternative use of the VA.

2.352 This option is based on the conceptual idea that the VA aims to address the volatility of own funds due to the use of market values for bonds. It is also based on observations that adjusting the risk-free rates has undesirable effects. As a consequence, in this option there is no adjustment to the risk-free interest rates. The idea is to adjust the own funds  $OF_0$  of the undertakings by correcting the technical provisions for the effect of exaggerations of bond

spreads in another way<sup>60</sup>. This is in line with recital 32 of the Omnibus II Directive<sup>61</sup>. To achieve this, it is suggested to correct the market value of assets used in the technical provisions calculation instead of the interest rate yield curve (RFR).



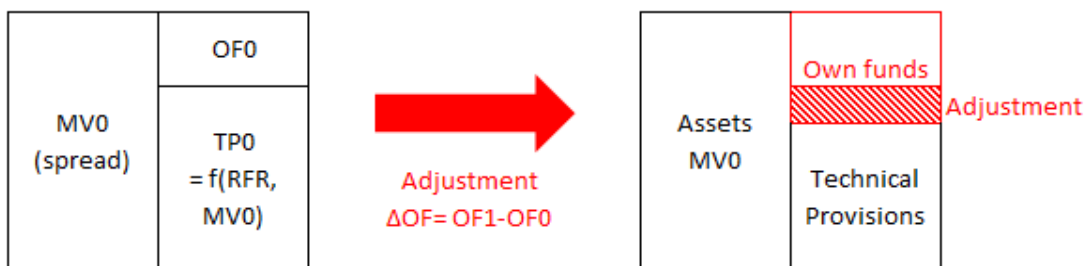
2.353 The correction of the market value of assets is an intermediate step to calculate the adjusted value of technical provisions and, indirectly, the adjusted value of own funds.

2.354 Adjustment of own funds would be  $Adjustment_{own\ funds} = \Delta OF = OF_1 - OF_0$   
 $Adjustment_{own\ funds} = (MV_0 - MV_1 + TP_1 - TP_0) * (1 - average\ tax\ rate)$

2.355 In the balance sheet, this adjustment to own funds would be done by subtracting an adjustment to the technical provisions (in the same way as the adjustment of the transitional to technical provisions).

$$Technical\ provisions = TP_0 - Adjustment_{TP}$$

Where  $Adjustment_{own\ funds} = Adjustment_{TP} * (1 - average\ tax\ rate)$



### Calculation of the corrected value of assets $MV_1$ (step 1)

2.356 The PG has imagined two possibilities to calculate the corrected value of assets :

- Either use the risk-neutralization step to modify the market value of the assets

<sup>60</sup> EIOPA's initial advice on the VA was also an own funds adjustment

<sup>61</sup> Recital 32 states: "in order to prevent pro-cyclical investment behaviour, insurance and reinsurance undertakings should be allowed to adjust the relevant risk-free interest rate term structure for the calculation of the best estimate of technical provisions to mitigate the effect of exaggerations of bond spreads."

- Or use the duration proxy to approximate to modify the market value

### **Calculation of the corrected value of technical provisions $TP_1$ (step 2)**

2.357 This step is not necessary for non-participating insurance business. There are also two ways to derive the adjusted value of technical provisions :

- Use the corrected value of assets derived from step 1 as an input and re-perform TP calculation on this basis
- Use a proxy to calculate the adjusted value of TP (for example assuming that the variation of TP is proportional to VA).

2.358 The combinations of these different possibilities for the correction of assets and technical provisions result in different variants of the asset driven approach. The most “advanced” or “pure” consist in using no proxies at all which means using the risk-neutralization step to modify the market value of the assets and re-performing technical provision (TP) calculation on this basis. Nevertheless, it seems too burdensome. As a consequence, the remaining variants are the following :

- Option a: use the duration proxy step to modify the market value of the assets and re-perform TP calculation on this basis.
- Option b: use the duration proxy step to modify the market value of the assets and another proxy to calculate the impact on TP
- Option c: use the duration proxy step to modify the market value of the assets and do not take into account the impact on technical provisions.

### **Implications for the SCR standard formula calculation**

2.359 The adjustment would be applied as the adjustment of the transitional on technical provisions. The adjustment would have limited effect on the SCR as only the loss-absorbing capacity of deferred taxes would potentially be affected. Another possibility is to ensure complete independency by not taking into account the adjustment into the calculation of the loss absorbing capacity of deferred taxes. In that case the use of the VA would have no impact on the SCR.

### **Pros and cons**

<b>Pros</b>	<b>Cons</b>
No more adjustment to the risk-free curve.	Modifying the market value of assets in the best estimate calculation (options a and b) has of course some consequences: due to the corrections of the market value, sales might be triggered because of management actions implemented. The results, i.e. the value of technical provisions may not reflect

	a "best estimate" of the management of the assets that have suffered spread exaggerations.
Overcompensation due to deviation from reference portfolio and duration mismatch are reduced, thereby promoting good risk management.	From an operational point of view, options a and b slightly increase the burden on undertakings because assets model points need to be modified in order to change the market value. But it is also to be noted that it alleviates the process since it does not require any recalibration of economic scenario generator.
Option c is simple and relieve the burden for undertakings from an operational point of view since there a calculation of technical provisions with and without the VA is not needed anymore. This will also improve transparency.	Option c is an approximation both for the impact on best estimate because it assumes the linearity of the impact, which is unlikely, and for the impact on deferred taxes. The higher the spread movements, the less appropriate the simplification would be.
If average tax rate is known, option c can be checked upon thank to QRT data thereby contributing to effective and efficient supervision.	
Limited impact on SCR or even no impact on SCR if the impact of the adjustment on deferred taxes is not taken into account.	

2.360 In view of the disadvantages of the option, it was not taken into account in the further assessment of the VA.

#### **Option 4 – Adjustment accounting for amount of fixed- income assets and asset-liability duration mismatch undertaking specific VA**

##### **Description**

2.361 For a given currency, the current VA is the same in size for all undertakings. In particular, its application does not depend on the asset and liability characteristics of an undertaking. This independence on the assets and liability characteristics implies that the impact of so-called exaggerated bond spreads varies with the duration of the liabilities and the spread exposure of the undertaking. The losses due to credit spread increases for undertakings with little exposure to credit spread risk and long-term liabilities could be more than fully compensated by the increase in the VA, the so-called

overshooting effect. Similarly, there are undertakings, which experience a significantly smaller compensation of their losses due to credit spread changes.

2.362 The general idea of this option is to introduce an undertaking-specific application ratio  $AR_{i,c}$  which addresses the over- and undershooting stemming from duration and 'volume' allocation mismatches. This undertaking-specific application ratio is applied to the current, or potentially adjusted, VA. Note that this option is not intended to address under- or overshooting effects, which could occur due to credit quality mismatches between the undertaking-specific portfolio and the reference portfolio.

### **Calculation**

2.363 The undertaking  $i$  specific VA under this approach for liabilities in currency  $c$  is calculated as follows:

$$VA_{i,c}^{Option\ 4} = GAR \cdot AR_{i,c}^{Option\ 4} \cdot RC_{S_{i,c}}$$

where

- $GAR$  is the general application ratio, currently 65%
- $AR_{i,c}^{Option\ 4}$  is the application ratio applicable to undertaking  $i$  and currency  $c$  under option 4
- $RC_{S_{i,c}}$  denotes the average risk corrected spread of the fixed income investments either of a reference portfolio or of undertaking  $i$  in currency  $c$

2.364 The application ratio under option 4 is calculated as:

$$AR_{i,c}^{Option\ 4} = \min \left\{ \frac{PVBP(MV_{i,c}^{FI})}{PVBP(BEL_{i,c})}; 1 \right\}$$

where

- $MV_{i,c}^{FI}$  denotes the market value of undertaking's  $i$  investment in fixed income investments in currency  $c$ <sup>62</sup>
- $PVBP(BEL_{i,c})$  equals the price value of a basis point of the best estimate of the liabilities of undertaking  $i$  in currency  $c$
- $PVBP(MV_{i,c}^{FI})$  equals the price value of a basis point of the fixed income investments of undertaking  $i$  in currency  $c$

2.365 We note the following aspects of the calculation as outlined above:

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<sup>62</sup> Note that undertakings do not have to assign investments to either backing or not backing the liabilities when determining  $MV_{i,c}^{FI}$

## Definition of fixed income investments for calculation of option 4

2.366 The following table outlines the CIC codes of the asset classes that are to be included in the government or corporate portfolio.<sup>63</sup> The information needs to be provided in a look-through approach, e.g. also collective investment undertakings as well as mortgages and loans are included. The assets held for index-linked and unit-linked contracts should not be included where these cover technical provisions valued as a whole.

	CIC codes
<b>Government portfolio</b>	11, 13*, 14*, 15, 16, 17, 19
<b>Corporate portfolio</b>	12, 13*, 14*, 21, 22, 23, 24, 25, 26, 27, 28, 29, 42, 52, 54, 62, 64, 81, 82, 84, 85, 86, 89
<b>Other</b>	All other CIC codes

### Calculation of $PVBP(BEL_{i,c})$

2.367 The price value of a basis point of the best estimate of the liabilities should be calculated as a sensitivity in the value of the VA. This means that  $PVBP(BEL_{i,c})$  is calculated as the difference in the value of the best estimate<sup>64</sup> with and without applying the part of  $VA_{i,c}^{Option 4}$  that does not depend on the undertaking specific application ratio, i.e.  $GAR \cdot RC_{S_{i,c}}$ :

$$PVBP(BEL_{i,c}) = \frac{BEL_{i,c}(RFR_c) - BEL_{i,c}(RFR_c + GAR \cdot RC_{S_{i,c}})}{GAR \cdot RC_{S_{i,c}}}$$

where

- $RFR_c$  denotes the basic risk-free interest rate term structure for currency  $c$
- $RFR + GAR \cdot RC_{S_{i,c}}$  denotes the basic risk-free interest rate term structure, to which a volatility adjustment of size  $GAR \cdot RC_{S_{i,c}}$  is applied<sup>65</sup>

2.368 To determine  $PVBP(BEL_{i,c})$ , a revaluation of the best estimate needs to be performed taking into account the effect of future discretionary benefits (i.e. including LAC TP). For the purpose of that calculation, asset values stay

<sup>63</sup> The CIC codes 13 and 14 were used to identify bonds issued by Regional government and local authorities (RGLA). RGLA should be allocated to government portfolio if they are listed in the Commission Implementing Regulation (EU) 2015/2011 ([https://eur-lex.europa.eu/eli/reg\\_impl/2015/2011/oj](https://eur-lex.europa.eu/eli/reg_impl/2015/2011/oj)) and otherwise to non-financial corporate portfolio according to their credit quality step

<sup>64</sup> not including TP as a whole and net of reinsurance recoverables.

<sup>65</sup> i.e.  $GAR \cdot RC_{S_{i,c}}$  is applied as the current VA up to the last liquid point (LLP) and then extrapolated to the UFR

unchanged - no impact of a change in credit spreads on undertakings assets should be taken into account. Where an undertaking has liabilities denoted in several currencies,  $PVBP(BEL_{i,c})$  should be determined separately for each currency. The PVBP per currency should then be converted to euro and added up to arrive at one final figure for  $PVBP(BEL_{i,c})$ .

#### Calculation of $PVBP(MV_{i,c}^{FI})$

2.369 The price value of a basis point of the fixed income investments of the undertaking should be calculated based on the difference in their market value against current spreads and when spreads would have increased by the part of  $VA_{i,c}^{Option 4}$  that does not depend on the undertaking specific application ratio, i.e.  $GAR \cdot RC_{S_{i,c}}$ :<sup>66</sup>

$$PVBP(MV_{i,c}^{FI}) = \frac{MV_{i,c}^{FI}(CS) - MV_{i,c}^{FI}(CS + GAR \cdot RC_{S_{i,c}})}{GAR \cdot RC_{S_{i,c}}}$$

where  $CS$  denotes the current level of spreads.

#### Calculation of $RC_{S_{i,c}}$

2.370 The risk corrected spread of the undertaking's fixed income investments can be calculated using the current VA or the undertaking specific VA under option 1. In both cases, for the calculation of the risk correction option 6 can be applied – in the first case potentially with a uniform factor and a differentiated one under option 1 (see details there).

2.371 In case the risk corrected spreads  $RC_{S_{i,c}}$  are calculated using the current VA, the weights and spreads underlying this calculation are taken from the representative portfolio for currency  $c$  and hence are not undertaking specific. This means that, in this case, the risk corrected spreads  $RC_{S_{i,c}}$  is also not undertaking specific and can be written as

$$RC_{S_c} = \frac{W_{c,gov} \cdot RC_{S_{c,gov}} + W_{c,corp} \cdot RC_{S_{c,corp}}}{W_{c,gov} + W_{c,corp}}$$

where

- $W_{c,gov}$  and  $W_{c,corp}$  are the weights of government bonds and corporate bonds in the representative portfolio for currency  $c$
- $RC_{S_{c,gov}}$  is the average risk corrected spread for government bonds in the representative portfolio for currency  $c$  and
- $RC_{S_{c,corp}}$  is the average risk corrected spread for corporate bonds in the representative portfolio for currency  $c$

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<sup>66</sup> To best capture VA effects in the base case at the valuation date, the PVBPs would be calculated under conditions of the valuation date, e.g. as sensitivity under the given VA. For more details please refer to the background information in annex 2.11

2.372 Note that, under the current design of the VA, the VA for currency  $c$  is calculated as

$$VA_c^{current} = GAR \cdot RC_{S_c}^{current}$$

where the risk corrected currency spread  $RC_{S_c}^{current}$  is calculated as

$$RC_{S_c}^{current} = W_{c,gov} \cdot RC_{S_{c,gov}} + W_{c,corp} \cdot RC_{S_{c,corp}}$$

2.373 Note that the calculation of  $RC_{S_c}^{current}$  differs from the calculation of the risk corrected spread  $RC_{S_{i,c}}$  used in option 4 with respect to the division by the term

$$W_{c,gov} + W_{c,corp}$$

in the calculation of  $RC_{S_{i,c}}$ . This division is introduced to ensure that, under option 4, the weights that are used to aggregate the risk corrected spreads within the portfolios of corporate and government bonds are relative to the fixed income investments of the undertakings, rather than to the total investments of the undertakings.

2.374 Hence where option 4 is combined with the current VA, we have that

$$RC_{S_c}^{current} = RC_{S_c} \cdot (W_{c,gov} + W_{c,corp}) \leq RC_{S_c},$$

i.e. the risk corrected spread used in the current VA is smaller than the risk corrected spread used in option 4.

2.375 For example, suppose the average risk corrected spread on the fixed income assets in the reference portfolio equals 50 basis points. Then the risk corrected spread used in option 4 is set at 50 basis points, whereas the current VA method would weigh this 50 basis points with the allocation to fixed income of the reference portfolio, i.e. 70-80 percent, and set the risk corrected spread at 35-40 basis points. In case of an undertaking with application ratio  $AR_{i,c}^{Option 4}$  equal to 1 and assuming a general application ratio of 65%, this would mean that the resulting VA for this undertaking under option 4 would be  $65\% \cdot 50 \text{ BPS} = 32,5 \text{ BPS}$  and thus higher than the current VA of  $65\% \cdot 35 \text{ BPS} = 22,75 \text{ BPS}$ .

### **Combinations**

2.376 This option can be combined with Options 1 and 2 where the VA is based on the assets of the undertaking. This combination would then also address the remaining source of over- and undershooting as these two options address the issue of deviating from the reference portfolio. Where option 4 is combined with option 1, the calculation of the risk corrected spreads  $RC_{S_{i,c}}$  would be based on the weights of the sub-classes of the individual undertaking's fixed-income investments, together with the risk-corrections (relative to the current spreads) foreseen under those option.

2.377 This option can also be combined with Option 5 (the illiquidity premium approach): it would address two of three sources of under- and overshooting that remain under option 5. Conceptually it would imply that the illiquidity premium no longer only relies on the liability characteristics, but also to a



small extent on the assets: this option then reflects the extent the allocation to, and the spread duration of, the fixed income investments are sufficient to actually earn this illiquidity premium.

2.378 Under Option 3, the asset driven approach, this fix for the over- and undershooting effects of the VA becomes obsolete, because this approach is already based on the undertaking's allocation to fixed income and the duration thereof; as such it already addresses these two sources of under- and overshooting.

### **Implications for the SCR standard formula calculation**

2.379 The option does not necessitate a change in the SCR standard formula calculation

### **Pros and cons**

<b>Pros</b>	<b>Cons</b>
Addresses two of three sources of existing under- and overshooting issues.	The option will increase the complexity and costs of the application and supervision of the VA.
Differences in valuations of same liabilities justified by better cash-flow matching: the better the asset cash-flows match the liabilities, the higher the application ratio and the higher the effective VA applicable.	

### **Option 5 – Adjustment accounting for the illiquidity of liabilities**

#### **Description**

2.380 This option introduces an adjustment to the calculation of the VA which is intended to account for the illiquidity characteristics of liabilities in the valuation of technical provisions.

2.381 Insurance liabilities are valued by determining a probability-weighted average of cash-flows taking into account the time value of money using the relevant risk-free interest rate term structure. Default instruments for deriving the risk-free interest rates are swaps. Swap rates are taken from liquid markets whereas insurance liabilities can be illiquid, in the sense that they have stable and predictable cash flows. It can therefore be argued that an additional illiquidity premium could be taken into account in the valuation of such liabilities which reflects a premium for an illiquid investment which can serve to replicate their cash flows. The main target of a VA representing such an illiquidity premium is to explicitly recognise the illiquidity

characteristics of insurance liabilities in the determination of the risk-free interest rate and in this way eliminate the current valuation mismatch between illiquid investments and illiquid liabilities. Note that under the current design of the VA, the size of the VA does not depend on the characteristics of the undertaking's liabilities. This means that undertakings with liabilities that are to a large extent illiquid can apply the same VA as undertakings with liabilities that are hardly illiquid.

2.382 Taking into account the illiquidity of the liabilities in the VA also reflects that undertakings that have sufficient illiquid liabilities to hold on to their investments are less exposed to forced sales. Subsequently, those undertakings do not have to sell their fixed income assets and thus do not have to realize losses due to exaggerated bond spreads.

### **Calculation**

2.383 Option 5 suggests an application ratio based on the illiquidity features of insurers' liabilities to be included in the calculation of the VA: ARI.

2.384 The more stable and predictable the cash flows, the more the liabilities can be considered as illiquid. If cash flows are fixed irrespective of whatever scenario, they are considered as fully illiquid because they are perfectly predictable and stable. The measurement of the illiquid part of the liabilities can be based on liabilities sensitivities and/or on liabilities' contractual features and risks characteristics.

### **Approach A: undertaking-specific share of illiquid liabilities based on stressed cash flows.**

2.385 The more the cash flows are predictable and stable over different stress scenarios, the more illiquid they are. If cash flows are sufficiently stable that it could be stated with sufficient certainty that an amount of funds could be invested for a specific time horizon, this amount of funds could be considered as illiquid for this time horizon.

2.386 Based on this concept, the liability cash flows before and after pre-defined stresses can define a share of liabilities that is predictable. This approach is applicable for both life and non-life obligations, but the relevant stresses differ between the two. For life obligations, mortality, mass lapse and the relative lapse up scenarios are considered. For non-life obligations mass lapse, reserve risk and catastrophe risks should be considered. Note that in its information request early 2019 EIOPA did not ask for all these non-life scenarios. Given the cash flows after these stresses, the minimum amounts available after x years could be determined. These amounts could be replicated with an illiquid cash flow due in x years. Put differently, these amounts could be invested in illiquid assets for x years.

**Non-life obligations, reserve risk and cash flows**

2.387 All relevant risks need to be included when measuring illiquidity. The information request captured mass lapse risk, but catastrophe risk and reserve risk are also relevant as they can lead to liquidity needs and forced sales of assets. For the scenario-based calculations of the standard formula the measurement of illiquidity as outlined above for life obligations can easily be extended to non-life, so catastrophe risk should be taken into account in the same way. However, a further complexity arises for factor-based modules. The illiquidity properties of liabilities are mainly driven by the volatility of reserves. Although premium provisions would give rise to reserves settlement, the PG considers that reserve risk better reflects the volatility of the reserves and should be taken into account in the measurement of illiquidity as well. In particular, the standard deviation for non-life reserve ( $\sigma_s$ ) risk complements the variation of liabilities net cash flows after the mass lapse and catastrophe stresses. Cf. appendix II of the Delegated regulation for the segmentation of non-life insurance and reinsurance obligations and standard deviations for the non-life premium and reserve risk sub-module. The standard deviations for non life risk are reported below per segment.

<b>Segment</b>	<b><math>\sigma_s</math></b>	<b>Segment</b>	<b><math>\sigma_s</math></b>
Motor vehicle liability insurance and proportional reinsurance	9%	Legal expenses insurance and proportional reinsurance	12%
Other motor insurance and proportional reinsurance	8%	Assistance and its proportional reinsurance	20%
Marine, aviation and transport insurance and proportional reinsurance	11%	Miscellaneous financial loss insurance and proportional reinsurance	20%
Fire and other damage to property insurance and proportional reinsurance	10%	Non-proportional casualty reinsurance	20%
General liability insurance and proportional reinsurance	11%	Non-proportional marine, aviation and transport reinsurance	20%
Credit and suretyship insurance and proportional reinsurance	19%	Non-proportional property reinsurance	20%

2.388 Based on these factors, the best estimate cash flows could be adjusted as follows to derive 'shocked' cash flows:

$$cashflow_{i,t} = cashflow_{BE,t} \cdot (1 + 3 \cdot \sigma_s)$$

- 2.389 This ensures that the discounted value of the shocked cash flows equal the discounted value of the best estimate cash flow plus the impact of the factor based 'shock'. Based on these cash flows the illiquidity measurement as performed for life obligations could be applied.
- 2.390 Note that the volatility adjustment is currently not restricted with respect to the liabilities it can be applied to. These can include long-term life insurance contracts but also short-term non-life insurance contracts. This gives rise to the question as to whether any adjustment, in particular where it aims to reflect an illiquidity premium, should also apply to short-term non-life insurance contracts. One can argue that where the illiquidity of liabilities can be measured adequately, an adjustment can also be applied to short-term non-life, assuming that for very volatile business the application ratio would be rather small.
- 2.391 On the other hand, as outlined above, it appears that it is not straightforward to determine stressed cash flows for non-life insurance obligations. Thus, it may be prudentially justified to not apply a VA to non-life obligations (life obligations arising from non-life contracts would though be included in the scope for application). This would mean that an application ratio of zero would be used for non-life obligations.

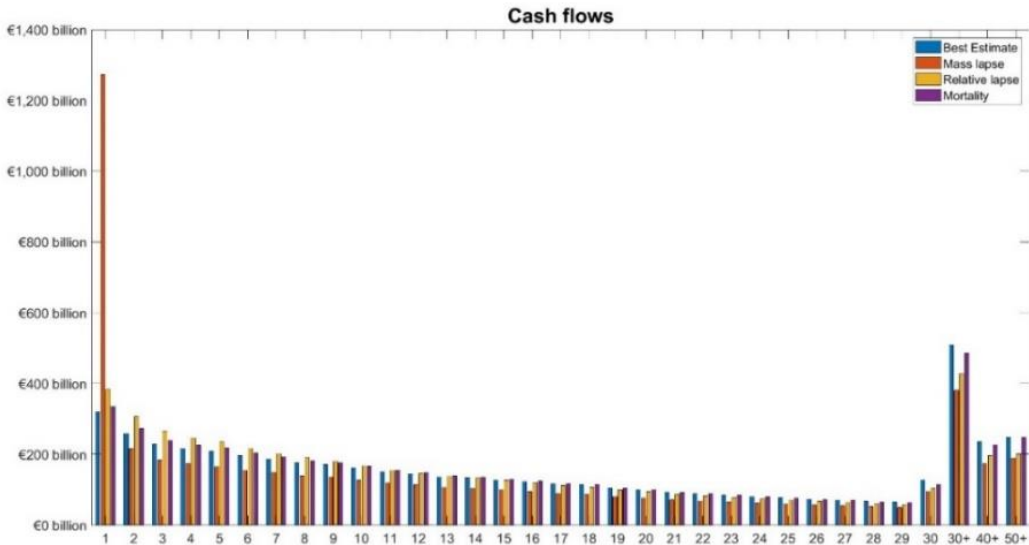
### **Stochastic valuation and cash flows**

- 2.392 The liability cashflows require some further specification where a stochastic valuation for the technical provisions is performed. In this case, the cashflow should be equivalent to the stochastic set. This means that the discounted value of this cashflow should be equal to the best estimate. The cashflows should be determined as follows: For each maturity, the market value of cashflows with that maturity is calculated by discounting the scenario-dependent cashflows at the scenario dependent interest rates and then averaging these discounted values over all scenarios. Subsequently, this market value per maturity is accrued at the prevailing risk-free interest rate for that maturity. This implies that discounting the reported cashflows correspond to the best estimate.
- 2.393 Note that where an undertaking has liabilities denoted in several currencies, the best estimate cash flows should be determined as the sum of the best estimate cashflows for each currency, converted to euro.

### **Calculation of illiquid cash flows**

- 2.394 The figure below shows the total best estimate cash flows from the information request as well as these cash flows after applying the standard formula mass lapse, relative lapse up and mortality shocks. For non-life liabilities, only the mass lapse shock was applicable.

### Best estimate and stressed cash flows

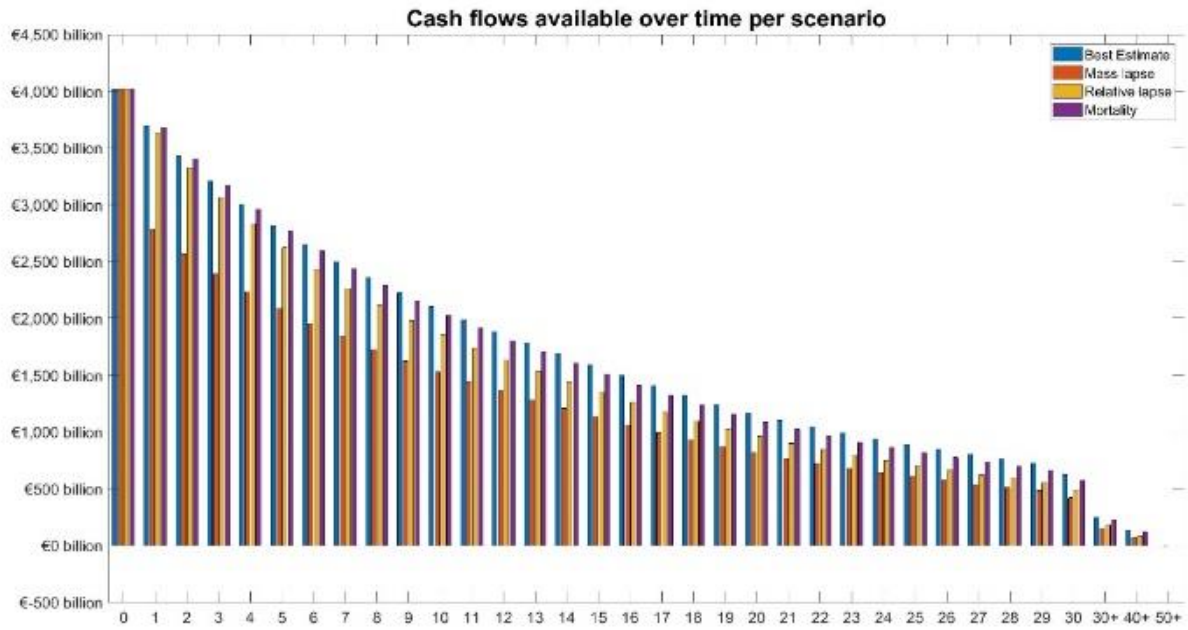


Starting from the discounted value of the best estimate at  $t=0$ , the available funds  $AvailableFunds_{i,t}$ , at maturity  $t$  is derived by accruing the available funds at time  $t-1$ , with the basic risk free forward rate,  $interest_t$ , and deducting the best estimate cash flows,  $cashflow_{i,t}$ , at  $t$  for the three stress scenarios as well as the best estimate scenario. It corresponds to the funds available after  $t$  years per scenario  $i$ , including the best estimate scenario.

$$AvailableFunds_{i,t} = AvailableFunds_{i,t-1} \cdot (1 + interest_t) - cashflow_{i,t}$$

2.395 The figure below shows these available funds per maturity  $t$  for the aggregated cash flows of the information request. In the figure below, the minimum value for the aggregate liabilities from the information request, arises from the mass lapse sensitivity for all years. For individual undertakings, the minimum value can, however, arise from different scenarios and the minimum may depend on different scenarios over the years.

**Available funds over time per scenario**

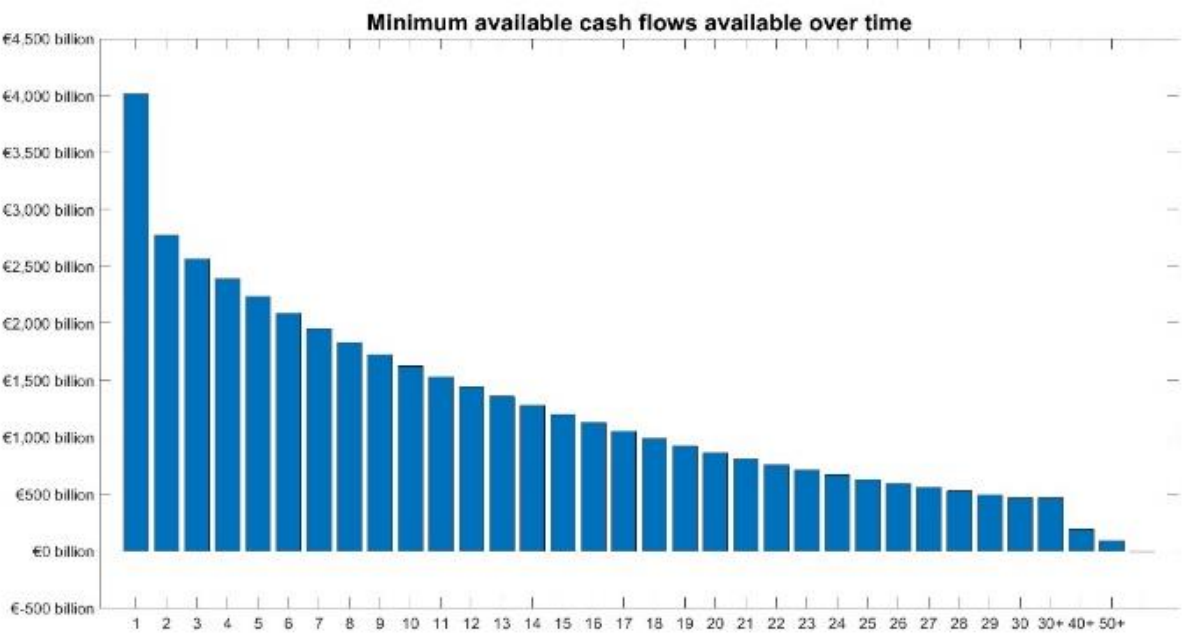


2.396 From these streams available funds over time, the minimum value retained for each year of projection over the different scenarios is determined.

$$MinAvailable_0 = Discounted Value Best Estimate$$

$$MinAvailable_{t>0} = \min_i \{ AvailableFunds_{i,t-1} \times (1 + interest_t) \}$$

**Minimum available amount of funds over time**



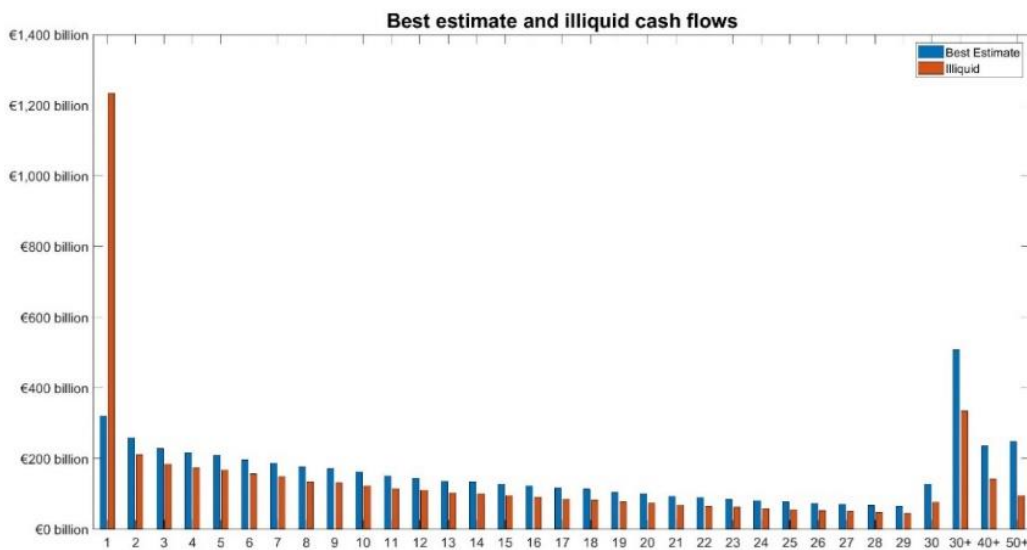
2.397 These amounts in the figure above are the amounts that can be kept up to the specific point in time. An amount that can be kept for more than 50 years,

can also be kept for more than 40 years, 30 years, etc. The idea is that the replicating illiquid investments are chosen such that the term of the illiquid investments is as long as possible. The illiquid cash flows are then determined as the maximum amount that can be kept for t years:

$$\text{Illiquid}_t = \text{MinAvailable}_t - \text{MinAvailable}_{t+1} / (1 + \text{interest}_t)$$

2.398 The figure below shows the aggregated illiquidity cash flows from the information request. For all maturities, including for more than 50 years, a significant part of the cash flows can be considered as illiquid according to this method.

### Best estimate and illiquid cash flows



### Calculation – approach A

2.399 Under this approach, the undertaking illiquid liability specific VA becomes:

$$VA_{i,c}^{Option\ 5} = GAR \cdot AR_{i,c}^{Option\ 5} \cdot RC_{S_{i,c}}$$

where

- $GAR$  is the general application ratio, currently 65%
- $AR_{i,c}^{Option\ 5}$  is the application ratio for option 5 applicable to undertaking  $i$  and currency  $c$
- $RC_{S_{i,c}}$  denotes the average risk corrected spread of the fixed income investments either of a reference portfolio or of undertaking  $i$  in currency  $c$

2.400 The application ratio  $AR_{i,c}^{Option\ 5}$  is calculated as

$$AR_{i,c}^{Option\ 5} = \min \left\{ \frac{PVBPCF(ILL_{i,c})}{PVBPCF(BEL_{i,c})}; 1 \right\}$$

where

- $PVBPCF(BEL_{i,c})$  equals the price value of a basis point of the best estimate cash flows of undertaking  $i$  in currency  $c$
- $PVBPCF(ILL_{i,c})$  equals the price value of a basis point of the illiquid liabilities of undertaking  $i$  in currency  $c$

2.401 As an alternative, the undertaking illiquid liability specific VA can also be determined as follows:

$$VA_{i,c}^{Option\ 5} = GAR \times AR_{i,c}^{Option\ 5} \times S_{i,c} \times factor_{IL}$$

where

- $GAR$  and  $AR_{i,c}^{Option\ 5}$  are defined as above
- $S_{i,c}$  denotes the average spread of the fixed income investments either of a reference portfolio or of undertaking  $i$  in currency  $c$
- $factor_{IL}$  denotes the share of the spread that can be allocated to illiquidity

2.402 We note the following aspects of the calculation as outlined above:

Definition of fixed income investments for calculation of option 5

2.403 For the purposes of the calculation of option 5, the same definition of fixed income investments as under option 4 should be used.

Calculation of  $PVBPCF(BEL_{i,c})$

2.404 The price value of a basis point of the best estimate cash flows of undertaking  $i$  in currency  $c$  should be calculated as a variation of the discounted value of the best estimate cashflows applying an increase of interest rates by 1bps. This means that  $PVBPCF(BEL_{i,c})$  is calculated as the difference of the discounted value of the best estimate cash flows before and after increasing the basic risk-free rates by 1 basis point:<sup>67</sup>

$$PVBPCF(BEL_{i,c}) = BEL_{i,c}^{CF,RFR}(RFR + 0) - BEL_{i,c}^{CF,RFR}(RFR + 0.01\%)$$

where

- $RFR$  denotes the basic risk-free interest rate term structure
- $RFR + 0.01\%$  denotes the basic risk-free interest rate term structure to which an upward adjustment of 1 BPS is applied.
- $BEL_{i,c}^{CF,RFR}(\overline{RFR})$  denotes the present value of the best-estimate cash-flows which were determined using RFR but now discounted with a different

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<sup>67</sup> Note that the BE cashflows are assumed to be constant in this calculation. No recalculation of the cashflows under an increase of interest rates applies.



interest rate term structure  $\widehat{RFR}$ . Thus, no revaluation of the best-estimate cash-flows using the different term structure applies.

#### Calculation of $PVBP(ILL_{i,c})$

2.405 The price value of a basis point of the illiquid liabilities of undertaking  $i$  in currency  $c$  should be calculated as a variation of the discounted value of the illiquid best estimate cashflows applying an increase of interest rates by 1bps. This means that  $PVBP^{CF}(ILL_{i,c})$  is calculated as the difference between the discounted value of the illiquid liabilities' cash flows before and after increasing the basic risk-free rates by 1 basis point:

$$PVBP^{CF}(ILL_{i,c}) = ILL_{i,c}(RFR + 0) - ILL_{i,c}(RFR + 0.01\%)$$

where

- $RFR$  denotes the basic risk-free interest rate term structure
- $RFR + 0.01\%$  denotes the basic risk-free interest rate term structure to which an upward adjustment of 1 BPS is applied.

2.406 Since the discounted value of the best estimate and illiquid cash flows are the same by construction, the ratio of PVBP's are equal to the ratio of the durations and mirror the impact of the stresses on the duration profile, i.e. whether cash flows arise earlier than expected in the best estimate.

#### Calculation of $RC_{S_{i,c}}$

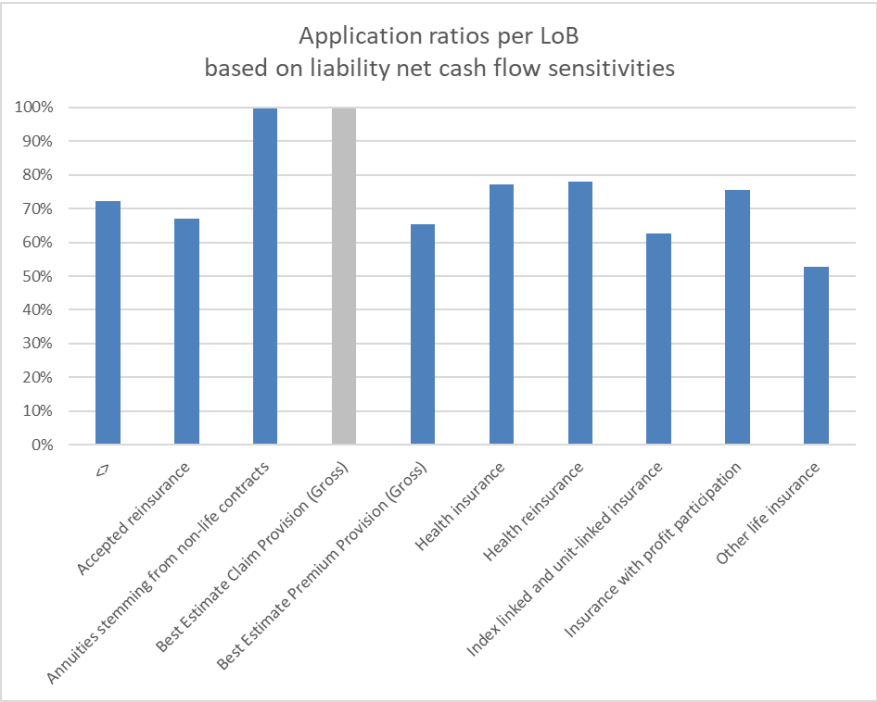
2.407 The risk corrected spread of the undertaking's fixed income investments can be calculated using the current VA (in possible combination with option 6) or the undertaking specific VA under option 1.

2.408 For further details to the calculation of  $RC_{S_{i,c}}$  we refer to the description of option 4, where the same component is used in the calculation of the VA.

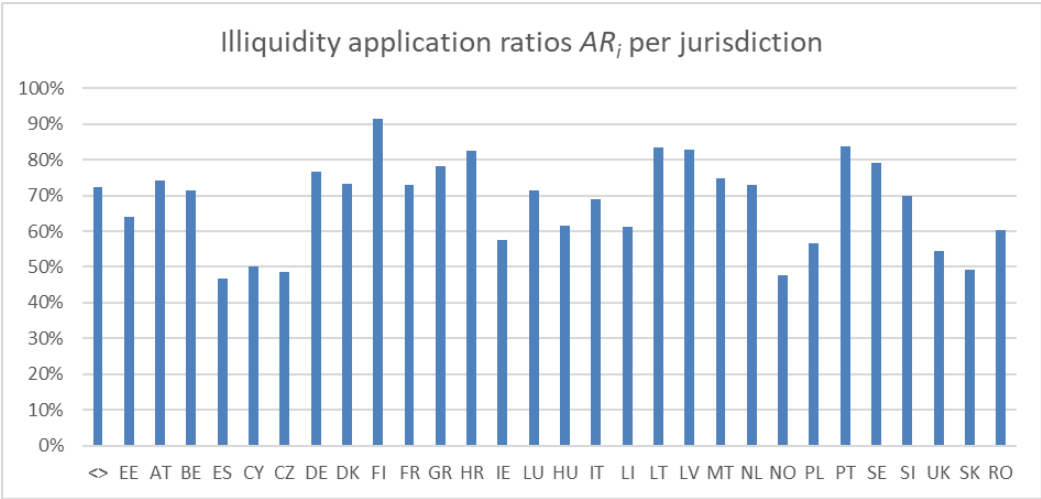
2.409 Application ratios  $AR_i$  under approach A

2.410 The three figures below show the application ratios per LoB, per jurisdiction and the dispersion over the undertakings selected for the information request.

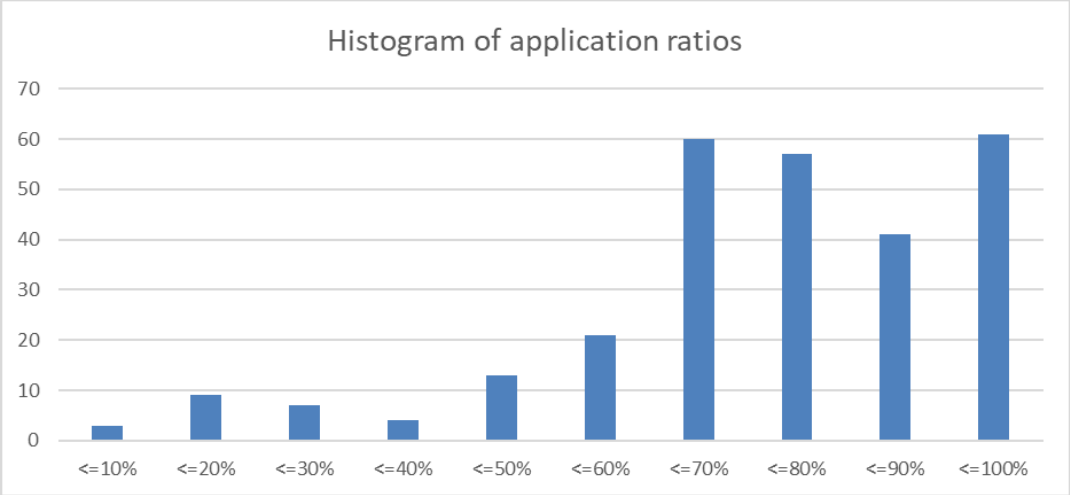
### Illiquidity application ratios per LoB



### Illiquidity application ratios per jurisdiction



**Dispersion of the illiquidity application ratio**



**Approach B: Bucketing of the liabilities according to specific criteria**

2.411 Under this approach, the  $AR_{i,c}^{Option 5}$  is determined on basis of a bucketing of the liabilities according to specific criteria on the illiquidity features of the liabilities. These features could include, for example, the existence of surrender rights, exposure to mortality risk, excluding specific liabilities like, for example, future discretionary benefits and/or unit-linked business, etc.

2.412 Based on the information collected in spring 2018 and spring 2019, liabilities have been grouped according to their illiquidity features. A relevant feature of illiquidity is the option to surrender / cancel and whether there is a disincentive to surrender where this is assumed to have a relevant impact on surrender risk. In case no options to surrender/ cancellation exist, the liabilities are considered the most predictable, therefore illiquid.

In % of total BE	Life	Non-Life
No surrender/cancellation options	15%	70%
Surrender/cancellation options, value never exceeds value of the assets	20%	2%
Surrender/cancellation options, may result in a loss	65%	28%
<i>o.w. no disincentive</i>	<i>24%</i>	
<i>o.w. tax disincentive</i>	<i>32%</i>	
<i>o.w. surrender penalty</i>	<i>19%</i>	

<i>o.w. other disincentive</i>	9%	
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2.413 EIOPA investigated whether there is any observable relationship between the presence of any disincentives for cancellation/surrender and the surrender/cancellation rate for life products. But, EIOPA could not find sufficient evidence of that. For products that are not exposed to lapse risk but where insurers reported a typical time or the first opportunity for cancellation/surrender, it seems that for shorter maturity contracts, the tax disincentive has an impact on lapse rates (see table below).

2.414 Nevertheless, these short maturity contracts do not represent the majority of products within the category of products with a surrender/cancellation opportunity but not exposed to lapse risk (4%). Products with other disincentives for cancellation displayed lower rates in very limited cases: typical maturity between 10-15 years and lifelong products.

EEA	Average surrender/cancellation rate			
	All	Of which no disincentives for cancellation	Of which tax treatment	Of which other disincentives for cancellation
Typical contractual maturity				
<5 years	13%	13%	1%	13%
5-10 years	6%	5%	4%	11%
10-15 years	14%	16%	7%	9%
15-20 years	13%	11%	22%	14%
>20 years	0%	0%	4%	18%
Lifelong	12%	14%	13%	8%

2.415 Under such an approach, liabilities could be grouped according to their contractual features and application ratios  $AR_{i,c,g}^{Option 5}$  attached to this groups  $g$  of policies.

2.416 The following table outlines how this approach could be implemented:

Group	Contracts with the following characteristics	Typical examples for contracts falling in such category	Application factor

I – High illiquidity	<ul style="list-style-type: none"> <li>• without any surrender/cancellation option or where the surrender value does not exceed the market value of the assets and</li> <li>• with low mortality risk and catastrophe risk</li> </ul>	<ul style="list-style-type: none"> <li>• annuities in payment phase</li> <li>• term life insurance (without savings component)</li> <li>• disability insurance</li> </ul>	$AR_{i,1}\%$
II – Medium illiquidity	<ul style="list-style-type: none"> <li>• with limited surrender risk: <ul style="list-style-type: none"> <li>○ including disincentives for surrender</li> <li>○ low risk charge for the risk of a permanent increase in lapse rates</li> <li>○ ...</li> </ul> </li> <li>• With low mortality risk and catastrophe risk</li> <li>• ...</li> </ul>	<ul style="list-style-type: none"> <li>• State subsidised pension products</li> </ul>	$AR_{i,2}\%$
III – Low illiquidity	Contracts that do not fall into category I or II.	...	$AR_{i,3}\%$
...			

2.417 The determination of an undertaking-specific share of illiquid liabilities based on the liabilities sensitivities to predefined stresses (approach A) is considered more informative than the liabilities contractual and risks characteristics (approach B). Indeed the cash flows pattern and sensitivities implicitly reflect the contractual and risks characteristics associated. It is therefore suggested to further progress with approach A.

2.418 A different approach would be to exclude liabilities which cash flows depend on the evolution of the financial markets, like interest rates. This holds for the future discretionary benefits part and financial guarantees and may also be the case where there is a material impact of interest rate dependent lapses. In terms of valuation by replication, such liabilities are replicated by a dynamic hedging/matching strategy using interest rate swaps and/or swaptions; these replicating instruments do not contain an illiquidity premium

and as such it could be argued that applying the VA as an illiquidity premium to these liabilities is not justified.

### **Reporting on Liquidity buffer**

2.419 In addition to the above mentioned illiquidity measurement, it was considered whether it is necessary to capture undertaking's exposure to the risk of forced sale by taking into account the ability of the undertaking to cope with expected and unexpected liquidity needs. This would be reflected by the following reporting on liquidity buffer.

2.420 Insurance and reinsurance undertakings applying the VA should report on liquidity buffer available to mitigate the risk of forced sale of assets during the next 12 months. The size of the liquidity buffer should be determined as the sum of the following amounts:

- fixed income interest payments (e.g. coupons) expected within the next 12 month,
- fixed income redemptions at maturity expected within the next 12 month,
- foreseeable dividend payments within the next 12 months other than from own shares,
- rents expected within the next 12 month,
- cash, bank deposits and short term securities (<1 year).

2.421 In addition, the net best estimate liability cash-out flows in the first year of the sensitivities applied in the calculation of the illiquidity application ratio should be reported. From the three sensitivities analysed (mortality, lapse up and mass lapse), the sensitivity that is the most severe in the first year should be taken into account.



### **Questions to stakeholders**

**Q2.6:** Should liquidity buffers be recognized in the VA calculation? If yes, please describe how they should be recognized.

### **Implications for the SCR standard formula calculation**

2.422 This option could be combined with an allowance for the dynamic VA in the SCR standard formula. Where the VA is interpreted as an inherent component of the valuation of technical provisions accounting for the illiquidity of liabilities, such an approach would ensure consistency between the risk measurement in the SCR and the derivation of technical provisions. Further, it would be intended to address supervisory concerns in cases that

undertakings do not hold sufficient spread sensitive assets but benefit from an illiquidity premium.

2.423 Note however that EIOPA holds the view that the disadvantages of an allowance for the dynamic VA in the SCR standard formula clearly outweigh the advantages of such an option, in particular as it effectively not improves the level playing field between users of the standard formula and users of internal models.<sup>68</sup>

2.424 If this option would be combined with Option 4 allowing for additional application ratios fixing the over- and undershooting issues, an alternative would be to use the final application ratio applied to the VA (i.e. the minimum of the application ratio  $AR_i$  of option 4 and option 5 times GAR) as reduction factors for the standard formula credit spread charges. This would hamper the consistency between balance sheet valuation and risk measurement/capital requirements, but is conceptually consistent and less burdensome than recalculating the VA and accordingly the technical provisions in the spread risk.

### Pros and cons

Pros	Cons
<p>Reflecting that more illiquid liabilities enable to withstand exaggerated bond spreads and/or to actually earn the VA.</p> <p>Can easily be combined with many of the other options.</p> <p>Allows direct recognition of illiquidity characteristics of liabilities, supporting further availability of long-term insurance products.</p>	<p>There is no reliable method to quantify the impact of the liability characteristics on the transfer value. The option therefore includes model risk. Conservative proxies could be used to mitigate this.</p>
<p>The illiquidity premium aims to address the current valuation mismatch in terms of illiquidity of assets and liabilities.</p>	<p>Where an additional scenario in the SCR standard formula calculation is introduced to reflect the mismatch of illiquid assets and liabilities this may lead to additional complexity.</p>
<p>Consistency between valuation and risk measurement where risk of illiquidity mismatch between assets and liabilities is targeted by an additional scenario in the SCR standard formula.</p>	<p>Risk of illiquidity mismatch between undertaking's assets and liabilities needs to be separately addressed (e.g. in the SCR/ORSA/risk management, undertaking with 100% equity investment).</p>

<sup>68</sup> For a full "horizontal" discussion on this issue see section 7

<p>Reflecting a share of the current market spread (rather a spread that allows for a risk-correction based on a long-term average) fits better into the market consistent valuation framework.</p>	<p>The option will increase the complexity and costs of the application and supervision of the VA.</p>
<p>In line with transfer value concept for valuation of liabilities, clear underlying rationale (e.g. on illiquidity of liabilities) implies that underlying assumptions can be supervised. Differences in valuations of same liabilities can be justified better: the better the assets match the liabilities, the higher the application ratio and the higher the effective VA applicable.</p>	
<p>Where applied to guaranteed benefits (approach B; i.e. VA not applied to financial guarantees and FDB), the VA would not be recognized in the calibration of economic scenario generators. Thus distortions would be avoided where a stochastic valuation of technical provisions is performed.</p>	

## **Option 6 – risk correction calculated as a percentage of the spread**

### **Description**

2.425 The risk correction (RC) for the VA according to Article 77d of the Solvency II Directive shall correspond the portion of the spread that is attributable to a realistic assessment of expected losses (EL) or unexpected credit or other risk of the assets (UEL).

2.426 According to Article 51 of the Delegated Regulation the RC shall be calculated in the same manner as the fundamental spread (FS) for the MA. Thus according to article 77c (2) of the Solvency II Directive, the RC currently is calculated as the maximum of:

- the sum of the credit spread corresponding to the probability of default (PD) and the credit spread corresponding to the expected loss resulting from downgrading (cost of downgrading CoD); and,



- a percentage of the long-term average spread (LTAS) for the assets under consideration.<sup>69</sup>

2.427 Where no credit spread from default statistics can be derived, the FS and thus the RC shall be equal to the portion of the LTAS as described before (Article 77c (2) of the Solvency II Directive).<sup>70</sup>

2.428 The use of the FS (as taken from the MA context) as a risk correction for the VA leads to significant technical issues, among others<sup>71</sup> that it is very stable over time.

2.429 Therefore, this option suggests to decouple the calculation of the RC for the VA from the calculation of the FS for the MA. The RC for the VA can be simple in design and can be determined based on current spread information rather than on long-term averages.

### **Calculation**

2.430 Under this option, it is suggested to calculate the risk correction as follows:

$$RC = \max(RC\% \cdot S_c; 0)$$

2.431 Where  $RC\%$  reflects a fixed percentage and  $S_c$  is the currency spread determined on the basis of a representative portfolio or an undertaking's portfolio under option 1.

2.432 Note that this approach can also be applied on a more granular level, e.g. separately for government and corporate bonds as follows:

$$RC_{gov} = \max(RC_{gov}\% \cdot S_{c,gov}; 0)$$

$$RC_{corp} = \max(RC_{corp}\% \cdot S_{c,corp}; 0)$$

where  $RC_{gov}\%$  and  $RC_{corp}\%$  reflect fixed percentages and  $S_{c,gov}$  and  $S_{c,corp}$  are the government and corporate currency spread determined on the basis of a representative portfolio or and undertaking's portfolio under option 1. The risk correction factor  $RC_{corp}\%$  may be differentiated further by e.g. distinguishing between different credit quality steps, or the categories of financial and non-financial corporate bonds.

2.433 The granularity of the determination of the risk correction should be chosen depending on the final choice for the VA. Where the VA is based on a reference portfolio it seems sufficient to only apply a differentiation between EEA

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<sup>69</sup> This percentage is 30% for exposures to Member States' central governments and central banks and 35% for other exposures and the statistics shall be based on data relating to the last 30 years (Article 54 of the Delegated Regulation). Note that also the calculation of PD and CoD is based on long-term statistics.

<sup>70</sup> In particular, this is the case for government bonds. For a detailed description of the calculation of the FS, see EIOPA's RFR methodology under [https://eiopa.europa.eu/Publications/Standards/20180813\\_Technical%20Documentation%20%28RFR%20methodology%20update%29.pdf](https://eiopa.europa.eu/Publications/Standards/20180813_Technical%20Documentation%20%28RFR%20methodology%20update%29.pdf).

<sup>71</sup> See description of deficiency 4 in subsection 2.4.5.1

government bonds and other bonds. In this case, only the two factors  $RC_{gov}\%$  and  $RC_{corp}\%$  would need to be determined. Where the VA is based on undertaking-specific spreads, it seems necessary to differentiate the RC further by e.g. credit quality steps to avoid wrong risk-management and investments incentives.

2.434 As in the current determination of the VA, the residual spread after risk correction would form the basis of the determination of the VA.

2.435 The potentially undertaking  $i$  specific VA under this approach for liabilities in currency  $c$  is calculated as follows:

$$VA_{i,c}^{Option\ 6} = GAR \cdot RC_{i,c}^{Option\ 6}$$

where

- $GAR$  is the general application ratio, currently 65%
- $RC_{i,c}^{Option\ 6}$  denotes the average risk corrected spread of the fixed income investments either of a reference portfolio or of undertaking  $i$  in currency  $c$

2.436 Please note that the weighting in the average risk corrected spread might change compared to the current VA if option 6 is combined with other options.

### **Calibration**

2.437 The calibration of the risk correction factors used under this option is certainly a decisive decision to take. In the following, a tentative calibration for  $RC_{gov}\%$  and  $RC_{corp}\%$  is set out.<sup>72</sup>

#### *Government bonds*

2.438 As empirical evidence on defaults of government bonds is limited,  $RC_{gov}\%$  could be set to 30% for EEA government bonds, similar to the factor chosen for the purpose of the determination of the fundamental spread.

2.439 Non-EEA government bonds would be treated similar to corporate bonds in terms of risk correction.

#### *Corporate bonds*

2.440 With respect to the calibration of  $RC_{corp}\%$  financial literature and academic studies are available. One of these studies by Giesecke et al. (2011) indicates that expected losses on long-term average are 50% of the spreads<sup>73</sup>. As this only reflects expected losses and not the credit risk

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<sup>72</sup> This assumes that the VA is determined on basis of a reference portfolio

<sup>73</sup> Reference from: Insurance Europe, The Matching Adjustment Theory and practice, 8 February 2013: "Over the long term, credit spreads are roughly twice as large as default losses, resulting in an average credit risk premium of about 80 basis points. We also find that credit spreads do not adjust in response to realized default rates."; K. Giesecke, F. Longstaff, S. Schaefer, I. Strebulaev, 2011. Corporate Bond Default Risk: A 150-Year Perspective. Journal of Financial Economics, 102(2), 233-250

premium for unexpected losses a risk-correction of at least 50% for corporate bonds seems appropriate.

2.441 Another approach to the risk correction could be to consider what in literature is called 'liquidity premium' (LP). The LP being in academic literature often identified with the 'bid-ask-spread', i.e. the difference in yield between those offering the debt ('bid') and those interested to buy ('ask').

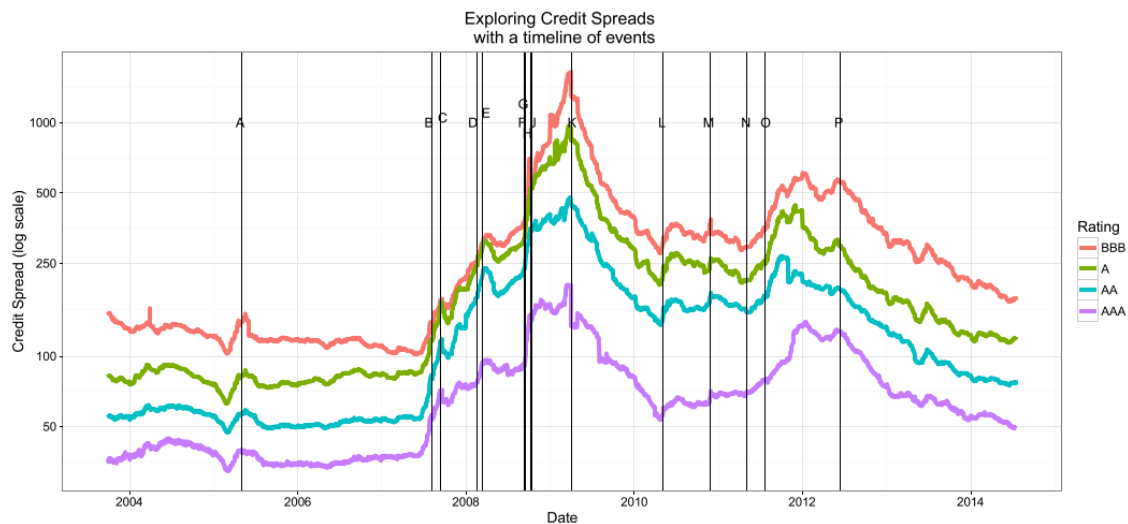
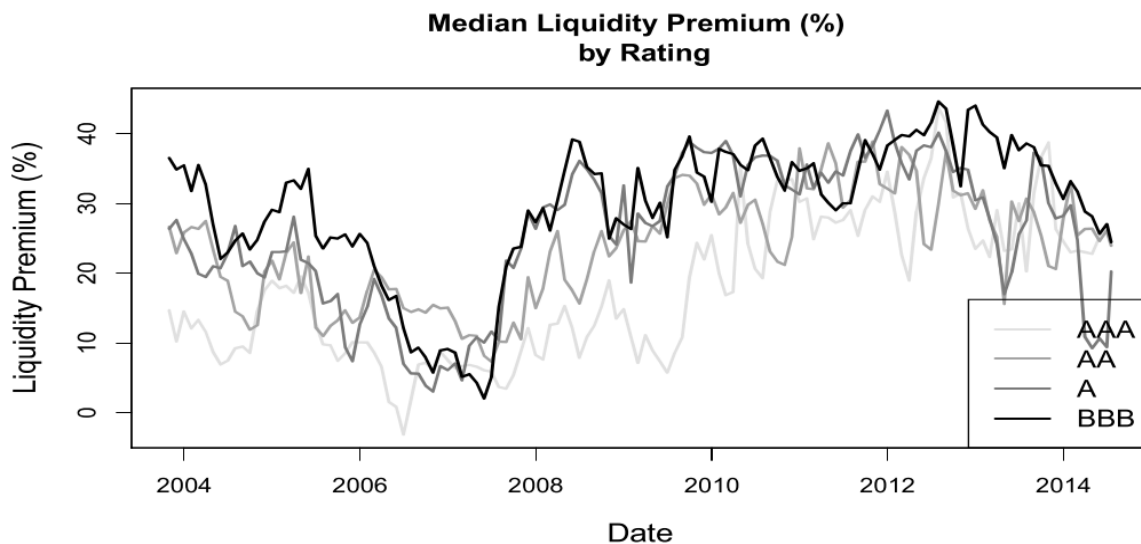
2.442 To avoid confusion, note that academic literature does not refer to the RC, but for the purposes of the calibration of option 6, the risk correction in a first step can be viewed as  $(1 - \text{liquidity premium})$  and vice versa. That is, the risk correction is *everything that is not liquidity premium*.

2.443 Papers considered are

- Van Loon [2017]: 'Empirical studies in corporate credit modelling; liquidity premia, factor portfolios & model uncertainty', Ph.D. thesis, Actuarial Research Centre, Institute and Faculty of Actuaries, March 2017
- Chen et al [2007]: 'Corporate Yield Spreads and Bond Liquidity', THE JOURNAL OF FINANCE o VOL. LXII, NO. 1 o FEBRUARY 2007.
- Webber [2007]: 'Decomposing corporate bond spreads', Bank of England, Quarterly Bulletin 2007 Q4
- Feldhütter et al [2012]: 'Corporate bond liquidity before and after the onset of the subprime crisis', Journal of Financial Economics 103 (2012), pages 471–492.
- Feldhütter, Schaefer [2018]: 'The Myth of the Credit Spread Puzzle', The Review of Financial Studies, Volume 31, Issue 8, August 2018, pages 2897–2942.

2.444 Van Loon [2017] uses a model of relative bid-ask spread (RBAS) as a measure of the liquidity premium (LP). The logic for this measure is that it represents the immediate cost of buying and selling an asset. There are other measures: CDS-spreads, percentage of zero returns, structural models (of default), and various regression model approaches. The value of LP can differ materially, but bid-ask is considered to be a common and robust metric.

2.445 Van Loon [2017] shows that the LP has changed over time and by rating. In particular, the LP during the 2008-9 crisis was not the same as what applied before or after. The following graph (Van Loon [2017], figure 2.18, page 69) provides an overview, which is here supplemented by a plot showing the absolute credit spreads and a legend describing the times of 2008 crisis (Van Loon [2017], figure 2.13, page 45):



- 2.446 The first graph suggest that for investment-grade papers the liquidity premium ranges between 0% and 40% and consequently the risk correction between 60% and 100%.
- 2.447 The second graph shows that short before or at the beginning of the 2008-crisis the LP from mid of 2006 to mid of 2007 was below 20% and even below 10% for some time. While during the crisis, between bars C and K from mid of September 2007 to April 2009 spreads and LP were high. The LP was especially high at event G when Lehman Brother's filed for bankruptcy. Furthermore, while LP in general seems to be higher post-crisis than pre-crisis, also 2014 shows some low LP values for A-rated bonds.
- 2.448 Irrespective of timing, one has to note that in the sense of a potential shock or prudence the LP can be quite low for a time.
- 2.449 Chen et al. [2007] is an earlier paper, which provides LP estimates by rating and duration bucket, based on US data from 1995 to 2003. Because the results do not distinguish by time, it is not possible to use these results to infer a risk correction under stressed conditions. Especially all of Chen et al.'s figures are from before the 2008 crisis.

Chen et al. [2007] provides the following summary table on page 127, in which, as in Van Loon [2017], liquidity premium is measured by the bid-ask spread. One has to note that this measure of LP varies materially from other figures in the Chen et al. dataset.

Liquidity & Yield spreads	S&P Credit Ranking						
	AAA	AA	A	BBB	BB	B	CCC to D
<b>Panel A: Short Maturity (1–7 years)</b>							
Zeros (%)	5.93	4.10	3.88	8.43	40.63	44.71	46.31
LOT (bp)	7.88	9.63	10.51	34.99	201.45	458.86	933.06
Yield Spread (bp)	84.06	96.91	129.34	252.09	575.58	1213.43	3949.55
N	87	336	1162	1234	333	167	119
Zeros (%)	3.20	3.35	3.33	7.80	42.77	44.00	51.09
LOT (bp)	5.83	8.18	9.82	34.40	191.23	335.63	868.59
Bid–ask (bp)	24.51	26.02	25.82	31.01	54.26	58.76	77.00
Yield spread (bp)	71.43	95.05	118.92	235.41	549.88	1247.23	3559.09
N	56	285	972	775	178	72	22
<b>Panel B: Medium Maturity (7–15 years)</b>							
Zeros (%)	9.79	12.59	10.61	11.94	36.99	38.71	34.96
LOT (bp)	24.28	47.26	57.74	70.29	259.34	342.50	941.84
Yield spread (bp)	82.44	146.24	177.68	277.45	566.53	947.14	2887.47
N	49	120	539	730	152	78	44
Zeros (%)	10.36	8.34	6.62	8.91	42.40	38.96	18.04
LOT (bp)	25.00	36.17	36.82	51.45	266.11	272.96	282.84
Bid–ask (bp)	49.52	36.57	38.20	44.22	54.65	60.44	180.35
Yield spread (bp)	70.65	129.02	154.19	251.68	497.45	863.71	1619.04
N	37	67	386	394	76	32	9
<b>Panel C: Long Maturity (15–40 years)</b>							
Zeros (%)	7.53	9.75	10.39	8.68	29.13	31.67	41.00
LOT (bp)	59.34	83.65	79.40	66.57	252.14	284.81	1023.18
Yield spread (bp)	133.81	152.25	183.76	242.16	437.69	681.44	2047.11
N	49	189	674	929	112	48	48
Zeros (%)	7.28	8.27	7.79	8.00	32.36	37.25	35.14
LOT (bp)	76.81	75.60	56.97	58.57	281.56	245.78	328.25
Bid–ask (bp)	51.65	52.68	54.76	58.62	73.56	82.47	86.75
Yield spread (bp)	113.65	142.83	172.21	236.89	457.97	623.45	2192.41
N	27	110	410	494	62	14	8

2.450 From this table, one can extract the following figures in respect of the liquidity premium for US denominated corporate bonds.

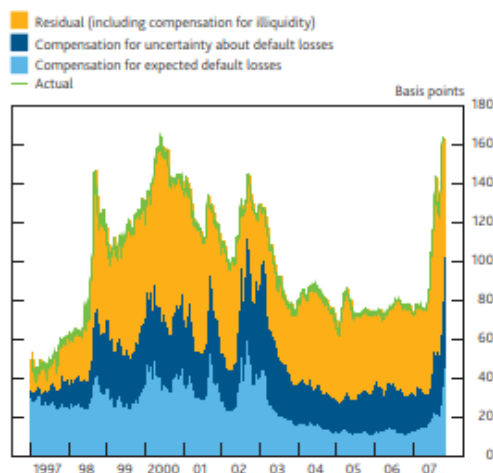
	<b>Short (term 1-7y)</b>			
	AAA	AA	A	BBB
LP	24.51	26.02	25.82	31.01
spread	71.43	95.05	118.92	235.4
%	34%	27%	22%	13%

	Medium (term 7-15y)			
	AAA	AA	A	BBB
LP	49.52	36.57	38.2	44.22
spread	70.65	129.02	154.19	251.68
%	70%	28%	25%	18%
	Medium (term 15-40y)			
	AAA	AA	A	BBB
LP	51.65	52.68	54.76	58.62
spread	113.65	142.83	172.21	236.89
%	45%	37%	32%	25%

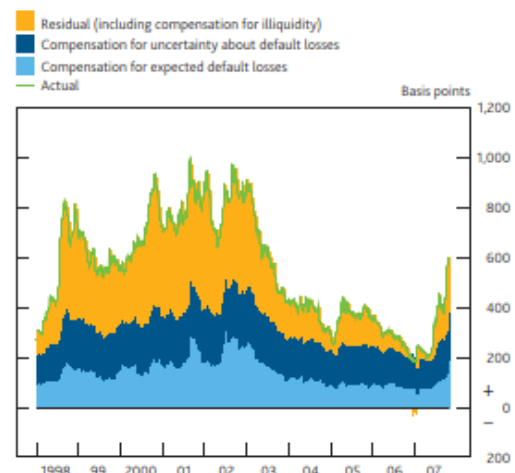
2.451 This suggests a liquidity premium of 13% to 70%, i.e. a risk correction between 87% and 30% - depending on rating and maturity.

2.452 As the data from Van Loon [2017] and Chen et al. [2007] mainly rely on USD and GBP corporate bonds alternative sources have been looked for that covers EUR corporate bonds. From Webber [2007] the following graphics show decompositions of spreads for USD, GBP and EUR denominated corporate bonds, differentiated by investment grade and high yield:

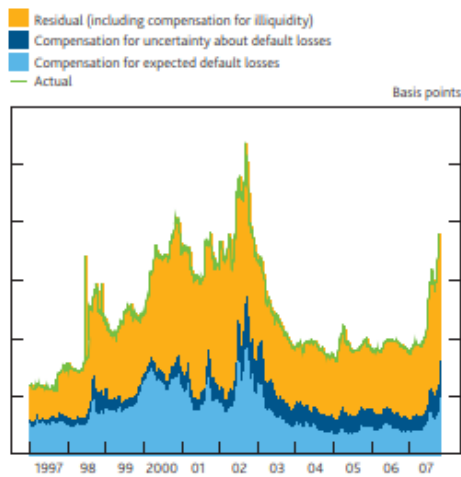
**Chart 1** Decomposition of sterling-denominated investment-grade corporate bond spreads



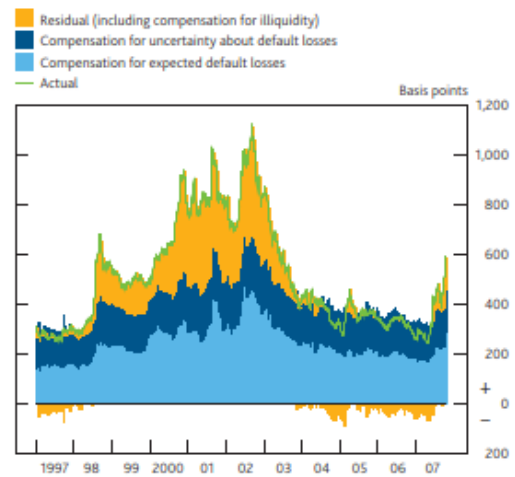
**Chart 2** Decomposition of sterling-denominated high-yield corporate bond spreads



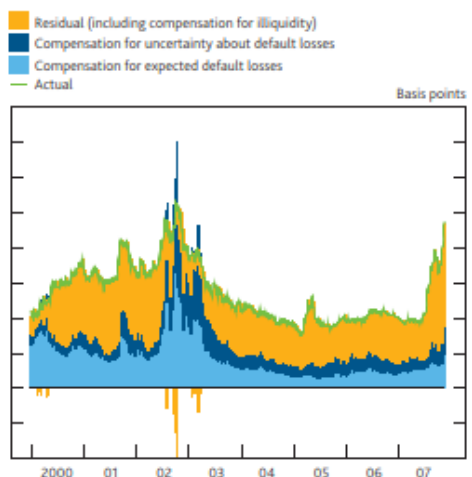
**Chart 3** Decomposition of dollar-denominated investment-grade corporate bond spreads



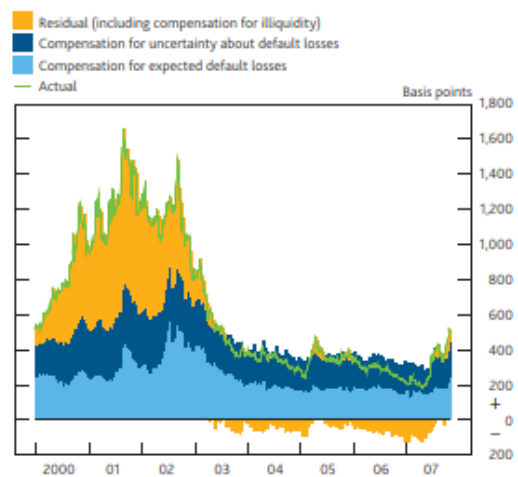
**Chart 4** Decomposition of dollar-denominated high-yield corporate bond spreads



**Chart 5** Decomposition of euro-denominated investment-grade corporate bond spreads



**Chart 6** Decomposition of euro-denominated high-yield corporate bond spreads



2.453 The model used for this decomposition does not suggest dramatic structural differences between the markets in terms of decomposition but of course reflects local specifics.

2.454 One has to note that Webber [2007] does not cover the 2008-crisis but the 2001 crisis.

2.455 Feldhütter et al. [2012] was used to challenge the dependence on pre-post-crisis figures as well as the rating dependency. Table 5 of that paper shows splits by maturity and rating and also displays the number of observations used:

Panel A: Liquidity component in fraction of spread, pre-subprime (2005:Q1–2007:Q1)

Maturity	0–1y	1–2y	2–3y	3–4y	4–5y	5–8y	8–10y	10–30y
Fraction in pct	3 (2,4)	7 (4,9)	13 (8,17)	13 (8,18)	13 (8,17)	11 (7,15)	8 (5,11)	10 (7,14)
Number of observations	1596	1613	1241	891	641	1187	578	1218
Rating	AAA	AA	A	BBB	Spec			
Fraction in pct	3 (2,5)	4 (2,7)	11 (5,18)	8 (3,12)	24 (18,30)			
Number of observations	533	1869	4148	1340	1075			

Panel B: Liquidity component in fraction of spread, post-subprime (2007:Q2–2009:Q2)

Maturity	0–1y	1–2y	2–3y	3–4y	4–5y	5–8y	8–10y	10–30y
Fraction in pct	11 (7,14)	20 (13,27)	23 (15,31)	27 (18,38)	31 (20,42)	44 (28,60)	33 (21,44)	43 (28,53)
Number of observations	809	819	675	657	556	817	568	598
Rating	AAA	AA	A	BBB	Spec			
Fraction in pct	7 (1,12)	42 (23,60)	26 (14,39)	29 (16,41)	23 (16,30)			
Number of observations	414	1549	2533	539	464			

2.456 This table suggests a specific role for AAA bonds, with low and stable liquidity component before and after the crisis – and similarly for non-investment-grade papers.

2.457 We also note that Feldhütter [2018] indicates that, when certain corrections are made to bond default models, a large majority of the spread may be explained by default risk. This finding may also indicate that prudence in the risk calibration is warranted.

### Proposals derived from papers and supervisory challenge

2.458 It was discussed whether a differentiation should be made between base case and stress case, but as a clear cut between such cases seems not to be possible no differentiation is proposed but some prudence introduced.

2.459 Also discussed was whether there should be only one factor, irrespective of rating. A key argument in favour of using a single risk correction is that it reduces reliance on ratings and therefore on credit rating institutions. Furthermore, the academic papers considered not stable differences within investment grade ratings. Nevertheless, the papers also show that AAA behave differently than lower ratings and that non-investment-grade papers experience a higher risk.

2.460 A RC directly taken as (1 – liquidity premium) from the academic literature would lead to calibration being more conservative than the minimum of 35% introduced by article 77d (2) (c) of the Solvency II directive for the fundamental spread, except in times of relative low spreads.

2.461 As the fundamental spread in valuation, one further reference point for supervisory challenge of the appropriateness of the choice of the RC is the capital charge for the matching adjustment under the spread stress in article 181 of the delegated regulation. One could argue that the RC should be higher than stress defined there, as the use of MA is associated with requirements more stringent than for VA users:



- VA does not require cash-flow matching, so firms that use VA are exposed to timing mismatches and the risk of losses arising from having to sell in stressed circumstances
  - VA does not require a buy-to-hold philosophy, exposing VA firms to reinvestment risk<sup>74</sup>
  - VA can be used on portfolios which generate future premiums, again introducing reinvestment risk
  - Mortality and lapse risks can apply to business with VA, generating potential liquidity costs that do not apply to the MA.
  - Partially offsetting this, MA firms are subject to the risk of the cost of rebalancing in stress – this does not apply to VA firms.

2.462 On the other hand, the current concept of the matching adjustment provides a stronger mitigation than the VA does; i.e. the MA compensates losses due to credit spread changes to a larger extent than the VA does, except in cases for undertakings where overshooting issues are identified.

2.463 Nevertheless, the FS, including the FS in stress, can be used as a validation test on the risk correction. The following table compares the proposal from above with the reduction factors in article 181 of the Delegated Regulation:

Credit quality step	0	1	2	3	4	5	6
Reduction factor	45 %	50 %	60 %	75 %	100 %	100 %	100 %

2.464 These factors could be interpreted as that part of the spread increase under stress that is passed through to the FS and thus is not compensated for in the MA under stress.

2.465 The following table provides an overview about the proposals discussed. The first column presents a proposal starting for AA-bonds from the 35% factor in the current risk correction as a kind of 'base case'. The second column shows a calibration under the key word 'stressed' as being chosen with the ambition to be (with exception of AAA) a bit more prudent than the reduction factors of article 181 of the Delegated Regulation which are in the context of stress for the MA. The last two columns indicate two calibrations from liquidity premium data, when looking for means from pre- and post-crisis and across. The column 'RC from LP diff.' lies between and introduces a stronger differentiation between rating categories, also considering that the LP showed some low values and to consider model uncertainty:

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<sup>74</sup> Option 4 intends to correct the VA for this reinvestment risk; conceptual the VA is applied to the liabilities to the extent of the lifetime, i.e. duration, of the assets.

Rating	CQS	Proposals discussed for RC for Corporates					
		Base	stressed	Art. 181	RC from LP diff.	RC from LP higher mean	RC from LP lower mean
AAA	0	30%	40%	45%	70%	70%	80%
AA	1	35%	55%	50%	75%	70%	80%
A	2	40%	65%	60%	80%	70%	80%
BBB	3	50%	75%	75%	85%	80%	85%
Non-inv.	4+	60%	95%	100%	95%	90%	95%

2.466 A further challenge regards the impact on risk ranking, i.e. the question whether the remaining risk corrected spread from weaker CQS could lead to a compensation high enough to diminish the differences or even to inverse positions under stress<sup>75</sup>.

2.467 To explore this, one aspect to be considered is the relative distance between mitigation of spread shocks across rating categories / CQS.

2.468 One proposal brought forward in that context was the following example for colour criteria:

	VA benefit (after RC offset) does not increase for 1 step higher CQS
	VA benefit (after RC offset) increases but only marginally (<10%)
	VA benefit (after RC offset) increases modestly with 1 step higher CQS (>10% but < 25%)
	VA benefit (after RC offset) increases significantly with 1 step higher CQS (>25%)

2.469 To evaluate the potential impact of calibrations, Merrill-Lynch indices for corporate bonds (all maturities, see index names below) were extracted from Bloomberg for years 1998 – 2017, with spread compared to swaps<sup>76</sup>.

2.470 The spread changes before applying a risk correction are:

Quantile / index, rating	ER10	ER20	ER30	ER40	HE10	HE20	HE30
	AAA	AA	A	BBB	BB	B	CCC & lower
0,995	1,19%	1,49%	2,24%	3,21%	6,88%	10,32%	17,86%
0,99	1,12%	1,42%	2,19%	3,09%	6,58%	9,81%	16,10%
0,98	1,01%	1,22%	1,85%	2,74%	4,77%	6,76%	11,96%

<sup>75</sup> I.e. in terms of VA impact on the own funds the compensation could high enough to offset the increase in SCR that would result by investing a larger part of the portfolio in lower-rated assets. Or the 'distance' of such risk positions could become very narrow. In a simplified example, suppose impact of increasing credit quality step by one or three steps would increase the SCR by 10 or 100 under one calibration of the RC or by 8 vs. 10 under another calibration.

<sup>76</sup> Please note that the data basis is across all maturities and monthly, with no correction for autocorrelation. Please also note, that this data base of course is also only one and there could be others.

2.471 The following proposals of CQS-dependent RC calibrations were challenged regarding the resulting remaining spread shocks along the criteria described above:

**Base case:**

Quantile / RC	AAA	AA	A	BBB	BB	B	CCC & lower
	30%	35%	40%	50%	60%	60%	60%
0,995	0,84%	0,97%	1,35%	1,61%	2,75%	4,13%	7,14%
0,99	0,79%	0,92%	1,31%	1,55%	2,63%	3,92%	6,44%
0,98	0,71%	0,80%	1,11%	1,37%	1,91%	2,70%	4,78%

**Stressed:**

Quantile / RC	AAA	AA	A	BBB	BB	B	CCC & lower
	40%	55%	65%	75%	95%	95%	95%
0,995	0,72%	0,67%	0,79%	0,80%	0,34%	0,52%	0,89%
0,99	0,67%	0,64%	0,77%	0,77%	0,33%	0,49%	0,80%
0,98	0,61%	0,55%	0,65%	0,68%	0,24%	0,34%	0,60%

**Art. 181:**

Quantile / RC	AAA	AA	A	BBB	BB	B	CCC & lower
	45%	50%	60%	75%	100%	100%	100%
0,995	0,66%	0,74%	0,90%	0,80%	0,00%	0,00%	0,00%
0,99	0,62%	0,71%	0,88%	0,77%	0,00%	0,00%	0,00%
0,98	0,56%	0,61%	0,74%	0,68%	0,00%	0,00%	0,00%

**LP diff.:**

Quantile / RC	AAA	AA	A	BBB	BB	B	CCC & lower
	70%	75%	80%	85%	95%	95%	95%
0,995	0,36%	0,37%	0,45%	0,48%	0,34%	0,52%	0,89%
0,99	0,34%	0,36%	0,44%	0,46%	0,33%	0,49%	0,80%
0,98	0,30%	0,31%	0,37%	0,41%	0,24%	0,34%	0,60%

**LP higher mean:**

Quantile / RC	AAA	AA	A	BBB	BB	B	CCC & lower
	70%	70%	70%	80%	90%	90%	90%
0,995	0,36%	0,45%	0,67%	0,64%	0,69%	1,03%	1,79%
0,99	0,34%	0,43%	0,66%	0,62%	0,66%	0,98%	1,61%
0,98	0,30%	0,37%	0,55%	0,55%	0,48%	0,68%	1,20%

## LP lower mean:

Quantile / RC	AAA	AA	A	BBB	BB	B	CCC & lower
	80%	80%	80%	85%	95%	95%	95%
0,995	0,24%	0,30%	0,45%	0,48%	0,34%	0,52%	0,89%
0,99	0,22%	0,28%	0,44%	0,46%	0,33%	0,49%	0,80%
0,98	0,20%	0,24%	0,37%	0,41%	0,24%	0,34%	0,60%

2.472 The risk ranking considerations suggest to consider to have a separate risk correction for AAA bonds and have a stronger one for non-investment-grade than for investment-grade.

### Further criteria

2.473 In setting the differences, the impact on risk ranking but also aspects of pro-cyclicality should be considered. Regarding the latter, especially if ratings decrease and risk correction is extremely pronounced, sales could be forced unintendedly in times of crisis, in which material parts of a sector would deteriorate in ratings. The choice would have to reflect that on the one hand a LP could be quite low<sup>77</sup> and on the other hand, that not only the VA but primarily the SCR itself introduces a risk ranking.

2.474 Finally, in the calibration of a uniform risk correction the asset structure of insurers could be reflected.

### Conclusions

2.475 In case where a single average risk correction factor for corporate bonds is chosen, a risk correction of at least 50% seems required. As outlined on the analysis presented above, a factor of 50% would on a long-term average cover default, i.e. expected losses, but not yet unexpected losses, and should therefore be seen as a lower bound. The research on the LP also suggests a risk correction factor for corporate bonds of at least 50-70%.

2.476 Where no differentiation would be performed at all and a single factor RC% would be estimated for both corporate and government bonds, this could be derived on the basis of the composition of the currency representative portfolio.

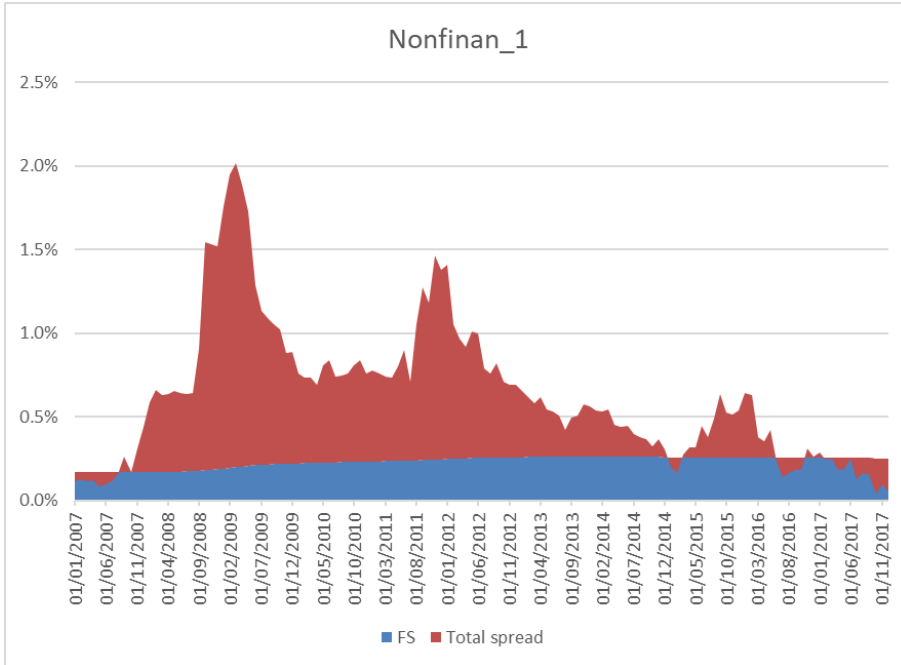
2.477 The following graphs illustrates the difference between the current determination of the risk correction compared to the suggested approach for a particular corporate bond category (with RC% set to 50%, euro non-financial corporate bond with credit quality step 1). Note that all options and

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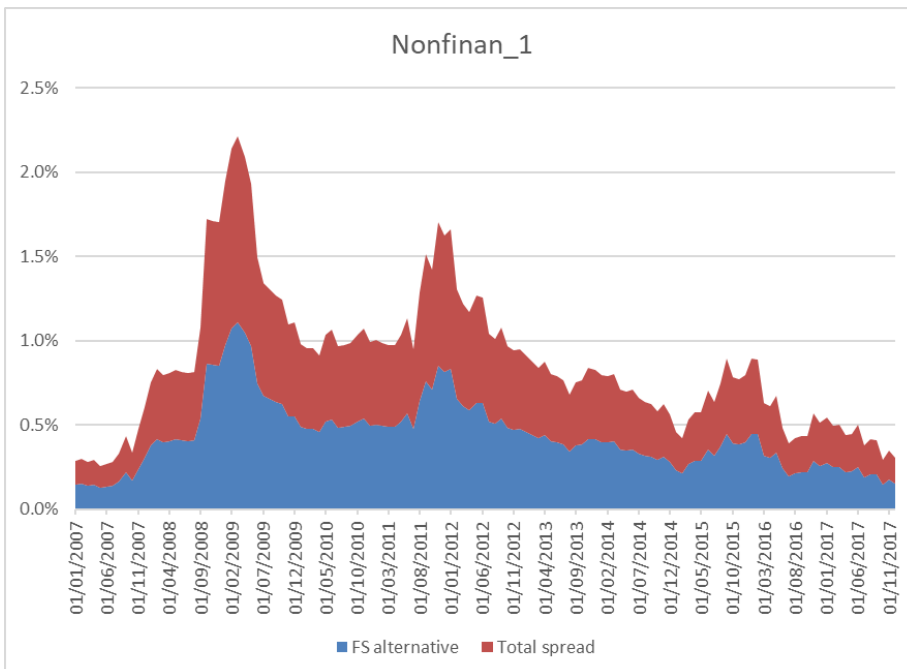
<sup>77</sup> Please note that the LP can be very low also in times of low spreads, i.e. a low LP and high risk correction is not necessarily associated with extremely high spreads.

both approaches considered thereafter are based on this suggested approach of the risk correction.

### Current risk correction



### Risk correction = 50% \* spread



## Pros and cons

Pros	Cons
Risk correction includes both EL and UEL.	Effectiveness of VA in its function to mitigate own funds volatility is reduced.
Simplification of the calculation compared to FS.	
Reflection of current level of risk – improves market consistency.	

## **Option 7 – Amend the trigger and the calculation of country-specific increase of the VA**

### **Description**

2.478 To address the cliff effect of the current country-specific VA as well as the observation that the activation mechanism does not work as expected (deficiency 3 as described above), changes to the functioning of the VA country component are suggested. This is intended to address the request of the Commission included in the call for advice.

2.479 Maintaining the current function of the country VA as a crisis tool, the changes aim at achieving:

- 1) a smooth activation mechanism, with the objective of mitigating the cliff effect;
- 2) a prompt activation in cases of country market distress, with the objective of mitigating the volatility of undertakings' own funds and excessive undershooting.

2.480 This proposal maintains the current approach of an absolute and a relative trigger for the activation of the VA country component, but they are relaxed in order to achieve the above objectives.

2.481 The formula for the country component (which is added to the currency component) is the following:

$$\text{Country add-on} = GAR \cdot \omega_{\text{country},c} \cdot \max(SRC_{\text{country}} - R \cdot SRC_{\text{currency}}; 0) \text{ where:}$$

where

- $GAR$  is the general application ratio
- $\omega_{\text{country},c}$  is a correction of the risk corrected country spread applicable in a given country for currency  $c$ . It depends on the absolute level of the country risk corrected spread  $SRC_{\text{country}}$  and is designed to ensure a gradual and smooth activation of the country component, mitigating the cliff effect. This component would assume a value equal to 0 when  $SRC_{\text{country}}$  lies below a

lower threshold  $SRC_{country}^L$ , a value equal to 1 when it lies above a higher threshold  $SRC_{country}^H$ , and a value increasing linearly between 0 and 1 when it lies between these mentioned thresholds, according to the following formula:

$$\omega = \begin{cases} 0 & \text{if } SRC_{country} \leq SRC_{country}^L \\ \frac{SRC_{country} - SRC_{country}^L}{SRC_{country}^H - SRC_{country}^L} & \text{if } SRC_{country}^L < SRC_{country} \leq SRC_{country}^H \\ 1 & \text{if } SRC_{country} > SRC_{country}^H \end{cases}$$

$SRC_{country}^L$  and  $SRC_{country}^H$  have been calibrated on the basis of historical data as 60 bps and 90 bps respectively. These values ensure that the country specific increase does not activate at absolute low levels of spreads and avoid an excessively frequent activation.

For a currency  $c$  different from the currency relevant for the country,  $\omega$  would be 0.

- $R$  is a relative threshold calibrated as to ensure that national specific crises are properly recognized. It has been calibrated on the basis of historical data as 1.3<sup>78</sup>: this value allows to capture all past national specific crisis.

2.482 Thus, the triggers of the country specific increase in this proposal are the following:

- $SRC_{country} > 1,3 \cdot SRC_{currency}$
- $SRC_{country} > 60 \text{ bps}$

2.483 Parameters have been calibrated on the basis of the analysis of past national spread data. The following methodology has been used:

- 1) heuristic identification of national specific crises in the period 2007-19;
- 2) setting of the parameters such that most of the identified crises were captured.

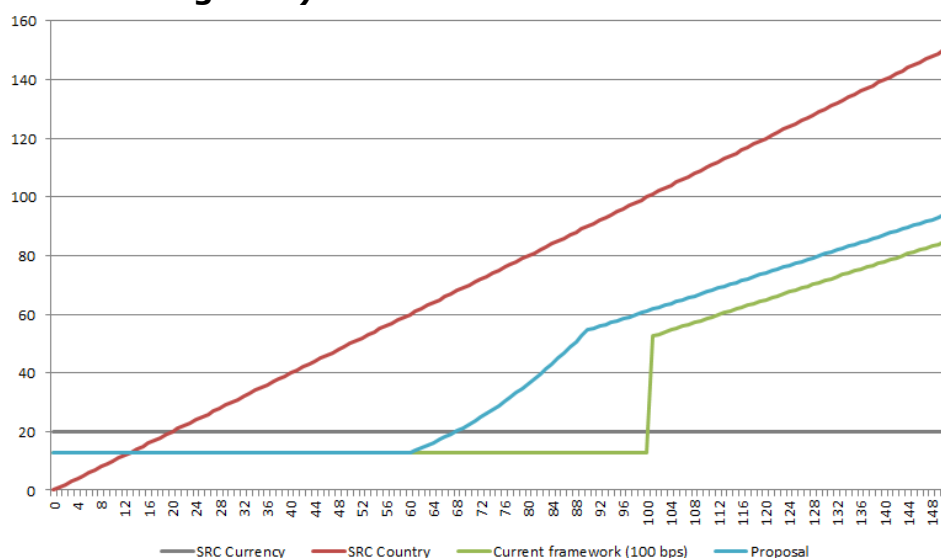
2.484 The proposed approach mitigates the cliff effect, as illustrated in the graph below, which shows the impact of the current country VA and the proposed country add-on: on the x-axis and on the y-axis are reported the values of the risk corrected country spread and the value of the total VA, respectively. The red line shows the risk corrected country spread, whereas the grey line shows the risk corrected currency spread, assumed to be constant in this illustration. According to the proposal (blue line) the VA country add-on activates gradually. This is in contrast with the current framework: in this case, the VA remains constant until the 100 (85) bps threshold is reached as it is shown by the green (dashed orange) line: at this point a large jump is observed, driven by the sudden activation of the country component. Increases in the risk-corrected spread between the lower and upper

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<sup>78</sup> The parameters of this proposal have been calibrated following an empirical approach: well known crises occurred in the period 2007-2019 have been identified and parameters have been set such that the country component would activate in those situations.

thresholds of 60 and 90 basis points imply a quadratic increase in the country VA.

### Risk corrected spreads under current regulation and proposal (cliff effect and its mitigation)



2.485 In this way efficiency in the risk management process is improved, by eliminating non-linearity and uncertainty in the liabilities evaluation, which is a drawback of the current framework.

2.486 Concerning the functioning of the activation mechanism, the table below shows that the proposed approach triggers more often than the current framework (in the two variants with the absolute trigger at 100 bps and 85 bps respectively<sup>79</sup>). This can be seen as an improvement with respect to the present situation, in which the country component is allowed to activate only in very extreme situations (i.e. Greek crisis and sovereign bond crisis). The proposed solution is more reactive to temporary crises which lead to a sharp widening of spreads among countries in the euro area. In this way it is more effective in mitigating artificial volatility of own funds.

### Frequency of activation (all 146 months in the period Jan 07 – Feb 19) (in brackets the average impact in bps)

	AT	BE	DE	ES	FI	FR	GR	IE	IT	NL	PT	SI	SK
<b>Current framework 100 bps threshold</b>	-	-	-	20 (17)	-	-	77 (64)	-	6 (23)	-	35 (59)	-	-
<b>Current framework 85 bps threshold</b>	-	-	-	21 (17)	-	-	78 (64)	-	10 (23)	-	35 (59)	-	-
<b>Proposal</b>	-	-	-	54 (30)	-	-	87 (87)	-	44 (30)	-	46 (87)	11 (7)	4 (10)

<sup>79</sup> As it will be amended by ESA review.



**Frequency of activation** (only the 48 quarterly relevant dates – Mar, Jun, Sep, Dec - in the period 2007-18)  
(in brackets the average impact in bps)

	AT	BE	DE	ES	FI	FR	GR	IE	IT	NL	PT	SI	SK
<b>Current framework 100 bps threshold</b>	-	-	-	6 (17)	-	-	26 (63)	-	1 (8)	-	12 (51)	-	-
<b>Current framework 85 bps threshold</b>	-	-	-	6 (17)	-	-	26 (63)	-	3 (20)	-	12 (51)	-	-
<b>Proposal</b>	-	-	-	19 (27)	-	-	29 (88)	-	15 (27)	-	14 (91)	4 (8)	2 (5)

2.487 The present proposal provides an adjustment on average higher than the current framework. The difference depends on the value of the RC currency spread: the higher the RC currency spread, the higher the value of the adjustment provided.

**Implications for the SCR standard formula calculation**

2.488 No change to the SCR standard formula calculation is required. The SCR would be calculated without any VA, consistently with the currency component.

**Pros and cons**

Pros	Cons
Avoid artificial volatility of eligible own funds in countries experiencing a national specific crisis, limiting pro-cyclicality.	Where periods of high spreads persist, undertakings keep on holding the assets, rebalancing to less risky assets is not incentivised.
Mitigate cliff effects for undertakings located in countries experiencing a crisis: this way it would improve efficiency in the risk management process, eliminating non-linearity and uncertainty in the liabilities evaluation embedded in the current framework.	Could fail to discourage exposure concentrations.
Mitigate undershooting effects for undertakings located in countries experiencing a crisis: the level of the technical provisions is more consistent with the asset side of the balance sheet, consistently with undertakings' ALM practices.	

## **Option 8 – Clearer split of the VA between its function as a crisis and a permanent tool**

### **Description**

2.489 Different objectives might be assigned to the volatility adjustment, as set out at the beginning of section 2.4.5.1. Option 8 foresees a clearer split of the VA, in accordance with those objectives, in two components. This allows to design the components in line with their respective objectives and thereby to improve the effectiveness and efficiency of the VA. It is suggested to split the VA in the following components:

- (1) A **permanent VA** reflecting the long-term illiquid nature of insurance cash flows and its implications on undertaking's investments decisions.
- (2) A **macro-economic VA** that would only exist when spreads are wide, in particular during crises that affect the bond markets. The macro-economic VA would mitigate the effect of temporary exaggerations of bond spreads, thereby contributing to avoid pro-cyclical investments by undertakings.

2.490 Note that, under the current regulation, the VA already foresees a permanent currency VA, with a country-specific add-on that is triggered under certain conditions. Applied to the current VA, option 8 would lead to a replacement of the country-specific add-on by a macro-economic VA. This is also intended to address the request of the Commission included in the call for advice.

### **Calculation**

2.491 EIOPA considers two methods to derive the macro-economic VA; the first method is based on the extent by which the risk-corrected country spread exceeds its average and the second method is based on the extent by which the total country spread exceeds its average.

#### ***Method 1: calculation based on risk-corrected country spreads***

2.492 This macro-economic VA would be triggered where the current level of bond spreads in national markets exceed their average by a certain amount (corridor). The macro-economic VA  $VA_{i,c}^{macro}$  would be determined as follows:

$$VA_{i,c}^{macro} = GAR \cdot AR_{i,c}^{macro} \cdot \max\{RCS_{JUR_i} - \overline{RCS_{JUR_i}}^n - corridor; 0\}$$

where

- $AR_{i,c}^{macro}$  is an application ratio for the liabilities of undertaking  $i$  in currency  $c$ ,
- $RCS_{JUR_i}$  is the risk-corrected country spread for the jurisdiction of undertaking  $i$ ,

- $\overline{RCS}_{JUR_i}^n$  is the average risk-corrected spread over the past  $n$  months for the jurisdiction of undertaking  $i$ , e.g. 36 months,
- *corridor* is the corridor by which the risk-corrected country should exceed its average before the macro-economic VA is activated, e.g. 50 basis points.

2.493 Under this method, the VA applied is the sum of the permanent and the macro-economic VA:

$$VA_{i,c}^{Option\ 8} = VA_{i,c}^{perm} + VA_{i,c}^{macro}$$

where

- $VA_{i,c}^{perm}$  is the permanent VA
- $VA_{i,c}^{macro}$  is the macro-economic VA as defined above

Note that  $VA_{i,c}^{perm}$  is generally of the form

$$VA_{i,c}^{perm} = GAR \cdot AR_{i,c}^{perm} \cdot (S_c - RC_c)$$

where

- $GAR$  is the general application ratio
- $AR_{i,c}^{PERM}$  is the application ratio for the permanent VA applicable for undertaking  $i$  and currency  $c$
- $S_c$  is the spread which is applicable for currency  $c$  under the permanent VA
- $RC_c$  is the risk correction of spread  $S$  which is applicable for currency  $c$  under the permanent VA

2.494 The application ratio

$$AR_{i,c}^{macro}$$

should be set to avoid any double-counting between the macro-economic VA and the permanent VA. This could be achieved, for example, by ensuring that the macro-economic VA and the permanent VA relate to different parts of the spread, e.g. the permanent VA could reflect the illiquidity premium component of the spread and the macro-economic VA the remaining share of the spread (after risk correction and illiquidity premium are deducted).

2.495 We note that the permanent VA, as described above, targets the spread

$$GAR \cdot AR_{i,c}^{perm} \cdot (S_c - RC_c)$$

2.496 The macro-economic VA could then be designed to target the part of the risk corrected spread not yet reflected in the permanent VA, i.e.

$$GAR \cdot (1 - AR_{i,c}^{perm}) \cdot (S_c - RC_c),$$

such that the total VA would target the total risk corrected spread

$$GAR \cdot AR_{i,c}^{PERM} \cdot (S_c - RC_c) + GAR \cdot (1 - AR_{i,c}^{PERM}) \cdot (S_c - RC_c) = GAR \cdot (S_c - RC_c)$$

2.497 The application ratio for the macro-economic VA would then be determined as

$$AR_{i,c}^{macro} = 1 - AR_{i,c}^{perm}$$

2.498 Note that where the alternative of option 5 is chosen,  $AR_{i,c}^{macro}$  can also become an undertaking independent parameter  $AR_c^{macro}$ . As the alternative of option 5 assumes that  $factor_{IL}$  denotes the spread that can be allocated to illiquidity, the residual can be allocated to the macro-economic VA.

2.499 We note that the permanent VA in this alternative targets the spread

$$GAR \times S_c \times factor_{IL}$$

2.500 The application ratio for the macro-economic VA would then be determined as

$$AR_c^{macro} = 1 - factor_{IL} - \frac{RCS_{JUR}}{S_{JUR}}$$

where the last term  $\frac{RCS_{JUR}}{S_{JUR}}$  reflects the share of the country spread for the respective jurisdiction that is due to the risk- correction.

2.501 Note that, under this method, the lower the application ratio in the permanent VA, and thus the smaller the permanent VA itself, the larger the macro-economic VA becomes to reflect the total spread change. This would ensure that the spread captured by the macro-economic VA does not overlap with the spread captured by the permanent VA.

### **Method 2: calculation based on whole country spread**

2.502 Another way to determine and trigger the macro VA would be to derive it from the whole spread instead of the risk-corrected spread:

$$VA_{i,c}^{macro} = GAR \cdot AR_{i,c}^{macro} \cdot \max\{S_{JUR_i} - \overline{S_{JUR_i}}^n - corridor; 0\}$$

where

- $AR_{i,c}^{macro}$  is an application ratio for the liabilities of undertaking  $i$  in currency  $c$ ,
- $S_{JUR_i}$  is the country spread for the jurisdiction of undertaking  $i$ ,

- $\overline{S_{JUR_i}}^n$  is the average spread over the past  $n$  months for the jurisdiction of undertaking  $i$ , e.g. 36 months,
- *corridor* is the corridor by which the risk-corrected country should exceed its average before the macro-economic VA is activated, e.g. 50 basis points

2.503 Under this method, the total VA applied is given by the formula:

$$VA_{i,c}^{Option\ 8} = \begin{cases} \max(VA_{i,c}^{perm}; VA_{i,c}^{macro}) & \text{in case } VA_{i,c}^{macro} \text{ is triggered} \\ VA_{i,c}^{perm} & \text{else} \end{cases}$$

2.504 Note that, under this method, the macro-economic VA mitigates all spread movements above a certain level. It is no longer required to decompose the spread into its components and the calculation of a risk correction would then become obsolete.

2.505 Double counting with the permanent VA is avoided by using a maximum formula to combine the effects of the macro-economic and permanent VA. The application ratio  $AR_{i,c}^{macro}$  could then be set to 1, or could be set equal to the application ratio of the permanent VA (where applicable). Overall, the application ratio  $AR_{i,c}^{macro}$  should be chosen carefully to avoid potential overshooting effects.

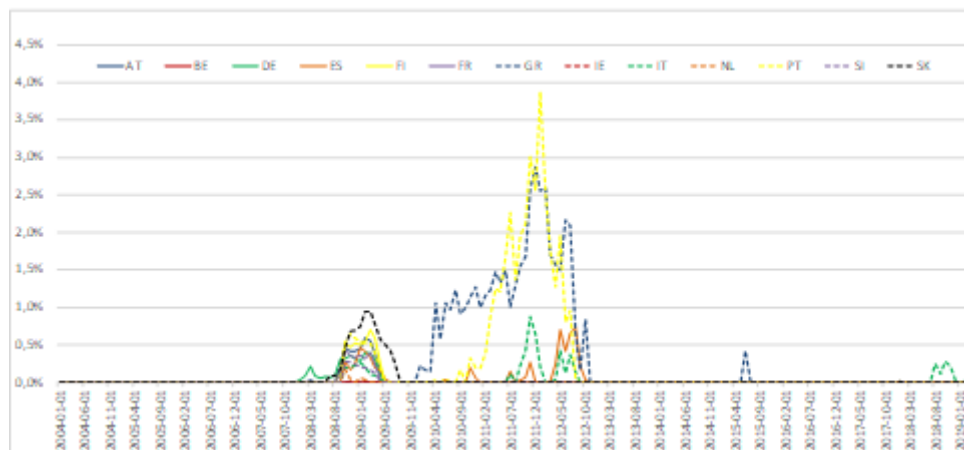
## Impact

2.506 The following table sets out the number of activations of the macro-economic VA for the time period January 2007 – February 2019:

AT	BE	DE	ES	FI	FR	GR	IE <sup>80</sup>	IT	NL	PT	SI	SK
13	1	18	25	10	10	36	1	26	5	34	9	15

2.507 The following graphs shows the evolution of the macro-economic VA over time:

<sup>80</sup> Please note that the representative portfolio for Ireland has a low exposure to Irish government bonds.



2.508 This shows that, with a parametrization as above, the macro-economic VA is mainly triggered during the financial crises (where it is triggered for most markets) and during the sovereign debt crises (where it is triggered for those markets where government bond spreads increased). The figure also shows a triggering of the macro-economic VA in two further sovereign exposure related cases (for Greece in 2015 and for Italy in 2018).

2.509 As expected and could be seen from historical backtesting, in times of spread turbulences the country spreads heavily depart from their long-term average. The choice of the corridor is therefore not that decisive for the activation of the macroeconomic tool but only for the size of the macroeconomic VA. In view of that it is suggested to choose a small corridor of 20bps, not limiting effectiveness of the tool in times of crisis but avoiding activation where spreads fluctuate around the long-term average.

### Undertaking specific whole spread

2.510 It could also be considered to base the macro VA on the undertaking-specific asset allocation (see option 1) because the concerns about the investment incentives of that approach are less relevant when only applicable on a temporary basis in crisis situations. This would also solve potential issues if an undertaking's fixed income allocation deviates from the country's allocation to fixed income. Under such combination with option 1, the formulas given above could be implemented on an undertaking-specific level: The macro-economic VA would then be triggered, where the undertaking-specific VA would exhibit a certain level above the average country spread. Such an implementation would however have three downsides. Firstly, the triggering of the macro VA would be undertaking-specific. This may not be in line with the macroprudential objective of the component and would decrease the transparency of the application of the macro-economic VA. Secondly, a comparison of undertaking-specific spreads with average country spreads may set undertakings with riskier spread investments at an advantage. Thirdly the use of undertaking-specific spreads complicates the calculations.

**Phasing out**

2.511 One of the features of the macro-economic VA is that it phases out when the spread widening persists for a longer period. This ensures that also in a crisis situation an incentive exists to slowly disinvest from assets that are too risky. The phasing-out period should be long enough to provide sufficient time to undertakings to cope with the impact of a crisis situation and not to be forced to sell assets and subsequently put further pressure on asset prices. A period of 5 years seems sensible to ensure that.

2.512 In contrast, the current VA design as well as option 7 might give rise to an almost permanent country-specific increase when spreads of a country are wide and significantly higher than currency spreads on a permanent basis.

**Application**

2.513 The macro-economic VA could be applied in the same manner as the current volatility adjustment, i.e. as an adjustment to the interest rate term structure. However, given the aim of such a macro-economic VA to act in cases of extreme spread increases, and to mitigate pro-cyclical investment behaviour that could be triggered by a depreciation of asset values in such a situation, it could also be applied directly on the asset side (cf. option 3). In this case, a combination with option 4 becomes superfluous. The permanent VA would then still be applied to the liabilities.

**Implications for the SCR standard formula calculation**

2.514 The macro-economic VA should not be anticipated in the SCR, neither in the standard formula nor in internal models. Hence no change in the standard formula calculation of the SCR would be required. But the introduction of a macro-economic VA would have consequences for the application of the dynamic VA in internal models. The dynamic VA should only be based on the permanent VA, but not anticipate the macro-economic VA in order to provide appropriate investment incentives. Anticipating crisis measures would counteract building resilience against such crisis situations and care for extreme events in the SCR.

**Pros and cons**

Pros	Cons
<p>Temporary mitigation of spread exaggerations on national bond markets. Time period of the average can be calibrated so as to ensure that the tool is a temporary one (e.g. where a high level of spread persists, the average increases leading to a situation where the crisis VA will phase out). Thereby, limiting pro-</p>	<p>Specific considerations necessary to avoid double counting where the macro-economic VA is combined with a permanent VA (but application ratio AR and design of the formula have been chosen to ensure this).</p>

<p>cyclicality but at the same time setting incentives to take early action.</p>	
<p>Activation mechanism is smooth and avoids cliff effects. At the same time, sharp increases of spreads are directly reflected in the crisis VA. This ensures an efficient functioning of the tool in crisis situations.</p>	<p>The temporary nature of this tool would limit pro-cyclicality only up to its deactivation. Thus, in comparison to the current framework the ability to limit pro-cyclicality is reduced. It is not clear however, whether a spread movement can still have pro-cyclical effects 3 years later.</p>
<p>Focus on country spreads only (decoupled from currency VA) mitigates undershooting effects for undertakings located in countries experiencing a credit spread crisis.</p>	<p>Under- or overshooting issues due to deviations from country reference portfolio may persist if not addressed with an undertaking and/or liability specific application ratio.</p>
<p>Allow distinguishing the underlying objectives of the VA, thereby simplifying Solvency II and increasing transparency. Simplifications and transparency could be further enhanced by moving the crisis tool outside of the technical provision (e.g. as a buffer on the asset side or in the own funds).</p>	

#### **2.4.5.2.3. Approach 1**

##### **Description**

2.515 Under this approach, the VA is split into the following components:

- A permanent VA reflecting the long-term illiquid nature of insurance cash flows and its implications on undertaking's investments decisions; and
- A macro-economic VA that would only exist when spreads are wide in particular during a financial crisis that affects the bond market. The macro-economic VA would mitigate the effect of temporary exaggerations of bond spreads, thereby contributing to avoid pro-cyclical behaviour of undertakings.

2.516 The permanent VA is calculated as a combination of the following options:



- Option 4 (adjustment accounting for amount of fixed- income assets and asset-liability duration mismatch undertaking specific VA);
- Option 5 (adjustment accounting for the illiquidity of liabilities); and
- Option 6 (calculation of the risk correction as a percentage of the spread).

2.517 The macro-economic VA is based on Option 8.

2.518 Under this design, the permanent VA is intended to mirror the illiquidity of liabilities in the valuation of technical provisions as outlined in option 5 and particularly address objective 3 but also objective 2 (see beginning of section 2.4.5.1). The macro-economic VA would serve to primarily address objective 1. The combined VA under Approach 1 is intended to overcome the deficiencies identified in the current design of the VA.

### **Calculation**

2.519 Under Approach 1, the VA specific to undertaking  $i$  and currency  $c$  is calculated as follows:

$$VA_{i,c}^{Approach\ 1} = \begin{cases} \max(VA_{i,c}^{perm}; VA_{i,c}^{macro}) & \text{in case } VA_{i,c}^{macro} \text{ is triggered} \\ VA_{i,c}^{perm} & \text{else} \end{cases}$$

where

- $VA_{i,c}^{perm}$  is the permanent VA applicable to undertaking  $i$  and currency  $c$  under Approach 1
- $VA_{i,c}^{macro}$  is the macro-economic VA applicable to undertaking  $i$  and currency  $c$  under Approach 1

2.520 The permanent VA applicable under Approach 1 is calculated as

$$VA_{i,c}^{perm} = GAR \cdot AR_{i,c}^{Approach\ 1} \cdot RC_{S_c}$$

where

- $GAR$  is the general application ratio
- $AR_{i,c}^{Approach\ 1}$  is the combined application ratio for the permanent VA of undertaking  $i$  for liabilities in currency  $c$  under Approach 1
- $RC_{S_c}$  denotes the average risk corrected spread of the fixed income investments of undertakings, calculated on basis of a reference portfolio for fixed income investments in currency  $c$

2.521 The combined application ratio  $AR_{i,c}^{Approach\ 1}$  is calculated as

$$AR_{i,c}^{Approach\ 1} = \min(AR_{i,c}^{Option\ 4}; AR_{i,c}^{Option\ 5})$$

where

- $AR_{i,c}^{Option\ 4}$  is the application ratio applicable to undertaking  $i$  and currency  $c$  under option 4
- $AR_{i,c}^{Option\ 5}$  is the application ratio applicable to undertaking  $i$  and currency  $c$  under option 5<sup>81</sup>

2.522 The average risk corrected spread  $RC_{S_c}$  is calculated as

$$RC_{S_c} = \frac{W_{c,gov} \cdot RC_{S_{c,gov}} + W_{c,corp} \cdot RC_{S_{c,corp}}}{W_{c,gov} + W_{c,corp}}$$

where

- $W_{c,gov}$  and  $W_{c,corp}$  are the weights of government bonds and corporate bonds in the representative portfolio for currency  $c$
- $RC_{S_{c,gov}}$  is the average risk corrected spread for government bonds in the representative portfolio for currency  $c$  and
- $RC_{S_{c,corp}}$  is the average risk corrected spread for corporate bonds in the representative portfolio for currency  $c$

2.523 The risk corrected spreads  $RC_{S_{c,gov}}$  and  $RC_{S_{c,corp}}$  are calculated using the risk correction foreseen under option 6. This means that:

- For EEA government bonds, a risk correction of 30% of the spread is used; and
- For corporate bonds as well as for other governments, a risk correction of 50% of the spread is applied.

2.524 The macro-economic VA applicable to undertaking  $i$  and currency  $c$  under Approach 1 is calculated as follows:

$$VA_{i,c}^{macro} = GAR \cdot AR_{i,c}^{macro} \cdot \max\{S_{JUR_i} - \overline{S_{JUR_i}}^{60} - corridor; 0\}$$

where

- $AR_{i,c}^{macro}$  is an application ratio for the liabilities of undertaking  $i$  in currency  $c$  which is set to 1
- $S_{JUR_i}$  is the country spread for the jurisdiction of undertaking  $i$
- $\overline{S_{JUR_i}}^{60}$  is the average spread over the past 60 months for the jurisdiction of undertaking  $i$
- $corridor$  is the corridor by which the risk-corrected country should exceed its average before the macro-economic VA is activated, set as 20 BPS

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<sup>81</sup> Note that  $AR_{i,c}^{Option\ 5}$  should be calculated using the first of the two approaches described in section 0.

**Implications for the SCR standard formula calculation**

2.525 For the macro-economic VA, it is important to not reflect this element in non-crisis situations to ensure it provides effective relief in times of crisis. In normal times, the macro-economic VA would be zero and would not have any implications on the valuation or on the risk measurement (the SCR would not reflect any increase or dynamic VA).

2.526 Hence for the macro-economic VA no change in the standard formula calculation of the SCR would be required. The introduction of a macro-economic VA would however have consequences for the application of the dynamic VA in internal models. The dynamic VA should only be based on the permanent VA, but not anticipate the macro-economic VA in order to not anticipate the relief ensuring effectivity in times of crisis.

**Implications on reporting and disclosure**

2.527 EIOPA considers that an amendment to the design of the VA following Approach 1 should be supplemented by the following additional requirements on disclosure and reporting:

	<b>Additional requirement</b>
<b>Disclosure</b>	<ul style="list-style-type: none"> <li>• Per currency, size of the undertaking-specific VAs and amount of best estimate they are applied to</li> </ul>
<b>Reporting</b>	<ul style="list-style-type: none"> <li>• Size of application ratio on overshooting, including separate information on the numerator and denominator of the ratio</li> <li>• Size on application ratio on illiquidity, including separate information on the numerator and denominator of the ratio</li> <li>• Liquidity buffer (see option 5)</li> </ul>

**Pros and cons**

<b>Pros</b>	<b>Cons</b>
<b>For macro-economic VA:</b>	
<p>Allow distinguishing the underlying objectives of the VA, thereby simplifying Solvency II and increasing transparency. Simplifications and transparency could be further enhanced by moving the crisis tool outside of the technical provision (e.g. as a buffer on the asset side or in the own funds).</p>	

Activation mechanism is smooth and avoids cliff effects. At the same time, sharp increases of spreads are directly reflected in the crisis VA. This ensures an efficient functioning of the tool in crisis situations.	
Temporary mitigation of spread exaggerations on national bond markets. Time period of the average can be calibrated so as to ensure that the tool is a temporary one (e.g. where a high level of spread persists, the average increases leading to a situation where the crisis VA will phase out). Thereby, limiting pro-cyclicality but at the same time setting incentives to take early action.	The temporary nature of this tool would limit pro-cyclicality only up to its deactivation. Thus, in comparison to the current framework the ability to limit pro-cyclicality is reduced. It is not clear however, whether a spread movement can still have pro-cyclical effects 3 years later.
Focus on country spreads only (decoupled from currency VA) mitigates undershooting effects for undertakings located in countries experiencing a credit spread crisis.	Setting the application ratio for the macro-economic VA to 1 may reintroduce under- and overshooting issues as the macro VA in this way does not correct for the allocation and the duration of the fixed income assets.
<b>For permanent VA:</b>	
Addresses two of three sources of existing under- and overshooting issues.	Under- or overshooting issues due to deviations in credit quality of assets may persist.
Differences in valuations of same liabilities justified by better cash-flow matching: the better the asset cash-flows match the liabilities, the higher the application ratio and the higher the effective VA applicable.	
	The approach will increase the complexity and costs of the application and supervision of the VA.
Reflecting that more illiquid liabilities enable to withstand exaggerated bond spreads and/or to actually earn the VA. Allows direct recognition of illiquidity characteristics of liabilities, supporting further availability of long-term insurance products.	With respect to option 5 components there is no reliable method to quantify the impact of the liability characteristics on the transfer value. The option therefore includes model risk. Conservative proxies could be used to mitigate this.
Risk correction includes both EL and UEL.	Effectiveness of VA in its function to mitigate own funds volatility is reduced.

Simplification of the calculation compared to FS.	
Reflection of current level of risk – improves market consistency.	

#### 2.4.5.2.4. Approach 2

##### **Description**

2.528 Under Approach 2, the permanent VA is calculated as a combination of:

- Option 1 (undertaking specific VA);
- Option 4 (adjustment accounting for amount of fixed- income assets and asset-liability duration mismatch undertaking specific VA); and
- Option 5 (adjustment accounting for the illiquidity of liabilities).

2.529 The combination of options 1, 4 and 5 intends to mitigate the impact of exaggerated bond spreads. The combinations of options 1 and 4 intend to address all identified under- and overshooting issues; this combination implies the same compensation of changes in bond spreads for all undertakings, irrespective of the actual allocation and duration of their investments as well as the duration and illiquidity of their liabilities. Adding option 5 to this combination implies that this same compensation for all undertakings can only be attained if the liabilities are sufficiently illiquid to withstand forced sales and the realization of losses due to the bond spread exaggerations.

2.530 Under this option, as for option 1, a macro-economic or country VA would become obsolete as the undertaking investments specific illiquidity VA would already reflect any potential crisis in the bond markets which the undertaking is exposed to.

##### **Calculation**

2.531 Under Approach 2, the VA specific to undertaking  $i$  and currency  $c$  is calculated as follows:

$$VA_{i,c}^{Approach\ 2} = GAR \cdot AR_{i,c}^{Approach\ 2} \cdot RC_{S_{i,c}}$$

where

- $GAR$  is the general application ratio
- $AR_{i,c}^{Approach\ 2}$  is the combined application ratio of undertaking  $i$  for liabilities in currency  $c$  under Approach 2
- $RC_{S_{i,c}}$  is the undertaking-specific risk corrected spread for currency  $c$  as calculated under option 1

2.532 The combined application ratio  $AR_{i,c}^{Approach\ 2}$  is calculated as<sup>82</sup>

$$AR_{i,c}^{Approach\ 2} = \min(AR_{i,c}^{Option\ 4}; AR_{i,c}^{Option\ 5})$$

where

- $AR_{i,c}^{Option\ 4}$  is the application ratio applicable to undertaking  $i$  and currency  $c$  under option 4
- $AR_{i,c}^{Option\ 5}$  is the application ratio applicable to undertaking  $i$  and currency  $c$  under option 5<sup>83</sup>

**Implications for the SCR standard formula calculation**

2.533 There is no necessity to change the SCR standard formula calculation under this approach.

2.534 A dynamic VA under this approach would require undertakings to recalculate their investments’ specific VA based on stressed credit spreads per rating, duration and currency bucket. EIOPA considers such a dynamic VA under this approach too complex for the standard formula.

**Implications on reporting and disclosure**

2.535 EIOPA considers that an amendment to the design of the VA following Approach 2 should be supplemented by the following additional requirements on disclosure and reporting:

	<b>Additional requirement</b>
<b>Disclosure</b>	<ul style="list-style-type: none"> <li>• Per currency, asset allocation of the undertaking-specific portfolio (weights and durations)</li> <li>• Explanation of significant changes in asset allocation during the last year</li> <li>• Per currency, size of the undertaking-specific VAs and amount of best estimate they are applied to</li> </ul>
<b>Reporting</b>	<ul style="list-style-type: none"> <li>• Size of application ratio on overshooting, including separate information on the numerator and denominator of the ratio</li> <li>• Size on application ratio on illiquidity, including separate information on the numerator and denominator of the ratio</li> <li>• Liquidity buffer (see option 5)</li> </ul>

<sup>82</sup> Note that the combined application ratio applicable under Approach 2 coincides with the combined application ratio applicable to the permanent VA under Approach 1

<sup>83</sup> Note that  $AR_{i,c}^{Option\ 5}$  should be calculated using the first of the two approaches described in section 0.

## Pros and cons

Pros	Cons
Addresses all under- and overshooting issues identified.	Potentially provides wrong risk-management incentives where investments in lower rated assets lead to a higher solvency ratio. Could also make it more difficult for undertaking to de-risk asset risk (in case e.g. of a breach of the SCR). For corporate bonds, these potential wrong incentives are intended to be mitigated by Pillar I safeguards mechanisms; this mechanism is intended to ensure that lower rated bonds still imply higher own funds and the increase in SCR is smaller than this increase in own funds, but the SCR ratio would still decrease with lower rated bonds  Wrong investment incentives with respect to government bonds are only addressed by Pillar II and III requirements of option 1.
Only a single VA is required; country-specific VA no longer necessary.	Where rating information is used, approach leads undertakings to higher dependence on external ratings in the determination of the VA.
	The approach will increase the complexity and costs of the application and supervision of the VA.
Reflecting that more illiquid liabilities enable to withstand exaggerated bond spreads and/or to actually earn the VA.  Allows direct recognition of illiquidity characteristics of liabilities, supporting further availability of long-term insurance products.	With respect to option 5 components there is no reliable method to quantify the impact of the liability characteristics on the transfer value. The option therefore includes model risk. Conservative proxies could be used to mitigate this.
Risk correction includes both EL and UEL.	Effectiveness of VA in its function to mitigate own funds volatility is reduced.
Simplification of the calculation compared to FS.	

Pros	Cons
Reflection of current level of risk – improves market consistency.	

#### **2.4.5.2.5. Impact analysis for options and approaches 1 and 2**

2.536 EIOPA has carried out an approximate impact analysis for the options 1, 4, 5 and 6 as described in section 2.4.5.2.2, as well as for the approaches 1 and 2 as described in sections 2.4.5.2.3 and 2.4.5.2.4, using QRT data as well as data from the information requests on overshooting and illiquid liabilities. The results of these impact analysis is set out in the following subsections.

2.537 For a description of the methodology applied to derive the approximate impact numbers, we refer to annex 2.13.

##### **2.4.5.2.5.1. Impact analysis – option 1**

2.538 For the determination of undertaking investments' specific VA, eligible data has been used from the VA overshooting information request, the EIOPA reference portfolio and market data.

2.539 The table below shows that the impact on the full sample of option 1 would lead to an increase in the weighted average VA for the undertakings in the sample from 0.24% to 0.28%. This would increase the impact of the VA with 3.2 billion euros to 21.6 billion euros. For all jurisdictions, except for NL and FR, option 1 would lead to an increase in EoAoL with the highest increase for IT with 4.3 billion euros. For NL and France the impact on EoAoL would be negative, with the largest impact on NL with -1.5 billion euros.



### Impact of option 1 (full sample), undertaking investment's specific VA

	RATIO	IMPACT CURRENT VA	CURRENT APPLICABLE VA	VA OPTION	IMPACT VA OPTION	DELTA IMPACT VA	CURRENT SCR
<b>TOTAL</b>	243%	18,400	0.24%	0.28%	21,632	3,231	148,320
<b>OTH</b>	241%	401	0.24%	0.25%	415	13	3,323
<b>FR</b>	208%	5,268	0.24%	0.24%	5,187	-81	46,749
<b>IT</b>	228%	2,367	0.24%	0.67%	6,646	4,278	37,304
<b>DE</b>	381%	2,352	0.24%	0.25%	2,427	76	24,794
<b>NL</b>	202%	6,262	0.24%	0.18%	4,807	-1,454	18,221
<b>ES</b>	235%	457	0.24%	0.36%	682	225	6,571
<b>BE</b>	224%	942	0.24%	0.24%	945	3	6,819
<b>FI</b>	184%	216	0.24%	0.25%	226	9	2,724
<b>LU</b>	173%	56	0.24%	0.33%	76	20	1,089
<b>GR</b>	190%	79	0.24%	0.67%	220	141	726

The current SCR ratio, the impact of the current VA, the current VA applicable, the VA under option 1 for the full sample including undertakings with Standard Formula and Internal models, the impact of this VA for option 1, the delta in the impact of the VA versus the current VA and the current SCR for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros.

2.540 The table below shows for the SF subsample a total relative impact of the VA compared to the current SCR of 2 percent. For two jurisdictions the relative impact would decrease with a maximum of 7 percent. Four jurisdictions would obtain an increase in the associated relative impact varying from 2 to 26 percent. For the remaining jurisdictions the relative impact is approximately equal to zero.

### Impact of option 1 (SF undertakings), undertaking investment's specific VA

	SF RATIO	SF IMPACT CURRENT VA	SF CURRENT APPLICABLE VA	SF VA OPTION	SF IMPACT VA OPTION	SF DELTA IMPACT VA	SF ESTIMATED RATIO VA OPTION	SF RELATIVE IMPACT
<b>TOTAL</b>	225%	9,474	0.24%	0.27%	10,747	1,273	226%	2%
<b>OTH</b>	241%	401	0.24%	0.25%	415	13	241%	0%
<b>FR</b>	210%	4,582	0.24%	0.23%	4,424	-157	210%	0%
<b>IT</b>	184%	875	0.24%	0.68%	2,472	1,597	210%	26%
<b>DE</b>	514%	514	0.24%	0.21%	459	-55	512%	-1%
<b>NL</b>	185%	1,829	0.24%	0.17%	1,320	-509	178%	-7%
<b>ES</b>	235%	457	0.24%	0.36%	682	225	238%	3%
<b>BE</b>	231%	464	0.24%	0.23%	453	-12	230%	0%
<b>FI</b>	184%	216	0.24%	0.25%	226	9	185%	0%
<b>LU</b>	173%	56	0.24%	0.33%	76	20	175%	2%
<b>GR</b>	190%	79	0.24%	0.67%	220	141	210%	19%

The current SCR ratio for the sample with only SF undertakings, the impact of the current VA, the current VA applicable, the VA under option 1 for the SF undertakings, the impact of this VA for option 1, the delta in the impact of the VA versus the current VA, the estimated ratio based on the current SCR ratio including the impact of the VA under this option relative to the current and the relative impact of the VA under this option compared to the current SCR for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros. Please note that the SCR is kept constant only the VA effect on own funds and ratio is shown.

#### 2.4.5.2.5.2. Impact analysis – option 4

2.541 The table below shows the impact of option 4 for the full sample. For the undertakings in the sample the weighted average VA would increase from

0.24% to 0.27% increasing the impact of the VA with 2 billion euros to 20.4 billion euros. Two jurisdictions would suffer a negative impact on the EoAoL with the most significant impact for NL with 1.8 billion euros. For jurisdictions where the EoAoL increases, the impact is highest for FR followed by DE and IT. Although the application ratio decreases the VA as it is by definition lower than 1, the overall increase in the VA is ascribable to the increase in the currency part of the VA. This currency part of the VA increases, because it is weighted by the total spread sensitive assets rather than the larger amount of total investments.

#### Impact of option 4 (full sample), undertaking specific application ratio VA

	RATIO	IMPACT CURRENT VA	CURRENT APPLICABLE VA	VA OPTION	IMPACT VA OPTION	DELTA IMPACT VA	CURRENT SCR
<b>TOTAL</b>	243%	18,400	0.24%	0.27%	20,353	1,953	148,320
<b>OTH</b>	241%	401	0.24%	0.31%	524	123	3,323
<b>FR</b>	208%	5,268	0.24%	0.31%	6,818	1,550	46,749
<b>IT</b>	228%	2,367	0.24%	0.33%	3,209	841	37,304
<b>DE</b>	381%	2,352	0.24%	0.33%	3,245	893	24,794
<b>NL</b>	202%	6,262	0.24%	0.17%	4,474	-1,788	18,221
<b>ES</b>	235%	457	0.24%	0.28%	530	72	6,571
<b>BE</b>	224%	942	0.24%	0.31%	1,205	263	6,819
<b>FI</b>	184%	216	0.24%	0.22%	200	-17	2,724
<b>LU</b>	173%	56	0.24%	0.30%	70	14	1,089
<b>GR</b>	190%	79	0.24%	0.24%	80	0	726

*The current SCR ratio, the impact of the current VA, the current VA applicable, the VA under option 4 for the full sample including undertakings with Standard Formula and Internal models, the impact of this VA for option 4, the delta in the impact of the VA versus the current VA and the current SCR for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros.*

2.542 The table below shows the impact of the VA for option 4 for the SF subsample. For undertakings in the subsample the weighted average VA would increase from 0.24% to 0.27% with a positive relative impact of the VA to the current SCR of 2 percent. For two jurisdictions the relative impact would decrease with a maximum of 10.4 percent. The remaining jurisdictions would obtain an increase in the associated ratio varying from 1 to 5 percent with the exception of GR where the VA of the option does not seem to have a significant impact.

## Impact of option 4 (SF undertakings), undertaking specific application ratio VA

	SF RATIO	SF IMPACT CURRENT VA	SF CURRENT APPLICABLE VA	SF VA OPTION	SF IMPACT VA OPTION	SF DELTA IMPACT VA	SF ESTIMATE D RATIO VA OPTION	SF RELATIVE IMPACT
EEA	225%	9,474	0.24%	0.27%	10,782	1,308	226%	2%
OTH	241%	401	0.24%	0.31%	524	123	244%	4%
FR	210%	4,582	0.24%	0.31%	5,882	1,300	214%	3%
IT	184%	875	0.24%	0.32%	1,182	306	189%	5%
DE	514%	514	0.24%	0.33%	712	198	519%	5%
NL	185%	1,829	0.24%	0.14%	1,050	-779	175%	-10%
ES	235%	457	0.24%	0.28%	530	72	236%	1%
BE	231%	464	0.24%	0.29%	554	89	232%	2%
FI	184%	216	0.24%	0.22%	200	-17	184%	-1%
LU	173%	56	0.24%	0.30%	70	14	174%	1%
GR	190%	79	0.24%	0.24%	80	0	190%	0%

The current SCR ratio for the sample with only SF undertakings, the impact of the current VA, the current VA applicable, the VA under option 4 for the SF undertakings, the impact of this VA for option 4, the delta in the impact of the VA versus the current VA, the estimated ratio based on the current SCR ratio including the impact of the VA under this option relative to the current SCR and the relative impact of the VA under this option compared to the current SCR for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros. Please note that the SCR is kept constant only the VA effect on own funds and ratio is shown.

### 2.4.5.2.5.3. Impact analysis – option 5

2.543 The information request early this year also contained a part on the illiquidity of the liabilities, which has been used to estimate the application ratios for option 5. This part has been sent to a different sample of undertakings in most jurisdictions, except for NL and FR, where more than 95 percent of the undertakings were in both samples. In the 'other' jurisdictions there is an overlap of a bit less than 50 percent, while in all other jurisdictions there is hardly an overlap. For undertakings where no information regarding the illiquidity of the liabilities, i.e.  $AR_{i,c}^{Option 5}$ , was available the weighted average illiquidity ratio of the jurisdiction was taken. For the jurisdiction where no illiquidity ratio was available, the weighted average illiquidity ratio of the whole EEA was used.

2.544 The table below shows the impact of option 5 for the full sample. For the undertakings in the sample the weighted average VA would remain equal to 0.24% decreasing the impact of the VA with 0.1 billion euros to 18.3 billion euros. The increases and decreases in EoAoL among the different jurisdictions is not bigger than 0.4 billion euros. Although the application ratio decreases the VA as it is by definition lower than 1, the overall small decrease in the VA is ascribable to the increase in the currency part of the VA. This currency part of the VA increases, because it is weighted by the total spread sensitive assets rather than the larger amount of total investments.

## Impact of option 5 (full sample), undertaking illiquid liabilities' specific application ratio VA

	RATIO	IMPACT CURRENT VA	CURRENT APPLICABLE VA	VA OPTION	IMPACT VA OPTION	DELTA IMPACT VA	CURRENT SCR
<b>TOTAL</b>	243%	18,400	0.24%	0.24%	18,267	-133	148,320
<b>OTH</b>	241%	401	0.24%	0.23%	389	-12	3,323
<b>FR</b>	208%	5,268	0.24%	0.26%	5,610	342	46,749
<b>IT</b>	228%	2,367	0.24%	0.23%	2,225	-142	37,304
<b>DE</b>	381%	2,352	0.24%	0.25%	2,461	109	24,794
<b>NL</b>	202%	6,262	0.24%	0.23%	5,915	-347	18,221
<b>ES</b>	235%	457	0.24%	0.18%	350	-107	6,571
<b>BE</b>	224%	942	0.24%	0.23%	917	-25	6,819
<b>FI</b>	184%	216	0.24%	0.30%	266	50	2,724
<b>LU</b>	173%	56	0.24%	0.21%	50	-6	1,089
<b>GR</b>	190%	79	0.24%	0.25%	84	5	726

The current SCR ratio, the impact of the current VA, the current VA applicable, the VA under option 5 for the full sample including undertakings with Standard Formula and Internal models, the impact of this VA for option 5, the delta in the impact of the VA versus the current VA and the current SCR for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros.

2.545 The table below shows the impact of option 5 for the SF subsample. For the undertakings in the subsample the weighted average VA would increase to 0.25%, increasing the impact of the VA with 0.4 billion euros to 9.8 billion euros; the associated relative impact compared to the current SCR equal to approximately 0 percent. The relative increases and decreases among the different jurisdictions is not bigger than 2 percent. The impact of this option changes from a negative impact on the EoAoL for the full sample, to a higher positive impact on EoAoL for the subsample. This is for the larger part due to the significant decrease in coverage for NL, indicating the significance of sample size.

## Impact of option 5 (SF undertakings), undertaking illiquid liabilities' specific application ratio VA

	SF RATIO	SF IMPACT CURRENT VA	SF CURRENT APPLICABLE VA	SF VA OPTION	SF IMPACT VA OPTION	SF DELTA IMPACT VA	SF ESTIMATED RATIO VA OPTION	SF RELATIVE IMPACT
<b>TOTAL</b>	225%	9,474	0.24%	0.25%	9,844	370	225%	0%
<b>OTH</b>	241%	401	0.24%	0.23%	389	-12	240%	0%
<b>FR</b>	210%	4,582	0.24%	0.26%	4,907	325	211%	1%
<b>IT</b>	184%	875	0.24%	0.22%	820	-56	183%	-1%
<b>DE</b>	514%	514	0.24%	0.25%	540	26	514%	1%
<b>NL</b>	185%	1,829	0.24%	0.26%	1,986	157	187%	2%
<b>ES</b>	235%	457	0.24%	0.18%	350	-107	233%	-2%
<b>BE</b>	231%	464	0.24%	0.23%	452	-12	230%	0%
<b>FI</b>	184%	216	0.24%	0.30%	266	50	186%	2%
<b>LU</b>	173%	56	0.24%	0.21%	50	-6	172%	-1%
<b>GR</b>	190%	79	0.24%	0.25%	84	5	191%	1%

The current SCR ratio for the sample with only SF undertakings, the impact of the current VA, the current VA applicable, the VA under option 5 for the SF undertakings, the impact of this VA for option 5, the delta in the impact of the VA versus the current VA, the estimated ratio based on the current SCR ratio including the impact of the VA under this option relative to the current SCR and the relative impact of the VA under this option compared to the current SCR for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros. Please note that the SCR is kept constant only the VA effect on own funds and ratio is shown.

### 2.4.5.2.5.4. Impact analysis – option 6

2.546 The table below shows the impact of option 6 for the full sample. For the undertakings in the sample the weighted average VA would decrease from 0.24% to 0.22% and this would decrease the impact of the VA with 1.5 billion euros to 16.9 billion euros. For all jurisdictions the EoAoL decreases with an impact not higher than 0.5 billion euros.

#### Impact of option 6 (full sample), relative risk-corrections

	RATIO	IMPACT CURRENT VA	CURRENT APPLICABLE VA	VA OPTION	IMPACT VA OPTION	DELTA IMPACT VA	CURRENT SCR
<b>TOTAL</b>	243%	18,400	0.24%	0.22%	16,867	-1,533	148,320
<b>OTH</b>	241%	401	0.24%	0.22%	368	-33	3,323
<b>FR</b>	208%	5,268	0.24%	0.22%	4,829	-439	46,749
<b>IT</b>	228%	2,367	0.24%	0.22%	2,170	-197	37,304
<b>DE</b>	381%	2,352	0.24%	0.22%	2,156	-196	24,794
<b>NL</b>	202%	6,262	0.24%	0.22%	5,740	-522	18,221
<b>ES</b>	235%	457	0.24%	0.22%	419	-38	6,571
<b>BE</b>	224%	942	0.24%	0.22%	863	-78	6,819
<b>FI</b>	184%	216	0.24%	0.22%	198	-18	2,724
<b>LU</b>	173%	56	0.24%	0.22%	51	-5	1,089
<b>GR</b>	190%	79	0.24%	0.22%	73	-7	726

The current SCR ratio, the impact of the current VA, the current VA applicable, the VA under option 6 for the full sample including undertakings with Standard Formula and Internal models, the impact of this VA for option 6, the delta in the impact of the VA versus the current VA and the current SCR for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros.

2.547 The table below shows the impact of option 6 for the SF subsample. For the undertakings in the subsample the associated relative impact compared to the current SCR equals -1 percent. For all jurisdictions the EoAoL decreases

with associated relative decreases not bigger than 2 percent in terms of the current SCR.

### Impact of option 6 (SF undertakings), relative risk-corrections

	SF RATIO	SF IMPACT CURRENT VA	SF CURRENT APPLICABLE VA	SF VA OPTION	SF IMPACT VA OPTION	SF DELTA IMPACT VA	SF ESTIMATED RATIO VA OPTION	SF RELATIVE IMPACT
EEA	225%	9,474	0.24%	0.22%	8,684	-789	224%	-1%
OTH	241%	401	0.24%	0.22%	368	-33	240%	-1%
FR	210%	4,582	0.24%	0.22%	4,200	-382	210%	-1%
IT	184%	875	0.24%	0.22%	802	-73	182%	-1%
DE	514%	514	0.24%	0.22%	471	-43	513%	-1%
NL	185%	1,829	0.24%	0.22%	1,676	-152	183%	-2%
ES	235%	457	0.24%	0.22%	419	-38	234%	-1%
BE	231%	464	0.24%	0.22%	426	-39	230%	-1%
FI	184%	216	0.24%	0.22%	198	-18	184%	-1%
LU	173%	56	0.24%	0.22%	51	-5	172%	0%
GR	190%	79	0.24%	0.22%	73	-7	189%	-1%

The current SCR ratio for the sample with only SF undertakings, the impact of the current VA, the current VA applicable, the VA under option 6 for the SF undertakings, the impact of this VA for option 6, the delta in the impact of the VA versus the current VA, the estimated ratio based on the current SCR ratio including the impact of the VA under this option relative to the current and the relative impact of the VA under this option compared to the current SCR for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros. Please note that the SCR is kept constant only the VA effect on own funds and ratio is shown.

### 2.4.5.2.5.5. Impact analysis – Approach 1

2.548 The table below shows the impact of this combination for the full sample. For the undertakings in the sample the weighted average VA would decrease from 0.24% to 0.19% and this would decrease the impact of the VA with 4 billion euros to 14.4 billion euros. In all jurisdictions the EoAoL decreases with the highest impact for NL. The relative big impact in NL is due to the fact that the VA makes up a relative large part of the eligible own funds.

### Impact of Approach 1 (full sample): option 4+5, undertaking matched illiquid liabilities' specific application ratio VA

	RATIO	IMPACT CURRENT VA	CURRENT APPLICABLE VA	VA OPTION	IMPACT VA OPTION	DELTA IMPACT VA	CURRENT SCR
TOTAL	243%	18,400	0.24%	0.19%	14,415	-3,985	148,320
OTH	241%	401	0.24%	0.21%	357	-45	3,323
FR	208%	5,268	0.24%	0.22%	4,856	-412	46,749
IT	228%	2,367	0.24%	0.21%	2,040	-327	37,304
DE	381%	2,352	0.24%	0.23%	2,281	-70	24,794
NL	202%	6,262	0.24%	0.13%	3,440	-2,821	18,221
ES	235%	457	0.24%	0.16%	314	-143	6,571
BE	224%	942	0.24%	0.21%	835	-107	6,819
FI	184%	216	0.24%	0.20%	179	-37	2,724
LU	173%	56	0.24%	0.19%	44	-12	1,089
GR	190%	79	0.24%	0.21%	69	-10	726

The current SCR ratio, the impact of the current VA, the current VA applicable, the VA under the combination of options 4 and 5 with relative risk-corrections for the full sample including undertakings with Standard Formula and Internal models, the impact of the VA for this combination, the delta in the impact of the VA versus the current VA and the current SCR for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros.

2.549 The table below shows the impact of this combination. For the undertakings in the sample the weighted average VA would decrease from 0.24% to 0.20% with an associated relative impact in terms of the current SCR of -2 percent. In terms of relative impacts compared to the current SCR, decreases are not higher than 2 percent except for NL.

**Impact of Approach 1 (SF undertakings): option 4+5, undertaking matched illiquid liabilities' specific application ratio VA**

	SF RATIO	SF IMPACT CURRENT VA	SF CURRENT APPLICABLE VA	SF VA OPTION	SF IMPACT VA OPTION	SF DELTA IMPACT VA	SF ESTIMATED RATIO VA OPTION	SF RELATIVE IMPACT
<b>TOTAL</b>	225%	9,474	0.24%	0.20%	7,777	-1,697	223%	-2%
<b>OTH</b>	241%	401	0.24%	0.21%	357	-45	239%	-1%
<b>FR</b>	210%	4,582	0.24%	0.22%	4,211	-371	210%	-1%
<b>IT</b>	184%	875	0.24%	0.21%	751	-124	182%	-2%
<b>DE</b>	514%	514	0.24%	0.24%	503	-11	513%	0%
<b>NL</b>	185%	1,829	0.24%	0.12%	940	-889	173%	-12%
<b>ES</b>	235%	457	0.24%	0.16%	314	-143	233%	-2%
<b>BE</b>	231%	464	0.24%	0.21%	409	-56	230%	-1%
<b>FI</b>	184%	216	0.24%	0.20%	179	-37	183%	-1%
<b>LU</b>	173%	56	0.24%	0.19%	44	-12	172%	-1%
<b>GR</b>	190%	79	0.24%	0.21%	69	-10	189%	-1%

*The current SCR ratio for the sample with only SF undertakings, the impact of the current VA, the current VA applicable, the VA under the combination of options 4 and 5 with relative risk-corrections for the SF undertakings, the impact of this VA for this combination, the delta in the impact of the VA versus the current VA, the estimated ratio based on the current SCR ratio including the impact of the VA under this option relative to the current SCR and the relative impact of the VA under this option compared to the current SCR for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros. Please note that the SCR is kept constant only the VA effect on own funds and ratio is shown.*

**2.4.5.2.5.6. Impact analysis – Approach 2**

2.550 The table below shows that the impact of this combination for the full sample leads to a decrease in the weighted average VA from 0.24% to 0.19%. This would decrease the impact of the VA with 3.7 billion euros to 14.7 billion euros. For two jurisdictions the combination would lead to an increase in the VA, resulting in an increase in the EoAoL. For the remaining jurisdictions the combination would lead to a decrease with the highest impacts for NL followed by FR and DE.



**Impact of Approach 2 (full sample): option 1+4+5, undertaking investments' specific VA with matched illiquid liabilities application ratio**

	RATIO	IMPACT CURRENT VA	CURRENT APPLICABLE VA	VA OPTION	IMPACT VA OPTION	DELTA IMPACT VA	CURRENT SCR
<b>TOTAL</b>	243%	18,400	0.24%	0.19%	14,737	-3,663	148,320
<b>OTH</b>	241%	401	0.24%	0.19%	312	-89	3,323
<b>FR</b>	208%	5,268	0.24%	0.18%	4,040	-1,228	46,749
<b>IT</b>	228%	2,367	0.24%	0.47%	4,668	2,301	37,304
<b>DE</b>	381%	2,352	0.24%	0.20%	1,940	-411	24,794
<b>NL</b>	202%	6,262	0.24%	0.09%	2,301	-3,961	18,221
<b>ES</b>	235%	457	0.24%	0.23%	436	-21	6,571
<b>BE</b>	224%	942	0.24%	0.17%	679	-263	6,819
<b>FI</b>	184%	216	0.24%	0.17%	150	-66	2,724
<b>LU</b>	173%	56	0.24%	0.23%	54	-1	1,089
<b>GR</b>	190%	79	0.24%	0.47%	157	77	726

The current SCR ratio, the impact of the current VA, the current VA applicable, the VA under the combination of options 1, 4 and 5 for the full sample including undertakings with Standard Formula and Internal models, the impact of the VA for this combination, the delta in the impact of the VA versus the current VA and the current SCR for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros.

2.551 The table below shows that the impact of this combination for the subsample leads to a decrease in the weighted average VA from 0.24% to 0.19%. This would decrease the impact of the VA, decreasing the relative impact compared to the SCR with 2 percent. For all jurisdictions the relative decreases are less than approximately 3 percent except for NL. For two jurisdictions the combination would lead to an increase in the VA, resulting in a relative increase compared to the SCR.

**Impact of Approach 2 (SF undertakings): option 1+4+5, undertaking investments' specific VA with matched illiquid liabilities application ratio**

	SF RATIO	SF IMPACT CURRENT VA	SF CURRENT APPLICABLE VA	SF VA OPTION	SF IMPACT VA OPTION	SF DELTA IMPACT VA	SF ESTIMATE D RATIO VA OPTION	SF RELATIVE IMPACT
<b>EEA</b>	225%	9,474	0.24%	0.19%	7,575	-1,899	222%	-2%
<b>OTH</b>	241%	401	0.24%	0.19%	312	-89	238%	-3%
<b>FR</b>	210%	4,582	0.24%	0.18%	3,439	-1,142	208%	-3%
<b>IT</b>	184%	875	0.24%	0.48%	1,745	870	198%	14%
<b>DE</b>	514%	514	0.24%	0.18%	385	-129	510%	-3%
<b>NL</b>	185%	1,829	0.24%	0.07%	569	-1,260	168%	-17%
<b>ES</b>	235%	457	0.24%	0.23%	436	-21	235%	0%
<b>BE</b>	231%	464	0.24%	0.17%	327	-137	228%	-3%
<b>FI</b>	184%	216	0.24%	0.17%	150	-66	182%	-2%
<b>LU</b>	173%	56	0.24%	0.23%	54	-1	173%	0%
<b>GR</b>	190%	79	0.24%	0.47%	157	77	201%	11%

The current SCR ratio for the sample with only SF undertakings, the impact of the current VA, the current VA applicable, the VA under the combination of options 1, 4 and 5 with relative risk-corrections for the SF undertakings, the impact of this VA for this combination, the delta in the impact of the VA versus the current VA, the estimated ratio based on the current SCR ratio including the impact of the VA under this option relative to the current and the relative impact of the VA under this option compared to the current SCR for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros. Please note that the SCR is kept constant only the VA effect on own funds and ratio is shown.





## Questions to stakeholders

**Q2.7:** What are your views on Approach 1 and Approach 2?

Your comments are also invited on the options that are implemented in Approach 1 and Approach 2 as well as on the other options specified in this section.

## 2.4.6. General application ratio

### 2.4.6.1. Relevant legal provisions

2.552 Article 77d (3) of the Solvency II Directive prescribes that the volatility adjustment (VA) shall correspond to 65% of the risk-corrected currency spread.

2.553 For the purposes of this analysis, we shall refer to this factor as the 'general application ratio' (GAR). This notational convention is used to distinguish the GAR from the proposals for new Application Ratios (AR<sub>i</sub>) in discussions of VA reform that may differ based on various categories and generally are undertaking specific.

### 2.4.6.2. Previous advice

2.554 In its technical findings on the Long-Term Guarantees Assessment (LTGA), EIOPA recommended to introduce a volatility adjustment mechanism (Volatility Balancer – VB). EIOPA set out the following view on the risks associated with the VB:

*"The main risk associated to the implementation of the measure is certainly an overestimation of the "artificial volatility" affecting spreads. The total spread between the yield of an asset and the risk-free rate includes in fact many components. The current calibration of the CCP only recognizes the credit risk connected with the probability of default, the volatility of this probability and the cost of downgrades. Beyond credit risk, the spread also encompasses crucial information such as management expense risk, taxes or costs of market imperfections. In addition, since the "buy-and-hold" principle is not a prerequisite to earn the Volatility Balancer and given that insurance liabilities are not required to be illiquid, the liquidity risk is a component of the spread to consider for the calibration. Therefore the calculated spread, which currently only excludes the portion linked to default risk (based on CCP methodology), would need to be adjusted to account for other objective market parameters of the spread."*

2.555 On basis of this assessment, EIOPA advised that the calculated spread for the VB should be adjusted to account for risks associated with the implementation of the adjustment. This adjustment should be achieved by introducing an application ratio of 20%, which has the effect that there is not a full application of the determined spread, but only a 20% application.

2.556 In recommending such an application ratio, EIOPA intended to capture the risks arising from the volatility adjustment directly through the calibration of this adjustment, rather than via an adjustment of the SCR, to avoid non-linear effects that may largely offset in some cases the benefit of the measure.<sup>84</sup>

2.557 EIOPA considered the value of 20% as a good starting point for further calibration work on the Volatility Balancer. It was calibrated to ensure that the Volatility Balancer (with an application ratio of 20%) would have a similar impact on the SCR coverage ratios of insurers as at year end 2011 than the previously tested CCP mechanism to which a dedicated capital charge was attached.

2.558 As part of the political agreement prior to the introduction of Solvency II, the application factor proposed by EIOPA was kept, however its value was increased to 65%.

#### **2.4.6.3. Identification of the issue**

2.559 The calibration of the GAR has a direct impact on the level of the calculated VA, and hence on the efficient functioning of the VA. Where the GAR is set too high, this could contribute to overshooting effects and bears the risk of underreserving as the liabilities may be valued too low if the VA is set too high. On the other hand, where the GAR is set overly prudent, this could impede the functioning of the VA as a mechanism to prevent pro-cyclical behaviour on financial markets and to mitigate the effect of exaggerations of bond spreads. EIOPA has therefore considered whether the current GAR factor of 65% should be changed, and if yes by which amount.

#### **2.4.6.4. Analysis**

##### **2.4.6.4.1. Role of GAR**

2.560 In line with its previous findings in context of the LTGA, EIOPA considers that the VA should continue to be subject to a GAR in order to account for the risks inherent in the VA.

2.561 These risks include:

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<sup>84</sup> The design of the predecessor of the VA, the Countercyclical Premium (CCP), included an additional SCR sub-module which measured the impact of a reduction of the CCP to zero on the insurer's basic own funds.

- a) The risk that undertakings cannot actually earn the VA;
- b) The limitation that the VA is applied equally to a wide range of liabilities, regardless of whether the undertaking is actually exposed to bond spread exaggerations and whether or not the liabilities are sufficient illiquid to withstand forced sales and prevent realizing losses due to these bond spread exaggerations; and
- c) the risk of misstatement of the determination of the VA that occurs due to unavoidable estimation uncertainty with respect to the measurement of exaggerations of bond spreads and the identification of risk-free portions of these spreads.

2.562 To expand on a), an insurer may not be able to earn the VA since, e.g.:

- its actual investments deviate from the reference portfolio;
- a potentially too low risk-correction has been applied;
- the VA is applied to a duration of liabilities that exceeds the duration of the fixed income assets;
- its investments include floating interest rate bonds, callable bonds, mortgages, and other assets with non-fixed cash flows or with embedded options;
- the composition of the investment portfolio of the insurer can change over time, and it may not be possible for the insurer to earn the VA with the changed portfolio;
- where the VA applies to products with future premiums, the insurer is exposed to reinvestment risk, and it may not be possible for the insurer to invest future premiums in assets that earn the same amount as past premiums; and
- the VA is applied to products with surrender rights, so the exercise of policyholder surrender options could lead to forced sales.

#### **2.4.6.4.2. Impact of changes to VA design on calibration of GAR**

2.563 The different proposals for changing the VA would affect some of the risks associated with the VA. In particular:

- 1) **Option 1** would reduce the basis risk between undertakings' portfolios and the reference portfolio and thereby reduces the risk of actually being able to earn the VA;
- 2) **Option 4** would introduce a new application ratio that reduces the risk of overshooting arising from differences between undertakings' duration of assets and liabilities and their exposures;
- 3) **Option 5** would introduce a new application ratio that would cause the VA to vary depending on how illiquid an undertaking's liabilities are and thereby reduces the risk of applying the VA without being able to withstand forced sales and the realization of losses due to bond spread exaggerations; and

- 4) **Option 6** would change the risk correction to better capture 'unexpected credit and other risks'.

#### **2.4.6.4.3. Policy options considered**

2.564 In view of the analysis above, EIOPA has considered the following policy options on the determination of the GAR:

- **Option 1:** No change (i.e. keep the GAR at 65%)
- **Option 2:** Increase the GAR to 100%
- **Option 3:** Change the GAR to a value between 65% and 100%

#### **2.4.6.4.4. Assessment of options**

2.565 As set out in section 2.4.6, EIOPA considers that the VA should continue to be subject to a GAR in order to account for the risks inherent in the VA. Whereas the risks associated with the current design of the VA may be mitigated, to some extent, by an improved design of the VA, this can only lead to a reduction but not to an elimination of the risks.

2.566 For example:

- the risk of misstatement of the determination of the VA that occurs due to unavoidable estimation uncertainty remains under any design of the VA; this risk can be substantial especially in times of crises where spreads may increase excessively, and the identification of the risk-free portion of the spread may be subject to material estimation uncertainty;
- some of the risks mentioned in section 2.4.6 that could prevent an insurer from earning the VA, e.g. a change of the insurer's investment portfolio over time, cannot be mitigated by the options for an improved VA design;
- the options for an amended VA design introduce additional inherent model risk, and cannot fully eliminate the risks which they intend to address.

2.567 Therefore, option 2 (setting the GAR to 100%), which would not allow to address risks associated with the VA, does not appear appropriate.

2.568 Under Option 3, the current value of the GAR would be increased to a value between 65% and 100%. Such an increase could be motivated by the expectation that some of the risks that the GAR should address can be mitigated by an improved design of the VA. However, the additional complexity that would be introduced by a more sophisticated VA design could also lead to additional risks and uncertainties in the quantification of the VA. Moreover, EIOPA notes that the current level of the GAR is already significantly higher than the previous EIOPAs recommendation of a value of 20%. Therefore, EIOPA considers that there is not sufficient evidence to justify an increase in the value of the GAR.

2.569 Therefore, the preferred option is option 1 (no change of the GAR).



## Questions to stakeholders

**Q2.8:** What is your view on the general application ratio? Should it be changed in case approach 1 or approach 2 to the VA design would be adopted?

### 2.4.7. Dynamic VA for the standard formula

#### 2.4.7.1. Identification of the issue

2.570 As at year end 2018, 192 insurance and reinsurance undertakings calculate their SCR with an approved internal model. 62 of these undertakings apply the dynamic VA, i.e. their internal models take account of the possible change of the VA during the following 12 months. Such an approach is currently not possible in the SCR standard formula, where the spread risk sub-module does not take account of VA changes.

2.571 The application of a dynamic VA has a significant impact on the SCR. As reported in the LTG report 2018, at the end of 2017 the average SCR reduction caused by the dynamic VA was 25%. In contrast, where the standard formula was applied to derive the SCR, the VA caused on average a reduction of the capital requirement by 1%.

2.572 These differences give rise to the concern that there is no level playing field between undertakings that use internal model and undertakings that use the standard formula because their spread risk is treated systematically different in the SCR calculation.

2.573 Furthermore, where the VA is interpreted as an inherent component of the valuation of technical provisions accounting for the illiquidity of liabilities (cf. option 5) an inconsistency between valuation and risk measurement arises, where the dynamics of the VA are not adequately reflected in the risk measurement. Under such an interpretation of the VA, the application of a dynamic VA in the SCR would be consistent. Not reflecting a dynamic VA in the SCR would in contrast raise inconsistency between the valuation and risk measurement. This particularly holds for the measurement of spread risk, as changes in market spreads would have an impact on the VA and thus on the value of technical provisions and own funds, thus on the final risk taken into account.

#### 2.4.7.2. Analysis

2.574 The following option has been identified to address the issue:

- Allow for the dynamic VA in the SCR standard formula

2.575 Under this option, the stress scenario of the spread risk sub-module would be modified to take into account the VA changes resulting from the spread stress. For this purpose a stressed VA would be provided by EIOPA. The

stressed VA would reflect spread widening of government bonds only to the extent that the standard formula does so. Undertakings would need to recalculate the value of technical provisions impacted by a change in the size of the VA due to the stress.

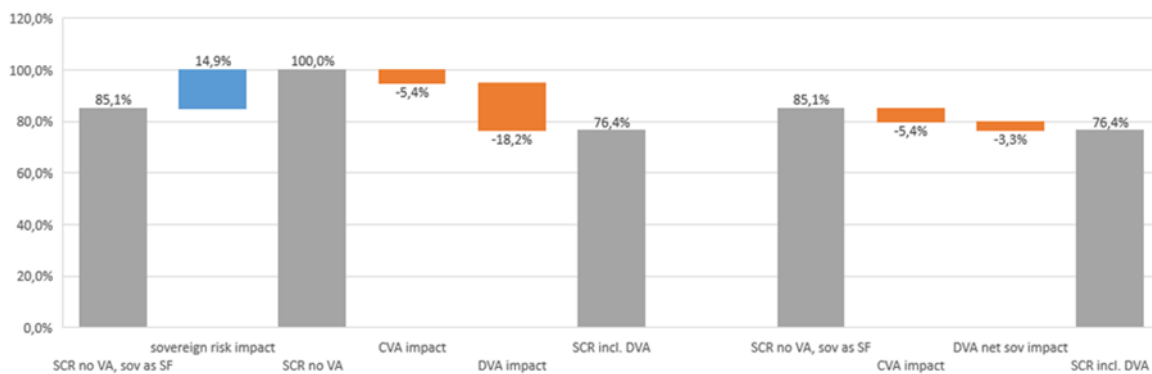
- 2.576 This concept may also require an addition to the current design of the SCR standard formula as the insurer would be exposed to another risk, the risk of technical provisions increasing as a consequence of the VA decreasing. This could be solved by adding another scenario of spreads decreasing in the spread risk sub-module. This would ensure that undertakings are exposed to an additional risk charge in case of a mismatch between the undertaking's credit risk exposure on the asset side and the sensitivity of the liabilities to changes in the VA.<sup>85</sup>
- 2.577 In case the design of the VA is changed to include undertaking-specific elements (undertaking-specific VA, application ratios for overshooting or illiquidity), then undertakings would calculate the VA based on input data from EIOPA (stressed spreads for the undertaking-specific VA, VA before application ratios).
- 2.578 Undertakings that apply the VA and derive the SCR for spread risk with the standard formula would have the choice to apply the dynamic VA or calculate the capital requirement for spread risk as it is currently done.
- 2.579 Another possibility is to apply the dynamic VA in a more indirect way: the spread risk charges would be reduced based on the effective application ratio of an undertaking. For example, if an undertaking specific application ratio would reflect illiquidity of the liabilities as well as duration relation of assets and liabilities and would amount to 50 percent and the risk-correction would be 50 percent, the impact of parallel credit spread changes would be potentially approximately compensated by 25 percent. This 25 percent could be used as a reduction for the credit spread charges. It would require further analysis to ascertain that this approach captures the impact that the VA has in the spread risk scenarios of the SCR standard formula.
- 2.580 EIOPA has further analysed the impact of the dynamic VA on capital requirements. The analysis took into account that internal models capture the full credit risk from government bonds<sup>86</sup> while the standard formula assigns a zero credit risk charge to EEA government bonds that are denominated in local currency. The following diagram illustrates the impact of including government bond risks, of the VA without dynamic modelling (CVA) and the impact of dynamic modelling of the VA (DVA) on the SCR. The figures relate to the average impact for a representative sample of internal models that apply the dynamic VA and the reference date of 31 December 2018. The net

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<sup>85</sup> E.g. for undertakings with long term liabilities and only a small proportion of spread-sensitive assets.

<sup>86</sup> See EIOPA Opinion on the preparation for Internal Model applications of 14 April 2015, <https://eiopa.europa.eu/Publications/Opinions/EIOPA-BoS-15-083%20Opinion%20on%20IMs%20%28April%202015%29.pdf>

effect of including government bond risks and applying the dynamic VA is a reduction of the SCR by 3.3%:



2.581 Please note that effects shown are effects on the total SCR and thus including diversification effects.

2.582 The level of the reduction does not support the concern that the dynamic VA creates a level playing field issue with regard to the standard formula. On the contrary, the figures indicate that allowing for a dynamic VA in the standard formula while keeping a zero risk charge for government bonds might create an uneven playing field in favour of standard formula users. The impact on single undertaking level is further analysed in the section on the DVA in internal models (see section 2.5) and confirms the conclusion in general.

2.583 Furthermore, it should be taken into account that the charges for credit spread risk in the SCR standard formula have been significantly reduced compared to the initial calibration proposed by CEIOPS. If the standard formula would be based on this original calibration, the advantage of applying the DVA in internal models would be larger. One could argue that the reduction of the spread risk charges compared to the CEIOPS advice already takes into account the DVA to some extent.

2.584 Apart from that, a comparison between internal models and the standard formula needs to take into account that internal models are governed by strong regulatory requirements to ensure and justify appropriateness of the approach taken (in particular Articles 223 to 247 of the Delegated Regulation). Such requirements do currently not apply to standard formula users.

2.585 On the other hand, the calibration of spread risk of internal model users and standard formula users is not directly comparable. A comparison would need to acknowledge that the credit spread charges for the standard formula depart from earlier CEIOPS advice and also the diversity of calibration and modelling approaches for internal model users.

2.586 It is not mandatory to jointly consider the allowance for government bond spread risks and the modelling of a dynamic VA. Some internal modes that cover spread risk only apply a constant VA. The question of whether to

recognize a dynamic VA can also be considered to be first of all a conceptual one that goes hand in hand with the objectives the VA is targeted towards. As these objectives do not vary between internal model or standard formula users - as the VA is first of all an adjustment to the valuation - the question of whether the VA should be conceptually transferred to risk measurement should be answered independently from how the SCR is calculated. Therefore, it can be argued that where a dynamic VA is included in internal models, it should also be possible to apply it in the standard formula in case the VA targets to reflect the illiquidity in the valuation.

2.587 If the VA intends to mitigate the impact of bond spread exaggerations and the reduction of pro-cyclical investment behaviour (objectives 1 and 2 of the VA), it is not beneficial that those targets are reflected in a reduction of the capital requirements. On the contrary, it would provide a double benefit by reducing both the own funds and the SCR. It is unlikely that the dynamic VA contributes to preventing pro-cyclical behaviour because it permanently lowers the capital requirement for spread risk. It can therefore rather be considered as having a negative consequence for pro-cyclical behaviour as undertakings are less incentivised to increase buffers in good times (as DVA reduces capital requirements already in good times), see also deficiency 5.

2.588 The option would have the following advantages and disadvantages:

Advantages	Disadvantages
Provides for consistent treatment of the VA in internal models and the SCR standard formula.	Might create an uneven playing field in favour of standard formula users as long as government bond risks are not fully captured in the standard formula.
Ensures consistency between the risk measurement in the SCR and the derivation of technical provisions and own funds. The spread risk SCR captures the reduction of exposure to spread risk due to illiquidity and duration of liabilities.	The spread risk SCR does not reflect anymore the full risk of spread widening as observed in financial markets.
Encourages the investments in corporate bonds and loans.	May reduce the level of policyholder protection where capital requirements are reduced.
	Lower capital requirements for spread risk may incentivise undertakings to hold more corporate bonds of lower credit quality.
	Increases the complexity of the SCR calculations for undertakings that apply the dynamic VA



	Discourages the investment in equity
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2.589 EIOPA holds the view that the disadvantages of the option clearly outweigh the advantages of the option, in particular as it effectively not improves the level playing field between users of the standard formula and users of internal models.

#### **2.4.7.3. Advice**

2.590 EIOPA advises that the SCR standard formula should not be changed to allow for the dynamic VA.



#### **Questions to stakeholders**

**Q2.9:** Should the dynamic VA be allowed for in the SCR standard formula? If yes, how should it be implemented?

### **2.4.8. Approval to use the VA**

#### **2.4.8.1. Identification of the issue**

2.591 The Solvency II Directive includes a Member State option to require supervisory approval to use the VA (Article 77d(1)). EIOPA analysed for the LTG report 2016 the application of that Member State option. Accordingly ten countries require approval to use the VA (DE, DK, EE, HR, IE, PL, PT, RO, SI, UK). In four of these countries undertakings do not use the VA (EE, HR, PL, SI). In 17 countries where the VA is used by undertakings no approval is required (AT, BE, BG, CY, CZ, ES, FI, FR, GR, HU, IT, LI, LU, NL, NO, SE, SK).

2.592 Article 77d(1) does not provide a level playing field because depending on the country of authorisation undertakings need to or do not need to request approval to use the VA. This constitutes an unequal treatment between undertakings of different jurisdictions. In particular, undertakings incur different costs when they apply the VA because in some jurisdictions they incur the costs of the approval process and in others not.

2.593 Furthermore, an undertaking that does not receive approval by its supervisory authority to use the VA could still do so if it was authorised in a country that does not require approval. These differences may be mitigated

because the supervisory review process in countries without VA approval can also result in disallowing undertakings to use the VA where it is found inappropriate.

#### **2.4.8.2. Analysis**

2.594 The following policy options to address this issue have been identified:

- Require supervisory approval to use the VA in all Member States
- Do not require supervisory approval to use the VA in all Member States

2.595 To require supervisory approval ensures that NSAs have up to date information on the use of the VA in their market. NSAs can subject the use of the VA to conditions. Such conditions could include in particular:

- where the VA includes undertaking-specific application ratios or is based on undertaking-specific asset allocation, that the processes, data and assumptions for calculating the undertaking-specific components of the VA are appropriate,
- that the undertaking is able to earn an asset yield that is at least the risk-free interest rates plus the VA ("to earn the VA"),
- where the VA is based on a representative portfolio, that the asset of the undertaking does not deviate unduly from the representative portfolio used to calculate the VA.

2.596 Preventing that undertakings do not use the VA without complying with such conditions could help to ensure that undertakings use appropriate discount rates to value their insurance liabilities and thus set up adequate technical provisions. This would contribute to policyholder protection. Supervision would be more effective because NSAs have more insight into the use of the VA by their undertakings.

2.597 On the other hand, if no supervisory approval was requested, then NSAs and undertakings would not incur the costs for the approval process.

2.598 In comparison, no change is not the preferred option because it does not provide a level playing field across countries. The choice between supervisory approval in all Member States and no supervisory approval in all Member States depends on the design of the VA. EIOPA will decide on its preference on the design after the consultation.

#### **2.4.8.3. Advice**

2.599 In EIOPA's view the question whether the use of the VA should be subject to supervisory approval should be answered in the same way for all Member States.

2.600 Whether the VA should be subject to supervisory approval depends on the design of the VA. EIOPA will decide on its preference on the design after the consultation.

## 2.5. Dynamic volatility adjustment in internal models

### 2.5.1. Extract from the call for advice

#### **3.6. Dynamic modelling of the Volatility adjustment**

*EIOPA is asked to assess whether the modelling of the DVA by internal model users sets disincentives for insurance and reinsurance undertakings' investment and risk management strategies, and whether the existence of diverging practices in this regard can be detrimental to the level playing field. In this context, EIOPA is asked to assess the appropriateness of this dynamic modelling in internal models in light of the assumptions underlying the volatility adjustment. In case that EIOPA advises to maintain this dynamic modelling in internal models, it should also advise on criteria to improve harmonisation of the modelling.*

2.601 The assessment of this request is considered in the context of COM's call for information on long term guarantee measures (CfI)<sup>87</sup> as well as in the context of EIOPA's 'Opinion on the supervisory assessment of internal models including a dynamic volatility adjustment' ('DVA'), EIOPA-BoS-17/366, 'DVA opinion' in the following, envisaging to monitor the developments using information collected from Members and to assess the implementation of this opinion.

### 2.5.2. Previous advice

2.602 EIOPA did not provide advice on this topic so far but issued the DVA opinion as mentioned above.

### 2.5.3. Relevant legal provisions

2.603 The DVA in internal models is governed especially by the regulatory requirements on internal models. These especially are Articles 112 – 127 of the Solvency II Directive and Articles 222 – 246 of the Delegated Regulation for single undertakings and the respective Articles for groups. Furthermore, more general requirements on governance including risk management and on disclosure to supervisors and public are relevant.

2.604 Of specific importance in the DVA context are the requirements of the 'statistical quality standards' (SQS) of Article 121 of the Solvency II Directive, including the consistency with the methods used to calculate technical provisions, but also the ability to rank risks mentioned in Article 232 of the

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<sup>87</sup><https://eiopa.europa.eu/Publications/Requests%20for%20advice/Request%20for%20information%202018-04-25.pdf>

Delegated Regulation. At the same time the requirements on use test of Article 120 of the Solvency II Directive and its specification in the Delegated Regulation have to be complied with, including fit to the business (Article 224 of the Delegated Regulation) and integration in risk management (Article 226 of the Delegated Regulation). Of a more general importance is the coverage of all material risks (Article 233 of the Delegated Regulation).

2.605 The frame is set by the regulation of the volatility adjustment, especially Articles 77d and 44 of the Solvency II Directive and Articles 49 – 51, 278 of the Delegated Regulation.

#### 2.5.4. Other regulatory background

2.606 Connections exist in a natural way to the review of the volatility adjustment itself, but there is no connection visible to regulatory changes beyond the review of Solvency II.

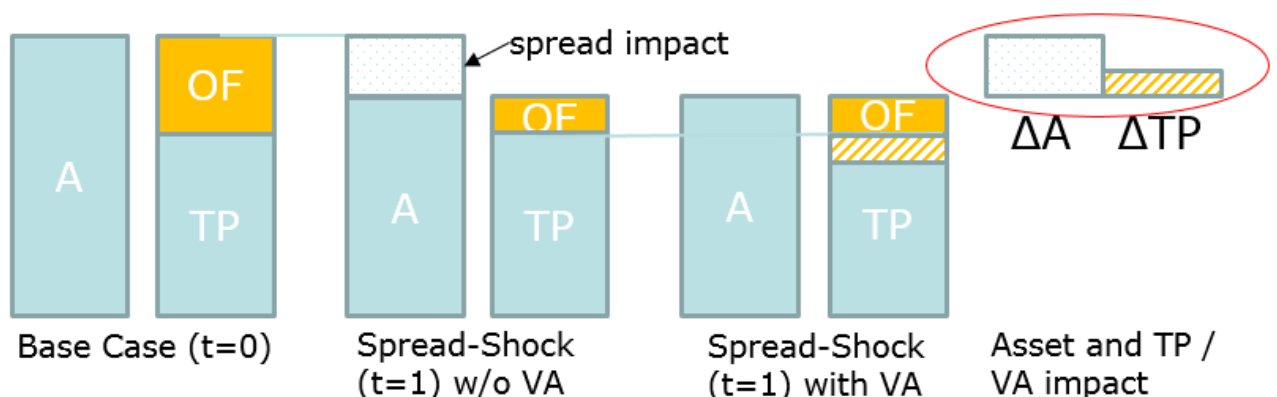
#### 2.5.5. Identification of the issue

##### Dynamic volatility adjustment in internal models

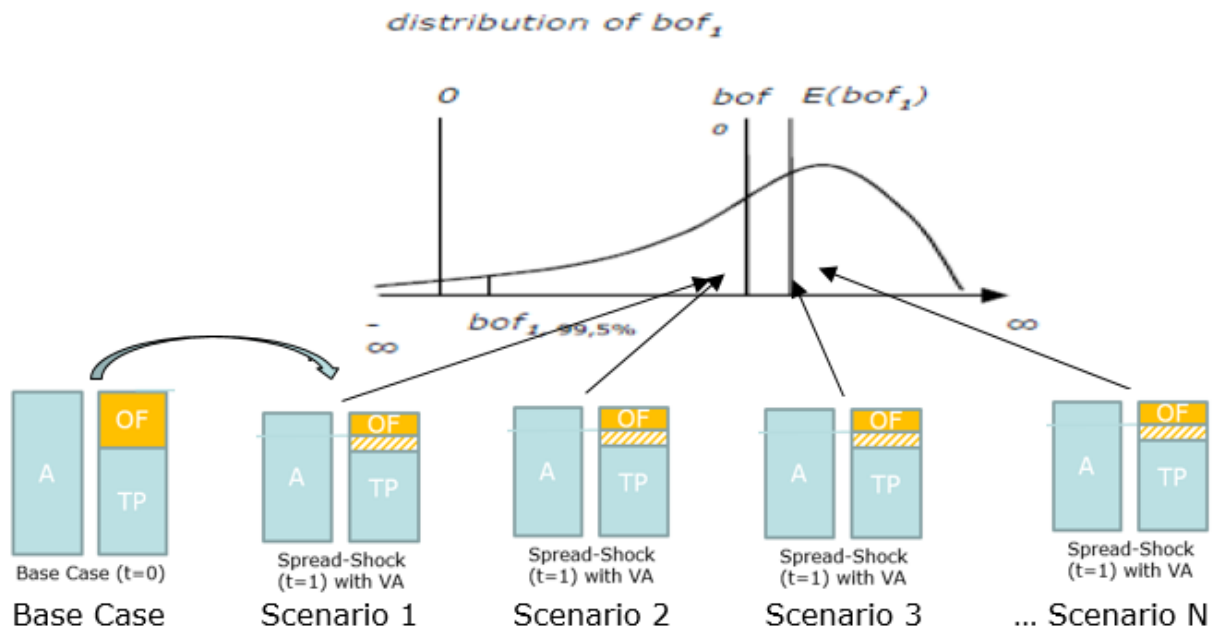
2.607 The volatility adjustment (VA) was introduced as one of the 'long-term guarantee' (LTG) measures to mitigate the impact of exaggeration of bonds spreads by adjusting the risk free rates ('RFR') to calculate the technical provisions. As internal models are required to generate a probability distribution forecast that determines changes in basic own funds to calculate the SCR consistent with the methods to calculate the technical provisions (TP), some internal model users implemented so called 'dynamic volatility adjustment' (DVA) approaches that take the VA into account in the SCR by allowing the VA to move in line with the modelled credit spreads during the 1-year forecast of basic own funds. Some other models keep the VA constant (CVA) as in the standard formula.

2.608 The idea of DVA approaches could be illustrated as follows:

2.609 Under the VA, changes in asset values ( $\Delta A$ ) are (partly) compensated by a TP adjustment ( $\Delta TP$ ):



2.610 In a generic view, this effect is anticipated in DVA approaches in the scenarios simulated to determine the SCR:



2.611 One of the key questions addressed under the key words 'overshooting' and 'undershooting' (see section 2.4.5.1), is whether the relation of the impact on assets and the TP adjustment are sensible.

### Issues identified

2.612 Relevant issues as identified in EIOPA's DVA opinion and underlined and exemplified in COM's CfA are:

1. Potential disincentives for risk and investment management.
2. Impacts on the level playing field, especially by the existence of different modelling approaches.
3. Appropriateness in the context of the underlying assumptions of the volatility adjustment.

2.613 COM in the CfA is asking EIOPA to provide advice on

1. whether to maintain the DVA
2. if 'yes', criteria to improve harmonisation of the modelling

2.614 With respect to these issues one could generally state that internal models as described above fundamentally rely on the approach to generate a distribution of basic own funds or impacts on these and therefore perform a projection under stressed conditions as consistent with valuation as possible. Any deficiencies of the VA consequently translate to the SCR and are amplified if changes to the VA are anticipated by closely modelling the EIOPA VA methodology in a DVA approach. But, as laid out in the EIOPA DVA opinion, at the same time there should be no disincentives for risk and investment

management, and that is currently the case for some insurers if they would directly model the VA especially due to what is called 'overshooting' and due to a lack of dynamics of the risk correction.

2.615 With respect to risk and investment management, the EIOPA DVA opinion especially mentions lowering of the SCR while increasing actual risk. This often is also associated with changing the 'risk ranking', e.g. without DVA the internal model would indicate a widening of credit spreads to be the relevant risk, while with DVA a tightening of credit spreads would be indicated as risk, which is unintended. But also a mitigation of risk not changing the order but extremely reducing the 'distance', and not justified by the undertaking's risk profile, could lead to disincentives<sup>88</sup>.

2.616 The need and desire to remove risk management disincentives led to the implementation of 'holistic approaches' deviating from replication of the EIOPA VA methodology and in the EIOPA DVA opinion to the introduction of the so called 'prudency principle', under which undertakings using a holistic approach shall demonstrate that their SCR is at least as high as if replicating the EIOPA VA methodology.

2.617 But, this prudency principle in certain cases could lead to re-introducing certain parts of the issues, and thus does not seem to work properly especially in pronounced cases. E.g. in the situation of an inversion of the risk ranking under a replication of the EIOPA VA methodology, the prudency principle could introduce a floor for the risk of spread widening which is derived from a risk of spread tightening, potentially leading to unintended limitations. The prudency principle consequently cannot serve as a benchmark in general.

2.618 As identified in the section 2.4.5.1, key sources of VA 'overshooting' and consequently SCR issues are the mismatch of credit spread sensitivity of assets and liabilities (incl. volume and duration mismatches), allocation mismatches compared to the VA reference portfolio (incl. sector, e.g. sovereign and corporate, and credit quality step) and the fact that the current VA risk correction (cf. Article 77d (3) of the Solvency II Directive) could underestimate expected losses or unexpected credit risk (e.g. migration, default) or other risks of the assets, especially in extreme economic environments and for certain assets as it relies on a 30-year-Long-Term-Average-Spread. The latter and the former can cause DVA models not to be 'risk sensitive', i.e. not sufficiently show real risks and not sufficiently support risk ranking. Also, 'undershooting' could be caused, e.g. if the actual portfolio and VA reference portfolio have structural differences regarding government bonds.

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<sup>88</sup> To illustrate: 'Distance' would be measured in difference of SCR impact e.g. in scenario calculations in ALM studies. In a simplified example, suppose the SCR impact of increasing credit quality step by one or three steps would increase SCR by 10 or 100 pre DVA. If now the DVA would change the relation to 8 vs. 10, investing in riskier assets could become more attractive than intended from risk management point of view.

## 2.5.6. Analysis

### 2.5.6.1. Use of the DVA and modelling approaches observed

2.619 At year-end 2018, 62 undertakings are using an internal model for solo-purposes including a DVA. Three of these undertakings will drop out during 2019 due to merger & acquisition.

2.620 All DVA undertakings belong to eight insurance groups, in each of which the approach to the DVA is homogeneous, i.e. eight DVA approaches are observed in the market. Four of these approaches could be classified as 'direct approaches', i.e. with the ambition to replicate the EIOPA VA methodology. Those four approaches cover 38 solo undertakings, partly including margins of prudence related to the concrete model setup. Four DVA approaches could be classified as 'holistic', i.e. deviate from closely modelling the EIOPA VA methodology with the aim to solve undesirable risk management incentives. These holistic approaches cover 24 undertakings and differ motivated by risk management and risk profile analysis. They can be said to implement an alternative measure of credit risk or credit risk impact based on own assessments and vary conceptually in approach and technical specification. The deficiency that the VA underlying assumptions (see section 2.4.5.1) are unclear to a certain extent translates again to the DVA, which is not only relevant in the context of holistic approaches.

2.621 One of the holistic approaches uses a modified VA methodology based on undertaking specific application ratios which try to address the liquidity of liabilities as well as the volume and duration of assets and liabilities similar to approach 1 as described above (add reference), including a modified risk correction. One other holistic approach also applies an undertaking specific application ratio based on durations of assets and liabilities but addresses potential mismatches in volume and credit quality standing by operating based on the own asset portfolio, limiting the effect according to the prudence principle by a reduced and potentially undertaking specific 'general application ratio'. Two further approaches modify the modelled credit spread risk itself. One of these approaches reduces the shock by a uniform rate based on an illiquidity analysis of the liabilities. The second one implemented a more differentiated approach to fundamental losses and market value impacts, also including an illiquidity analysis of liabilities.

2.622 Irrespective of the approach chosen, models were only approved if all credit risks were modelled, including sovereign risk.

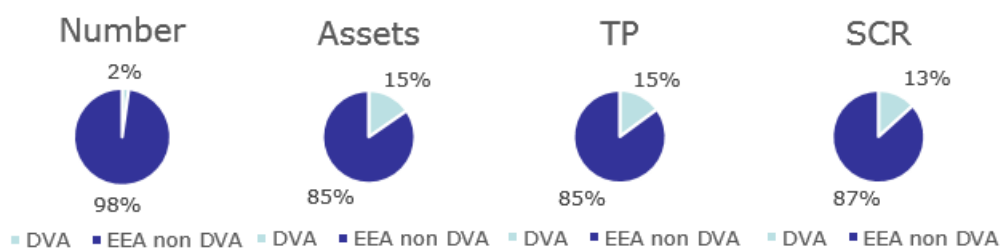
2.623 Although the number of DVA users compared to the total number of insurance undertakings falling under Solvency II with 2% is small, the portion in terms of volume of assets and technical provisions with 15% is relevant:

**Total figures: DVA users vs. all Solvency II undertakings (amounts in Mio. €)**

	Number	Assets	TP	SCR	VA impact on SCR
DVA users	62	1.748.318	1.320.105	86.777	26.482
Total	2.787	11.348.380	8.822.464	651.798	40.425

**Relative portions: DVA users vs. all Solvency II undertakings**

	Number	Assets	TP	SCR	VA impact on SCR
DVA	2%	15%	15%	13%	66%
EEA no DVA	98%	85%	85%	87%	34%



2.624 With respect to the use of DVA by type of business (life, non-life, composite and reinsurance) or by country the following table provides an overview:

Country	Groups	Solo undertakings				
		Life	Non-Life	Composite	Reinsurance	Total
AT	0	2	1	1	0	4
BE	0	0	1	1	0	2
CZ	0	0	0	1	0	1
DE	2	12	7	3	2	24
FR	1	6	7	2	0	15
IE	0	0	2	0	0	2
IT	1	1	0	1	0	2
NL	3	6	5	0	1	12
UK	1	0	0	0	0	0
<b>Total</b>	<b>8</b>	<b>27</b>	<b>23</b>	<b>9</b>	<b>3</b>	<b>62</b>

**2.5.6.2. Approach to the analysis**



2.625 The analysis was based on data available at NSAs and EIOPA as especially model documentation as well as quantitative reporting templates (QRTs) and narrative reporting, supplemented by a dedicated questionnaire to undertakings including qualitative information as well as results from specifically requested calculations. The qualitative part is focussed on risk and investment management but also includes questions on the risk profile and the impact of the DVA on it. The quantitative part of the questionnaire to undertakings targeted at three dimensions: calculations under spread stress (+100 bps / -50 bps uniformly applied), separation of the impact from switching on/off the VA in CVA and DVA, and thirdly SCR details e.g. on impacts on credit spread risk SCR and on sovereign risk. QRTs evaluated especially comprise S.22 (impacts of LTG measures) and S.06 (asset-by-asset reporting).

2.626 From the total sample of DVA users, 15 undertakings were exempted from answering the questionnaire, 13 of these due to materiality criteria and 2 because impacted by a merger & acquisition operation completed before the due date of the questionnaire. I.e. for 47 of 62 DVA users detailed data are available with the following coverage:

**Total figures: DVA users total vs. submitted questionnaires (amounts in Mio. €)**

	<b>SCR</b>	<b>SCR impact</b>	<b>TP</b>	<b>Own Funds</b>
DVA users	86.777	26.482	1.320.105	243.799
Submissions	79.547	22.993	1.232.529	221.724
Portion	92%	87%	93%	91%

**2.5.6.3. Analysis of the identified issues**

2.627 This subsection presents the analysis of the identified potential issues as described above (see section 2.5.5):

1. Disincentives for risk and investment management
2. Impacts on the level playing field
3. Appropriateness in the context of the VA underlying assumptions
4. Reporting to supervisors and public.

2.628 The Advice to COM whether to maintain the DVA and potential criteria to improve harmonisation is dealt with under the 'conclusions' and in the 'advice' section.

**2.5.6.3.1. Disincentives for risk & investment management**

2.629 The COM's CfA does not explicitly mention concrete disincentives, but from the DVA opinion as well as from the questionnaire to NSAs and undertakings,

the main concern is the incentive to investment in riskier assets for the sole purpose of lowering the SCR. This would also be considered as the main driver for putting in place investment strategies that could trigger pro-cyclical behaviour in a stressed situation. NSAs especially mentioned potential pronounced cases of an inversion of risk ranking if the DVA would replicate the EIOPA VA methodology ('direct approach'), i.e. without DVA the internal model would indicate a widening of credit spreads to be the relevant risk, while with DVA a tightening of credit spreads would be indicated<sup>89</sup>. But also mentioned was increasing the appetite for credit spread risk by nearly eliminating credit spread risk in the internal model due to a DVA.

2.630 The questionnaire asked NSAs on their observations with respect to such disincentives. The answers were that also thanks to measures taken no such disincentives were observed. Measures included fostering pillar 2 activities as well as the implementation of holistic approaches. In this context one NSA confirmed the observation of pronounced cases with inversion of risk ranking if a direct approach would have been used instead of a holistic one. Also, undertakings answers confirmed NSAs expectations in general. Supplementary, the decomposition of DVA users' asset portfolios was compared to the EIOPA reference portfolio in the granularity as published in the monthly RFR publication. No particular systematically different allocations than for undertakings in the market were spotted, like e.g. relevant majority of DVA users being invested closer to the reference portfolio or in systematically riskier assets.

2.631 Still, the risk of such potential disincentives is known to exist in theory and practice, underlined by the implementation of holistic DVA approaches. From the analysis, EIOPA concludes that

1. The DVA amplifies VA deficiencies, but does not add new drivers.
2. Relevance of deficiencies depends on the concrete risk profile
3. Key sources of VA 'overshooting' and SCR issues are:
  - Mismatch of credit spread sensitivity of assets and credit spread / VA sensitivity of liabilities (incl. duration and volume mismatches)
  - Allocation mismatch to reference portfolio (incl. sector and credit quality step ('CQS'))
  - The current VA risk correction according to its definition as long term average over 30 years is essentially static and could underestimate unexpected credit risk (e.g. migration, default) or other risks of the assets, especially in extreme, stressed scenarios

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<sup>89</sup> See also paragraph 2.617 on issues observed with the prudence principle: If an inversion of risk ranking is observed under a replication of the EIOPA VA methodology and the prudence principle from the EIOPA opinion is applied to a holistic approach, which tries to solve the issue, this could introduce a floor for the risk of spread widening which is derived from a risk of spread tightening, potentially leading to unintended limitations. The prudence principle consequently cannot serve as a benchmark in general and to avoid disincentives.

and extreme economic environments and for certain assets – as included in simulations for DVA/SCR purposes.

2.632 In the DVA sample one of 47 showed an increase of own funds under a simple flat +100 bps credit spread sensitivity. However, this flat stress, especially with respect to pronounced CQS allocation mismatch between undertakings’ portfolios and the VA reference portfolio, is not giving a representative picture.

2.633 Thus to avoid disincentives the DVA benefit should be risk sensitive, reflecting the risks present in assets and liabilities covered. To foster this and to open the way for more harmonisation, ideally issues would be solved at source, i.e. in the VA, as this would allow more insurers to directly model the EIOPA VA methodology with acceptable outcomes and avoiding unintended risk management incentives.

2.634 Summarizing, the following principles should be used to design an appropriate solution:

1. No disincentives for risk and investment management, especially no ‘overshooting’ (or ‘undershooting’)
2. DVA benefit should be risk sensitive, reflecting the risks present in assets and liabilities covered. In particular, there should be no full elimination of credit spread SCR, and the DVA benefit should reflect unexpected risks (esp. migration & default).

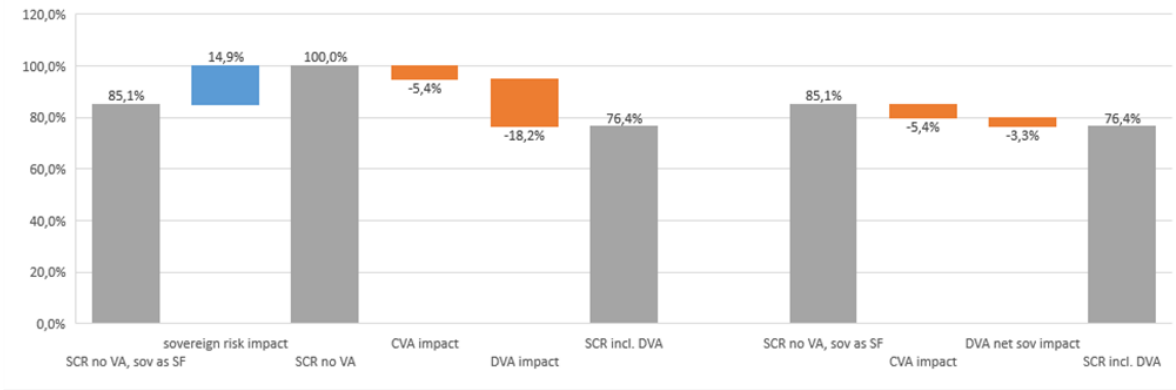
### **2.5.6.3.2. Impacts on the level playing field**

*Analysis of the impact of the introduction of the DVA on the market*

2.635 As described, while in the standard formula and CVA approaches the VA is kept constant, DVA approaches in the SCR anticipate impacts from changes in the VA according to the credit spread environment in the simulated scenarios. Furthermore, DVA models were only approved if all credit risks are modelled, incl. sovereign risk for EEA exposures. Correspondingly DVA users in the questionnaire were requested to calculate the SCR for year-end 2018 in the following variations:

<b>Variant</b>	<b>no VA, sov. as SF</b>	<b>no VA</b>	<b>CVA</b>	<b>DVA</b>
<b>Volatility Adjustment</b>	no VA	no VA	constant VA	dynamic VA
<b>Sovereign risk</b>	exposures exempted as in standard formula	as modelled, esp. incl. EEA exposures	as modelled, esp. incl. EEA exposures	as modelled, esp. incl. EEA exposures

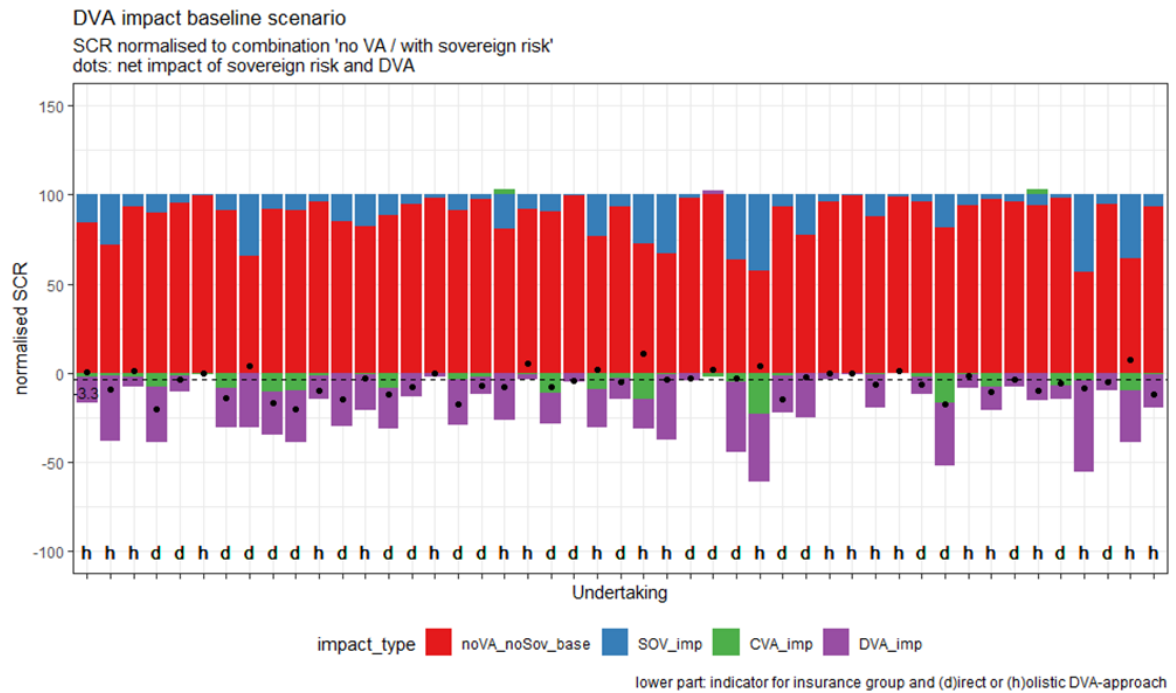
2.636 In a weighted average, the relative impact of the single steps on the SCR could be displayed as follows. Reference point is the SCR 'without VA' as displayed in QRT S.22, i.e. variant 'no VA' in the systematic introduced above:



2.637 One way of evaluating the impact of the introduction of DVA models to the market, consequently is to consider the 'DVA net sov' impact, i.e. the difference between CVA and DVA but subtracting the initial increase of the SCR by introducing sovereign risk also for exposures exempted in the standard formula. This impact on the sample of 47 DVA users having answered the questionnaire is -3.3% relative to the SCR without VA. The impact of 'switching off' the VA as required in QRT S.22 is -23.1%. Consequently, on weighted average level there is only a limited impact comparing DVA models with constant VA in standard formula or internal models, if not enforcing modelling of sovereign exposures. Please note that there are internal models in the market including sovereign risk but neither using CVA nor DVA.

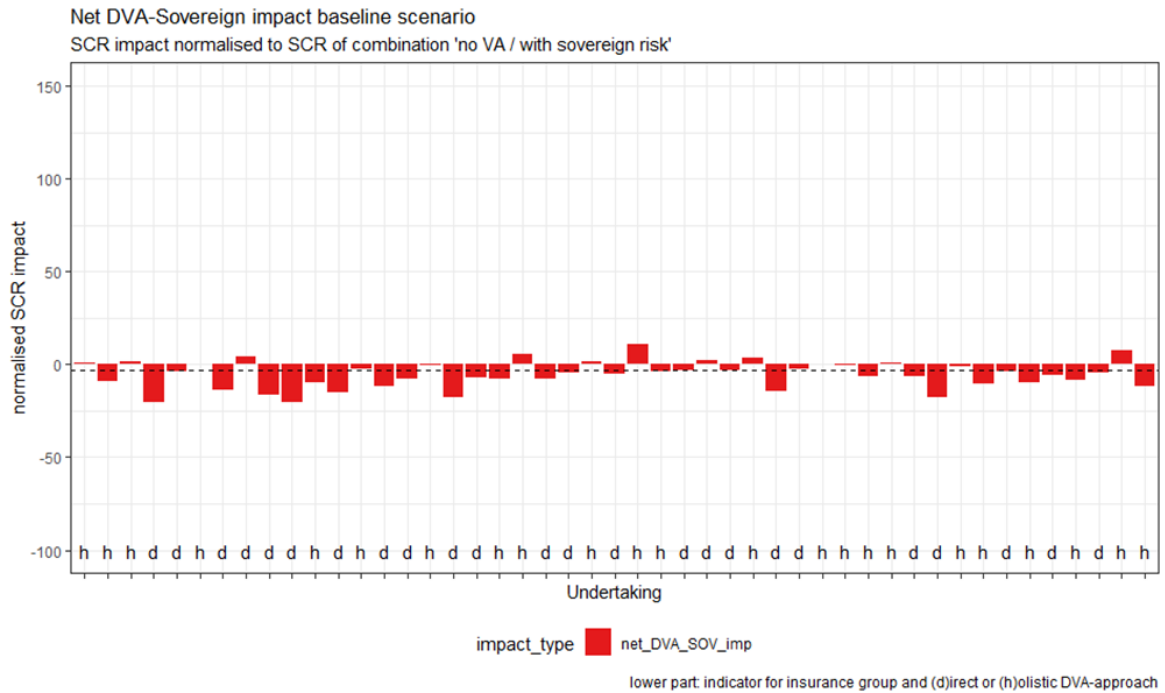
2.638 On single undertaking level, the corresponding impacts vary but do not show systematic dependencies on approaches used or on whether a 'direct approach' or a 'holistic approach' is used. Impacts seem to rather depend on the type of business, e.g. life and non-life insurers, but also within and across these types, further discriminants determining the risk profile seem to be relevant. Inspected discriminants were inter alia country (e.g. influencing products offered or typical investment behaviour as reflected in the country reference portfolios) or sensitivity of assets and liabilities in terms of 'effective duration'. Also a potential striking asset portfolio structure dependency could not be detected as dominant up to now.

2.639 The following graph illustrates the decomposition of DVA impacts as displayed in the waterfall diagram above on single undertaking level:

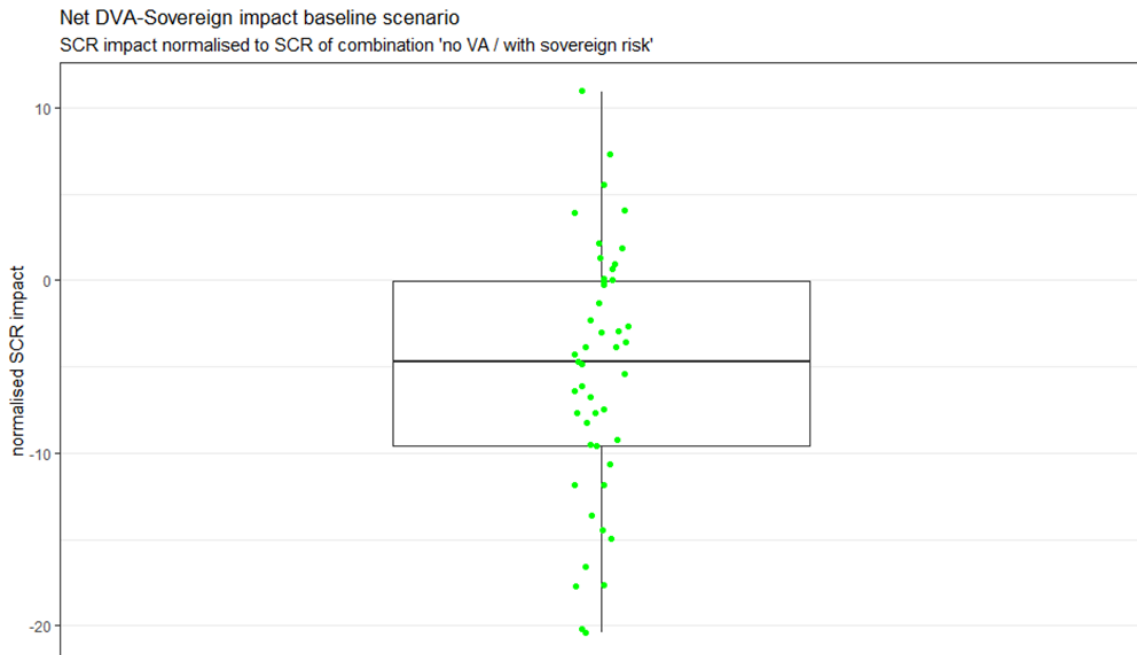


2.640 The letters at the bottom display whether approach used is 'direct approach' (letter 'd') or a 'holistic approach' (letter 'h'). The red bars show in relative terms the SCR before introducing sovereign risk beyond standard formula exposures and the blue bars show the impact of this introduction, i.e. the sum of red and blue bars is 100% resembling the SCR without VA shown in QRT S.22. The green bars show the relative impact of using a constant VA (CVA) and the violet bars show the difference between the impact of using a CVA and the implemented DVA. Finally the black dots show the net impact of introducing DVA beyond CVA and subtracting the additional sovereign risk charge. The dashed line shows the weighted average for the market of -3.3.

2.641 The following bar plot provides an isolated view on the net impact:

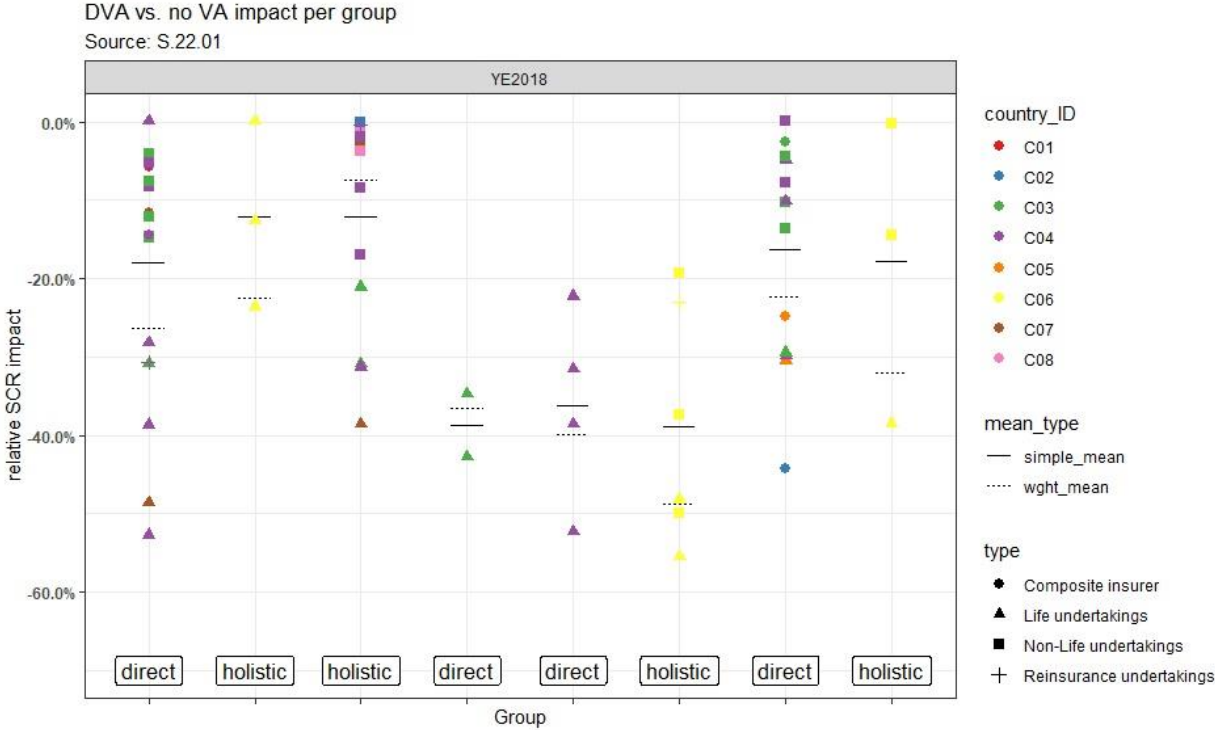


2.642 The following boxplot provides elementary statistics on the sample:



2.643 The solid line in the box shows the median (-4.7%), i.e. value for which the net impact is smaller for 50% of the sample and the lower boundary (-9.5%) of the box shows the value for which 25% of the sample show a smaller value, i.e. in the case of negative impacts shown here, we can conclude that for 75% of the sample the net impact is less reduction. Single data points with net impact stronger than -10% were analysed and e.g. showed to have comparably strong credit spread calibrations before DVA. Consequently also on single undertaking level there is no immediate indication of systematic level playing field issues.

2.644 The following graph based on public available information shows the impact as displayed in the QRT S.22 comparing SCR with DVA to SCR without VA (both including sovereign risk):



2.645 This graphic in combination shows sorting approaches, which are homogenous within groups, countries as well as business type. Also impact was plotted against further aspects of risk profile like 'effective duration', and certain characteristics of the asset portfolio like sector and credit quality step were inspected. No obvious pattern was observed.

2.646 As only a holistic view on the model (not only the DVA) and the connection with risk profiles allows judgment, assessing achievement of level playing field is naturally complex. The analysis performed shows no systematic differences in relative impacts, neither between approaches nor between the groups of direct or holistic approaches, that would immediately suggest a breach of the level playing.

2.647 The prudency principle introduced in the DVA opinion as a measure to support the level playing in certain cases could lead to re-introducing certain parts of the issues, and thus could be said to not work properly especially in pronounced cases. E.g. in the situation of an inversion of the risk ranking under a replication of the EIOPA VA methodology, the prudency principle could introduce a floor for the risk of spread widening which is derived from a risk of spread tightening, potentially leading to unintended limitations. Given the current definition of the VA, the prudency principle consequently cannot serve as a benchmark in general.

2.648 Also the question was raised whether preferences from NSAs could impact the level playing field. With respect to this, no NSA currently publically states to not approve DVA models, but one NSA raised concerns against the DVA in general from a technical point of view.

2.649 To further develop consistency of supervisory practices, by opening the way for more harmonisation, ideally issues would be solved at source, i.e. in the VA, as this would allow more insurers to directly model the EIOPA VA methodology with acceptable outcomes and avoiding unintended risk management incentives at the same time.

#### **2.5.6.3.3. Appropriateness in the context of the VA underlying assumptions**

2.650 As laid out in the section of VA deficiencies (see section 2.4.5.1) the assumptions underlying the current VA are considered to be unclear. According to the DVA opinion, NSAs inter alia should assess all elements of the EIOPA VA methodology (e.g. choice of the reference portfolio, the fundamental spread) and their variation over the forecasting period, including the assumptions underlying the VA and any deviations from that in the undertaking's risk profile. In the introduction, the DVA opinion regarding the VA underlying assumptions refers to the ability of the undertaking to earn the VA. However, the DVA opinion does not define these assumptions but considers these to set the frame and the requirements to have to take into account in the DVA context, e.g. assessed under the stressed scenarios relevant for the modelling approach. Clarity of the VA underlying assumptions is thus considered to be key. This especially is relevant when assessing the appropriateness of holistic modelling approaches.

2.651 As stated in section 2.4.5.1, the VA can be considered as a compensation for exaggerations in bond spreads, potentially independent from the liability characteristics of an insurer. Alternatively, it can be considered to represent an additional illiquidity premium on assets that replicate the liabilities; or put differently, an additional premium which insurers acting as long-term investors (with respective liabilities) are able to earn. The assumptions underlying the VA are based on the interpretation chosen and without an interpretation these underlying assumptions are at current not perfectly clear cut. Consequently the assessment of the appropriateness of the DVA in the context of the VA underlying assumptions focussed on the mitigation of stresses on credit spread, i.e. the impact on the SCR under the perspective whether this mitigation is 'overshooting'.

#### **2.5.6.4. Conclusions**

2.652 From the analysis as described above with respect to the questions raised by COM in the CfA the following conclusions are drawn.



- 2.653 Does the DVA set disincentives for insurance and reinsurance undertakings' investment and risk management strategies?
- 2.654 The DVA does not introduce disincentives itself but transports potential disincentives from VA in valuation to SCR and amplifies them. This is especially true for undertakings suffering from 'overshooting' for which direct modelling approaches for DVA could distort sound risk management.
- 2.655 Attempts to solve this lead to a range of holistic approaches and partly needed significant supervisory effort. Also, in those cases the prudency principle compared to favoured holistic approaches could lead to lower SCR.
- 2.656 One specific aspect is that the current VA risk correction is rather static, leading to the majority of stressed spreads being treated as 'exaggeration', regardless of risk characteristics. Where DVA models result in spread risk that is inconsistent with the underlying risk characteristics, undesirable investment and risk management strategies may follow. Similarly, different movements of spreads and VA compared to undertakings' portfolio, make investing in riskier assets without increasing the SCR possible, if not counteracting measure are taken.
- 2.657 Model outcome is not mechanically transposed to risk and investment decisions. There is no indication that DVA users invest materially differently from local market practice or near to EIOPA VA reference portfolios.
- 2.658 *Can diverging DVA practices be detrimental to the level playing field?*
- 2.659 On average, implementing a DVA in internal models has only a limited impact compared with constant VA in standard formula or internal models, if not enforcing modelling of sovereign exposures. The weighted average DVA impact net of the impact of CVA and of introducing sovereign risk (beyond standard formula requirements) is -3.3% relative to the SCR without VA, for a representative the sample of 47 DVA users. This level of the reduction indicates that the DVA does not create a material level playing field issue with regard to the standard formula. As comparison point, the impact of 'switching off' the VA (as reported in QRT S.22) is -23.1%.
- 2.660 The EIOPA opinion serves as a first safeguard against diverging DVA approaches achieving more benefit than the direct modelling of the EIOPA VA, and limiting the potential for detriment to level playing field. However, the opinion does not provide guidance as to what corrections should be made if direct modelling is not feasible due to overshooting. This can result in lack of level playing field, and in those cases also high effort for supervisors and undertakings, especially in the approval but also the on-going supervision of the appropriateness of those internal models.
- 2.661 Consequently, supervisors would prefer to see known potential disincentives introduced by the VA and amplified by the DVA to be 'solved at source', i.e. in the VA.

2.662 This would be expected to also open the way for a uniform view of supervisors on the DVA as concept. Furthermore, supervisory effort could be limited and supervisory convergence supported.

2.663 A judgment on level-playing field can only be made with a holistic view on the model (not only the DVA) and on the connection with risk profiles. It is therefore naturally complex. However, the analysis performed did not show systematic differences that would immediately suggest a breach of the level playing by the DVA, neither in relative impacts between approaches, nor between the groups of direct or holistic approaches.

***Appropriateness of DVA in light of the assumptions underlying the volatility adjustment***

2.664 As laid out in the section on VA deficiencies (see section 2.4.5.1) the assumptions underlying the current VA are considered to be unclear. This lack of clarity also impacts the supervisory approach to the DVA, which as described in the DVA opinion essentially requires the underlying assumptions to be satisfied also in stressed scenarios. Consequently, the assessment of the appropriateness of the DVA in the context of the VA underlying assumptions focussed on the mitigation of stresses on credit spread, i.e. the impact on the SCR under the perspective whether this mitigation is 'overshooting', with conclusions as described above.

***Maintaining the DVA***

2.665 Internal models fundamentally rely on the approach to generate a distribution of basic own funds or impacts on these and therefore perform a projection under stressed conditions as consistent with valuation as possible. As laid out in the EIOPA DVA opinion, at the same time there should be no disincentives for risk and investment management, and that is currently the case for some insurers if they would directly model the VA due to the overshooting issue and lack of dynamics of the risk correction.

2.666 Provided that these shortcomings would be solved at source (in the VA) and complexity would not materially be increased, the DVA could be maintained.

2.667 If no or only a partial VA solution would be introduced, measures (in regulation) would be needed.

***Criteria to improve harmonisation of the modelling***

2.668 As laid out in EIOPA's DVA opinion given the current design of the VA, a DVA in internal models has to be assessed from a holistic point of view combining requirements on modelling and appropriateness for use. Should observed VA deficiencies be solved at source, in general a direct implementation from supervisors' point of view is natural and easier to assess. It would usually allow to directly comply with consistency of methods in technical provisions and internal model (Article 121 of the Solvency II

Directive) and use test (Article 120 of the Solvency II Directive). Note that deviations from direct modelling typically require sufficient insight into the goals, underlying assumptions and parameterizations. If direct modelling is not possible, these elements need to be clarified, which appears to be quite a material task (e.g. because the risk concept to be actually modelled needs to be explicitly stated).

2.669 Deviations would then only be expected in very specific cases, in which the risk profile causes material overshooting in stressed cases despite VA measures (e.g. extreme convexity or specific options and guarantees linked to specific liabilities).

2.670 If deficiencies are not solved at source, regulatory measures have to be considered, ensuring levelling of consistency and risk orientation as required by the use test.

### 2.5.7. Advice

2.671 Regarding whether the DVA should be maintained, EIOPA advises as follows:

1. The DVA could be maintained, if disincentives are solved in the VA ('at source'). This could open the way for more harmonization, as solving at source would allow more insurers to directly model the EIOPA VA methodology with acceptable outcomes and would avoid unintended risk management incentives. Depending on the concrete future design of the VA, this approach to internal models might potentially need to be supported in regulation.
2. If no or partial VA solution would be introduced, measures (in regulation) are needed. Such measures would have the ambition to avoid disincentives and ensure that the DVA is risk sensitive and protect the level playing field. This might impact the use of 'direct approaches' as well as the design of 'holistic approaches'.

2.672 The following principles should be used to design an appropriate solution:

3. No disincentives for risk and investment management, especially no 'overshooting' (or 'undershooting')<sup>90</sup>;
4. DVA benefit should be risk sensitive, reflecting the risks present in assets and liabilities covered. In particular, there should be no full elimination of credit spread SCR, and the DVA benefit should reflect expected losses, unexpected credit risk (esp. migration & default) and other risk of the assets.

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<sup>90</sup> Please note that this does not indicate a preference for one of the VA approaches, options or combination of options, but is a principle to evaluate a potential new VA concept from the DVA perspective.

2.673 Please note that this advice is by intention not conclusive on the proposed changes to the VA, as the appropriateness to solve the observed VA deficiencies are currently under consultation.

## **2.6. Transitional measures on the risk-free interest rates and on technical provisions**

### **2.6.1. Extract from the call for advice**

#### **3.3. Transitional measures**

*Title VI Chapter I of the Solvency II Directive lays down a number of transitional provisions. EIOPA is asked to assess the ongoing appropriateness of the transitional provisions in terms of policyholder protection and level-playing field. This assessment should, where applicable, also assess whether the ongoing possibility for companies to newly apply for the transitional measures should continue. EIOPA may prioritise its work on the different transitional measures, provided that the advice states the reason for doing so. However, EIOPA's assessment should cover at least the transitional measures referred to in Articles 308b (12) and (13), Article 308c and Article 308d of the Solvency II Directive.*

### **2.6.2. Previous advice**

2.674 In its technical findings on the long-term guarantees assessment of 2013 EIOPA supported the inclusion of transitionals on risk-free interest rates and on technical provisions in Solvency II. (See pages 115 to 116 of the findings).

### **2.6.3. Relevant legal provisions**

2.675 The transitionals are set out in Articles 308c, 308d and 308e of the Solvency II Directive. Further relevant are Article 38(1)(d) of that Directive on capital add-ons in relation to the transitionals and Article 45(2a) of that Directive on the treatment of the measures in the own risk and solvency assessment. Article 278 of the Delegated Regulation provides further specification on the imposition of capital add-ons in relation to the transitionals.

## **2.6.4. Identification of the issue**

### **Predominant application of the transitionals by undertakings without capital gap**

2.676 According to recital 61 of the Omnibus II Directive the objectives of the transitionals on the risk-free interest rates and on technical provisions are as follows:

- allow for a smooth transition to Solvency II,
- avoid market disruption and limiting interferences with existing products as well as ensuring the availability of insurance products,
- encourage undertakings to move towards compliance with the Solvency II requirements as soon as possible.

2.677 At the end of 2017, 168 insurance and reinsurance undertakings from the EEA applied the transitionals. The vast majority of those undertakings, 139 of them, meet the SCR without the transitionals. These undertakings have, without the transitionals, a gap of eligible own funds to meet their SCR of EUR 7bn. For undertakings from EEA30 countries the gap is EUR 1bn. The size of the gap is in contrast to the overall amount of own funds of EUR 85bn that the transitionals create.

2.678 Accordingly, a shortage of own funds is not the typical reason to apply the transitionals. Indeed, the undertakings that apply the measures cover a broad span of solvency positions. For example, about 53 users of the transitional on technical provisions have an SCR ratio above 200% without that measure.

2.679 The application of the transitionals does not appear to be very targeted. At EEA level they create about nine times as much own funds as is needed to meet the SCR. This gives rise to the question whether all undertakings that apply the transitionals need it achieve a smooth transition to Solvency II. Some undertakings may simply apply the measures to boost their solvency ratio.

2.680 In any case, the broad use of the transitionals by undertakings without a gap of own funds contradicts the objective to encourage undertakings to move towards compliance with the Solvency II requirements as soon as possible. Because these undertakings already now would be able to comply with the Solvency II requirements without the transitionals.

2.681 On average, the transitional on technical provisions increases the SCR ratio by 76 percentage points. The impact differs significantly across countries; the highest average national increases are 244 percentage points (DE), 163 percentage points (BE) and 128 percentage points (FR).

2.682 The negative consequences of unnecessary application of the transitionals are as follows:

- The technical provisions are not valued according to Solvency II principles. They are lower than their transfer value and hence usually insufficient to run

off or transfer the insurance liabilities. As these technical provisions are used to determine the regulatory solvency position of the undertakings, this solvency position does not reflect the real economic situation of the undertakings.

- The distorted solvency position may provide an incentive to undertakings to take higher risks than without the transitionals and impairs their efficient supervision.
- There is an unlevel playing field between undertakings that do and undertakings that do not apply the transitionals because the solvency position of the undertakings that apply the measures, all other things equal, appears to be better. This unlevel playing field can distort the competition between those undertakings.

2.683 EIOPA asked NSAs why in their market undertakings apply the transitionals while they have an SCR ratio without the transitional significantly above 100%. The main reasons provided by NSAs were:

- Adjusting the transitional deduction of the transitional on technical provisions can provide a smoothing effect that allows for a more stable investment policy over time.
- SCR ratios are very volatile, for example regarding interest rate changes, and currently high SCR ratios without the transitionals might therefore deteriorate quickly.
- Undertakings applied for the transitionals when their solvency position was significantly lower than currently.
- The transitional increases the SCR ratio.
- The use of the transitionals is a precautionary measure in case undertakings face unexpected situations where they could have solvency needs.
- Where within an insurance group some undertakings are in need of the transitionals, the application of the transitionals to the other undertakings of the group ensures a consistent approach.

2.684 One of the reasons for undertakings to use the transitionals despite of sufficient own funds without the transitional is apparently that their solvency position might deteriorate in the future. In such a case the undertakings would depend on the transitionals in order to meet solvency requirements in the future. The current framework does not support the supervision and management of these dependencies. While undertakings that do not meet the SCR without the transitionals need, in accordance with Article 308e of the Directive, to have a phasing-in plan that sets out the measures they intend to take to overcome their dependency on the measures, undertakings that depend on the transitional while they currently meet the SCR without the measures do not need to make a phasing-in plan. The NSA may not be informed about the measures that an undertaking intends to take to remove its dependency on the transitional. Furthermore, the NSA may not have a

legal basis to withdraw the transitional in case the undertaking does not take efficient measures to overcome the dependency.

### **Approval of transitionals after 1 January 2016**

2.685 EIOPA assessed the practice of NSAs regarding new applications in the LTG report 2016. EIOPA requested information on whether NSA would allow undertakings to start using the transitional measure at a later date than 1 January 2016, whether they would allow undertakings to exit from the transitional measure before 2032 and whether they would allow undertaking to reapply for the transitional after exiting.

2.686 Of the NSAs that had responded, eight agreed that they would allow undertakings to apply at a later date, while four would not allow that. Most NSAs agreed that they would allow undertakings to exit the transitional measure earlier than 2032. Several NSAs also agreed that they would allow undertakings to reapply after exiting.

2.687 The report shows that there is no consistent approach in the approval of new applications after 1 January 2016. The approval of applications for transitionals after that date gives rise to the question whether that approach is in line with the fundamental idea of a transitional to smooth introduction of new requirements.

### **Application of a capital add-on**

2.688 Recital 61 of the Omnibus II Directive states that the objectives of the transitionals include to allow for a smooth transition to Solvency II and encourage undertakings to move towards compliance with the Solvency II requirements as soon as possible. Article 308e provides that undertakings that are unable to cover their SCR without the transitionals shall submit a phasing-in plan to their NSA and regularly report about the progress made. NSAs are required to revoke the approval for those transitional measures where they determine that it is unrealistic that the undertaking will meet the SCR at the end of the transition period.

2.689 Article 37 of the Directive furthermore allows NSAs to set a capital add on where the risk profile deviates significantly from the assumptions underlying the transitional measures. The interaction between these two provisions was however seen as benefiting further clarification in which cases a capital add on would be adequate rather than a revocation.

## **2.6.5. Analysis**

### **Policy issue 1: Predominant application of the transitionals by undertakings without capital gap**

2.690 The following policy options to address this issue have been identified:

- 1.1 Restrict the use of transitionals
- 1.2 Limit impact of transitionals for undertakings without capital gap
- 1.3 Strengthen disclosure on transitionals
- 1.4 Extend use of phasing-in plans to all undertakings depending on the transitionals

2.691 The options can be adopted separately or in combination.

#### 1.1 Restrict the use of the transitionals

2.692 Articles 308c and 308d do not set out any conditions for the application of the transitionals that relate to the undertaking's need for the transitional. This could be corrected by introducing a requirement that restricts the application of the transitionals to undertakings that need the transitional to ensure a smooth transition to Solvency II. The requirement should be principle based. According to the requirement, undertakings should demonstrate:

- That there would be negative consequences in case they do not apply the transitional, in particular with regard to existing and new insurance products.
- That the application of the transitional would mitigate those negative consequences.

2.693 Where the demonstration of the undertaking is not convincing, the NSA should not approve the use of the transitional. During the transitional period the undertaking should regularly update the demonstration. In case the need for the transitional cannot be demonstrated anymore, the NSA should revoke the approval. This rule should also apply in case the transitional was approved before introduction of the new requirement.

2.694 The option ensures that undertakings that are not in need of the transitional have to comply with the requirements of Solvency II, specifically to set up market-consistent technical provisions.

2.695 The option would improve the level playing field between undertakings that are not in need of the transitional. It would not improve the level playing field between those undertakings and undertaking that are in need of the transitional.

#### 1.2 Limit impact of transitionals for undertakings without capital gap

2.696 The impact of the transitionals could be limited in order to mitigate the distortion of the regulatory solvency position introduced by the transitional and the resulting detriment to the level playing field. To this end the transitional deduction of an undertaking would be capped so that its SCR ratio does not exceed the following amount:

$$\max(100\%, \text{SCR ratio without transitional})$$



- 2.697 For undertakings that do not comply with the SCR with the transitionals, no change should be made.
- 2.698 Consequently, as long as undertakings meet their SCR without the transitional the transitional would have no impact on their own funds and SCR ratio. When undertakings do not meet their SCR anymore without their transitionals, their SCR ratio would be 100%.
- 2.699 Under this approach all undertakings that do not comply with the SCR without the transitional would have the same SCR ratio. Only the solvency position without the transitional would inform about differences between these undertakings. This does however not appear to be a loss of information because also currently a meaningful comparison of the solvency positions of undertakings on the basis of the transitional is hardly possible.
- 2.700 The option would significantly improve the level playing field. For most users of the transitionals it would currently not have an impact on their solvency position anymore, hence ensuring equal treatment with the undertakings that do not apply the transitionals. For undertakings that do not comply with the SCR without the transitional the impact of the transitional the distortion introduced by the transitional is minimised.
- 2.701 A proportionate implementation of the option would be achieved by allowing for approximations in the calculation of the cap.
- 2.702 One of the downsides of the option is that for undertakings that do not comply with the SCR without transitional but comply with the SCR with the transitional, it is not visible anymore how close they are to breaching the SCR with the transitional because their SCR ratio is 100%. This issue could be addressed by requiring that also the SCR ratio before cap, as today, is calculated and disclosed.
- 2.703 A variant of this option is to set the SCR ratio at the maximum of 150% and the SCR ratio without the transitional. This would reflect that insurance and reinsurance undertakings typically aim for an SCR ratio that is a significantly higher than 100%. Whereas the maximum of 100% indicates an SCR breach for undertakings reporting an SCR ratio of 100%, a maximum of 150% does not provide information on whether or not there is an SCR breach without the transitional; there is no distinction between no SCR breach when the ratio without the transitional is between 100% and 150% and when there is an SCR breach.

### 1.3 Strengthen the disclosure on transitionals

- 2.704 In order to mitigate the impact the issues outlined above, the disclosure on the use of the transitional could be strengthened as follows:
- The SFCR should set out the reasons for the use of the transitional. In case the undertaking does not comply with the SCR without the transitional, this fact would be sufficient reason. Where undertakings

comply with the SCR without the transitional other reasons should be provided.

- The SFCR should include an assessment of the dependency of the undertaking on the transitional. In case of a dependency, the undertaking should describe the measures it has taken to remove the dependency by the end of the transitional period.
- The part of the SFCR addressed to policyholders should include the following information:
  - the impact of the transitional on the undertaking's solvency position,
  - the reason for applying the transitional,
  - the prospect to reduce any dependence on the transitional by the end of the transitional period.

#### 1.4 Extend the requirement of phasing-in plans to all undertakings depending on the transitionals

2.705 In order to support the supervision and management of dependencies on the transitional, also undertakings that comply with their SCR without transitionals should, *mutatis mutandis*, fall under Article 308e of the Directive with the following consequences:

- Undertakings should inform their NSA about any dependencies on the transitionals.
- Undertakings should take the necessary measures to ensure removal of the dependencies at the end of the transitional period.
- Undertakings should make a phasing-in plan setting out the planned measures to remove the dependencies at the end of the transitional period and submit it to their NSA.
- Undertakings should submit annually a report to their NSA setting out the measures taken and the progress made to remove the dependencies at the end of the transitional period. NSAs should revoke the approval for the application of the transitional where that progress report shows that removal of the dependencies at the end of the transitional period is unrealistic.

#### **Policy issue 2: Approval of transitionals after 1 January 2016**

2.706 The following options for addressing the issue have been identified:

- 2.1 Allow new approvals for the transitionals
- 2.2 Disallow new approvals for the transitionals
- 2.3 Allow new approvals for the transitionals only in specified cases, namely:
  - An undertaking newly falls under Solvency II because it has passed the thresholds of Article 4 of the Solvency II Directive

- An undertaking transfers a portfolio that is subject to the transitional to another undertaking

## 2.1 Allow new approvals for the transitionals

2.707 Under this option all NSAs should allow undertakings to start or restart applying the transitionals from a date after 1 January 2016 onwards, provided the legal requirements currently set out in the Solvency II Directive are met. Thereby the option would improve the consistent application of the transitionals. It may however be considered at odds with the purpose of the transitionals to allow for a smooth transition to Solvency II (see recital 61 of the Omnibus II Directive). Because the undertaking would usually have already applied Solvency II for several years when they seek approval to use the transitional. The option may facilitate that undertakings to move away from compliance with the Solvency II requirements while the objective of the transitionals is to encourage undertakings to move towards compliance with the Solvency II requirements as soon as possible.

## 2.2 Disallow new approvals for the transitionals

2.708 Under this option the opposite approach is taken. NSAs would not approve new applications of the transitionals anymore, thereby also improving the consistent application of the transitionals. The option would be in line with the objective of the transitionals to allow for a smooth transition to Solvency II and to encourage undertakings to move towards compliance with the Solvency II requirements as soon as possible.

2.709 There could be a concern that the option does not contribute to a level playing field. Because undertakings that are not using the transitionals and are competing with other undertakings that do apply the transitionals cannot overcome this possible competitive disadvantage by also starting to apply the transitionals. However, it can be argued that extending the use of the transitional to undertakings not in need for it regarding their solvency position is not an appropriate measure to mitigate the level playing field issue the transitionals introduce. Furthermore if a ban of new applications was introduced, undertakings would usually be able to anticipate that and seek approval before the ban is applicable.

2.710 The option could result in a level playing field issue with regard to undertakings that were active before 1 January 2016 but become subject to Solvency II only in the future, for example because they until then they were excluded from Solvency II on the basis of Article 4 of the Solvency II Directive. These undertakings had not the opportunity to apply for the use of the transitional from 1 January 2016. Another case where denying approval after 1 January 2016 may not be justified is where insurance portfolios to which the transitionals are applied are transferred to another undertaking. Without new approval by its NSA that undertakings would not be able to apply the transitional to the transferred portfolio. This might be an obstacle to transferring insurance portfolios. Such a transfer may however be in the

interest of policyholders, for example when the original undertaking has an insufficient solvency position.

### 2.3 Allow new approvals for the transitionals only in specified cases

2.711 This option has the same characteristics as the option describe before, but avoids the issues explained that the end of that option, by allowing new approvals only when an undertaking newly falls under Solvency II because it has passed the thresholds of Article 4 of the Solvency II Directive or when an undertaking transfers a portfolio that is subject to the transitional to another undertaking.

### **Policy issue 3: Application of a capital add on**

2.712 The interaction of a revocation of the approval for the transitionals and the application of a capital add on requires further clarification to ensure supervisory convergence on that matter.

2.713 It is considered sensible to revoke an approval for the transitionals where the phasing-in plan provided by the undertaking is unrealistic and the NSA does not believe it can be made realistic so as to ensure that undertakings will be able to ensure compliance with the SCR.

2.714 However, there may also be cases where a phasing-in plan provided by the undertaking is unrealistic, but the NSA believes a different phasing-in plan would be realistic and therefore requires an update of the phasing-in plan. In such case the NSA still considers that the undertaking will be able to ensure compliance with the SCR at the end of the transitional period. The same holds in a situation where a phasing-in plan becomes unrealistic as the future turns out different from expected (e.g. measures planned not as effective as considered etc.). Also in this situation, NSAs may require an update of the phasing-in plan. In these cases, EIOPA considers it sensible to allow the application of a temporary capital add-on according to Article 37 of the Solvency II Directive. A revocation is not immediately required then. Article 37 of the Solvency II Directive could be clarified in that respect.

### Comparison of options

### **Policy issue 1 - Predominant application of the transitionals by undertakings without capital gap**

2.715 The preferred policy option for this policy issue is to strengthen disclosure on transitionals (Option 1.4) because it improves transparency on the transitionals which will be for the benefit for policyholders, supervisory authorities and stakeholders that need to assess the financial position of insurance and reinsurance undertakings (for example investors, analysts, rating agencies and journalists). At the same time, the option is compared to Options 1.2, 1.3 and 1.5 the least intrusive change to the current framework for the transitionals.

## **Policy issue 2 - Approval of transitionals after 1 January 2016**

2.716 The preferred policy option for this policy issue is to allow new approvals for the transitionals only in specified cases<sup>91</sup> because, compared to the other options, it best contributes most effectively and efficiently contributes to a consistent application of the transitional provisions and a market-consistent technical provisions.

## **Policy issue 3 – Approval of a capital add on**

2.717 The preferred policy option for this policy issue is to clarify the application of a capital add-on for the transitionals because, compared to the other options, it best contributes to effectively and efficiently applying the transitional provisions.

### **2.6.6. Advice**

2.718 The disclosure on the use of the transitional could be strengthened as follows:

- The SFCR should set out the reasons for the use of the transitional. In case the undertaking does not comply with the SCR without the transitional, this fact would be sufficient reason. Where undertakings comply with the SCR without the transitional other reasons should be provided.
- The SFCR should include an assessment of the dependency of the undertaking on the transitional. In case of a dependency, the undertaking should describe the measures it has taken to remove the dependency by the end of the transitional period.
- The part of the SFCR addressed to policyholders should include the following information:
  - the impact of the transitional on the undertaking's solvency position,
  - the reason for applying the transitional,
  - the prospect to reduce any dependence on the transitional by the end of the transitional period.

2.719 Insurance and reinsurance undertakings should only be allowed to start applying the transitionals on the risk-free interest rates and on technical provisions in the following cases:

- An undertaking newly falls under Solvency II because it has passed the thresholds of Article 4 of the Solvency II Directive.
- An undertaking transfers a portfolio that is subject to the transitional to another undertaking

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<sup>91</sup> In simple cases, the most favourable option should be clear from an analysis of the costs and benefits.

2.720 In order to ensure consistent application of capital add-ons, EIOPA suggests to add a clarification to Article 37(2) of the Solvency II Directive as follows:

*"This would include the situation where the supervisory authority has not yet received a realistic phasing-in plan required in Article 308(e), or a realistic update thereof."*

## **2.7. Risk-management provisions on LTG measures**

### **2.7.1. Extract from the call for advice**

2.721 The Solvency II Directive requires a review of the long-term guarantees measures (LTG) and the measures on equity risk until 1 January 2021. As part of this review, EIOPA reports annually on the impact of the application of the LTG measures and the measures on equity risk to the European Parliament, the Council and the Commission. The CfA highlights specific areas of interest with respect to the extrapolation, matching and volatility adjustment as well as transitional measures (cf. 3.1. to 3.3. of the call for advice).

2.722 Although risk management is not specifically addressed in the call for advice, the pillar II provisions on the LTG measures are subject to the overall LTG review and impacted by potential modifications on the design of the measures in pillar I.

### **2.7.2. Relevant legal provisions**

2.723 The Solvency II Directive includes explicit requirements on risk management with regard to the LTG measures in Articles 44 and 45, including the following requirements:

- to have a liquidity plan for undertakings applying the MA or the VA (Article 44(2)),
- to carry out an assessment of the sensitivity of technical provisions regarding the assumptions underlying extrapolation, VA and MA (Articles 44(2a)(a), (b) and (c)),
- to identify and report the potential measures to restore compliance where the reduction of the MA or the VA to zero would result in non-compliance with the SCR (Article 44(2a)),
- to include in the written risk management policy a policy on the criteria for the application of the VA (Article 44(2a)),

- to assess compliance with capital requirements with and without the LTG measures in the own risk and solvency assessment (Article 45(2a)).

### **2.7.3. Identification of the issue**

2.724 EIOPA has already, specifically in the course of the LTG report 2018, assessed the adequacy of the risk management requirements connected to the LTG measures. The LTG report 2018 included a thematic focus pointing out areas where improvements to the risk management requirements can be made. These findings were based on feedback from NSAs on their experience in supervisory practice. The issues outlined are identified on that basis. The description of the issues as well as the analysis and the options to overcome those issues are based on the current design of the measures. Where changes to the measures are introduced, the adequacy of the risk management requirements need to be reassessed. Where changes are suggested to the LTG measures in this review (see respective sections on the individual measures), these are accompanied, where necessary, by recommendations on the risk management.

#### **Issue I: Role of liquidity plan for the VA**

2.725 The Solvency II Directive requires undertakings using the VA to set up a liquidity plan projecting the incoming and outgoing cash flows in relation to the assets and liabilities subject to the VA.

2.726 Although there is a clear benefit of proper liquidity planning, it is not clear from the legal provisions what particularly is expected from this specific liquidity plan, what additional insights the liquidity plan should give and which role it should play with respect to the application of the VA.

2.727 Furthermore, the provisions do not clarify, whether and how the analysis on the liquidity plan should be documented to allow readily sharing of analysis with NSAs.

2.728 In practice, although it could be observed that undertakings installed liquidity management as part of their risk-management, the analysis performed for the LTG report 2018 has identified that undertakings did not introduce changes to their already installed liquidity management systems due to the application of the VA. Neither could it be observed that a separate liquidity planning was set up only due to the application of the VA.

2.729 The specific requirements on the liquidity plan for VA users therefore does not provide additional evidence that the application of the VA is appropriate for an undertaking.

## **Issue II: Sensitivity analysis for the VA**

- 2.730 The Solvency II Directive requires undertakings using the VA to regularly assess the sensitivity of their technical provisions and eligible own funds to the assumptions underlying the calculation of the VA and to submit this assessment annually to the supervisory authority as part of the regulatory supervisory reporting. Though, in practice, it has been observed that only a small share of undertakings reported these assessments.
- 2.731 One reason that identified for this was that the assumptions underlying the measures are not sufficiently clear. This lead to uncertainty for undertakings what was expected in order to fulfil the requirement (cf. also section on VA and the respective deficiency identified there).
- 2.732 Furthermore, the role and additional benefit of this sensitivity analysis was seen as not sufficiently clear to allow sensible performance of this analysis. Also the role of the sensitivity analysis and interlink with ALM was identified to be weak.
- 2.733 Finally, there was not sufficient clarity on best these sensitivities should be reported, either in an ad-hoc reporting as part of the risk management requirements or in a regular quantitative reporting.

## **Issue III: Forced sale of assets for the MA and VA**

- 2.734 The Solvency II Directive requires undertakings using the VA to regularly assess the possible effect of a forced sale of assets on their eligible own funds and the impact of a reduction of the VA to zero and to submit this assessment annually to the supervisory authority as part of the regulatory supervisory reporting.
- 2.735 In practice, it has been observed that the majority of VA users did not report on the analysis of forced sale of assets. The reason identified was that this requirement is not understood, in particular it is not clear which situations should be analysed and how these interlink with the determination or functioning of the VA and how the assessment relates to ALM requirements. Furthermore, it was not seen as providing additional insight compared to what is already provided in the standard liquidity management processes where situations requiring an early liquidation of assets are reflected.
- 2.736 In the case of MA, the requirements stated in the regulation impede forced sales given the cash-flow matching and the "hold to maturity" principle. The insurance contracts cannot include options for the policy holder or only a surrender option where the surrender value does not exceed the value of the assets. Therefore, in the case of surrender, the forced sales cannot produce losses for the undertaking. For this reason, MA users did not make a report on forced sales or merely declared that forced sales (surrenders) cannot cause them losses.



#### **Issue IV: Policy on risk management for the VA**

2.737 The Solvency II directive requires undertakings using the VA to include a policy on the criteria for the application of the VA in their written policy on risk management. It is not clear what is exactly expected in relation to this requirement. In practice, it has been observed that NSA's experience is limited on this point. The policy on the criteria for the application of the VA are considered relevant for some NSAs, but the contents observed however varies (some undertakings describe motivation for the application of VA, other criteria for when the VA is applied, others analysis performed in respect of VA).

#### **Issue V: Analysis of measures restoring compliance for the MA and VA**

2.738 The supervisory assessment of the financial position of an undertaking takes into account the impact of the LTG measures on that position. If the removal of MA, VA and the transitional measures well as a applying more economic extrapolation would result in non-compliance with the SCR, then this situation may give rise to supervisory concerns about the sustainability of the undertaking's position. The current regulation provides in safeguards for the measures in order to address such concerns. However these safeguards relate to some of the measures and only on a standalone basis, but not where a combination of these measures could give rise to concerns regarding the financial position of an undertaking.

2.739 Where the reduction of the MA or VA to zero would result in non-compliance with the SCR, the Solvency II Directive requires undertakings to submit an analysis of the measures it could apply in such a situation to re-establish the level of eligible own funds covering the SCR or to reduce its risk profile to restore compliance with the SCR. The current regulation also requires a sensitivity analysis to the extrapolation method, but no specific scenario as is the case for MA, VA and the transitional measures, i.e. full removal of the measures.

2.740 No similar assessment has to be made for the transitionals or in case a more market-consistent extrapolation of the term structure results in non-compliance with the SCR.

2.741 Furthermore, for this provision for the MA and VA, it is unclear whether an immediate notification is required or if a reference to the situation in the regular supervisory reporting is sufficient.

2.742 A more consistent and comprehensive approach to assessing the impact of the measures and the resulting supervisory response appears necessary.

## **2.7.4. Analysis**

### **Issue I: Role of liquidity plan for the VA**

2.743 The following policy options have been identified to address the lack of clear role of the provisions on liquidity planning for the VA:

- **Option 1:** No change
- **Option 2:** Delete the requirement
- **Option 3:** Clarify and strengthen the requirement

2.744 The second option suggests to delete the specific requirement to set up a (separate/specific) liquidity plan where the VA is applied.

2.745 The third option suggests to clarify and strengthen the requirement as follows: The requirement would no longer suggest to set up another liquidity plan specifically for VA business but it should be clarified that undertakings applying the VA should fall under the requirement to establish a liquidity risk management plan as proposed in section 11.4.7. In that case the liquidity risk management plan should take into account the use of the VA and in particular analyse whether the liquidity planning indicates any liquidity constraints which are not consistent with the use of the VA for example where they result in forced sale of assets and thereby endanger that the VA can be earned.

### **Issue II: Sensitivity analysis for the VA**

2.746 The following policy options have been identified to address the deficiencies on the requirements for the sensitivity analysis on the VA:

- **Option 1:** No change
- **Option 2:** To include the requirement in the own risk and solvency assessment
- **Option 3:** To change the requirement to refer to sensitivities with respect to different economic (spread) situations instead of referring to the assumptions underlying the measures including clarification how these sensitivities should be reported

2.747 The second option would imply that the requirement to calculate sensitivities on the assumptions underlying the VA would remain but would be placed in the assessment around the own risk and solvency assessment instead of the risk management requirements. The reporting of that analysis would then automatically be clarified and included in the own risk and solvency assessment.

2.748 The third option implies a redrafting of the requirement to not referring to the assumptions underlying the measures but ask undertakings to perform sensitivity calculations on different economic situations impacting the size of

the VA. Under that option the requirement would stay within the risk management requirements and would be reported in the RSR.

### **Issue III: Forced sale of assets for the MA and VA**

2.749 The following policy option has been identified to address the deficiencies on the requirements for the assessment of forced sale of assets for the VA:

- **Option 1:** No change
- **Option 2:** Delete the requirement

### **Issue IV: Policy on risk management for the VA**

2.750 The following policy option has been identified to address the deficiencies on the policy on risk management related to the VA:

- **Option 1:** No change
- **Option 2:** Delete the requirement
- **Option 3:** Clarify that the policy on risk management should include the use of the VA

2.751 The third option would clarify that the policy expected where the VA is applied should not focus on the criteria for the application of the VA but would make this requirement more general in requiring, that the policy on risk management should reflect on the use of the VA.

### **Issue V: Analysis of measures restoring compliance for the MA and VA**

2.752 The following policy options have been identified to address the deficiencies on the analysis of measures restoring compliance for the MA and VA:

- **Option 1:** No change
- **Option 2:** Keep the requirement as it is and add clarification in the regulation that an ad-hoc notification is required
- **Option 3:** Allow NSAs to limit voluntary capital distributions in case of SCR breach after removal of the LTG measures and delete the existing requirement

2.753 The second option suggests to keep the requirement as it is but add a clarification in the regulation that in the case of non-compliance with the SCR where the VA is reduced to zero an ad-hoc notification to NSAs is required (thus it is not sufficient to report on that situation in the regular supervisory reporting). This clarification should also include that undertakings need to keep NSAs updated, in case of change of situation or update of the measures considered.

2.754 The third option suggests to replace the requirement so as to ensure that supervisory concerns in case of removal of all measures are addressed. Under this option undertakings should – upon request from their NSAs – provide

evidence that their dividend payments or other voluntary capital distributions do not put at risk the protection of policyholders and beneficiaries where not applying MA, VA, the transitionals and a more market-consistent extrapolation would result in non-compliance with the SCR. Where NSAs are not convinced by undertakings' demonstrations, NSAs are able to limit or withhold the capital distribution to ensure that the solvency position of the undertaking concerned is sustainable. As the extrapolation is an essential element of deriving the risk-free interest rate term structure, a specification is required how to replace the current extrapolation with a more market-consistent extrapolation.

2.755 It is suggested to consider the following change to the extrapolation in combination with non-application of MA, VA and the transitional measures:

- For currencies where the LLP (or FSP in case of the alternative extrapolation method) does not coincide with the last DLT swap maturity, the term structure with an LLP (or FSP) equal to this last DLT swap maturity.
- For all currencies a decrease in the level of the UFR by 100 bps.

2.756 The LLP scenario only affects the euro term structure. If the alternative extrapolation method was adopted then it would affect among the EEA currencies the euro and the pound sterling.

2.757 Under this option it would also be suggested to regularly report this assessment. The existing provision to provide an analysis of measures in case the removal of the MA or VA would result in non-compliance with the SCR would be deleted.

### **2.7.5. Advice**

2.758 Regarding Article 44(2) of the Solvency II Directive (requirement on setting up a liquidity plan where the VA is applied) EIOPA advises to clarify and strengthen the requirement as follows:

- undertakings applying the VA should fall under the requirement to establish a liquidity risk management plan,
- they should in their liquidity risk management plan take into account the use of the VA, in particular they should analyse whether the liquidity planning indicates any liquidity constraints which are not consistent with the use of the VA, for example where they result in forced sale of assets and thereby endanger that the VA can be earned.

2.759 Regarding Article 44(2a)(c)(i) of the Solvency II Directive (requirement on performing sensitivity analysis where the VA is applied) EIOPA advises to change the requirement to refer to sensitivities with respect to different economic (spread) situations instead of referring to the assumptions underlying the VA. The outcome of the sensitivity assessment should be reported in the RSR.

- 2.760 Regarding Article 44 para 2a(c)(i) of the Solvency II Directive (requirement to assess the possible effect of a forced sale where the VA or the MA are applied) EIOPA advises to delete that requirement.
- 2.761 Regarding Article 44(2a)(c)(i) of the Solvency II Directive (requirement for a policy for the application of the volatility adjustment) EIOPA advises to replace the requirement by the requirement that the written policy on risk management should reflect on the use of the VA.
- 2.762 Regarding Article 44(2a)(c)(i) of the Solvency II Directive (requirement to analyse the measures for restoring compliance in case the MA or VA are reduced to zero) EIOPA advises to replace the existing requirement with the following requirement. Where non-application of MA, VA and the transitionals and a more market-consistent extrapolation of risk-free interest rates (i.e. LLP or FSP equal to last DLT swap maturity and a decrease of the level of the UFR of 100 basis points) results in non-compliance with the SCR, undertakings should – upon request from their NSAs – provide evidence that their dividend payments or other voluntary capital distributions do not put at risk the protection of policyholders and beneficiaries. Where NSAs are not convinced by undertakings’ demonstrations, NSAs should be able to limit or withhold the capital distribution to ensure that the solvency position of the undertakings concerned is sustainable. The impact of outcome of non-application of MA, VA and the transitionals and a more market-consistent extrapolation of risk-free interest rates should be reported regularly to the NSAs.

## **2.8. Disclosure on LTG measures**

### **2.8.1 Extract from the call for advice**

#### **3.15. Reporting and disclosure**

*EIOPA is asked to assess, taking into account stakeholders’ feedback to the Commission public consultation on fitness check on supervisory reporting:*

- the ongoing appropriateness of the requirements related to reporting and disclosure, in light of supervisors’ and other stakeholders’ experience;*
- whether the volume, frequency and deadlines of supervisory reporting and public disclosure are appropriate and proportionate, and whether the existing exemption requirements are sufficient to ensure proportionate application to small undertakings.*

### **2.8.2 Relevant legal provisions**

2.763 Solvency II requires insurance and reinsurance undertakings that apply the MA, VA, TRFR or TTP to publicly disclose information on them, in particular about their financial position without application of the measures. These requirements are mainly set down in Article 296(2)(d) to (g) of the Delegated Regulation. The main tool for public disclosure regarding the LTG measures is the annual Solvency and financial condition report (SFCR) released by the individual undertakings.

#### **2.8.2.1. Regarding MA:**

2.764 Delegated Regulation, Article 296(2)(d)

*Where the matching adjustment referred to in Article 77b of Directive 2009/138/EC is applied, a description of the matching adjustment and of the portfolio of obligations and assigned assets to which the matching adjustment is applied, as well as a quantification of the impact of a change to zero of the matching adjustment on that undertaking's financial position, including on the amount of technical provisions, the Solvency Capital Requirement, the Minimum Capital Requirement, the basic own funds and the amounts of own funds eligible to cover the Minimum Capital Requirement and the Solvency Capital Requirement;*

#### **2.8.2.2. Regarding VA:**

2.765 Delegated Regulation, Article 296(2)(e)

*A statement on whether the volatility adjustment referred to in Article 77d of Directive 2009/138/EC is used by the undertaking and quantification of the impact of a change to zero of the volatility adjustment on that undertaking's financial position, including on the amount of technical provisions, the Solvency Capital Requirement, the Minimum Capital Requirement, the basic own funds and the amounts of own funds eligible to cover the Minimum Capital Requirement and the Solvency Capital Requirement;*

#### **2.8.2.3. Regarding Transitionals:**

2.766 Delegated Regulation, Article 296(2)(f)

*A statement on whether the transitional risk-free interest rate-term structure referred to Article 308c of Directive 2009/138/EC is applied and a quantification of the impact of not applying the transitional measure on the undertaking's financial position, including on the amount of technical provisions, the Solvency Capital Requirement, the Minimum Capital Requirement, the basic own funds and the amounts of own funds eligible to cover the Minimum Capital Requirement and the Solvency Capital Requirement;*

2.767 Delegated Regulation, Article 296(2)(g)

*A statement on whether the transitional deduction referred to in Article 308d of Directive 2009/138/EC is applied and a quantification of the impact of not applying the deduction measure on the undertaking's financial position, including on the amount of technical provisions, the Solvency Capital Requirement, the Minimum Capital Requirement, the basic own funds and the amounts of own funds eligible to cover the Minimum Capital Requirement and the Solvency Capital Requirement.*

### **2.8.3 Identification of the issues**

2.768 EIOPA has already, specifically for the LTG report 2017<sup>92</sup>, assessed the adequacy of the public disclosure on the LTG measures. The LTG report 2017 contained a thematic focus on public disclosure of LTG measures, based on the views and perceptions of the NSAs as well as those raised in a stakeholder workshop on public disclosure with analysts, rating agencies, consumer protection bodies and journalists. Several key findings of this report were:

- NSAs were generally satisfied with the completeness of the information disclosed, but several cases of incomplete information and a general picture of inconsistent level of detail were uncovered.
- Especially regarding qualitative information, the level of detail provided by the undertakings varied considerably, with many failing to provide a comprehensive qualitative context.
- The stakeholders were interested in more detailed and easily accessible quantitative information on the impact of the LTG measures and the SCR with and without the measures as well as the impact of sensitivity calculations regarding extrapolation.

2.769 The IMF country report 18/230<sup>93</sup>, referencing to the LTG report 2017, has picked up the topic of public disclosure and contains the following item:

*53. Public disclosures on the use of LTG measures and transitionals should be improved.*

2.770 While quantitative information (SCR before and after the use of LTG measures and transitionals) is disclosed in the SFCR, an evaluation by EIOPA reveals that the summary of the SFCR often leaves out a discussion of those measures, especially in countries where the use of such measures is more widespread. It is therefore recommended that EIOPA develops more detailed guidelines on how insurers should also qualitatively discuss the use of LTG measures and transitionals in the summary of the SFCR.

2.771 Based on the sources referenced above, a list of distinct issues and points for improvement related to public disclosure of LTG-measures in the SFCR is

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<sup>92</sup> <https://eiopa.europa.eu/Publications/Reports/2017-12-20%20LTG%20Report%202017.pdf>

<sup>93</sup> <https://www.imf.org/en/Publications/CR/Issues/2018/07/19/Euro-Area-Policies-Financial-Sector-Assessment-Program-Technical-Note-Insurance-Investment-46104>

drawn up. Note that the description of the issues as well as the analysis and the options to overcome those issues are based on the current design of the measures. Where changes to the measures are introduced, the adequacy of the disclosure requirements needs to be reassessed. Where changes are suggested to the LTG measures in this review (see respective sections on the individual measures), these are accompanied, where necessary, by recommendations on disclosure.

## **Lack of qualitative information**

### Issue 1: Poor reflection of the LTG measures in the SFCR summary

2.772 The summary part of the SFCR does not regularly outline information on the use of the measures (in particular for VA users) nor the impact of the measures. At least, the summary should outline the significance of the impact (e.g. dependency on the measures to comply with the SCR/MCR)

Affects: Voluntary measures (VA, MA, transitionals)

### Issue 2: Lacking descriptions of motivation, application and impact in SFCR

2.773 Qualitative information in the SFCR on the LTG measures in general, was identified to be limited, often only quantitative results were provided (template S.22.01). As the SFCR intends to address the information needs of policyholders and other stakeholders, further background information on the LTG measures (motivation for the use of the measures, description of the LTG measures and its use, description of the impact of the measures for the particular undertaking) is considered necessary.

Affects: Voluntary measures (VA, MA, transitionals)

### Issue 3: Qualitative information specific to the MA is limited

2.774 Stakeholder interest was identified with respect to particular issues in respect of the use of the MA. More information could be provided in respect of the composition of the MA assets and how the yields on those assets resulted in the MA applied to the basic risk free rate term structure.

Affects: MA

### Issue 4: Qualitative information specific to the transitionals is limited

2.775 Stakeholder interest was identified with respect to particular issues in respect of the use of the transitionals. More information could be provided in respect of the measures planned with respect to coping with the transitional phase, a description of the progress made and a quantification thereof and the expected timeline of phasing-in (if 2032 or shorter).

Affects: Transitionals



Issue 5: Lacking information regarding risk management implications

2.776 Deficiencies were identified in undertakings outlining any implications of the use of the VA or MA and their risk management implications.

2.777 Affects: VA, MA

**Insufficient quantitative information**

Issue 6: Insufficient quantification of the impact on SCR and MCR

2.778 Stakeholders outlined interest in transparently displaying the impact of the measures on the SCR ratio and MCR ratio (instead of seeing SCR/MCR and eligible own funds in isolation).

Affects: Voluntary measures (VA, MA, transitionals)

Issue 7: Insufficient quantification on relative impact of LTG measures

2.779 Furthermore, undertakings typically did not calculate any additional ratios based on the S.22.01 information such as the relative impact of the measures on the SCR or eligible own funds and technical provisions.

Affects: Voluntary measures (VA, MA, transitionals)

**Results of sensitivity analysis not included**

Issue 8: Lack of impact sensitivity calculations regarding voluntary measures

2.780 The stakeholders were not specifically interested in the impact of the assumptions underlying the measures but on the impact of a variation of the LTG measures (in sizes) on the results.

Affects: Voluntary measures (VA, MA, transitionals)

Issue 9: No impact calculations regarding extrapolation of risk-free interest rates provided

2.781 Stakeholders outlined interest in transparently displaying the impact of sensitivity analyses, in particular the UFR extrapolation was addressed.

Affects: Extrapolation

**2.8.4 Analysis**

2.782 In this section, EIOPA analyses whether there is a need to amend the current disclosure requirements applicable with respect to the LTG measures and extrapolation to address the identified deficiencies.

**Issues 2, 3, 4, 5 to be dealt with through EIOPA Guideline**

2.783 These were identified as issues that can be solved via additional guidance in guidelines. It is not necessary to target those via changes in the Solvency

II Directive or the Delegated Regulation. At this stage therefore, no advice is provided respectively.

### **Issue 7 justifies no additions to SFCR**

2.784 EIOPA considered this issue of no information on the relative impact of the measures to be of low priority as the information required can be easily assessed on the basis of the information published. Adding this information to the SFCR template risks decreasing the overall informative value of the reporting template by overloading it with numbers which are in themselves all derived from other positions in the template. Therefore, no change of the legal provisions was considered appropriate in this respect.

### **Issue 8 justifies no additional calculations**

2.785 With respect to issue 8, EIOPA also considered it too burdensome to prescribe additional sensitivity analysis in view of the limited improvements these additional calculations would yield. In view of the information at hand on the voluntary measures- the solvency position with and without the measures is already provided - there is no strong rationale to require further data. EIOPA however intends to reconsider necessity to publicly disclose additional information, including sensitivities, for the VA in case the design of the VA materially changes compared to the status quo.

2.786 The following discussion of options for correcting the deficiencies therefore focusses on the remaining issues 1, 6 and 9. The main options considered to address these deficiencies are listed in the table below. The remaining issues have been renumbered from 1 to 3.

<b>Policy issue</b>	<b>Options</b>
1. Qualitative information	1.1 No change 1.2 Prescribe minimum criteria
2. Quantitative information	2.1 No change 2.2 Extend SFCR template with impact of LTG measures on SCR and MCR
3. Sensitivity of undertakings to changes to the application of the extrapolation	3.1 No change 3.2 Prescribe disclosure regarding sensitivity analysis 3.3 Prescribe reporting regarding sensitivity analysis

### **Options regarding lack of qualitative information**

2.787 The following policy options have been identified to address the lack of qualitative information in the SFCR in view of the poor reflection of the LTG measures in the SFCR summary:

- Prescription of minimum criteria for disclosure of qualitative information in the summary
  - This option implies clarifying in the regulation that the summary part of the SFCR should outline information on the use of the measures and the impact of the measures, at least where they have material impact on undertakings' solvency position.

2.788 Taking up this option brings benefits for overall transparency, comparability and the level playing field. The additional effort required from undertakings is not estimated to be very significant. Furthermore, some undertakings are already including the relevant information in their reports and would not be affected at all.

### **Options regarding insufficient quantitative information**

2.789 The following policy option has been identified to address the lack of quantitative information in the SFCR on the impact on SCR and MCR:

- Extend SFCR template with impact of LTG measures on SCR and MCR  
This option entails an addition to sheet S.22.01 of the SFCR template, extending it by fields that display the impact of removing the LTG measures on SCR and MCR (see annex 2.14 for proposed template amendments).

2.790 This option represents a small change to the template, introducing additional fields. The impact on SCR and MCR ratios can be derived from other SFCR fields, but directly including them makes the information much more accessible. Because of their importance the numbers are known by the undertakings, therefore not much additional effort would be needed to include them in the reporting template.

### **Options regarding sensitivity analysis**

2.791 The following policy options have been identified to address the lack of sensitivity information in the SFCR regarding the extrapolation.

- Prescribe disclosure of specific sensitivities on extrapolation
- Prescribe reporting (without disclosure) of specific sensitivities on extrapolation

2.792 Regardless of potential changes to the extrapolation mechanism, a sensitivity analysis regarding the Ultimate Forward Rate (UFR) can be introduced. This would entail disclosing or reporting the consequences of a shift of the UFR by a fixed amount of minus 100 basis points.

2.793 This is in addition to any potential disclosure measures included in the options on the extrapolation mechanism (see section 2.2).

## 2.8.5 Advice

2.794 Consequently, EIOPA proposes the following actions in regards to the options outlined above to be taken:

2.795 Regarding the disclosure of qualitative information on the use of LTG-measures, EIOPA advises to define and prescribe minimum information requirements. Special consideration should be given to the inclusion of the LTG-measures in the part of the SFCR which is addressed to policyholders.

2.796 EIOPA holds the view that the SFCR template on the impact of the LTG measures should also show the impact on the SCR and MCR ratios as illustrated in annex 2.14. No additional derived ratios need to be included.

2.797 EIOPA recommends that insurance and reinsurance undertakings should disclose in their SFCR the outcome of a sensitivity analysis regarding the ultimate forward rates (UFRs) used in the extrapolation of risk-free interest rates. The sensitivity to assess is a fixed downward shift of the UFRs by 100 basis points. Undertakings should disclose the impact of that shift on their financial position, including on the amount of technical provisions, the SCR, the MCR, the basic own funds and the amounts of own funds eligible to cover the SCR and the MCR.

## 2.9. Long-term and strategic equity investments

### 2.9.1 Extract from the call for advice

#### **3.5. Capital Market Union aspects**

*EIOPA is asked to continue its analysis on the treatment of long-term investments under Solvency II. In particular, EIOPA is asked to assess whether the methods, assumptions and standard parameters underlying the calculation of the market risk module with the standard formula appropriately reflect the long-term nature of the insurance business, in particular equity risk and spread risk. To this end, EIOPA is asked to:*

- identify the characteristics of insurance business and liabilities that enable insurers to hold their investments for the long term; and*
- where appropriate, advise on revised methods, assumptions and standard parameters for the purpose of calculating the market risk module, reflecting insurers' behaviour as long-term investors.*

*With regard to equity, EIOPA is also asked to conduct a comprehensive review of the equity risk sub-module, and in particular to assess the appropriateness of the design and calibration of the duration-based equity risk sub-module,*

*of strategic equity investments, of long-term equity investments and of the symmetric adjustment.*

## **2.9.2 Previous advice**

### **“Standard” equity type 1 and type 2**

2.798 EIOPA’s predecessor, CEIOPS, advised the European Commission on the “standard” equity risk for type 1 and type 2 equities in January 2010<sup>94</sup>. Background information to the technical analysis were provided in the Solvency II Calibration Paper in April 2010<sup>95</sup>. The underlying assumptions of the standard formula for the SCR calculation were presented in July 2014<sup>96</sup>.

### **Duration-based equity risk sub module**

2.799 CEIOPS advised the European Commission on the calibration of the duration based equity risk sub module (DBER) in January 2010<sup>97</sup>. Background information to the technical analysis was provided in the Solvency II Calibration Paper in April 2010<sup>98</sup>. The underlying assumptions of the standard formula for the SCR calculation were presented in July 2014<sup>99</sup>.

2.800 CEIOPS assessed the risk of long-term equity holding on the basis of the assumption of an average duration of liabilities exceeding an average of 12 years, as set in Article 304 of the Solvency II Directive. The duration approach according to Article 304, results in an equity risk charge set at 22 percent. To be noted that the equity risk charge equals to the absolute floor set for the purpose of prudence and in order to be consistent with the calibration of the property risk sub-module.

### **Strategic equity investments**

2.801 In February 2018<sup>100</sup>, EIOPA has provided information on the application of the criteria of the Delegated Regulation for the identification of strategic equity investments by insurance and reinsurance undertakings as well as by NSAs, in EIOPA’s Second set of Advice on the Delegated Regulation review.

2.802 EIOPA has not provided, to date, advice on the strategic equity investments referred to in article 169 to 171 of the Delegated Regulation.

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<sup>94</sup> [CEIOPS Advice for L2 Implementing Measures on SII: Equity risk sub-module](#)

<sup>95</sup> [Solvency II Calibration Paper, April 2010](#)

<sup>96</sup> [The underlying assumptions in the standard formula for the SCR Calculation, July 2014](#)

<sup>97</sup> [CEIOPS Advice for L2 Implementing Measures on SII: Equity risk sub-module](#)

<sup>98</sup> [Solvency II Calibration Paper, April 2010](#)

<sup>99</sup> [The underlying assumptions in the standard formula for the SCR Calculation, July 2014](#)

<sup>100</sup> [EIOPA’s second set of advice on the Delegated regulation review, February 2018](#)

## **Infrastructure investments**

2.803 In September 2015<sup>101</sup>, EIOPA advised on the identification and calibration of infrastructure investment risk categories.

2.804 In June 2016<sup>102</sup>, EIOPA provided further advice on the identification and calibration of other infrastructure investment risk categories, i.e. infrastructure corporates.

## **Unlisted equity**

2.805 In February 2018, EIOPA advised the European Commission on unlisted equity in EIOPA's Second set of Advice on the Delegated Regulation review. In particular, EIOPA provided criteria applicable to portfolio of equity from the European Economic Area which are not listed, in order to identify those instruments which could benefit from the same risk factor as listed equity.

## **Long-term equity investments**

2.806 EIOPA has not provided, to date, advice on the Long-term equity investments referred to in article 171a of the Delegated Regulation.

## **2.9.3 Relevant legal provisions**

### **"Standard" equity type 1 and type 2**

2.807 The equity risk sub-module is set in point (b) of Article 105(5) of the Solvency II Directive.

2.808 General provisions and capital requirements for type 1 and type 2 equities are set in Article 168 and Article 169 of the Delegated Regulation. The "standard" capital requirement for equity type 1 results from a decrease of 39 percent and the symmetric adjustment as referred to in Article 172 of this Regulation. Respectively, the "standard" capital requirement for equity type 2 results from a decrease of 49 percent and the symmetric adjustment as referred to in Article 172 of this Regulation.

### **Duration-based equity risk sub module**

2.809 The duration-based equity risk sub-module is set out in Article 304 of the Solvency II Directive.

2.810 Article 304 of the Solvency II Directive sets criteria under which Member States may authorise life insurance undertakings to apply a duration based equity risk sub-module. When an undertaking has received a supervisory approval, the Article 170 in Delegated Regulation prescribes that undertakings benefits from a reduced capital charge of 22 percent in

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<sup>101</sup> [Infrastructure finance advice, September 2015](#)

<sup>102</sup> [Infrastructure corporates final advice, June 2016](#)

replacement to the “standard” equity risk charges for type 1 and type 2 equities.

2.811 The recital 58 of the Delegated Regulation outlines the assumption that the typical holding period of equity investment referred to in Article 304 of Directive 2009/138/EC is consistent with the average duration of liabilities pursuant to Article 304 of Directive 2009/138/EC. According to the Solvency II Directive, the average duration of those liabilities is exceeding an average of 12 years.

### **Strategic equity investments**

2.812 Article 111 (m) of the Solvency II Directive outlines that the reduced calibration should reflect the “likely reduction in the volatility of the value of those related undertakings arising from the strategic nature of those investments and the influence exercised by the participating undertaking on those related undertakings”.

2.813 The Delegated Regulation –with particular reference to Article 169 and Article 171 – sets out a reduced risk charge of 22 percent for strategic equity investments, provided that they satisfy criteria.

2.814 Recital 57 of the Delegated Regulation gives further background on the motivation of the treatment of strategic equity investments.

2.815 EIOPA has also developed guidelines<sup>103</sup> on this topic.

### **Infrastructure investments**

2.816 The Delegated Regulation –with reference to Article 168, sets out specific risk factors for infrastructure investment, provided that criteria are met.

2.817 In September 2015<sup>104</sup>, the Commission adopted an amendment to the Delegated Regulation, based on EIOPA’s advice. In June 2017<sup>105</sup>, the Commission adopted an amendment to the Delegated Regulation based on EIOPA’s advice. The Delegated Regulation –with reference to Article 164b and Article 261a, sets out specific risk factors for qualifying infrastructure corporate investments, provided that criteria are met.

### **Unlisted equity**

2.818 Unlisted equities, other than strategic equity investments and investments in qualifying infrastructure fall into the type 2 equities category as defined in

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<sup>103</sup> [Guidelines on treatment of related undertakings, including participations](#)

<sup>104</sup> [Amendment to Delegated Regulation, 30 September 2015](#)

<sup>105</sup> [Amendment to Delegated Regulation, 8 June 2017](#)

Article 168(3) of the Delegated Regulation. The capital requirement for these type 2 equities is set out in Article 169(2)(b) of the Delegated Regulation.

2.819 In March 2019<sup>106</sup>, the Commission adopted an amendment to the Delegated Regulation based on EIOPA's advice. It sets that qualifying unlisted equity portfolios are considered as type 1 equities, when all the requirements set in Article 168a are met.

2.820 Together with the amendments to the Delegated Regulation, the European Commission published a staff working document<sup>107</sup> to explain and justify the changes introduced with regard to unlisted equity.

### **Long term equity investments**

2.821 In March 2019<sup>108</sup>, the Commission adopted an amendment to the Delegated Regulation, which includes the Article 171a in respect of the treatment of long-term equity.

2.822 Article 171a sets out a reduced risk charge of 22 percent when conditions are met. The reduced risk charge has been proposed by the European Commission. This treatment is explained in recital 26.

2.823 Together with the amendments to the Delegated Regulation, the European Commission published a staff working document<sup>109</sup> to explain and justify the changes introduced with regard to long-term equity investments.

2.824 Also, a reference to the Article 171a is included in the Article 169(1) and Article 169(2). Consequently, long-term equity investments type 1 and type 2 benefits from a diversification within the standard equity risk sub-module as to Article 168(4).

## **2.9.4 Calibration of the equity risks**

### **2.9.4.1 Identification of the issue**

2.825 Some of the actual equity risk charges used in the standard Formula differ from the calibration performed by EIOPA/CEIOPS. The table below compares Standard formula's stress to the calibration figures.

<b>Equity sub-module</b>	<b>standard formula's stress</b>	<b>EIOPA/CEIOPS calibration</b>
« Standard » type 1	39 percent	45 percent
« Standard » type 2	49 percent	55 percent

<sup>106</sup> [Amendment to Delegated Regulation, 8 March 2019](#)

<sup>107</sup> [Commission Staff Working Document](#)

<sup>108</sup> [Amendment to Delegated Regulation, 8 March 2019](#)

<sup>109</sup> [Commission Staff Working Document](#)



Infrastructure project	30 percent	[30 percent-39 percent] <sup>110</sup>
Infrastructure corporate	36 percent	36 percent <sup>111</sup>
Qualifying unlisted equity portfolios	39 percent	39 percent <sup>112</sup>
Strategic equity	22 percent	-
DBER	22 percent	22 percent
LTE	22 percent	-

2.826 For the risk charges for which EIOPA/CEIOPS has advised a calibration in the past (type 1, type 2, infrastructure project, infrastructure corporate, qualifying unlisted equity portfolios and duration based equity risk sub-module), EIOPA considers that those results are relevant.

2.827 As to the strategic equity investment, the calibration of 22 percent is motivated by the criterion that the value of the equity is likely to be materially less volatile, in accordance with Article 171(a) of Commission Delegated Regulation 2015/35. The calibration of the 1-year VaR for a strategic equity is not easy to assess as there is no common equity index for such investments and the group of strategic equity is diverse. To date, EIOPA has not identified evidence to support the calibration of strategic equity. As strategic equity provisions are based on a 1 year time horizon rather than a long term horizon, the analysis performed for the long term equity cannot be taken as a basis.

2.828 The recently introduced long-term equity investments allows for a capital charge of 22 percent if requirements, which are set out in Article 171a Delegated regulation, are met. The lower capital charge is based on the following justification:

- Reference is made to a DNB<sup>113</sup> study that concludes that under the assumption of mean reversion investment risk is lower over longer investment periods.
- S&P500 returns over 1, 5 and 10 years periods (page 12) are compared.
- The 22 percent capital charge is based on CEIOPS' advice of 2010 on the duration-based equity risk sub-module<sup>114</sup>.

2.829 In a staff working document<sup>115</sup>, the European Commission explained that the design of the capital charge for long-term equity investments is based on a time horizon of 10 years.

<sup>110</sup> [Infrastructure finance advice, September 2015](#)

<sup>111</sup> [Infrastructure corporates final advice, June 2016](#)

<sup>112</sup> [EIOPA's second set of advice on the Delegated regulation review, February 2018](#)

<sup>113</sup> DNB Working Paper (No. 343 / April 2012) – Mean Reversion in Stock Prices: Implications for Long-Term Investors.

<sup>114</sup> [CEIOPS Advice for L2 Implementing Measures on SII: Equity risk sub-module](#)

<sup>115</sup> [Commission Staff Working Document](#)

## 2.9.4.2 Analysis

### Consideration of long time holding period

- 2.830 The argument presented by industry stakeholders is that illiquid liabilities allow undertakings to invest in equity for a longer time horizon, which directly reduces the risk of losses, and this justifies a reduced capital stress. This argument is predicated on the assumption that equity markets will recover some, or all, of their short-term losses within a certain period of time.
- 2.831 Articles 101(3) and 104(4) of the Solvency II Directive require a calibration based on a 1-year time horizon. On one hand, the choice of a longer time horizon may technically be justified under certain conditions. On the other hand, insurers trade equities. Based on the three years observation with Solvency II reporting being in place, EIOPA estimated<sup>116</sup> that the average equity-holding period is 4,8 years. In response to the Call for Information from the European Commission on asset liability management<sup>117</sup>, EIOPA will report about the characteristics that enable insurers to hold equity for the long term in December 2019.
- 2.832 Equity markets may generally be expected to provide positive returns. However, they are subject to significant levels of volatility and have generated large losses over short durations. If investment over a longer term may be expected to reduce the risk of losses, or their amount, a detailed analysis based on historical data series had not been performed to date in the context of Solvency II.
- 2.833 Besides, Solvency II measures risk in terms of the fluctuations of basic own funds over a period of twelve months. These own funds are determined on the basis of market (consistent) valuations. Using other measures of risk could mean that changes in the level of own funds are not fully captured. If the difference in the measured risk and the investment volumes were material this could result in non-compliance with the requirement of Article 101(3) of the Solvency II Directive.
- 2.834 Once the market value of assets falls below the market value of technical provisions, it is no longer possible for the undertaking to fulfil its guarantees to policyholders with sufficient certainty. The undertaking would require additional own funds, e.g. generated by returns on assets in excess of the risk-free rate to restore solvency. However, such expected returns over the risk-free rate always involve a degree of risk-taking, i.e. it is not possible to earn risk-free returns exceeding the market risk-free rates, irrespective of the time horizon. This means that there is a possibility that excess returns restore the insurer's solvency position, but there is also chance that the solvency further deteriorates.

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<sup>116</sup> Details on the methodology: [Request for Feedback on Methodological Considerations regarding Illiquid Liabilities](#)

<sup>117</sup> [Request to EIOPA for information, April 2018](#)

## **Empirical results for long-time horizon**

2.835 To investigate whether there are sufficient grounds to justify a reduced capital stress in Solvency II rules in this area (as currently for the duration based equity sub module and newly introduced for the long term equity investment), EIOPA undertook an investigation to determine the Value at Risk (VAR) over extended investment durations. However, as the Solvency II calibrations are performed only on a 1-year loss basis, judgement was needed on how to extend such an analysis for multi-year durations.

### Methodology

2.836 The empirical approach takes into account historical yearly investment durations from 1 to 10 years, and applies the following methodology.

- Use of empirical data vs. model projections. Note that the current calculation of the equity capital charge for the purpose of Article 304 of the Delegated Regulations was not based on historical data but on model projections.
- Use of excess return based on minimum value vs. anniversary date. The original CEIOPS calibration<sup>118</sup> considered the change in index value on investment anniversary dates only, rather than throughout the period of 12 months. As undertakings are not restricted to only disposing of investment on anniversaries, the excess return based on the minimum value within the relevant year is also calculated (i.e. the lowest index value between month 0 and 12; between month 13 and 24; between month 25 and 36; and so on).
- Use of the return in excess of risk free investments, to correspond with the evolution of technical provisions over the investment duration. This step is to ensure that the equity analysis included not only the loss on the equity investment, but also the unwinding of the discount rate over that duration, which is reflected in the technical provisions. The results are based on 10 years rates (hypothesis of 10 years liability duration).
- The 0.5th percentile is then calculated for each 12 month duration period, consistent with the Solvency II Value-at-Risk measure calibration to a 99.5 percent confidence level. This determines the Solvency II compatible empirical VaR for each duration.

### Data

2.837 The original CEIOPS equity calibration was based on data from the MSCI World Price Return index, however a Total Return index would be considered more appropriate for longer investment time horizon, to adequately allow for the impact of dividends.

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<sup>118</sup> [Solvency II Calibration Paper, April 2010](#)

2.838 Additionally, the CEIOPS calibration only considered the equity value at risk in isolation and did not make allowance for risk free rates. This was an explicit assumption and this was documented in the Solvency II calibration paper<sup>119</sup> in 2010. However, while the return on a risk free investment would not be expected to be material when determining the 1 year Solvency II VAR, when the investment duration is extended to multiple years, the discount factors applied to cashflows would be material. The use of the return, in excess of the risk free investment, ensures that the equity investment not only recoups any losses in the index, but also earns the assumed risk free rate used in discounting the liabilities.

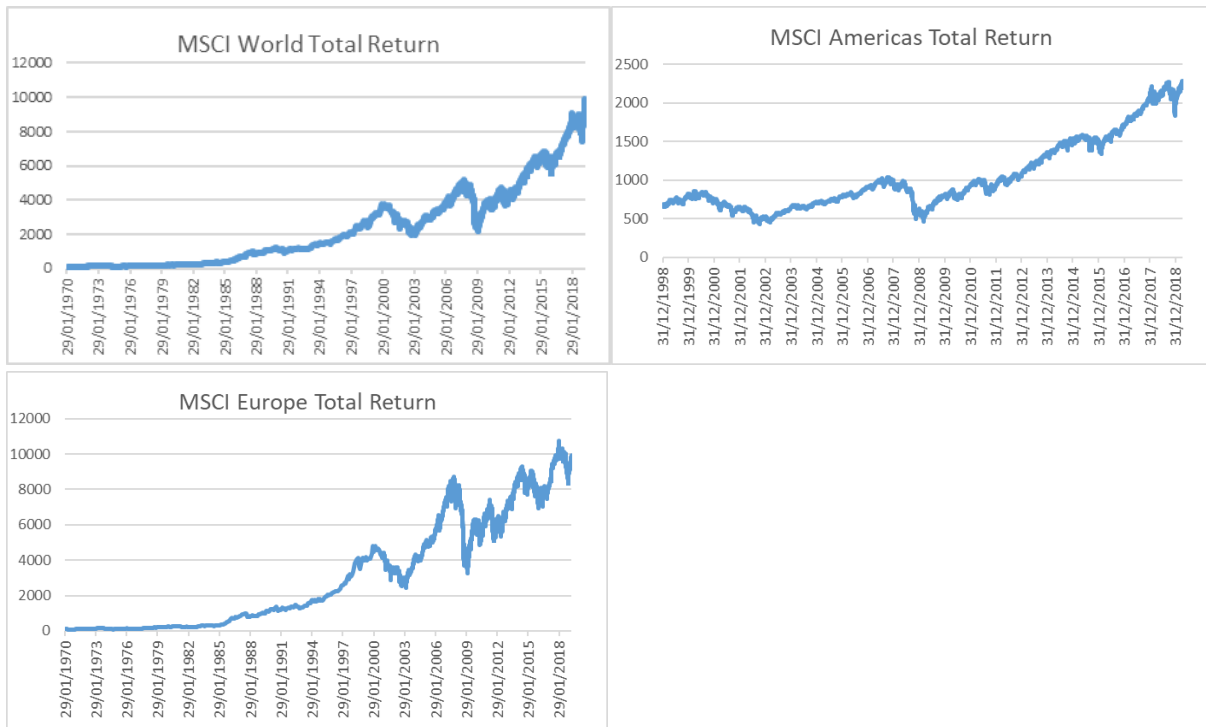
2.839 In article 171(a) of the amended Delegated Regulation on long term equity, it is said that long term equity investment covers best estimate liabilities and that undertakings should be able to hold those equities for at least 10 years on an on-going case and under stressed conditions. Accordingly, it can be assumed that the long term equities will back liabilities with a duration of 10 years. From that perspective, undertakings have to cover their accrued liabilities at 10 years risk free rates. The excess return is consequently calculated based on 10 years risk free rates.

<b>Ticker</b>	<b>Description</b>	<b>First data point</b>
M2WO	MSCI World Total Return Index	31/12/1969
M2AM	MSCI America Total Return Index	31/12/1998
M2EU	MSCI Europe Total Return Index	30/01/1970

2.840 For reference, the total return indexes are shown in the charts below.

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<sup>119</sup> See Para 3.68 of the [Solvency II Calibration Paper, April 2010](#)



Source of underlying market data: Refinitiv

2.841 The major financial crisis happened in 2008 –i.e. 10 years ago. A significant caveat must be highlighted in relation to the data, in particular at longer durations. While the data itself is not of concern, as the start point for the indices was 1970, this limits the amount of independent data series as the investment duration increases. To illustrate, for a 10 years investment duration, the data only provides 5 complete and independent data series for MSCI Europe Total Return Index.

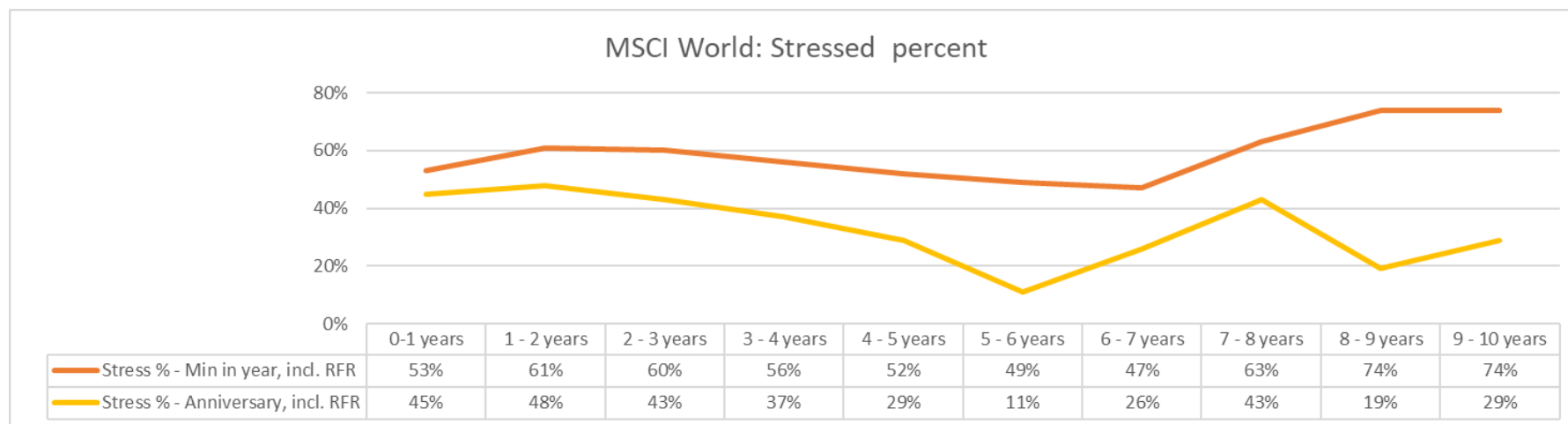
## Results

2.842 When considering the excess return over the 10 years risk free rate, the MSCI Europe data indicated empirical values at risk of between 67 and 38 percent for investment durations between 1 and 10 years. Significantly, when considering a 10-year investment duration, there is no clear decreasing trend in the risk with regard to extending the time horizon. Similar analysis was also performed on the MSCI World Total Return index, and the MSCI AC Americas Total return index. These analyses are illustrated in the below charts and tables.

2.843 Based on these results, it is not possible to corroborate the assertion that investment for a longer duration justifies a lower capital charge. In fact, the data actually supports an increase in capital requirements, as the Solvency II calibration only considers losses over a 12 month period, whereas sustained losses can be experienced over multiple years.

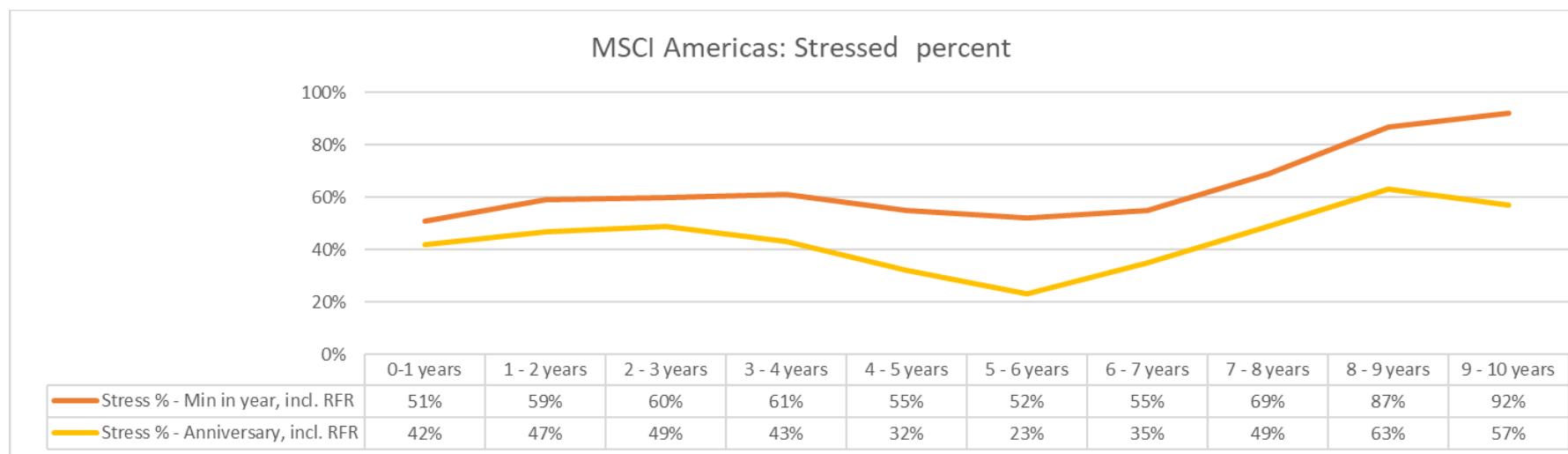
2.844 For clarity, the below are the empirical values at risk rather than the normalised values, which are used as the ultimate stresses in Solvency II. The charts illustrate the actual losses that would have been experienced in practice.

### **MSCI World Total Return Index: empirical results**



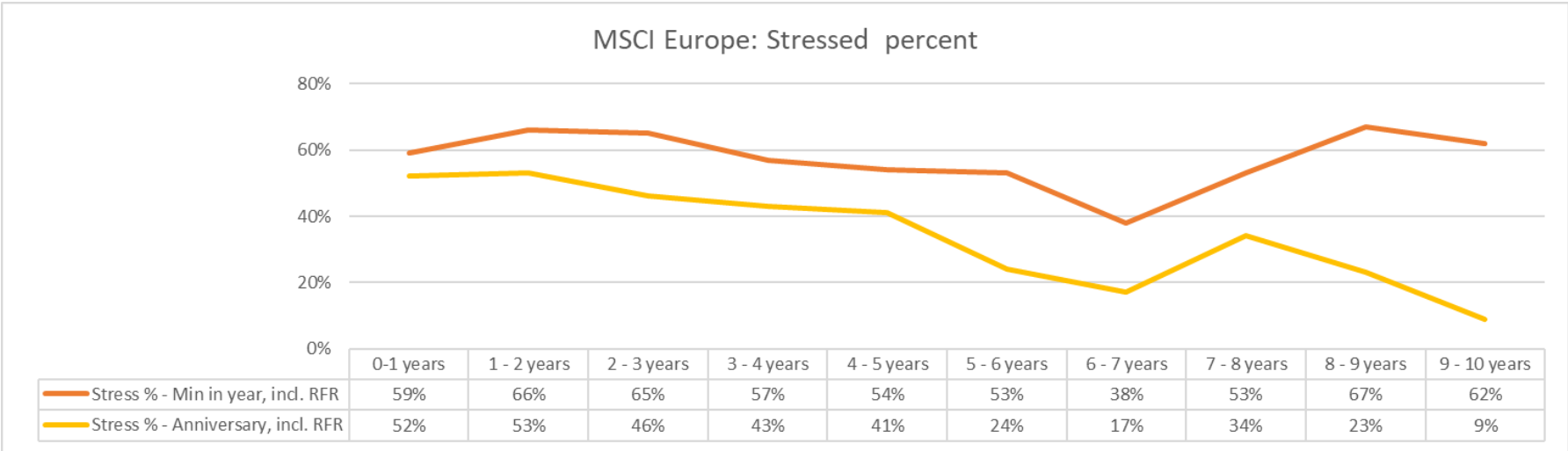
Source of underlying market data: Refinitiv

### **MSCI Americas Total Return Index: empirical results**



Source of underlying market data: Refinitiv

**MSCI Europe Total Return Index: empirical results**



Source of underlying market data: Refinitiv



## **2.9.5 Design of the duration-based equity risk sub-module**

### **2.9.5.1 Identification of the issue**

- 2.845 The standard formula for the SCR includes an equity risk sub-module that captures the risk stemming from changes in the level of equity market prices. The equity risk sub-module is based on risk scenarios that envisage a fall in equity market prices of 39 percent or 49 percent, depending on the type of equity.
- 2.846 Instead of that equity risk sub-module, undertakings can use a duration-based equity risk sub-module (DBER) that is, with regard to certain equity investments, based on a risk scenario that envisages a fall in equity market prices of 22 percent. The DBER can be applied by life insurance undertakings that provide certain occupational retirement provisions, or retirement benefits, and meet further requirements – in particular, that the average duration of the undertaking’s liabilities exceeds an average of 12 years and that the undertaking is able to hold equity investments at least for 12 years.
- 2.847 The possibility to apply the DBER is a Member State option of the Solvency II Directive (Article 304(1)). The application of the DBER by an insurance undertaking is subject to supervisory approval.
- 2.848 One undertaking in France is using the DBER as at 31 December 2017. According to the information disclosed by the undertaking in its Solvency and Financial Condition Report, removing the DBER would reduce the SCR ratio by 20 points from a ratio of 159 percent with the DBER (but without TTP and VA) to a ratio of 139 percent without the DBER. Removing the measure would reduce the MCR ratio by 41 points from a ratio of 350 percent with the DBER (but without TTP and VA) to a ratio of 309 percent without the measure.
- 2.849 In the LTG report 2016, 11 NSAs reported that the DBER is not implemented in their national legislation. The NSAs of the other countries provided the following explanations why the DBER is not applied:
- The products in the national market do not meet the criteria of Article 304 of the Solvency II Directive;
  - Undertakings are not or not very active in the pension market;
  - There is no need or no interest for this sub-module;
  - There is not yet an incentive to apply the DBER because the equity transitional of Article 308b(13) of the Solvency II Directive currently lowers the capital requirement for equity investments, but more applications may follow in the course of the phasing out of that transitional measure.

### 2.9.5.2 Analysis

2.850 According to the Commission staff working document<sup>120</sup>, the set-up of the Long-term equity asset class (LTE) is an extension of the reduced capital charge (22 percent) applicable to the DBER to long term investment in equity of EEA meeting certain criteria.

2.851 Although the DBER and the LTE aim to capture the risks of long-term equity over a longer time horizon; the criteria and application are different. The adequacy of keeping two separate treatment is a critical element of the framework, in view of the complexity induced. Having two separate risk sub-modules targeting the same risks – namely those of long-term equity exposures – is considered as unnecessary and intended to be addressed.

#### Considered options

2.852 EIOPA identified the following options:

- **Option 1:** No change
- **Option 2:** Phase out

Under Option 2, the use of the duration based equity risk sub module is phased out. As such, new approvals to use the duration based equity risk sub module should not be granted anymore. The following table outlines the pros and cons related to option 2 compared to the status quo.

Pro	Con
Both, LTE and DBER target the risks associated to long term equity exposures so it is ensured that similar risks are treated similarly in the future when the DBER is phased out.	
Reduce complexity	

#### Comparison of options

2.853 To phase out the approved use of the DBER and not granting new approvals to use the DBER anymore presents the advantage to ensure that similar risks –i.e. those related to long term equity exposures, are treated similarly in the future.

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<sup>120</sup> See p.10, paragraph 3 of [Commission Staff Working Document](#)

2.854 As such, it reduces the unnecessary complexity of the prudential framework and improve the effective and efficient supervision of undertakings and groups.

2.855 Therefore, the preferred policy option for this policy issue is Option 2.

## **2.9.6 Design of the strategic equity risk treatment**

### **2.9.6.1 Identification of the issue**

2.856 The standard formula for the SCR includes an equity risk sub-module that captures the risk stemming from changes in the level of equity market prices. The equity risk sub-module is based on risk scenarios that envisage a fall in equity market prices of 39 percent or 49 percent, depending on the type of equity. Providing that these investments are of a strategic nature, undertakings can use risk scenarios that envisage a fall in equity market prices of 22 percent.

2.857 The criteria for being considered as strategic are set in the article 171 of the Delegated Regulation.

2.858 During the SCR Review, stakeholders identified critical elements of the framework. In particular:

- The approach for evaluating strategic participations based on lower volatility was not considered appropriate. Therefore, the criterion in Article 171 (a) - requiring the demonstration of lower volatility in the next 12 months - is considered to be very difficult to be applied in practice because it seems to be in contradiction with the long-term horizon associated with the nature of strategic participations;
- The minimum ownership and control threshold of 20 percent for an investment to qualify it as a strategic participation is considered too high. This requirement is deemed to be unnecessary restrictive, particularly when considered alongside the other Article 171 criteria such as strategy to hold and ability to hold for a long period.

2.859 The majority of NSAs mentioned that it is difficult to demonstrate that the criterion in Article 171(a) about lower volatility is met, particularly for unlisted equity investments.

2.860 Some NSAs mentioned that they experienced in their supervision that undertakings did apply the provisions for strategic equity also to investments that are not in related undertakings. Reason for that was identified to be the difficult reading of the Solvency II Directive in that respect as the title and first sentence of Article 171 Delegated regulation is not referring to participations but to equity investments.

2.861 In addition, NSAs consider that there might be some cases in which equity could qualify for both strategic equity and long-term equity investment. This issue is analysed in section 2.9.7.

## 2.9.6.2 Analysis

### Policy issue I: Criterion of lower volatility

2.862 According to Article 171 (a), in order to qualify an equity investment as “strategic”, the insurer must demonstrate that the equity investment is likely to be materially less volatile for the following 12 months than the value of other equities over the same period. This is a result of both the nature of the investment and the influence exercised by the participating undertaking in the related undertaking.

2.863 The introduction of a lower capital charge for strategic equity is based on the underlying assumption that the volatility of the respective investments over a 1-year time horizon is likely to be materially lower compared to the “standard” type 1 or type 2 equity. To hold up to this underlying fundamentals, it is not sufficient to demonstrate that the investment under consideration relates to a related undertaking (minimum ownership and control threshold of 20 percent). Rather, the criteria of lower volatility is key to motivate the reduction in capital charge. NSAs therefore shared the view that the criteria of lower volatility cannot be deleted.

2.864 The lower capital requirements for strategic participations are justified if their risks are lower. As such, there is a requirement to demonstrate that the volatility of the value of the strategic participations is lower than that of other equities.

2.865 A well-diversified portfolio of strategic participations with a beta lower than one has a lower volatility than the typical average diversified, ‘market’, portfolio of equities. The question is then, which beta would justify a reduction of the capital requirements from 39 and 49 percent to 22 percent. Also, in case there is no well-diversified portfolio of strategic participations what ‘residual risk’ is acceptable to allow for this reduction?

2.866 In its second set of Advice to the European Commission on specific items in the Delegated Regulation<sup>121</sup>, EIOPA proposed a beta method as a requirement for unlisted equity to qualify for the lower capital requirement of 39 percent for type 1 equities instead of the 49 percent for type 2 equities. If the beta for the unlisted equity was below the ratio of 39 over 49 percent, i.e. 0.7960, in that advice the risk was considered to be sufficiently low to allow the type 1 equity capital charge rather than the type 2. The formula for this beta is as follows:

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<sup>121</sup> [EIOPA’s second set of advice on the Delegated regulation review, February 2018](#)

$$0.9478 - 0.0034 * \text{AvgGrossMargin} + 0.0139 * \text{TotalDebt/AvgCFO} - 0.0015 * \text{AvgReturn on Common Equity}$$

2.867 In line with that advice, a 22 percent capital charge for strategic participations with a beta below 0.5641 (22 percent over 39 percent) for a portfolio of type 1 strategic equities and a beta below 0.4590 (22 percent over 49 percent) for a portfolio of type 2 strategic equities would also be justified.

2.868 In this advice, EIOPA considered that the lower capital requirements for unlisted equity is only appropriate in case of well-diversified portfolios. Rather than requiring a diversified portfolio of strategic participations, the other requirements for strategic participations should ensure that the 'residual risks' from non-diversified portfolio of strategic participations does not invalidate the 22 percent capital charge.

2.869 The advice also required that companies, strategic participations, should be established in the EU or EEA with a majority of revenues from EEA or OECD countries. It should have been larger than a Small- Sized Enterprise as defined by the Commission Recommendation (2003/361/EC) in the last three years.

Considered options

2.870 With respect to para (a) of Article 171 of the Delegated regulation - criterion of lower volatility - EIOPA identified the following options:

- **Option 1:** No change
- **Option 2:** Deletion of the criterion
- **Option 3:** Clarify the requirement and add the beta method as an optional method
- **Option 4:** Clarify the requirement by providing the beta method as the mandatory method

2.871 The following tables outline the pros and cons of the options compared to the status quo.

Option 2: Deletion of the criterion

Pro	Con
Reduces complexity for undertakings as well as supervisors	Criterion is key to motivate the lower capital charge so the deletion has negative consequence on the risk sensitivity of the SCR standard formula (potentially negatively

	affecting policyholder protection).
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Option 3: Clarify the requirement by providing the beta method as an optional method

Pro	Con
Improves understanding of the requirement in providing an exemplary method and by that reinforces the criterion which is key to motivate the lower capital charge.	
Attenuates the difficult supervision of the criteria by providing a standard method.	
Consistent with EIOPA advice on unlisted equity	
Leaves flexibility to insurance undertakings	

Option 4: Clarify the requirement by providing the beta method as the mandatory method.

Pro	Con
Improves understanding of the requirement by that reinforces the criterion which is key to motivate the lower capital charge.	
Attenuates the difficult supervision of the criteria by providing a standard method.	

Consistent with EIOPA advice on unlisted equity.	
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Comparison of options

2.872 Options 3 reinforces the requirement by providing an additional method to demonstrate the lower volatility, while option 4 strengthens the requirement by providing a mandatory method to demonstrate the lower volatility requirement. In combination with option 1 or 3, further clarification how to perform the required volatility assessment can either be included in the regulation directly or in additional guidance. This clarification can be based on the supervisory experience made so far, e.g. undertakings demonstrated the lower volatility by comparing financial statements or historical returns with those of competitors or in case of listed equity with a benchmark index. Furthermore, the beta method as described is suggested. In option 3 this method would be specified as one optional method to assess lower volatility of the investment while in option 4 this would become the mandatory method to apply.

2.873 The preferred policy option for this policy issue is to strengthen the volatility criterion by proposing an optional method that can be used for that purpose (Option 1.3) because it improves the requirement which will be for the benefit for policyholders, supervisory authorities and stakeholders that need to assess that criterion. This is preferred to Option 4 because this leaves flexibility to undertakings.

**Policy Issue II: Control threshold of 20 percent**

2.874 NSAs further reflected on the need to keep the threshold of 20 percent. Reason to keep the threshold of 20 percent was considered to be the influence the participating undertaking has on the related undertaking which can materially influence the volatility of the related undertaking’s own funds. Also the underlying idea of strategic equity investments as being investments of strategic nature (according to para (b) of Article 171 Delegated regulation) are considered reasons to keep the 20 percent threshold.

2.875 NSAs consider that the reference to participating and related undertakings in Article 171 (a) of the Delegated regulation going along with Article 212 of the Solvency II Directive could be further clarified to avoid misunderstandings and ensure that the provision is consistently applied to investments where the minimum ownership and control threshold exceeds 20 percent.

Considered options

2.876 With respect to para (a) of Article 171 of the Delegated regulation – control threshold of 20 percent - EIOPA identified the following options:

- **Option 1:** No change
- **Option 2:** No change, but add clarification of the scope of application
- **Option 3:** Deletion
- **Option 4:** Reduction to 5 or 10 percent

2.877 The following tables outline the pros and cons of the options compared to the status quo.

Option 2: No change, but add clarification of the scope of application

Pro	Con
Improves understanding of the requirement; by that reinforces the criterion which is key to motivate the lower capital charge.	

Option 3: Deletion

Pro	Con
Reduces complexity for undertakings as well as supervisors	The criterion on the influence is key to motivate the lower capital charge. The deletion thus endangers risk sensitivity of the SCR standard formula (potentially negatively affecting policyholder protection)

Option 4: Reduction to 5 or 10 percent

Pro	Con
	Endangers risk sensitivity of the SCR standard formula (potentially negatively affecting policyholder protection)



### Comparison of options

2.878 Option 2 is to do not change but clarify the scope of application, in particular that it applies to participating and relating undertakings. This option preserves the current level of capital requirements and thereby compared to the other options, best contributes to keep the current level of policyholder protection. Indeed, option 3 and 4 would endangers risk sensitivity of the SCR standard formula and potentially negatively affect policyholder protection. Therefore, the preferred policy option for this policy issue is to keep that requirement but clarify the scope of application.

### **Policy Issue III: Correlation of risks**

2.879 The criterion of lower volatility is a necessary pre-condition and may even not suffice to allow an adequate risk sensitive treatment. If the value of a participation depends on, or is significantly correlated with, the performance of the undertaking, a lower capital requirement for the participation may not be justified. For example, if the participation services the claims handling of the undertaking, the performance of the participation depends on the performance of the undertaking. Indeed; if for example, the undertaking does not write any new business, the participation also does not get any new business and becomes worthless. Undertakings exposed to financial markets with participations in the financial industry that are also exposed to financial markets will not only experience losses from their own business in case of deteriorating financial markets, but also additional losses on their exposures to these strategic participations also suffering losses from these deteriorating financial markets.

2.880 From an own fund perspective, these examples are considered as encumbrance and would be corrected in the amount of eligible own funds. If there is no correction for such encumbrance in the amount of eligible own funds, the 22 percent capital requirement does not reflect the actually higher risks than compared to the 39 or 49 percent for regular equity.

2.881 If there is already a correction for encumbrance in these examples, the 22 percent may still be appropriate and in specific circumstances too high. For example, if the whole participation is deducted from the amount of eligible own funds. Article 68(3) of the Delegated Regulation however states that a deduction of the value of strategic participations from the eligible own funds is typically not the case.

### Considered options

2.882 With respect to the issue of correlation of risks for the insurance undertaking and the related undertaking, EIOPA identified the following options:

- **Option 1:** No change
- **Option 2:** Address the issue of correlation of risks

2.883 Under option 2, EIOPA suggests to provide NSAs the ability to require that insurance undertakings demonstrate that the valuation of the strategic participation does not significantly depend on, nor is significantly correlated to, the performance of the insurance undertaking and changes in own funds of the insurance undertaking.

### Comparison of options

2.884 The preferred policy option for this policy issue is to provide NSAs the legal basis to require that undertakings demonstrate that the valuation of the strategic participation does not significantly depend on, nor is significantly correlated to, the performance of the insurance undertaking and changes in own funds of the insurance undertaking. To be noted that one could consider option 2 to be a limit to the use of the strategic equity.

## **2.9.7 Design of the long-term equity risk treatment**

### **2.9.7.1 Identification of the issue**

#### **Diversification between LTE and other risks**

2.885 The Delegated Regulation prescribes that a sub-set of equity investments may be treated as long-term equity (and then benefit from a risk charge of 22 percent), if it is included in a portfolio of assets which is assigned to cover the best estimate, which is identified, managed and organised separately from the other activities of the undertaking and cannot be used to cover losses arising from other activities of the undertaking.

2.886 Similar to the regulation in the context of the Matching Adjustment (MA), the assigned portfolio of assets (including the sub-set of equity) is not identified as a ring-fenced fund. In contrast to the MA where explicit diversification limitations are reflected, the regulation does not provide further specification on diversification for LTE.

2.887 The sub-set of equity which can benefit from the specific risk charge of 22 percent is considered to be included in an assigned portfolio of assets which is identified, managed and organised separately. Similar to the MA regulation, this assigned portfolio covers the best estimate – in the content of the LTE the portfolio covers businesses clearly identified. However, the business in scope (assigned portfolio of assets and liabilities) can be/or

become profitable, thus own funds are present or created. As the assets backing these profits are not formally part of the assigned portfolio of assets (only covering the best estimate), the question arises whether these can be used to cover losses arising in other parts of the undertakings, thus providing for diversification effects.

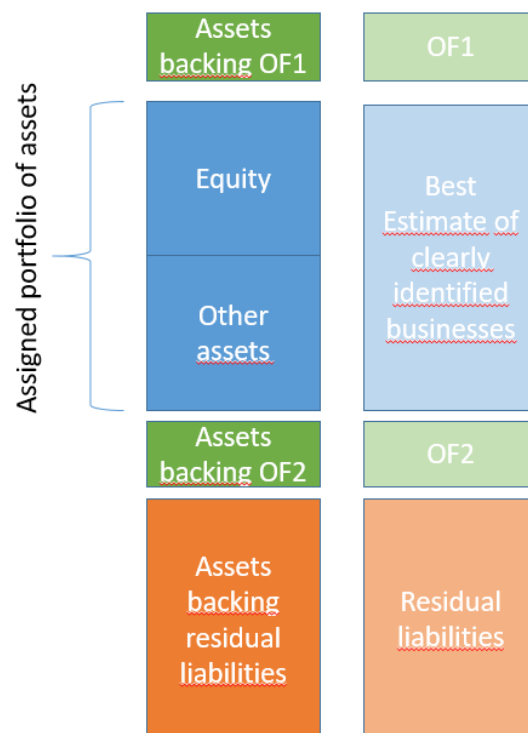
2.888 For example, in the context of the MA it was discussed whether a 1year-VAR99,5 percent-mortality shock creating losses in the non-MA business can be compensated by gains in the MA portfolio.

2.889 Even though the requirements on the assigned portfolio of assets are similar for MA and LTE, the situation in the context of LTE is quite different from the context of the MA because the risk metrics are not aligned between the LTE and the other risk modules. This is the case, as the LTE risk submodule is based on a VAR over a time-period different from 1 year.

2.890 So the question arises, whether the risk charge for LTE can be diversified with the other risks in the assigned portfolio of assets and liabilities as well as whether the risk charge for the assigned portfolio can be diversified with the risks in the rest of the undertaking.

2.891 Let's consider the example of an undertaking where the assigned portfolio makes up 50 percent of the business and the assigned portfolio of assets consists of equity and property (other assets in the below chart).

*Illustrative chart*



- 2.892 How the risk charge for the equity in scope of LTE can be aggregated with the property risk of the assigned portfolio and how the risks of the assigned portfolio of assets can be diversified with the market risks of the rest of the assets backing the residual liabilities are unclear. Indeed, a 10-year VAR and a 1-year VAR cannot be aggregated via the existing correlation matrices. The reason is that the existing correlation matrices were calibrated on a one-year time horizon with an emphasis of measuring the dependence of the individual risks in the tail. It is theoretically unclear how the joint distribution of two individual risks with different time horizons looks like.
- 2.893 From a prudential point of view, the use of the existing correlations could be justified if there is credible evidence that a multiple year equity risk shows a lower degree of dependence with other financial risks than a one-year equity risk. In that circumstance, one could argue that the existing correlations are conservative estimates for a mixed equity risk, which includes long-term equity investments.
- 2.894 From an economic point of view, one could then argue that a longer-term equity investment would be less affected by short-term financial market fluctuations implying that the overall dependence between equity and other shorter-term financial risks would decrease.
- 2.895 However if such credible evidence cannot be found, then it is hard to justify the appropriateness of a one-year tail correlation on a multiple year risk.
- 2.896 It is therefore necessary to clarify how the LTE risk module fits into the overall SCR calculation, whether diversification effects can be recognized within the assigned portfolio of assets and liabilities and beyond, in particular in view of the existing structure of the standard formula which only recognizes the aggregation of risks via the correlation matrices.

### **Diversified LTE portfolios**

- 2.897 The current regulation on LTE does not require LTE portfolios to be well-diversified. The question is whether or not a 22 percent capital charge for a single, just a few, or, only similar, equities is justified. Risks of well-diversified equity portfolios are generally lower than those of single or non-diversified equity portfolios.

### **Potential overlap with existing provisions**

- 2.898 Potential overlap with the duration based equity risk sub module is treated in the section 2.9.5. In addition, NSAs consider that there might be some cases in which equity could qualify for both strategic equity and long-term equity investment. However, the motivation for lower capital charges for both categories and thus the nature of the risks of the equity investments are

different (reduced short term volatility vs. consideration of long-term equity risks).

### **2.9.7.2 Analysis**

#### **Policy issue I: Diversification between LTE and other risks**

2.899 To analyse the dependence between long-term equity investments and other short-term financial risks, the empirical correlation between long-term equity returns and other short-term financial market returns has been calculated. The following data sets with daily observations have been used as proxies for the financial market risks. Note that similar data sets have been used in the calibration of the financial market correlations.

- The MSCI World equity index as an equity risk proxy
- The EUR 10 year interest rate swap data as a proxy of interest rate risk
- The spreads to gilts on UK AA rated 10 year corporate bonds as a proxy for spread risk
- EUR/USD exchange rates as a proxy for currency risk.

2.900 The overlapping data period for all data sets ranges from 04/2002 until 31/05/2019.

2.901 Note that the analysis performed in this section is not conclusive to set any correlation factors for the standard formula as tail correlations are used for that purpose. Therefore, results shown here cannot be directly compared to the correlation parameters currently used. However, the analysis can provide first insight in the correlation of long-term compared to short-term risks.

2.902 To perform the empirical analysis, overlapping relative percentage changes have been calculated for each data set.

2.903 To analyse the dependence of long-term equity with other financial market risks, the overlapping 10-year relative percentage rate for the MSCI World index has been calculated. Accordingly, this calculation leads to daily overlapping 10-year returns from 04/2012 until 05/2019 including 1846 observation points. For the other financial risks (including one-year equity risk) annual overlapping relative percentage rate changes have been calculated with a total data period which coincides with the 10-year return calculation.

2.904 In a first step, the annual returns for the short-term financial risks were calibrated for the same data period from 04/2012 until 05/2019 and an empirical correlation coefficient has been calculated between the long-term equity returns and the other short-term financial risks. For comparison reasons, the same empirical correlation coefficient has been calculated

between the one-year equity risk (with one-year overlapping returns) and the other short-term financial risks. The results are shown in the table below.

2.905 The table displays the empirical correlation coefficients between long-term equity returns and other short-term financial market risks (second column) and empirical correlation coefficients between the one-year equity returns with other short-term financial market risks (third column). The data period of overlapping returns ranges from 04/2012 until 05/2019.

<b>Correlation</b>	<b>Long-term equity risk</b>	<b>One-Year Equity risk</b>
Long-term equity risk	1	-0.005
Interest rate risk	-0.25	0.39
Spread risk	-0.33	-0.68
Currency risk	-0.1	0.53

2.906 From this first analysis, one can observe that long-term equity returns seem to be uncorrelated with the one-year equity returns. Moreover, one can observe that the long-term equity returns have a negative correlation with all short-term financial market returns. For the interest rate risk and the currency risk, the empirical correlation between the one-year equity returns is much more conservative than the empirical correlation for long-term equity returns. However, this result does not hold for the empirical correlation with relative annual credit spread changes.

2.907 It is worthwhile to note that while the long-term equity returns include data from the financial market crisis in 2008-2009, the annual relative percentage changes for the other short-term risks does not include data from the crisis (here data from 2011 enters into the calculation).

2.908 In the next step, the relative percentage rate changes for the short-term risks are calculated from 2003 on and the length of the data period is chosen such that it coincides with the data period used for the calculation of the long-term equity returns (i.e. the length of the data period contains 1846 observations). The objective is to include financial crises data into the annual relative percentage rate changes and to have a better comparison between one-year empirical correlation coefficients and the correlation coefficients with long-term equity risk. The empirical correlation coefficients of the second analysis are shown in the table below.

2.909 The table displays the empirical correlation coefficients between the one-year equity returns with other short-term financial market risks. The data period of overlapping returns ranges from 04/2003 until 05/2009.

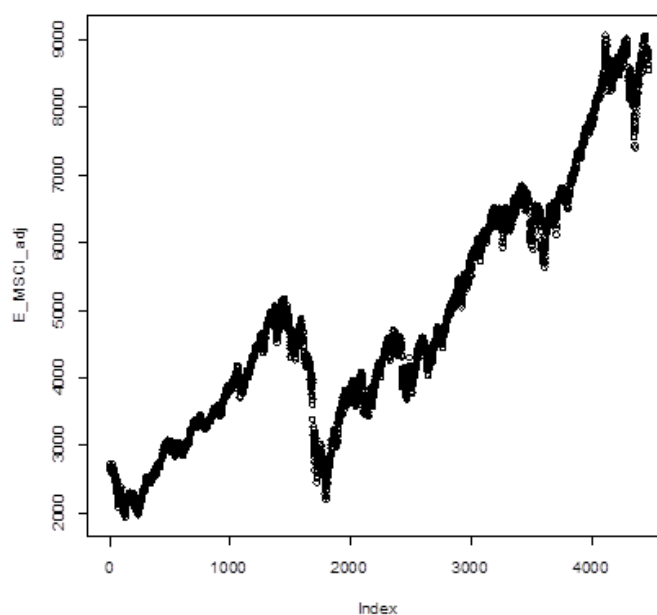
<b>Correlation</b>	<b>One-Year Equity risk</b>
Long-term equity risk	0.54
Interest rate risk	0.38
Spread risk	-0.38
Currency risk	0.435

2.910 From this table, one can observe that the correlation between short and long-term equity returns is significantly positive. Moreover, the empirical correlation for the credit spread changes and one-year equity returns is similar to the empirical correlation with long-term equity returns.

2.911 Note that the performed calculation of the 10-year annual overlapping equity returns from 2012 until 2019 results in solely positive returns. Then, it leads to the negative correlations with the other short-term financial risks. This can be seen from the figure below showing the development of the MSCI World Index from 04/2002 until 05/2019.

2.912 Accordingly, as negative long-term 10-year overlapping returns have not been observed and the 10-year time window does not result in a sufficiently large returns series (see above 1846 observations only), it seems sensible to perform the same analysis with a shorter long-term time window and thus a much larger return series, in order to get a better picture of the correlation between longer-term equity returns and other short-term financial risks.

*MSCI World equity index from 04/2002 until 05/2019,*



Source of underlying market data: Refinitiv

2.913 For the same concerns on potential diversification restrictions between long-term and short-term risks, CEIOPS advised in its L2 advice<sup>122</sup> to add up the equity capital requirements calculated according to Article 304 and Article 105, acknowledging that the DBER did not fit into the 1-year VaR perspective of Article 105.

#### Considered options

2.914 The following options to clarify the treatment of diversification in the context of LTE are identified:

- **Option 1:** No change
- **Option 2:** No diversification between LTE and other equity risks
- **Option 3:** No diversification between LTE and other risks

2.915 Option 1: No change

2.916 This option would imply that no diversification limitations would be set for LTE, LTE would then be treated as sub-class of type 1/type 2 equities, not mirroring the different time horizon of the different provisions.

2.917 This option could be prudentially justified but would require further statistical analysis as mentioned above to ensure the solution is prudent. The option implies that the LTE would be treated similar to the current equity risk sub-modules, simply adding up the different requirements for equity risk and jointly aggregating them via the existing correlation matrices with the other market risks.

<sup>122</sup> CEIOPS' Advice for L2 Implementing Measures on SII: Equity risk sub-module



<b>Pro</b>	<b>Con</b>
Simple for undertakings to apply as structure is aligned to the current standard formula structure	May result in accounting for unjustified diversification effects between short-term and long-term risks
	Inconsistent treatment with infrastructure spread risk

2.918 Option 2: No diversification between LTE and other equity risks

2.919 This option would imply that diversification of LTE would be partly limited as the LTE equity risk charge would be added up to the type 1 and type 2 equity charge and no diversification with short-term equity risks would apply.

<b>Pro</b>	<b>Con</b>
Recognising that diversification between short term and long term equity risk may be different	Conceptual inconsistency in the BSCR remains as the long-term equity risk is diversified with other short-term risks (in particular market risks) which may result in accounting for unjustified diversification effects
Consistent treatment with infrastructure spread risk	
Consistent with the advice on DBER	

2.920 Option 3: Do not diversify LTE with 1 year short term risk

2.921 This option suggests to explicitly allow for the different time horizon in the calibration of the LTE risk module by including a separate treatment for LTE. Under this option, LTE would be a separate risk charge that would be added to the BSCR (similar to operational risk).

2.922 This option implies that the LTE would be treated separately from the existing short-term risk measures and no diversification with these short-term risks is recognized.

Pro	Con
Transparent and separate treatment of short-term and long-term risks allows clear interpretation of the SCR	May be overly prudent because no diversification effects are recognized
	Inconsistent treatment with infrastructure spread risk

### Comparison of options

2.923 CEIOPS' previous advice on DBER recommended to acknowledge a different treatment for long term horizon's correlation. DBER should be isolated in a long-term submodule added up with the result of the diversification between Type 1 and Type 2. Conclusions drawn for DBER could be applicable to LTE because diversification between short term and long term equity risk is different from diversification between short term risks: This is option 2. Therefore, the current diversification of LTE with other equity risks –i.e. option 1, might be questioned.

2.924 Option 3 is to do not diversify with 1-year short term risks (similarly to operational risk). This would allow a clear interpretation of the SCR through transparent and separate treatment of short-term and long-term risks. However, it may be overly prudent and it would be inconsistent with the treatment of infrastructure spread risk.

### **Policy issue II: Diversified LTE portfolios**

2.925 The analysis above as well as the analysis on equity risks over longer horizons are based on well-diversified portfolios or indices of equities. The appropriateness of a 22 percent capital charge for a single equity or not well-diversified portfolio of equities cannot be derived from those analyses. The requirement that only EEA equities are eligible for inclusion in LTE portfolios does not prevent a portfolio to be well-diversified; within the EEA sufficient possibilities for diversification exist.

### Considered options

2.926 EIOPA considered the following options:

- **Option 1:** No change

- **Option 2:** Only diversified portfolios are eligible

2.927 Under Option 2, only well-diversified equity portfolios are eligible for the lower capital requirements of LTE portfolios. It would be up to the undertakings to demonstrate sufficient diversification of their LTE equity portfolios.

Pro	Con
No lower capital requirement for not well-diversified equity portfolios for which it is not demonstrated that those contain lower risks that justify a lower capital requirement	Possibly a smaller part of equity investments become eligible for the lower capital requirement, although most insurance undertakings already invest in a diversified way in equities

Comparison of options

2.928 The preferred policy option for this policy issue is to require LTE portfolios to be diversified because those are generally less risky. This is consistent with the basis of analysis used to calibrate the capital charge of the LTE.

**Policy Issue III: Controlled intra-group investments**

2.929 Potential overlap with long-term equity investments is detailed below. In practice<sup>123</sup>, in 50 percent of the cases, the average holding period of investments in strategic equity exceeds 10 years. Strategic investments may therefore also qualify for the long term equity risk sub-module. The use of strategic equity varies greatly among the different countries and can be as high as 15 percent of the total investments. The European average is 3 percent. The relevance of potential overlap between the two modules therefore varies by country.

Criteria	strategic equity	LTE
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<sup>123</sup> See EIOPA's second set of advice to the European Commission on specific items in the Delegated Regulation.

<b>Equity</b>	<ul style="list-style-type: none"> <li>• Type 1 and type 2 equities</li> <li>• Likely to be materially less volatile over the following 12 months as a result of both the nature of the investment and the influence exercised by the participating undertaking in the related undertaking</li> </ul>	<ul style="list-style-type: none"> <li>• Listed and unlisted equities of companies in the EEA</li> <li>• No risk of fire-sale over the next 10 years</li> <li>• Average holding period of equity in the sub-set exceeds 5 years</li> </ul>
<b>Liabilities</b>	<ul style="list-style-type: none"> <li>• Strategic nature – incl. clear strategy and ability to hold for long period, durable link (20 percent threshold)</li> <li>• Where the insurance or reinsurance participating company is part of a group, the consistency of such strategy with the main policies guiding or limiting the actions of the group</li> </ul>	<ul style="list-style-type: none"> <li>• Technical provisions that backed long-term portfolio, provided that they do not exceed 50 percent of the balance sheet</li> <li>• All undertakings, all business</li> <li>• Identified, managed, organised separately, cannot be used to cover losses from other activities</li> </ul>
<b>ALM</b>	Consistency of the strategy referred above with the main policies guiding or limiting the actions of the undertakings	The written policies reflect the intention to hold the portfolio on average for 5 years, and are compatible with the requirement to be able to avoid fire-sale over the next 10 years
<b>Supervisory approval</b>	No	No

2.930 The objective of the strategic equity asset category is to capture the risk of strategic investments over a 1-year horizon when the volatility of those investments are demonstrated to be materially less volatile.

2.931 This objective of the strategic Equity is different from the one of the LTE (and DBER) disposition in that it is the recognition of a lower volatility over 1 year horizon (as opposed to the multi-year time horizons). However, to apply strategic equity risk charge, the strategy to hold and the existence of a durable link count.

2.932 Companies can be tempted to reclassify strategic participations as long term equities to increase the average holding period of long-term equities. If a parent insurer classifies its subsidiaries as long-term equities, because of their size and their long-lasting holding, it is quite likely that the rest of the

equity portfolio can be traded every day and meet the average holding period.

2.933 A final assessment in quantitative terms of any overlap is hard to perform as LTE has just been introduced. However, it is considered sensible to exclude controlled intra-group investments from the scope of the LTE to avoid reclassification of strategic participations to meet the targets for LTE.

#### Considered options

2.934 EIOPA considered the following options:

- **Option 1:** No change
- **Option 2:** Exclude controlled intra-group investments from LTE

2.935 Under option 2, the following text would be added at the bottom of the Article 171a: "(4) Controlled intra-group investments in equity shall be excluded from the sub-set of equity investments."

#### Comparison of options

2.936 The preferred policy option for this policy issue is to exclude controlled intragroup investments from the scope of LTE because it is considered more prudent. Indeed, one could consider that because of their size and inherent strategy to hold on the long term, controlled intra-group investments would counterbalance a trading strategy for the rest of the LTE portfolio.

### **2.9.8 Advice**

2.937 EIOPA is asked to conduct a comprehensive review of the equity risk sub-module and in particular to assess the appropriateness of the design and calibration of the duration-based equity risk sub-module, of strategic equity investments, of long-term equity investments and of the symmetric adjustment. The symmetric adjustment is treated separately, in section 2.10.

#### **"Standard" equity type 1 and type 2**

2.938 In January 2010, EIOPA's predecessor, CEIOPS, advised on the "Standard" type 1 and type 2 equities. EIOPA's advice remains equal to the precedent.

#### **Duration based equity risk sub-module**

2.939 In January 2010, CEIOPS, advised a risk charge of 22 percent for the duration-based equity risk. To date, the standard formula's stress is set at 22 percent.

2.940 In March 2019, the Commission adopted an amendment to the Delegated Regulation which includes Article 171a in respect of the treatment of long term equity investment. Similarly to the DBER, the LTE aims to address the risks of equity over longer time horizon.

2.941 The adequacy of keeping two separate treatments is considered unnecessary, in view of the complexity induced. Therefore, the approved use of the DBER should be phased out. As such, new approvals to use the DBER should not be granted anymore.

### **Strategic equity investments**

2.942 To date, no advice was provided on strategic equity. In February 2019, EIOPA has provided information on the application of the criteria of the Delegated Regulation.

2.943 Stakeholders identified critical elements of the framework: in particular the approach for evaluating strategic participation based on lower volatility and the minimum ownership and control threshold of 20 percent.

2.944 The majority of NSAs mentioned that it is difficult to demonstrate that the criterion about lower volatility is met, in particular for unlisted equity.

#### Lower volatility

2.945 EIOPA considers that the lower capital requirement for strategic participation is justified if the risk is lower. Therefore the criterion of lower volatility should not be deleted.

2.946 With respect to the criterion on lower volatility (Article 171(a) of the Delegated Regulation), EIOPA advises to keep that requirement and suggests to provide further clarification in the law on how to perform that assessment. The beta method should be introduced as an optional method that can be used for the purpose.

#### Control threshold of 20 percent

2.947 With respect to the criterion on minimum control threshold of 20 percent (Article 171 (a) of the Delegated Regulation), EIOPA advises to keep that requirement. Reasons to keep the threshold are:

- The influence of participating undertaking on related undertaking can materially influence the volatility of the related undertakings' own funds;
- The underlying idea of strategic equity investment as being investments of strategic nature.

2.948 In addition, it would be beneficial to make more explicit that the requirement applies to investments in related undertakings. Therefore, the title and first sentence of Article 171 of the Delegated Regulation could be changed in order to refer to participations rather than to equity investments.

#### Correlation of risks

2.949 Where the value of a participating depends on, or is significantly correlated with, the performance of the undertaking, a lower capital requirement may not be justified.

2.950 If there was a correction of the own funds per encumbrance, the 22 percent would still be appropriate. However, Article 68(3) states that it would typically not be the case.

2.951 Therefore, EIOPA clarifies that the treatment of strategic participation is based on the underlying assumption that their valuation does not significantly depend on the performance of the insurance undertaking itself, nor that its valuation is significantly correlated with the changes in own funds of the undertaking.

### **Infrastructure investments**

2.952 In September 2015 and June 2016, EIOPA advised on the identification and calibration of infrastructure investments and other infrastructure investments -i.e. infrastructure corporates. EIOPA's advice remains equal to the precedent two advices.

### **Unlisted equity**

2.953 In February 2018, EIOPA advised on unlisted equities. In particular, EIOPA provided criteria applicable to portfolio of equity from the EEA which are not listed, in order to identify those which could benefit from the same risk factor as listed equity. EIOPA's advice remains equal to the precedent.

### **Long-term equity investments**

2.954 Articles 101(3) and 104(4) of the Solvency II Directive require a calibration based on a 1-year time horizon. On one hand, the choice of a longer time horizon may technically be justified under certain conditions. On the other hand, undertakings trade equity and using other measure of risks could mean that the changes in the level of own funds are not fully captured.

2.955 To date, no advice was provided on long-term equity investments. In March 2019, Article 171a set out a reduced risk charge of 22 percent for the equity investments that meet specific conditions. The lower capital charge is based on several justifications, one being the CEIOPS' advice of 2010 on the duration-based equity risk sub-module<sup>124</sup>.

2.956 In complement to the CEIOPS' advice of 2010, EIOPA has done an analysis of long term equity risk based on historical data series. Several changes in the methodology were considered. Namely, the excess return is calculated net of the 10 years risk free rate to ensure that the equity analysis included not only the loss on the equity investment, but also the unwinding of the discount rate over that duration, which is reflected in the technical provisions. Also, the excess return are calculated based on minimum value to account for the risk that undertaking may have to dispose there investments within a given year, at the lowest index value.

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<sup>124</sup> [CEIOPS Advice for L2 Implementing Measures on SII: Equity risk sub-module](#)

2.957 Based on the MSCI World Total Return index, the experienced stress for a 10 years time horizon results in 74 %. The scope of the LTE is restricted to EEA equities. When considering the MSCI Europe Total Return Index, the experienced stress for a 10 years time horizon results in 62%. Also, there is no clear decreasing trend in the risk with regard to extending the time horizon. Therefore, the empirical analysis does not corroborate the 22 percent capital charge.

### **Diversified LTE portfolios**

2.958 The analysis on equity risk over longer time horizons are based on diversified portfolios or indices of equity. The requirement that only EEA equities are eligible for inclusion in LTE portfolios does not prevent a portfolio to be well-diversified as within the EEA sufficient possibilities for diversification exist. The appropriateness of a lower capital charge for a single equity or not well-diversified portfolio of equities cannot be derived from those analyse.

2.959 Therefore, EIOPA advises that LTE applies only to diversified LTE portfolio. The following text would be added to Article 171a (1):

2.960 *"i) the sub-set of equity investments shall be properly diversified in such a way as to avoid excessive reliance on any particular issuer or group of undertakings and excessive accumulation of risk in the portfolio as a whole."*

### **Controlled intra-group undertakings**

2.961 EIOPA identified a potential overlap between the long-term equity investments and the strategic equity investments. In particular, if controlled intra-group investments were classified as LTE, it is likely that the rest of the equity portfolio could be traded every day while the portfolio still meet the average holding period.

2.962 Therefore, EIOPA advises to exclude controlled intra-group investments from the scope of the LTE. The following text would be added at the bottom of the Article 171a:

2.963 *"(4) Controlled intra-group equity investments shall be excluded from the sub-set of equity investments."*

### **Diversification between LTE and other risks**

2.964 To date, long term equity investments is included within other type 1 and type 2 short-term equity risks. As such it benefits from the same diversification. However, the correlation matrices were defined based on 1-year time horizon.

2.965 The first empirical analysis is not conclusive on the correlation coefficient between short term and long term risk. However, it can be justified to not treat in the same manner the short term and long term equity risks. For instance, CEIOPS advice in Level 2 Advice recommended to add up the equity capital requirements calculated according to Article 304 and Article 105.





### Questions to stakeholders

- Q2.10:** Should the correlation of risks between the participation and the participating undertaking be taken into account in determining whether a participation can benefit from the lower capital charge for strategic equity investment? Please explain your view.
- Q2.11:** Considering the diversification of long-term equity risk with other risks: Do you have evidence to support any of the options set out in this section? If the answer is "Yes", please elaborate on it.
- Q2.12:** Do you consider that the illiquidity of liabilities (and more broadly the characteristics of insurance business) are reflected in an appropriate manner in the current equity risk sub-module? If the answer is "No", please elaborate on the changes that you deem necessary.

## 2.10. Symmetric adjustment to the equity risk charge

### 2.10.1 Extract from the call for advice

#### **3.5. Capital Markets Union aspects**

[...]

*With regard to equity, EIOPA is also asked to conduct a comprehensive review of the equity risk sub-module, and in particular to assess the appropriateness of the design and calibration of the duration-based equity risk sub-module, of strategic equity investments, of long-term equity investments and of the symmetric adjustment.*

### 2.10.2 Relevant legal provisions

2.966 The symmetric adjustment mechanism is introduced in Article 106 of the Solvency II Directive: "the equity risk sub-module calculated in accordance with the standard formula shall include a symmetric adjustment to the equity capital charge applied to cover the risk arising from changes in the level of equity prices."

2.967 The calculation of the symmetric adjustment is presented in Article 172 of the Delegated Regulation.

2.968 The composition of the equity index and its calculation is detailed in Commission Implementing Regulation (EU) 2015/2016<sup>125</sup>. See also annex 2.14 for the composition of the current equity index.

### **2.10.3 Identification of the issue**

2.969 The composition of the equity index for the calculation of the symmetric adjustment was decided in 2015. Since then the composition of equity investments of insurance and reinsurance undertakings may have changed. A significant mismatch between the insurer's assets and the equity index may distort the effect of the measure.

### **2.10.4 Analysis**

2.970 The first step of the analysis was to clearly identify if any mismatch between the relevant equity investments of undertakings (reference portfolio) and the equity index. For this purpose the weights of each country in the equity index and in the reference portfolio were compared.

2.971 The reference portfolio was constructed from data of the list of assets template and the look-through template of undertakings' regular reporting to supervisors. The data cover equity investments other than for unit and index linked insurance and other than strategic participations. The reference date of the data was 31 December 2017. This data analysis is coherent with the survey carried out in 2013 among NSA's to construct the current equity index.

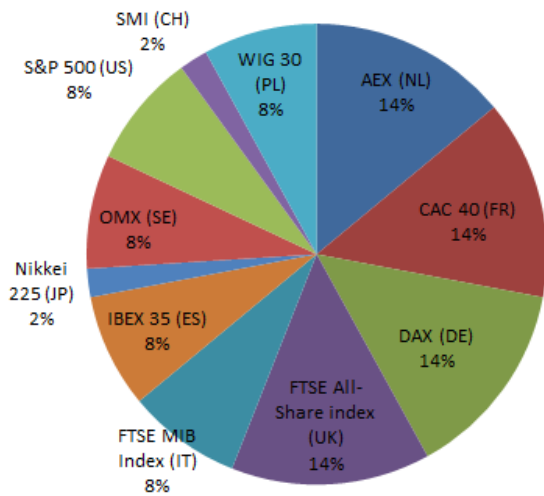
2.972 Two perspectives have been considered when computing the weights of each country in the reference portfolio: "absolute amounts" and "relative weights" (see annex 2.17 for more details).

2.973 The result of such comparison is presented below. Firstly, the weights of each country in the EIOPA index are compared with the "absolute amounts" weights in the reference portfolio.

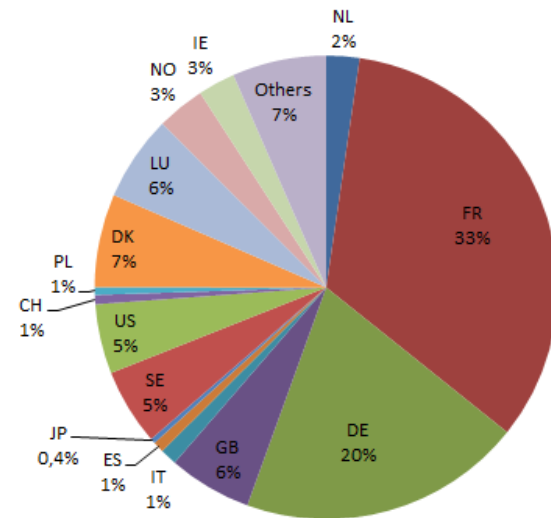
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<sup>125</sup> Commission Implementing Regulation (EU) 2015/2016 of 11 November 2015 laying down the implementing technical standards with regard to the equity index for the symmetric adjustment of the standard equity capital charge in accordance with Directive 2009/138/EC of the European Parliament and of the Council

**Composition of EIOPA index**



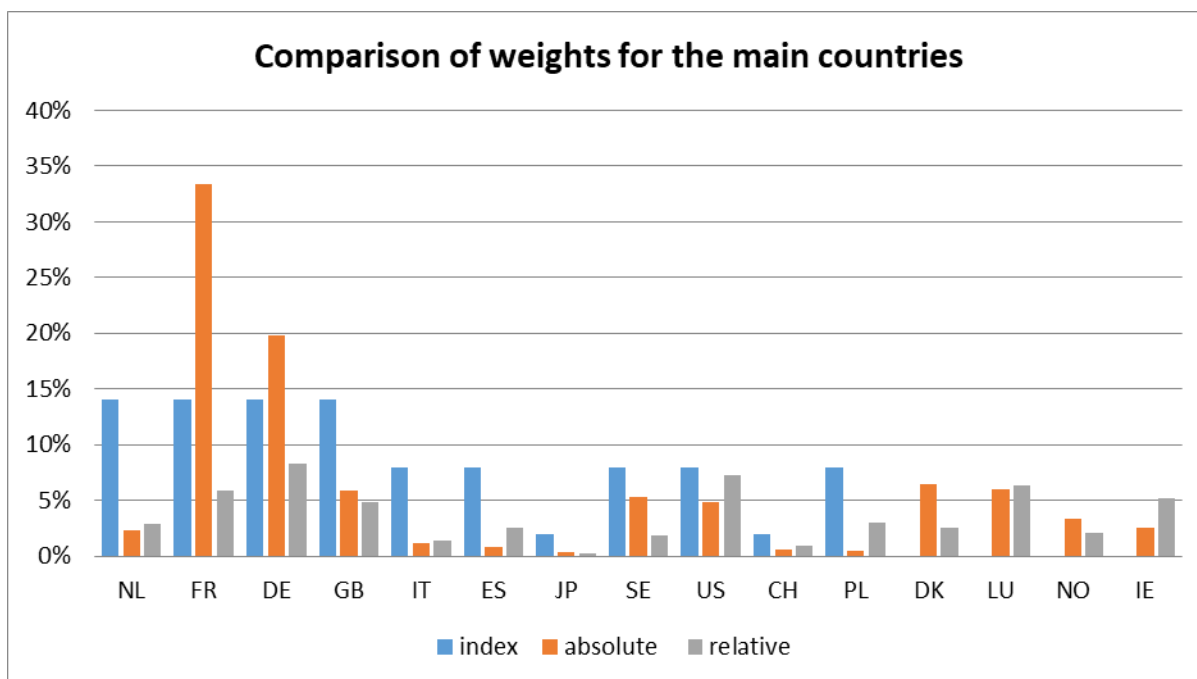
**Reference portfolio (absolute amounts)**



2.974 The index weights do not match the equity investment distribution. Indeed:

- The weights for the two main national indices (CAC40 and DAX) seem underestimated in the current index for the symmetric adjustment.
- For all the other indices (FTSE MIB, IBEX, OMX,S&P), the weights seem to be overestimated in current index.
- Finally, some indices with relevant share are not included in current index for the symmetric adjustment (DK, LU). For LU, the relevant share could be explained by data issues in relation to investment funds. Undertakings may have reported the issuing country of investment funds instead of the issuing country of the equity included in the fund.

2.975 When considering on top the “relative weights” perspective for the reference portfolio (see below), some indices such as IBEX 35 (ES) or WIG30 (PL) become much more important, that could explain their weight in the current equity index.



2.976 At the time, a combined approach (i.e. using both “absolute amounts” and “relative weights”) was used by EIOPA to construct the index. More precisely, the combined approach chooses equity indices with a high weight based on one or both measures. Then, the selected indices were allocated in three categories. Each member of a category has the same weight (14%, 8% or 2%) – See annex 2.16 for more details.

2.977 The following table sets out the results for the reference portfolio in relation to the countries currently included in the index. It is noted that applying the combined approach includes some expert judgements.

Country	Equity index	Absolute amounts	Relative weights	Comments
<b>NL</b>	14%	2,31%	2,85%	Both weights relatively high
<b>FR</b>	14%	33,43%	5,88%	Both weights high
<b>DE</b>	14%	19,80%	8,32%	Both weights high
<b>GB</b>	14%	5,83%	4,80%	Both weights high
<b>IT</b>	8%	1,16%	1,34%	Both weights relatively high
<b>ES</b>	8%	0,77%	2,58%	« Relative weight » relatively high
<b>SE</b>	8%	5,33%	1,81%	Both weights relatively high
<b>US</b>	8%	4,86%	7,24%	Both weights high
<b>PL</b>	8%	0,53%	3,04%	« Relative weight » relatively high
<b>JP</b>	2%	0,35%	0,23%	Both weights not negligible
<b>CH</b>	2%	0,64%	0,90%	Both weights not negligible

2.978 In order to assess the need for changes to the current equity index the relevance of the composition for the behaviour of the index was analysed. Because if the indices included in the current index would behave in a very similar manner in a crisis situation, the choice of weights would have less relevance for the functioning of the symmetric adjustment.

2.979 For this purpose an analysis was conducted to study the correlations between the different indices in a crisis situation. The "crisis period" that was retained is 2007-2009.

2.980 The correlations obtained are presented in the table below:

Correlations between equity indices on log returns

	EIOP A	CAC	DAX K	FTSEM IB	AEX	WIG3 0	IBEX	OMX	SMI	ASX	NKY	SPX
EIOPA	100%	97,4 %	92,5 %	97,5%	94,1 %	68,1 %	95,0 %	87,9 %	88,8 %	93,9 %	44,0 %	59,2 %
CAC	97,4 %	100 %	92,1 %	92,9%	95,1 %	64,2 %	92,4 %	87,5 %	88,4 %	94,5 %	38,0 %	58,3 %
DAXK	92,5 %	92,1 %	100 %	86,6%	88,4 %	63,7 %	86,2 %	83,9 %	82,0 %	88,1 %	35,4 %	62,7 %
FTSE MIB	97,5 %	92,9 %	86,6 %	100%	90,2 %	61,4 %	89,4 %	83,0 %	83,8 %	88,3 %	38,4 %	54,6 %
AEX	94,1 %	95,1 %	88,4 %	90,2%	100 %	63,7 %	88,6 %	85,1 %	84,9 %	92,5 %	36,1 %	59,1 %
WIG30	68,1 %	64,2 %	63,7 %	61,4%	63,7 %	100%	63,8 %	61,8 %	59,1 %	63,9 %	34,4 %	39,0 %
IBEX	95,0 %	92,4 %	86,2 %	89,4%	88,6 %	63,8 %	100 %	83,9 %	85,1 %	89,0 %	38,0 %	55,6 %
OMX	87,9 %	87,5 %	83,9 %	83,0%	85,1 %	61,8 %	83,9 %	100 %	78,8 %	85,5 %	34,6 %	53,9 %
SMI	88,8 %	88,4 %	82,0 %	83,8%	84,9 %	59,1 %	85,1 %	78,8 %	100 %	87,5 %	39,0 %	54,0 %
ASX	93,9 %	94,5 %	88,1 %	88,3%	92,5 %	63,9 %	89,0 %	85,5 %	87,5 %	100 %	39,9 %	55,7 %
NKY	44,0 %	38,0 %	35,4 %	38,4%	36,1 %	34,4 %	38,0 %	34,6 %	39,0 %	39,9 %	100 %	11,0 %
SPX	59,2 %	58,3 %	62,7 %	54,6%	59,1 %	39,0 %	55,6 %	53,9 %	54,0 %	55,7 %	11,0 %	100 %

2.981 From the results, some indices such as Nikkei 225 (NKY), S&P 500 (SPX) and WIG30 appear less correlated to others indices during crisis period.

2.982 However, given the high overall level of correlation among the main stock markets in Europe, updating or changing the weights of the current equity index does not appear to be a first priority.

### 2.10.5 Advice

2.983 EIOPA is of the view that the composition of the equity index for the symmetric adjustment does currently not need to be updated.

## **2.11. Transitional measure on equity risk**

### **2.11.1. Extract from the call for advice**

#### **3.3. Transitional measures**

*Title VI Chapter I of the Solvency II Directive lays down a number of transitional provisions. EIOPA is asked to assess the ongoing appropriateness of the transitional provisions in terms of policyholder protection and level-playing field. This assessment should, where applicable, also assess whether the ongoing possibility for companies to newly apply for the transitional measures should continue. EIOPA may prioritise its work on the different transitional measures, provided that the advice states the reason for doing so. However, EIOPA's assessment should cover at least the transitional measures referred to in Articles 308b (12) and (13), Article 308c and Article 308d of the Solvency II Directive.*

### **2.11.2. Previous advice**

2.984 EIOPA has not provided advice on the transitional referred to in Article 308b(13) of the Solvency II Directive.

### **2.11.3. Relevant legal provisions**

2.985 The transitional on equity risk is set out in Article 308b(13) of the Solvency II Directive. Article 173 of the Delegated Regulation included criteria for the application of the transitional. Commission Implementing Regulation (EU) 2016/1630 sets out procedures for the application of the transitional.

### **2.11.4. Identification of the issue**

2.986 The equity transitional allows insurance and reinsurance undertakings to use reduced risk parameters for the calculation of the equity risk sub-module of the SCR standard formula. During the first year of Solvency II, the standard risk parameters (39% for type 1 equity and 49% for type 2 equity) are replaced by a risk factor of 22%. Over a transitional period of seven years that risks factor is increased at least linearly at the end of each year, reaching the respective standard parameter in 2023. The reduced risk parameter applies to equities that the undertaking purchased on or before 1 January 2016.

2.987 For the LTG report 2017 EIOPA carried out an information request to insurance and reinsurance undertakings and collected data on the calculation of the equity risk sub-module for the reference date of 31 December 2016. The sample consisted of 231 undertakings with high equity risk. 56 of undertakings applied the equity transitional.

2.988 In 2019 EIOPA carried out an information request to NSAs on the use and impact of the equity transitional. With regard to the use of the transitional, NSAs reported the following information:

- In 15 countries the equity transitional is not used.
- In four countries it is not widely used (IE, IT, NO, SE)
- For three countries a share of undertakings applying the transitional was reported, ranging from 13% to about 25% (GR, PT, SI)
- Three NSAs (ES, FI, FR) report that the equity transitional is used in their national market but have no information about how common the use is.
- For four countries (BE, BG, DE, UK) NSAs have no information about the use of the transitional.

2.989 At the end of 2018 the reduced risk parameters were at least 29.3% instead of 39% for type 1 equity and 33.6% instead of 49% for type 2 equity. Eight NSAs, including those three where a material use of the transitional was reported, stated that the impact of the transitional on the SCR is immaterial (ES, FR, GR, IT, NO, PT, SE, SI). Another NSA pointed out that the capital requirement for equity is not material for the majority of its undertakings (DE). Two NSAs were able to quantify the impact. One of them reported an impact of the transitionals on the SCR ratio between 1.1 and 2.2 percentage points (NO). The other NSA stated that the transitional reduces the SCR by up to 3.9% (PT). No NSA reported a material impact of the transitional.

2.990 No NSA observed a negative impact of the transitional on policyholder protection or the level playing field.

2.991 NSAs do not expect that without the equity transition the investment behaviour of undertakings would be different. Only one NSA believes there could be a slight difference (FI).

2.992 No NSAs reported an issue with the application of Commission Implementing Regulation (EU) 2016/1630.

2.993 At this stage, taking all the available evidence into account, there are no indications for an issue with the transitional.

#### **2.11.5. Advice**

2.994 In EIOPA's view no change to the equity transitional of Article 308b(13) of the Solvency II Directive needs to be made.

## **2.12. Extension of the recovery period**

### **2.12.1. Extract from the call for advice**

2.995 The extension of the recovery period in case of non-compliance with the Solvency Capital Requirement is one of the LTG measures and consequently it is covered in the Commission's call for advice, where it seeks technical advice on LTG measures and measures on equity risk.

### **2.12.2. Previous advice**

2.996 CEIOPS submitted on the 29 January 2010 its advice to the Commission on the extension of the recovery period<sup>126</sup> as part of a third set of Advice on Solvency II Level 2 implementing measures.

### **2.12.3. Relevant legal provisions**

2.997 The extension of the recovery period is regulated in Article 138(4) of the Solvency II Directive in particular as follows:

*"In the event of exceptional adverse situations affecting insurance and reinsurance undertakings representing a significant share of the market or of the affected lines of business, as declared by EIOPA, and where appropriate after consulting the ESRB, the supervisory authority may extend, for affected undertakings, the period set out in the second subparagraph of paragraph 3 by a maximum period of seven years, taking into account all relevant factors including the average duration of the technical provisions.*

*[...]"*

2.998 Furthermore, Article 143(1) of the Solvency II Directive established the mandate for the Commission to adopt delegated acts in supplementing the types of exceptional adverse situations and specifying the factors and criteria to be taken into account by EIOPA in declaring the existence of exceptional adverse situations and by supervisory authorities in determining the extension to recovery period in accordance with Article 138(4).

2.999 In accordance with such mandate, Article 288 of the Delegated Regulation further states that EIOPA shall take into account several factors and criteria for the purposes of declaring the existence of an exceptional adverse situation.

2.1000 Once EIOPA has declared the existence of an exceptional adverse situation, the NSAs can decide on an extension of the period and determine its length for a given insurance or reinsurance undertaking. The NSAs shall

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<sup>126</sup> See <https://eiopa.europa.eu/CEIOPS-Archive/Documents/Advices/CEIOPS-L2-Advice-Extension-of-recovery-period-Pillar-II-dampener.pdf>



take into account the factors and criteria mentioned in Article 289 of the Delegated Regulation. To ensure a consistent approach EIOPA published on 14 September 2015 Guidelines on the extension of the recovery period in exceptional adverse situations<sup>127</sup>. In particular the guidelines relate to the decision to grant an extension, the duration of the extension and the withdrawal and revocation of the extension.

#### 2.12.4. Identification of the issue

2.1001 To date EIOPA has not received a request to declare an exceptional adverse situation.

2.1002 It should be noted that the transitional measure of Article 308b(14) of the Solvency II Directive ceased to apply by the end of 2017. According to that transitional provision, the recovery period for undertakings who complied with Solvency I capital requirements at the end of 2015 but did not comply with the SCR in the first year of application of Solvency II, could last until 31 December 2017.

2.1003 In addition, the absence of NSAs requests to EIOPA to declare an exceptional adverse situation can be mainly explained by the limited number of undertakings breaching the SCR and the negligible market share of those undertakings.

2.1004 The following table<sup>128</sup> shows the number of undertakings breaching the SCR (taking into account all LTG measures and equity measures applied) on 31 December 2017 and their market share (national market share for undertakings in each country and EEA market share for all undertakings). For countries not listed in the table all undertakings meet the SCR.

Member State	Undertakings breaching the SCR	Market share in non-life gross written premiums	Market share in life technical provisions
Bulgaria	1	5.86%	0.00%
Cyprus	1	6.15%	0.00%
Czech Republic	1	1.27%	0.00%
Greece	1	2.89%	1.77%

<sup>127</sup> See [https://eiopa.europa.eu/GuidelinesSII/EIOPA\\_EN\\_ERP\\_GLS.pdf](https://eiopa.europa.eu/GuidelinesSII/EIOPA_EN_ERP_GLS.pdf)

<sup>128</sup> This table was published in EIOPA's LTG report (2018). See pages 187-188 of the report in the following link: [https://eiopa.europa.eu/Publications/Reports/2018-12-18%20\\_LTG%20AnnualReport2018.pdf](https://eiopa.europa.eu/Publications/Reports/2018-12-18%20_LTG%20AnnualReport2018.pdf)

See also previous years reports:

- pages 151-153 of LTG report 2017 (<https://eiopa.europa.eu/Publications/Reports/2017-12-20%20LTG%20Report%202017.pdf>);
- pages 87-89 of the LTG report 2016 ([https://eiopa.europa.eu/Publications/Responses/EIOPA-BoS-16-279\\_LTG\\_REPORT\\_2016.pdf](https://eiopa.europa.eu/Publications/Responses/EIOPA-BoS-16-279_LTG_REPORT_2016.pdf) )

Ireland	1	0.94%	0.00%
Luxembourg	6	1.83%	0.04%
Netherlands	1	0.00%	0.00%
Norway	1	1.17%	0.00%
Portugal	2	5.25%	0.34%
UK	10	0.32%	0.00%
Total	25	0.39%	0.01%

2.1005 Despite the lack of practical experience, EIOPA considers that the correct use of this measure may have a positive impact on markets and undertakings<sup>129</sup>. It could avoid the potential negative impact of certain collective behaviours (e.g. a large number of companies looking for funding in the market at the same time) and it would provide insurers with additional time to mitigate the negative impacts of volatility reflected in the Solvency II balance sheet and to avoid procyclical behaviour such as fire sales.

2.1006 The ESRB developed an internal procedure related to its consultative role under Article 138 of the Solvency II Directive. In this internal procedure, the ESRB has foreseen the possibility of a request for consultation either from EIOPA or from national supervisory authorities<sup>130</sup>.

2.1007 In this respect it should be noted that the declaration of an exceptional adverse situation refers to the market and is based in macroprudential considerations while the decision to grant an extension of the recovery period refers to an individual undertaking and is mainly based on its specific circumstances.

2.1008 The factors and criteria established in Article 289 of the Solvency II Delegated Regulation for the NSAs to decide on an extension of the period and determining its length for a given insurance or reinsurance undertaking are specific to the undertaking. A deep knowledge of the undertakings specific circumstances would be needed (e.g. the means available to the undertaking to re-establish compliance with the SCR and the existence of a realistic recovery plan, the causes and the degree of non-compliance with the SCR, the composition of own funds held by the undertaking, the composition of the assets, the nature and duration of technical provisions and other liabilities, etc.)

2.1009 Taking into account the responsibility of the ESRB for the macroprudential oversight of the financial system within the UE and, in particular, the ESRB

<sup>129</sup> See pages 30-33 of EIOPA's paper on "Solvency II tools with macroprudential impact" (<https://eiopa.europa.eu/Publications/Reports/Solvency%20II%20tools%20with%20macroprudential%20impact.pdf>)

<sup>130</sup> See page 39 of ESRB annual report 2017 (<https://www.esrb.europa.eu/pub/pdf/ar/2018/esrb.ar2017.en.pdf>)

task of “cooperating closely with all the other parties to the ESFS; where appropriate, providing the ESAs with the information on systemic risks required for the performance of their tasks”, consultation is deemed relevant in order to assess the factors and criteria referred in Article 288 of the Solvency II Delegated Regulation; these factors and criteria relate to the conditions of the financial markets by the time when EIOPA is considering the existence of an adverse financial situation as well as the potential impact and negative effects in the financial markets of the possible subsequent decisions by supervisory authorities to extend the recovery period and the actions to be adopted by the affected undertakings to re-establish compliance with the Solvency Capital requirement within the provided recovery period.

### **2.12.5. Analysis**

2.1010 In view of the description above, EIOPA has considered the need to clarify in the text of the Directive the role of the ESRB with respect to the extension of the recovery period.

2.1011 Two options are being considered:

1. No change, i.e. maintain the current wording, which allows for different interpretations regarding the possibility to consult ESRB.
2. Clarify the role of the ESRB, i.e. ESRB to be consulted, where appropriate, before the declaration of an exceptional adverse situation.

2.1012 Under the current wording, the uncertainty would remain, since supervisors may doubt on whether they are expected to consult the ESRB or not. The consultation to ESRB by one or several NSAs on the specific decision to extend the recovery period for each undertaking affected would result in a delay of the decision and an increase of the burden as well as the liability risk for ESRB.

2.1013 Consequently, EIOPA considers that a clarification of the role of ESRB would be beneficial for the efficiency of the process. Where appropriate, ESRB would be consulted by EIOPA in an earlier stage of the process (i.e. before declaring an exceptional adverse situation) and could provide high valuable input for the assessment of the criteria in Article 288 of the Solvency II Regulation in particular as regards the EU financial market.

### **2.12.6. Advice**

2.1014 EIOPA advises to amend the first two paragraphs of Article 138(4) of the Directive as follows:

*"In the event of exceptional adverse situations affecting insurance and reinsurance undertakings representing a significant share of the market or of the affected lines of business, as declared by EIOPA, ~~and where appropriate after consulting the ESRB,~~ the supervisory authority may extend, for affected undertakings, the period*

*set out in the second subparagraph of paragraph 3 by a maximum period of seven years, taking into account all relevant factors including the average duration of the technical provisions.*

*Without prejudice to the powers of EIOPA under Article 18 of Regulation (EU) N° 1094/2010, for the purposes of this paragraph EIOPA shall, following a request by the supervisory authority concerned, and where appropriate after consulting the ESRB, declare the existence of exceptional adverse situations. The supervisory authority concerned may make a request if insurance or reinsurance undertakings representing a significant share of the market or of the affected lines of business are unlikely to meet one of the requirements set out in paragraph 3."*

## 3. Technical provisions

### 3.1. Best estimate

All relevant divergent practices on best estimate calculation identified are included in this Opinion. In particular, for some topics (mainly contract boundaries, the definition of expected profits in future premiums and the expense assumptions in case of run-off business) EIOPA propose to introduces some changes to the legal framework (Solvency II Directive or its Delegated Regulation 2015/35) and they are included in the current section.

For other topics EIOPA is of the view that more convergence can be achieved using EIOPA's convergence tools (e.g. guidelines). Those topics, for which is not proposed an amendment to the legal framework (Solvency II Directive or its Delegated Regulation 2015/35) are reported in the Annex 3.1 which also includes some important questions to stakeholders.

#### 3.1.1 Extract from the call for advice

##### **3.17. Best Estimate**

*EIOPA is asked to report on divergent supervisory practices with regard to the calculation of the best estimate, and to provide quantitative information on their impacts, in particular with regard to the following items:*

*the use of economic scenario generators for the purpose of calculating the best estimate of life obligations;*

*the application of the definition of contract boundaries;*

*the application of future management actions including those in the context of highly profitable scenarios and those linked to "lapses/surrenders";*

*the treatment and evaluation of expenses, investment costs and the valuation of options and guarantees.*

*Where this analysis would point towards the identification of flaws or significant supervisory divergences, EIOPA is asked to advice on how these could be remedied.*

#### 3.1.2 Previous advice

3.1 CEIOPS submitted its advice to the Commission on Technical Provisions as part of a third set of Advice on Solvency II Level 2 implementing measures. The advice on Technical Provisions included, among others, Segmentation for the calculation of technical provisions; Treatment of future premiums; Assumptions about future management actions; Actuarial and statistical methodologies to calculate the best estimate, and Standard for data quality.

### **3.1.3 General considerations**

#### **3.1.3.1 IFRS 17**

- 3.2 Recital (15) of Solvency II Directive as amended by Omnibus II Directive states that harmonisation with the international accounting developments should be increased, while according to recital (46) valuation should be market consistent and in line with international developments in accounting.
- 3.3 Therefore, EIOPA has considered alignment of Technical Provisions calculation with IFRS 17 calculation. However, EIOPA has concluded that the alignment is not possible due to several reasons, among others:
- 3.4 The objectives of both frameworks are different, which creates some reasonable differences. An example could be the Contractual Service Margin, a component of IFRS 17 Technical Provisions which allocates profits to different periods. However, in Solvency II all the profits within the contract boundaries are recognized in the Own funds from the recognition date, so there is no equivalent concept to the contractual service margin.
- 3.5 According to Article 76(2) of the Solvency II Directive, technical provisions shall be valued for the amount the transfer value. However, in IFRS 17 the overarching principle is the fulfilment value.
- 3.6 Granularity of the calculations have several differences, like IFRS 17 annual cohorts. Besides, unbundling requirements may be significantly different in some cases. While Solvency II is driven by risks, requiring them to be split at least by Lines of Business, IFRS 17 is based in contracts, and unbundling of different insurance components of a contracts is not the default approach.
- 3.7 IFRS 17 is currently under review, so alignment cannot be fully evaluated until the framework revision is finalized.
- 3.8 EIOPA has also considered the possibility to introduce a simplification on the Solvency II framework in line with IFRS 17 Premium Allocation Approach (PAA). However, the proposal has been abandoned due to the following reasons:
- 3.9 Including such a simplification could lead to significant complexities, for example due to interactions with the SCR. Besides, since full alignment is not possible due to the limitations described above, the benefits of such alignment are also limited.
- 3.10 Premium Allocation Approach is considered to be a good approximation of IFRS 17 general approach (sometimes known as building blocks approach) for contracts with contract boundaries of one year or less. However, IFRS 17 general approach includes a contractual service margin, so the approximation may not be so accurate for Solvency II technical provisions, where this component does not exist.

3.11 Nevertheless, EIOPA has considered IFRS 17 framework when reviewing the different issues highlighted and has taken it into consideration in its advice to the Commission.

### **3.1.4 Economic Scenario Generator (ESG)**

#### **3.1.4.1 Relevant legal provisions**

3.12 Recital 15 of the Delegated Regulation clarifies the principle of the use of simulation for the valuation of option and guarantees.

3.13 Article 22(3) of the Delegated Regulation establishes three requirements that undertaking should meet when using simulation methods for the valuation of their technical provisions in Solvency II.

#### **3.1.4.2 Other regulatory background**

3.14 Other regulatory background considered to issue the advice:

- i. EIOPA Guidelines on Technical Provisions: Guidelines 55 to 60.

#### **3.1.4.3 Identification of the issue**

3.15 All Divergent practices on Economic Scenario Generators are included in the Annex 3.1.

### **3.1.5 Contract boundaries**

3.16 Several contract boundary issues and divergent practices described and analysed in sections 3.1.5 and 3.1.6 and in the Annex 3.1 are closely interrelated. This relation has been identified making references between issues in the text of the advice. However, to have a full understanding of each issue it is recommended to review all of them to ensure an adequate background of the analysis performed.

#### **3.1.5.1 Relevant legal provisions**

3.17 Article 18 of the Delegated Regulation establishes the rules to determine the boundaries of a contract in Solvency II.

3.18 Recital (9) of the Delegated Regulation.

- 3.19 Article 1(46) of the Delegated Regulation includes the definition of Expected Profits In Future Premiums (EPIFP).
- 3.20 Article 70(2) of the Delegated Regulation establishes the relation between EPIFP and the Reconciliation reserve.
- 3.21 Article 260(2)(3) and(4) of the Delegated Regulation establishes the rules for the calculation of EPIFP.
- 3.22 Articles 295(5) and 309(6) of the Delegated Regulation, establish some requirements in relation to the liquidity risk and the EPIFP.

### **3.1.5.2 Other regulatory background**

- 3.23 Other regulatory background considered to issue the advice:
- i. EIOPA Guidelines on Contract Boundaries.
  - ii. EIOPA Guidelines on Technical Provisions. Guidelines 76 and 77.
  - iii. IFRS 17 Insurance Contracts.

### **3.1.5.3 Identification of the issue**

- 3.24 EIOPA has identified some divergent practices among Member States. Most of these discrepancies are due to different interpretations of the current regulatory framework, in some cases due to a lack of granularity in the regulation.
- 3.25 Some concerns on the current definition of Expected Profits In Future Premiums (EPIFP) have also been identified. Due to the tight relation between contract boundaries and EPIFP, the issue on its definition has been addressed under the section for Contract Boundaries.
- 3.26 The following list identifies the most relevant discrepancies that have been identified.

#### **3.1.5.3.1 Policy issue 1. Paid-in premiums**

- 3.27 Article 18(3) of the Delegated Regulation is applicable to "Obligations which relate to insurance or reinsurance cover". This provision has led to divergent practices assessing contract boundaries among undertakings and Member States:
- i. In some cases, it has been interpreted that Article 18(3) is not applicable to obligations related to paid-in premiums. This would mean that contract boundaries could include cover provided after the date when the undertaking has the unilateral right to cancel the contract.
  - ii. In other cases, it has been interpreted that Article 18(3) is applicable to obligations related to paid-in premiums. This would mean that



obligations from paid-in premiums and obligations from premiums that the undertaking can compel the policyholder to pay would have a different treatment.

### **3.1.5.3.2 Policy issue 2. Unbundling: Different parts of a contract.**

3.28 Article 18(4) and (6) of the Delegated Regulation establish the obligation to apply the provisions of paragraphs (3) and (5) respectively to each part of a contract when determining contract boundaries. However, there are different interpretations on what shall be considered as a different “part” of a contract and when they shall be considered separately. EIOPA has identified the following issue relating to unbundling parts of a contract:

1. Article 18(6), specifically states that paragraph (5) shall be applied to different parts of a contract when the contract can be unbundled. However, paragraph (4) states that paragraph (3) is to be applied to different parts of a contract, without requiring that the contract can be unbundled. Therefore:

- i. In some cases, it has been interpreted that Article 18(3) is to be applied to different parts of a contract only if it can be unbundled.
- ii. In other cases it has been interpreted that Article 18(3) is to be applied to different parts of a contract when the undertaking has different unilateral rights as described in 18(3) with respect to each part of the contract, regardless whether the contract can be unbundled.

2. As a more specific case, EIOPA has identified divergent interpretation on whether obligations from paid-in premiums and obligations from future premiums, both belonging to the same contract, should be considered as different parts of the same contract under specific circumstances:

- i. In some cases, it has been interpreted that the unilateral rights described in Article 18(3)(b) and (c) should be applied to the contract as whole.
- ii. In other cases, it has been interpreted that obligations relating to different premiums can be considered as different parts when in some cases where the assessment would lead to different contract boundaries.

### **3.1.5.3.3 Policy issue 3. Exception of article 18(3)**

3.29 The third paragraph of Article 18(3) of the Delegated Regulation establishes an exception that allows the extension of contract boundaries for contracts where an individual risk assessment has been performed at inception, the undertaking cannot repeat it and the undertaking only has a unilateral right to amend the premiums or the benefits payable under the contract in such a way that the premiums fully reflect the risks at portfolio level. However, in some cases the paragraph has not been interpreted as such an exception,

but as an obligation for the undertakings to “assess at the level of the contract whether the premiums fully reflect the risk”.

3.30 Even when the paragraph has been interpreted as introducing an exception, different practices have been identified:

- i. In some cases it has been considered that the “assessment cannot be repeated” shall be interpreted as a legal/contractual restriction, i.e. the undertaking does not have the right to repeat the individual risk assessment.
- ii. In other cases, it has been considered that the “assessment cannot be repeated” shall be interpreted as any kind of restriction, e.g. a technical restriction not allowing to collect the relevant data for the analysis.

3.31 Some Member States also question the nature of the exception. It allows a long extension of contract boundaries which leads significant increases of the own funds, but the undertaking still has the full right to amend the premiums so the contract fully reflects the risks.

#### **3.1.5.3.4 Policy issue 4. Expected Profits In Future Premiums (EPIFP)**

##### **3.1.5.3.4.1 Policy issue 4.1. Calculation of EPIFP**

3.32 Expected Profits In Future Premiums (EPIFP) reflects the profit embedded in future premiums and it is sometimes seen as the impact of future premium in the own funds (Article 70(2)). However, the current definition of EPIFP does not reflect the real impact in own funds of future premiums for three reasons:

1. EPIFP are calculated without fully considering loss-making policies. Article 260(4) states that loss-making policies can be offset only against profit-making policies within the same homogeneous risk group. However, compensation between different homogeneous risk groups is not allowed.
2. EPIFP are calculated without taking into consideration the impact of reinsurance and special purpose vehicles (SPVs) as technical provisions without a risk margin are calculated gross of reinsurance and SPVs.
3. EPIFP are calculated before taxes. However, the final impact on own funds of the future premiums should take into account taxation of these future profits: the recognition of lower technical provisions leads to lower deferred tax assets/higher deferred tax liabilities in the Solvency II Balance sheet.

3.33 Moreover, regarding the identification of homogeneous risk groups, Article 260(3) states:

“The calculation of the expected profit included in future premiums shall be carried out separately for the homogeneous risk groups used in the calculation of the

technical provisions, provided that the insurance and reinsurance obligations are also homogeneous in relation to the expected profit included in future premiums.”, The requirement underlined in some cases has been interpreted as homogeneous risk groups cannot contain loss-making and profit-making policies, while in other cases it has been considered that homogeneous risk group can still be homogeneous even if there are loss-making and profit-making policies included.

#### **3.1.5.3.4.2 Policy issue 4.2. Other expected profits**

3.34 Some EIOPA Members have identified other sources of future profits related to future cash inflows that may represent a significant amount of the own funds. The main example are the profits included in the future fees and charges for servicing and management of funds that the undertaking will charge to policyholders of unit-linked products. These profits are quite similar to EPIFP, since they are embedded future cash inflows and/or charges to policyholders. However, the contribution of these future charges and fees to the own funds remains generally unexplored.

#### **3.1.5.4 Analysis**

##### **3.1.5.4.1 Policy issue 1: Paid-in premiums**

3.35 Two options are being considered:

- **Option 1:** No change, i.e. maintain the current wording. Obligations related to paid-in premiums would be considered not to belong to the contract after the date when the undertaking can unilaterally cancel the contract.
- **Option 2:** Clarify that Article 18(3) is only applicable to obligations related to future premiums, not to paid-in premiums. Obligations related to paid-in premiums would be considered to belong to the contract after the date when the undertaking can unilaterally cancel the contract.

3.36 As background information, obligations related to paid-in premiums belong to the contract in IFRS 17.

3.37 Applying Article 18(3) to paid-in premiums could lead to a limitation of the projection horizon of the obligations which would be against recital (9) of the Delegated Regulation (for further details, please see the Divergent practice on projection horizon in Annex 3.1).

3.38 Therefore, EIOPA considers that obligations related to paid-in premiums should be out of the scope of Article 18(3), i.e. option 2.

#### **3.1.5.4.2 Policy issue 2. Unbundling: Different parts of a contract**

3.39 To have a full understanding of this policy issue, it is recommended to read it together with the additional divergent practices on unbundling described in Annex 3.1.

3.40 Two options have been considered:

- **Option 1:** Identification of different parts of a contract according to Article 18(4) should be based on the rights of Article 18(3) instead of on unbundling requirements. No changes needed.
- **Option 2:** Amend Article 18(4) stating that Article 18(3) shall be applied to different parts of the contract only when the contract can be unbundled.

3.41 The Delegated Regulation deals with parts of a contract or unbundling in three articles/paragraphs:

Article 18(4). No reference to unbundling, only "parts".

Article 18(6).

Article 55.

3.42 Paragraph (5) is addressing which obligations from future premiums shall be included within the contract boundaries. Paragraphs (5)(a) and (b) reflect obligations where the undertaking is assuming a risk for future premiums (for paragraph (5)(a) paragraph (3) should be also considered). Where two parts of a contract are inter-dependent, i.e. the contract cannot be unbundled, it could be considered that, in any case, both parts bear some risk for the undertaking since one cannot be understood without the other. Therefore, it is reasonable to consider the contract as a whole for the purposes of article 18(5).

3.43 However, paragraph (3) is assessing contract boundaries based on the unilateral rights of the undertaking regarding the insurance and reinsurance obligations. Therefore, in this case the analysis should focus on which obligations are affected by each unilateral right. If one of the unilateral rights reflected in paragraph (3)(a), (b) or (c) affects only some obligations, it implies that the obligations and premiums for that part can be easily identified and thus the projection can be split.

3.44 Article 55 also requires unbundling of insurance and reinsurance obligations into different lines of business when different risks are covered in the same contract. Unbundling for segmentation purposes should also focus on the inter-dependency among different parts of a contract so they can be allocated to different lines of business. Therefore, the rights of Article 18(3) are not relevant for that assessment.

- 3.45 As a consequence, the most relevant criteria for the separation of the contract into different parts as required in Articles 18(6) and 55 should be based on the inter-dependency among them, i.e. whether the contract can be unbundled. Besides, Articles 18(6) and 55 are the only ones where the term “unbundle” appears in the Delegated Regulation. On the other side, the assessment to identify different parts under Article 18(4) should take into consideration the different rights of Article 18(3). Besides, Article 18(4) does not include any reference to the term “unbundling”.
- 3.46 Therefore, EIOPA considers that the differences in wording of paragraphs (4) and (6) of Article 18 indeed reflect a different treatment for the parts of an insurance and reinsurance contract, i.e. option 1. While Article 18(5) should be applied to each part of a contract separately only when it can be unbundled (i.e. there is not inter-dependency), Article 18(3) shall be applied to each part of the contract in all cases where the unilateral rights described in Article 18(3)(a), (b) or (c) affect only to one part of the contract.
- 3.47 This is also the case when the undertaking has different rights regarding the obligations related to different premiums.
- 3.48 This may lead to cases where two parts of a contract are inter-dependent, but each part has a different contract boundary. Therefore, the part with shorter contract boundary may still need to be projected to value the part with a longer contract boundary. It has to be noted that both parts would have to be projected even if paragraph (3) were applied to the contract as a whole, because in such a case the whole contract would probably have long contract boundaries. Thus, from a projection point of view, both approaches have the same requirements, but the cash flows included for best estimate valuation are different.

#### **3.1.5.4.3 Policy issue 3. Exception of article 18(3)**

##### **3.1.5.4.3.1 Policy issue 3.1. Drafting of the third paragraph of Article 18(3)**

- 3.49 Although most Members have no doubts on the right interpretation of the third paragraph of Article 18(3), in some jurisdictions it has been interpreted as an obligation to perform an assessment at contract level. Therefore, EIOPA considers that it could be beneficial to amend the Delegated Regulation to avoid misinterpretations of the paragraph.

##### **3.1.5.4.3.2 Policy issue 3.2. Exception of the third paragraph of Article 18(3)**

- 3.50 The use of the exception established in the third paragraph of Article 18(3) allows the extension of contract boundaries in some cases for several years, even decades. This usually leads to include a significant amount of future profits in the best estimate, thus increasing the own funds of the undertaking. Besides, in this situation the undertaking still has the unilateral right to amend the premium or the benefits so the premium fully reflects the risks at portfolio level.
- 3.51 Three options have been considered:
- **Option 1:** No change, i.e. maintain the current wording.
  - **Option 2:** Clarify that the exception established in the third paragraph of Article 18(3) is to be applied only when the undertaking does not have the right to perform again the individual risk assessment.
  - **Option 3:** Deletion of the third paragraph of Article 18(3).
- 3.52 This exception leads to a situation where two contracts issued by two different undertakings that have the same right to amend the premiums or benefits at portfolio level, may have a very different treatment. If one undertaking performed an individual risk assessment at inception and the other did not, contract boundaries would be significantly different even if the undertaking has the same rights at the valuation date.
- 3.53 However, the exception is justified by the different economic situation at the revision date. At inception the undertaking has performed an individual risk assessment and thus has established a premium that individually fully reflects the risks. However, at the revision date, if the undertaking does not have the right to perform and individual risk reassessment and only has the right to amend the premiums or benefits at portfolio level, the economic situation is different. Amending the premiums at portfolio level could imply new risks, for example, anti-selection.
- 3.54 In general terms, contract boundaries are extended while the undertaking is still covering a risk, i.e. until the date where the undertaking has the unilateral right to terminate the contract, reject the premiums or amend the premiums or benefits so they fully reflect the risks of the contract. Therefore, in the situation described above, the undertaking is still assuming some risks (e.g. anti-selection), which justifies the extension of contract boundaries.
- 3.55 Going back to the comparison between two contracts, for the contract without an initial individual risk assessment, the amendment at portfolio level does not imply any new risk because the risk was not individually assessed at inception. However, for the contract with an initial individual risk assessment, amending the premium or benefits at portfolio level may create some new risks like the anti-selection risk mentioned before.
- 3.56 Nevertheless, this would only be the case where the individual risk assessment provides information that may have a significant impact on the assumptions underlying best estimate valuation. For more information on

this, please see the Divergent practices on the individual risk assessment in the Annex 3.1.

3.57 Therefore, EIOPA considers that, for undertakings that perform an initial individual risk assessment that cannot be repeated and have the right to amend premiums or benefits so the premium fully reflects the risk at portfolio level, the economic situation will actually be different at the valuation date. Thus, it is reasonable that the Delegated Regulation considers this particular situation in Article 18(3).

3.58 However, due to the big impact of the exception in some jurisdictions, consistent application of the exception is necessary to guarantee the level playing field. Different interpretations of “that assessment cannot be repeated” have been identified, i.e. whether technical constraints are enough or only legal/contractual constraints would justify the use of the exception. EIOPA considers that to guarantee the level playing field, a clear criteria should be established for the application of this exception. Therefore, the exception should be limited to situations where a contractual/legal constraint exists, i.e. Option 2.

#### **3.1.5.4.4 Policy issue 4. Calculation of Expected Profits In Future Premiums (EPIFP)**

##### **3.1.5.4.4.1 Policy issue 4.1. Calculation of EPFIP**

3.59 Three options are being considered:

- **Option 1:** No change, i.e. maintain current wording.
- **Option 2:** Include all future losses and the impact of reinsurance in EPIFP.
- **Option 3:** Include all future losses, impact of reinsurance and impact of taxation in EPIFP.

3.60 According to Article 70(2):

“The excess of assets over liabilities referred to in paragraph 1 includes the amount that corresponds to the expected profit included in future premiums set out in paragraph 2 of Article 260”.

3.61 Article 70 of the Delegated Regulation defines the calculation of the Reconciliation Reserve, one of the main components of own funds. Therefore, it seems reasonable to expect that the concept of EPIFP, included in the excess of assets over liabilities, considers the whole impact on own funds of future premiums, and not only part of it.

3.62 However, being able to identify separately future profits and future losses may still be relevant. On one hand, this would enable the use of the current definition of EPIFP, which still may be relevant in some cases. On the other hand, this would also allow the identification of the impact on own funds of

both loss-making and profit-making policies. This would produce valuable information, because the same net impact on own funds can be achieved through very different structures. Indeed, EIOPA considers that to provide meaningful insights, the information should be available at least at Line of Business level.

3.63 Regarding the granularity of the calculation, non-compensation of profits and losses within homogeneous risk groups would allow a clearer view of future profits and future losses. However, in practice this implies that homogeneous risk groups could only include loss-making or profit-making policies, but not both of them.



### Questions to stakeholders

**Q3.1:** EIOPA is concerned that this could imply new burdensome calculation for some undertakings and therefore wants to ask the following question: Do you consider that homogenous risk groups may include profit-making and loss-making policies? If yes, why are these policies considered to be homogeneous even if a key aspect like profitability is so different? Concrete examples to illustrate the answers will be welcome.

3.64 Following a similar analysis, impact of reinsurance on EPIFP would be also a valuable separate information. However, the link of reinsurance contracts with the underlying direct insurance contracts may be complex in some cases. Therefore, EIOPA believes that the impact of reinsurance on EPIFP could be calculated for the undertaking as a whole.

3.65 Finally, with regard to the impact of taxation, the situation is a bit different from the two previous points. Future profits will probably give rise to higher deferred tax liabilities, thus decreasing the increase of own funds due to expected profits. However, these future liabilities may allow the recognition of deferred tax assets that would have not been recognized otherwise. Conversely, future losses will probably give rise to the right to recognize deferred tax assets, thus mitigating the decrease in own funds due to expected losses. However, the undertaking may not have enough future taxable profits to recognize the deferred tax assets.

3.66 Therefore, EIOPA believes that considering taxation of future profits does not always lead to a more accurate estimate of the impact on own funds. Besides, it will probably lead to more complex calculation and less comparable figures. As a consequence, EIOPA's preferred option is Option 2.

#### 3.1.5.4.4.2 Policy issue 4.2. Other future profits

3.67 Two options have been considered:

- **Option 1:** No change



- **Option 2:** Add the notion of expected profits in future fund management fees to the Delegated Regulation.

3.68 EIOPA considers that future profits embedded in future fees for servicing and managing funds are quite similar in nature to EPFIP and indeed could have a significant impact on technical provisions of unit-linked and index-linked products. Therefore, a calculation of the expected profits in future fees for servicing and managing funds would provide valuable information completing current available EPIFP. Therefore, EIOPA's preferred option is Option 2.

3.69 To avoid undue burden in the calculation and considering the limited impact of reinsurance on these cash flows, calculation could be limited to amounts gross of reinsurance both including future profits and future losses altogether.

### 3.1.5.5 Advice

#### 3.1.5.5.1 Policy issue 1. Paid-in premiums

3.70 EIOPA advises to amend the first paragraph of Article 18(3) of the Delegated Regulation as follows:

*"Obligations that do **not relate to premiums which have already been paid and which relate to insurance or reinsurance** cover provided by the undertaking after any of the following dates do not belong to the contract, unless the undertaking can compel the policyholder to pay the premium for those obligations: (...)"*

#### 3.1.5.5.2 Policy issue 3.1. Drafting of the third paragraph of Article 18(3)

3.71 EIOPA advises to amend the third paragraph of Article 18(3) of the Delegated Regulation as follows:

*"However, in the case of life insurance obligations where an individual risk assessment of the obligations relating to the insured person of the contract is carried out at the inception of the contract and that assessment cannot be repeated before amending the premiums or benefits, insurance and reinsurance undertakings shall **only consider the right to** assess at the level of the contract whether the premiums fully reflect the risk—for the purposes of point (c)."*

#### 3.1.5.5.3 Policy issue 3.2. Exception of the third paragraph of Article 18(3)

3.72 EIOPA advises to amend the third paragraph of the Article 18(3) of the Delegated Regulation as follows:

*"However, in the case of life insurance obligations where an individual risk assessment of the obligations relating to the insured person of the contract is carried out at the inception of the contract and ~~that assessment cannot be repeated~~ **the undertaking does not have the right to repeat the assessment** before amending the premiums or benefits, insurance and reinsurance undertakings shall assess at the level of the contract whether the premiums fully reflect the risk for the purposes of point (c)."*

#### **3.1.5.5.4 Policy issue 4.1. Calculation of Expected Profits In Future Premiums (EPIFP)**

3.73 EIOPA advises to amend Article 260(2) of the Delegated Regulation as follows:

*"The **gross** expected profit **or loss** included in future premiums shall be calculated as the difference between the technical provisions without a risk margin calculated in accordance with Article 77 of that Directive and a calculation of the technical provisions without a risk margin under the assumption that the premiums relating to existing insurance and reinsurance contracts that are expected to be received in the future are not received for any reason other than the insured event having occurred, regardless of the legal or contractual rights of the policyholder to discontinue the policy."*

3.74 EIOPA advises to replace Article 260(4) of the Delegated Regulation as follows:

*"Loss-making policies may only be offset against profit-making policies within a homogeneous risk group. **Profit-making homogeneous risk groups shall be used to calculate gross expected profits in future premiums and loss-making homogeneous risk groups shall be used to calculate gross expected losses in future premiums**"*

3.75 EIOPA advises to add two new paragraphs to Article 260 of the Delegated Regulation as follows:

*"5. The impact of reinsurance contracts and special purpose vehicles on the gross expected profit or loss included in future premiums shall be calculated as the difference between the amounts recoverable from reinsurance contracts and special purpose vehicles calculated in accordance with Article 81 of Directive 2009/138/EC and a calculation of the amounts recoverable from reinsurance contracts and special purpose vehicles under the assumption that the premiums relating to existing insurance and reinsurance contracts that are expected to be received in the future are not received for any reason other than the insured event having occurred, regardless of the legal or contractual rights of the policyholder to discontinue the policy."*

6. *The net expected profit or loss included in future premiums shall be calculated as the difference between*

*(a) the sum of the gross expected profit or loss included in future premiums calculated for the homogeneous risk groups;*

*(b) the impact of reinsurance contracts and special purpose vehicles on the gross expected profit or loss included in future premiums.”*

### **3.1.5.5.5 Policy issue 4.2. Other future profits**

3.76 EIOPA advises to add the following definition to Article 1 of the Delegated Regulation:

*“the gross expected future profit or loss from servicing and management of funds’ means for index-linked and unit-linked insurance the difference between technical provisions without a risk margin calculated in accordance with Article 77 of Directive 2009/138/EC technical provisions without a risk margin under the assumption that the future profits from servicing and management of funds that are expected to be received in the future are not received for any reason other than the insured event having occurred, regardless of the legal or contractual rights of the policyholder to discontinue the policy.”*

### **3.1.6 Future Management Actions (FMA)**

#### **3.1.6.1 Relevant legal provisions**

3.77 Article 23 of the Delegated Regulation 2015/35 establishes the rules to the establishment of the assumptions regarding future management actions in the case of technical provisions calculation in Solvency II.

#### **3.1.6.2 Other regulatory background**

3.78 Other regulatory background considered to issue the advice:

EIOPA Guidelines on Technical Provisions: Guidelines 38 to 40.

#### **3.1.6.3 Identification of the issue**

##### **3.1.6.3.1 Policy issue 1. Definition of future management actions**

3.79 The lack of a definition of future management actions has caused different interpretations on the application of Article 23 of the Delegated Regulation and its requirements, including the scope of the comprehensive plan

approved by the administrative, management or supervisory body of the insurance or reinsurance undertaking.

3.80 The main difference identified among undertakings and Members States is the link between future management actions and the business plan of the undertaking. In some cases it has been interpreted that any actions already foreseen in the business plan should not be considered as future management actions, and therefore they would not be affected by the requirements of Article 23. In other cases, it has been considered that being part of the business plan is not relevant for the identification of future management actions, so there may be future management actions included in the business plan.

### **3.1.6.4 Analysis**

#### **3.1.6.4.1 Definition of future management actions**

3.81 Future management actions can be understood as something purely reactive, therefore not including any action already planned by the undertaking. Alternatively, future management action can be seen as a broader concept including any management actions that the undertaking expects to take in the future in response to future events.

3.82 Therefore, two options have been considered:

- **Option 1:** No change, i.e. maintain the current situation.
- **Option 2:** Add future management actions definition in Article 1 of the Delegated Regulation.

3.83 EIOPA believes that the consideration of future actions, for example including them in the business plan, does not affect the nature of such actions and therefore it is not a relevant criteria to determine whether it should be considered a future management action as described in Article 23. Therefore, adding a legal definition for future management actions in the Delegated Regulation without making any reference to the business plan could help to clarify the scope of the future management actions subject to the requirements listed in Article 23 without creating a substantial change in the calculation of technical provisions. This means that EIOPA's preferred option is Option 2.

3.84 As future management actions are also mentioned in Articles 83, 126, 206, 207, 209 and 236 of the Delegated Regulation that relate to the calculation of the Solvency Capital Requirement, a common definition in Article 1 might be also helpful to ensure a consistent approach.

### **3.1.6.5 Advice**

#### **3.1.6.5.1 Policy issue 1. Definition of future management actions**

3.85 EIOPA advises to include the following definition in Article 1 of the Delegated Regulation as follows:

*"future management action' means any action that the administrative, management or supervisory body of an insurance or reinsurance undertaking may expect to carry out under specific future circumstances;"*

### **3.1.7 Expenses**

3.86 Although in the call for advice issued by the Commission expenses and valuation of options and guarantees are under the same bullet point, due to the different nature of both topics EIOPA will address them in different sections.

#### **3.1.7.1 Relevant legal provisions**

3.87 Article 78 of the Solvency II Directive establishes the expenses to be considered when calculating technical provisions.

3.88 Article 31 of the Delegated Regulation further clarifies the expenses that should be taken into account in the calculations of the best estimate in Solvency II.

3.89 Article 7 of the Delegated Regulation establishes the going concern principle.

#### **3.1.7.2 Other regulatory background**

3.90 Other regulatory background considered to issue the advice:

EIOPA Guidelines on Technical Provisions: Guidelines 26 to 34, 69 and 71, and Technical Annexes I and II.

#### **3.1.7.3 Identification of the issue**

##### **3.1.7.3.1 Policy issue 1: New business**

3.91 EIOPA has identified remarkable differences on the assumptions on new business for expenses allocation during cash flow projection. According to Article 31(4) of the Delegated Regulation, expenses shall be projected assuming that new business will be written. However, in some cases it has been considered that this assumption is not adequate, for example where the undertaking is not writing any new business. In cases like this one, sometimes realistic assumptions on new business have been used to allocate expenses.

### **3.1.7.3.2 Policy issue 2: Drafting amendment**

3.92 Currently, the second paragraph of Article 31(1) of the Delegated Regulation reads:

“The expenses referred to in points (a) to (d) shall take into account overhead expenses incurred in servicing insurance and reinsurance obligations.”

3.93 The word “incurred” is past tense. Some Members raised some concerns this could be interpreted as the projection should be based only on past experience, i.e. not allowing projections considering expected changes in future expenses.

### **3.1.7.4 Analysis**

#### **3.1.7.4.1.1 Policy issue 1. New business**

3.94 New business, meaning business outside the contract boundaries, is not included in the projection of cash flows for best estimate valuation. However, assumptions on new business have an indirect impact on best estimate valuation, for example through the allocation of expenses. Future expenses shall be allocated to all future business: existing business (i.e. within the contract boundaries) and new business. As a consequence, the amount of new business has an impact on the expenses allocated to existing business and thus to the amount of expenses projected for best estimate valuation.

3.95 Therefore, the following options have been considered:

- **Option 1:** Hard going-concern principle (no change): Going-concern principle interpreted in line with Article 31(4) of the Delegated Regulation, i.e. new business should be assumed in all cases. No amendments needed in this case.
- **Option 2:** Soft going-concern principle. Going-concern principle interpreted as “business as usual”, i.e. new business should not be assumed in all cases, only following realistic assumptions. Article 31 of the Delegated Regulation should be amended in this case.

3.96 The assumptions on new business are usually considered to be mainly regulated in Article 7 (going-concern principle) and Article 31(4) of the Delegated Regulation. However, in other regulatory frameworks, like accounting, the going-concern principle is usually interpreted as the undertaking will keep pursuing “business as usual”, meaning that, for example, valuation of best estimate should not assume the transfer of a portfolio of obligations to project future cash flows. Therefore, under this interpretation, Article 7 of the Delegated Regulation would not affect assumptions on new business and, indeed, this interpretation perfectly fits current drafting of the Article.

3.97 However, Article 31(4) of the Delegated Regulation requires that new business is assumed in all cases. Although this Article only affects expenses

assumptions, it has conditioned in some cases the interpretation of Article 7 of the Delegated Regulation, leading to interpret going-concern principle as a requirement to assume that new business will be written. Therefore, since Article 7 is not limited to expenses, this issue has also an impact on other assumptions, like future management actions (for more information, please see the Divergent practices on Future Management Actions in annex 3.1).

3.98 Assuming that new business will come when this is not the real expectation would lead to a non-realistic valuation of the best estimate which would also be less prudent. Since a higher amount of expenses would be out allocated to a future business (that will never come) and thus out of the best estimate. Q&A 1037 already addresses this issue recommending that realistic assumptions should be used to project future expenses.

3.99 On the other side, it may be considered that assuming that there will be no new business makes the valuation depart from transfer value. If the portfolio is transferred to a different undertaking, the ceding undertaking would probably expect new business and thus value the best estimate considering that new business will come.

3.100 However, in practical terms, during a portfolio transfer the ceding undertaking would probably consider its own expenses for the valuation. So, in the end, the real transfer value depends on the business model of the ceding undertaking itself, being the expectations of new business part of it. Therefore, although in theory assuming that no new business will be underwritten may depart from transfer value, in practical terms this would probably not be the case or, at least, there will be the same room for differences than for other assumptions on expenses. This means that EIOPA's preferred option is Option 2.

#### **3.1.7.4.1.2 Policy issue 2: Drafting amendment**

3.101 EIOPA considers that under Solvency II principles, projections should take into account expected evolution of the assumptions. Therefore, the second paragraph of Article 31(1) of the Delegated Regulation should be interpreted taking into consideration assumptions on expected future expenses and not only past expenses. However, amending the drafting would make the interpretation more straightforward.

#### **3.1.7.5 Advice**

##### **3.1.7.5.1 Policy issue 1: New business**

3.102 EIOPA advises to amend Article 31(4) of the Delegated Regulation as follows:

"4. Expenses shall be projected taking into account the decisions of the administrative, management or supervisory body of the undertaking with respect to writing new business".



### Questions to stakeholders

**Q3.2:** Do you consider that the proposed definition may introduce barriers to entry for new undertakings? If yes, please elaborate the answer.

#### 3.1.7.5.2 Policy issue 2: Drafting amendment

3.103 EIOPA advises to amend the second paragraph of Article 31(1) of the Delegated Regulation as follows:

*"The expenses referred to in points (a) to (d) shall take into account overhead expenses ~~incurred~~ **to be incurred** in servicing insurance and reinsurance obligations".*

#### 3.1.8 Valuation of Options and Guarantees

##### 3.1.8.1 Relevant legal provisions

3.104 Recital (15) of the Delegated Regulation establishes the principle of the use of simulation for the valuation of option and guarantees.

3.105 Recital (16) of the Delegated Regulation establishes the stochastic nature of the valuation of options and guarantees.

3.106 Article 26 of the Delegated Regulation establishes the requirements for the modelling of policyholder behaviour.

3.107 Article 30 of the Delegated Regulation establishes the uncertainties that cash-flow projections shall take into account.

3.108 Article 32 of the Delegated Regulation establishes additional requirements for the valuation of options and guarantees.

3.109 Article 34 of the Delegated Regulation establishes the requirements for the best estimate calculation methods:

##### 3.1.8.2 Other regulatory background

3.110 Other regulatory background considered to issue the advice:

- i. EIOPA Guidelines on Technical Provisions: Guidelines 36, 37, 39, 46 53 and 54.



### **3.1.8.3 Identification of the issue**

#### **3.1.8.3.1 Policy issue 1. Dynamic policyholder behaviour modelling**

3.111 According to Article 26 of the Delegated Regulation, when determining the likelihood that policyholders will exercise contractual options, undertakings shall take into consideration the impact of different circumstances like economic conditions. This modelling of policyholder behaviour will be referred as dynamic policyholder behaviour in this advice, while the term static policyholder behaviour will make reference to modelling of policyholder behaviour that does not take into account these changing circumstances, although it may take into account some of the characteristics of the policyholder/policy, like gender, age or policy age. Article 26 of the Delegated Regulation also allows to follow the static approach provided it can be justified with empirical evidence.

3.112 EIOPA has identified that the use of dynamic policyholder behaviour is highly dependent on the jurisdiction. In some Member States, stochastic valuation is the default approach for the main options (e.g. surrender option), while in other Member States modelling with only a static component is usually followed. However, due to lack of data, mainly for extreme scenarios, in several cases using a static approach is justified by this lack of data instead of providing empirical evidence.

### **3.1.8.4 Analysis**

#### **3.1.8.4.1 Policy issue 1. Dynamic policyholder behaviour**

3.113 Three options have been considered:

- **Option 1:** No change in the Delegated Regulation.
- **Option 2:** Amend the Delegated Regulation to include a simplified dynamic lapse modelling.
- **Option 3:** Amend the Delegated Regulation to accept static policyholder behaviour modelling when there is lack of data for extreme scenarios.

3.114 The likelihood that policyholders will exercise the options depends on various aspects, some of which are exogenous and some endogenous to the undertaking and/or the contract. Such aspects may include the level of guarantees, the contract return in respect of a benchmark, the existence of lapse penalties or the fiscal and legal environment. Furthermore, the elasticity of the policyholder behaviour may also depend on the financial awareness (which drives the rational element of policyholder behaviour), the brand name and the sales channel.

3.115 Therefore, different levels of policyholder behaviour may be expected for different markets, types of client, types of product and types of distribution

channel. In view of the above, the calculation of best estimate should explicitly take into account the possible dynamic behaviour of policyholders, who could rationally modify their propensity for the exercise of a certain contractual option in the different financial scenarios, unless (as stated by last paragraph of Article 26 of the Delegated Regulation) there is empirical evidence to demonstrate that there is no correlation between financial variables and policyholder behaviour.

3.116 The most commonly modelled dynamic policyholder behaviour relates to surrender options but several undertakings are still not performing any analysis due to the difficulties to establish the correlation between financial variables and policyholder behaviour. Probably the main difficulty is the lack of data and evidence in terms of the past reaction of policyholders to extreme financial conditions as the ones included in the set of stochastic scenarios.

3.117 In addition, there is a potential double counting effect while modelling dynamic policyholder behaviour. Lapse rates can be supposed to be made of two components:

- a static component which is independent on external factors, and can be interpreted as an irrational underlying policyholder's propensity to lapse (the unconditioned lapse rates); and
- a dynamic component which is dependent on a number of external factors, and can be interpreted as the "rational" policyholder's propensity to lapse, in view of an objective economic advantage (the conditioned lapse rates).

3.118 In defining the database to calibrate the unconditioned lapse rate, undertakings have to use historical data to calibrate the hypothesis. However, doing so they will include in the data also conditioned unless they are able to discern which part of historical lapses reflect the rational component.

3.119 Since there will be always little or no evidence in terms of the experienced reaction of policyholders to extreme financial conditions as the ones included in the set of stochastic scenarios, the lack of this data cannot be considered alone to be a good reason to avoid dynamic policyholder behaviour modelling. Expert judgement or standardized approaches provided in some Member States are common solutions adopted by the undertakings following a dynamic approach.

3.120 EIOPA considers that the same level of harmonization could be achieved under the current provisions of the Delegated Regulation with additional guidance on the calibration of dynamic models provided by EIOPA, instead of having a common simplification or waiving the requirement to model dynamic policyholder behaviour. Through this guidance it should also be clarified that the lack of data for extreme scenarios is not a reason itself to not model dynamic policyholder behaviour. Therefore, EIOPA's preferred option is Option 1.

## 3.2 Risk margin

### 3.2.1 Extract from the call for advice

#### **3.4. Risk margin**

*EIOPA is asked to assess the appropriateness of the design of the risk margin, without challenging the approach based on the cost-of-capital. In particular, EIOPA should assess the ongoing appropriateness of:*

*—The design of the risk margin, in light of the work current undertaken on the transfer value of liabilities, in the context of the Commission’s Call for Information<sup>131</sup>;*

*—The assumptions regarding the asset mix of the receiving undertaking, in particular with regard to the assumption of risk-free investments. The assessment should take into account the potential interactions between the recognition of market risk and the use of the volatility adjustment and the matching adjustment in the risk margin calculation;*

*—The use of a fixed cost of capital rate for all insurance and reinsurance undertakings;*

*—The assumptions used to derive the cost of capital rate, including the absence of leverage and the derivation of the equity risk premium.*

### 3.2.2 Previous advice

3.121 CEIOPS provided advice on the risk margin for the level 2 implementing measures for Solvency II “Technical Provisions – Article 86(d) – Calculation of the Risk Margin” (CEIOPS-DOC-36/09)<sup>132</sup>. This included, amongst others, and assessment of

- a) The assumptions underlying the reference undertaking
- b) The cost of capital rate
- c) The general approach to calculating the risk margin

3.122 In February 2018 EIOPA published the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation, the “SCR Review”<sup>133</sup>. This included an analysis of the relative size of the risk margin in comparison with the best estimate, own funds and SCR, and an analysis of the methods and assumptions used in calculating of the Cost of Capital “CoC” rate.

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<sup>131</sup>

<https://eiopa.europa.eu/Publications/Requests%20for%20advice/Request%20for%20information%202018-04-25.pdf>

<sup>132</sup> <https://eiopa.europa.eu/CEIOPS-Archive/Documents/Advices/CEIOPS-L2-Final-Advice-on-TP-Risk-Margin.pdf>

<sup>133</sup> [https://eiopa.europa.eu/Publications/Consultations/EIOPA-18-075-EIOPA\\_Second\\_set\\_of\\_Advice\\_on\\_SII\\_DR\\_Review.pdf](https://eiopa.europa.eu/Publications/Consultations/EIOPA-18-075-EIOPA_Second_set_of_Advice_on_SII_DR_Review.pdf)

- 3.123 EIOPA followed the same approach in calculating the CoC rate as that used by CEIOPS in its technical advice in 2009, in particular;
- The Cost of Capital is equal to the cost of equity
  - The cost of equity is calculated with the capital asset pricing model (CAPM), which includes:
    - An equity risk premium, which represents the extra return that investors demand above a risk-free rate to invest in equities
    - A beta factor, which reflects the insurance sector stock performance compared to that of the wider market.
  - The outcome is adjusted to allow for economic aspects not reflected in the CAPM estimation of the CoC.
- 3.124 In addition, there was an analysis of the use of both historical returns and dividend discount models to calculate the CoC rate. In view of the advantages and disadvantages of both models EIOPA suggested to use historic returns models to derive the equity risk premium. In particular these models ensure methodological consistency with the initial calibration of the CoC rate, stronger stability of the CoC rate over time and depend less on assumptions.
- 3.125 Overall EIOPA recommended that the CoC rate of 6% was not changed.

### **3.2.3 Relevant legal provisions**

#### **Solvency II Directive**

- 3.126 Article 77, specifically in paragraphs 3 and 5, specifies the calculation of the risk margin. Recital 56 includes explanation on the reference undertaking that the risk margin calculation is based on.
- 3.127 The rate used in the determination of the cost of providing that amount of eligible own funds (Cost-of-Capital rate) shall be the same for all insurance and reinsurance undertakings and shall be reviewed periodically.
- 3.128 The Cost-of-Capital rate used shall be equal to the additional rate, above the relevant risk-free interest rate, that an insurance or reinsurance undertaking would incur holding an amount of eligible own funds, as set out in Section 3, equal to the Solvency Capital Requirement necessary to support insurance and reinsurance obligations over the lifetime of those obligations.

#### **Delegated Regulation**

- 3.129 The calculation of the risk margin is described in Subsection 4 of the Delegated Regulation, Articles 37 to 39.
- 3.130 The formula to calculate the risk margin is set out in Article 37. Article 38 describes the assumptions about the reference undertaking that the risk margin calculation needs to be based on. According to Article 39 the Cost-of-Capital rate for the calculation is 6%.

## **Guidelines**

- 3.131 In addition, while not a legal provision, the “Guidelines on the implementation of the long-term guarantee measures” are relevant. In particular;
- 3.132 Guideline 2 – Interaction of the long-term guarantee measures with the risk margin calculations
- 3.133 For the purpose of calculating the risk margin in accordance with Article 38 of the Delegated Regulation, insurance and reinsurance undertakings that apply the matching adjustment, the volatility adjustment, the transitional measures on risk-free interest rates or the transitional measures on technical provisions should assume that the reference undertaking does not use any of these measures.

### **3.2.4 Identification of the issue**

#### **Overview of the risk margin calculation**

- 3.134 The risk margin is a widely regarded concept in market consistent valuations in general. In Solvency II it acts as an addition to the best estimate of liabilities to ensure that the Technical Provisions are valued at a transfer value, i.e. the value that would need to be paid by an insurance or reinsurance undertaking to transfer its liabilities to another knowledgeable, willing party in an arm's length transaction.
- 3.135 The transfer value concept is important in Solvency II, as it ensures that undertakings’ liabilities are sufficient to be taken on by another undertaking if required in times of stress.
- 3.136 There are a number of different approaches that could be used to calculate the risk margin ranging in complexity and market consistency, however from QIS5 onwards Solvency II has converged on the cost of capital approach. The general cost of capital approach is not within scope of this review.
- 3.137 In the cost of capital approach, the risk margin is calculated as the cost of raising sufficient capital to cover the SCR for unhedgable risks inherent in the business as this is run-off to maturity. The cost of capital rate (CoC rate) is set in Article 39 of the Delegated Regulation at 6%.

### **3.2.5 Issue I – Design of the risk margin and transfer value concept**

#### **Transfer value concept**

- 3.138 For the calculation of the risk margin, it is assumed that the insurance undertaking transfers its liabilities to another undertaking. This transfer value concept is critical to the functioning of the risk margin, and there would be

serious consequences for the functioning of the insurance market if the technical provisions were not sufficient to allow such transfers of books of business.

3.139 In Section 3.4 of the Call for Information of the European Commission issued in April 2018, EIOPA was asked to “collect information on the actual transfer of insurance liabilities between insurance and reinsurance undertakings. In particular, EIOPA is asked to compare the transfer values with the valuation of the transferred assets and liabilities”.<sup>134</sup>

3.140 In comparing the actual transfer values with the Technical Provisions (which represent in Solvency II the transfer value of those liabilities), EIOPA will assess if the size of the risk margin is appropriate. If it were observed that there are systematic differences between the two values, this would indicate that the risk margin is too small / large and the design of the risk margin may need to be modified.

#### **3.2.5.1 Issue II – Assumptions underlying the reference undertaking**

3.141 In the risk margin calculation, the reference undertaking is assumed to notionally take on the liabilities of the undertaking. The composition of this reference undertaking determines the transfer value, and as such, a number of assumptions on the composition of the reference undertaking have been set out in Article 38 of the Delegated Regulation.

3.142 The main assumption considered relevant for this review is assumption that the reference undertaking de-risks its assets on transfer, and the knock on impact this assumption has on whether the reference undertaking uses the VA or MA.

3.143 This assumption should be further considered in light of any potential changes to either component as part of the 2020 review.

#### **3.2.6 Issue III – Use of a fixed CoC rate**

3.144 The CoC rate was reviewed in detail as part of the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation, and is fixed at 6% for all undertakings. It was not deemed necessary to repeat this analysis. The results in relation to the dependence of the CoC rate on the level of interest rates are summarised in the analysis part. Apart from that the following aspect of the sensitivity of the risk margin to interest rate changes has been identified for further explanation and analysis.

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<sup>134</sup> See

<https://eiopa.europa.eu/Publications/Requests%20for%20advice/Request%20for%20information%202018-04-25.pdf>.

## **Sensitivity to changes in interest rates**

- 3.145 The cost of capital approach used to calculate the risk margin is sensitive to changes in interest rates, in particular for long term liabilities such as annuities. This is a natural consequence of the risk margin calculation under the cost of capital approach, where interest rates feed into the calculation of the risk margin in two ways, in both the projection of the unhedgable risks, and in the discounting of these risks. For both components of the calculation a decrease in interest rates will increase the risk margin.
- 3.146 European Systemic Risk Board published a report in August 2017<sup>135</sup> on the macroprudential consequences of the regulatory risk-free curve. This document references the sensitivity of the risk margin to changes in interest rates, in particular it states that;
- 3.147 The sensitivity of the risk margin to interest rates adds to the systemic impact of the risk-free rate. It also adds to balance sheet volatility due to changes in the risk-free rate. In addition, wrong estimates of the long end of the risk-free curve lead to overestimating or underestimating the risk margin and thereby to sector-wide biased levels of reserving
- 3.148 The current calculation of the risk margin under the cost of capital approach is by nature sensitive to changes in interest rates, particularly in the current low interest rate environment. However there are concerns that the approach is “too sensitive” and that it is introducing unintended consequences for the insurance market (e.g. forcing undertakings to exit business with long term guarantees, increase in longevity reinsurance to non-Solvency II jurisdictions) and is forcing undertakings to act in a pro-cyclical manner.
- 3.149 If it were concluded that the risk margin is too sensitive to changes in interest rates, one option for fixing this would be to change the CoC rate. For example, by introducing an interest rate dependency in the CoC rate, or the CoC rate could be different for different types of business. These options were not available to EIOPA as part of the review of the delegated acts, as they would require a change in the Solvency II Directive.

### **3.2.6.1 Issue IV – Assumptions used to derive the CoC rate**

- 3.150 An important parameter of the risk margin calculation is the CoC rate. It is currently fixed at 6% in Article 39 of the Delegated Regulation. The CoC rate was derived based on the capital asset pricing model which requires in particular the estimation of the equity risk premium. The CfA asks EIOPA to assess the assumptions used to derive the CoC rate, including the absence of leverage and the derivation of the equity risk premium.

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[https://www.esrb.europa.eu/pub/pdf/reports/esrb.reports170817\\_regulatoryriskfreeyieldcurveproperties.en.pdf](https://www.esrb.europa.eu/pub/pdf/reports/esrb.reports170817_regulatoryriskfreeyieldcurveproperties.en.pdf)

### **3.2.7 Analysis**

3.151 In this section, the individual issues identified above will be assessed further in view of their relevance.

#### **3.2.7.1 Issue I – Design of the risk margin and transfer value concept Transfer Value**

3.152 There are a number of complexities involved in the analysis of transfer values, particularly in relation to extracting the “noise” from the actual transfer values in order to compare with the technical provisions. There may be differences in the calculation approach used to determine the value of the liabilities, for example ‘market risk-free rate’ vs ‘Solvency II risk-free rate’, allowance for contract boundaries etc. In real transfers of liabilities, there are generally commercial terms to the transfer which are not relevant in Solvency II. Some examples of this are as follows; an undertaking may purchase a book of business at a discount to allow for future expected new business. An undertaking may place a value on the brand of the business they are acquiring, which is not allowed for in Solvency II. There may be tax effects or diversification benefits to the transaction which do not exist when the books of business are looked at in isolation. The list could go on, with each transaction likely to have specificities that may need to be removed or added to the transfer value to get a fair comparison.

3.153 Interpreting the transfer values data and implications for the risk margin design

3.154 The Call for Information asked for a comparison of the transfer value of liabilities with Technical Provisions. This has been analysed by comparing assets transferred<sup>136</sup> vs. technical provisions. Where technical provisions are lower than transfer values, this may indicate that either best estimate or risk margin are understated, or that the transfer price recognised that there was additional economic value not recognised in TPs for which the acquirer was willing to pay (perhaps the most obvious item in this category being goodwill).

3.155 The call for advice asked for an assessment of the appropriateness of the design of the risk margin in light of the ongoing work to address the call for information, without challenging the cost of capital approach. In order to hone in on the risk margin, we have calculated for each transaction an “implied cost of capital” by comparing the difference of (assets – best estimate)/risk margin \* 6%.

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<sup>136</sup> Used as a measure of the value placed by the market on the transferring business. Henceforth referred to as the ‘Assets’.



3.156 When interpreting the results obtained and what they mean for the risk margin design it is important to note some limitations in the implied cost of capital metric:

- Any difference between assets transferred and technical provisions could have arisen from a number of causes. Even where there are no extraneous economic value items being transferred (e.g. goodwill), transfer values greater than TPs could mean that either BEL is too low or risk margin is too low (or both). A priori it is impossible to tell which case applies in each transaction, also keeping in mind that acquirers may have different views from sellers on the valuation basis (e.g. acquirers may consider that through superior customer management they will be able to experience greater retention and lower lapses, and therefore be willing to pay more for the business). The implied cost of capital metric is a simplification which implicitly assumes that the difference arises due to the risk margin.
- Transactions with low risk margin compared to the volume of business being transacted (e.g. small ratio risk margin/best estimate) can result in a large implied cost of capital, as the risk margin enters the calculation in the denominator. Put another way, any discrepancy between assets transferred and best estimate will appear larger when the risk margin is small.

#### Data used and limitations

3.157 For this analysis EIOPA gathered data relating to 44 transfers from a wide range of EEA NSAs since 2016. The data was cleaned to remove any transfers with clear issues with the quantitative information (e.g. data not available). Forced sales were also excluded, as the aim of the analysis is to assess if technical provisions correspond to the specification in Article 75 of the Solvency II Directive that liabilities should be valued "at the amount for which they could be transferred, or settled, between knowledgeable willing parties in an arm's length transaction". The remaining 24 transactions, including transfers of open and closed books was the basis for our analysis.

3.158 As has been noted above, the implied cost of capital metric is sensitive to transactions with low risk margin. It is important to note that the size of the risk margin vs. TPs varies significantly depending on the type of business, e.g. pure unit-linked business without guarantees can have substantially lower risk margin compared to longer term annuity business. In fact, in the sample of open and closed books, the range of the ratio risk margin/technical provisions (RM/TP) was as high as 15.7% and as low as 0.4%. The majority of the transfers had ratios around of 5%. Unsurprisingly, some of the largest implied cost of capital figures were found in transactions of unit-linked business which had low risk margins relative to technical provisions. Ideally there would have been enough data to assess separately transactions with relatively high and low RM/TP, but the sample was not large enough to allow this analysis.

## Results of the analysis

3.159 The dataset of open and closed books showed a consistent pattern of TPs being lower than assets (median of technical provisions/assets = 87%). This translated in implied CoC rates that were typically large (median 29%). However this pattern of low TPs may be explained by the existence of goodwill in most of these transactions, particularly those involving open books of business (17 out of 24). It is natural that acquirers will have paid additional amounts for the future profits expected from writing new business, and this may naturally result in TPs being typically lower than assets without any implications for the suitability of TPs in general or RM in particular. Likewise the presence of goodwill would bias upwards the implied cost of capital metric.

3.160 In order to attempt to exclude goodwill from the analysis we further cleaned this dataset to comprise only transfers of closed books of business. As a result, a further 17 transfers were removed, leaving 7 transfers in the dataset of closed books (3 Non-Life and 4 Life). It should be noted that closed books of business may also involve some goodwill, but this is likely to be much less than open books. It should also be noted that this dataset, comprised of only 7 transactions may be too small to draw any robust conclusions.

3.161 Analysis of the closed book dataset showed significant differences with the dataset of combined open and closed books, consistent with the hypothesis that the wider dataset's results were skewed by the inclusion of goodwill. In particular, the closed book transfers generally had a balanced relationship between assets and technical provisions (Median of technical provisions/assets = 99.8%, with this ratio always between 97% and 105%). There was a range of values for the implied cost of capital, with a median of 6%, ranging from <3% on a transfer of Life annuity business and 46% on a transfer of unit-linked business that had the lowest RM/TP ratio of this dataset.

3.162 In summary:

- These results should be taken with care due to the limited number of transactions in the final data set.
- Nevertheless the results do not indicate a systematic miscalibration of the technical provisions compared to transfer values.
- Likewise there was no evidence of systematic over or under calibration of the risk margin.
- Regarding the calibration of the risk margin for different product types, there is insufficient data to draw any strong conclusions.

### **3.2.7.2 Issue II – Assumptions underlying the reference undertaking**

3.163 The primary aim of this section is to investigate the assumption that the reference undertaking does not use the MA or VA, and the implication of this on the risk margin calculation.

#### Matching Adjustment

3.164 For the purpose of the risk margin calculation the reference undertaking is assumed to notionally take on the liabilities of the original undertaking. The risk margin then reflects the cost to the reference undertaking of holding capital in respect of the risks they have taken on. The reference undertaking is only subject to risks that cannot be replicated by marketable financial instruments, and as such the risk margin only needs to be held for the unhedgable risks of the original undertaking.

3.165 For all other risks, it is assumed that the reference undertaking de-risks their portfolio to minimise hedgeable risks, and as such, the risk margin does not need to be held for these risks. This is equivalent to assuming that the reference undertaking invests in risk-free assets.<sup>137</sup>

3.166 The calculation of the best estimate is based on a risk free interest rate term structure, which implies that the liabilities can be replicated with risk free assets available on deep, liquid and transparent markets. In order for the regime to be market consistent, the assumptions underlying the calculation of the best estimate should be the same as the assumptions underlying the risk margin.

3.167 Where the undertaking does not use the MA and VA, the implications of this are clear. The best estimate and the risk margin are calculated based on the risk-free interest rate term structure, and the assumption that the reference undertaking acts to minimise risk. However, where an undertaking uses the VA or MA, there are implications for the risk margin calculation.

3.168 First, we will consider an undertaking that applies the MA. An undertaking may apply the MA where they have liabilities that are well matched by a dedicated portfolio of assets. Where this is the case the undertaking can increase the risk free rate that is used to discount these liabilities by the difference between the yield on those MA assets and the risk free rate, minus a fundamental spread to account for the risk of default and downgrade. It reflects the fact that undertakings with strong matching between assets and liabilities can hold assets to maturity and therefore earn the additional yield over and above the risk free. Where the MA is used, the undertaking is no longer using the risk-free rate to value its liabilities, which has consequences for the risk margin calculation.

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<sup>137</sup> For the risk margin calculation it is assumed that all market risks are hedgeable and excluded from the risk margin calculation, even though some, for example long duration interest rate risk, may not be in practice.

- 3.169 Where the original undertaking uses the MA, one option would be to assume that the reference undertaking also uses the MA. In making this assumption there are two items that need to be considered. First is the implications on the unhedgable risks, and the second is in relation to the yield curve used to discount the projected unhedgable risks.
- 3.170 In the normal risk margin calculation unhedgable risks relate mainly to insurance risks and operational risks which cannot be hedged using market instruments. However, in assuming that the reference undertaking also uses the MA, it would follow that the reference undertaking needs to hold the assets in the underlying MA portfolio. By making this assumption it would follow that spread risk of the associated MA assets should also be allowed for in the Risk Margin calculation. This would ensure that there is consistency between the calculation of the Best Estimate and the Risk Margin.
- 3.171 Following on this train of logic, where the reference undertaking holds the MA assets, it no longer holds that the reference undertaking de-risks on transfer. The reference undertaking, in addition to the risks that cannot be hedged, will also be exposed to the credit risk arising from the MA assets. While in theory the reference undertaking could invest in credit default swaps to hedge the risk of defaults, the market for these instruments is not deep, liquid or transparent.
- 3.172 So if the MA were to be allowed in the risk margin calculation through the projected SCR, without a modification to allow for the credit risk in the MA portfolio, the unhedgable risks and as a result the risk margin, would be understated.
- 3.173 Where the undertaking applies the MA in its best estimate and SCR calculations, the current approach to the risk margin is for it to be calculated without the application of the MA. This assumes that the risky assets that make up the MA portfolio are not transferred to the reference undertaking and there is not allowance for spread risk in the risk margin calculation. In addition, the discounting of the future SCRs is performed with the basic risk-free rates only, without allowance for the MA.
- 3.174 While the current approach has the benefits that it is consistent with the underlying assumption that the reference undertaking de-risks on transfer, it could be argued that this approach introduces inconsistencies with the calculation of the best estimate (which does allow for the MA).
- 3.175 EIOPA has identified an alternative approach that would be more consistent, this is set out below;
- Approach 1: Allowance of MA in the risk margin

For each undertaking applying the MA, the best estimate and SCR are calculated based on the basic risk free rate plus the MA. This approach suggests to also extend the application of the MA to the risk margin. This assumes that the undertaking's risky assets that make up the MA portfolio are transferred

to the reference undertaking. This implies that the risk margin includes the SCR for spread risk of the assets in the matching portfolio.

3.176 EIOPA has identified a second consistent approach, which would be to remove the MA entirely from the Solvency II regime, while keeping the current calculation of the risk margin unchanged. While this would ensure that the calculation of the best estimate and risk margin are consistent, it is going beyond the scope of the review of the risk margin and is not considered a viable option.

3.177 The pros and cons of this approach in comparison with the current approach are set out in the table below.

<b>Approach 1: Allowance for MA in both the risk margin and best estimate</b>	
<b>Pros</b>	<b>Cons</b>
Increased consistency between risk margin and best estimate / SCR calculation, as MA feeds into all aspects.	Not consistent with the assumption that the reference undertaking de-risks on transfer
Potentially more consistent with real transfers of liabilities, although the exact level of MA would depend on the investment decisions of the reference undertaking.	Increases the sensitivity of risk margin to changes in interest rates.
	The effect of including the market risk from MA assets in the risk margin may negate the effectiveness of the MA in the overall technical provisions calculation, and may be inconsistent with the assumption that the undertaking can earn the MA free of risk.
	Assumes that the reference undertaking gets regulatory approval to use the MA

3.178 If the risk margin is modified and Approach 1 is adopted, EIOPA has identified one further consideration, namely the relevant yield curve used to discount the future projected SCR components.

3.179 Where this particular issue is considered in isolation, EIOPA has identified two options:

- **Approach 1a:** The current approach. Basic risk-free interest rates without the MA are used.
- **Approach 1b:** Risk-free interest rates plus MA are used.

3.180 The pros and cons of approach 1a and 1b in comparison with the current approach are set out below.

<b>Approach 1a: Basic Risk-free interest rates are used</b>	
<b>Pros</b>	<b>Cons</b>
	Inconsistent with the projection of the unhedgeable risks, which include the spread risk arising from MA assets.

<b>Approach 1b: Risk-free interest rates plus MA are used</b>	
<b>Pros</b>	<b>Cons</b>
Increases consistency between the best estimate / SCR and risk margin in that the same discount rates are used.	Inconsistent with the assumption that the reference undertaking de-risks on transfer, therefore inconsistent with the non-allowance of spread risks in the reference undertaking.
Reduces the sensitivity of the risk margin to changes in interest rates for undertakings that have the highest current sensitivity	The cash-flows feeding into the risk margin are highly uncertain. As a result undertakings may not be able to earn a discount rate including the MA in practice and so the risk margin may be too low to ensure that technical provisions can be transferred
	Where undertakings have both MA and non-MA business, the risk margin would need to be calculated separately which introduces added complexity.
	No allowance for diversification is possible in the risk margin calculation between the MA and non-MA portfolios.
	It is not clear whether it would be possible for the reference undertaking to match the relevant cash flows with suitable assets, and what those assets would be.

	Reduces policyholder protection as transfer technical provisions may not be sufficient.
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3.181 EIOPA also considered other possibilities, such as keeping the current approach (assuming the reference undertaking does not apply the MA) but allowing the discounting of projected future SCRs to include the MA. EIOPA concluded that such approaches would be inconsistent as discounting with MA could only be relevant in the situation where the reference undertaking itself is assumed to apply the MA, as set out in approach 1b above.

3.182 While maintaining the current approach does not resolve the issue in relation to consistency between best estimate and risk margin calculation, after weighing up the pros and cons of the possible options, EIOPA proposes that the current approach is maintained and no changes are made. The approach is consistent with the assumption that the reference undertaking de-risks on transfer and the use of the basic risk free rate counterbalances the non-recognition of spread risk in the risk margin. This approach does not require that market risks are included in the risk margin.

### **Volatility Adjustment**

3.183 Two approaches to the VA are proposed, one which is based on the own assets of the undertaking, and the second is based on a representative portfolio of assets. While the approaches are fundamentally different in nature, there is a great deal of similarity in the interaction of the measures with the risk margin, and indeed with the MA interaction with the risk margin.

3.184 Under both VA proposals, as with the MA, there are two aspects to the risk margin that need to be considered; the projection of unhedgable risks, and the rate that is used to calculate the present value.

### **VA based on own assets**

3.185 There are some conceptual similarities between a VA based on own assets and the MA. In both instances, the benefit from the measure is related to the assets held by the undertaking. However the link between the actual asset holdings and the VA is much weaker. Requirements on using the measure (e.g. cashflow matching) and the types of eligible assets are much less onerous under the VA than the MA. It should also be noted that unlike the MA, there is no adjustment for the spread risk in the SCR calculation where the VA is used.

3.186 Therefore, while conceptually there may be similarities between the MA and VA based on own assets, the arguments for assuming the reference undertaking uses the VA, and so allowance for the VA in the risk margin

calculation are naturally weaker, reflecting the weaker link between the assets and the liabilities.

### **VA based on reference portfolio**

3.187 Unlike the VA based on own assets, under the VA based on the reference portfolio there is no direct link between the actual asset holdings of the undertaking and the measure, except in relation to the proportion of fixed income investments and duration information feeding into the application ratio. It is important to note that the undertaking is not required to invest in the reference portfolio in order to recognise the benefit from the VA.

### **Analysis - VA in the risk margin calculation**

3.188 Where the undertaking applies the VA in its best estimate and SCR calculations, the current approach to the risk margin is for it to be calculated without the application of the VA. This assumes that the risky assets are not transferred to the reference undertaking and there is not allowance for spread risk arising from these assets in the risk margin calculation. In addition, the discounting of the future SCRs is performed with the basic risk-free rates only, without allowance for the VA.

3.189 Similar to the MA, EIOPA has identified one option in relation to allowance of the unhedgable risks in the risk margin calculation where the undertaking uses either VA option;

— **Approach 1:** Allowance of VA in the risk margin

For each undertaking applying the VA, the best estimate and SCR are calculated based on the basic risk free rate plus the VA. This approach suggests to also extend the application of the VA to the risk margin. This approach assumes that the reference undertaking invests in risky assets similar to the current investments of the undertaking, the risk margin includes the SCR for spread risk from these assets.

3.190 The pros and cons of this approach in comparison with the current approach are set out below.

<b>Approach 1: Allowance for VA in both the risk margin and best estimate</b>	
<b>Pros</b>	<b>Cons</b>
Increased consistency between risk margin and best estimate as the VA feeds into all aspects.	Not consistent with the assumption that the reference undertaking de-risks on transfer
	Increases the sensitivity of risk margin to changes in interest rates.



	The effect of including the market risk from VA assets in the risk margin negates the effectiveness of the VA in the overall technical provisions calculation and may be inconsistent with some justifications for VA (e.g. as a property of the liabilities irrespective of assets held).
	Assumes that the reference undertaking gets regulatory approval (where applicable) to use the VA

3.191 If the risk margin is modified and Approach 1 is adopted, EIOPA has identified one further consideration, namely the relevant yield curve used to discount the future projected SCR components.

3.192 Where this particular issue is considered in isolation, EIOPA has identified two options:

- **Approach 1a:** The current approach. Basic risk-free interest rates without the VA are used.
- **Approach 1b:** Risk-free interest rates plus VA are used.

3.193 The pros and cons of approach 1a and 1b in comparison with the current approach are set out below.

<b>Approach 1a: Basic Risk-free interest rates are used</b>	
<b>Pros</b>	<b>Cons</b>
	Inconsistent with the projection of the unhedgeable risks, which include the spread risk arising from VA assets.

<b>Approach 1b: Risk-free interest rates plus VA are used</b>	
<b>Pros</b>	<b>Cons</b>
Increases consistency between the best estimate / SCR and risk margin as the same discount rates are used.	Inconsistent with the assumption that the reference undertaking de-risks on transfer
Reduces the sensitivity of the risk margin to changes in interest rates.	The cash-flows feeding into the risk margin are highly uncertain. As a result undertakings may not be able to earn a discount rate including the VA in practice and so the risk

	margin may be too low to ensure that technical provisions can be transferred
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3.194 Similar to the MA, EIOPA also considered the option to keep the current approach (assuming the reference undertaking does not apply the VA) but allowing the discounting of projected future SCRs to include the VA. EIOPA concluded that the arguments against such an approach are also valid for the VA.

3.195 Therefore, after weighing up the pros and cons of the possible options, the EIOPA proposes that the current approach is also maintained for the VA and no changes are made. The approach is consistent with the assumption that the reference undertaking de-risks on transfer and the use of the basic risk free rate counterbalances the non-recognition of spread risk in the risk margin.

### **3.2.7.3 Issue III – Use of a fixed CoC rate**

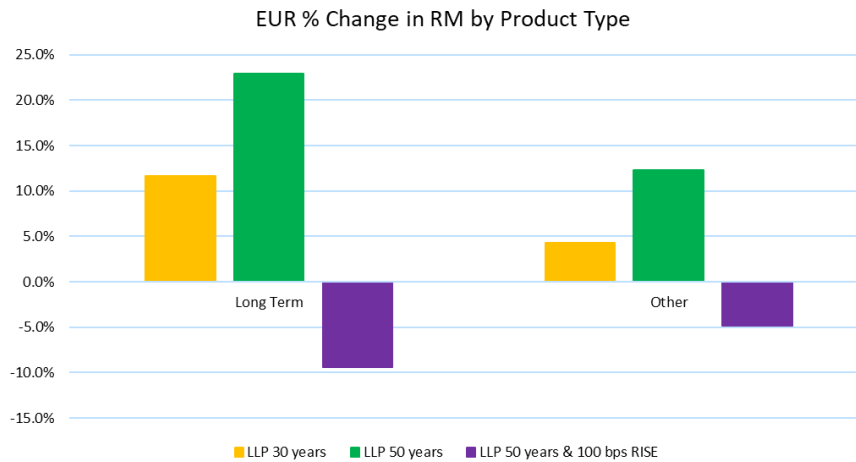
#### **Sensitivity to Interest rate changes**

3.196 Using the data from the extrapolation information request EIOPA has carried out an analysis of the sensitivity of the risk margin to changes in interest rates. This data covered a wide range of undertakings from 20 jurisdictions using either EUR or pegged currencies, and has been supplemented with data from undertakings in the UK derived from a separate sensitivity analysis. All of the data is as at year end 2018.

3.197 The analysis considered both the raw sensitivity of the risk margin as well as its sensitivity as a percentage of technical provisions (RM/SCR) and as a percentage of SCR (RM/SCR). All of these metrics were recalculated under the stresses changing the Last liquid point (LLP) for the EUR curve, and also under the interest rate sensitivity stress where the impact of a 100bps decrease in spreads is assessed. This last sensitivity is comparable to the sensitivity results from UK undertakings.

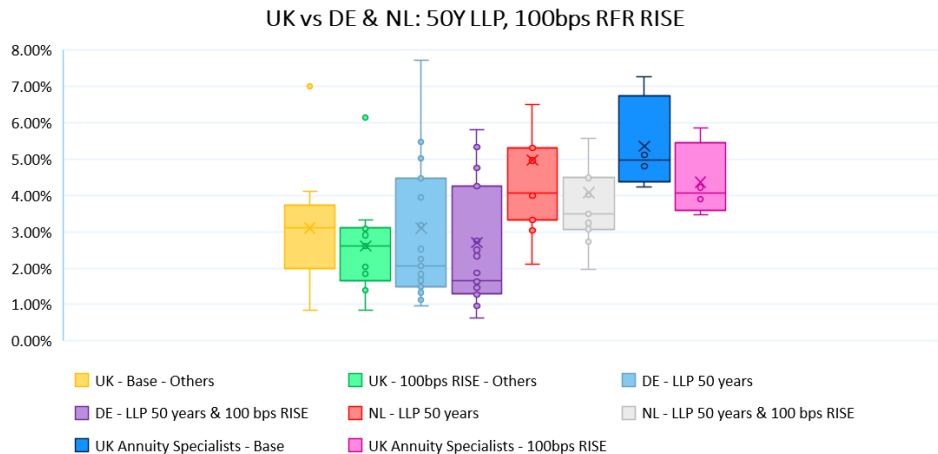
3.198 At national market level, an increase in the risk-free rate generally resulted in a decrease in the risk margin (this was the case in all but one of the EUR markets as well as in the UK).

3.199 The change in gross risk margin was amplified for EUR undertakings with liability duration greater than 10 years (“EUR long-term undertakings”). Likewise, UK undertakings with heavy exposure to MA business (assets in the MA portfolio > 75% of BEL) had the highest risk margin sensitivity. This can be seen in the below graphic for the EUR:



3.200 When assessing the interest rate sensitivity of RM/BEL and RM/SCR, it was apparent that this varied widely in different jurisdictions. For a number of EUR countries, these ratios were stable throughout the scenarios. Other EUR countries showed ratios that were sensitive to interest rate changes, as did the UK. In both the EUR and UK data, undertakings with long-term business (or with high MA exposure in the UK) had a higher average RM/BEL for all scenarios. There was a clear upwards trend in the UK data when spreads increased by 100bps (higher for undertakings with high MA exposure) but this trend was less obvious in the EUR data, particularly when viewed as an aggregate across all markets.

3.201 These variations are likely partly due to the prevalence of different products in different national markets. In the UK market in particular, undertakings with high MA exposure showed the highest interest rate sensitivity on all of the metrics. This is consistent with the current specification of the risk margin that increases for business with long-duration underwriting risk (both characteristics of MA business). While the UK market showed the highest sensitivity of RM/BEL and RM/SCR, there were other EUR national markets (e.g. NL) that showed similar levels of sensitivity, particularly for long-term business and especially in those scenarios that assumed a 50 year LLP for EUR (which was tested in order to have a like-for-like comparison, noting that LLP is 50 years for GBP). This can be seen in the below graphic, which includes data for the UK (split between annuity specialists and other firms), Germany and the Netherlands:



3.202 In the EUR markets mentioned above, the sensitivity of the risk margin to changes in interest rates was lower when assessed on a 20 year LLP. As can be observed in the above graphic, when the LLP was 50 years, the average Dutch risk margin relative to BEL dropped by 90bps when interest rates were increased by 100bps. Similarly the average reduction in the German market was 41bps. These compare with a reduction of 100bps for UK annuity specialists, and 50bps for other UK undertakings, calculated also on a 50 year LLP. However, when the EUR LLP was 20 years both the Dutch and German markets were considerably less sensitive to a change in interest rates: an interest rate increase of 100bps resulted in a reduction in the RM/BEL ratio of only 25 bps for the Dutch market, and 18 bps for the German market.

3.203 In summary the conclusions from this analysis were:

1. The risk margin sensitivity to interest rates is generally as expected (e.g. risk margin decreases with an increase in interest rates).
2. The types of products in different jurisdictions are a significant factor when assessing interest rate sensitivity of the risk margin:
  - a. When viewing the EUR market as a whole, there does not appear to be much interest rate sensitivity of RM/BEL or RM/SCR.
  - b. However this aggregated view masks differences in some EUR national markets. For some markets, those ratios are indeed sensitive to interest rates, likely reflecting the prevalence of different products in different jurisdictions.
  - c. This is consistent with the UK data where MA-focused undertakings had much higher sensitivity than other undertakings.
3. The key drivers of interest rate sensitivity of the risk margin appear to be the following:
  - a. Products with high underwriting risk have higher interest rate sensitivity.

- b. Long term business has higher interest rate sensitivity than shorter term business.
- c. The sensitivity to interest rates increases with an increase in the EUR LLP from 20 years.

### **Dependency of the CoC rate on the level of interest rates**

3.204 In view of stakeholder proposal to make the CoC rate dependent on the level of risk-free interest rates EIOPA analysed the sensitivity of the cost of equity to interest rates and set out the results in the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation. It was noted that the empirical and academic evidence to support a link between the equity risk premium and risk-free interest rates is mixed. In particular, in the early part of this century the relationship between equity returns and risk-free rates appears to be negative. EIOPA concluded that the decrease of interest rates since 2011 was not a convincing argument on its own to decrease the cost of capital.

#### **3.2.7.4 Issue IV – Assumptions used to derive the CoC rate**

3.205 EIOPA thoroughly reviewed the derivation of the CoC rate in 2017 and 2018 and set out the results in the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation. EIOPA concluded that the CoC rate was in the range from 6.7% and 7.8% and commended on that basis not to change the legal provision prescribing a CoC rate for Solvency II of 6%.

3.206 Regarding the derivation of the equity premium EIOPA analysed five models, in particular the historical return model and the dividend discount model. EIOPA concluded that the historical return model should be used in particular because it ensures methodological consistency with the initial derivation of the CoC rate for Solvency II, stronger stability of the CoC rate over time and because it depends less on assumptions.<sup>138</sup>

3.207 Regarding the treatment of leverage in the derivation of the CoC rate EIOPA explained that a more granular modelling that removes leverage and capital in excess of the SCR would result in a higher CoC rate.<sup>139</sup>

3.208 EIOPA has no evidence or indications that the conclusions drawn in the 2018 are not valid anymore. Therefore, no additional analysis was carried out.

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<sup>138</sup> See paragraphs 1946 to 1965 of the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation.

<sup>139</sup> See paragraphs 1968 to 1973 of the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation.

### **3.2.7.5 Conclusion**

3.209 In light of the analysis carried out, EIOPA proposes no changes to the risk margin calculation for the following reasons.

- Based on the transfer value analysis there is no indication that technical provisions are systematically under or over estimated. When looking at the transfers of closed books of business, which should not be biased by the inclusion of goodwill that is more prevalent in open books, there appears to be a balanced relationship between assets transferred and Technical provisions. For this subset of transfers, the ratio of technical provisions over assets ranges from 97% - 105% with a median of 99.8%. However, this is not a strong conclusion given the small sample size of transfers.
- The sensitivity of the risk margin to changes in interest rates is generally as expected, with the highest sensitivity for long term products with high underwriting risk. One option to reduce the sensitivity of the risk margin for these products is to include the MA or VA in the risk margin discount rate. EIOPA has reviewed the consequences of this option in detail, however on the balance of pros and cons EIOPA suggests that no change is made.
- Further analysis has been performed on the assumptions underlying the reference undertaking, and in particular the consequences on the calculation if it is assumed that the reference undertaking uses the VA or MA. While different methods have been set out for how this could be done, EIOPA has concluded that on balance, the cons of making a change outweigh the pros, therefore EIOPA suggest that no change is made.
- EIOPA has not identified any reason to change the CoC rate, as this was reviewed in detail as part of the Second set of Advice to the European Commission on specific items in the Solvency II Delegated Regulation in 2018.

### **3.2.8 Advice**

3.210 EIOPA proposes no changes to the risk margin calculation.



### **Questions to stakeholders**

Is your experience, if relevant, consistent with our conclusions that the risk margin can be more sensitive to interest rate changes for longer term business?

**Q3.4:** What is your view on the assumptions underlying the reference undertaking where the original undertaking applies the MA or VA? Considering the approaches for risk margin calculation outlined in section 3.2.7.2, are any of the noted pros and/or cons inconsistent with your own views or experience?

**Q3.5:** Please note any possible approaches to the calculation of the risk margin you believe should be considered that have not been included under section 3.2. Please justify any such approaches,

## 4. Own funds

### 4.1 Extract from the call for advice

#### **3.18. Own funds at solo level**

*The Tiering structure of own funds in the Solvency II framework significantly differs from the one applicable to under Directive 2013/36/EU and Regulation (EU) No 575/2013.*

*Therefore, EIOPA is asked to report and where appropriate to provide advice, on the following items:*

- whether the differences in the Tiering approaches between the insurance framework and the banking framework are justified by differences in the business models of the two sectors<sup>140</sup>;*
- the extent to which the Tiering structure of own funds in the Solvency II framework may generate undue volatility of own funds;*
- whether the availability criteria for own funds are sufficiently clear and appropriate;*

*In addition, EIOPA is asked to assess whether the items currently included in Solvency II own funds are appropriately attributed to Tiers according to the characteristics of permanent availability and subordination.*

### 4.2 Tiering and ancillary own funds

4.1 This section contains options in relation to changes to the number and composition of Tiers in Solvency II and options in relation to changes to ancillary own funds (AOFs).

#### **4.2.1. Previous advice**

##### Number of Tiers

4.2 In 2018 EIOPA provided its Second Set of Advice to the Commission on specific items in the Solvency II Delegated Regulation (EIOPA-BoS-18/075). Section 19 covers the Comparison of Own Funds in Insurance and Banking sectors. EIOPA was asked to:

4.3 “Compare eligible items between the frameworks and assess the differences in their classification, and for each of these differences, assess if they are justified by differences in the business model of the two sectors, by diverging elements in the determination of own funds requirements, or on other grounds”.

4.4 The main differences identified in the discussion paper related to differences between Additional Tier 1 in the banking regime and restricted Tier 1 (rT1) within the Solvency II Delegated Regulation. Two topics in particular arose,

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<sup>140</sup> For instance, the banking regulation does not include Tier 3 own-funds and does not impose any upper limit on the amount of eligible Tier 2 own-fund items.



namely the operation of the PLAM (Principal Loss Absorbency Mechanism) and the tax effect of rT1 on write down.

- 4.5 EIOPA responded that the features of rT1 capital should not be amended, and that the PLAM delivers quality of capital as the principal value absorbs losses when triggered, and that the primary objective of triggering a capital instrument is not to cure the breaches of regulatory capital.
- 4.6 EIOPAs advice in 2018 in relation to the PLAM, was to recommend that partial write down should be permissible where the mandatory trigger of 3 months SCR breach was reached, but only so long as the 75% SCR breach and MCR breach triggers occurred. It was recommended that as a minimum rT1 was to be written down on a straight line basis in such a way that 75% SCR breach the instrument would be written down in full. RT1 should be written down immediately in full if the MCR is breached.
- 4.7 Undertakings are required to recalculate their SCR coverage every three months until SCR compliance is restored, and apply a further write down on any worsening of SCR coverage after each subsequent 3-month period.
- 4.8 EIOPA recommended not to align the PLAM trigger with the banking regime, and instead to allow full recognition of the principal amount of rT1 instruments on issuance. However it allowed NSAs to apply an additional waiver from the requirement to write down or convert if the undertaking requests the waiver, and demonstrates that there is a high likelihood that the tax effect of the write down would weaken the solvency position of the undertaking, provided this is confirmed by the undertaking's statutory auditors and neither the 75% SCR mandatory trigger, no MCR have been breached.
- 4.9 EIOPA also recommended changes to bring Solvency II closer to CRR in relation to tax and regulatory calls.
- 4.10 The 20% limit on restricted Tier 1 items was examined, and EIOPA did not agree that the arguments provided by stakeholder justified the removal of the limit; any complexity arising from it was minimal. EIOPA advised the Commission to retain the 20% limit on rT1.

#### AOFs

- 4.11 No previous advice has been issued by EIOPA in relation to AOFs specifically.

### **4.2.2. Relevant legal provisions**

#### Solvency II Directive

- Article 89 - Ancillary own funds
- Article 90 - Supervisory approval of ancillary own funds
- Article 93- Characteristics and features used to classify own funds into Tiers

- Article 94 - Main criteria for the classification into Tiers
- Article 95 - Classification of own funds into Tiers
- Article 96 - Classification of specific insurance own-fund items
- Article 97 - Delegated acts and regulatory technical standards
- Article 98 - Eligibility and limits applicable to Tiers 1, 2 and 3
- Article 99 - Delegated acts on the eligibility of own funds

#### Delegated Regulation

- Article 69 - Tier 1 — List of own-fund items
- Article 70 - Reconciliation Reserve
- Article 76 - Tier 3 Basic Own funds – List of Own funds items
- Article 77 - Tier 3 Basic Own funds – Features determining classification

#### Guidelines

- EIOPA-BoS-14/168 EN EIOPA Guidelines on classification of own funds
- <https://eiopa.europa.eu/publications/eiopa-guidelines/guidelines-on-classification-of-own-funds>
- EIOPA Guidelines on Ancillary Own Funds
- [https://eiopa.europa.eu/Publications/Guidelines/Final\\_Report\\_AOF\\_GLs.pdf#search=own%20funds](https://eiopa.europa.eu/Publications/Guidelines/Final_Report_AOF_GLs.pdf#search=own%20funds)

### **4.2.3. Other regulatory background**

#### Capital Requirements Regulation (CRR) (EU) No. 575/2013

4.12 Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (1). This regulation has recently been amended by Regulation (EU) 2019/876, with no significant change regarding own funds.

#### CRD V Package

4.13 The banking package introduces a binding leverage ratio requirement (i.e. a capital requirement independent from the riskiness of the exposures, as a backstop to risk-weighted capital requirements) for all institutions subject to the CRR. The leverage ratio requirement complements the current requirements in the CRD and the CRR to calculate the leverage ratio, to report it to supervisors and, since January 2015, to disclose it publicly.

4.14 The leverage ratio requirement is set at 3% of Tier 1 capital and institutions must meet in addition to/in parallel with their risk-based capital requirements. The 3% calibration is in line with the internationally-agreed level.

4.15 In relation to Own Funds, prudently valued software assets the value of which is not negatively affected by resolution, insolvency or liquidation of the institution are excluded from the scope of assets that need to be deducted<sup>141</sup>.

*Article 26 - Common Equity Tier 1 items*

*Article 36 - Deductions from Common Equity Tier 1 items*

#### **4.2.4. Identification of the issues**

4.16 In the CfA EIOPA is asked whether or not the different business models justify the two different capital Tiering approaches. This request is different from the scope of the European Commission's call for advice in 2017 (EIOPA-18-075) when EIOPA was specifically asked to compare own funds items which were shared by insurance and banking frameworks, but not treated similarly for the purposes of eligibility. EIOPA was asked for those eligible items to assess the differences in classification, and for each difference, to assess if the difference was justified by the differences in business model of the two sectors.

4.17 The key differences in Tiering approach between the Banking and Insurance frameworks could be summarized as follows:

- CRR sets out the minimum capital requirements to be met to cover credit, market and operational risk. Similar to an insurance undertaking, a credit institution must hold sufficient own funds to cover its risks, and to absorb losses.
- Own funds within the banking framework are segregated into two Tiers of capital, Tier 1 is specifically for going concern and Tier 2 is specifically required to be held in case of gone concern.
- Solvency II allows three Tiers of capital to be held as eligible towards the SCR and MCR calculation, all Tiers must be loss absorbing on a going concern as well as "gone concern" capacity.
- Within the banking framework, Tiering is calculated as a ratio of capital versus Risk Weighted Assets (assets held are assigned a weighting). The ratio is calculated on both Tier 1 and Tier 2.
- Within the insurance framework – own funds is the excess of assets over liabilities, classified into each Tier according to features, percentages imposed on each Tier, towards the SCR or MCR calculation.
- Banking imposes minimum Common Equity Tier 1 (CET1) ratio, T1 ratio and total OF ratio. The main supervisory trigger is based on CET 1 ratio. In insurance, supervisory interventions are based on total own funds ratios (to cover the SCR and the MCR), but Solvency II imposes a minimum on uT1 and a maximum on other Tiers. The supervisory

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<sup>141</sup> Cf. Article 1(18) of Regulation 2019/876.

trigger is based on two ratios: one is based on total OF to SCR ratio, the other on a subset of OF (excluding T3) to MCR.

- CRR imposes particular deductions on CET1, mainly current year losses, intangible assets and deferred tax. Regarding deferred tax assets that are dependent on future profitability, Article 48 of CRR provides for an exemption to their mandatory deduction; however, in any case, the maximum amount that can be included in own funds is limited to 10% of the amount of CET 1 items. Solvency II assesses the eligibility of each of the previously mentioned elements towards the own funds calculation. It provides for similar treatment of Intangible Assets (ITA), Tier 3 items – among which the net deferred tax assets – are allowable up to 15% of SCR, not allowable towards MCR. Within CRR deferred tax assets are deducted from Tier 1 calculations.

4.18 EIOPA asked NSAs in which cases an alignment of the SII Own funds Tiering and limits approach with the banking framework would be reasonable and what differences in the two business models justify the discrepancies.

4.19 Some NSAs are not in favour of an alignment of the SII Own funds Tiering with the banking framework while some NSAs consider it reasonable (for some of them in order to limit/remove T3 and AOFs items).

4.20 The differences in the Tiering approaches between the insurance framework and the banking framework are justified by differences in the business models of the two mainly due to:

- different types of risks
- different nature of the liabilities, assets, cash-flows: banks have short-term liabilities (current accounts and short term deposits) and longer term assets (loans) while in the insurance sector (particularly in life insurance) premiums are paid to support long term liabilities.
- inversion of the production cycle in insurance sector, and profit not recognized upfront
- characteristics of the insurance solvency framework: Solvency II is based on a holistic market consistent balance sheet approach where all assets and liabilities are valued at their market value and own funds are derived as excess of assets over liabilities. This is in contrast to the banking regulation which tends to use historic cost price and accrual accounting.
- Liquidity

4.21 It has been highlighted that the different terms of the business explain the existence of different requirements for permanence of capital (e.g. SII T2 own funds term - 10 years - vs Banking T2 own fund - 5 years). Specific items (calls for supplementary contribution considered as AOFs) are justified for mutual or mutual-type association with variable contributions, which are legal forms specific to the insurance sector.

- 4.22 Another aspect to consider is the different duration of the failure process: the faster process for banks justifies the higher proportion of their capital in Tier 1 (going concern) than the 50% of SII.
- 4.23 In this section, EIOPA assesses the possibility to remove Tier 3 own funds. As regards the upper limit on Tier 2 eligible own funds and on the treatment of ancillary own funds, the analysis is carried out in the next section (undue volatility).
- 4.24 It is not clear why the co-legislators introduced three Tiers for the insurance sector and only two for the banking one. One could argue though that the insurance framework introduces two capital requirements (the SCR and the MCR), with no real equivalent in the banking sector. Tier 3 triggers deferral of coupon payments only where the MCR is breached, not the SCR. On the other hand, the convergence between bank and insurance could theoretically help foster the depth of the debt capital markets for financial institutions. There is however no empirical evidence that insurance undertakings experience difficulties to access capital markets that are related to the depth of such markets.
- 4.25 Removing Tier 3 from Solvency II requires first to assess the main items that constitute this Tier, namely dated subordinated debt, net deferred tax assets and ancillary own funds.

#### Ancillary own funds

- 4.26 AOFs are classified as Tier 2 or Tier 3 depending on whether they convert into a Tier 1 or Tier 2 respectively once called.
- 4.27 The concept of AOFs does not exist in the banking framework. AOFs are committed, but unpaid lines of capital. They usually take the form of a letter of credit, from for example the parent to the subsidiary, but also other counterparties. To be eligible as AOF the capital needs to be callable by the recipient on demand. The underlying item must be a basic own fund item. Supervisors will assess, among several features, the economic substance of the AOF, the counterparty's ability and willingness to repay. Proposals for changes to Tiering could affect the treatment of AOFs.
- 4.28 As AOFs consist in "*items different from basic own funds items that can be called up to absorb losses and cease to form part of ancillary own-fund items where they have been paid in or called up*" (when they increase basic own funds), it would not be appropriate to give them the same classification as the basic own fund that they will become (or be uplifted to) when called up.
- 4.29 Therefore, if Tier 3 is deleted to align the number of Tiers with the banking regulation, it would be almost impossible to keep AOFs which are currently classified in Tier 3 as eligible own funds items, because it would give the item the same classification whether called or not. The impact of this removal would however be very limited as very few Tier 3 AOFs have been issued

until now. In addition, as they are callable on demand, they can become Tier 2 basic own funds items if called.

- 4.30 Regarding AOFs currently classified in Tier 2, as they will become Tier 1 instruments or be uplifted Tier 1 when called they are not therefore affected by a potential removal of Tier 3 from the framework.

#### Net deferred tax assets

- 4.31 Deferred tax asset is only one aspect of the tax impact within the Solvency II framework and it is closely linked to the adjustment for loss absorbing capacity of deferred tax (LAC DT).
- 4.32 The treatment of net deferred tax assets cannot be apprehended in isolation, but should be considered more comprehensively as part of the broader recognition of tax effects under Solvency II. For instance, it would be inconsistent not to accept deferred tax assets as an eligible own fund item (as far as they increase the overall amount of excess of assets over liabilities), but in the meantime to take into account an adjustment to the solvency capital requirement which reflects the change in the after-shock amount of deferred tax asset/liabilities.
- 4.33 Under the current framework, net deferred tax assets are deducted from the excess of assets over liabilities (and are therefore excluded from the reconciliation reserve) but are reallocated to Tier 3 (for which an upper limit of 15% of the SCR is set). If the deferred tax asset would not be deemed eligible anymore, an amount equivalent to the deferred tax asset would be directly deducted from the excess of assets over liabilities to derive the reconciliation reserve.
- 4.34 This current rule (which classifies the net deferred tax assets in Tier 3) is already somehow inconsistent with the treatment of the adjustment for loss absorbing capacity of deferred taxes which directly reduces the solvency capital requirement. It means that the variation of deferred tax due to shock reduces the SCR, while the deferred tax asset in itself is not considered as Tier 1 but as Tier 3.
- 4.35 In addition, any amount of net deferred tax assets (deferred tax asset above deferred tax liabilities) must be justified by future profits. Where insurance undertakings fail to demonstrate the justification of net DTA by future profits (on the S2 Balance Sheet, so without any reference to SCR shocks), these DTAs should not be on the S2 Balance Sheet in the first place. Such demonstration should be to the satisfaction of national supervisors. National supervisors disallow net DTA positions that cannot be satisfactorily justified. This provides protection against unwarranted capital creation.
- 4.36 Given the market value nature of the S2 Balance Sheet, adverse developments (increase of technical reserves or decrease of asset positions) lead to an increase in DTA. In situations where large net DTL positions are currently present on S2 Balance Sheets, this DTA increase has limited effect.

In all other situations, the increase in DTA leads to the recognition of a net DTA position on the S2 Balance Sheet. The fact that this net DTA is included in Own Funds provides anticyclical element in the Solvency II framework. Given the passionate discussions around the pro-cyclical nature of Solvency II, this anticyclical element has significant value.

- 4.37 This also demonstrates again the link between the net deferred tax asset and the adjustment for loss absorbing capacity of deferred tax. As future profit cannot be used twice (for the justification of DTA and for the justification of LAC DT), the level of net deferred tax indirectly influences the level of the adjustment for loss absorbing capacity of deferred tax which must also be justified by future profit (after shock).
- 4.38 Furthermore, it was concluded during the 2018 EIOPA advice on the review of the Solvency II Delegated Regulation that DTAs and LAC DT were very complex topics to discuss as long as there is no harmonization of tax regimes and accounting regimes at European level. Any change to the current rules regarding the tax impact in Solvency II will affect differently the different Member States and may penalize Member States with a high tax rate and/or big difference between accounting and prudential valuation rules.
- 4.39 As a conclusion, on one hand, it seems not to be relevant to take a position regarding the deferred tax asset as eligible own funds without having a whole discussion about the tax affect in Solvency II including about the adjustment for loss absorbing effect in deferred tax, and on the other hand, the previous SCR review showed how difficult it was to reach a common view on this topic and the little appetite to do it. Weighing the various arguments (both for and against) changing Tier 3 Own Funds, EIOPA recommends keeping the current legislation without any changes on this point.
- 4.40 Even if Tier 3 was removed, DTAs should still in any case be recognized as an own fund item under Solvency II.
- 4.41 The banking framework allows for a limited recognition of deferred tax relying on future profitability (in any case, that amount cannot be greater than 10% of CET 1). However, such an approach would increase the volatility of the solvency position of the undertaking (the higher the amount of losses an insurer faces, the lower the eligible deferred taxes) which further discussed in the next sections.
- 4.42 Therefore, should Tier 3 be removed from Solvency II EIOPA, EIOPA would recommend reclassifying DTAs as Tier 2, possibly with a specific limit expressed as a percentage of the SCR (e.g. 15%) or of total own funds (e.g. one third of total eligible own funds, which is the current limit for Tier 3 own funds according to Article 98 of the Solvency II Directive).

#### Dated subordinated debt instruments

- 4.43 In addition to deferred tax asset and ancillary own funds, the current Tier 3 also include subordinated loans

- 4.44 The subordinated loans included in Tier 3 do not fulfil the conditions to be classified in Tier 1 or Tier 2 and are of lower quality (e.g. coupon payments are deferred only when the MCR is breached, not the SCR). While some features of Tier 3 subordinated debt (e.g. the original maturity of 5 years) are similar to the banking Tier 2 characteristics, the different nature of the business models and the longer-term characteristics of insurance risks do not justify further prudential convergence between the two sectors.
- 4.45 Therefore, if Tier 3 were to be removed, the only acceptable option would be to disallow the recognition of Tier 3 subordinated debt as an own fund item.
- 4.46 In the light of the above, the two following policy issues have been identified with respect to a possible full alignment with the banking framework:

**Policy issue 1: Differences between the Solvency II own funds categorisation system and the banking framework**

- 4.47 The majority of NSAs support no change to the Tiering structure from 3 to 2 categories, for the main reason that the banking and insurance frameworks are significantly different. Furthermore such a change would require the restructure of Tiering in terms of eligibility of items, and further in depth consideration of the features of Own Funds.
- 4.48 The possible change considered would consist in removing the Tier 3. Tier 3 AOFs and Tier 3 Subordinated debt would not be recognized as own fund items. However, DTAs would remain eligible up to a certain limit (e.g. 15% of the SCR). However EIOPA does not support this change at this time.

**4.2.5. Analysis**

- 4.49 One option which was considered was the deletion of T3, with the consequence to change the Solvency II directive accordingly and not to recognize any more the items now included in the list of art. 76 as eligible own funds.
- 4.50 NSAs were asked to express their concerns in case of a deletion of T3.
- 4.51 Some NSAs were not in favour of its deletion and others also expressed concerns related to the treatment of some items currently recognized as T3. Some NSAs prefer to keep the Tier 3 in order to include other items that might be declassified as proposed in this advice (see the options regarding EPIFP in the section below). For a few NSAs the most appropriate measure is to consider T3 items ineligible and in some countries T3 is not relevant.
- 4.52 The major concern if Tier 3 was removed is the non- recognition of Deferred Tax Assets (DTA) as an own-funds item. DTA are allowed on the balance sheet, they naturally have an impact on own funds as the assets and liabilities and they are closely linked to the adjustment for loss absorbing capacity of deferred tax (LAC DT). Moreover, with this option consideration should be



given to a possible transitional period in relation to the item already included, as well as the future treatment of DTA.

- 4.53 A further option would be to absorb Tier 3 into Tier 2 and combine both Tiers, which would still leave the majority of firms with 100% SCR coverage (QRT data did not extend to firm level to assess this however the assumption is likely correct).
- 4.54 The combination of Tiers 2 and 3 would ensure that undertakings would retain their current capital structure, but would simplify and streamline the process. As Tier 3 makes up 1% of overall Own Funds, according to EIOPA QRT data (see table in the following section "Evidence"), this change would be quantitatively immaterial.
- 4.55 The survey showed that some NSAs see concerns with this option and consider it as not viable or prudent: it downgrades all T2 elements and a general weakening of OF, allows for a recognition of lower quality items up to 50% of the SCR (instead of the current 15%). Another NSA sees little benefit in any change of Tiering and one considers AOFs recognized in T3 not suitable for T2 level.
- 4.56 Some NSAs see no issues in moving T3 items in T2 but stricter requirements are needed or an increase of T1 limit, and 2 NSAs allows for moving DTA in T2.
- 4.57 However, as Tier 3 is made up of items which are of lower quality to Tier 2, the merger of the Tiers would likely reduce the overall quality.
- 4.58 One major concern was the differences in features between Tier 2 and 3 items. For example, Tier 3 instruments must be undated or hold an original maturity of 5 years, versus Tier 2 which must be undated or hold an original maturity of 10 years. Both Tier 2 and Tier 3 items can have limited incentive to redeem but Tier 2 not before 10 years. Tier 3 items distributions are deferred in case of an MCR breach, versus Tier 2 distributions deferred in case of an SCR breach.
- 4.59 Therefore in order to merge Tier 3, consideration to changes in relation to the features of Own Fund items must be given. Improving the quality of T3 items up to T2 own funds, in practice, leads to the same effect of a removal of the T3 (first option above) Moreover, when considering the change of the features, the comparison with the banking sector should be taken into account: given that in banking the T2 own funds term is, at least, 5 years against the 10 years of the SII Tier 2 own funds term, the removal of the Tier 3 would not achieve the targeted alignment of the two sectors.
- 4.60 Another option is to retain Tier 3 items, and features, but to move Tier 3 to Tier 2, and limit the items to a % of Tier 2, which reflects the current status quo. The proposal is to limit T3 items (now rT2) to 20% of Tier 2, which is approximately reflective of the overall aggregate percentages within the EIOPA QRT data provided.

4.61 However, this option would not ensure the alignment with the banking sector.

4.62 It was considered that if Tier 3 was to be removed from Solvency II, EIOPA would recommend reclassifying DTAs as Tier 2, possibly with a specific limit expressed as a percentage of the SCR (e.g. 15%) or of total own funds (e.g. one third of total eligible own funds, which is the current limit for Tier 3 own funds according to Article 98 of the Solvency II Directive).

4.63 However, it has been decided not to change the Tiering structure or limits.

### Evidence

4.64 An analysis of EIOPA QRT data for 3 years 2016 to 2018 provides data in relation to the structure of own funds Tiering across all member states. The split between Tiers over the years 2016 – 2018 reported in Table 1 shows the materiality of each Tier, in the calculation of total own funds.

*Table 1*

	2016	2017	2018	
rec. reserve	67%	68%	67%	% of T1
EPIFP	9%	9%	11%	% of T1
uT1	98%	98%	98%	% of T1
rT1	2%	2%	2%	% of T1
T1	94%	94%	94%	% of Total OF
T2	5%	5%	5%	% of Total OF
T3	1%	1%	1%	% of Total OF
DTA	89%	87%	84%	% of T3
	1%	1%	1%	% of Total OF

4.65 Only 2% of total OFs is made up of rT1, 94% is made up of T1 and 5% of T2. T3 represents 1% of total OF.

4.66 Tier 3 has in aggregation no material value towards the calculation of the SCR ratio on an aggregate basis, and is ineligible towards the MCR ratio.

### **4.2.6. Advice**

4.67 EIOPA assessed the differences in the Tiering and limits approaches between the insurance and the banking frameworks and deemed them to be justifiable considering especially the different business models between undertakings authorised under CRD IV or Solvency II. Besides the

requirements to hold capital and the way losses are absorbed differ significantly.

4.68 Therefore EIOPA advises not to change the Solvency II Tiering structure.

## 4.3 Undue volatility

4.69 This section provides options on changes to rT1 and limits to T2 and T3.

### 4.3.1. Previous advice

4.70 In relation to the Tiering limits, the previous advice of EIOPA related only to the 20% limit relative to unrestricted Tier 1 own funds:

*"EIOPA advises the Commission to retain the 20% limit in order to protect the prudential quality of Tier 1 own funds necessary to deliver the adequate protection of policy holders and beneficiaries. EIOPA is of the view that it cannot support any regime in which hybrid instruments could represent all or the most significant part of Tier 1. If the 20% were removed, EIOPA believes that there are no changes to the features of hybrid instruments that would fully mitigate the resulting loss in capital quality."*

4.71 This position resulted from the analysis of two options:

- To keep the limit unchanged
- or to delete the limit and to strengthen the quality of hybrid instruments

### 4.3.2. Relevant legal provisions

Solvency II Directive

Article 98 - Eligibility and limits applicable to Tiers 1, 2 and 3

Delegated Regulation

Article 82 - Eligibility and limits applicable to Tiers 1, 2 and 3

### 4.3.3. Identification of the issues

#### 1.3.3.1. Policy issue 2: Undue volatility generated by the current Tiering limits – Change of the calculation basis of the limit for rT1

4.72 In the EIOPA survey to NSAs, the issue of pro-cyclicality was mentioned by 2 NSAs, however data from QRTs do not indicate any volatility of own funds.

4.73 Some pro-cyclical effect derives from the limit of restricted Tier 1 own funds items, expressed in percentage of the total Tier 1 own funds items instead of the SCR (like the other limits imposed by Article 82): as a consequence, any

decrease in the amount of the unrestricted Tier 1 own funds items will also decrease the eligible amount of the restricted Tier 1 own funds items.

- 4.74 This means that in a stressed situation, when undertakings encounter difficulties that lead to a reduction of their unrestricted Tier 1 own funds items, they will also have to manage a potential reduction of the eligible Tier 1 restricted own funds items.
- 4.75 One could argue that this effect was intended to be justified by the goal to have a very high quality of Tier 1, but it can also be argued that this procyclical effect (decrease of restricted Tier 1 in case of decrease of unrestricted Tier 1) unnecessarily affects the solvency of companies in times of crisis.
- 4.76 Some NSAs suggested to avoid this undesirable effect of the Tiering limit for Tier 1 items and that a possible solution would be to amend Article 82 the Delegated Regulation to express the unrestricted Tier 1 limit in percentage of the solvency capital requirement.
- 4.77 In relation to the restricted Tier 1 own funds items, the options are the following:
- **Option 1:** No change to restricted Tier 1 limit.
  - **Option 2:** Change the restricted Tier 1 limit and express it as a percentage of the SCR (20% of SCR, previously 20% of total amount of Tier 1 items) and increase the minimum limit for Tier 1 own funds items to 60%.

#### **4.3.4. Analysis**

##### 20% (from Tier 1 own fund items) limit to restricted Tier 1

- 4.78 Neither procyclicality, nor the volatility in own funds is a desirable effect from the Solvency II framework. The current limit to restricted Tier 1 own funds items could potentially lead to a procyclical effect and increase the volatility of own funds.
- 4.79 One way to reduce this procyclical effect would be to express the unrestricted Tier 1 limit as a percentage of the solvency capital requirement.
- 4.80 During the previous call for advice, it was only envisaged to delete the 20% limit and the conclusion was that EIOPA would not support any regime in which hybrid instruments could represent all or the most significant part of Tier 1. As the only option envisaged to compensate the deletion of the 20% limit, EIOPA tried to find a way to increase the quality of hybrid instruments, but no satisfying solution was found in this direction.
- 4.81 Keeping in mind both objectives to reduce potential volatility in the own fund items and to preserve the total quality of Tier 1 own funds, some NSAs propose to express the upper limit of restricted Tier 1 own fund items as a percentage of the SCR, which will eliminate the procyclical effect of the

current limit and at the same time to increase the minimal limit of Tier 1 own funds items.

- 4.82 In this way, the total amount of Tier 1 will never be mainly represented by restricted Tier 1 own funds items but the decrease in unrestricted Tier 1 items will not lead to a simultaneous decrease in the restricted Tier 1 own fund items.
- 4.83 It should be noted that this change in the limit will not affect the PLAM (Principal Loss Absorbing Mechanism).
- 4.84 Some NSAs consider current regulation suitable as it safeguards relevant quality of own funds classified as Tier 1 and they want to sustain restricted Tier 1 items as subset of unrestricted Tier 1, i.e. sustain 20% limit of restricted Tier 1 to unrestricted Tier 1.
- 4.85 At least one NSA considers it necessary that the impact of this change should be quantified prior to the final decision on this matter.

50 % (from the SCR) limit to Tier 2 +Tier 3 own fund items

- 4.86 Contrary to Solvency II, CRR does not impose an upper limit on the amount of Tier 2 items that may be eligible to meet capital requirements.
- 4.87 We know that the risk appetite of most of insurance companies leads to a higher level of solvency ratio than 100% which is the regulatory requirement
- 4.88 The current upper limit to Tier 2 +Tier 3 own fund items prevents companies from creating a buffer with Tier 2 +Tier 3 own funds with the unusual consequence that the requirements in term of Tiering is more severe for the buffer than for the compliance with SCR.
- 4.89 Indeed to cover the SCR up to 100 %, a company could have 50% of Tier 2 +Tier 3 items (Tier 2 +Tier 3 with the current regulation) but if this amount of 50 % of SCR is already reached, all the buffer must consists of Tier 1 items.
- 4.90 Some NSAs support the deletion of the upper limit to enable undertakings to have more than 50% of the Solvency Capital Requirement held as Tier 2 +Tier 3 eligible own funds. Other NSAs see such proposal as decreasing the quality of own funds to cover the Solvency Capital Requirement. In other words, EOF becomes less loss absorbing. In addition, removing the limit for T2 and T3 would give insurers the possibility to increase their leverage. This has as a negative direct effect that there are more coupon payments to make. This will lead to an increased pressure on the free cash flow. This weakens the policyholder protection. One has to bear in mind that according to article 73.1(g) coupons can only be deferred in case the SCR is below 100%.
- 4.91 Removing the 50% limit would allow companies with very different capital structures to display the same solvency position: own funds could consist mainly of Tier 2 and not of Tier 1 as it is the case under the current

framework. On the other hand, a safeguard would remain: Article 98 of the Solvency II Directive requires the proportion of Tier 1 items in the eligible own funds to be higher than one third of the total amount of eligible own funds. However, the base for both limits is different. The 50% limit introduced in DR article 82 is related to the SCR amount, while the one third limit in Directive article 93 is related to the total amount of EOF. The latter has as disadvantage the procyclicality, which was considered to be solved with the introduction of DR article 82 (procyclicality here would mean that if T1 decreases due to stress, also eligible T2 plus T3 decreases). If the 50% limit to SCR is removed it creates new reliance on Directive article 93, which means that procyclicality is introduced again.

4.92 However the majority of NSAs were not in favour of this change and therefore EIOPA does not support this proposal.

#### **4.3.5. Advice**

4.93 Regarding the calculation basis of the limit for rT1, EIOPA advises the Commission not to change it.

4.94 Regarding the possible change of the limit T2+T3, EIOPA advises the Commission not to delete the 50% limit for lower Tiers.

### **4.4 Clarity of availability criteria**

4.95 This section lays out options in relation to availability criteria, and specifically the concept of double leverage.

#### **4.4.1. Previous advice**

4.96 The questions from the Commission in the previous advice were:

- For those eligible items which are comparable between the banking framework and Delegated Regulation (EU) 2015/35, assess if the differences in their classification. For each of these differences, assess if they are justified by differences in the business model of the two sectors, by diverging elements in the determination of own funds requirements, or on other grounds.
- if the 20% limit for rT1 were removed, what modifications need to be applied to the eligibility criteria applicable to these items, in order to ensure that the criteria set out in Article 94 (1) continue to be fulfilled.

4.97 The analysis focused on the comparison across Tiers of own funds in insurance and banking sectors (uT1/CET1; rT1/AT1; T2 items<sup>142</sup>) and on the restricted Tier 1 financial instruments.

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<sup>142</sup> EIOPA Discussion Paper on the review of specific items in the Solvency II Delegated Regulation – EIOPA\_CP\_16/008\_5 December 2016

4.98 Specific issues were identified:

- Operation of the PLAM (Principal Loss Absorbency Mechanism)
- Tax effect of rT1 write-down
- Treatment of repayment or redemption in the first five years

4.99 The proposals have been taken into account by the EC with the amendment of art. 71, 73, 77 of the Delegated Regulation.

#### **4.4.2. Relevant legal provisions**

##### Solvency II Directive

- Article 93 - Characteristics and features used to classify own funds into Tiers
- Article 94 - Main criteria for the classification into Tiers

##### Delegated Regulation

- Article 70(2) and (3) on the reconciliation reserve
- Article 71(1)(a) on subordination
- Article 71(1)(c) requiring that “the basic own fund item is immediately available to absorb losses”
- Article 71(1)(e) on principal loss absorbency mechanisms

##### EIOPA Guidelines on Classification of Own Funds

- Guideline 6: “In the case of an item referred to in Article 69 (a)(i), (ii), (iii), (v) and (b) of the Implementing Measures, undertakings should only consider an item as immediately available to absorb losses, if the item is paid in and there are no conditions or contingences in respect of its ability to absorb losses”

#### **4.4.3. Other regulatory background**

4.100 Relevant banking rules:

Capital Requirements Regulation (CRR), Regulation (EU) 575/2013 and Commission Delegated Regulation (EU) 241/2014 (CDR).

Art. 28 CRR - Conditions to be met for the Capital instruments to be qualified as Common Equity Tier 1 instruments;

Art. 52 CRR - Conditions to be met for the Capital instruments to be qualified as Additional Tier 1 instruments;

Art. 62 CRR - Tier 2 instruments

#### **4.4.4. Identification of the issues**

4.101 For almost all the NSA (20) availability criteria are sufficiently clear and appropriate.

4.102 However, EIOPA deemed useful to conduct an analysis of the cases of undertakings with “double leverage ratio over 100%”, where there could be concerns of own funds not meeting the features determining their classification.

#### **1.4.4.1. Policy issue 4: “Excessive” double leverage (ratio above 100%)**

4.103 “Double leverage” occurs when a parent entity in a group provides T1 capital support to a subsidiary which is financed by externally issued parental non-T1 capital. An area which may deserve attention from the supervisor is the case where the parent undertaking shows a ratio of the parent undertaking’s T1 own funds investment in its subsidiaries compared to its own T1 items above 100%, that is, “excessive” double leverage.

4.104 In this situation, transactions which take place for the purposes of financing undertakings of the group may pose risks not only to the solvency position of the parent company but can also represent constraints for the financed undertakings.

4.105 In particular, where a parent undertaking issues senior debt and those proceeds are used to finance an insurance company of the group (e.g. through the issuing of a Tier 1 subordinated debt), and the latter does not make distributions or cannot redeem the subordinated debt (e.g. due to a breach of its SCR), the parent undertaking may be unable to fulfill its obligations related to the senior debt.

4.106 These types of connected transactions could undermine an own fund item’s ability (in this case, the subordinated debt) to meet the features determining its classification (it could be seen as an encumbrance of the subordinated debt, limiting the full discretion on coupon payments). The leverage puts more pressure on the insurance company to make distribution. This is different from a situation where the parent company issues a subordinated debt and down-streams the proceeds financing the subordinated debts issued by its related insurance companies.

#### **4.4.5. Analysis**

4.107 This case can be assessed both from a group perspective and from a single entity perspective.

4.108 A double leverage ratio above 100% can have an impact at group level because it can affect the solvency position of the parent company and consequently of the group. This makes a thorough assessment of the capital management policy of the parent undertaking necessary, including the financing structure of the controlled entities of the group.



4.109 On the other hand, these connected transactions can be seen as an encumbrance that in practice may affect the ability of the own fund item of the group's undertaking to meet the conditions for its classification, as already envisaged in art. 71 of DR regarding the "free from encumbrances" feature for T1 own fund items 143. Convergent approaches among supervisors can be reached by further clarifications/practices in Guidelines.

4.110 The possible options are:

Option 1 - Clarify in the Solvency II Directive that group supervisor should assess the level of double leverage and take actions when double leverage is excessive (e.g. where the leverage ratio is above 100%). This can be seen as an extension of Article 258 of the Solvency II Directive, which allows group supervisor and supervisory authorities to adopt all necessary measures where – in particular – the intragroup transactions "are a threat to the financial position of the insurance and reinsurance undertakings".

Option 2 - Require (as a Pillar II requirement) the regulated entity to assess the financial and solvency situation of the parent company and mitigate the risks arising from double leverage ratio above 100% (e.g., assessing the cash-flow risks incurred by its qualifying parent, liquidity risk in case of a shortfall in income to meet the parent company interest obligations, possible management actions the undertaking would take to manage the risks of double leverage).

4.111 It can be noted that the two options are not necessarily mutually exclusive.

#### **4.4.6. Advice**

4.112 EIOPA advises the Commission to amend Article 258 of the Solvency II Directive in order to clarify that the group supervisor should assess the level of double leverage and take actions when double leverage is excessive (e.g. where the leverage ratio is above 100%). (Option 1).

### **4.5 Correct attribution of items**

4.113 This section contains options in relation to the appropriateness of the attribution of OFs items to Tiers, according to the characteristics of permanent availability and subordination.

#### **4.5.1. Previous advice**

4.114 The questions from the Commission in the previous advice were:

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<sup>143</sup> On encumbrances see also GL 13 of EIOPA Guidelines on Classification of Own Funds which clarifies that "...If an item is encumbered to the extent that it no longer displays the features determining classification, undertakings should not classify the item as own funds."

- For those eligible items which are comparable between the banking framework and Delegated Regulation (EU) 2015/35, assess if the differences in their classification. For each of these differences, assess if they are justified by differences in the business model of the two sectors, by diverging elements in the determination of own funds requirements, or on other grounds
- if the 20% limit for rT1 were removed, what modifications need to be applied to the eligibility criteria applicable to these items, in order to ensure that the criteria set out in Article 94 (1) continue to be fulfilled

4.115 The analysis focused on the comparison across Tiers of own funds in insurance and banking sectors (uT1/CET1; rT1/AT1; T2 items<sup>144</sup>) and on the restricted Tier 1 financial instruments.

4.116 Specific issues were identified:

- Operation of the PLAM (Principal Loss Absorbency Mechanism)
- Tax effect of rT1 write-down
- Treatment of repayment or redemption in the first five years

4.117 The proposals have been taken into account by the EC with the amendment of art. 71, 73, 77 of the Delegated Regulation.

## 4.5.2. Relevant legal provisions

### Solvency II Directive

- Article 93(1) on characteristics and features used to classify own funds into Tier 1.
- Article 94 - Main criteria for the classification into Tiers

### Delegated Regulation

- Article 70(2) and (3) on the reconciliation reserve
- Article 71 on Tier 1 – Features determining classification, in particular paragraph 1(b) and (c).
- Article 260(2) and (3) on risk management areas

### EIOPA Guidelines on Classification of Own Funds

- Guideline 6 *"In the case of an item referred to in Article 69 (a)(i), (ii), (iii), (v) and (b) of the Implementing Measures, undertakings should only consider an item as **immediately available to absorb losses**, if the item is paid in and **there are no conditions** or contingencies in respect of its ability **to absorb losses**"*

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<sup>144</sup> EIOPA Discussion Paper on the review of specific items in the Solvency II Delegated Regulation – EIOPA\_CP\_16/008\_5 December 2016

### **4.5.3. Other regulatory background**

#### 4.118 Relevant banking rules:

Capital Requirements Regulation (CRR), Regulation (EU) 575/2013 and Commission Delegated Regulation (EU) 241/2014 (CDR).

Art. 28 CRR - Conditions to be met for the Capital instruments to be qualified as Common Equity Tier 1 instruments;

Art. 52 CRR - Conditions to be met for the Capital instruments to be qualified as Additional Tier 1 instruments;

Art. 62 CRR - Tier 2 instruments

### **4.5.4. Identification of the issues**

#### **Policy issue 5: Attribution of EPIFPs to Tier 1**

4.119 From the survey, no issue concerning the attribution of items into Tiers according to the characteristics of subordination has been highlighted by NSAs.

4.120 Some NSAs have raised the issue of incorrect attribution of own funds items to Tiers according to the characteristics of permanent availability mainly regarding the Reconciliation Reserve and in particular the item "Expected Profits in Future Premiums" (EPIFP) included in this Reserve.

4.121 EPIFP are part of the reconciliation reserve (RR), and thus considered as an unrestricted T1 item (art. 69 and 70 of the Delegated Regulation).

4.122 This inclusion is the consequence of the nature of Reconciliation Reserve, whose calculation is based on the excess of asset over liabilities (after the deductions envisaged in art. 70), which implicitly takes into account the value of the profits on future premiums embedded in the technical provisions.

4.123 What has been questioned by the NSAs is whether EPIFP possess the feature of permanent availability to absorb losses on an on-going basis in order to be classified as uT1, that are own funds of the highest quality.

4.124 The concept of permanent availability to absorb losses is clearly stated in the Solvency II Directive art. 93 and 94 (for T1 items "to fully absorb losses on a going-concern basis, as well as in the case of winding-up (permanent availability)") as well as in the Delegated Regulation, where art.71 expressly includes the condition that "the basic own fund item is immediately available to absorb losses" as a feature that characterizes T1 items.

4.125 The issue arises for EPIFP since, according to art. 70(3), it is not possible to carry out a separate assessment of the single items included in the RR in order to verify the compliance with the features of art. 71 (Tier 1 items).

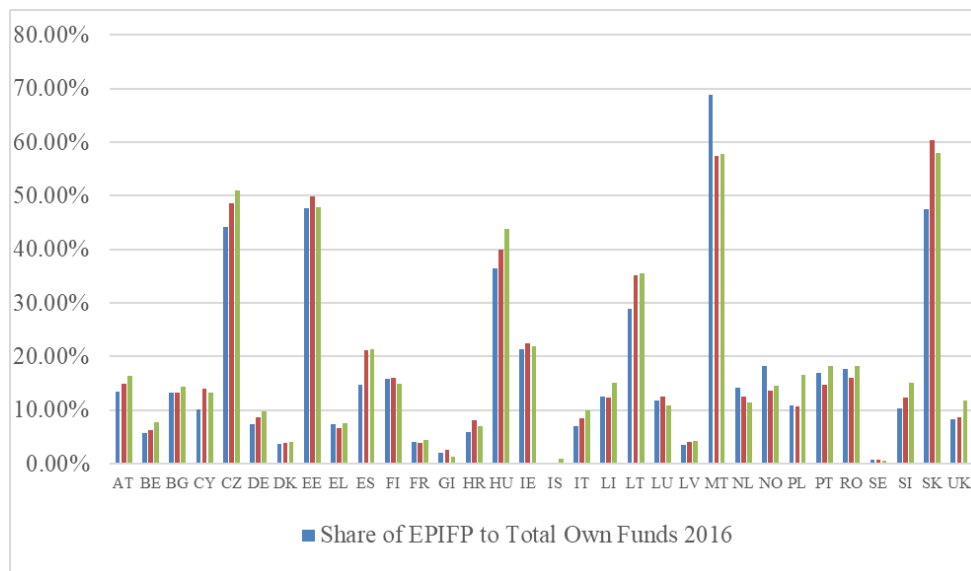
4.126 This issue is particularly important for those NSAs where the percentage of EPIFP on the total T1 is on average very high, in some cases more than 50%, against an average percentage at EEA level of about 11%, as shown in the

tables below. This could lower the quality level of the capital, and maybe the solvency position, of some insurers in those jurisdictions.

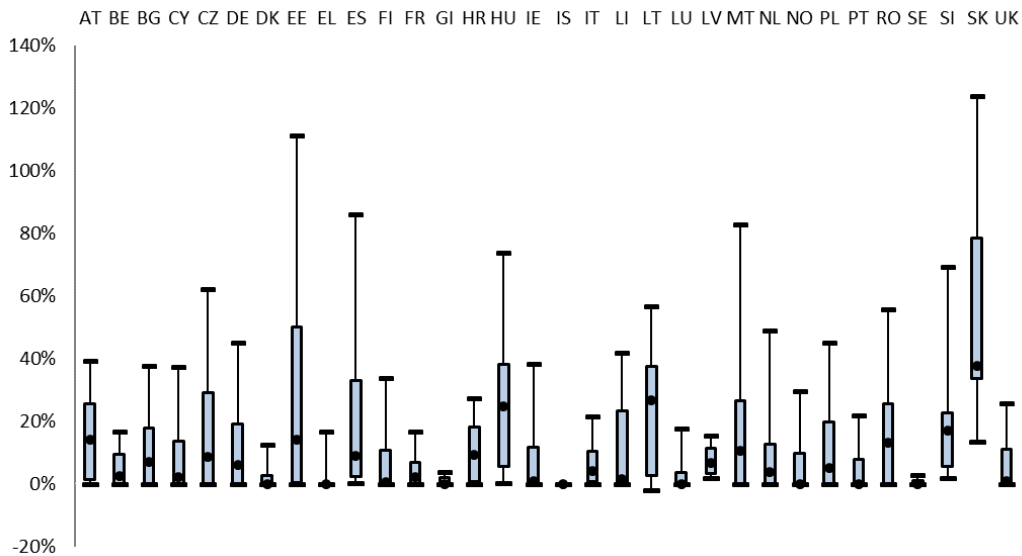
The table below show shares calculated on aggregated EU values:

	2016	2017	2017	
<b>rec. reserve</b>	66,91%	67,94%	66,79%	<b>% of T1</b>
<b>rec. reserve</b>	68,55%	69,37%	68,23%	<b>% of uT1</b>
<b>EPIFP</b>	8,73%	9,41%	10,59%	<b>% of T1</b>
<b>EPIFP</b>	8,94%	9,61%	10,82%	<b>% of uT1</b>
<b>T1</b>	92,81%	92,87%	92,79%	<b>% of Total OF</b>
<b>uT1</b>	90,60%	90,96%	90,83%	<b>% of Total OF</b>
<b>T2</b>	6,35%	6,43%	6,57%	<b>% of Total OF</b>
<b>T3</b>	0,84%	0,69%	0,65%	<b>% of Total OF</b>

4.127 The following graph shows the shares of EPIFP to total own funds calculated on aggregated values and per country:



4.128 The following graph shows the minimum, maximum, median, interquartile range and 10th and 90th percentile of the distribution of EPIFP in % of uT1.



#### 4.5.5. Analysis

##### Nature of EPIFP and its calculation

- 4.129 EPIFP represents the present value of the future cash flow of the premiums of the existing business, considered within the technical provisions, that the undertaking is expected to receive in the future.
- 4.130 The information about the amount of EPIFP is required in the QRT (in template S.23.01) and to this end, art. 260 of the Delegated Regulation sets out the calculation of this item: it is the difference between the official calculation of the Best Estimate Liabilities (BEL) and the BEL calculated on the assumption that future premiums expected from existing contracts as on the date of calculation are not paid in. This calculation, made at the level of Homogeneous Risk Group (HRG), considers only HRG with positive amount of EPIFP, so no set off with negative HRG is allowed. This means that the final value of EPIFP indicated in the QRT cannot be negative.
- 4.131 Regarding the methods of this calculation, undertakings need to undertake preliminary classification of the portfolio (between contracts with future premiums and contracts without them) and aggregations (on the basis of the existence of the paid-up options), taking correctly into account the contract boundaries initially defined.
- 4.132 This process shows the complexity of the calculation and the experience gained so far highlighted different simplifications adopted by small/medium sized undertakings and divergent supervisory approaches of the NSAs. Moreover, the calculation provided by art. 260 is not directly linked with the BEL calculation.
- 4.133 Within the scope of the review of the Technical Provisions regulation carried out by EIOPA, a specific analysis has been done with the focus on the

calculation of EPIFP<sup>145</sup> with the aim to improve its calculation and reporting to the NSAs. In the light of the assessment done, the following amendments and clarifications have been proposed:

1. to calculate separately the expected profit and loss included in future premiums (netting of profits and losses would not be allowed within homogeneous risk groups)
2. to adjust the reporting requirements accordingly so that expected profit and loss included in future premiums would be reported separately at least for lines of business
3. to introduce EPIFP net of reinsurance contracts and special purpose vehicles allowing for netting of profits and losses
4. to change the name of the EPIFP to reflect this new approach
5. to introduce calculation and reporting of the expected future profits from servicing and management of funds.

#### EPIFP as Own Funds

4.134 EPIFP are also relevant on the prospective of own funds since they are part of the reconciliation reserve (RR), an unrestricted T1 item listed in art. 69 of the Delegate Regulation.

4.135 What is arguable is whether EPIFP possess the features envisaged in order to be classified as uT1, that are own funds of the highest quality.

In particular:

#### **1. Can EPIFP accelerate insolvency?**

4.136 The basic own-fund item cannot include features which may cause the insolvency of the insurance or reinsurance undertaking or may accelerate the process of the undertaking becoming insolvent.

4.137 The value of EPIFP is highly dependent on the valuation method of technical provisions and assumptions.

4.138 Therefore, it can be argued that there is a risk of under-reserving which, as mentioned in the "Report of the Task Force on Expected Profits arising from Future Premiums"<sup>146</sup>, is balanced with the value of EPIFP. There could be features that may cause the insolvency:

- the under reserving is not adequately represented by SCR standard formula;

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<sup>145</sup> See the analysis on EPIFP in section 3.1.

<sup>146</sup> Extract from Report of the Task Force on Expected Profits arising from Future Premiums, 2011 ([https://eiopa.europa.eu/Publications/Reports/EPIFP\\_Report.pdf](https://eiopa.europa.eu/Publications/Reports/EPIFP_Report.pdf))

- the risk calculated by standard formula is decreased by the diversification effect, but EPIFP is calculated per policy basis without diversification effect;
- the risk could be materialised in a LoB without sufficient EPIFP, in that case the loss will not be counterbalanced.

4.139 On the other hand, some Member States consider that high EPIFP reveals an underestimation of technical provisions only in the case where contract boundaries are badly applied.

4.140 Indeed, the calculation of EPIFP is directly linked to the rules applied in the calculation of the Best Estimate of Technical Provision and to the determination of contract boundaries. In such cases, a high level of EPIFP only reflects a problem if it results from the incorrect application of the valuation rules. In this case, the valuation rules applied must be corrected.

4.141 Furthermore, a high level of EPIFP in such cases is not an issue and does not automatically reveal an underestimation of the technical provision. In the opposite, some NSAs consider positive EPIFP is in itself good news for the company, because it indicates a positive (prospective) underwriting result of assumed profitable business.

4.142 However, it must be also noticed that the calculation of technical provision (i.e. cash-flows of Best Estimate of technical provision) is dependent on EIOPA Risk Free Rate. The setting of the Last Liquid Point (LLP) impacts the size of interest rates in the extrapolated part of the interest rate term structure. The extrapolated interest rates could significantly diverge from real market rates. The technical provision therefore may be underestimated because the interest rates for long term maturities may be discounted with too optimistic interest rates of extrapolated RFR.

## **2. Is EPIFP immediately available to absorb losses?**

4.143 According some NSAs the EPIFP is immediately available to absorb losses, but with the limitation to underwriting risk connected to reserving risk. The increase in technical provisions could be counterbalanced by a partial or full reduction in the amount of EPIFP counted as own funds. Thus, the EPIFP could provide immediate loss absorbency. On the other hand, if cash is needed to face losses (for example financial losses which do not affect the level of technical provisions), the value of EPIFP would need to be materialized through the selling of the insurance portfolio or of a similar arrangement. In that case, where cash is needed to absorb losses, the EPIFP would not be immediately usable for that purpose. Additionally, buyers of the insurance portfolio may not be easy to find quickly, and the price of the portfolio may not be the same as whole future profit.

- 4.144 Thus, some NSAs think that EPIFP could not be considered as permanently and immediately available, particularly in stressed situations when the materialization of its value is most needed.
- 4.145 Loss absorbency capacity of EPIFP is closely linked to the level of granularity in their calculation. For example: to what extent EPIFP in one related undertaking could be used to absorb losses of another related undertaking; to what extent EPIFP in one line of business could be used to absorb losses in other LoBs or losses due to the materialization of other risks, such as operational risk, market risk.
- 4.146 On the other hand, permanence is generally linked to the fact the item has not to be paid back and is a long-term resource for the company.
- 4.147 Furthermore, some compare the reasoning that EPIFP is not available to immediately absorb losses because it cannot be directly transformed into cash, to capital gain related to real estate property which are not liquid asset. This means that questioning the possibility of selling insurance contracts in times of crisis would lead in the same way to question the possibility of selling some assets for which there is no liquid market.

### **3. Comparison of EPIFP and Contractual Service Margin according IFRS 17 Insurance Contracts**

- 4.148 In Solvency II the EPIFP is part of own funds without any limits as it is Tier 1 capital based on the consideration that in case the undertaking will need to increase the amount of technical provisions it could be done by a partial or full reduction in the amount of EPIFP. The possible reduction is linked to the granularity of calculation of technical provision, so the reduction and the loss must occur in the same homogenous risk group.
- 4.149 Within the accounting framework a similar concept is the contractual service margin (hereafter referred as "CSM") introduced in IFRS 17 Insurance contract. The contractual service margin is a component of the asset (in case of future profits the technical provision would be negative and accounted as asset so CSM should be liability - see par. 38 of IFRS 17) or liability for the group of insurance contracts that represents the unearned profit the entity will recognise as it provides services in the future. The carrying amount of the CSM is at the end of the reporting period adjusted for the effect on profit, any new contracts accreted interest, effect of currency exchange and changes in fulfilment cash flows relating to future service. That means that CSM is not part of own funds and cannot offset losses other than relating to technical provisions of the group of insurance contracts.
- 4.150 Considered the purpose to ensure the quality of the undertakings' capital, taking into account the nature of EPIFP, these options have been identified:



Option 1 - **No changes in the OFs regulation**, amendment of art 37 of Directive 2009/138/EC

- 4.151 The calculation of EPIFP is very dependent on the type and characteristics of the undertaking's portfolio. Thus, it is up to the supervisor - within its Supervisory Review Process - to monitor and assess the correctness of the EPIFP calculation and take appropriate actions (including capital add-on in case of incorrect or not consistent calculation) where material amounts are detected.
- 4.152 The risk of lack of consistency in supervisors' approaches regarding the calculation of the best estimate liabilities could be mitigated by the above mentioned proposals to improve the calculation of the EPIFP and to have a more detailed set of information to be provided to the supervisor. All these measures could indirectly decrease the volatility in the estimation of the EPIFP.
- 4.153 However, as to the add-on in case of incorrect calculation of technical provision or reasonable doubts regarding the expected future profits included in the technical provisions the wording of Article 37 of Directive 2009/138/EC should be amended in order to include explicitly the possibility of imposing capital add-on in case of high EPIFP to reflect the additional lapse risk associated with this amount.

Option 2 - **Limiting the recognition of EPIFP as uT1 own funds**

- 4.154 Fix a limit (15% to 20%) of the total EPIFP, as reported in QRT, to be recognized as uT1 and the remaining part as T2 or T3 items (depending on the outcome of the advice on Tiering approach, i.e. in case of T3 removal).
- 4.155 This option takes into account the limited possibility of the EPIFP to absorb losses "permanently and immediately" and would lead to a change in the reporting template.
- 4.156 Due to possible material impact on solvency position of insurance undertakings, there should be introduced transitional period for such change in order to diminish the immediate impact on some undertakings.

Option 3 - **Downgrade the Tiering of EPIFP**

- 4.157 To recognize EPIFP as own funds of Tier 2 or Tier 3, subject to the limits envisaged in art. 82 of DR (depending on the outcome of the advice on Tiering approach, i.e. T3 removal, and on the possible removal of Tiering limits for T2 + T3).
- 4.158 Due to possible material impact on solvency position of insurance undertakings, there should be introduced a transitional period for such change in order to diminish the immediate impact on some undertakings.

4.159 Considering the objectives of the Solvency II review, the preferred policy option for this policy issue is option 5.1.

#### **4.5.6. Advice**

4.160 EIOPA advises not to change the attribution of EPIFPs to Tier 1. EIOPA will continue the work on the treatment of EPIFPs.



#### **Questions to stakeholders**

**Q4.1:** What is your view on the treatment of EPIFPs?

## 5. Solvency Capital Requirement standard formula

### 5.1. Interest rate risk

#### 5.1.1. Extract from the call for advice

##### **3.7. Solvency Capital requirement standard formula**

###### *a) Interest rate risk*

*EIOPA is asked to assess whether the calibration of the interest rate risk sub-module with the standard formula adequately reflects the risks faced by insurers, taking into account the low interest rates environment, and in case this analysis points towards flaws, to advise on how these could be remedied. When making recommendations, EIOPA should ensure that any new calibration is appropriate for all currencies in the EEA, and should take into account the potential interactions with the parameters of the risk-free interest rate term structure.*

#### 5.1.2. Previous advice

5.1 EIOPA reviewed the current calibration of the interest rate risk sub-module from 2017 to 2018 for its advice to the European Commission on the review of specific items in the Delegated Regulation.<sup>147</sup> Based on strong evidence EIOPA concluded that the current calibration severely underestimates the risk and advised to change the calibration. EIOPA suggested to model interest rate risk with a relative shift approach and set out a calibration proposal on that basis. In light of the material impact that the change of the calibration would have EIOPA suggested a gradual implementation.

#### 5.1.3. Relevant legal provisions

5.2 The interest rate risk sub-module of the SCR standard formula is defined in Article 105(5a) of the Solvency II Directive and specified in Articles 165 to 167 of the Delegated Regulation. Article 103 of the Delegated Regulation sets out a simplified calculation for interest rate risk.

#### 5.1.4. Identification of the issue

5.3 EIOPA reviewed the current calibration of the interest rate risk sub-module from 2017 to 2018. Strong evidence was gathered demonstrating that the current approach for calculating capital requirements for interest rate risk leads to a severe under-estimation of the risks:

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<sup>147</sup> See pages 125-162 of the second set of advice to the European Commission on the review of specific items in the Solvency II Delegated Regulation, [https://eiopa.europa.eu/Publications/Consultations/EIOPA-18-075-EIOPA\\_Second\\_set\\_of\\_Advice\\_on\\_SII\\_DR\\_Review.pdf](https://eiopa.europa.eu/Publications/Consultations/EIOPA-18-075-EIOPA_Second_set_of_Advice_on_SII_DR_Review.pdf).

- The reality of interest rate movements which have been much stronger than those provided by the stresses in the Delegated Regulation.
  - The fact that the current approach does not stress negative rates, although reality has proven that rates can continue to decrease.
  - The way internal model users measure interest rate risk significantly deviates from the current standard formula.
  - The impact assessment of proposals demonstrates that the risk is material and that current capital requirements are not sufficient.
  - There is a wide agreement among stakeholders that the current approach has severe flaws.
- 5.4 The calibration set out in the Delegated Regulation was not changed when the European Commission amended that Regulation in 2019. In a letter to EIOPA the Director General of the Directorate General Financial Stability, Financial Services and Capital Markets Union of the European Commission acknowledged the necessity to address certain shortcomings in the current calibration and welcomed EIOPA's advice as a contribution to the understanding of those shortcomings. In terms of timing, he favoured revisiting the topic during the 2020 review of the Solvency II Directive where also other elements affecting insurers' exposure to interest rates will be reviewed.<sup>148</sup>
- 5.5 EIOPA upholds its view that the risk-free interest rate risk sub-module severely underestimates the risk.
- 5.6 In the review EIOPA thoroughly analysed several approaches to improve the calibration and recommended a relative shift approach because:
- it is a simple and transparent approach,
  - the shifted approach is a purely data-driven approach,
  - it is a risk-sensitive approach applicable to any yield environment,
  - it can well cope with low and negative interest rates.<sup>149</sup>
- 5.7 EIOPA upholds its view that the relative shift approach is the most appropriate approach to model interest rate risk in the SCR standard formula.
- 5.8 For the purpose of this review EIOPA has further looked into the following aspects of the interest rate risk calibration:
- The calibration carried out in 2017/2018 was based on data from 1999 to 2016. By now, two additional years of data of 2017 and 2018 can be added to the time series. The additional data can be used to check whether the calibration approach produces materially different results.

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<sup>148</sup> See <https://eiopa.europa.eu/Publications/Other%20Documents/I-2019-030%20COM%20letter%20on%20review%20of%20SII%20implementing%20measures%20%28G BE%29.pdf>.

<sup>149</sup> See pages 135-157 of the second set of advice to the European Commission on the review of specific items in the Solvency II Delegated Regulation.

- Historical data per currency was tested against the calibration proposal in order to assess the appropriateness of the calibration for all currencies.
- Because of the review of the extrapolation of the risk-free interest rate term structure the potential interactions with the parameters of the risk-free interest rate term structure were analysed. The analysis has focused on the last liquid point.

### **5.1.5. Analysis**

#### Prolongation of the time series

5.9 The calibration of the shock components was repeated on the basis of two years of additional data (2017, 2018) of the risk-free interest rates for the following EEA currencies:

- Euro (EUR)
- Hungarian forint (HUF)
- Polish zloty (PLN)
- Czech koruna (CZK)
- Swedish krona (SEK)
- Norwegian krone (NOK)
- Swiss franc (CHF)
- Romanian leu (RON)
- Croatian kuna (HRK)
- British pound (GBP)

5.10 On average, a relative change of 1% in the shock components up to the last liquid point of the euro (20 years) was observed. This difference was deemed negligible. Thus, EIOPA supports the results of the previous interest rate risk calibration proposal.

#### Backtesting

5.11 A backtesting of the proposed approach was carried out based on the additional data. There, the historical risk-free spot rates were compared to the shocked interest rate risk rates of the previous year. The shocks were based on the current interest rate risk calibration. If the risk-free spot rates were higher than the rates of the up shock or lower than the rates of the down shock, it was counted as a breach.

5.12 As the calibration should correspond to the 99.5 percentile of the distribution of relative interest rate changes for the up shock (or 0.5 percentile for the down shock), 5 breaches per 1000 observations would have been expected. As the number of observations is different for each currency, the number of

expected breaches has been summarised in Table A. Table B and Table C show the number of breaches per currency and maturity for both shocks.

**Table A - Number of Expected Breaches in the Backtesting**

<b>Currency</b>	<b>No. of Observations</b>	<b>No. of Expected Breaches</b>
EUR	5214	26
HUF	4639	23
GBP	5213	26
SEK	5215	26
HRK	3103	16
CZK	5198	26
PLN	4702	24
CHF	5215	26
NOK	5215	26

**Table B – Up Shock Breaches per Currency and Maturity**

Currency	1Y	2Y	3Y	4Y	5Y	6Y	7Y	8Y	9Y	10Y	12Y	15Y	20Y	25Y	30Y	35Y	40Y	45Y	50Y	55Y	60Y
EUR	0	0	0	0	0	0	0	0	0	0	0	1	1	56	102	110	110	110	110	110	114
HUF	22	12	22	22	22	22	22	22	22	22	22	13	17	19	20	12	10	9	9	9	10
GBP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10	38	62	84	128	160
SEK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HRK	0	0	0	0	0	0	0	2	3	5	4	11	10	10	4	2	2	0	0	0	0
CZK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PLN	0	2	0	0	2	0	1	0	0	2	3	22	22	13	12	8	5	3	3	3	5
CHF	0	25	0	0	0	0	0	0	0	0	0	6	13	33	28	13	5	5	6	16	37
NOK	0	0	0	0	0	0	0	0	0	0	1	2	3	3	3	3	3	3	3	3	3

**Table C- Down Shock Breaches per Currency and Maturity**

Currency	1Y	2Y	3Y	4Y	5Y	6Y	7Y	8Y	9Y	10Y	12Y	15Y	20Y	25Y	30Y	35Y	40Y	45Y	50Y	55Y	60Y
EUR	25	25	25	25	25	25	25	25	25	25	25	25	25	4	0	1	1	1	1	1	2
HUF	0	0	45	58	36	35	35	35	21	15	15	17	2	4	9	9	10	11	13	20	22
GBP	115	51	20	0	1	10	36	32	17	7	1	0	0	0	13	53	73	100	148	176	193
SEK	138	99	72	80	73	79	87	75	69	46	0	0	0	0	0	0	0	0	0	0	0
HRK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CZK	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0
PLN	0	2	0	18	19	33	61	47	22	18	16	11	3	2	2	2	2	2	2	2	2
CHF	0	66	128	90	55	76	104	102	99	100	89	64	35	50	20	1	0	0	0	0	0
NOK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table D- Relative down shocks for the EUR and the SEK for maturities 1Y to 10Y**

<b>m</b>	<b><math>s_m^{\text{down}}</math> EUR</b>	<b><math>s_m^{\text{down}}</math> SEK</b>
1	58%	65%
2	51%	55%
3	44%	47%
4	40%	42%
5	40%	42%
6	38%	42%
7	37%	41%
8	38%	41%
9	39%	41%
10	40%	41%

- 5.13 For the up-shocks, the number of breaches are in general within the expected range up to the end of the calibration at a maturity of 20Y. Affected by an excessive amount of breaches in the long end are the euro and the pound.
- 5.14 On the other hand, the down shock that was calibrated only on euro data and the breaches for the euro are thus in line with expectations. The pound, the Swedish krona and the Swiss franc show an excessive amount of breaches. They stem from consecutive observations of strong decreases in the interest rates. It is worthwhile to mention that the size of the underestimation for the mentioned currencies is mainly low, particularly for the SEK and the GBP. This can be seen in table D where the relative down shock factors  $s_m^{\text{down}}(\theta_m)$  are calibrated with the SEK data for the maturities 1Y to 10Y. There one can observe that the shock factors are relatively close to the proposed shocks using EUR data for most maturities.
- 5.15 Overall, the proposed interest rate shocks show a satisfactory performance in the backtesting for most EEA currencies and maturities. The proposed calibration presents an important improvement of the current SCR interest rate shocks. At the same time, the new calibration is balanced and not overshooting its targets as can be seen in the backtesting results.

Interaction with the parameters of the risk-free interest rate term structure method

- 5.16 As the calibration method calculates the shocks solely on data per maturity, the shocks for revised calibrations based on an LLP of 30Y and 50Y retain the results of calibrations with a lower LLP. I.e. the shocks for maturities 1-20Y are the same for all three scenarios and the shocks for the maturities 21-30Y are identical for the LLP 30Y and LLP 50Y calibrations.



<b>Maturity m</b>	$s_m^{up}$	$b_m^{up}$	$s_m^{down}$	$b_m^{down}$
1	61%	2.14%	58%	1.16%
2	53%	1.86%	51%	0.99%
3	49%	1.72%	44%	0.83%
4	46%	1.61%	40%	0.74%
5	45%	1.58%	40%	0.71%
6	41%	1.44%	38%	0.67%
7	37%	1.30%	37%	0.63%
8	34%	1.19%	38%	0.62%
9	32%	1.12%	39%	0.61%
10	30%	1.05%	40%	0.61%
11	30%	1.05%	41%	0.60%
12	30%	1.05%	42%	0.60%
13	30%	1.05%	43%	0.59%
14	29%	1.02%	44%	0.58%
15	28%	0.98%	45%	0.57%
16	28%	0.98%	47%	0.56%
17	27%	0.95%	48%	0.55%
18	26%	0.91%	49%	0.54%
19	26%	0.91%	49%	0.52%
20	25%	0.88%	50%	0.50%

5.17 For the interest rate down scenario a change of the euro LLP needs naturally to be taken into account in the calibration of the shock components  $s_m^{down}(\theta_m)$  and  $b_m^{down}(\theta_m)$  since the calibration is based on euro data. For consistency reasons the shock components in the interest rate up scenario are also adjusted according to the new euro LLP.

5.18 The shock components  $s_m(\theta_m)$  and  $b_m(\theta_m)$  both depend on the maturity-dependent shift vector. As the shift-vector has only been calibrated on empirical data up to the maturity of 20 years, the shift vector  $\theta$  needs to be extended for maturities

beyond 20 years. The components of the shift vector  $\theta$  are 3.5% from maturity 20 years onwards for the up-shock. For the down-shock,  $\theta$  is interpolated linearly from 2% at the maturity of 1 year to 1% at the maturity of 20 years. From the maturities 21 years to 60 years  $\theta$  is then linearly interpolated to 0%.

#### *Calibration of the shock components*

5.19 The relative shock component  $s_m$  is naturally calibrated up to the new LLP. Afterwards the relative shock components are phased out linearly until a 20% relative shock is reached for the 90 year maturity in any interest rate scenario. That means if a LLP of 30 years is considered, then the relative shock factors are calibrated for maturities 1 year to 30 years and are phased out afterwards from 31Y until 90Y.

5.20 As the additive component  $b_m^{up,down}$  is the product of the corresponding component of the shift vector and the relative shock component, it is phased out from the maturity LLP+1 to the maturity of 60 years and stays constant at 0% afterwards.

#### *Results for the extended LLP 30 years and 50 years*

5.21 The following shock components are derived for the maturities from 21 years to 30 years for a LLP of 30 years. The shock components for maturities 1 year to 20 years remain as in the previous advice

#### **Up and Down Shock components for LLP 30Y**

<b>Maturity m [years]</b>	$s_m^{down}$	$b_m^{down}$	$s_m^{up}$	$b_m^{up}$
21	49%	0.49%	25%	0.87%
22	50%	0.49%	24%	0.85%
23	51%	0.48%	24%	0.82%
24	51%	0.48%	23%	0.80%
25	52%	0.47%	22%	0.78%
26	52%	0.46%	22%	0.76%
27	53%	0.45%	21%	0.74%
28	53%	0.44%	21%	0.72%
29	53%	0.42%	20%	0.70%
30	53%	0.41%	20%	0.69%

5.22 For the LLP 50 years the following shock components are derived for maturities 31 to 50 years.

**Up and Down Shock components for LLP 50Y**

<b>Maturity m [years]</b>	$s_m^{down}$	$b_m^{down}$	$s_m^{up}$	$b_m^{up}$
31	53%	0.40%	20%	0.70%
32	53%	0.39%	20%	0.71%
33	54%	0.37%	20%	0.71%
34	54%	0.36%	20%	0.71%
35	54%	0.35%	20%	0.71%
36	54%	0.34%	20%	0.72%
37	55%	0.33%	21%	0.72%
38	55%	0.32%	21%	0.72%
39	56%	0.31%	21%	0.73%
40	57%	0.30%	21%	0.73%
41	57%	0.29%	21%	0.74%
42	58%	0.28%	21%	0.74%
43	59%	0.27%	21%	0.75%
44	61%	0.26%	21%	0.75%
45	62%	0.25%	21%	0.75%
46	62%	0.23%	21%	0.75%
47	63%	0.22%	21%	0.75%
48	64%	0.21%	21%	0.74%
49	64%	0.19%	21%	0.74%
50	65%	0.18%	21%	0.73%

*Alternative extrapolation method*

5.23 The proposed interest rate calibration for the Smith-Wilson method with LLP of 20 years and the alternative extrapolation method with FSP of 20 years coincide. Theoretically differences could arise from interpolated rates before the LLP/FSP. In practice the Smith-Wilson interpolation and the interpolation of the alternative extrapolation method yield very similar results. In test calculations average differences of about 0.2bp were observed. In view of these small differences no recalibration of the interest rate risk for the alternative extrapolation method was carried out.

*Gradual implementation*

5.24 EIOPA's advice on the interest rate risk calibration of 2018 included the suggestion to implement the changes gradually during a period of up to three years. EIOPA

will revise the need of gradual implementation in view of the combined impact of the changes suggested for the 2020 review of Solvency II.

5.25 The preferred policy option for this policy issue is to update the calibration in line with empirical data because it will improve the protection of policyholders (risk-based capital requirements will increase resilience of the undertaking and improve its supervision), promote good risk management in the insurance industry (the capital requirements are more risk sensitive and the risk profile better captured) and will allow for more effective and efficient supervision (for the same reasons).

### 5.1.6. Advice

5.26 EIOPA still believes that the current shocks provided in the Delegated Regulation for interest rate risk do not meet the requirements of Article 101(3) of the Solvency II Directive. Therefore EIOPA strongly advises to change the way capital requirements for interest rate risk are calculated in the Delegated Regulation.

5.27 EIOPA advises to model interest rate risk in the standard formula with a relative shift approach, parameters of which vary in function of the maturity.

5.28 The increased term structure for a given currency shall be equal to:  $r_t^{up}(m) = r_t(m) \cdot (1 + s_m^{up}(\theta_m)) + b_m^{up}$  where  $r_t(m)$  denotes the risk-free interest rate in the corresponding currency,  $m$  denotes the maturity and  $b_m^{up}$  and  $s_m^{up}$  are the calibrated maturity dependent up-shock components.

5.29 The decreased term structure for a given currency shall be equal to:  $r_t^{down}(m) = r_t(m) \cdot (1 - s_m^{down}(\theta_m)) - b_m^{down}$  where  $r_t(m)$  denotes the risk-free interest rate in the corresponding currency,  $m$  denotes the maturity and  $b_m^{down}$  and  $s_m^{down}$  are the calibrated maturity dependent down-shock components.

5.30 EIOPA advises that the parameters for the increased and decreased term structures should take into account the starting point of the extrapolation of the euro term structure.

5.31 For maturities between 1 and 20 years the shock components should be as follows:

<b>Maturity <math>m</math> [years]</b>	$s_m^{down}$	$b_m^{down}$	$s_m^{up}$	$b_m^{up}$
1	58%	1.16%	61%	2.14%
2	51%	0.99%	53%	1.86%
3	44%	0.83%	49%	1.72%
4	40%	0.74%	46%	1.61%

5	40%	0.71%	45%	1.58%
6	38%	0.67%	41%	1.44%
7	37%	0.63%	37%	1.30%
8	38%	0.62%	34%	1.19%
9	39%	0.61%	32%	1.12%
10	40%	0.61%	30%	1.05%
11	41%	0.60%	30%	1.05%
12	42%	0.60%	30%	1.05%
13	43%	0.59%	30%	1.05%
14	44%	0.58%	29%	1.02%
15	45%	0.57%	28%	0.98%
16	47%	0.56%	28%	0.98%
17	48%	0.55%	27%	0.95%
18	49%	0.54%	26%	0.91%
19	49%	0.52%	26%	0.91%
20	50%	0.50%	25%	0.88%

5.32 For maturities shorter than one year the value of  $b_m^{up}$  and  $s_m^{up}$  shall be equal to 61% and 2.14% respectively. For maturities shorter than one year the value of  $b_m^{down}$  and  $s_m^{down}$  shall be equal to 58% and 1.16% respectively.

5.33 In case the starting point of the extrapolation for the euro is left unchanged, the following shock components for maturities beyond 20 years should be used:

5.34 For maturities between 20 and 90 years, the value of  $s_m^{up}$  shall be linearly interpolated. For maturities of 90 years and up the value of  $s_m^{up}$  shall be 20%. For maturities between 20 and 60 years the value of  $b_m^{up}$  shall be linearly interpolated. For maturities of 60 years and up the value of  $b_m^{up}$  shall be 0%.

5.35 For maturities between 20 and 90 years, the value of  $s_m^{down}$  shall be linearly interpolated. For maturities of 90 years and up the value of  $s_m^{down}$  shall be 20%. For maturities between 20 and 60 years the value of  $b_m^{down}$  shall be linearly interpolated. For maturities of 60 years and up the value of  $b_m^{down}$  shall be 0%.

5.36 In case the starting point of the extrapolation for the euro is changed to 30 years the following shock components for maturities beyond 20 years should be used:

<b>Maturity m [years]</b>	$s_m^{down}$	$b_m^{down}$	$s_m^{up}$	$b_m^{up}$
21	49%	0.49%	25%	0.87%
22	50%	0.49%	24%	0.85%

23	51%	0.48%	24%	0.82%
24	51%	0.48%	23%	0.80%
25	52%	0.47%	22%	0.78%
26	52%	0.46%	22%	0.76%
27	53%	0.45%	21%	0.74%
28	53%	0.44%	21%	0.72%
29	53%	0.42%	20%	0.70%
30	53%	0.41%	20%	0.69%

For maturities between 30 and 90 years, the value of  $s_m^{up}$  shall be linearly interpolated. For maturities of 90 years and up the value of  $s_m^{up}$  shall be 20%. For maturities between 30 and 60 years the value of  $b_m^{up}$  shall be linearly interpolated. For maturities of 60 years and up the value of  $b_m^{up}$  shall be 0%.

For maturities between 30 and 90 years, the value of  $s_m^{down}$  shall be linearly interpolated. For maturities of 90 years and up the value of  $s_m^{down}$  shall be 20%. For maturities between 30 and 60 years the value of  $b_m^{down}$  shall be linearly interpolated. For maturities of 60 years and up the value of  $b_m^{down}$  shall be 0%.

5.37 In case the starting point of the extrapolation for the euro is changed to 50 years the following shock components for maturities beyond 30 years should be used:

<b>Maturity m [years]</b>	$s_m^{down}$	$b_m^{down}$	$s_m^{up}$	$b_m^{up}$
31	53%	0.40%	20%	0.70%
32	53%	0.39%	20%	0.71%
33	54%	0.37%	20%	0.71%
34	54%	0.36%	20%	0.71%
35	54%	0.35%	20%	0.71%
36	54%	0.34%	20%	0.72%
37	55%	0.33%	21%	0.72%
38	55%	0.32%	21%	0.72%
39	56%	0.31%	21%	0.73%
40	57%	0.30%	21%	0.73%
41	57%	0.29%	21%	0.74%
42	58%	0.28%	21%	0.74%
43	59%	0.27%	21%	0.75%
44	61%	0.26%	21%	0.75%
45	62%	0.25%	21%	0.75%

46	62%	0.23%	21%	0.75%
47	63%	0.22%	21%	0.75%
48	64%	0.21%	21%	0.74%
49	64%	0.19%	21%	0.74%
50	65%	0.18%	21%	0.73%

5.38 For maturities between 50 and 90 years, the value of  $s_m^{up}$  shall be linearly interpolated. For maturities of 90 years and up the value of  $s_m^{up}$  shall be 20%. For maturities between 50 and 60 years the value of  $b_m^{up}$  shall be linearly interpolated. For maturities of 60 years and up the value of  $b_m^{up}$  shall be 0%.

5.39 For maturities between 50 and 90 years, the value of  $s_m^{down}$  shall be linearly interpolated. For maturities of 90 years and up the value of  $s_m^{down}$  shall be 20%. For maturities between 50 and 60 years the value of  $b_m^{down}$  shall be linearly interpolated. For maturities of 60 years and up the value of  $b_m^{down}$  shall be 0%.

## 5.2. Spread risk

### 5.2.1. Extract from the call for advice

#### **3.5. Capital Market Union aspects**

*EIOPA is asked to assess whether the methods, assumptions and standard parameters underlying the calculation of the market risk module with the standard formula appropriately reflect the long-term nature of the insurance business, in particular equity risk and spread risk. To this end, EIOPA is asked to:*

*identify the characteristics of insurance business and liabilities that enable insurers to hold their investments for the long term; and*

*where appropriate, advise on revised methods, assumptions and standard parameters for the purpose of calculating the market risk module, reflecting insurers' behaviour as long-term investors.*

### 5.2.2. Previous advice

5.40 EIOPA's predecessor, CEIOPS, advised the Commission on the calibration of the spread risk sub-module in January 2010<sup>150</sup> and subsequently in April 2010<sup>151</sup>. Both advices mentioned that "CEIOPS is considering developing risk factors that vary

<sup>150</sup> CEIOPS, Level 2 Implementing Measures on Solvency II: SCR Standard Formula – Article 111b – Calibration of Market Risk Module, CEIOPS-DOC-66/10, 29 January 2010.

<sup>151</sup> CEIOPS, Solvency II Calibration Paper, CEIOPS-SEC-40-10, 15 April 2010.

by spread duration to take into the non-linearity of spread risk across duration and credit rating.” In June 2011, EIOPA provided the Commission with a proposal on the calibration of the risk factors for bonds and loans (incl. covered bonds) using the so-called ‘kinked’ approach as part of its comments on the draft Level 2 measures.<sup>152</sup>

5.41 EIOPA provided separate advice on various components of the spread risk sub-module, in particular the recalibration of spread risk charges for securitisations in December 2013<sup>153</sup>, the identification and calibration of infrastructure investments in September 2015<sup>154</sup> and infrastructure corporate investments in June 2016<sup>155</sup>, reducing reliance on external credit ratings and the treatment of exposures to regional governments and local authorities in October 2017<sup>156</sup> and the treatment of unrated debt in February 2018<sup>157</sup>.

### **5.2.3. Relevant legal provisions**

5.42 Article 105(5) of the Solvency II Directive prescribes that the SCR market risk module should include a capital requirement for spread risk capturing the sensitivity of the value of assets and liabilities to changes in the level or volatility of credit spreads over the risk-free interest rate term structure.

5.43 Articles 175 to 181 of the Delegated Regulation specify how the capital requirement for spread risk should be calculated, distinguishing capital requirements for (a) spread risk on bonds and loans, (b) spread risk on securitisation positions, and (c) spread risk on credit derivatives. Annex 5.1 provides a high-level overview of provision in the Delegated Regulation relating to more specific asset categories subject to the spread risk sub-module.

### **5.2.4. Identification of the issue**

5.44 The capital requirement for spread risk is calculated using shocks to credit spreads with a 0.5% probability of occurrence within one year. This ensures that the market value of assets exceeds the market value of liabilities with 99.5% certainty within one year following a severe widening of credit spreads.

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<sup>152</sup> EIOPA, EIOPA comments on draft Level 2 measures (SEG 03 May 2011), EIOPA-11/057, 21 June 2011.

<sup>153</sup> EIOPA, Technical Report on Standard Formula Design and Calibration for Certain Long-Term Investments, EIOPA/13/513, 19 December 2013.

<sup>154</sup> EIOPA, Final Report on Consultation Paper no. 15/004 on the Call for Advice from the European Commission on the identification and calibration of infrastructure investment risk categories, EIOPA-BoS-15-223, 29 September 2015.

<sup>155</sup> EIOPA, Final Report on Consultation Paper no. 16/004 on the request to EIOPA for further technical advice on the identification and calibration of other infrastructure investment risk categories, i.e. infrastructure corporates, EIOPA-16-490, 30 June 2016.

<sup>156</sup> EIOPA, EIOPA’s first set of advice to the European Commission on specific items in the Solvency II Delegated Regulation, EIOPA-BoS-17/280, 30 October 2017.

<sup>157</sup> EIOPA’s second set of advice to the European Commission on specific items in the Solvency II Delegated Regulation, EIOPA-BoS-18/075, 28 February 2018.



5.45 The issue is whether such an - often labelled 'short-term' - treatment of spread risk overestimates the capital requirement for spread risk in Solvency II, thereby discouraging long-term investments of insurance and reinsurance undertakings in bonds and loans of European companies. In that respect, it is often argued that short-term, so-called 'artificial', changes in credit spreads are not relevant risks for undertakings with long-term and illiquid liabilities

## **5.2.5. Analysis**

### **5.2.5.1. Characteristics that enable undertakings to hold bonds for long term**

5.46 In response to the Call for Information from the Commission on asset-liability management<sup>158</sup>, EIOPA will report about the characteristics that enable undertakings to hold bonds for the long term in December 2019.

### **5.2.5.2. Market-consistency and 99.5% certainty within one year**

5.47 The SCR spread risk sub-module aims to ensure – like the other SCR (sub-)modules – that the market value of assets exceeds the market value of liabilities with 99.5% certainty within one year. That is important because as long as the market value of assets exceeds the value of liabilities, sufficient funds are available to meet the obligations to the policyholders.

5.48 Once the market value of assets falls below the market value of technical provisions, it is no longer possible for the undertaking to fulfil its guarantees to policyholders with sufficient certainty. The undertaking would require additional own funds, e.g. generated by returns on assets in excess of the risk-free rate to restore solvency. However, such expected returns over the risk-free rate always involve a degree of risk-taking, i.e. it is not possible to earn risk-free returns exceeding the market risk-free rates, irrespective of the time horizon. This means that there is a possibility that excess returns restore the undertaking's solvency position, but there is also chance that the solvency further deteriorates.

5.49 For example, considering spread risk, if a severe widening of credit spreads results in a negative excess of assets over liabilities then the resulting higher yield on bonds and loans may restore the undertaking's solvency position over time. However, this is by no means a certainty since the bonds and loans are subject to default risk. Usually, also during economic downturns, default risk tends to be idiosyncratic, affecting a small portion of bonds and loans, which may not prevent undertakings from recovering from the higher spreads.

5.50 Systematic default events affecting substantial segments of the debt market, like US mortgage bonds during the last financial crisis, are 'low probability, high impact' (or 'fat tail') events. In other words, systematic debt crises are scarce but happen

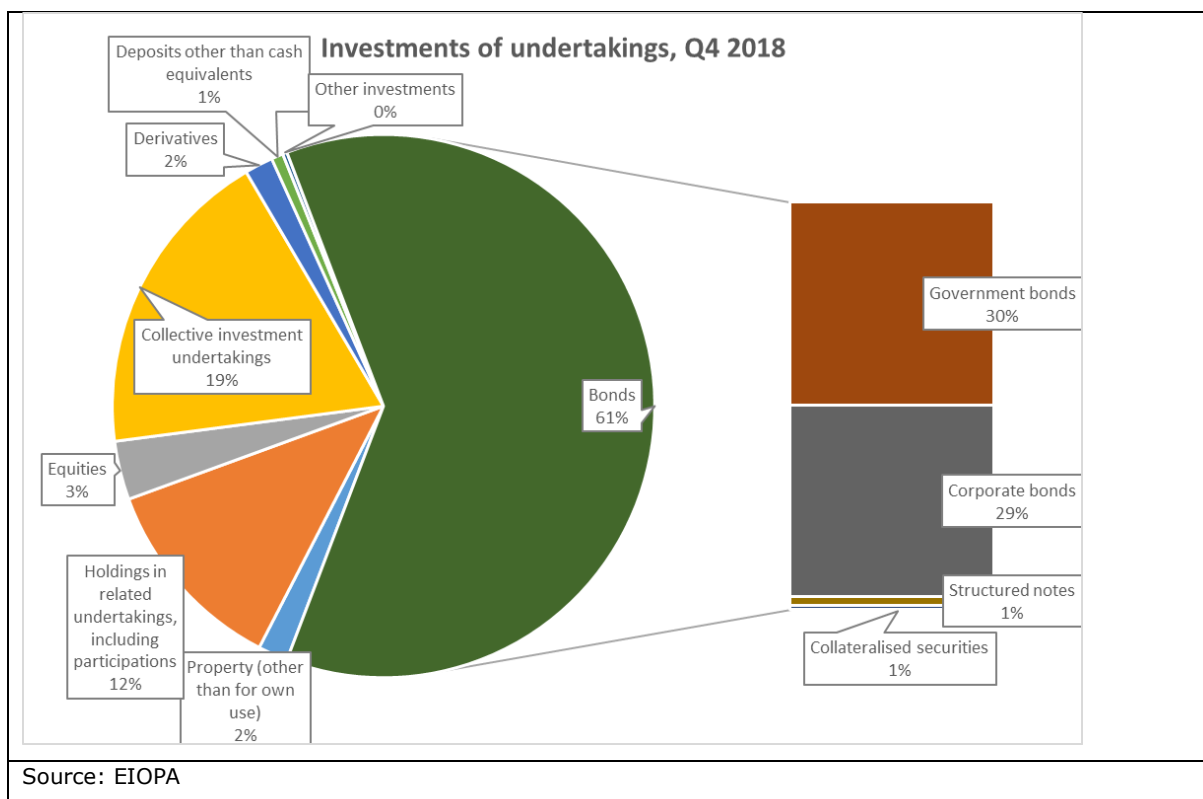
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<sup>158</sup> European Commission, Request to EIOPA for information related to Directive 2009/138/EC, Ref. Ares(2018)2252352, 27 April 2018.

to manifest themselves at recurring intervals<sup>159,160</sup>, and may prevent undertakings to recover from losses due to increase spreads. Finally, note that (cumulative) credit default risk increases with the holding period of the bonds or loans.<sup>161</sup>

### 5.2.5.3. Undertakings' investment allocations to bonds

5.51 Undertakings' current investment allocations to bonds do not provide immediate evidence that the SCR spread risk module is dis-incentivising such investments<sup>162</sup>, though a deeper look into the composition of the corporate bonds with respect to credit quality may raise additional insights. On the contrary, at the end of 2018, undertakings allocated 61% of investment assets to bonds, excluding bond investments through collective investment undertakings. When collective investment funds are not taken into consideration, as much as 75% of investment assets is allocated to bonds.



5.52 This may be the result of Solvency II promoting sound risk management and encouraging the minimisation of mismatch risk between assets and liabilities. However, there are also indications that the treatment of spread risk in Solvency II is incentivising investments in fixed income assets, in particular in government bonds as those are not included in the standard formula credit spread stress. A

<sup>159</sup> See Carmen M. Reinhart & Kenneth S. Rogoff, *This time is different – eight centuries of financial folly*, Princeton University Press, 2009.

<sup>160</sup> The fact that a widening of credit spreads is only occasionally followed by a severe default event may nourish the perception that short-term credit spread volatility is 'artificial'.

<sup>161</sup> If the probability of default (PD) is identical and independently distributed over time then the cumulative default probability at year t equals  $1 - (1 - PD)^t$ .

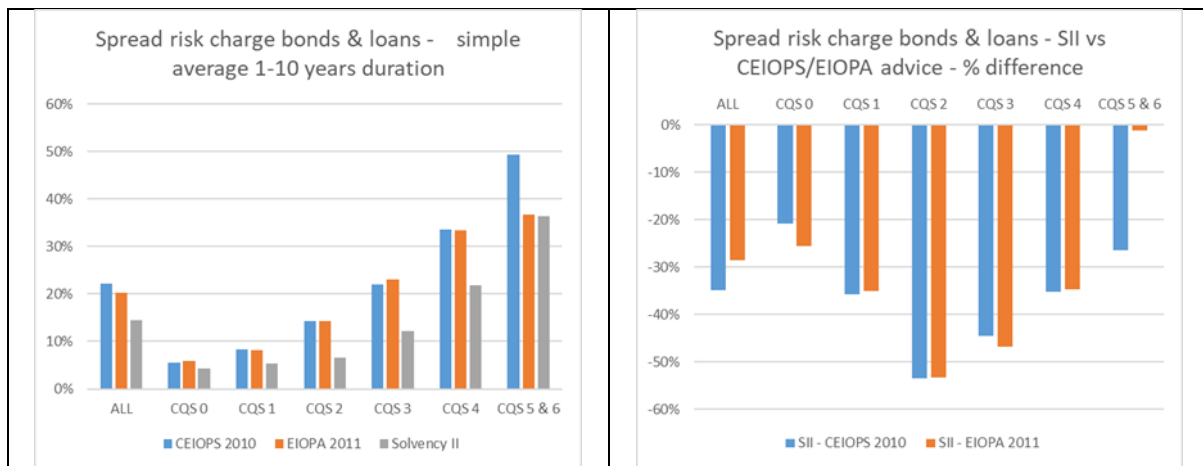
<sup>162</sup> Acknowledging that EEA government bonds are excluded from the spread risk module in the standard formula.

regulatory framework is incentivising investments in a specific asset category if it becomes relatively more attractive compared to its risks than another asset category. In that respect the following can be observed under the current Solvency II regulation:

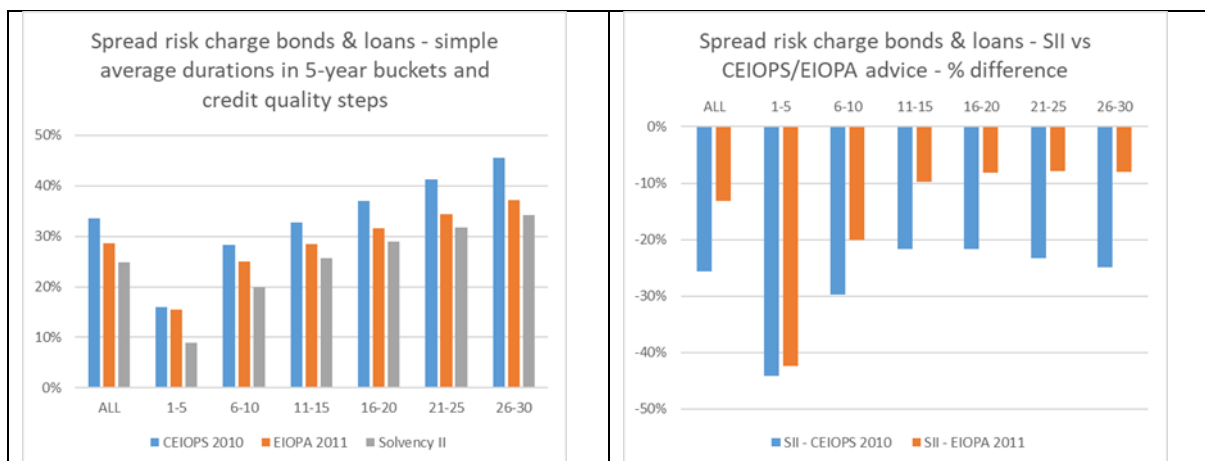
- Sovereign bonds: The zero capital charge for all EEA sovereign bonds, irrespective of their credit spreads and risks make them relatively more attractive than if the capital requirements would correspond to their actual risks. While the market valuation reflects the risks of riskier sovereigns, the VA dampens this effect. Overall, sovereign spread risks are therefore only partially reflected.
- Corporate bonds: Corporate bonds get a risk-based capital charge for spread risks and have as such become relatively less attractive than sovereign bonds. Solvency II calibrations for spread risk are lower than originally proposed by CEIOPS/EIOPA. As for government bonds, while the market valuation reflects the risks of riskier sovereigns, the VA dampens this effect. Overall, corporate spread risks are therefore not fully reflected.
- Equity: The capital requirements for equity have also decreased compared to the CEIOPS advice from 45 percent to 39 percent plus the symmetric adjustment for equity risk. Market valuation for equity also reflects on undertakings' balance sheets. No additional volatility adjustment applies to equity.

5.53 The left-hand chart below displays the spread risk charges on bonds and loans advised by CEIOPS in 2010 and by EIOPA in 2011 as well as the current Solvency II risk charges. The chart distinguishes the different credit quality steps (CQS) and the average of all CQSs. The size of the shown spread risk charges constitute the average for bonds and loans with 1 to 10 years duration, covering the vast majority of corporate bonds. Note that the CEIOPS and EIOPA calibrations yield very similar results in this duration range. The reason is that the 'kinked' approach used in the EIOPA proposal has the most substantial impact for durations exceeding 10 years (see annex 5.2).

5.54 The current Solvency II spread risk charges appear relatively mild compared to the proposed calibrations. On average, the Solvency II spread risk charges are 30% lower than the advised calibrations in the duration range of one to ten years (see right-hand chart below).



5.55 The charts below show the spread risk charges on bonds and loans using a breakdown by five-year duration buckets, instead of by credit quality steps. It confirms that the kinked approach dampens the spread risk charges most at higher durations. I.e. the difference between the 2010 CEIOPS and 2011 EIOPA advice increases with the maturity of the bonds and loans (see left-hand chart). The current Solvency II calibrations are lower than the calibration recommended by EIOPA with the difference decreasing as the duration increases.



5.56 Bond investments may not only be incentivised by the mild spread risk charges, including the zero spread risk charges on Member States' government bonds, but also by the favourable treatment of spread risk in the valuation of the best estimate of technical provisions (volatility adjustments and matching adjustment).

5.57 The volatility adjustment to the basic risk-free interest rate is determined by multiplying the risk-corrected spread (currency spread minus fundamental spread) with the general application ratio<sup>163</sup>, suggesting that this percentage of changes in credit spreads is due to 'artificial' volatility.

5.58 The danger of encouraging investments in fixed income assets is that it may increase investments in this category not justified by its actual risks and may

<sup>163</sup> Article 77d(3) of the Solvency II Directive.

unnecessarily reduce investments with a less favourable treatment compared to its actual risks. EIOPA does not consider it a solution to then decrease the capital requirements of other asset categories; such additional reductions may hamper the intended policyholder protection of Solvency II (see section 2.9.4).

#### **5.2.5.4. Options**

5.59 EIOPA identifies four options with the three non-no-change options being mutually exclusive:

##### Option 1: No change

5.60 Do not alter the current SCR spread risk sub-module.

##### Option 2: Long-term treatment of long-term investments in bonds and loans: avoidance of forced sales and reduced, long-term spread shocks

5.61 Analogous to the treatment of long-term equity investments in the SCR equity risk sub-module, in accordance with Art. 171a of the Delegated Regulation (see section 2.9.), this option introduces a new category of 'long-term investments in bonds and loans' subject to lower, long-term stresses to the market value of bonds and loans due to an increase in credit spreads.

5.62 In order for a sub-set of bonds and loans to qualify as long-term investments, similar conditions as for long-term equity investments could be imposed to ensure that:

- the investments in bonds and loans and their holding period are well identified and are part of a portfolio of assets assigned to cover a portfolio of insurance or reinsurance obligations over the lifetime of these obligations;
- the portfolio of assets are identified, managed and organised separately from the other activities of the undertaking and cannot be used to cover losses arising from other activities;
- the portfolio of insurance or reinsurance obligations referred to in the second bullet only represents part of technical provisions;
- the bonds and loans are issued or closed by companies that have their head offices in countries that are members of the EEA;
- the average holding period of the investment in bonds and loans exceeds 5 years or no investments in bonds and loans are sold until the average holding period exceeds 5 years;
- the undertaking is able to avoid forced sales of each investment in bonds and loans for at least 10 years;
- the investment and risk-management policies of the undertaking are consistent with the average holding period exceeding 5 years and the avoidance of forced sales within at least 10 years;
- where bonds and loans are held within collective investment funds, the above conditions may be assessed at the level of the fund instead of the underlying assets;

- where bonds and loans are treated as long-term investments in bonds and loans, undertakings do not revert back to an approach that does not include long-term investments in bonds and loans.

5.63 An important difference between bonds and loans and equities is that bonds and loans usually have fixed time to maturity while equities can be held indefinitely. This distinction does not affect the relevance of the holding-period and forced-sales conditions (in the fifth and sixth bullet). An average holding period of 5 years implies that undertakings would have to include – at least on average over the lifetime of the insurance obligations – bonds and loans with a maturity exceeding 5 years in the sub-set of investments in bonds and loans. Also the avoidance of forced sales for at least 10 years can be applied to bonds and loans. However, if the sub-set contains bonds and loans with a maturity below 10 years – which is likely to be the case – then these bonds and loans will automatically mature within a 10-year timeframe.

5.64 The conditions leave ambiguity as to whether the holding period applies to individual assets or to asset classes or whether this depends on whether the assets are invested in directly or through investment funds.

5.65 The calibration of the lower spread shocks for the sub-set of investments in bonds and loans can take inspiration from the reduced risk charges for bonds and loans included in a portfolio subject to the matching adjustment:

<b>CQS</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>unrated</b>
<b>Reduction factor</b>	27.5%	25%	20%	12.5%	0%	0%	0%	0%

5.66 This would allow for a reduction of the standard stresses for the sub-set of investments in bonds and loans where the bonds and loans dispose of an 'investment grade' credit assessment. Given that the requirements for the use of the matching adjustment are more restrictive, a lower reduction factor, i.e. 50 percent of the reduction for the matching adjustment, is considered appropriate for the sub-set of investments in bonds and loans.

<b>Pros</b>	<b>Cons</b>
Ensures a consistent treatment of long-term equity investments and long-term investments in bonds and loans.	Deviates from fundamental idea behind SII that SCR should ensure that market value of asset exceeds liabilities with 99.5% certainty within one year.
Encourages the allocation to bonds and loans of companies in the EEA, supporting the capital markets union (CMU) and the real economy.	Deviating from the market-consistent approach to the calculation of the spread risk charges diminishes incentives for proper risk-management.
	Setting capital requirements for spread risk below the value based on 99.5% certainty within one year reduces the

	strength of guarantees, undermining the protection of policyholders, also because there is no evidence to support that long-term credit risk is lower.
	Further encourages allocations to fixed income assets at the expense of other asset classes, like equities and real estate.
	Increases the burden on supervisory authorities, which have to review compliance with the conditions for treating bonds and loans as long-term investments.
	Increases the compliance costs of undertakings both directly and indirectly, due to the higher costs of supervision.

Option 3: Long-term treatment of long-term investments in bonds and loans: hold-to-maturity conditions and spread risk charge based on increase in fundamental spreads

5.67 Option 3 is the same as option 2 with the following two modifications:

1) The conditions relating to the average holding period and the avoidance of forced sales are replaced by the following:

- the average maturity of the investments in bonds and loans over the lifetime of the pension obligations exceeds 5 years;
- the solvency and liquidity position of the insurance or reinsurance undertaking, as well as its strategies, processes and reporting procedures with respect to asset-liability management, are such as to ensure, on an ongoing basis and under stressed conditions, that it is able to hold to maturity each investment in bonds and loans;

For the investments in bonds and loans to qualify as long-term investments, each investment in bond and loans has to be held until the bond or loan matures. Under option 2 voluntary sales would be possible as long as the average holding period exceeds 5 years. The rationale is that undertakings are not affected by changes in credit spreads when the bonds or loans are held to maturity, provided that there is no default event before the bonds or loans mature.

2) In line with this rationale, the spread risk charge for the sub-set of investments in bonds and loans is calculated by means of shocks to the risk-corrected spread, representing only losses due to expected downgrades and defaults. Similar to option 2, the calibration of the risk-corrected spread shocks can be based on the spread shocks applied to bonds and loans included in a matching portfolio, in accordance with Article 181 of the Delegated Regulation. As such, the spread shocks would be derived as a fixed percentage of the standard spread charges:

<b>CQS</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>unrated</b>
<b>% of standard stresses</b>	72.5%	75%	80%	87.5%	100%	100%	100%	100%

5.68 Given that the requirements for the use of the matching adjustment are more restrictive, the higher fixed percentages are considered appropriate for the subset of investments in bonds and loans compared to the fixed percentage applied for the spread risk charge relating to matching adjustment portfolio.

<b>Pros</b>	<b>Cons</b>
Ensures a consistent treatment of long-term equity investments and long-term investments in bonds and loans.	Deviates from fundamental idea behind SII that SCR should ensure that the market value of asset exceeds liabilities with 99.5% certainty within one year.
Encourages the allocation to bonds and loans of companies in the EEA, supporting the capital markets union (CMU) and the real economy.	Deviating from the market-consistent approach to the calculation of the spread risk charges diminishes incentives for proper risk-management.
	Setting capital requirements for spread risk below the value based on 99.5% certainty within one year reduces the strength of guarantees, undermining the protection of policyholders, also because there is no evidence to support that long-term credit risk is lower.
	Further encourages allocations to fixed income assets at the expense of other asset classes, like equities and real estate, potentially resulting in a race to the bottom of capital charges for different asset classes.
	Increases the burden on supervisory authorities, which have to review compliance with the conditions for treating bonds and loans as long-term investments.
	Increases the compliance costs of undertakings both directly and indirectly, due to the higher costs of supervision.



#### Option 4: Reflection of a dynamic VA in the standard formula for bonds and loans covering illiquid/predictable liabilities

5.69 Where undertakings have illiquid liabilities and these are covered by bonds and loans, it can be argued that these investments carry lower spread risks as undertakings are less exposed to forced sales of bonds and loans.

5.70 Such argument can be extended to the calculation of the spread risk charge for bonds and loans by allowing undertakings, which make use of the volatility adjustment, to apply a dynamic VA in the spread risk sub-module for bonds and loans. This would be implemented by either allowing undertakings to apply a recalculated VA after stress, implying a recalculation of technical provisions post stress or by reducing the spread risk factors directly (e.g. applying reduction factors equal to the general application ratio) to the calculated capital requirement for spread risk on bonds and loans. As this option is linked to the functioning and purpose of the VA, this option is not further developed in this section. For further details on a dynamic VA for the standard formula see section 2.4.7.

#### Evaluation of options

5.71 The aim of introducing a long-term treatment of fixed income assets in the SCR spread risk sub-module would be to support the capital market union (CMU) and the European economy. EIOPA doubts whether undertakings are dis-incentivised to invest in fixed income assets, considering that the overwhelming majority of undertakings' investments is already allocated to that asset category. On the one hand, this is a sign that Solvency II is successful, stimulating investments in asset classes that best match liabilities. On the other hand, Solvency II may already be over-incentivising fixed income investments, because of the allowance of adjustments in the valuation of the best estimate of technical provisions, the relatively mild calibration of the spread risk charges on bonds and loans and, last but not least, the zero spread risk charges on Member States' government bonds.

5.72 A long-term treatment would also be inconsistent with the fundamental principle underlying Solvency II that the SCR should ensure that the market value of assets exceeds the market value of liabilities with 99.5% certainty within one year. Relinquishing that principle diminishes incentives for proper risk management and reduces the certainty-level of guarantees offered to policyholders, jeopardising consumer protection. EIOPA also has no evidence that would support lower spread risk calibrations for long-term investments in bonds and loans.

#### **5.2.6. Advice**

5.73 EIOPA advises not to modify the existing SCR spread risk sub-module (Option 1). In EIOPA's (technical) view it is unnecessary and even unwarranted to introduce a separate, long-term treatment of insurance and reinsurance undertakings' investments in fixed income assets, beyond the current, long-term calculation of the spread risk charge of assets contained in matching adjustment portfolios.

## **5.3. Property risk**

### **5.3.1. Relevant legal provisions**

#### Solvency II Directive

5.74 Article 105 – Calculation of the Basic Solvency Capital Requirement:  
“[...] 5. The market risk module shall reflect the risk arising from the level or volatility of market prices of financial instruments which have an impact upon the value of the assets and liabilities of the undertaking. It shall properly reflect the structural mismatch between assets and liabilities, in particular with respect to the duration thereof.

It shall be calculated, in accordance with point (4) of Annex IV, as a combination of the capital requirements for at least the following sub- modules:  
[...]

(c) the sensitivity of the values of assets, liabilities and financial instruments to changes in the level or in the volatility of market prices of real estate (property risk)“.

#### Delegated Regulation

5.75 Recital (61): “Considering that the risk-profile of property located in third countries is not materially different from that of property located in the Union, the property risk sub-module of the standard formula should treat these two types of exposures in the same way.”

5.76 Article 174: “The capital requirement for property risk referred to in point (c) of the second subparagraph of Article 105(5) of Directive 2009/138/EC shall be equal to the loss in the basic own funds that would result from an instantaneous decrease of 25 % in the value of immovable property.”

### **5.3.2. Identification of the issues**

5.77 The current regulation sets in the standard formula a uniform shock of 25% for real estate risk across the European Union, even though real estate markets behaviours may differ, sometimes significantly, from one Member State to another.

5.78 The current calibration was constrained by the availability of real estate annual returns observations where the only source of deep and sufficiently frequent data was available for the UK market, market deemed to be the most volatile one in Europe and thus potentially not representative for this risk in other countries.

5.79 Therefore several real estate investors are claiming this single shock is inappropriate in terms of risk sensitivity and excessively high for non-British European markets.

5.80 Another related criticism is the absence of recognition of diversification (both geographical and w.r.t. the exposure or sectoral type – i.e. commercial vs residential) within real estate portfolios this single-shock approach implies.

### 5.3.3. Analysis

#### 5.3.3.1. Data overview and selection

- 5.81 The main specificities of real estate as an asset class are its illiquidity (infrequent and irregular trading, no central market place where prices can be easily observed) and its heterogeneity (in terms of characteristics influencing the value of the asset – e.g. location, size and other physical characteristics of the building)<sup>164</sup>.
- 5.82 The value of such assets can only be observed on two main occasions: 1) when, for regulatory reasons (e.g. tax assessment), the property must be appraised (typically annually but the frequency, and also the method of assessment, differs from one Member State to the other) where the value produced should represent the price for which the good would sell, and 2) when the property is actually sold (transaction price).
- 5.83 The first occasion of valuation generates what is called appraisal-based (or valuation-based) observations. These observations are then regularly available (at least annually) and can be used to create so-called valuation-based indices (VBI) but are deemed (in the dedicated literature) to underestimate the volatility of prices because of smoothing and lagged phenomena in the estimation process (e.g. due to the subjectivity of the estimation process); moreover valuation approaches may differ between markets.
- 5.84 Values stemming from actual transactions are too infrequent to form the basis of reliable indices. In order to address this low frequency issue the Investment Property Databank (IPD, acquired by MSCI in 2012) created an interpolation method to generate quarterly and monthly data series from past transaction prices and other characteristics of the asset. This interpolation method is based on a so-called hedonic regression (in practice an ordinary least square regression) commonly used especially in real estate and which, in general terms, consists in “explaining” (or regressing) the value of an object by the value of some of its constituents. The data series produced can then form the basis of a so-called transaction-linked index (TLI). At least 2 drawbacks can be seen in this type of index: 1) when some physical characteristics of the property are missing the appraisal value might be used in lieu thereof, which brings all the drawbacks of the valuation-based approach, especially the heterogeneity of assessment methods across Member States, into the transaction-linked approach; 2) as with every regression the robustness of the estimated parameters depends on the number of underlying transactions in each bucket: for some markets this robustness might be an issue.
- 5.85 When using such indices (either VBI or TLI) several important aspects have to be considered (non-exhaustive list):

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<sup>164</sup> The presentation of the general real estate context and the different types of property values is freely adapted from the following 2 documents:

1. *Transaction based indices for the UK commercial property market: exploration and evaluation using IPD data*, Steven Devaney (University of Aberdeen) and Roberto Martinez Diaz (Investment Property Databank), 2010
2. *GLOBAL METHODOLOGY STANDARDS FOR REAL ESTATE INVESTMENT – Index Construction Objectives, Guiding Principles and Methodology for the MSCI Property Indexes*, 2019.

- Indices should be representative of the market they are trying to “summarise”;
- Indices should be based on a sufficiently high number of assessments (VBI) or transactions (TLI);
- Indices should be based on total returns, i.e. capital growth and income generated by the underlying properties;
- Financial amounts should remain in local currency in order not to include the exchange rate volatility in the index.

5.86 Regarding real estate data sources, EIOPA was in contact with representatives of Investors in Non-Listed Real Estate (INREV) who commissioned several studies on this topic to IPD, and later on to MSCI.

5.87 Based on responses from NCAs, none of them are aware of data which would imply a recalibration of the current shock.

5.88 Regarding the data made available to EIOPA for this study, for most EEA countries where data are available (17 Member States) only annual series are available. Semi-annual data are available only in 3 countries, quarterly ones only in 2 countries and monthly data only in one country. There are 14 countries where data are missing. Various reasons can explain these absences, the main one being the criteria to build the index are not met (e.g. volume of properties’ value assessment insufficient).

5.89 Only 6 countries have quarterly indices for all types of properties. At the end of 2017 3 countries were excluded from these indices because of insufficient underlying volumes (valuations or transactions) during a significant period (MSCI indeed introduced this new rule at the end of 2017).

5.90 Graphical analyses showed that for each of these 6 countries, VBIs are too smooth for the purpose of calibrating an annual shock; the shocks derived from this type of data will therefore only be a lower bound of the “true” shocks.

5.91 Based on data from 2 countries it seems, from graphical analyses, that the indices for retail properties are slightly more volatile than the ones derived from the office properties although it is not that clear when looking at the figure

5.92 VBI data series were also analysed independently of their TLI counterparts. It is important to mention here again that all the results (i.e. an extreme negative annual return) derived from this type of series will only be an upper bound of the “true” figures because of the smoothness of this type of data.

5.93 Given the scarcity of data for more granular types of properties, from now on no distinction by property type will be made.

### **5.3.3.2. Policy options**

5.94 Would data be seamlessly available by country and type of property, the following policy options could be considered. As further explained below any non-status quo option and non-uniform shock option will imply a structural change to the current approach.

5.95 Potential approaches:

1. Status quo (no change).
2. Calibrate one single common shock not only with UK data (with other countries data depending on their availability).
3. To account for the fundamentally different real estate markets in some countries and the rest of Europe, create 2 different shocks: one for the properties located in this group of countries and another one for the properties located elsewhere, together with the related dependency structure (even if simplistic) between both geographical zones to recognize or not some diversification between them.
4. To account for the different underlying risks by sector type of the asset (i.e. commercial – retail, office, industrial – or residential, etc.), create pan-European shocks by sector, together with the related dependency structure (even if simplistic) between sectors to recognize the diversification between them.
5. Create shocks w.r.t. both the property location and its sector (combination of options 3 and 4).

5.96 Option 2, a pan-European approach similar to what is done in underwriting risks, would imply an unrealistic degree of geographical diversification for many standard formula users (small insurers often hold only property in their own country).

5.97 Options 3, 4 and 5 (country (or group of countries)-specific and/or sector-specific calibration), although being more risk-sensitive, clearly depart from the Solvency II pan-European approach always chosen until now for other standard formula risk modules and sub-modules (e.g. underwriting risks) and is therefore likely to create a precedent and thus to undermine this aspect of the current regulatory framework.

5.98 Regarding options 4 and 5, it can be expected that the prices of commercial property are much closer linked to the economic cycle. They depend strongly on the sentiment and the availability of credit. Given the close economic integration between Member States the case for country (or group of countries)-specific shocks and diversification effects is therefore weaker for commercial properties (especially in the scenario of a European-wide severe recession).

5.99 As regards residential properties in option 4 and 5, several economic factors can be expected to have an impact on the volatility of the prices: affordability (e.g. prices to income, prices to rents), homeownership rate, attitudes to homeownership, indebtedness of homeowners, structure of mortgages (e.g. fixed vs. floating rate, amortisation patterns) and generosity of the welfare system. While certain factors may be transitory, others are permanent and result in structural differences in national residential property markets.

5.100 However, in light of the data made available to EIOPA, these theoretical policy options have to be revised.

5.101 Actual policy options:

6. Status quo (no change);

7. Calibrate one single common shock not only with UK data (with other countries data depending on their availability).
8. To account for the fundamentally different real estate markets in some countries and the rest of Europe, create 2 different shocks: one for the properties located in this group of countries and another one for the properties located elsewhere, together with the related dependency structure (even if simplistic) between both geographical zones to recognize or not some diversification between them.

5.102 The discussion made on the theoretical options still holds for the actual ones.

### **5.3.3.3. Calibration method**

5.103 Following the general Solvency II approach of calibrating annual shocks based on 99.5% quantiles, the 0.5% most negative annual return from indices is sought here. However, available data only from Q1 1999 to Q1 2019 at a quarterly frequency (i.e. 81 data points) make this task particularly challenging.

5.104 Therefore the method which was chosen tries to circumvent this scarcity: as the observation window is very narrow, it is very unlikely that it contains the 1-in-200-year event. Therefore even the minimum annual return from this window, only considering data points distant of 12 months, is expected to overestimate the "true" 0.5% quantile. In the sequel the minimum annual return will thus be considered.

### **5.3.3.4. Results**

5.105 For the TLI series the UK results significantly differ from the ones of the other countries. The values contributing to the minimum are to be found during the 2008 subprime crisis.

5.106 For the VBI series, for countries with observations available at multiple frequencies, quite intuitively the lowest minima are always observed at the highest frequency. For these countries only these minima were considered. From the analyses it can be observed that 3 countries (of which UK) have clearly higher risk profiles regarding property risk than the others in the EEA. However these are countries with the highest number of data points.

### **5.3.4. Advice**

5.107 Given the scarce available data and the on-going analyses, EIOPA is, at the time of this draft opinion, not in a position to provide the European Commission with a definitive advice implying a change to the current approach.

5.108 Therefore EIOPA will continue its analyses towards a potential change to the capital requirement calculation method for this risk.



## Questions to stakeholders

**Q5.1:** Do you know data sources which would help to better calibrate property risk?

**Q5.2:** For Internal Model users please indicate the approach chosen to model property risk within your Internal Model, when applicable.

## 5.4. Correlation matrices

### 5.4.1. Extract from the call for advice

#### **3.5. Capital Market Union aspects**

[...]

*As regards the correlation matrices, EIOPA is asked to assess the appropriateness of the structure of the (sub-) modules and the calibration of correlation parameters used in the Solvency Capital Requirement standard formula. Any advice to change the calibrations should be based on quantitative models and evidence. In particular, the correlations within market risk, as well as the correlation between lapse risk and the different market risks should take into account potential advice on market risk recalibrations.*

### 5.4.2. Previous advice

5.109 Not discussed in SCR Review, need to refer to CEIOPS advice in 2010.

### 5.4.3. Relevant legal provisions

#### Solvency II Directive

5.110 Annex IV, setting out the Calculation of the Basic Solvency Capital Requirement, includes the correlation matrix between risk modules.

#### Delegated Regulation

5.111 Set out correlation parameters between sub-modules within each risk module as referred to in the Solvency II Directive. In particular, correlation coefficients between market risk sub-modules which fall under market risk are defined in Article 164.

### 5.4.4. Identification of the issues

5.112 EIOPA has focused its analysis on the market risk correlations since here sufficient and representative market data to analyse the dependence structure is

available. EIOPA has not analysed other correlations due to the scarce and inappropriate data availability.

#### **5.4.4.1. Policy issue 1: Overall structure of the market risk correlations**

5.113 EIOPA has assessed the overall structure of the market risk correlations following CEIOPS 2010 empirical model. The analysis shows that the empirically estimated market risk SCR is significantly higher than the theoretical SCR implied by the current market risk correlation structure. However, this underestimation seems mainly to be driven by the current underestimation of the interest rate risk than a systematic underestimation of the market risk correlation parameters.

#### **5.4.4.2. Policy issue 2: Two-sided correlation parameter with interest rate risk**

5.114 In the current regulation, there is a two-sided correlation with interest rate risk for the market risks equity, property and spread risk. The correlation parameter depends on the individual interest rate risk exposure. Specifically, it takes the value 0.5 if the undertaking is exposed to the interest rate down scenario and zero if it is exposed to the interest rate up scenario. CEIOPS justified the two-sided correlation with economic arguments and empirical data. While the two-sided correlation might increase the risk-sensitivity of the standard formula, it also introduces additional complexity and potentially some disincentives from the risk management point of view.

5.115 EIOPA has analysed the disincentives from the risk management point of view by investigating if there is a clear tendency that undertakings switch their interest rate risk exposure towards the interest rate up scenario to benefit from the higher correlation benefit there.

5.116 The appropriateness of the two-sided correlations and the corresponding correlation parameters have been assessed by analysing most recent relevant market risk data.

5.117 The empirical data clearly confirms the two-sided correlation for the interest rate and equity risk. For the interest rate and spread risk, the appropriateness of the two-sided correlation is not that clear as for equity and interest rate risk. However, there is still empirical data justifying the two-sided correlation.

5.118 Considering the empirical analyses below, taking the extensive quantitative analysis of CEIOPS and the economic and simplification perspective into account it is proposed to keep the two sided-correlation for equity, property and spread risk with the same correlation parameters.

### **5.4.5. Analysis**

#### **5.4.5.1. Policy issue 1: Overall structure of the market risk correlations**

5.119 The overall structure of the market risk correlations is assessed by estimating the empirical model by CEIOPS 2010 with more recent financial market data. The



general idea is to compare the diversification benefit of the empirical model with the diversification benefit, which is implied by the current market risk correlation matrix.

Estimating the diversification benefit for market risk

5.120 An average European firm with a standalone market risk SCR of 100 has the following composition of its market risks submodules according to EIOPA QRT data in 2018

Interest rate risk	10
Equity risk	37
Property risk	10
Spread risk	28
Currency risk	8
Concentration risk	7.

The empirical model

5.121 For this firm an empirical SCR is calculated by approximating its individual market risks with specific market risk proxies and then the empirical diversification benefit is calculated as

5.122  $Div^{empirical} = 1 - \frac{SCR_{market}^{empirical}}{100}$  (1)

5.123 The following market risk proxies with daily observations are used to approximate the individual market risks. The proxies are similar to those used by CEIOPS. The main difference is that more EUR instead of UK data has been used.

<b>Interest rate risk</b>	<b>DEM/EUR 10Y swap data from 1987-2019</b>
Spread risk	Spreads to gilts on UK AA rated 10 year corporate bonds from 04/2002 until 05/2019
Equity risk	MSCI World Index from 1998 until 2019
Currency risk	EUR/USD currency exchange from 1999 until 2016

5.124 The overlapping data period consists thus of daily data from 04/2002 until 31/05/2019.

5.125 The calculation of the empirical market risk SCR was conducted by mainly following CEIOPS empirical model below.

5.126 (CEIOPS 2010, p.45) "The steps to produce the model are as follows:

1. Obtain a set of indices for the risks to which the company is exposed.
2. Calculate the year on year percentage change for each of these indices.
3. Multiply the value derived in point 2 by a factor designed to reflect the normalised capital required on a standalone basis in respect of that risk. So, for example, the observed 99.5th percentile year on year change for property is -25%. For the typical QIS4 firm we expect 8.4% of total capital to be in

respect of property risk, so we multiply each year on year change in the property index by a factor of  $100 * -8.4\%/25\%$ . 100 is the normalising value. Performing this will ensure that the undiversified sum of the 99.5% VaR capital levels for all risks is 100.

4. For each observation, sum the capital required to get a total capital requirement for that observation.
5. Order the observations by total capital requirement" and calculate the empirical 99.5% quantile.

5.127 The only difference to the CEIOPS model is the slightly different approximation of interest and spread risk. Instead of calculating a relative change as in step 3 above, a duration based approximation is used where the two risks were approximated by calculating the annual absolute changes of the corresponding proxies and multiplying these by the modified duration<sup>165</sup>. The duration-based approximation seems sensible for two reasons. First, it can better cope with very low and potentially negative interest rate and spread levels. Second, this is the typical approximation, which is used to approximate the relative change of a fixed income instrument and the approximation, which was used for calculating the capital charges for spread risk. Apart from this change in calculation step 3 for the two risks above, the same calculation procedure is applied. For the two-sided risks, interest rate and currency risk, the larger of the absolute empirical shocks is used.

5.128 The theoretical calculation

5.129 For the individual (standalone) market risk SCR values from above the market risk SCR which is implied by the correlation matrix from Art. 164 DA 2015/35 is calculated by

$$SCR_{market}^{theoretical} = \sqrt{\sum SCR_i * SCR_j \rho_{i,j}} \quad (2),$$

5.130 where  $SCR_i$  is the average SCR for market risk i (e.g. 29.36 for interest rate risk) and  $\rho_{i,j}$  is the correlation matrix.

5.131 Given this theoretical market risk SCR the empirical diversification benefit can be calculated by

$$Div^{theoretical} = 1 - \frac{SCR_{market}^{theoretical}}{100} \quad (3).$$

5.132 If the theoretical and empirical SCR are close to each other, one could argue that the correlation matrix is (broadly) consistent the one-year 99.5 VaR stress.

### Results

5.133 The results of the empirical model are shown in the following table. In the empirical model, the interest rate down and the currency down scenario were the driving scenarios with the larger shocks in absolute terms.

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<sup>165</sup> A conservative modified duration of 10 years was assumed for spread risk. For interest rate risk, a negative duration gap of 5 years was assumed. But different values for the duration gap do not significantly affect the overall amount of the empirical SCR

5.134 One can observe that the empirical SCR is significantly higher than the theoretical SCR and thus the empirical diversification benefit is significantly lower than the theoretical diversification benefit.

**Table 1 – Comparison of the empirical and theoretical diversification benefit**

SCR theoretical	SCR empirical	Theoretical diversification benefit	Empirical diversification benefit
77.10	84.6	22.9	15.4

5.135 As a sensitivity analysis the same calculations (with recent data) as above have been performed using the former market risk composition at QIS 4, see the CEIOPS 2010, p. 345. The main difference are the different weights for the interest rate and spread risk where in QIS 4 the interest rate risk had a weight of 29 and spread risk a weight of 11.

**Table 2 Comparison of the empirical and theoretical diversification benefit using CEIOPS data for the market risk composition.**

SCR theoretical	SCR empirical	Theoretical diversification benefit	Empirical diversification benefit
76.45	80.75	23.55	19.25

5.136 One can observe in table 2 that the difference between the empirical SCR and the theoretical SCR is lower than with the current market risk composition in table 1, but the empirical diversification benefit is still higher than the theoretical diversification benefit implied by the current correlation matrix.

5.137 Finally, the same calculation has been performed using the market risk composition from table 2 and the market risk correlation matrix, which was originally proposed by CEIOPS in 2010. This correlation matrix contained a higher pair-wise correlation for concentration and currency risk (both proposed values were 0.5 for all pair-wise correlations with concentration and currency risk).

**Table 3 Comparison of the empirical and theoretical diversification benefit using CEIOPS data for the market risk composition and the proposed correlation matrix**

SCR theoretical	SCR empirical	Theoretical diversification benefit	Empirical diversification benefit
81.94	80.75	18.06	19.25

- 5.138 From table 3 one can observe that the difference between the theoretical SCR and the empirical SCR is small and that the theoretical diversification benefit is slightly more conservative than the empirical diversification benefit.
- 5.139 The main reason from the large overestimation of the diversification benefit in table 1 is the inappropriate weighting of the market risk compositions for interest rate and spread risk, which is primarily the result of the current inappropriate interest rate risk measurement of the standard formula. Table 1 and table 2 indicate that the current correlation matrix might also slightly overestimate the diversification benefit in comparison to the originally proposed correlation matrix by CEIOPS.
- 5.140 However, the conclusion from the analysis above is that the overall structure of the market risk correlations is not systematically inappropriate. This is because the large part of the overestimation of the diversification benefit can be accounted by the current inappropriate average weightings for the interest rate risk and spread risk within the market risk module. Moreover, no appropriate data was available to analyse the pair-wise correlations with concentration risk.
- 5.141 Hence, EIOPA has not further analysed and reassessed all market risk correlations in detail, but has focused on the two-sided correlations with interest rate risk.

#### **5.4.5.2. Policy issue 2: Two-sided correlations with interest rate risk**

##### Empirical analysis

- 5.142 EIOPA has analysed the appropriateness of the two-sided correlations by a graphical data cutting analysis. In this analysis, annual overlapping relative changes of the above-mentioned market risk proxies for equity, spread and interest rate risk were compared. The data period ranges from 2002 until 2019 as above. As the Solvency II correlation parameters represent tail correlations, the particular focus of the graphical data cutting analysis is to have a closer look on the data points in the tail. That is the graphical analysis relies on the upper/lower percentiles (90th,95th,99th, 99.5th percentile for the correlations with an interest rate up exposure and the 10th, 5th, 1th, 0.5th percentile for the interest rate down exposure respectively).
- 5.143 Figure 1 displays the dependence structure of the relative equity and interest rate changes. The 90th percentile (10th percentile) and the 95 percentiles (5th percentile) are included in this figure. The 99 percentile (1th percentile) and the 99.5th percentile (0.5th percentile) were not plotted since no joint data points for equity and interest rate were observed. Specifically, the lower red rectangle in figure 1 indicates data points, which are below the empirical 5th percentile of the relative annual interest rate changes and the empirical 5th percentile of the relative annual equity changes. These data points represent data points in the tail for an interest rate down exposure and a fall in equity prices and are thus suited

to analyse the dependence between the interest rate down and the equity risk. The same interpretation holds for the other percentiles rectangles.

- 5.144 From figure 1, one can observe that there is a clear dependence of interest rate and equity movements in the lower tail, the red and green rectangle in the bottom left corner. On the other hand, one cannot observe any data points in the upper left corner, which would represent the dependence of interest rate up movements and a fall in equity prices. These observations are in line with the finding by CEIOPS 2010 and justify the two-sided correlations between interest rate risk and equity risk.
- 5.145 Figure 2 displays the dependence structure of the interest rate and spread movements. Most strikingly, the figure indicates a higher dependence structure between interest rate up movements and increasing credit spreads than between interest rate down movements and increasing credit spreads in the corresponding tails. This observation might raise doubt about the current two-sided correlation between interest rate and spread risk. In particular, this empirical finding does not indicate a significantly lower correlation between an interest rate up movements and widening credit spreads.
- 5.146 Accordingly, it is worthwhile to further analyse the dependence structure of interest rate and spread movements. To do so the graphical data cutting analysis is extended by using different market risk proxies. Figure 3 shows the same analysis with the GBP 10 Y Gilt data set as a proxy for the interest rate risk. The overlapping data set of the GBP 10 Y gilt and the GBP 10Y AA spread data ranges from 04/2002 until 05/2019 and consists of 4092 data points.
- 5.147 Most importantly, this figure 3 shows a significant degree of dependence in the lower tails of the joint empirical distribution and less or no dependence in the upper tails. Hence, using the GBP 10Y gilt as an interest rate risk proxy motivates a two-sided correlation for spread and interest rate risk. Interestingly the empirical correlation between interest rate and spread risk in the lower right tail of the empirical distribution, containing the worst 0.5% of the data points, is 0.53 and thus very close to the current correlation of 0.5.

#### Economic arguments and simplification point of view

- 5.148 From an economic perspective the two sided-correlation with interest rate down risk can be motivated by the rationale that in an economic downturn where equity prices and property prices decline substantially and credit spreads widen is often accompanied by a monetary policy where central banks decrease key interest rates usually resulting in a significant decrease of the interest rate level. This justifies economically the positive correlation of 0.5 with equity, property risk and spread risk. However, there is no real economic rationale that can clearly account for substantially increasing interest rates, falling equity prices, and property prices, which economically motivates the zero correlation with the interest rate up scenario.
- 5.149 From a simplification point of view, a unique correlation structure within the market risk module would simplify the standard formula since the undertakings would no longer need to determine their undertaking-specific interest rate

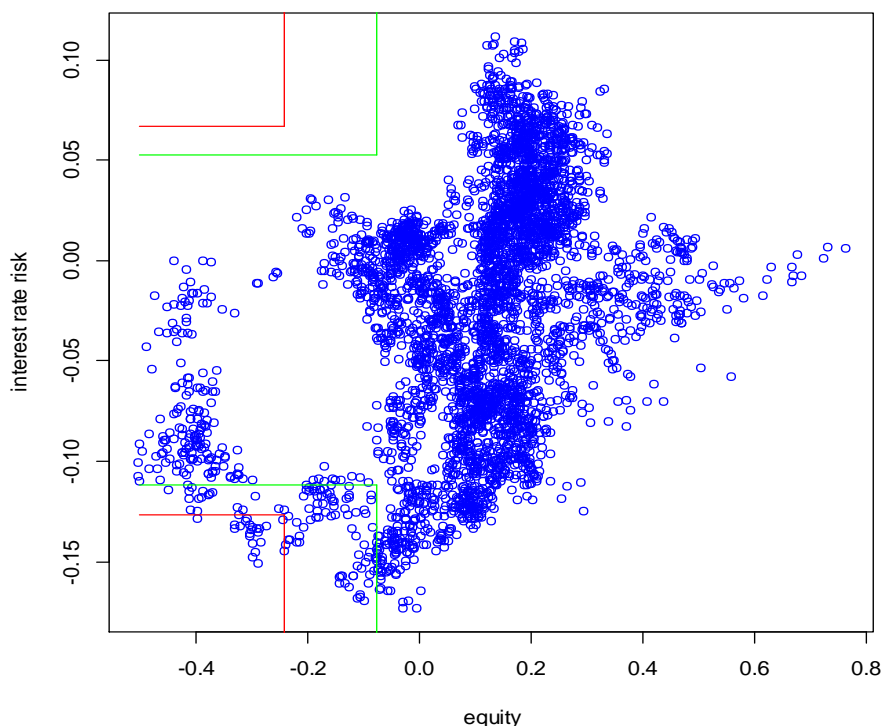
exposure in the first place in order to identify the correct correlation matrix in the second place. However, this complexity is limited to some extent, as undertakings need anyway to determine their interest rate exposure when calculating interest rate down risk.

## Conclusion

5.150 Considering the empirical analysis above, taking the extensive quantitative analysis of CEIOPS and the economic and simplification perspective into account it is proposed to keep the two sided-correlation with same correlation parameters for the equity, property and spread risk with interest rate risk.

5.151 For the spread risk and interest rate risk, the two-sided correlation is not that clear as for the equity risk and it is worthwhile to study this correlation deeper. However, thus far there is not a sufficiently strong evidence of a unique correlation structure. This can be seen from figure 3, which still motivates a two-sided correlation.

*Figure 1 Relative changes of the EUR Swap rate and the MSCI world Index. The relative change for the interest rate is estimated as  $10 \times (\text{absolute change})$ , following the same duration-based approximation above. The red rectangles represent data points below the joint empirical 5th percentile and above the 95th/5th percentile. The green rectangle represents data points below the joint empirical 10th percentile and above the 90th/10th percentile.*



*Figure 2 Relative changes of the EUR Swap rate and the Spread data on 10Y AA UK gilts..The relative change for the interest rate and the spread risk is estimated as  $10 \times (\text{absolute change})$ , following the same duration-based approximation above. The red rectangles represent data points below the empirical 95<sup>th</sup>/5<sup>th</sup>*

percentile and above the joint 95th percentile. The green rectangle represents data points below the empirical 90<sup>th</sup>/10<sup>th</sup> percentile and above the joint empirical 90th percentile.

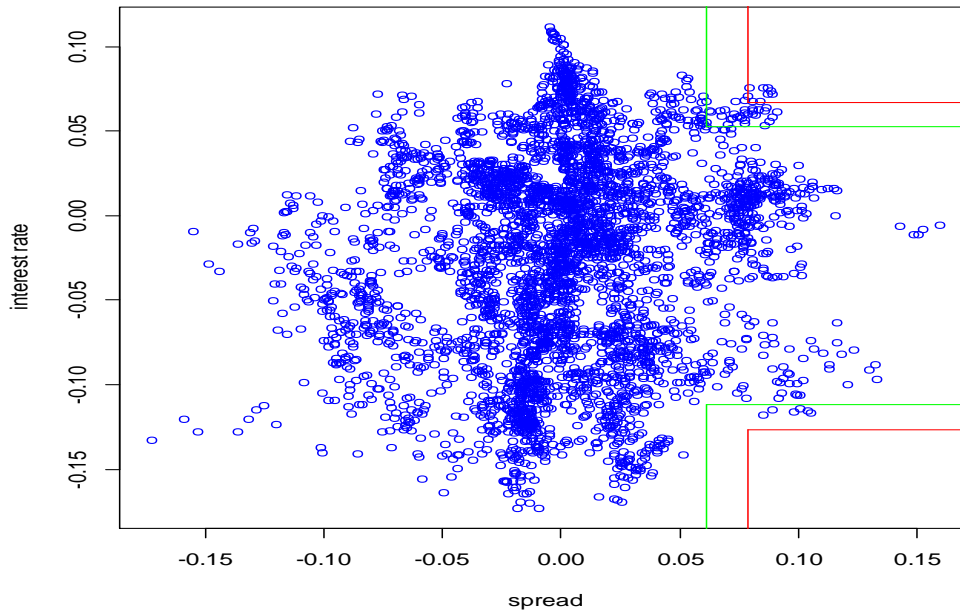
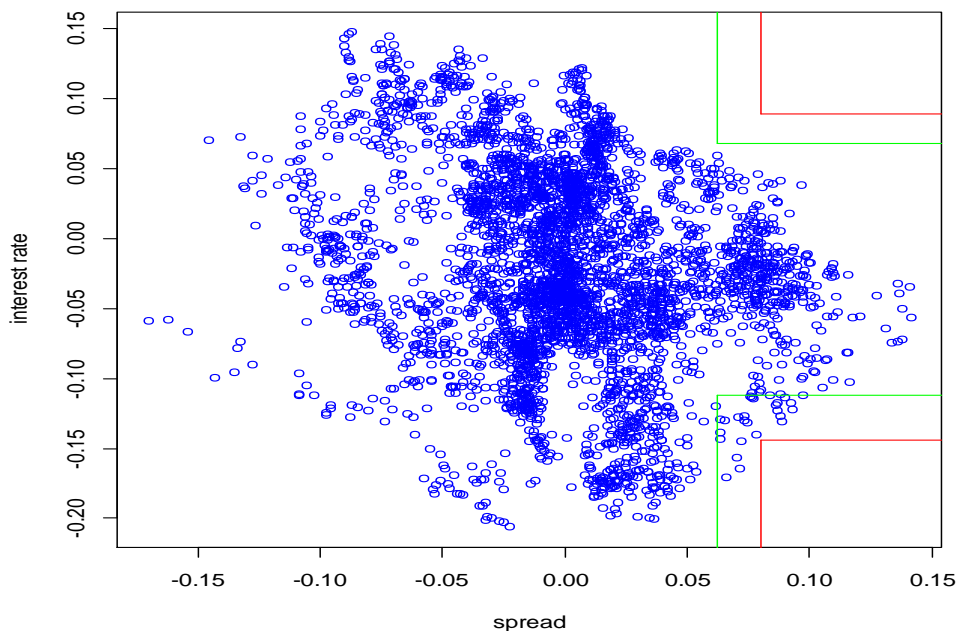


Figure 3 Relative changes of the GBP gilt 10Y and the Spread data on 10Y AA UK gilts..The relative change for the interest rate and the spread risk is estimated as  $10 \times (\text{absolute change})$ , following the same duration-based approximation above. The red rectangles represent data points below the empirical 95<sup>th</sup>/5<sup>th</sup> percentile and above the joint 95th percentile. The green rectangle represents data points below the empirical 90<sup>th</sup>/10<sup>th</sup> percentile and above the joint empirical 90th percentile.



5.152 The preferred policy option for this policy issue is to keep the structure of the correlation matrices and the correlation parameters unchanged since sufficiently strong evidence supporting a change could not be found in the empirical data. Accordingly, keeping the correlation matrices unchanged maintains the protection

of policyholders, promotes good risk management in the insurance industry and allows effective and efficient supervision.

#### 5.4.6. Advice

5.153 EIOPA advises to keep the current two-stage correlation structure in the standard formula, with correlation matrices within a submodule and a correlation matrix for the main risk modules. In particular, this implies that a direct correlation between market risk and life lapse risk should not be introduced in the standard formula.

5.154 EIOPA advises to keep all correlations for the underwriting risks and the correlations between the main risks unchanged.

5.155 Furthermore, EIOPA advises to keep the market risk correlations unchanged.

#### Questions to stakeholders

**Q5.3:** Do you consider that the correlations within market risk, as well as the correlation between lapse risk and market risks should be amended? If your answer is “yes”, you are invited to provide quantitative evidence supporting your reasoning

### 5.5. Counterparty default risk

#### 5.5.1. Extract from the call for advice

##### **3.7. Solvency Capital Requirement standard formula**

[...]

*b) Counterparty default risk module of the Solvency Capital Requirement standard formula*

*EIOPA is asked to assess the proportionality of the overall structure and of the counterparty default risk module, and to provide, where appropriate, advice on methods and calibrations for a simpler approach. Where this approach would necessitate a review of the allocation of asset classes to either market risk or counterparty risk modules, such a review should be conducted consistently with the review of the market risk module.*

#### 5.5.2. Previous advice

- Additional optional simplification for the computation of the LGD for reinsurance arrangements in Article 192(2) of the Delegated Regulation. In this case the undertaking can directly compute the LGD as

$$LGD = \max [90\% \cdot (Recoverables + 50\% \cdot RM_{re}) - F \cdot Collateral; 0].$$



The simplification is prudent and reduces the burden to assess the 60 % condition in Article 192(2) of the Delegated Regulation.

– Optional simplification for type 1 exposure Article 200 of the Delegated Regulation:

5.156 Where Article 88 of the Delegated Regulation is complied with, insurance or reinsurance undertakings may use the following simplified calculations for the purposes of Article 200 of the Delegated Regulation:

a. Where the standard deviation of the loss distribution of type 1 exposures is lower than or equal to 20 % of the total losses-given-default on all type 1 exposures, the capital requirement for counterparty default risk on type 1 exposures shall be equal to the following:

$SCR_{def,1} = 5 \cdot \sigma$  where  $\sigma$  denotes the standard deviation of the loss distribution of type 1 exposures.

b. Where the standard deviation of the loss distribution of type 1 exposures is higher than 20 % of the total losses-given-default on all type 1 exposures, the capital requirement for counterparty default risk on type 1 exposures shall be equal to the total losses-given-default on all type 1 exposures.

5.157 The simplification reduces the volatility in  $SCR_{def,1}$  for undertakings where the standard deviation of the loss distribution of type 1 exposures is around 7 % and the  $SCR_{def,1}$  would consequently shift from 3S to 5S or vice versa. The proposal is prudent and avoids the shortcomings of the step change from the risk management point of view.

– Additional optional simplification for the computation of the risk-mitigating effect of reinsurance arrangements in Art. 111a of the Delegated regulation. The simplification applies only in the case where the reinsurance arrangement affects only one line of business. In this case the risk-mitigating effect can be computed as

$$RM(RE) = \sqrt{(NL_{CAT}^{hyp} - NL_{CAT}^{without})^2 + (3\sigma_s(P_P^{hyp} - P_P^{without} + recoverables))^2 + 2 \cdot 0.25 \cdot 3\sigma_s(P_P^{hyp} - P_P^{without} + recoverables)(NL_{CAT}^{hyp} - NL_{CAT}^{without})}$$

Where

- $\sigma_s$  is the standard deviation for non-life premium and reserve risk as defined in Article 117(2) of the Delegated Regulation for the corresponding line of business
- $(NL_{CAT}^{hyp} - NL_{CAT}^{without})$  denotes the counterparty's share of CAT losses
- $(P_P^{hyp} - P_P^{without})$  is the reinsurance premium of the counterparty in the affected line of business
- *recoverables* are the reinsurance recoverables in relation to the counterparty in the affected line of business.

– Risk mitigation effect: calculation of the hypothetical capital requirement for Marine, Fire and Aviation risks referred to in Article 196(a) should also be

carried out on the basis of the identification of the largest risk exposure net of reinsurance.

5.158 In the case of fire risk, and in order to limit the extent of the complexity introduced, EIOPA recommends that the hypothetical SCR is calculated using the simplification proposed in this advice (calculation on the basis of the top five exposures per risk type – residential, commercial, industrial).

– Recognition of guarantees when calculating the loss-given-default on a mortgage in art. 192(4) of the Delegated regulation:

$$LGD = \max(\text{Loan} - (80 \% \times \text{Mortgage} + \text{Guarantee}); 0)$$

where:

- a) *Loan denotes the value of the mortgage loan determined in accordance with Article 75 of Directive 2009/138/EC;*
- b) *Mortgage denotes the risk-adjusted value of the mortgage;*
- c) *Guarantee denotes the amount that the guarantor would be required to pay to the insurance or reinsurance undertaking if the obligor of the mortgage loan were to default at a time when the value of the property held as mortgage were equal to 80 % of the risk-adjusted value of the mortgage.*

*For the purposes of point (c), a guarantee shall be recognized only if it is provided by a counterparty mentioned in points (a) to (d) of the first subparagraph of Article 180(2) and it complies with the requirements set out in Articles 209, 210 and points (a) to (e) of Article 215.;*

### **5.5.3. Relevant legal provisions**

#### Solvency II Directive

5.159 Article 104(1) of the Solvency II Directive sets out that there shall be a counterparty default risk module in the standard formula. Article 105(6) describes the scope of this module.

#### Delegated Regulation

5.160 Articles 189 to 202 and the simplifications in Articles 107 to 112.

#### Guidelines

5.161 Guidelines 8 and 9 in the EIOPA Guidelines on treatment of market and counterparty risk exposure.

### **5.5.4. Identification of the issues**

#### **5.5.4.1. Policy issue 1: overburdened calculation for the risk-mitigating effect of derivatives, reinsurance arrangement, special purpose vehicles and insurance securitisations**

5.162 The calculation of the risk mitigating effect for reinsurance, SPV, securitisation and derivatives is considered the most burdensome part of the counterparty default risk module. Accordingly, it seems desirable to further simplify this part of the counterparty risk module if possible.

5.163 While for reinsurance arrangements a simple closed-form optional simplification has been implemented in the 2018 review, it is harder to come up with such a formula for derivatives. It could be beneficial if the risk mitigating effect for these two types of counterparties could be derived just from a single hypothetical recalculation. The basic idea is to extend the current simplification in Article 107 of the Delegated Regulation for derivatives and to have one simplification to calculate the risk mitigating effect for derivatives and reinsurance arrangements jointly. However, while this simplification can clearly work fine for more simple derivative structures it might be inappropriate for more complex derivative strategies.

#### **5.5.4.2. Policy issue 2: implication of the identification of largest man-made exposures on the calculation of the risk-mitigating effect of reinsurance arrangements: hypothetical SCR**

5.164 According to the Delegated Regulation (EU) 2019/981 of 8 March 2019 amending the Delegated Regulation, the scenario-based calculations of the SCR for man-made catastrophe risk for marine, aviation and fire risk should be based on the largest exposures after deduction of amounts recoverable from reinsurance or special purpose vehicles. In the fire, marine and aviation risk, changing the identification of the largest risks to be on a net of reinsurance basis may impact the counterparty default risk submodule, especially the calculations of the risk mitigating effect on underwriting risk of the reinsurance arrangement.

5.165 Underwriting risk mitigation effect of reinsurance contracts is an element of the formula for the loss-given-default (LGD) on a reinsurance arrangement or insurance securitisation, according to Article 192 of the Delegated Regulation;

$$LGD = \max[50\% * (Recoverables + 50\% * RM_{re}) - F * Collateral; 0]$$

where

- $RM_{re}$  denotes the risk mitigating effect on underwriting risk of the reinsurance arrangement or securitisation.

5.166 The amount of the potential LGD, and, at the same time  $RM_{re}$  is calculated for the individual counterparties and not for reinsurance arrangements. In the counterparty default risk, the risk mitigating effect represents the additional loss above the current value of the counterparty exposure which is expected to arise in a stressed situation. It is calculated as the difference between the SCR and a hypothetical SCR which assumes that the individual counterparty would default.

5.167 Pursuant to Article 196 of the Delegated Regulation, calculation of the  $RM_{re}$  comes down to calculation of  $n$  hypothetical requirements for underwriting risk, where  $n$  is the number of reinsurers, and each of those requirements assumes that

the share of a given reinsurer under all arrangements in which it participates (in each SCR module) is disregarded in the calculation. In particular, for catastrophe risks in the case of which scenario-based calculation is used on the basis of the biggest net exposure (fire, marine and aviation risk) it can be interpreted as looking for the biggest exposure exactly  $n$  times (without the share in a given reinsurer's arrangements). This leads to the situation where calculations require in many cases enormous workload, and, in the case of an insurance undertaking with extensive facultative and obligatory cover and extensive reinsurance panel, it might become extremely complex calculations and need sophisticated IT solutions. Apart from the complexity of the calculation:

- total  $RM_{re}$  for all reinsurers generates higher mitigating effect than the one which can be achieved in SCR (gross result – net result),
- increase in diversification of reinsurance, i.e. dispersion of reinsurance on a bigger number of counterparties results in an increase in the risk mitigating effect and, consequently, capital requirement (“punishment for diversification”).

5.168 The problem of identification of the gross value in man-made catastrophes was noticed and demonstrated with an example in EIOPA's second set of advice to the Commission on specific items in the Delegated Regulation.<sup>166</sup> EIOPA presented two options of calculation of the risk mitigating effect: one on the basis of the biggest gross risk in the insurance undertaking's portfolio, and the other one on the basis of the gross value corresponding to the appropriate scenario for the SCR (gross value corresponding to the biggest net exposure). The EIOPA's explanation on page 570 (sections 2720-2721) includes assessment of the two methods, as well as provides suggestions regarding solution of that problem and the conclusion as to which method seems to better reflect the risk mitigating effect – Option 1, i.e. calculation on the basis of the insurance undertaking's biggest gross risk.

#### **5.5.4.3. Policy issue 3: capital requirements for forbore and default loans**

5.169 Considering the low yield environment, the related search for yield and the high pressure to dispose NPL assets on the banking sector, the insurance institutions face an increasing growth of not usual insurance risks such as credit risk. According to the EIOPA financial stability report release as of June 2019, over the last few years, the leveraged lending market and collateralised loans and mortgage market have increased significantly. The volume of CLOs traded in the European market has substantially raised in the last years and this asset class is now about 5 times larger than in 2010. In particular, where for the banking sector some high risk loan portfolios are becoming not profitable being highly capital intensive, credit risk leakages towards the insurance industry may be linked to high risk debtors such as forbearance<sup>167</sup> and default exposures<sup>168</sup>. Indeed, the use of the spread and

<sup>166</sup> EIOPA, EIOPA's second set of advice to the European Commission on specific items in the Solvency II Delegated Regulation, EIOPA-BoS-18/075, 2018, s. 570-571.

<sup>167</sup> Par. 163 of the Commission Implementing Regulation (EU) 2015/227.

<sup>168</sup> Art. 178 of the Capital Requirements Regulation (EU) No. 575/2013

interest rate shocks for estimating the capital absorption of low quality loans may underestimate the level of potential losses the undertaking may face on the related exposures and open the floor to capital arbitrages towards the banking regulation. This is particularly true where the loans are unrated and the duration is estimated to be rather short (e.g. up to 5 years , 3%\*duri). The aim of the proposal for revision is to address the previously mentioned shortcomings and avoid moral hazard investment behaviours.

#### **5.5.4.4. Policy issue 4: effective recognition of partial guarantees of mortgage loans**

5.170 Although the current regulation allows for recognition of partial guarantees for mortgage in the SCR SF, still partial guarantees on mortgage loans may in practice not yet be recognised.

5.171 Article 192(4) of the Delegated Regulation sets out that partial guarantees on mortgage loans are recognized if they meet the requirements of Articles 209, 210 and 215(a) to 215(e). Article 215(d) of the Delegated Regulation requires that the payment of the guarantor shall not be subject to the insurance or reinsurance undertaking first having to pursue the obligor. However, a requirement for partial guarantees could be that the guarantor requires the insurance or reinsurance undertaking to first pursue the obligor itself - compared to the situation where the guarantor directly pays out the guaranteed amount. The insurance or reinsurance undertaking is thus incentivized to maximize the payment by the obligor to which it has provided the mortgage loan, because it is a partial guarantee and not a guarantee that fully covers the losses. More broadly, the requirements in Articles 192(4) and 215 of the Delegated Regulation are not sufficiently aligned with similar requirements for credit institutions (in particular Article 215(2) of the CRR) which could raise issues from a level playing field perspective between credit institutions and insurance undertakings in relation to (publicly) guaranteed mortgage loans.

#### **5.5.5. Analysis**

In order to gather relevant information for the revision of the Solvency II Directive, a short survey was formulated within the EIOPA and addressed to the NSAs concerning some components of the SCR mentioned in the CfA. The answers received have been used in this draft Advice.

5.172 **Policy issue 1: overburdened calculation for the risk-mitigating effect of derivatives, reinsurance arrangement, special purpose vehicles and insurance securitisations** EIOPA has been asked to assess the proportionality of the overall structure and of the counterparty default risk module, and to provide, where appropriate, advice on methods and calibrations for a simpler approach.

5.173 For this purpose, in the first step, a total risk mitigating effect containing all reinsurance, SPV, securitisation and derivative exposures would be derived (risk-

mitigating techniques with both long and short derivatives excluded). This could be achieved by comparing the Basic Solvency Capital Requirement excluding the counterparty default risk module without reinsurance, SPV, securitisation and derivatives with the Basic Solvency Capital Requirement without the counterparty default risk. It seems sensible to base the total risk mitigating effect calculation on the BSCR if financial and reinsurance risk mitigations are considered jointly.

5.174 Hence, in the first step the total risk mitigating effect can be computed as

$$RM_{Total} = BSCR^{*,without} - BSCR^*. (1)$$

where

- $BSCR^{*,without}$  is the Basic Solvency capital requirement without counterparty default risk that would result if no derivatives<sup>169</sup>, reinsurance arrangements, special purpose vehicles and insurance securitisations were in force.
- $BSCR^*$  is the (current) Basic Solvency Capital Requirement if the counterparty default risk module is excluded.

5.175 In the second step, the total risk mitigating effect needs to be allocated towards the different counterparties. A simple proportional allocation could be introduced. More specifically the risk mitigating effect of the derivative or reinsurance arrangement, special purpose vehicles and insurance securitisations can be computed as

$$RM_i = \frac{|EAD_i|}{\sum_{i=1}^n |EAD_i|} * RM_{Total}, (2)$$

where

- $|EAD_i|$  denotes the absolute value of the exposure at default of the derivative, reinsurance arrangement, special purpose vehicles and insurance securitisations towards counterparty i. If the risk mitigating instrument is a derivative  $|EAD_i|$  would be the absolute value of the derivative according to article 75 of Directive 2009/138/EC. If the risk mitigating instrument is a reinsurance arrangement, special purpose vehicles and insurance securitisations  $|EAD_i|$  would be the absolute value of the best estimate of amounts recoverable from the reinsurance arrangement, special purpose vehicles and insurance securitisations towards counterparty i. The consideration of the absolute values in formula (2) ensures that derivatives and recoverables with negative values can be properly considered in the risk mitigating effect calculation.

#### **5.5.5.1. Policy issue 2: implication of the identification of largest man-made exposures on the calculation of the risk-mitigating effect of reinsurance arrangements: hypothetical SCR**

5.176 In order to analyse an impact of the changing the identification of the largest risks to be on a net of reinsurance basis on the counterparty default risk submodule the following example was prepared. An insurance undertaking has in its portfolio three contracts under which cover is provided to the aircraft risks (aircraft casco,

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<sup>169</sup> Derivatives not covered by the simplification should still be included in the  $BSCR^{*,without}$

aircraft use TPL insurance). The policies are reinsured on a pro rata basis, in accordance with the table below. Let's assume that only man-made catastrophe risk is material for contracts, whereas the remaining risks after correlations have no influence on the Solvency Capital Requirement.

### Exposure

Contract	Sum insured (mil. EUR)	Reinsurer's name and % of QS cession	Sum insured on reinsurer's share (mil. EUR)	Net sum insured (mi. EUR)
A	6	Reinsurer X – 100%	6.0	0.0
B	5	Reinsurer Y – 98%	4.9	0.1
C	4	Reinsurer Z – 97.5%	3.9	0.1

5.177 Taking this into account the risk mitigating effect for the individual reinsurers is amount to:

### Risk mitigating effect

Reinsurer's name	$RM_{re}$ (mil. EUR)
Reinsurer X	$6 - 0.1 = 5.9$
Reinsurer Y	$5 - 0.1 = 4.9$
Reinsurer Z	$4 - 0.1 = 3.9$
<b>Total</b>	<b>14.7</b>

5.178 Presented above calculations may lead to the conclusion that the total risk mitigating effect is even higher than the hypothetical SCR, i.e. SCR calculated on the assumption that there is no reinsurance at the insurance undertakings amounts to 6 mil. EUR.

5.179 The next example presents and analyses a reinsurance option at two reinsurers:

### Exposure

Contract	Sum insured (mil. EUR)	Reinsurer's name and % of QS cession	Sum insured on reinsurer's share (mil. EUR)	Net sum insured (mi. EUR)
A	6	Reinsurer X - 100%	6.0	0.0
B	5	Reinsurer Y – 98%	4.9	0.1
C	4	Reinsurer Y – 97.5%	3.9	0.1

5.180 Taking this into account the risk mitigating effect for the individual reinsurers is amount to:

***Risk mitigating effect***

<b>Reinsurer's name</b>	<b><math>RM_{re}</math> (mil. EUR)</b>
Reinsurer X	6 - 0.1 = 5.9
Reinsurer Y	5 - 0.1 = 4.9
<b>Total</b>	<b>10.8</b>

5.181 Presented above calculations may lead to the conclusion that the reinsurance option at three reinsurers generates a higher total risk mitigating effect than in the case of two reinsurers (14.7 mil. EUR – three reinsurers, 10.8 mil. EUR – two reinsurers), and, consequently, a higher Solvency Capital Requirement.

5.182 The calculation of the hypothetical SCR in the risk mitigating effect based on a gross of reinsurance basis would reflect the loss that would be incurred in the stress situation and capture sufficiently the risk that the insurance undertaking is exposed to, additionally:

- a 1:200 year event would be calculated separately (independently) for the man-made catastrophe risk and separately for the counterparty default risk, and then independent 1:200 events would be aggregated with the correlation matrix in accordance with the hierarchy of the Standard Formula, which is in line with hind the Standard Formula framework (each module analysed separately).
- diversification of the reinsurance cover would reduce the capital requirement.
- the current methodology of calculation of the man-made cat risks (e.g. fire) will remain unchanged and a framework for counterparty default risk will not change either
- easy to implement by insurance undertakings - the way in which the biggest gross exposure is identified was used before the DR change.

The following proposals stems also form the view the NSAs expressed in the survey regarding the impact that the scenario-based calculations of the SCR for man-made catastrophe risk for marine, aviation and fire risk (now based on the largest exposures after deduction of amounts recoverable from reinsurance or special purpose vehicles) may have on the counterparty default risk submodule and on the risk mitigating effect on underwriting risk.

5.183 The following options to change the Delegated Regulation might be considered:

- **Option 1** – No change
- **Option 2** – Hypothetical SCR for the fire, marine and aviation risk for the purpose of determining the risk mitigation effect in the counterparty default risk module calculated based on the largest gross risk concentration for the fire, marine and aviation risk.



5.184 The arguments for this approach are presented in the previous section of this document.

5.185 Otherwise another option could be:

- **Option 3** – SCR for the fire, marine and aviation risk is calculated on a net of reinsurance basis and for the purpose of the hypothetical SCR in the CDR calculations the non-existence of the reinsurance arrangement does not alter the identification of the largest risk concentration for the fire, marine and aviation risk submodules.

5.186 The non-existence of the reinsurance arrangement should not alter the identification of the largest risk concentration for the fire, marine and aviation risk submodules. This creates a correct assessment of the RMre effect and minimises the calculation burden for undertakings. But it may significantly reduce CDR, and, consequently, the total SCR.

### 5.5.5.2. Policy issue 3: capital requirements for forborne and default loans

5.187 Pursuant to the Art. 176(1) of the DR, the capital requirement for spread risk on loans shall be equal to the loss in the basic own funds that would result from an instantaneous relative decrease of  $stress_i$  in the value of each loan  $i$ . According to Art. 176(4) of the DR, for loans for which a credit assessment by a nominated ECAI is not available and for which debtors have not posted collateral that meets the criteria set out in Article 214 shall be assigned a risk factor  $stress_i$  depending on the duration  $dur_i$  of the bond or loan  $i$  according to the following table:

#### **Risk mitigating effect**

Duration (duri)	Stress <sub>i</sub>
up to 5	3%*duri
More than 5 and up to 10	15%+1,7%(duri-5)
More than 10 and up to 20	23,5%+1,2%(duri-10)
More than 20	Min(35,5%+0,5%*(duri-20);1)

5.188 Taking into account also the difficulties to estimate the market value of a forborne or default loans portfolio given the liquidity and specificities (e.g. value of collateral) of the underlying loans, this may substantially underestimate the level of losses that the recovery process of a default or forborne loan may encounter.

5.189 Bearing in mind the previous issue, it is proposed to amend the article 189 (3) of the DR to include in the type 2 exposures the default and forborne loans as defined by the banking regulation (respectively, art 178 of the CRR and par. 163 of the Commission Implementing Regulation (EU) 2015/227). This would be in line with the recital 64 of the DR which states that “in order to ensure that the credit risk on all counterparties to which insurance or reinsurance under takings are exposed is captured in the Solvency Capital Requirement calculated with the standard formula, all exposures which are neither captured in the spread risk sub-

module nor in the counterparty default risk module as type 1 exposures should be captured in the counterparty default risk module as type 2 exposures”.

5.190 In order to estimate the level of the LGD for the above mentioned loans, a new comma in the article 192 of the DR could be introduced, specifically tackling the level of capital adsorption for default and forborne loans. This would be calculated as:

$$\text{LGD} = 6.67 * \max(\text{Loan} - \text{Recoverables}; 36\%^{170} * \text{Loan});$$

where

*Loan* denotes the value of the mortgage in accordance with Article 75 of Directive 2009/138/ EC; and

*Recoverables* denotes the actualised value of the debt recoveries calculated according to the chapter 6 of the EBA/GL/2017/16.

The 6,67 is obtained dividing 1 on the 15% as included in the formula of Article 202, aiming to take into account the whole additional the loss as capital requirement.

- **Option 1** – No change

5.191 This option would not add complexity to the actual framework and avoid new investments of the industry also in term of default and forborne loans recovery monitoring. On the other hand it leaves the door open to potential capital arbitrages and hazardous investments.

- **Option 2** – To move the forborne and default loans under the type 2 of the counterparty default module

5.192 This proposal would guarantee more coherence with the underlying credit risk, increase the risk sensitivity of the loan capital requirements, help to overcome the valuation hurdles of the loans, and disincentive moral hazard investment in high risk credit portfolios. Moreover considering the need to calculate the LGD for each loans, it will help to foster better monitoring and risk management practices. It was not considered to introduce considerations about the duration of the loans since it would add further complexity and subjectivity to estimating the time of recovery.

This proposal stems also from the answers to the survey launched to NSAs and specifically to the question whether they consider appropriate the allocation of asset classes to either market risk or counterparty risk modules when assessing the proportionality of the overall structure of the counterparty default risk module.

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<sup>170</sup> It is hypthosised a level of loss at least equal to a 21 years duration of unrated loan pursuant to Article 176(4) of the DR.

### 5.5.5.3. Policy issue 4: effective recognition of partial guarantees of mortgage loans

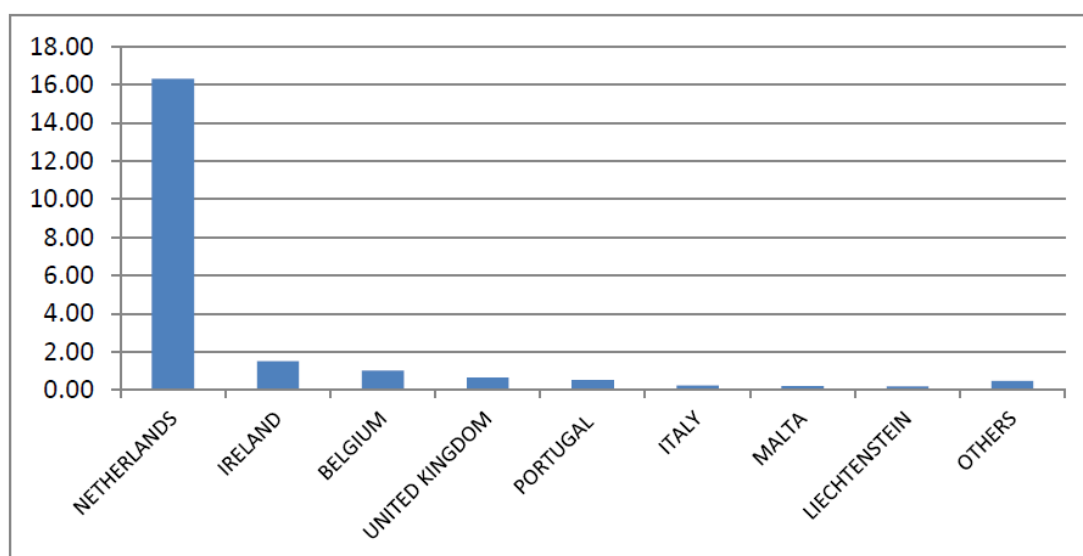
5.193 In its review of the SCR, EIOPA had already investigated the recognition of partial guarantees for type 2 exposures, among which mortgage loans<sup>171</sup>. This resulted in a subsequent change of article 192(4) of the Solvency delegated regulation. EIOPA now considers two options in the LTG-review with respect to the recognition of partial guarantees for mortgage loans:

- **Option 1:** no further change
- **Option 2:** further adjust the requirements for the recognition of partial guarantees for mortgage loans

5.194 Under the option to further adjust the requirements for the recognition of partial guarantees, the requirement in Article 215(d) would be adjusted to allow for the practice that a requirement for partial guarantees could be that the guarantor requires the insurance or reinsurance undertaking to first pursue the obligor itself (compared to the situation where the guarantor directly pays out the guaranteed amount). Also the proposed adjustment would better align article 192(4) with comparable provisions for credit institutions in the CRR (capital requirements regulation), and in particular CRR article 215(2).

5.195 This proposed change does not result in a broader change to the treatment of guarantees in Solvency II. It merely seeks to better operationalize the treatment proposed in article 192(4) for (publicly) guaranteed mortgage loans – which was introduced as a result of the SCR-review – and to level the playing field for insurance undertakings compared to credit institutions in this area.

#### Value of type 2 exposures which have guarantees by Member States' central governments (in billion EUR)



<sup>171</sup> See EIOPA's "Final report on the Public Consultation No. 17/004 on EIOPA's first set of advice to the European Commission on specific items in the Solvency II Delegated Regulation" as of 30 October 2017

## 5.5.6. Advice

### Simplified calculation of the risk-mitigating effect of derivatives, reinsurance arrangement, special purpose vehicles and insurance securitisations

5.196 EIOPA proposes an additional optional simplification for the computation of the risk-mitigating effect of derivatives, reinsurance arrangements, special purpose vehicles and insurance securitisations. In this case the risk-mitigating effect for reinsurance arrangements and simple derivative structures can be computed as in the equation (1) and (2) below.

5.197 In the first step the total risk mitigating effect is calculated as

$$RM_{Total} = BSCR^{*,without} - BSCR^*$$

where

$BSCR^{*,without}$  is the Basic Solvency Capital Requirement without counterparty default risk that would result if no derivatives<sup>172</sup>, reinsurance arrangements, special purpose vehicles and insurance securitisations were in force.

$BSCR^*$  is the (current) Basic Solvency Capital Requirement if the counterparty default risk module is excluded.

5.198 Then the risk mitigating effect of the derivative or reinsurance arrangement, special purpose vehicles and insurance securitisations is calculated by

$$RM_i = \frac{|EAD_i|}{\sum_{i=1}^n |EAD_i|} * RM_{Total},$$

where

$|EAD_i|$  denotes the absolute value of the exposure at default of the derivative, reinsurance arrangement, special purpose vehicles and insurance securitisations towards counterparty  $i$ . If the risk mitigating instrument is a derivative  $|EAD_i|$  would be the absolute value of the derivative according to Article 75 of the Solvency II Directive. If the risk mitigating instrument is a reinsurance arrangement reinsurance arrangements, special purpose vehicles and insurance securitisations  $|EAD_i|$  would be the absolute value of the best estimate of amounts recoverable from the reinsurance arrangement, special purpose vehicles and insurance securitisations towards counterparty  $i$ .

### Calculation of the hypothetical SCR for the risk-mitigating effect of reinsurance arrangements

5.199 The hypothetical SCR for the fire, marine and aviation risk for the purpose of determining the risk mitigation effect in the counterparty default risk module should be calculated on the basis of the largest gross risk concentration for the fire, marine and aviation risk.

### Capital requirements for forborne and default loans

5.200 It is proposed to amend Article 189(3) of the Delegated Regulation to include in the type 2 exposures the default and forborne loans, as defined respectively in

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<sup>172</sup> Derivatives not covered by the simplification should still be included in the  $BSCR^{*,without}$

Article 178 of the CRR and par. 163 of Annex V, Part II of the Commission Implementing Regulation (EU) 2015/227.

5.201 The Loss Given Default of these loans should be calculated as follows:

$$\text{LGD} = 6.67 * \max(\text{Loan} - \text{Recoverables}; 36\%^{173} * \text{Loan});$$

where

*Loan* denotes the value of the mortgage in accordance with Article 75 of the Solvency II Directive; and

*Recoverables* denotes the actualised value of the debt recoveries calculated according to the chapter 6 of the EBA/GL/2017/16.

The value of 6.67 is obtained dividing 1 on the 15% as included in the formula of Article 202 of the Delegated Regulation, aiming to take into account the whole additional loss as capital requirement.

#### Effective recognition of partial guarantees on mortgage loans

5.202 EIOPA advises to adjust the requirements for the recognition of partial guarantees on mortgage loans, by adding the following text at the bottom of Article 192(4) of the Delegated Regulation:

*"In case of guarantees provided by a counterparty which is fully guaranteed by one of the counterparties mentioned in points (a) to (d) of the first subparagraph of Article 180(2), the requirements in Article 215 point (d) shall be considered to be satisfied where the insurance undertaking has the right to obtain in a timely manner a provisional payment by the guarantor that meets both the following conditions:*

*a) it represents a robust estimate of the amount of the loss, including losses resulting from the non-payment of interest and other types of payment which the borrower is obliged to make, that the lending institution is likely to incur;*

*b) it is proportional to the coverage of the guarantee."*

5.203 This would allow a practice that a requirement for partial guarantees could be that the guarantor requires the insurance or reinsurance undertaking to first pursue the obligor itself. It would also improve the level playing field with banking regulation on the recognition of partial guarantees on mortgage loans.

## 5.6. Calibration of underwriting risk

### 5.6.1. Extract from the call for advice

#### **3.7. Solvency Capital Requirement standard formula**

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<sup>173</sup> It is hypothesised a level of loss at least equal to a 21 years duration of unrated loan pursuant to Article 176(4) of the DR..

[...]

*d) Calibration of underwriting risk*

*Where stakeholders provide material data of sufficient quality, EIOPA is asked to assess whether that would form a more representative basis for the calibration of underwriting stresses than the calibration on which the current factors are based.*

### **5.6.2. Previous advice**

5.204 EIOPA's second set of advice to the Commission on specific items in the Delegated Regulation included a recalibration of standard parameters of premium and reserve risks for several lines of business (medical expense, credit and suretyship, assistance, legal expenses, worker's compensation) and a recalibration of mortality and longevity stresses.

### **5.6.3. Relevant legal provisions**

#### Solvency II Directive

- Article 105: Calculation of the Basic Solvency Capital Requirement

#### Delegated Regulation

- Article 151(1): SLT health underwriting risk sub-module
- Article 159: SLT health lapse risk sub-module

### **5.6.4. Identification of the issue**

5.205 After advising to revise the standard deviations for premium risk and reserve risk sub-module for the non-life and NSLT health insurance and reinsurance obligations for selected lines of business only, EIOPA received some reactions from some stakeholders questioning the appropriateness of both the direction of the changes and the scope.

5.206 After last SCR review, EIOPA did not receive from NCAs information on underwriting risks for which newly available data would imply a recalibration.

5.207 In order to gather relevant information for the revision of the Solvency II Directive, a short survey was formulated within the EIOPA and addressed to the NSAs concerning some components of the SCR mentioned in the CfA. The answers received have been used in this Advice.

5.208 The survey launched to NSA's showed that none of them is aware of data which would imply a recalibration of the current standard formula parameters (instantaneous shocks or coefficients of variation) nor of main evolutions between the last calibration exercise and now

5.209 Nevertheless, one stakeholder provided some data in relation to the calibration of the SLT health mass-lapse risk arguing that they would challenge the current pan-European 40% shock.

## 5.6.5. Analysis

5.210 From a general perspective mass lapse risks, including the SLT health one, should reflect an extreme, catastrophic event. They should cover both internal and external causes leading to policyholders lapsing. Furthermore as future extreme events may not be included in past data, a retrospective approach would not be appropriate for the calibration of these risks.

5.211 More specifically EIOPA checked the representativeness at EU level of the national sample of undertakings provided by the stakeholder. From its QRTs data (annual solo at YE2018) EIOPA observed first that the gross written premiums (GWPs) generated by all the undertakings (i.e. not only those represented by the stakeholder) doing SLT health business in the stakeholder's Member State accounted for approximately 70% of the overall SLT health business<sup>174</sup> in Europe while 13% were generated by undertakings located in another Member State and another 10% uniformly in 3 other Member States. Secondly EIOPA observed that only one undertaking from this association was performing SLT health cross-border business with another Member State, albeit not significantly at EU level. Moreover, although being highly representative of the undertakings performing SLT health business in this Member State based on the share of national GWPs (83%), the set of undertakings represented by the stakeholder only accounted for 57% of the GWPs at EU level.

5.212 For this reason and for the abovementioned more general one EIOPA does not consider appropriate to recalibrate the SLT health mass lapse shock.

## 5.6.6. Advice

5.213 EIOPA advises not to change the current underwriting risks stress factors as EIOPA is not aware of, or did not receive any material data of sufficient quality that would form a more representative basis for the calibration of underwriting risks stress factors than the calibration on which the current factors are based.

## 5.7. Catastrophe risk

### 5.7.1. Extract from call for advice

#### **3.7. Solvency Capital Requirement standard formula**

[...]

e) *CAT risks in the Standard Formula*

<sup>174</sup> Solvency II LoBs 29 and 33 were considered:

(29) Health insurance obligations where the underlying business is pursued on a similar technical basis to that of life insurance, other than those included in line of business 33.

(33) Annuities stemming from non-life insurance contracts and relating to health insurance obligations.

*In its second set of advice on specific items in the Solvency II Delegated Regulation (EIOPA-BoS-18/075), EIOPA had advised a method to capture specific insurance policy conditions (in particular contractual limits or sub-limits) that deviate significantly from the national market average conditions in the standard formula natural catastrophe calculation. In order to facilitate the application of that approach, EIOPA is asked to provide the national market average conditions that underlie the calibration of the natural catastrophe risk submodule.*

## 5.7.2. Previous advice

*"644. EIOPA has assessed how contractual limits, deductibles and other specific policy conditions are taken into within the standard formula, against the background that the actual risk exposure of undertakings should be captured in the calculation of the capital requirement for natural catastrophe risk.*

*645. The risk weights and risk factors for natural catastrophe risks have been calibrated by taking account of national market average contractual limits and national market average deductibles. The intention was to apply the risk factors directly to the undertaking's sum insured without contractual limits and without deductibles, so that the SCR per peril is calibrated at the appropriate level for each country.*

*646. In order to capture specific policy conditions that deviate significantly from the average and to avoid increasing the complexity of the standard formula in an undue manner, EIOPA proposes to introduce an "ex-post adjustment" that would work as follows for each peril:*

- 1) Calculate, for each zone, the corresponding gross loss by applying the following formula: country factor times zonal relativity times sum insured gross of deductibles and contractual limits. Using the notation of the Delegated Regulation, with a region  $r$  and a zone  $i$ :*

$$GrossLoss(peril, r, i) = Q(peril, r) \times W(peril, r, i) \times SI(peril, r, i)$$

- 2) Define the maximum gross exposure in the zone  $i$ , using the undertaking-specific policy conditions:  $MaxGrossExposure(peril, r, i)$*

- 3) Take the minimum between 1) and 2) as the maximum loss for the zone  $i$ :*

$$MaxLoss(peril, r, i) = \min(GrossLoss(peril, r, i), MaxGrossExposure(peril, r, i))$$

- 4) Calculate the loss for the region  $r$  by using the aggregation matrix:*

$$L(peril, r) = \sqrt{\sum Corr(peril, r, i, j) \times MaxLoss(peril, r, i) \times MaxLoss(peril, r, j)(i, j)}$$



647. *This adjustment allows taking into account the specific exposure of undertakings that sell contract with policy conditions different than the average undertaking. In the case where the written policy of the undertaking limits more greatly the sum insured than the average undertaking in case of catastrophic event, the "ex-post adjustment" avoids that the SCR of this specific undertaking becomes unrealistically large.*

648. *In some cases, the contractual limits may vary more greatly within a given zone. In that specific case, such an "ex-post adjustment" may be performed at a more granular level than for zones: for instance by group of homogeneous contracts.*

649. *Where undertakings make use of the proposed option and in particular in the case of further granularity, they should disclose it in their ORSA, with appropriate quantitative information: e.g. results of both 1) and 2) of above; the reduction in SCR to the respective contracts at the level of region, risk zone or homogeneous contract level."*

### **5.7.3. Relevant legal provisions**

#### Delegated Regulation

##### 5.214 Recital 54

*In order to capture the actual risk exposure of the undertaking in the calculation of the capital requirement for natural catastrophe risk in the standard formula, the sum insured should be determined in a manner that takes account of contractual limits for the compensation for catastrophe events.*

5.215 In paragraphs 6 of Articles 121 to 125 (windstorm, earthquake, flood, hail, subsidence) the following subparagraphs were introduced by Delegated Regulation 2018/981:

*Where the amount determined for a particular risk zone in accordance with the first subparagraph exceeds an amount (referred to in this subparagraph as "the lower amount") equal to the sum of the potential losses without deduction of the amounts recoverable from reinsurance contracts and special purpose vehicles, that the insurance or reinsurance undertaking could suffer for [name of peril] risk in that risk zone, taking into account the terms and conditions of its specific policies, including any contractual payment limits, the insurance or reinsurance undertaking may, as an alternative calculation, determine the weighted sum insured for [name of peril] risk in that risk zone as the lower amount.*

##### 5.216 Recital 37

*In order to ensure effective supervision of outsourced functions or activities, it is essential that the supervisory authorities of the outsourcing insurance or reinsurance undertaking have access to all relevant data held by the outsourcing service provider, regardless of whether the latter is a regulated or unregulated entity, as well as the right to conduct on-site inspections. In order to take account of market developments and to ensure that the conditions for outsourcing continue*

*to be complied with, the supervisory authorities should be informed prior to the outsourcing of critical or important functions or activities. Those requirements should take into account the work of the Joint Forum and are consistent with the current rules and practices in the banking sector and Directive 2004/39/EC and its application to credit institutions.*

#### **5.7.4. Identification of the issues**

- 5.217 Given the importance of NAT CAT liabilities generated by non-life business, NSAs and EIOPA need to have access to information on how the current peril-country parameters of the NAT CAT risk sub-modules were calibrated, both initially in 2010 and during the last SCR review in 2017.
- 5.218 Contrary to the non-CAT non-life underwriting risk's reserve and premium risk sub-module for which a dedicated group of supervisors was set up to calibrate these risks based on data centrally collected by CEIOPS / EIOPA, calibration of NAT CAT risks was outsourced to specific model vendors, reinsurance brokers and (re)insurers, while the entire process was steered by EIOPA and NSAs.
- 5.219 Outsourcing was necessary because of the high level of expertise needed in the field of NAT CAT modelling.
- 5.220 However this does not imply a delegation of responsibility from NSAs and EIOPA to these experts as regards the supervisory duties in this area of the formers.
- 5.221 In this vein EIOPA set up an external Expert Network on Catastrophe Risks<sup>175</sup> at the beginning of 2019 with the aim to strengthen and complement EIOPA's expertise with regard to the modelling and mitigation of (natural) catastrophe risks and climate change risks. This initiative is part of EIOPA's work on sustainable finance.

#### **5.7.5. Analysis**

- 5.222 As regards the materiality assessment of the alternative calculation (also called ex-post adjustment in the previous advice to the European Commission) introduced by Articles 121 to 125 of the amended Delegated Regulation, the survey addressed to the NSAs revealed that it is too early for supervisors and consequently for EIOPA to be in a position to thoroughly assess the use of this option by undertakings, as the amended Delegated Regulation was adopted during

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<sup>175</sup> The Network shares technical expertise and collects evidence in particular with regard to the following: the extent to which the calibration of the standard parameters for the natural catastrophe risk module of the standard formula captures climate related developments, an estimate of ultimate losses from natural catastrophe scenarios in technical provisions, risk management practices of the insurance and reinsurance industry in relation to catastrophe risks, private sector initiatives in addressing gaps in coverage of natural catastrophe risks.

the period of the current SCR review (July 2019). Such an assessment could be carried out only at a later stage, e.g. from 2020 onwards.

- 5.223 Together with the CAT risks expert network members EIOPA designed a template (taking the form of a spreadsheet which is attached to this Opinion) aiming at collecting the original policy conditions underlying the current CAT risks factors in the standard formula in order to answer COM's call for advice on this specific item.
- 5.224 For the sake of clarity it might be useful to mention here that the current policy conditions are not sought here but rather the policy conditions prevailing when the current risks factors were calibrated (i.e. either initially in 2008-2012 or in 2017 during the last (re)calibration exercise at the end of which existing risks factors were simply updated and some new ones introduced).
- 5.225 The design of the template mimics the structure of the CAT risks standard formula: each tab is dedicated to one of the main 5 catastrophic perils (windstorm, earthquake, flood, hail and subsidence) defined in the standard formula together with their underlying lines of business (LoB) (property and other motor). Within each tab, a best estimate average, a lower end and an upper end have to be populated for lower (deductibles) and upper (loss limits) limits for each relevant country. For the property LoB a final split is performed between the various types of underlying exposure (all, residential, commercial, industrial or agriculture).
- 5.226 Following 2017's recalibration exercise the industry consortium PERILS was commissioned by EIOPA to collect these figures from the relevant model vendors, brokers and (re)insurers (PERILS itself is also to be considered as an important industry-wide data provider). The main outcomes and lessons learnt from this data collection include:
- 5.227 No or very little original policy conditions from the initial calibration (2008-2012) were available from the stakeholders: the initial calibrations were indeed mostly expert judgment. Therefore the original policy conditions communicated by these data sources relate in vast majority to the risks factors calibrated or recalibrated in 2017.
- 5.228 Regardless of the original policy conditions collected, the rate of completion is high for the perils windstorm and flood (property – the main LoB) and very low for earthquake, flood, hail and subsidence. These differences might be explained by the fact that windstorm is a peril, due to its high frequency compared to the others, which is generally good understood and modelled by the relevant experts, while much more uncertainty is affecting the modelling of earthquakes due to their relative lower frequency – hence the probable reluctance of stakeholders to disclose their figures. As for flood and hail these are perils which were more recently studied and modelled. Subsidence is currently only modelled in France in the standard formula: no data for this peril were given by the data sources.
- 5.229 The number of data sources which delivered risks factors in 2017 is always higher than the one of the data sources which provided original insurance policy conditions because it is frequent that stakeholders share the same data among them (e.g. typically PERILS' data).

5.230 No process aiming at ensuring a sufficiently high quality (e.g. plausibility of the ranges) of the data communicated by the stakeholders was put in place as no solution found for this purpose was found. This results in particular in some policy limits showing large ranges.

## **5.8. Risk mitigation techniques**

### **5.8.1. Extract from the call for advice**

#### ***3.8. Risk-mitigation techniques and other techniques used to reduce Solvency Capital Requirements***

*EIOPA is asked to advise on methods for the recognition of the most common non-proportional reinsurance covers for non-life underwriting risks in the Solvency Capital Requirement standard formula, as well as for adverse development covers and finite reinsurance covers.*

*In this context, where EIOPA would consider that the methods set out in its "Guidelines on application of outwards reinsurance arrangements to the nonlife underwriting risk submodules" continue to be relevant, EIOPA is asked to assess the extent to which amendments to the legislative framework are necessary to incorporate these methods in the Solvency Capital Requirement standard formula.*

*EIOPA is also asked to clarify the definition of a financial risk-mitigation technique and of other financial instruments that may be used to reduce Solvency Capital Requirements, with a view to ensure a consistent treatment between the standard formula and internal models. EIOPA should also indicate the criteria and the methods to determine the amount of risk reduction or risk transfer that may be recognized for such items.*

*EIOPA is also asked to analyse whether the provisions on the assessment of basis risk are sufficiently clear and, where appropriate, advise on improvements.*

### **5.8.2. Previous advice**

5.231 EIOPA looked at the treatment of risk-mitigation techniques in the standard formula from 2017 to 2018 for its advice to the European Commission on the review of specific items in the Solvency II Delegated Regulation. Those review led to amend the treatment of financial derivatives and reinsurance arrangements as risk-mitigation techniques.

5.232 In the same context, EIOPA also advised not to recognize adverse development covers on the basis of the stakeholders' proposal.

### **5.8.3. Relevant legal provisions**

#### Solvency II Directive

- Article 101(5)

### Delegated Regulation

- Article 208: Methods and Assumptions
- Article 209: Qualitative Criteria
- Article 210: Effective Transfer of Risk
- Article 211: Risk-Mitigation techniques using reinsurance contracts or special purpose vehicles
- Article 212: Financial Risk-Mitigation techniques
- Article 213: Status of the counterparties
- Article 214: Collateral Arrangements
- Article 215: Guarantees

### Guidelines

- EIOPA Guidelines on application of outwards reinsurance arrangements to the non-life underwriting risk sub-module
- EIOPA Guidelines on basis risk

## **5.8.4. Other regulatory background**

### 5.233 Q&A on the treatment of Contingent Capital Operation

- Questions: Should this contingent capital operation: (i) be included in the own funds as an AOF, after supervisory approval? (ii) be accounted for in the Standard Formula or Internal Model as a way to decrease the SCR?
- Answers: (i) The described contract does not meet the requirements for a recognition as ancillary own funds as it is not callable on demand. (ii) The instrument does not transfer risk and the application of such instrument in reduction of the SCR is not appropriate. This applies for both internal model and standard formula users.

5.234 EIOPA BoS raised a number of concerns about convertible bonds being permitted as a risk mitigation technique, but agreed that further analysis was necessary to: understand better the mechanics of this sort of convertible bonds; what should be the conditions under which such bonds could be regarded as a risk mitigation technique; and what might be the impact of such bonds on insurers and the other parties involved.

## **5.8.5. Identification of the issues**

### **5.8.5.1. Policy issue 1: Further recognition of the most common non-proportional reinsurance covers for non-life underwriting risks in the Solvency Capital Requirement standard formula**

5.235 Following EIOPA's first and second advices on the analysis of possibilities to further recognise some specific forms of non-proportional reinsurance in the Standard Formula, some stakeholders claim that the main non-proportional covers

in non-CAT non-life underwriting risks are still not enough recognised in the current version of the Standard Formula.

5.236 As a result, after detailed numeric sensitivity analyses, EIOPA advised on the possibility to introduce a new USP method applicable to take into account stop-loss reinsurance covers. The method was then eventually introduced in the amended Delegated Regulation (in force since 8 July 2019) by the European Commission.

#### **5.8.5.2. Policy issue 2: Recognition of adverse development covers and finite reinsurance covers**

5.237 On the basis of detailed numeric sensitivity analyses performed in 2016 and 2017, EIOPA advised on no recognition of finite reinsurance and adverse development covers in the non-life underwriting risk of the Standard Formula.

5.238 Some stakeholders did however raise the issue for possible reconsideration in the future of the outcomes set out in the former advice provided by EIOPA in February 2018.

#### **5.8.5.3. Policy issue 3: recognition of *Contingent capital* as a financial instrument reducing the SCR**

5.239 The contingent capital is a contract signed between an insurer (or a reinsurer) and a firm, that will trigger a purchase of the insurer's shares by the firm for a specific amount (specified in the contract) in case of specific events.

5.240 The conversion is automatic, and depending on specific events.

##### Example of Capital contingent instrument

Insurer A enters a contract with Firm B (not necessarily a regulated entity).

The contract stipulates that, if any of the three events defined below occur at any time within the next 3 years, Firm B is committed to buying for €10 million new shares of Insurer A (conducting to a capital increase for Insurer A); the new shares are generally issued with a discount (e.g. 5%) on the average market price recorded on the trading days following the event. In such case, Firm B has to provide the cash to Insurer A within a predefined timeline (e.g. 10 days).

Event 1: Firm A occurs a technical loss above a threshold (e.g. € 1m) for a specific event (e.g. NatCat).

Event 2: The loss ratio of a given LoB is higher than 120% for 2 consecutive semesters.

Event 3: The share price of Insurer A falls below a given value.

5.241 Should this capital contingent instrument be accounted for in the Standard Formula or Internal Model as a way to decrease the SCR?

#### **5.8.5.4. Policy issue 4: recognition of *Contingent Convertible bonds* as a financial instrument reducing the SCR**

- 5.242 The bond is issued by the insurer and converts automatically, fully or partially, into common equity if certain insurance risk events trigger.
- 5.243 After a risk event occurs, the conversion is automatic and immediate (i.e. neither undertaking nor bondholder can prevent the conversion by any action or non-action).
- 5.244 The bond is fully or partially converted into common equity based on the conversion price.
- 5.245 As an example, such Cocom instruments have already been issued with the following features:
- 5.246 The insurance triggers are property or operational risk losses above a certain threshold.
- 5.247 The conversion price is determined based on the average of the stock prices (the company is listed) over the conversion price calculation period which occurs after the public reporting of the quarterly (or annual) results. There is a floor to the conversion price which is set at the outset of the transaction to 50 % of the stock price at issuance. This means that in the case of a severe drop in stock prices the bondholder is forced to "acquire" stocks at a price that is higher than the market price.
- 5.248 Should this bond be accounted for in the Standard Formula or Internal Model as a way to decrease the SCR?

#### **5.8.5.5. Policy issue 5: clarity of current provisions on the assessment of basis risk in the Delegated regulation**

- 5.249 The Delegated Regulation does not clearly define the term material basis risk. "Guidelines on basis risk", EIOPA-BoS-14/172, provides some guidance to situations where the use of a risk-mitigation technique will result in material basis risk and the guideline furthermore provides a list of assessment criteria that the undertakings should take into account for financial risk-mitigation techniques. However, there does not exist a similar list of criteria for insurance risk-mitigation techniques. And even though the undertakings shall make every effort to comply with the guidelines and recommendations, cf. 1.16 of Guidelines on basis risk, NSAs cannot use the guidelines as a legal basis to object to undertakings' use of certain risk-mitigating instruments.
- 5.250 EIOPA has identified instances where reinsurance contracts provide disproportionately increased risk reduction at the standard formula stress event, which can result in a capital requirement that would be insufficient at less severe stress scenarios. This may arise due to the deterministic nature of the Solvency II standard formula stresses, which only consider capital requirements for a particular stress event, rather than a distribution of scenarios. This can misrepresent the appropriate level of capital required by undertakings.

## 5.8.6. Analysis

### 5.8.6.1. Policy issue 1: Further recognition of the most common non-proportional reinsurance covers for non-life underwriting risks in the Solvency Capital Requirement standard formula

- 5.251 Two different proposals have been made during the SCR review process in 2016-2017 on the possibilities to further recognise some specific forms of non-proportional reinsurance in the Standard Formula.
- 5.252 The first proposal was to include a "RM\_other" factor on top of the premium and reserve risk module, which would particularly capture recognizable non-proportional reinsurance.
- 5.253 The second proposal was to let the non-proportional reinsurance factor in Art. 117 (3) Delegated Regulation 2015/35 be undertaking-specific and depend on the particular non-proportional reinsurance program of the undertaking. The proposed calculation was as to the proposal for adverse development covers.
- 5.254 Another mentioned idea was to move the existing USPs for non-proportional reinsurance for premium risk to the standard formula.
- 5.255 EIOPA acknowledges the need to properly address the reactions provided by Stakeholders after the latest EIOPA Advice, but still sees further clarity on some methodological arguments is still needed to consistently and properly address the policy issue.
- 5.256 For instance it still remains unclear how the term "RM other" should be calculated without specifying loss scenarios corresponding to the loss in basic own funds resulting from the calculations of the non-life underwriting risk module. The same applies to the second proposal where the non-proportional reinsurance recovery would also need to be calculated under a premium risk loss scenario. Both proposals would imply that the calculation of the premium and reserve risk module would be a mixture of a formula and scenario-based calculation. Apart from the substantially increased complexity of the premium and reserve risk calculation, the mixture of a formula and scenario-based calculation within one risk-module might lead to unintended technical inconsistencies (see the analysis on finite reinsurance) and double counting issues. On the one hand the methodology itself entails some complexity. On the other hand, only undertakings having a sufficient data quality should benefit from a calculation of undertaking-specific risk factors.
- 5.257 More generally, it is very important to emphasize that for a standard formula user non-proportional reinsurance plays a much larger role in the catastrophe risk modules. The standard formula acknowledges this importance as almost any non-proportional reinsurance structure can be recognized in the scenario-based calculations in the cat risk module. The design of the cat risks is among other things so complex that all the non-proportional reinsurance structures can be applied.
- 5.258 The premium and reserve risk module was designed in a simpler way following a formula-based calculation partially recognizing non-proportional reinsurance.



Mainly small and medium-sized undertakings benefit from the simple design of the premium and reserve risk module. In this respect, it is worthwhile to mention that in the 2017-2016 SCR review primary insurance undertakings have barely expressed concerns about the design of the premium and reserve risk modules.

- 5.259 Moreover, it is worthwhile to mention that the premium and reserve risk module is still risk sensitive. In particular, it takes also non-proportional reinsurance for a simple standard formula calculation sufficiently into account. The standard deviations for reserve risk and the volume measures are already net of reinsurance. The non-proportional reinsurance factors for the segments 1, 4 and 5 of Annex II Delegated Regulation 2015/35 allow for a significant 20% reduction of the gross risk factors. In this regard it is worthwhile to note that specifically the segments 1, 4 and 5 are most relevant for a potential non-proportional reinsurance cover.
- 5.260 Finally, after detailed numeric sensitivity analyses, EIOPA advised in the 2016-2017 SCR review a new USP standardised method for the calculation of the adjustment factor for non-proportional stop-loss reinsurance. This USP, eventually introduced in the amended Delegated Regulation (in force since 8 July 2019) by the European Commission, can be applied to any line of business for the premium risk. Accordingly, undertakings who want to benefit from a reduced capital charge in the premium and reserve risk submodule have an additional opportunity to do so.
- 5.261 Based on the explanations provided above, EIOPA believes that the methods set out in its “Guidelines on application of outwards reinsurance arrangements to the nonlife underwriting risk submodules” continue to be relevant. EIOPA will wait to proceed with the revision of the mentioned Guidelines and the assessment of the extent to which amendments to the legislative framework are necessary to incorporate new methods in the Solvency Capital Requirement Standard Formula after more information from stakeholders is received.
- 5.262 EIOPA will wait to proceed until further methodological input is provided by stakeholders in order not to harm the soundness and functioning of the Standard Formula and to avoid possible technical inconsistencies.
- 5.263 Stakeholders are therefore welcome to provide further proposals that would allow for a better recognition without significantly changing the design and increasing the complexity of the module (see questions raised to stakeholders at the end of the present chapter).

#### **5.8.6.2. Policy issue 2: Recognition of adverse development covers and finite reinsurance covers**

- 5.264 During last SCR review stakeholders made a proposal to recognise specific type of non-proportional reinsurance via a formula to be applied in the premium and reserve risk sub-module. EIOPA has engaged on an intense dialogue with stakeholders on their proposal. EIOPA’s analysis showed that the proposal from stakeholders would allow for cases of underestimation of the real risk. Several amendments were discussed with stakeholders but none could address this

deficiency. The only case where the proposal of stakeholders would work is the case of mono-liner insurers. EIOPA eventually advised that it would not be appropriate to recognize these covers only in that specific case, since it would create a difference of treatment with multi-liner insurers.

5.265 As it is important to properly address this policy issue in methodological terms and given the possible outcomes on risk estimation, EIOPA will wait to proceed on these topics in order not to harm the soundness and functioning of the Standard Formula and to avoid possible technical inconsistencies, until further input is provided by stakeholders.

5.266 In addition some stakeholders raised the issue for possible reconsideration in the future of the outcomes set out in the former advice provided by EIOPA in February 2018.

5.267 Therefore stakeholders are invited to provide further information on these two topics (see questions at the end of the present chapter).

### **5.8.6.3. Policy issue 3: recognition of *Contingent capital* as a financial instrument reducing the SCR**

#### Standard Formula (SF)

5.268 This instrument could not be considered as a “risk mitigation technique” as it does not transfer any risk accounted for in SF. Indeed:

- the contingent capital operation does not necessarily cover a risk accounted for in the SF;
- when an event triggered, it has no P&L impact for the insurer;
- as the shares are bought some time after the shock, arguably the new shareholders won’t share the loss.

5.269 Thus, this instrument could not be qualified as a “risk mitigation technique” and could not reduce the SCR under SF.

#### Internal Models (IMs)

5.270 However, in IMs, the instrument does not have to be qualified as a “risk mitigation technique” to reduce the SCR.

5.271 Indeed, one could argue that the SCR “shall correspond to the Value-at-Risk of the basic own funds of an insurance or reinsurance undertaking subject to a confidence level of 99,5% over a one-year period” (article 101 of the Directive). With this definition, the effect of such instrument could be taken into account in internal models as its triggering (in some scenarios) results in a variation of basic own funds.

5.272 If such instrument is considered into internal models, NSAs should pay attention at the following items:

- the triggering of the instrument should be linked to a specific risk (not the level of SCR for instance);

- the credit risk on the contingent capital should be modelled properly.

5.273 Two options are considered regarding the recognition of this instrument in IMs:

- **Option 1:** Recognition of this instrument in IMs.
- **Option 2:** Non-recognition of this instrument in IMs. This option is consistent between SF and IMs.

#### **5.8.6.4. Policy issue 4: recognition of *Contingent Convertible bonds* as a financial instrument reducing the SCR**

##### SF

5.274 Does this instrument should be recognized as a “risk mitigation technique”?

##### *For recognition:*

- If the trigger is linked to a property loss, the bond effect could be properly taken into account to mitigate the property risk (due to the structure of the SF). On the other hand, if the trigger is linked to an operational loss, the bond cannot be used to mitigate operational risk.
- There is a limited transfer of risk: there is a risk that after the trigger event the insurer might not find enough buyers to issue shares in the market or would need to issue them at a substantial discount to the equity price before trigger. So, the bondholder also bears risk if the bond is not converted at the market price.

##### *For non-recognition:*

- Such instrument does not have a P&L effect, i.e. the instrument does not impact the income of the insurer when triggering.
- Such instruments are not explicitly mentioned in Solvency 2 regulations
- Recital 70 of the Delegated Regulation
  - According to Recital 70 of the delegated regulation “the recognition of risk-mitigation techniques in the calculation of the Solvency Capital Requirement should reflect the economic substance of the technique”. In that case, the economic substance of the RMT is linked to the stock price that is not modelled in the standard formula. Thus, the risk mitigating effect could not be properly taken into account in SF.
- Article 101 of the Directive
  - This article states that the SCR reflects underwriting risks, markets risk etc. of existing and future business. It does not include the planned issuance of own funds

##### IMs

5.275 The last reference (regarding Art. 101 of the Directive) could also argue for a non-recognition of the instrument in IMs.

5.276 However, it cannot be denied that the (partial) conversion of the bond after the insurance trigger increases the own funds, as balance sheet liabilities are reduced.

5.277 In this way, one could argue that the SCR “ shall correspond to the Value-at-Risk of the basic own funds of an insurance or reinsurance undertaking subject to a confidence level of 99,5 % over a one-year period”. In that case, the instrument could be triggered in some scenarios, and the risk mitigation effect of the bond should be captured in IM.

5.278 Three options are considered regarding the recognition of this instrument in the SF and in IMs:

- **Option 1:** Recognition of this instrument in the SF and in IMs. Recognizing the effect of this instrument in SF would mean to recognize this instrument as a “risk mitigation technique”.
- **Option 2:** Recognition of this instrument only in IMs. Even if this instrument is not a risk mitigation technique, its effect could still be recognized in IMs.
- **Option 3:** Non-recognition of these instruments in SF and IMs. In that case, the instrument would not be recognized as a risk mitigation technique in SF. The treatment between SF and IM will be consistent.

#### **5.8.6.5. Policy issue 5: clarity of current provisions on the assessment of basis risk in the Delegated regulation**

5.279 In order to gather relevant information for the revision of the Solvency II Directive, a short survey was formulated within the EIOPA and addressed to the National Supervisory Authorities (NSAs) concerning some components of the SCR mentioned in the CfA. The answers received have been used to inform this draft Advice.

5.280 The survey launched to NSA’s showed situations where reinsurance is used to significantly reduce the SCR where there is limited risk mitigation. Based on the current wording of Article 210 there might be difficulties in finding a legal basis to object to such reinsurance. The main issue is that currently the regulations do not specify that the capital savings needs to be commensurate with the amount of risk transferred.

5.281 NSAs in particular have concerns where the undertaking targets the risk mitigation technique at the level of the SCR standard formula stress. As a consequence of this the undertaking may be exposed to a materially increased probability of ruin at less severe events than the 1:200. Where such a situation occurs, the NSA believes it would not be appropriate for the undertaking to realise the full benefit from the risk mitigation technique in the SCR.

5.282 The following principle was set out in CEIOPS advice but was not included in the Delegated Acts:

*CEIOPS’ Advice for Level 2 Implementing Measures on Solvency II: SCR standard formula - Article 111 f Allowance of Reinsurance Mitigation Techniques*

*3.41 The risk mitigation technique shall effectively transfer risk from the undertaking. The undertaking needs to be able to show the extent to which there is an effective transfer of risk in order to ensure that any reduction in SCR or*

*increase in available capital resulting from its reinsurance arrangements is commensurate with the change in risk that the insurer is exposed to.*

*3.49 The SCR shall reflect the economic substance of the arrangements that implement the technique. In principle, this would be through:*

- a reduction in requirements commensurate with the extent of risk transfer, and*
- an appropriate treatment of any corresponding risks that are acquired in the process.*

5.283 Therefore, EIOPA recommends that the above principle is included in the Delegated Regulation.

### **5.8.7. Advice**

5.284 As regards further recognition of the most common non-proportional reinsurance covers in non-CAT non-life underwriting risks stakeholders are invited to provide further proposals that would allow for a better recognition.

5.285 Regarding adverse development covers and finite reinsurance covers in non-CAT non-life underwriting risks, EIOPA will wait to proceed on these topics in order not to harm the soundness and functioning of the standard formula and to avoid possible technical inconsistencies, until further input is provided by stakeholders.

5.286 EIOPA Guidelines on application of outwards reinsurance arrangements to the nonlife underwriting risk submodules are intended to ensure a common, uniform and consistent application of the non-life catastrophe risk submodule, including treatment of undertakings' outwards reinsurance arrangements. EIOPA will wait to proceed with the revision of the mentioned Guidelines and the assessment of the extent to which amendments to the legislative framework are necessary to incorporate new methods in the Solvency Capital Requirement Standard Formula after more information from stakeholders is received.

#### Recognition of a financial risk-mitigation technique

5.287 The question of recognition of instruments such as capital contingent or contingent convertible bonds as risk mitigation techniques was recently raised.

5.288 For both instruments, the transfer of risk is non-existent or limited. Furthermore, in the cases when the transfer is limited, a proper modelling is not possible with the fundamental structure of the Standard Formula. As a consequence, EIOPA advises not to recognize these instruments as risk mitigation techniques and thus they could not be used to reduce the SCR.

5.289 This non-recognition under Standard Formula could potentially create some inconsistency between Standard Formula and Internal Models.

#### Reflection of Risk Mitigation Techniques in the Standard Formula

5.290 EIOPA propose the following is added to Article 210 the Solvency II Delegated Regulation:

5.291 *"The undertaking shall be able to show the extent to which there is an effective transfer of risk in order to ensure that any reduction in SCR or increase in available capital resulting from its risk transfer arrangements is commensurate with the change in risk that the insurer is exposed to.*

5.292 *The SCR and available capital shall reflect the economic substance of the arrangements that implement the technique. When calculating the Basic Solvency Capital Requirement, insurance or reinsurance undertakings shall only take into account risk-mitigation techniques as referred to in Article 101(5) of Directive 2009/138/EC where:*

*- the reduction in the SCR requirements, or increase in the available capital is commensurate with the extent of risk transfer, and*

*- there is an appropriate treatment within the SCR of any corresponding risks that are acquired in the process."*

5.293 Regarding basis risk, EIOPA advises to transpose Guidelines 1, 2 and 3 on basis risk into the Delegated Acts.



### Questions to stakeholders

**Q5.4:** What is your view on the recognition of non-proportional reinsurance in the SCR standard formula? If you consider changes necessary, please make concrete proposals. How does the proposal address the double counting issue regarding non-proportional reinsurance covers between the CAT risk sub-module and other sub-modules impacted by treaties?

**Q5.5:** What is your view on the recognition of adverse development covers in the SCR standard formula? If you consider changes necessary, please make concrete proposals.

**Q5.6:** What is your view on the recognition of finite reinsurance in the SCR standard formula? If you consider changes necessary, please make concrete proposals.

**Q5.7:** If EIOPA would to recommend a consistent treatment of contingent instruments (contingent capital and convertible bond instruments) between standard formula and internal models, one possible way of implementing this principle would be to clarify that the definition of SCR (Article 101 of the Directive) does not include planned basic own funds increases. What do you think about this clarification?

## 5.9. Reducing reliance on external ratings

### 5.9.1. Extract form the call for advice

#### 3.19. Reducing reliance on external ratings

*The Commission is working towards reducing the references to external credit ratings for regulatory purposes. In the specific context of the insurance sector, the review of the Solvency II Delegated Act has already provided insurers with new methodological approaches to assess credit risk for unrated debts (namely the "internal assessment approach" and the "internal model approach").*

*Beyond the scope of the proposed amendments in the context of the review of the Delegated Act, EIOPA is therefore asked to advise on additional methods allowing for a wider use of those alternative credit assessments. Such an approach may target corporate exposures that are also rated by credit rating agencies, and should be commensurate to the nature, scale and complexity of the risks to which the undertaking is exposed.*

### **5.9.2. Previous advice**

5.294 EIOPA provided advice in chapter 10 of the "second set of advice to the European Commission on specific items in the Solvency II Delegated Regulation (EIOPA-BoS-18/075)", as of 28 February 2018, regarding the criteria applicable to bonds and loans for which no credit assessment by a nominated ECAI is available. In particular, it was advised the use of the internal assessment approach or banks' approved internal models subject to the restriction that the sum of the debt items where the risk charge is determined with the internal assessment approach or based on the results of an approved internal model plus the equity investments to which the similarity approach is applied does not exceed 5 % of all investments. All the advice, but this latter limit of 5%, has been taken on board by the Commission and is now part of the revised Delegated regulation.

### **5.9.3. Relevant legal provisions**

#### Solvency II Directive

5.295 Article 13(40) of the Solvency II Directive defines "external credit assessment institution" or "ECAI" as a credit rating agency that is registered or certified in accordance with Regulation (EC) No 1060/2009 or a central bank issuing ratings which are exempt from the application of that regulation.

#### Delegated Regulation

5.296 According to Recital 2 of the Delegated Regulation, in order to reduce overreliance on external ratings, insurance and reinsurance undertakings should aim at having their own credit assessment on all their exposures. However, in view of the proportionality principle, insurance and reinsurance undertakings are only required to have own credit assessments on their larger or more complex exposures.

5.297 Article 4 of the Delegated Regulation sets out general requirements on the use of credit assessments by (re)insurance undertakings. According to paragraph 5 of this Article, where an item is part of the larger or more complex exposures of the

insurance or reinsurance undertaking, the undertaking shall produce its own internal credit assessment of the item and allocate it to one of the seven steps in a credit quality assessment scale. Where the own internal credit assessment generates a lower capital requirement than the one generated by the credit assessments available from nominated ECAIs, then the own internal credit assessment shall not be taken into account for the purposes of this Regulation.

- 5.298 The rules for deciding whether a credit assessment by a nominated ECAI is available can be found in Article 5 of the Delegated Regulation.
- 5.299 The treatment of bonds and loans for which a credit assessment by a nominated ECAI is not available in the spread risk sub-module is set out in Article 176(4) and 176(4a) and (5) of the Delegated Regulation. The Delegated Regulation was amended in 2019 to include two new methodological approaches to assess credit risk for unrated debts. Undertakings can either use Internal assessment defined in articles 176(a) and 176(b), or Assessment of credit quality steps based on an approved internal model as defined in article 176(c).
- 5.300 Article 105(a) of the Delegated Regulation sets out the simplified calculation for the risk factor in the spread risk sub-module and the market risk concentration sub-module and the conditions to apply it. Where the conditions of Article 105(a) are met and where the (re)insurance undertaking complies with the requirements of Article 88 of the Delegated Regulation on proportionality, the (re)insurance undertaking should not be required to nominate another ECAI and should be allowed to calculate its spread risk sub-module and its market risk concentration sub-module as if the assets not covered would be of credit quality step 3.

## **Implementing regulations**

- 5.301 The Commission published the following implementing regulations regarding external credit assessment:
- Commission Implementing Regulation (EU) 2015/2015 laying down implementing technical standards on the procedures for assessing external credit assessments; and
  - Commission Implementing Regulation (EU) 2016/1800 laying down implementing technical standards with regard to the allocation of credit assessments of external credit assessment institutions to an objective scale of credit quality.

### **5.9.4. Other regulatory background**

- 5.302 The credit rating agencies regulation, that pursuant to Article 8(3) of the Regulation (EU) No 462/2013, lays down that rating methodologies should be rigorous, systematic, continuous and subject to validation based on historical experience, including back-testing.
- 5.303 The banking regulation for purposes of calculating own funds requirements for credit risk, according to Article 143(1) of Regulation (EU) No 575/2013 (the Capital Requirements Regulation, CRR), allows competent authorities to permit institutions to use the Internal Ratings Based Approach (IRB Approach), provided



that the conditions set out in Part Three, Title II, Chapter 3 of the CRR itself are met.

### **5.9.5. Identification of the issues**

5.304 Currently there is a need to strike the balance between broadening the scope of application of alternative credit assessment, thoroughness of additional alternative credit assessment methods and reduction of external rating reliance.

#### **5.9.5.1. Policy issue 1: Scope of assets subject to alternative credit assessment**

5.305 If the scope of the unrated debt approaches is broadened to include also exposures to rated debt, then the choice of categories of corporate bond to be included would need to be identified. Currently, the scope of the two approaches from articles 176a to 176c is limited to corporate debt (i.e. does not include infrastructure project debt, sovereign exposures and unrated qualifying mortgages as there are already provisions for these). This debt may be issued either in the form of a bonds or a loans. Financial debt is excluded from scope. This is because of complexity of these exposures, and existing provisions in Solvency II for ratings based on solvency position. Also excluded from scope are debt issued by borrowers in the same group as the (re)insurance undertaking making the investment in the debt.

#### **5.9.5.2. Policy Issue 2: Recognition of additional methods allowing for a wider use of alternative credit assessment currently provided for in the Delegated regulation**

5.306 The choice of additional approaches to assess the credit quality requires the previous definition of a scope of application in order to develop a proper methodology. A rating methodology aiming to be robust should comply with a number of criteria such as:

- discriminatory power, namely the ability to rank the rated entities in accordance to their future status (defaulted or not defaulted) at a predefined time;
- the predictive power of a methodology, which can be demonstrated by comparing the expected behaviour of the credit ratings to the observed results;
- the stability of credit ratings assigned by the methodology.

### **5.9.6. Analysis**

#### **Policy issue 1: Scope of assets subject to the alternative credit assessment currently provided for in the DR**

##### **Option 1.1 No change**

5.307 According the revised Delegated Regulation, the internal assessment approach (Article 176a) provides a mechanism by which (re)insurance undertakings can

perform their own high level assessment of the credit quality of their unrated debt exposures. Unrated debt may qualify to be treated the same as rated debt of CQS 2 or 3, if the following criteria are met:

- Financial ratios of the borrower meet certain requirements ;
- Yields on the debt comply with certain requirements ;
- Certain additional conditions are met in relation to the borrower and in relation to the debt issuance ; and
- Internal credit assessment is performed, covering a list of qualitative and quantitative aspects of the debt issue and the borrower.

5.308 An alternative approach may be used, where insurers co-invest in unrated debt with a bank to use the credit rating produced by the bank's own Internal Rating Based (IRB) model in Solvency II. It is stand-alone and an alternate to the internal assessment approach.

5.309 In order for the bank rating to be used, certain criteria need to be met. These are in relation to the type of debt, transparency of information (the insurer needs to have sufficient information about the model and data used by the bank in coming to the rating), and criteria for the avoidance of adverse selection (bank retains some exposure to the debt).

5.310 By design, the approach developed is high level and only appropriate for small exposures to unrated corporate debt. It was never intended to replace a credit assessment performed by an ECAI, as the level of sophistication involved in the approach is not comparable

**Option 1.2 Broaden the scope of the current undertaking's own internal credit assessment to include certain corporate exposures that already have an ECAI rating**

5.311 Broaden the scope of the current internal credit assessment, including certain corporate exposures that already have an ECAI rating.

5.312 At a total EEA level at year-end 2017, corporate debt made up 31%<sup>176</sup> of the total investments by undertakings. Of these investments, 97% were rated CQS 3 or higher (further detail in the table below).

CQS	Percentage of total Corporate Bond Investment (EEA) <sup>177</sup>
0	21%
1	16%
2	32%
3	28%

<sup>176</sup> Excluding assets held for UL and IL. Taken from 2018 LTG report [https://eiopa.europa.eu/Publications/Reports/2018-12-18%20\\_LTG%20AnnualReport2018.pdf](https://eiopa.europa.eu/Publications/Reports/2018-12-18%20_LTG%20AnnualReport2018.pdf)

<sup>177</sup> Excluding UL and IL

4+	3%
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5.313 Therefore, the scope of assets that could potentially be subject to an alternative credit assessment is very large. However that would also mean that the risks involved with such an approach are very hefty.

5.314 The criteria set out in art. 176a of the DA were developed to be specific to unrated debt. At present there is no experience of the implementation of these criteria by (re)insurers as disposals of the amendments of the Delegated Act will be included in the annual reporting for the first time in 2019. Therefore, it cannot be determined at this stage if the criteria are appropriate or if there are any unintended consequences. Give the circumstances, it is premature make any proposals on how possibly refine the alternative assessment provided for in the new DR to tailor also certain rated corporate exposures and/or allow a phase in, one (e.g. the approach could only be used on rated debt up to 10% of total assets in order to mitigate these risks).

#### **5.9.6.1. Policy issue 2: Recognition of additional methods allowing for a wider use of alternative credit assessment**

##### **Option 2.1 Use of composite index**

5.315 The approach is based on a rating composite index. Specifically it uses the Bloomberg Composite (COMP), which is a blend of a security's Moody's, S&P, Fitch, and DBRS ratings. The rating agencies are evenly weighted when calculating the composite. COMP is the average of existing ratings, rounded down to the lower rating in case the composite is between two ratings. The composite index is not available, where the bond is rated by only one of the four rating agencies. Expected ratings and unsolicited ratings are not included in calculating the composite.

##### **Option 2.2: Recognize, at this stage, new alternative credit assessment approach to mirror rated bond features**

5.316 Leveraging on the method already developed for unrated debt, one option is to elaborate a different alternative approach tailored on rated companies. With regard to the internal assessment approach, this method aims to take into account, in a more structured way, the qualitative information (e.g. governance, ownership structure, market placement) and to encompass also forward looking information, such as business plans data. As a matter of fact, the previously mentioned information is not easily available for assessment of small companies but play a relevant rule for large corporates companies and better mirror also the current rating agencies methodologies. It could be weighted the opportunity to use this more complex internal assessment methodology, for exposures above a given percentage of the total assets, in order to take into account the principle of proportionality. With reference to the use of internal models it should be taken into account that there is a trend in the bank industry to not rely for large corporates on approved internal models since they hinge up low default data.

**Option 2.3: No recognition of additional methods for the time being, but open an analysis table to investigate how new alternative credit assessment methods could be tailored on specific rated exposures under a standard methodology.**

- 5.317 The solution pursues the enhancement of the new alternative assessment methods (internal assessment approach and internal models) in order to tailor specific rated exposures but only after that a proper testing and impact assessment has been performed. In other words, it would be a sort of "extension" to rated bonds fulfilling new criteria. It should be highlighted that, to incentivize the use of these internal credit assessment methods, fostering better risk management processes, the opportunity to grant lower capital requirements could be weighted revising also the recital 4 of the delegated regulation, stating that "in order to avoid the risk of biased estimations of the credit risk by insurance and reinsurance undertakings that do not use an approved internal model to calculate the credit risk in their Solvency Capital Requirement, their own credit assessments should not result in lower capital requirements than the ones derived from external ratings".
- 5.318 Regarding the policy issues the proposal is to not recognize additional methods for the time being, but to open an analysis investigating if and how alternative credit assessment could be tailored on specific rated exposures and under a standard methodology. The purpose is to overcome the potential shortcomings to be faced where a methodology drafted for unrated debt is used and to allow the undertakings to invest in regulatory models to be used in internal risk management. Moreover, it would allow to perform an impact assessment before the final methodology is set up. The other options considered have been disregarded because not fit for purpose, could entail moral hazard and adverse selection, may pose risk to consistency and does not ensure enough control of the processes and compliance.
- 5.319 The selection of the preferred option has required a trade-off between adequacy of the approach and prudence of the methodology chosen. More weight has been given to achieve a robust method rather than to the timing, because it would help the industry to conform to the risk management best practices and to limit potential undesirable consequences.
- 5.320 The comparison of options against a baseline scenario has been based on a pro and cons assessment. In particular the effectiveness of each option has taken into account how it ensures adequate market-consistent technical provisions, the appropriateness of risk sensitive capital requirements and the promotion of good risk management, as approved by the EIOPA Board of Supervisors in March 2019.

## 5.9.7. Advice

- 5.321 Having regard to the above mentioned policy issues and to the fact that a testing phase as well as an impact assessment need to be performed, it is advised to make no change to the scope of assets subject to the alternative credit assessment currently provided for in the Delegated Regulation (i.e. unrated bonds) – Option 1.1 – and to not recognize additional methods in this review, but to open an analysis table to investigate how the new alternative credit assessment methods could be tailored to some specific rated exposures and under a standard methodology – Option 2.3
- 5.322 In EIOPA's view a decision on possible additional methods allowing for a wider use of alternative credit assessments suitable for corporate exposures that are also rated by credit rating agencies may be taken after the analysis (i) of the implementation of the introduced prudential criteria that allow reducing the capital charges in the standard formula for insurers' unrated debt; (ii) of the impact assessment of future potential new methods suitable for rated bonds. This will need to encompass different facets to attain the required robustness of the methodology and the needed discriminatory and predictive power, including also the stability of the rating.

## 5.10. Transitional on government bonds

### 5.10.1. Extract from the call for advice

#### **3.3. Transitional measures**

*Title VI Chapter I of the Solvency II Directive lays down a number of transitional provisions. EIOPA is asked to assess the ongoing appropriateness of the transitional provisions in terms of policyholder protection and level-playing field. This assessment should, where applicable, also assess whether the ongoing possibility for companies to newly apply for the transitional measures should continue. EIOPA may prioritise its work on the different transitional measures, provided that the advice states the reason for doing so. However, EIOPA's assessment should cover at least the transitional measures referred to in Articles 308b (12) and (13), Article 308c and Article 308d of the Solvency II Directive.*

### 5.10.2. Relevant legal provisions

- 5.323 Article 308b(12) of the Solvency II Directive sets out the transitional provision on the SCR for government bonds not denominated in local currency.

### 5.10.3. Identification of the issue

- 5.324 Government bonds not denominated in local currency are subject to a phase-in of standard formula SCR stress factors for spread risk (Article 180(3) Delegated

Regulation) and concentration risk sub-module (Article 187(4) Delegated Regulation) increasing from 0% in 2016 to standard factor in 2020. The expiration of this transitional in 2020 could pose a problem to for those undertakings having exposures to Member States' central governments or central banks denominated and funded in a domestic currency different from their own domestic currency. This would be particularly the case for undertakings located in countries not taking part in the euro<sup>178</sup>, but having exposures to EU Member States' central governments/banks denominated and funded in euro.

#### **5.10.4. Analysis**

5.325 EIOPA has analysed information from QRT template S.06.02.01 as of YE 2016, 2017 and 2018 to understand to what extent the transitional at issue is used and how relevant is for the undertakings that apply it in terms of exposure. Exposure is relevant for only some jurisdictions outside of Euro area. Please note that for the purpose of this impact assessment look through has not been performed.

5.326 For few non-EEA countries, GBNLC account for more than 70% of total government bonds, representing about 40% of total assets. In absolute terms, however, the amount is substantially low. It should be noted that GBNLC represent the 1,56% of the total asset in the EU at YE2018, a negligible amount.

5.327 There is no evidence of a clear trend towards reducing this kind of exposures in view of the expiry of the transitional, signing that no massive divestments are expected.

5.328 The only policy option currently being assessed for this policy issue is not to change the current regulation. Despite EIOPA is aware of the materiality for some jurisdictions and of the potential impact on SCR, it was not possible to consider other alternative options. Undertakings were already prepared to the expiration of the transitional; moreover, proposing to reactivate a measure that by the time of entry into force of the revised Solvency II Directive will be expired would be atypical and technically hard to justify.

#### **5.10.5. Advice**

5.329 EIOPA considers the current requirements of Article 308b(12) of the Solvency II Directive appropriate in terms of policyholder protection and level-playing field. Consequently EIOPA advises not to further extend the transitional period when calculating the concentration risk sub-module and the spread risk sub-module in accordance with the standard formula in relation to exposures to Member States' central governments or central banks denominated and funded in the domestic currency of any other Member State.

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<sup>178</sup> Bulgaria, Croatia, Czech-Republic, Denmark, Hungary, Poland, Romania, Sweden, UK.

## 6. Minimum Capital Requirement

### 6.1 Extract from the call for advice

#### **3.9. MCR**

*EIOPA is asked to report on Member States' rules and supervisory practices adopted pursuant to the adoption of paragraphs 1 to 4 of Article 129 of the Solvency II Directive. In particular, EIOPA is asked to report on the following items:*

- quantitative and qualitative information with regard to the use and the level of the cap and the floor set out in paragraph 3 of Article 128, as well as of the absolute floor referred to in paragraph 1(d);*
- potential issues faced by supervisors with regard to the calculation of the Minimum Capital Requirements and where applicable, recommendations on how they could be addressed;*
- an assessment on whether the rules governing the calculation of the Minimum Capital Requirement continue to be consistent with a Value-at-Risk of the basic own funds of an insurance or reinsurance undertaking subject to a confidence level of 85% over a one-year period;*
- potential divergences in supervisory practices in cases of non-compliance with the Minimum Capital Requirement, with regard to the withdrawal of authorization, including the timing of withdrawal, the supervisory powers following the withdrawal of authorisation, as well as to the restriction or prohibition of free disposal of assets;*
- potential issues with regard to the identification of eligible basic own funds items for composite undertakings, in accordance with Article 73(3) of the Solvency II Directive and where applicable, recommendations on how they could be addressed.*

### 6.2 Previous advice

6.1 CEIOPS-DOC 69/10: CEIOPS' advice for level 2 implementing measures on Solvency II: article 130 calibration of the MCR

### 6.3 Relevant legal provisions

6.2 Solvency II Directive:

- Article 74 (separation of life and non-life insurance management)
- Article 128 (MCR general provisions)
- Article 129 (calculation of the MCR)
- Article 139 (non-compliance with MCR),
- Articles 140 (prohibition of free disposal of assets), Article 142 (finance scheme) and Article 144 (withdrawal of license),

- Chapter III - Article 273-284 (winding-up proceedings).

### 6.3 Delegated Regulation:

- Article 248 (Minimum Capital Requirement)
- Article 249 (Linear Minimum Capital Requirement)
- Article 250 (Linear formula component for non-life insurance and reinsurance obligations)
- Article 251 (Linear formula component for life insurance and reinsurance obligations)
- Article 252 (Minimum Capital Requirement: composite insurance undertakings)
- Article 253 (Absolute floor of the Minimum Capital Requirement)

## 6.4 Calculation of the Minimum Capital Requirement

### 6.4.1 Identification of the issues

6.4 In order to gather relevant information for the revision of the Solvency II Directive, a short survey was formulated within the EIOPA and addressed to the National Supervisory Authorities (NSAs) concerning some components of the SCR mentioned in the call for advice. The answers received have been used to inform this draft Advice.

6.5 The survey launched to NSA's showed that the vast majority of them do not face any issue **with regard to the calculation of the MCR**.

6.6 With regard to **the identification of eligible basic own funds items for composite undertakings**: the majority of NSAs do not face any issues (some of them because not supervise composite undertakings), but one single following issue is shared by some of them and is described below as the third issue.

#### Policy issue 1: the use of cap and floors

6.7 It can be noticed that globally there is a wide use of them, which means that the MCR only rarely corresponds to the linear calculated MCR. As a consequence, it is not obvious that the cap and floors are well designed and are useful. Several options are proposed in the analysis part.

#### Policy issue 2: consistency of the calculation of the Minimum Capital Requirement with a Value-at-Risk of the basic own funds of an insurance or reinsurance undertaking subject to a confidence level of 85% over a one-year period

6.8 It was not expected that a simple linear formula will accurately reflect a prescribed level of confidence, but it was deemed to be a proper proxy of it. When it comes to life MCR, no evidence was found that the calculation would no longer be consistent with a Value-at-Risk of the basic own funds subject to a confidence level of 85% over a one-year period. Indeed, the life SCR calculation has not been heavily impacted by the 2018 review changes. When it comes to non-life MCR, the alpha and beta parameters are directly linked to the sigma parameters for



premium and reserve risks. Since the 2018 review has led to changes in the sigma parameters for some segments (credit and suretyship, legal expenses, assistance, accident, workers compensation, non-proportional health reinsurance), the corresponding alpha and beta parameters need to be updated.

Policy issue 3: potential issues with regard to the identification of eligible basic own funds items for composite undertakings

## 6.4.2 Analysis

### 6.4.2.1 Use of cap and floors

6.9 The following table gives some descriptive statistics on the use of cap, floor and absolute floor for all undertakings in the EEA (based on annual solo YE18 figures).

EEA undertakings	Linear MCR	Absolute floor	Floor = 25% SCR	Cap = 45% MCR
<i>Life</i>	18%	23%	22%	37%
<i>Non-Life</i>	28%	35%	25%	12%
<i>Reinsurance</i>	17%	36%	41%	6%
<i>Composite</i>	31%	20%	26%	23%
<i>Total</i>	25%	30%	26%	18%

6.10 It can be noticed that globally there is a wide use of caps and floors. The MCR corresponds to the calculated linear MCR only in 25 % of the cases, all undertakings together.

6.11 When it comes to more granular statistics, it can be outlined that for life undertakings there is a wider use of the cap, while for reinsurance there is a wider use of the floor. All in all however, the scarce use of linear MCR is widespread for all types of undertakings. Besides, it can be noticed that the same holds true in most jurisdictions taken individually. As a consequence, it is not obvious that the cap and floor are well designed.

6.12 The use of the absolute floor is fairly logical for very small undertakings, which carry few risks and as a consequence have a small SCR. Given the levels of the absolute floors, this is typically the case for non-life undertakings for which SCR is under 5.6M€ or life undertakings for which SCR is under 8.2M€. It is not surprising that there are more small undertakings in non-life than in life. The absolute floor is security to ensure minimal own funds and avoid tiny undertakings in the market. The actual levels are deemed satisfactory.

6.13 The wide use of caps and (non absolute) floors means that the linear MCR often departs from 35% of the SCR. This can mean either that the probability distribution forecast underlying the calculation of the SCR departs from the Normal hypothesis or that the MCR linear formula is a rough proxy of the VaR 85% of it.

6.14 The options under consideration are:

- **Option 1:** No change to the 25%-45% corridor. It has the advantage of simplicity given that all the required developments have already been put in place by undertakings.

- **Option 2:** Enlarge the corridor to 20%-50% of the SCR. This was the former corridor used in QIS4 and at that time it was deemed it was preferable to keep closer to the 35% mean. Enlarging the corridor is easy to put in place, and it would ensure a wider use of the linear MCR, believed to be closer to the specific risk profile of the undertakings.
- **Option 3:** Delete the calculation of the linear MCR and state that MCR is the maximum between the absolute floor and 35% of the SCR. Such option would certainly simplify the calculation and ensure homogeneity in the results. As long as the SCR is believed to be representative of the risk profile of the undertakings, the resulting MCR would be satisfying.

#### 6.4.2.2 Consistency with a VaR 85%

6.15 When it comes to life MCR, there is no clue that the calculation would no longer be consistent with a Value-at-Risk of the basic own funds subject to a confidence level of 85% over a one-year period. Indeed, the life SCR calculation has not been heavily impacted by the 2018 review changes.

6.16 When it comes to non-life MCR, the alpha and beta parameters are directly linked to the sigma parameters for premium and reserve risks. The rationale behind the closed formulae used are explained in the CEIOPS paper: CEIOP-DOC 69/10, "calibration of the MCR". Since the 2018 review has led to changes in the sigma parameters for some segments (credit and suretyship, legal expenses, assistance, accident, workers compensation, non-proportional health reinsurance), the corresponding alpha and beta parameters needed to be updated.

6.17 Reproducing the CEIOPS methodology on former sigma parameters, it appears that the final calibration for the K parameter is 0.91 and not 1.18 as stated in the CEIOPS advice. Consequently,  $K = 0.91$  has also been used for the new calibration.

6.18 It is believed that the former methodology is still adequate in order to compute a Value-at-Risk of the basic own funds subject to a confidence level of 85% over a one-year period, and that the proxy of a 35 % ratio between the 99.5% and 85% confidence levels (corresponding to a Normal distribution) is still accurate enough for the purpose of the calculation of the MCR.

6.19 The following table summarizes the results of the MCR recalibration for all segments:

Segment	Alpha_old	Alpha_new	Beta_old	Beta_new
Motor vehicle liability	8,5%	8,5%	9,4%	9,4%
Motor other classes	7,5%	7,5%	7,5%	7,5%
Marine, aviation, transport	10,3%	10,3%	14,0%	14,0%
Fire and property	9,4%	9,4%	7,5%	7,5%
Third-party liability	10,3%	10,3%	13,1%	13,1%
Credit & suretyship	17,7%	16,0%	11,3%	17,7%

Legal expenses	11,3%	5,2%	6,6%	7,8%
Assistance	18,6%	20,3%	8,5%	6,0%
Miscellaneous	18,6%	18,6%	12,2%	12,2%
NPR property	18,6%	18,6%	15,9%	15,9%
NPR casualty	18,6%	18,6%	15,9%	15,9%
NPR MAT	18,6%	18,6%	15,9%	15,9%
Accident	4,7%	5,4%	4,7%	4,7%
Sickness	13,1%	13,1%	8,5%	8,0%
Workers compensation	10,7%	10,3%	7,5%	9,0%
NPR health	18,6%	15,9%	15,9%	15,9%

#### 6.4.2.3 Potential issues with regard to the identification of eligible basic own funds items for composite undertakings

6.20 Composite undertakings shall report a notional life and a notional non-life MCR. However, the regulation does not define the eligible own funds that are available for each of the activities. Besides, the calculation of the global MCR of the composite undertaking is not based on these notional MCRs for life and non-life, as it is calculated as a whole as for any other undertaking.

6.21 The options under consideration are:

- **Option 1:** No change.

This option would permit to keep the double vision (life and non-life) for composite undertakings.

In case of deletion of these MCRs, the undertaking will have to cover its "overall" MCR with no vision on the coverage of the life side and the non-life side.

- **Option 2:** Suppress the calculation of these notional MCRs for life and non-life and amend consistently the Directive and the Delegated Regulation.

The advantage of this option is that it would simplify the reporting for composite undertakings, which are currently required to fill in templates that cannot be properly used by NCAs (both annually and quarterly), and of course the calculation process. It is believed that this deletion would not jeopardize the respective interests of life and non-life policyholders as this is currently not an effective tool.

- **Option 3:** Define precisely which own funds should be allocated to the life side and which own funds should be allocated to the non-life side.

This solution would add much complexity to both calculation and reporting for composite undertakings. Such additional complexity would be contrary to the objectives of the 2020 review.

### 6.4.3 Advice

6.22 Regarding the use and the level of the cap and the floor set EIOPA sees not reason to change the current 25%-45% corridor.

6.23 EIOPA recommends to change the risk factors for the calculation of the MCR set out in Annex XIX of the Delegated Regulation as follows:

<b>Segment</b>	<b>Factor for technical provisions</b>	<b>Factor for premiums written</b>
Credit & suretyship	16.0%	17.7%
Legal expenses	5.2%	7.8%
Assistance	20.3%	6.0%
Accident	5.4%	No change
Sickness	No change	8.0%
Workers compensation	10.3%	9.0%
NPR health	15.9%	No change

6.24 With respect to potential issues related to the identification of eligible basic own funds items for composite undertakings, EIOPA advises no change to the current calculation of notional MCRs.

## 6.5 Non-compliance with the Minimum Capital Requirement

### 6.5.1. Identification of the issues

6.25 EIOPA is to address the different practices following insurance undertakings either not being compliant or having a risk of not being compliant with MCR. I.e. practice for

- Qualification of non-compliance with MCR
- Qualification of risk of non-compliance
- Supervisory actions taken when there is a risk of non-compliance of the MCR
- Practises for restriction or prohibitions of the free disposal of assets
- Withdrawal of license processes
- Supervision by NSAs post withdrawal of license

6.26 The above mentioned issued are presented and assessed as well as considered for any amendments of the legal framework, in the next paragraphs.

## 6.5.2. Qualification of non-compliance with MCR

### *Issue identified*

6.27 Insurance undertakings have under Article 139(2) of the Solvency II Directive the obligation to inform the NSA when a non-compliance with MCR is observed. However the current regulation leaves room for interpretation for insurance undertakings to define when non-compliance can be observed.

6.28 As timely acknowledgement of a financial issue with an insurance undertaking is paramount to address the challenges in a timely manner in the interest of the policyholders, the decision of an insurance undertaking to inform the NSA is essential.

### *Analyses*

6.29 All insurance undertakings are expected to report to NSAs with a quarterly frequency the level of MCR with a given deadline several weeks after the end of each quarter (Article 129(4) of the Solvency II Directive). However, non-compliance requires 'immediate' information to the NSA when "observed" under Article 139(1) of the Solvency II Directive. Both "immediately" and "observed" are subject to different practices of expectation from the various NSAs.

6.30 Some NSAs leave it to the discretion of the insurance undertakings of the timing to report such non-compliance, including in the normal quarterly reporting with delayed reporting deadlines. Other NSAs would have practice where they expect to be informed at a much earlier stage.

6.31 The differences in practice are also linked to the ambiguity of 'observed'. I.e. is 'observed' when the exact level of all balance sheet items are fully assessed and agreed upon among the insurance undertakings AMSB - or is it -at an earlier stage -when the insurance undertaking is aware that a given loss situation from assets or liabilities, including reinsurance undertakings is in a stage where this may lead to a non-compliance without being able to assess the exact level of non-compliance before a later stage, and at the same time do not report following a *risk* of non-compliance with MCR.

6.32 In assessing the different practises, not all NSAs have had insurance undertakings with non-compliance of MCR and the practices in some of these NSAs are fully mature.

### *Advice*

6.33 The CfA does not explicitly request an advice, but more on an outline of rules and practices. Various differences in national practices may or may not be appropriate in the internal market also with cross border business (e.g. more national discretion vs. a more common policyholder protection). However, if a more common policyholder protection is to be achieved more common regulation would be appropriate:

6.34 EIOPA advises to strengthen the clarity on what is to be expected by insurance undertakings by 'immediately' and by 'observed' with insurance undertakings with non-compliance of MCR in Article 139(1):

*Insurance and reinsurance undertakings shall inform the supervisory authority immediately and not in the quarterly reporting as specified in Article 129(4) where they observe that the Minimum Capital Requirement is no longer complied with, even if the exact level of non-compliance is not yet determined or where...."*

6.35 Further guidance in Level 2 or Level 3 should also be provided for what is 'observed' in order to have this information exchanged at an early stage.

### **6.5.3. Qualification of risk of non-compliance**

#### *Issue identified*

6.36 In addition to actual non-compliance (see 1.5) insurance undertakings are obliged to inform the NSA if they see a risk of non-compliance of MCR in the next 3 months. Similar to the issue with actual non-compliance, the purpose of this is to allow proper time to remedy the situation in order to protect policyholders' interest.

#### *Analyses*

6.37 Having an obligation for insurance undertakings to report to the NSA if a certain risk might materialise is encouraging an informative relationship between an insurance undertaking and a NSA and allowing both parties to be prepared to address a more devastating economic situation. However, the supervisory practice so far shows both a very limited reporting of this issue and quite a diversified practices in when NSA would expect such reporting (see further on practices below).

6.38 The ambiguity of the level of "risk" may be one factor here. I.e. to illustrate in very extreme circumstance all insurance undertakings have a "risk" of failure within the 3 months. However, this may be counterproductive if all insurance undertakings are to confirm such obvious issue. On the other side the very limited notifications to NSAs also shows that this is either not foreseen by an insurance undertaking or the level of risk is assessed to "low" to not comply with MCR.

6.39 For the supervisory practices, most NSAs would not have any further guidance or expectations what would be a qualification of a risk of non-compliance with MCR. Some NSAs however, have on-site inspection outcomes or ORSA projections as triggers. Other NSAs have trigger levels such as a decreasing trend in the MCR level or a fixed threshold like 120 % of MCR in the ordinary reporting, or if already observed a non-compliance with SCR or an expectation that insurance undertakings only report such risks of non-compliance if any counter measures are not already established. Other NSAs again also supplement the requirement for insurance undertakings to notify the NSA, by having the NSA making off-side analyses and then contact the insurance undertaking.

6.40 All in all there is not really a common supervisory practice of when insurance undertakings are expected to notify the NSA of a risk of non-compliance with MCR. Further, the so far limited use of this notification jeopardise the overall aim of having more time to remedy the financial situations in the benefit of policyholders.

6.41 In order to have a more common level of 'risk' it would be appropriate to indicate what kind of or what level of risks are to be accessed.

#### *Advice*

6.42 The CfA does not explicitly request an advice, but more on an outline of rules and practices. Various differences in national practices may or may not be appropriate in the internal market also with cross border business (e.g. more national discretion vs. a more common policyholder protection). However, if a more common policyholder protection is to be achieved more common regulation would be appropriate:

6.43 EIOPA advises no changes to Article 139(1) of the Solvency II Directive but to further elaborate on the expectations from NSA to insurance undertakings on information to NSA when there is a risk of a breach of MCR.

### **6.5.4. Supervisory actions taken when likely non-compliance of MCR**

#### *Issue identified*

6.44 Article 139(2) of the Solvency II Directive requires insurance undertakings to within one month of the observation of the non-compliance to submit to the NSA a realistic finance scheme to restore MCR within 3 months from the observation of the non-compliance. The NSA has to approve that plan.

6.45 The requirements of a realistic finance scheme and its deadlines are very explicit in the Directive after a non-compliance, whereas it is more up to national discretion which activities, plans and deadlines there have to be in place when there is only a risk of non-compliance with MCR within the next three months.

#### *Analyses*

6.46 Many NSAs request a meeting with the insurance undertaking to better understand the economic situation. Some NSAs request more frequent reporting of the economic situation (e.g. monthly reporting instead of the three months standard reporting) and other information requests either off site or on site.

6.47 However, NSA would use different supervisory instruments when informed about a risk of non-compliance with MCR. Examples are the prohibition of profit distribution/dividend to shareholders, limit or stop new business etc.

6.48 Some NSAs also request a finance scheme similar to the one required by an observed non-compliance, others some projections (budgets) on the economic situation.

6.49 Others again will only ask additional activities to limit the risk of non-compliance if they are not satisfied that the insurance undertaking are planning to take any counter measures to remedy the situation.

6.50 For those NSAs requesting a finance scheme it is also noted that only a few NSAs have defined what elements should be part of a finance scheme.

#### *Advice*

6.51 The CfA does not explicitly request an advice, but more on an outline of rules and practices. Various differences in national practices may or may not be appropriate in the internal market also with cross border business (e.g. more national discretion vs. a more common policyholder protection). However, if a more common policyholder protection is to be achieved more common regulation would be appropriate:

6.52 EIOPA advises to amend the Article 139(2) of Solvency II Directive by adding to the paragraph as follows:

*Within one month from the observation of non-compliance with the Minimum Capital Requirement or from the observation of risk of non-compliance ..."*

Further guidance in L2 or L3 of the minimum content of „the short-term realistic finance scheme“ should be provided.

6.53 Further guidance in L2 or L3 can also be provided to NSAs for minimum actions to be taken in addition to just approve/disapprove the short-term realistic finance scheme.

### **6.5.5. Practises for restriction or prohibitions of the free disposal of assets**

#### *Issue identified*

6.54 Following the Article 139(3) NSAs “may” prohibit the free disposal of assets and Article 140 state the Member states shall prohibit the free disposal of asset in accordance with national law. I.e. the use of the instrument of prohibiting the free disposal of assets are mainly governed by national regulation.

#### *Analyses*

6.55 Most NSAs have in the national regulation provisions on restriction in the free disposal of assets. However, only very few NSAs have used this instrument in case of a non-compliance with MCR or a risk of non-compliance (i.e. following article 139(1)).

6.56 NSAs do not in general observe many practical complications with regards to the use of this instrument. However, some are observing the risk of interfering with daily management, the dilemma or potential counterproductive restriction with regards of payment of coupons to investors of subordinated debt. No NSAs have



observed practical complication related to claims payments. In general the supervisory instrument is seen positive in the circumstances.

#### *Advice*

6.57 The CfA does not explicitly request an advice, but more on an outline of rules and practices. I.e. various differences in national practices may or may not be appropriate in the internal market also with cross border business (e.g. more national discretion vs. a more common policyholder protection). However, if more common policyholder protection is to be achieved

6.58 EIOPA advises to amend the Article 139(3) of Solvency II Directive by replacing in Article 139(3) the "The supervisory authority of the home member state may also" with a "If a winding-up procedure is not opened by the supervisory authority of the home member state, it shall within two months of being informed following paragraph 1 decide if or if not in the interest of policyholder protection to".

### **6.5.6. Withdrawal of license processes**

#### *Issue identified*

6.59 According to Article 144 of the Solvency II Directive the authorisation should be withdrawn when the insurance undertaking does not comply again with the MCR within the three months of observation, or if the NSA consider the finance scheme is manifestly inadequate or if the insurance undertaking fail to comply with the NSA approved scheme.

6.60 Most NSAs consider the three months as the absolute maximum time limit for restoring the MCR. If not restored by then they will withdraw the authorisation.

6.61 However, a few NSAs consider that the three months can be extended if the NSA is not in a position to finally conclude that the finance scheme is manifestly inadequate after the said three months. I.e. if so there is then no set time limit for withdrawal of authorisation.

6.62 Other few NSAs may allow the undertaking after the three months to continue conducting its business but restrict the insurance undertaking from doing new underwriting.

6.63 Some NSAs also use the instrument of replacing management with an appointed administrator eventually in a process of transferring the portfolio (i.e. all or some policyholders and some assets) to a third party. This may then take longer than the three months (e.g. 12 months).

6.64 Other NSAs are flagging that appeal processes may extend the three months for withdrawals to the end of that appeal process. Other NSAs are also using hearing on the withdrawal of licence to the insurance undertaking that extend the three months.

6.65 In general many NSAs observe that in practice withdrawal of authorisation in average takes longer than the three months.

6.66 Some NSAs are providing a longer timeframe than the said three months to comply with MCR open the scenario to further deteriorate the economic situation and further jeopardize the policyholder protection. A longer time frame may provide a longer time frame for the existing management to act in a “moral hazard” by prioritising management/shareholders interest above policyholders’ interest.

6.67 Another ambiguity is that although Article 139(2) specify a time limit on one month for the insurance undertaking to submit a short-term realistic finance scheme for approval by the NSA, there is no time limits for the NSA to approve (or disapprove) the finance scheme. I.e. this in practice allow various practices among NSAs.

#### *Analyses*

6.68 The different practises for NSAs for withdrawal of authorisation gives policyholders different levels of protections in particular when in the end not all claims can be meet by the insurance undertaking, prolonging the period of three month for winding -up the undertaking or only prohibiting writing new business should be clearly restricted in the internal market

#### *Advice*

6.69 The CfA does not explicitly request an advice, but more on an outline of rules and practices. I.e. various differences in national practices may or may not be appropriate in the internal market also with cross border business (e.g. more national discretion vs. a more common policyholder protection). However, if more common policyholder protection is to be achieved

6.70 EIOPA advises to amend Article 144(1) of the Solvency II Directive specifying a maximum time (three months) or specify in which situation this can be extended. Also it is recommend to specify if new policyholders can be at risk during the extended period (i.e. can the insurance undertaking continue to underwrite business?).

6.71 Alternatives to specify in which situation the three months can be extended can also by developed. E.g. to let any such decisions to extend beyond the three months for EIOPA to agree on, in particular for insurance undertakings with cross border business.

### **6.5.7. Supervision by NSAs post withdrawal**

#### *Issue identified*

6.72 If a NSA withdraw a license to an insurance undertaking due to the economic situation, it leaves the question if supervision exist for the existing policyholders.

6.73 In cases where the non-compliance with MCR and a subsequent withdrawal of license are further followed by an ultimate winding-up proceeding (e.g. bankruptcy or a non-solvent liquidation) the provisions to pursuant to Chapter III of the Solvency II Directive.

- 6.74 However, where an ultimate winding-up proceeding is not taking place following the withdrawal of authorisation due to MCR levels, the supervisory practices are not aligned. This situation happens when an insurance undertaking is just restricted from conducting new business while being in “run-off” (I.e. run-off without compliance with MCR).
- 6.75 In these cases the supervisory practices differs, both generally if the undertaking is still under supervision at all, and -if so- what provisions from Solvency II are still applicable to the insurance undertaking.
- 6.76 Such different treatment create potentially differences for the existing policyholders. I.e. are the existing policyholders benefitting from being insured in an undertaking that has to follow insurance regulation and being supervised by a NSA, or are they insured in a non-regulated entity.
- 6.77 Examples of this would be of the insurance undertaking still need to fulfil certain provisions under Solvency II’s Pillar II (e.g. governance requirements) and Pillar III (e.g. reporting requirements) to inform NSA and the public about its ongoing economic situation. Further would the insurance undertaking still be under conduct supervision for the existing policyholders (e.g. be under supervision if the undertakings is not paying claims fully to policyholders).

### *Analyses*

- 6.78 Most NSA consider such a non-capitalised run-off insurance undertakings are to continue to be under its supervision even after the authorisation is withdrawn.
- 6.79 However, a few NSAs have informed EIOPA that they do not have a mandate to supervise such undertakings.

### *Advice*

- 6.80 The CfA does not explicitly request an advice, but more on an outline of rules and practices. I.e. various differences in national practices may or may not be appropriate in the internal market also with cross border business (e.g. more national discretion vs. a more common policyholder protection). However, if more common policyholder protection is to be achieved

6.81 EIOPA advises to amend Article 144 of the Solvency II Directive to specify what kind of obligations an insurance undertaking with withdrawn authorisation has (i.e. in cases where insurance undertakings are not in winding-up following Chapter III of Solvency II Directive).

6.82 It should also be clarified that the exiting NSAs continue to have a mandate to supervise such undertakings.

## 7. Reporting and disclosure

### 7.1 Introduction

7.1 The European Commission asked EIOPA to advise on the ongoing appropriateness of the requirements on reporting and disclosure. EIOPA started a consultation on such advice on 12 July 2019.<sup>179</sup> The consultation period ends on 18 October 2019.

7.2 That consultation covers the following topics:

- General issues on supervisory reporting and public disclosure
- Individual Quantitative Reporting Templates (QRTs)
- Solvency and Financial Condition Report and Narrative Supervisory Reporting
- Financial Stability Reporting

7.3 EIOPA will set out its advice on these topics in the final Opinion on the 2020 review of Solvency II.

7.4 In addition to the above mentioned topic, this consultation paper sets out in the subsequent sections 7.2 and 7.3 draft advice on the following reporting and disclosure topics:

- **Regular supervisory reporting**
- **Group reporting and disclosure**

7.5 The analysis in some of the topics of the 2020 review other than reporting and disclosure gives rise to proposals to change reporting and disclosure provisions. Where that is the case, the proposals are set out in the chapters that deal with those topics. The following tables provides an overview of such proposals and where they can be found in the consultation paper.

Section	Reporting proposals
Volatility adjustment Section 2.4	<ul style="list-style-type: none"><li>• VA application ratios</li><li>• Liquidity buffer</li></ul>
Risk management provisions on LTG measures Section 2.7	<ul style="list-style-type: none"><li>• Combined impact of removal of LTG measures and extrapolation changes</li></ul>
Best estimate Section 3.1	Expected profit from future premiums: <ul style="list-style-type: none"><li>• Expected losses and expected profits by LoB</li><li>• Impact of reinsurance on EPIFP</li><li>• Future profits embedded in fees from servicing and managing funds</li></ul>

<sup>179</sup> See <https://eiopa.europa.eu/Pages/News/Consultation-on-supervisory-reporting-and-public-disclosure.aspx>.

Section	Disclosure proposals
Extrapolation Section 2.2	<ul style="list-style-type: none"> <li>• Impact of changes of last liquid points/first smoothing points on financial position</li> </ul>
Volatility adjustment Section 2.4	<ul style="list-style-type: none"> <li>• Size of VA and best estimate to which it is applied</li> <li>• Asset allocation and explanation of changes (in case of undertaking-specific VA)</li> </ul>
Disclosure on LTG measures Section 2.8	<ul style="list-style-type: none"> <li>• Minimum information on LTG measures for policyholders</li> <li>• Impact of LTG measures on SCR and MCR ratios</li> <li>• Impact of UFR changes on financial position</li> </ul>

## 7.2 Regular supervisory reporting

### 7.2.1 Extract from the call for advice

#### **3.15. Reporting and disclosure**

*EIOPA is asked to assess, taking into account stakeholders' feedback to the Commission public consultation on fitness check on supervisory reporting:*

- *the ongoing appropriateness of the requirements related to reporting and disclosure, in light of supervisors' and other stakeholders' experience;*
- *whether the volume, frequency and deadlines of supervisory reporting and public disclosure are appropriate and proportionate, and whether the existing exemption requirements are sufficient to ensure proportionate application to small undertakings.*

### 7.2.2 Relevant legal provisions

7.6 The legal provision in place to take into account for this Advice are:

- Directive 2009/138/EC of the European Parliament and the of the Council of 25 November 2009 on the taking-up and pursuit of the business of insurance and reinsurance (Solvency II Directive), in particular articles 35 and 254 for supervisory reporting and articles 51, 53 to 56 and 256 for public disclosure;
- Commission Delegated Regulation (EU) 2015/35 of 10 October 2014 supplementing Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of insurance and reinsurance, in particular Chapter XII of Title I and Chapter V of Title II for public disclosure and Chapter XIII of Title I and Chapter VI of Title II for regular supervisory reporting;
- Commission Implementing Regulation (EU) 2015/2450 of 2 December 2015 laying down implementing technical standards with regard to the templates

for the submission of information to the supervisory authorities and following amendments (2016/1868; 2017/2189; 2018/1844)

- Commission Implementing Regulation 2015/2452 (EU) of 2 December 2015 laying down implementing technical standards with regard to the procedures, formats and templates of the solvency and financial condition report and following amendments (2017/2190; 2018/1842)

### **7.2.3 Other regulatory background**

7.7 Under the other relevant regulatory framework the following needs to be considered:

- EIOPA Guidelines on Reporting and Disclosure;
- EIOPA Guidelines on supervision of Third Countries Branches.

### **7.2.4 Introduction**

#### **7.2.4.1 Background**

7.8 The Regular Supervisory Report (RSR) is defined in Article 301 of the Delegated Regulation as one of the elements of regular supervisory reporting and should comprise the information referred to in Articles 307 to 311 of that Regulation. It shall also present any information referred to in Articles 293 to 297 of that Regulation which supervisory authorities have permitted insurance and reinsurance undertakings not to disclose in their SFCR, in accordance with Article 53(1) of Directive 2009/138/EC. The regular supervisory report shall follow the same structure as the one set out in annex 7.1 for the SFCR.

7.9 This report is seen as complementary to the SFCR and should include the information considered private. It should not repeat the SFCR but be a complement to the information available in the SFCR.

7.10 Article 312 of DR identifies the deadlines and frequency required for such a report stating that the RSR should be reported at least every 3 years within the deadlines set out in Article 308b(5) of Directive 2009/138/EC and, after the end of the transitional period set out in that Article, no later than 14 weeks after the undertaking's financial year in question ends.

7.11 After three years of implementation of Solvency II it is important to discuss how the proportionate approach allowed under the Delegated Regulation has been implemented and if further convergence is needed in this area (see section 7.2.5).

7.12 As part of the general review it is important to go through the requirements of the RSR, assess its structure and relevance and reflect as well on the proposals made at the level of the SFCR regarding information to be moved from SFCR to the RSR (see section 7.2.7).

7.13 The deadlines of the RSR were already dealt with in the document General issues on supervisory reporting and public disclosure (EIOPA-BoS-019-300) under the wave 1 of public consultation.

7.14 EIOPA used as a tool for identifying the issues of proportionality and fit for purpose with regards to the RSR a peer review<sup>180</sup>. The proposals under this document take into consideration the preliminary results of this peer review as it was not possible to fully align the timeline. However, for the discussion of the comments received under this public consultation, more final results will be available.

## **7.2.5 Frequency of the Regular Supervisory Reporting (RSR)**

### **7.2.5.1 Identification of the issue**

7.15 As referred above article 312 of DR identifies the deadlines and frequency required for such a report stating that the RSR should be reported at least every 3 years within the deadlines set out in Article 308b(5) of Directive 2009/138/EC and, after the end of the transitional period set out in that Article, no later than 14 weeks after the undertaking's financial year in question ends.

7.16 The reference to "at least" allows NSAs to require a full RSR more often than every three years. In the years where a full RSR is not due undertakings are required to submit a report which sets out any material changes that have occurred in the undertaking's business and performance, system of governance, risk profile, valuation for solvency purposes and capital management over the given financial year, and provides a concise explanation about the causes and effects of such changes. That report shall be submitted within the same deadlines as the full RSR.

7.17 EIOPA explicitly asked stakeholders for input in the Call for Input and received a number of comments raising the following concerns on the frequency of submission and timelines:

- Creating the narrative reports and their internal approval is highly time-consuming as many different data providers and departments are part of this process. Therefore, those reporting requirements do not allow for efficient supervisory reporting.
- A three-year RSR is sufficient, although even with this frequency its value is questionable. A submission of the RSR should only be required in valid exceptional cases.
- In some countries, on top of the quarterly QRT delivery thresholds, the Supervisory Authority requires an annual delivery of the RSR. This is an excessive interpretation that requires the production of an RSR each year for small entities.
- In case the requirement for an annual RSR would be maintained, a statement – declaring that there have not been material changes – should be sufficient in years where no material changes are identified.
- The timeline of RSR is not adequate - the deadlines of narrative reporting should be detached from those of the QRTs. Thus in follow-up to the

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<sup>180</sup> The peer review output presented in this document is only preliminary as the exercise is still ongoing and the final report is expected to be finalized only in Q1 2020.

calculations, the undertakings should have more time to create the text passages and to perform additional calculations (forecasts).

- There is insufficient guidance on how 'no material changes' should be interpreted in years when a full RSR is not required. An additional clarification of materiality within Solvency II is needed to ensure a standard approach across all undertakings as to what constitutes a material change.

### **7.2.5.2 Analysis**

7.18 The deadlines of the RSR were already dealt with in the document General issues on supervisory reporting and public disclosure (EIOPA-BoS-019-300) under the wave 1 of public consultation

7.19 Based on the strong concerns of stakeholders about different approaches in the application of the proportionality principle by supervisors, the following options are considered:

- 1) No change
- 2) Introduce L3 tools for achieving supervisory convergence by keeping the minimum requirement for submission of full RSR once every 3 years but ask mandatory assessment by NCAs and communication of the frequency of the RSR
- 3) Amend article 312 to promote further proportionality in the RSR requirement
  - A change to be made with regards to the provisions in the SII Directive and the Delegated regulation by defining a mandatory regular frequency for the full RSR once every 2 years, with possibility to exempt once (Art. 312 of the DR) but impose mandatory communication of material changes (as defined in Art 305 of the DR) on annual basis. In this case NSAs could use the possibility to exempt based on the SRP, in which case the undertakings would only be required to submit the full report every 4 years, but the default frequency is set at 2 years, as a maximum.

7.20 EIOPA believes that the legal framework is adequate and the issues found should be addressed under supervisory convergence, using a Level 3 tool. This assessment has taken into account the need for a risk-based and proportionate approach and the need to keep the flexibility of supervisory judgment while recognising that work under supervisory convergence is needed.

### **7.2.5.3 Advice**

7.21 EIOPA proposes to introduce L3 tools to promote supervisory convergence regarding the frequency of the RSR by keeping the minimum requirement for submission of full RSR once every 3 years but discuss a possible mandatory assessment by NCAs and communication of the frequency of the RSR to undertakings.



## **7.2.6 Content of the Regular Supervisory Reporting (RSR)**

### **7.2.6.1 Identification of the issue**

7.22 The RSR is defined in Article 301 of the Delegated Regulation as one of the elements of regular supervisory reporting and should comprise the information referred to in Articles 307 to 311 of that Regulation. It shall also present any information referred to in Articles 293 to 297 of that Regulation which supervisory authorities have permitted insurance and reinsurance undertakings not to disclose in their SFCR, in accordance with Article 53(1) of Directive 2009/138/EC. The regular supervisory report shall follow the same structure as the one set out in annex 7.1 for the SFCR.

7.23 This report is seen as complementary to the SFCR and should include the information considered private. It should not repeat the SFCR but be a complement to the information available in the SFCR.

7.24 In practice Guideline 35 of EIOPA Guidelines clarify the following regarding the use of links in the RSR:

“When insurance and reinsurance undertakings refer in the RSR to other documents that are subject to reporting to their supervisory authorities, these should lead directly to the information itself and not to a general document.

Insurance and reinsurance undertakings should not use in the RSR references to other documents that are not subject to reporting to their supervisory authorities.”

7.25 EIOPA explicitly asked stakeholders for input in the Call for Input and received a number of comments raising the following concerns:

- Overlaps across the reporting requirements for the Regular Supervisory Report (RSR), the Solvency and Financial condition report (SFCR) and the Own Risk and Solvency Assessment (ORSA).
- According to Article 311 (2) b) of the Delegated Acts in the RSR the undertakings are prescribed to show the expected developments of the anticipated SCR and MCR over its business planning time period taking the undertaking’s business strategy into account. In the ORSA report the same information must be reported in detail.
- Risk sensitivity, stress tests and scenario calculations are described in detail in the ORSA report. The requirement to additionally report on the issues in the RSR should thus be dropped.
- The risk related information (chapters B.3, C and E.2-E.5) reported in the Group RSR is also included in the ORSA.
- The reporting requirements on risk concentration in the RSR at solo and group level are exuberant while the additional benefit for supervisors is limited. It is required to analyse risk concentrations at the level of legal entities. Undertakings should focus on current and expected future material exposures. Furthermore, Solvency II currently requires undertakings to analyse the probability that risk concentration materialises by means of

stress tests and scenario analyses. However, by those means only the impact, not the probability can be analysed.

- The side by side of different but similar supervisory reporting formats is unnecessary, for example with regard to required information on the planning horizon in ORSA and RSR.
- Information in the annual report (i.e. the annual financial statement) about the organisation, group structure, risk management, governance and the result of insurance business and investments are also required to be reported in other reports available for NSAs (SFCR and RSR).
- For captives, the Regular Supervisory Reporting (RSR) is not proportionate as it is too detailed and therefore it should be sufficient with the information provided in the Solvency Financial Condition Report.
- Align the repetition problem within the RSR with regard to two requirements to provide information regarding PPP.
- Linkage with other documents - the guidance and requirements around how and when RSR can refer to other documentation could be clarified.
- RSR language – many international companies prepare the reports in English and translate them into the local language for submission to the NSA. This creates additional expense and effort as all reports are prepared twice.
- Currency risk at group level (SCR Review) - The choice to select a different currency “needs to be based on objective criteria, such as being the currency in which a material amount of the group’s technical provisions or own funds are denominated.” Explanations on the objective criteria could be given in the narrative reporting (RSR).
- In the RSR there are sections which could be denominated as static information and sections which could be denominated as dynamic information. However, when assessing the content of the RSR as required by the Directive there is a mix of dynamic and static information. This could be improved as follows:
  - Accounting performance: Section A within the RSR covers the accounting performance but it does not have any direct relationship with the movements in own funds and/ or economic balance sheet. If section E were to provide a proper analysis of change, this section would be redundant. Moreover, the insurer’s financial statements and annual accounts are publicly available information to which supervisory authorities can have access to.
  - Economic balance sheet and/or Solvency capital requirement: Undertakings’ information about the loan portfolio, the collateral arrangement and borrowing transactions require information which would be better placed when disclosing the relevant information on the economic balance sheet and/or the solvency capital requirement. To be relevant, additional quantitative information would have to be provided which would duplicate with information presented in the economic balance sheet and/or solvency capital requirement. The dynamic information in section C could be removed and transferred to section E. For example, the sensitivities could be part of either the related capital requirement or the disclosure of the solvency

position. Normally one would expect sections B and C not to vary during the year unless policies have changed following changes in the risk profile.

- In the system of governance (annex 7.1, section B.3), there should be included a description of the activities developed by the risk management function (this is the only key function that doesn't have any report in the RSR);
- Expected profits in future premiums (EPIFP): As part of section C.4 "Liquidity risk". Insurers have to provide information on the expected profits in future premiums (EPIFP). This information could be presented in section E as part of the disclosure of the own funds – Tier 1.
- Guarantees and contingent liabilities: Also, as part of section C.4 "Liquidity risk" information is being provided on guarantees and contingent liabilities. However, this information should also be presented as part of the economic balance sheet disclosure (example section D.3.2 "Contingent liabilities").
- Market risk and underwriting risk: Information about the use of reinsurance and financial mitigation techniques and "the use of future actions" could be integrated into the sections on market risk and underwriting risk rather than being presented as a separate section. Currently, the information is duplicated with the information presented in section C.
- Valuation for solvency purposes / Capital Management: Section D on "Valuation for solvency purposes" presents the economic balance sheet while section E on "Capital management" presents the own funds and the solvency capital requirement and the solvency position. Section E should be replaced by a new Section E on the solvency capital requirement, section F on own funds and section G presenting the solvency position and additional relevant information.
- In the valuation for solvency purposes - Technical provisions (annex 7.1, section D.2), there should be detailed information on the most relevant assumptions used in the calculation of the Best Estimate, its sensitivity to changes and results of back testing.
- Report information on the measurement of the economic value added, using a profit and loss attribution approach (similar to what is prescribed for internal models) and its comparison to statutory profit and loss;
- Report information on Variation analysis, using the approach prescribed in the VA templates, quantifying and providing a detailed explanation of the major sources of variation - complementing the template;

### **7.2.6.2 Analysis**

7.26 Based on the concerns from the stakeholders the following options are considered:

- 1) No change
- 2) Improve both the structure and the content of the RSR

7.27 In all options it is proposed as well a machine-readable and processable format for the RSR, with technical details to be further consulted.

7.28 EIOPA believes that the RSR has room for improvement both in terms of simplifications to promote further application of proportionality principle as well as to avoid duplications and overlaps within the RSR and between the RSR and other supervisory reports.

### 7.2.6.3 Advice

7.29 EIOPA proposes to improve both the structure and the content of the RSR as described in Annex 7.1.

## 7.3 Group reporting and disclosure

### 7.3.1 Extract from the call for advice

#### **3.15. Reporting and disclosure**

*EIOPA is asked to assess, taking into account stakeholders' feedback to the Commission public consultation on fitness check on supervisory reporting:*

*the ongoing appropriateness of the requirements related to reporting and disclosure, in light of supervisors' and other stakeholders' experience;*

*whether the volume, frequency and deadlines of supervisory reporting and public disclosure are appropriate and proportionate, and whether the existing exemption requirements are sufficient to ensure proportionate application to small undertakings.*

### 7.3.2 Relevant legal provisions

7.30 The legal provision in place to take into account for this Advice are:

- Directive 2009/138/EC of the European Parliament and the of the Council of 25 November 2009 on the taking-up and pursuit of the business of insurance and reinsurance (Solvency II Directive), in particular articles 35 and 254 for supervisory reporting and articles 51, 53 to 56 and 256 for public disclosure;
- Commission Delegated Regulation (EU) 2015/35 of 10 October 2014 supplementing Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of insurance and reinsurance, in particular Chapter XII of Title I and Chapter V of Title II for public disclosure and Chapter XIII of Title I and Chapter VI of Title II for regular supervisory reporting;
- Commission Implementing Regulation (EU) 2015/2450 of 2 December 2015 laying down implementing technical standards with regard to the templates for the submission of information to the supervisory authorities and following amendments (2016/1868; 2017/2189; 2018/1844);

- Commission Implementing Regulation 2015/2452 (EU) of 2 December 2015 laying down implementing technical standards with regard to the procedures, formats and templates of the solvency and financial condition report and following amendments (2017/2190; 2018/1842).

### **7.3.3 Other regulatory background**

7.31 Under the other relevant regulatory framework the following needs to be considered:

- EIOPA Guidelines on Reporting and Disclosure;
- EIOPA Guidelines on Financial Stability Reporting;
- EIOPA Guidelines on supervision of Third Countries Branches;
- Regulation (EU) No 1374/2014 of the European Central Bank of 28 November 2014 on statistical reporting requirements for insurance corporations (ECB/2014/50);
- Guideline (EU) 2016/450 of the European Central Bank of 4 December 2015 amending Guideline ECB/2014/15 on monetary and financial statistics (ECB/2015/44);
- EIOPA Guidelines on treatment of related undertakings, including participations.

### **7.3.4 Introduction**

7.32 This section deals with the following issues regarding Group reporting and disclosure.

- Principle of proportionality;
- Other financial sectors;
- Group templates;
- Group and single SFCR;
- Group RSR.

For the areas not specifically addressed within this document and applicable both at solo and group level the solo proposals shared during the first wave of consultation of SII Reporting and disclosure review 2020<sup>181</sup> apply as well at group level.

7.33 It should be noted that the Review of Supervisory Reporting should be seen as a whole and the assessment of the options for the different policy issues should consider other relevant issues within this chapter as well as of other chapters under consultation.

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<sup>181</sup> <https://eiopa.europa.eu/Pages/News/Consultation-on-supervisory-reporting-and-public-disclosure.aspx>

7.34 In preparing this opinion, EIOPA considered the input received from the industry via EU Commission Public Consultation on the Fitness Check on Supervisory Reporting<sup>182</sup>, EIOPA Call for Input on Solvency II Reporting and Disclosure Review 2020<sup>183</sup> as well as the input received during the last years both in workshops with industry, informal dialogues with several stakeholders and in the comments to the annual amendments to the ITSs. EIOPA also considered its Report on the use of Limitations and Exemptions on reporting performed for 2017<sup>184</sup> and 2018<sup>185</sup> and the informal dialogue with industry during the public event in July 2018. The comments received and already included in the EIOPA Consultation on supervisory reporting and public disclosure are not repeated in this document. Only specific comments related to groups are listed in this document.

7.35 It should be noted that this document focuses on amendments proposed at the level of the Directive, Delegated Regulation and Implementing Technical Standards and does not cover the adaptation that will be needed in EIOPA Guidelines on Reporting and Disclosure. This revision will need to be considered once amendments to be introduced in the above legislation becomes clear.

### **7.3.5 Proportionality**

#### **7.3.5.1 Identification of the issue**

7.36 Proportionality principle is one of the overarching principles of Solvency II. This section focuses on proportionality at the level of group reporting and should be seen together with EIOPA proposals on proportionality on reporting and disclosure currently under public consultation<sup>186</sup> and with the proposals regarding Article 4 of SII directive which is part of this consultation package.

7.37 In the areas of group reporting, regarding quarterly reporting:

- Article 254 (2) of SII Directive says “The group supervisor may limit regular supervisory reporting with a frequency shorter than one year at the level of the group where all insurance or reinsurance undertakings within the group benefit from the limitation in accordance with Article 35(6) taking into account the nature, scale and complexity of the risks inherent in the business of the group.”
- At the same time Article 35 (6) of the SII Directive says: “Supervisory authorities shall not limit regular supervisory reporting with a frequency shorter than one year in the case of insurance or reinsurance undertakings

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<sup>182</sup> The EU Commission Summary Report of the Public Consultation on the Fitness Check on Supervisory Reporting is available under the following link: [https://ec.europa.eu/info/sites/info/files/2017-supervisory-reporting-requirements-summary-report\\_en.pdf](https://ec.europa.eu/info/sites/info/files/2017-supervisory-reporting-requirements-summary-report_en.pdf)

<sup>183</sup> The EIOPA Call for Input on Solvency II Reporting and Disclosure Review 2020 is available under the following link: <https://eiopa.europa.eu/Pages/Consultations/Call-for-Input-on-Solvency-II-Reporting-and-Disclosure-Review-2020-deadline-21-February-2019.aspx>

<sup>184</sup> [https://eiopa.europa.eu/Publications/Reports/EIOPA-BoS-17-240rev2\\_EIOPA%202017%20report%20on%20the%20use%20of%20limitations%20and%20exemptions.pdf](https://eiopa.europa.eu/Publications/Reports/EIOPA-BoS-17-240rev2_EIOPA%202017%20report%20on%20the%20use%20of%20limitations%20and%20exemptions.pdf)

<sup>185</sup> [https://eiopa.europa.eu/Publications/Reports/EIOPA%20LER%20report%202018\\_Final.pdf](https://eiopa.europa.eu/Publications/Reports/EIOPA%20LER%20report%202018_Final.pdf)

<sup>186</sup> <https://eiopa.europa.eu/Pages/News/Consultation-on-supervisory-reporting-and-public-disclosure.aspx>

that are part of a group within the meaning of Article 212(1)(c), unless the undertaking can demonstrate to the satisfaction of the supervisory authority that regular supervisory reporting with a frequency shorter than one year is inappropriate, given the nature, scale and complexity of the risks inherent in the business of the group.”

7.38 In the area of group reporting, regarding reporting of item-by-item basis:

- Article 254 (2) of SII Directive says “group supervisor may exempt from reporting on an item-by-item basis at the level of the group where all insurance or reinsurance undertakings within the group benefit from the exemption in accordance with Article 35(7), taking into account the nature, scale and complexity of the risks inherent in the business of the group and the objective of financial stability.”
- At the same time Article 35 (7) says: “Supervisory authorities shall not exempt from reporting on an item-by-item basis insurance or reinsurance undertakings that are part of a group within the meaning of Article 212(1)(c), unless the undertaking can demonstrate to the satisfaction of the supervisory authority that reporting on an item-by-item basis is inappropriate, given the nature, scale and complexity of the risks inherent in the business of the group and taking into account the objective of financial stability.”

### **7.3.5.2 Analysis**

7.39 In the area of proportionality applicable to group reporting the options considered by EIOPA were the following:

- 1) Don’t change Article 254 or Article 35 (6) and (7) of SII Directive;
- 2) Improve proportionality under Articles 35 (6), 35 (7) and article 254 of SII Directive.

7.40 The lack of consistency in the application of the proportionality principle at solo level leads to situations where undertakings belonging to a group are exempted by one NSAs while other less relevant solos are not exempted by different NSAs. As a result, according to the current articles, the group cannot be exempted unless all solo undertakings are exempted.

7.41 EIOPA understands the national specificities associated to the different application of proportionality principle that gives origin to this situation but believes that it leads to non-proportionate outcomes at the level of some groups. Thus, it proposes to mitigate the situation by allowing the group to be exempted even if not all undertakings belonging to the group are exempted.

### **7.3.5.3 Advice**

7.42 In addition to EIOPA’s proposals under the current consultation on the principle of proportionality, EIOPA proposes in the area of groups to amend Article 254 of the Solvency II Directive to allow for exemption of groups reporting without the condition of exemption of all solo insurance undertakings belonging to that group.

### **7.3.6 Other financial sectors**

7.43 Stakeholders, during the regular dialogue and as part of the Call for Input performed by EIOPA raised the following concerns:

- SII/CRD IV/AIFMD - There should be a common approach for supervisory frameworks on how to deal with capital requirements regarding non-insurance undertakings which are also supervised via other frameworks. It is currently possible for financial conglomerates (FiCos) to be required to comply with more than one regulation leading to different reporting requirements of the group. Steps should be taken to ensure that, an insurance dominated FiCo should have a group reporting based on Solvency II legislation and a banking dominated FiCo should have a group reporting based on CRD/CRR requirements. For a mixed FiCo, supervisors involved should discuss with the FiCo, which framework should be applicable to them.

7.44 EIOPA considered the input provided but would like to clarify that the basis for reporting depends on the method chosen for the calculation of the capital adequacy at conglomerate level. A Fico headed by an insurer has to report on a consolidated basis via SII and Ficod; a Fico headed by a bank has to report on a consolidated basis via CRR and FICOD; a FICO headed by a mixed financial holding company has to report according to CRR/SII/FICOD (and has to comply with BRRD as well). Article 213 provides for the possibility of waivers in this latter case. Finally, the Ficod balance sheet is a mix of an accounting balance sheet (for banks) and SII balance sheet for insurers.

7.45 The treatment of the other financial sector and the interaction with the FICO directive for the purpose of group solvency calculation is considered in the area of groups under SII Review 2020 as it is not a reporting issue.

### **7.3.7 Group templates**

7.46 For the revision and analyses of the QRTs applicable to groups EIOPA focused on the following questions:

- Were the QRTs used and if yes whether regularly or ad-hoc;
- What is the main use by the NSAs;
- Can regular reporting be eliminated;
- Can regular reporting be reduced, e.g. with a threshold;
- Can different granularity in a different template replace this information;
- If template is proposed to be kept, is there any information that is missing;
- If the information reported according to the actual framework provides all necessary information for supervisors.

7.47 The current proposal includes the QRTs analysed by EIOPA taking into account the feedback received during the call for Input, the use of the different QRTs and the impact on group reporting of changes proposed at solo level. Each QRT section includes a proposal for the way ahead. It might not include all potential impact on reporting package arising from the Advice on group supervision (chapter 10).



7.48 For the templates between S.01.01 and S.05.01 applicable at group level, the proposals published for solo are equally applicable at group level.

## **S.05.01 - Premiums, claims and expenses**

### **7.3.7.1 Identification of the issue**

7.49 Template S.05.01 is a core template, reported both at annual and quarterly frequency. Information is used to calculate financial indicators and generate various analyses. The template is reported from an accounting perspective, i.e.: Local GAAP or IFRS if accepted as local GAAP but using Solvency II lines of business, as defined in Annex I to Delegated Regulation (EU) 2015/35. It provides information on Premiums written, Premium earned, Claims incurred and Expenses incurred.

7.50 During the call for input the stakeholders commented in light of group reporting that both S.05.01 and S.05.02 are quite difficult to consolidate because they have to be filled by solo insurance companies with statutory values, even if the local GAAP values for groups are based on IFRS figures.

### **7.3.7.2 Analysis**

7.51 EIOPA considered the following options:

- 1) Keep template as in current ITS
- 2) Amend the template in line with the amendments proposed at solo level
- 3) Delete the template

7.52 Considering the input provided and the experience gained during the first years of SII implementations EIOPA proposes to delete the template at group level. This proposal will decrease the burden the group reporting.

### **7.3.7.3 Advice**

7.53 EIOPA proposes to delete the template S.05.01 at group level.

## **S.05.02 - Premiums, claims and expenses - by country**

### **Identification of the issue**

7.54 Template S.05.02 collects information on premiums, claims and expenses by country.

### **Analysis**

7.55 EIOPA considered the following options:

4) Keep template as in current ITS

5) Revise the template

7.56 EIOPA acknowledges the difficulties faced by the group to address different accounting standards but believe the information provided by country is relevant for group supervision and should not be deleted as proposed for S.05.01.

7.57 EIOPA believes that the split by country only and not by LoB already contributes to a reduction of the burden.

## **Advice**

7.58 EIOPA proposes to keep template S.05.02 as it is at group level but to delete "Changes in other technical provisions".

7.59 For the template S.06.01, the proposals published for solo are equally applicable at group level.

## **S.06.02 - List of assets**

### **Identification of the issue**

7.60 The List of assets template is a core template and contains already a set of reporting items which form a valuable input for the risk assessment performed by supervisory authorities, also at a group level.

### **Analysis**

7.61 EIOPA considered the following options:

- 1) Keep template as in current ITS
- 2) Improve the template

7.62 The following amendments were considered under the option to change / improve the template:

- S.06.02 for groups reporting: when linking the information reported in S.32.01, regarding the undertakings in the scope of the group, with the information reported in S.06.02.04 (List of assets for groups), it's not possible to match assets in the groups' portfolio using the identification of the undertaking in the scope of the group. This is because the item "Issuer Code" does not allow identifying insurance undertakings in the scope of the group when its ID is attributed by the group, as is the case in S.32.01. It is proposed to amend the second paragraph of the instructions for Issuer Code in S.06.02.04 as follows: "If none is available this item shall not be reported, except in the following situations, where a specific code shall be use:
  - For assets issued by EEA insurance and reinsurance undertakings and other EEA regulated undertakings within the scope of the group, in the meaning of Article 212(1)(c) of Directive 2009/138/EC: identification code

used in the local market, attributed by the undertaking's competent supervisory authority;

- For assets issued by non-EEA undertakings and non-regulated undertakings within the scope of the group, in the meaning of Article 212(1)(c) of Directive 2009/138/EC, identification code will be provided by the group.
- In Template S.06.02.04 in C0010 and C0020 the legal name and the Identification code of undertakings within the scope of group supervision are reported. According to the Commission Implementing Regulation (EU) 2015/2450 this items shall be filled only when it relates to assets held by participating undertakings, insurance holding companies, mixed-financial holding companies and subsidiaries under deduction and aggregation method. EIOPA proposes that C0010 and C0020 have to be reported not only for undertakings under deduction and aggregation method, but also under the consolidation method.

#### 7.63 Main reason for considering the Issuer code amendment:

- Regarding the issuer code when the assets are issued by EEA insurance and reinsurance undertakings and other EEA regulated undertakings it is expected that the LEI code has a good coverage (see also mandatory use of LEI code proposed in S.32.01) and is proposed to be mandatory.

#### 7.64 Main reason for not considering C0010 and C0020 proposals:

- Regarding the identification of the undertakings within the scope of group supervision when the consolidation method is used was considered as an additional reporting requirement imposed to the group not justified. Also it would be difficult to implement as under consolidation method one asset that is held by many undertakings within the scope of group supervision is only to be reported once.

## Advice

7.65 EIOPA proposes to make the following additions to the list of assets template (S.06.02) and CIC table:

- Include ECB add-on items relevant for prudential supervision purposes;
- Additional item regarding ESG-compliant/sustainable investments;
- Additional data item on applicability of bail-in rules;
- Additional item on RGLA;
- Additional item on cryptocurrencies related investments;
- Additional item regarding Custodian LEI code;
- New CIC code to identify government bonds issued in a different currency;
- Improvements to the reporting instructions and to the definition of CIC codes, with the objective of provide specific clarifications and reflecting the outcome of Q&A on reporting

7.66 At the same pace, EIOPA proposes that changes in the reporting requirements regarding the list of assets should be balanced with use of complementary external financial information by NSAs.

7.67 It is proposed to amend the second paragraph of the instructions for Issuer Code in S.06.02.04 to require the LEI code to be reported mandatorily in case of assets issued by EEA insurance and reinsurance undertakings and other EEA regulated undertakings and a code to be provided by the group in case of assets issued by non-EEA undertakings and non-regulated undertakings within the scope of the group, in the meaning of Article 212(1)(c) of the Solvency II Directive.

7.68 For the templates between S.06.02 and S.23.01 applicable at group level, the proposals published for solo are equally applicable at group level.

## **S.23.01 - Own funds**

### **Identification of the issue**

7.69 Template S.23.01 is a core template, both quarterly and annually, which provides information on own funds by nature and classified by Tiers.

### **Analysis**

7.70 EIOPA considered the following options:

- 3) Keep template as in current ITS
- 4) Improve the template

7.71 Being a template regularly used by supervisors the following as been identified to improve the template and instructions:

- It should be made clear that main rows for each own fund item should include both available and non-available;
- More information on non-available own funds is needed and not only the ones that are deducted from own funds;
- Enhancement the own funds QRT to provide information on whether an availability assessment has been performed at group level;
- Clarification of the log following Q&A 1735: We think that validation BV401 which states that the values of own shares reported on template S.23.02 and S.02.01 should be the same is incorrect. We think own shares reported on S.23.02 should be at nominal value. This is supported by validation BV504 which suggests the value of own shares reported on S.23.02 may be less than the value reported in cell R7010/C0060 in S.23.01. Furthermore, own shares reported on S.23.02 forms part of paid in ordinary share capital reported in cell R0010/C0010 of S.23.02, which we think should be consistent with ordinary share capital reported in cell R0010/C0010 of

S.23.01. Ordinary share capital reported in cell R0010/C0010 should be at nominal value in order for the share premium to be meaningful. Own shares have been reported using a solvency II value on the balance sheet template S.02.01, applying the principles of Article 75 of Directive 2009/138/EC, in accordance with the S.02.01 general comments section of the Annex III to the implementing Technical Standard on group reporting. The validation will therefore fail.

Answer: "Clear that in S.02.01 is SII value

Also 23.01.R0710 also SII value

Clear that the BV401 had 23.01>23.02 not because of valuation issues but because 23.01 includes both held direct+indirect

Not clear is S.23.01 and S.23.02 should be nominal amount but seems correct,. However, please note it will have a big impact on modelling If you agree as we will need to review BV 401 and BV xxx (230.01/2302) - they're 7."

- Add cells to explicitly identify the available own funds;
- Alignment of the presentation in the template with the way the final solvency ratio is calculated.

## Advice

7.72 EIOPA proposes to:

- not to change the template;
- clarify the instructions of the template at group level.

7.73 Changes to the group OF templates may follow after any revision of the Solvency II Directive and Delegated Regulation, in particular with regard to classification and availability of own funds.

## S.23.02 - Detailed information by tiers on own funds

### Identification of the issue

7.74 Template S.23.02 is a core template which provides detailed information by tiers on own funds and attribution to valuation differences.

7.75 The objective of the third table relative to attribution of valuation differences is to illustrate how own funds move forward from the financial statements to the own funds from the Solvency II balance sheet. But due to national specificities in the financial statements, the current version of the template is difficult to understand.

7.76 During the call for input the stakeholders commented that these templates and put forward the following concerns:

- this template requires a complete reconciliation of the excess of assets over liabilities from Solvency II regulations to Local GAAP. These calculations are overly burdensome, in particular, if there are differences in the scope of consolidation or in case of several corporate acquisitions in the past. The information is neither used internally nor do we believe that they create any

informative value for the supervisor. Furthermore, the amounts cannot be compared between different insurance groups neither at national nor at international level as there are differences in the applied Local GAAP regimes (e.g. in Germany some undertaking set up their consolidated accounts according to IAS/IFRS, others apply the German Commercial Code). The reporting requirements on cash flows, in particular for non-life, should be dropped or only be reported at the level of the total portfolio. The preparation of those cash flows according to the different lines of businesses is burdensome as each component of the cash flows is recognized only at the level of business segments. The greatest amount of time relates to the allocation of cash flows to "Risk accepted prior, during and after period". However, there is no real benefit for the company created by those numbers.)

## **Analysis**

7.77 EIOPA considered the following options:

- 1) Keep template as in current ITS
- 2) Amend the template
- 3) Delete the template

## **Advice**

7.78 EIOPA proposes to delete 23.02.04.03 from template S.23.02. on Excess of Assets over Liabilities – attribution of valuation differences.

7.79 For the templates between S.23.02 and S.32.01 applicable at group level, the proposals published for solo are equally applicable at group level, including the internal model proposals.

## **S.23.04 - List of items on own funds**

### **Identification of the issue**

7.80 Template S.23.04 is a non-core template requesting annually a list of own funds items, including at group level OF non-available as being in excess of the contribution.

## **Analysis**

7.81 EIOPA considered the following options:

- 1) Keep template as in current ITS
- 2) Improve the template

Supervisors use this template but found that information on the total non-available own funds is missing. This info is needed to allow a proper assessment of the

availability of the own funds. Having only information on the part of the OF exceeding the contribution does not allow supervisors to perform this assessment.

## Advice

7.82 EIOPA proposes to amend the table on Calculation of non-available own funds at group level (total) and introduce the following risk-based threshold:

- Template is due only when:
  - S.23.03 is due (see solo proposal), or
  - When RFF exist; or
  - When non-available own-funds exist.
- Table 11 on "Calculation of non-available own funds at group level (total) - exceeding the contribution of solo SCR to Group SCR" scope is changed and is proposed to cover all non-available own funds instead of only the ones that exceed the contribution. A new column requiring information on the amount exceeding the contribution needs to be added.

## S.25.02 – for groups using an internal model

### Identification of the issue

7.83 Template S.25.02 is a core template requesting information on undertakings using an internal model for SCR calculations.

### Analysis

7.84 EIOPA considered the following options:

- 1) Keep template as in current ITS
- 2) Use the solo undertakings' template and adjust as necessary

## Advice

7.85 EIOPA proposes to make the following change to the solo template: Delete code MCRFI\_QUE\_XXX\_R1\_C1 and request it, as an extra column, in template S.32.01 as different solos could use different approaches for group reporting.

## S.32.01 –Undertakings in the scope of the group

### Identification of the issue

7.86 Template S.32.01 is a core template required to be reported by groups using method 1 as defined in Article 230 of Directive 2009/138/EC, method 2 as defined in Article 233 of the Directive 2009/138/EC and a combination of methods. It is a list of all undertakings in the scope of the group in the meaning of Article 212(1)(c) of Directive 2009/138/EC, including the participating insurance and reinsurance

undertakings, insurance holding companies, mixed financial holding companies or mixed activity insurance holding company.

7.87 The template provides crucial information on the composition of the group.

7.88 The following concerns have been received during the EIOPA Call for Input performed: S.32.01 is very detailed and includes information with no additional benefit. Therefore, this level of detail could be reduced while only providing the main facts.

## **Analysis**

7.89 EIOPA considered the following options:

- 1) Keep template as in current ITS
- 2) Improve the template

7.90 When using the information on this template the following was identified by NSAs:

- This template is very detailed and includes information with no additional benefit. Proposal to reduce the level of detail with only providing the main facts;
- Similar template for individual undertakings would be helpful identifying parenting groups (incl. Non EEA or non-insurers);
- Include key indicators related to the financial and solvency position of the individual insurance and reinsurance undertaking in the template, which are based mainly on the Guidelines on exchange of information on a systematic basis within colleges (EIOPA-BoS-15/112). The reporting of individual key indicators within annual group QRTs would allow the group supervisor to access on the respective data on an early stage of the group supervisory review process.
- Unfortunately this overview does only provide the consolidation circle and not the Group structure. It would be important to get this information out of this template. It would improve the value a lot.
- Reference to the direct parent(s) and direct subsidiary(ies) (ID/LEI codes?) – this one is really important, would allow us to recreate the tree structure of the Group (S.32.01 full list of entities in the Group combined with the Id references of the direct parents and subsidiaries would allow EIOPA to have the tree structure view, also would benefit the NSAs in the same manner.

7.91 EIOPA considers the template as necessary to map all the undertakings in the group and to collect a minimum set of information on the consolidation process and on the individual undertakings, therefore the proposal is to keep it. Considering all the above proposals EIOPA believes that the information on the direct and ultimate parent(s) (name and country) and direct subsidiary(ies) would increase the use of the information within the template and provide NSAs with additional crucial information to better understand the group structure.



7.92 In addition, considering the principles of promoting the use of standardised codes, EIOPA promotes the use of LEI code. There is an identified need for higher standardisation and use of international standards, with EIOPA Guideline on LEI and with MiFIR. It is fundamental that by now all insurance and reinsurance undertakings and most EEA undertakings already have a LEI.

7.93 Regarding the proposal to have a similar template for individual undertakings, as this related to solo reporting dealt with in the wave 1 this proposal will be considered after the consultation period.

7.94 From an internal model perspective, this template can be used to provide information on whether the internal model is used for SCR calculations at group and/or solo level and to know which type of volatility adjustment is being used for each solo undertaking for the group SCR calculations. This info is needed to allow a proper assessment of the group figures compared to the solo ones.

## Advice

7.95 EIOPA proposes to amend S.32.01 as follows:

- Amend C0020 – Identification code of the undertaking – to require the LEI code to be mandatorily used for EEA insurance and reinsurance undertakings and other EEA regulated undertakings (approach to non-EEA undertakings and non-regulated undertakings is kept);
- Add information on direct and ultimate parent(s) and direct subsidiary(ies). The information should include LEI codes where those are available, names, participating interests/voting rights in the EEA undertaking and country;
- Regarding the proposal to have a similar template for individual undertakings, as this related to solo reporting dealt with in the wave 1 this proposal will be considered after the consultation period.
- Add the following three new columns to this template:
  - o “Covered by internal model for Group SCR calculations”. The answer shall be a closed list with two options: i) Yes and ii) No.
  - o “Uses the group model for solo SCR calculations”. The answer shall be a closed list with two options: i) Yes and ii) No.
  - o “Type of VA being used”. The answer shall be a closed list with four options: i) No VA, ii) Constant VA, iii) Dynamic VA; iv) Other for non-EEA entities.

## S.33.01 - Insurance and Reinsurance individual requirements

### Identification of the issue

7.96 Template S.33.01 is a core template required to be reported by groups using method 1 as defined in Article 230 of Directive 2009/138/EC, method 2 as defined in Article 233 of the Directive 2009/138/EC and a combination of methods. It collect information on all insurance and reinsurance undertakings of the group from EEA and non-EEA countries applying Directive 2009/138/EC reported in accordance with the rules therein when the method 2 as defined in Article 233 of

Directive 2009/138/EC or a combination of methods is used and information on the local capital requirements, local Minimum Capital Requirements and eligible own funds of all non-EEA insurance and reinsurance undertakings of the group shall be reported in accordance with local rules, regardless of the method used for the calculation of the group solvency.

7.97 Stakeholders during the EIOPA Call for input made the following comments:

- S.33.01 and S.34.01: these QRTs could be deleted, given that these QRTs seem of very limited importance for group supervision. Note that requirements for SCR of sub holdings in s.34 are also overly burdensome (requires interpretation on how to treat related undertakings, which is not straightforward). Any requirements in S.33.01 and s.34.01 could be met by extending s.32.01 QRT, and eliminating s.33 and s.34.

## **Analysis**

7.98 EIOPA considered the following options:

- 1) Keep template as in current ITS
- 2) Amend the template

7.99 EIOPA considers the comments received but is of the view that S.33.01.04 contains information for EEA insurance and reinsurance undertakings on eligible own funds and SCR (including a break down on SCR Modules, information on Standard Formula and Internal Model used, information capital add on) as well information for Non EEA insurance and reinsurance undertakings on local capital requirements and eligible own funds that are considered relevant for the supervision of group solvency.

7.100 The information is crucial for group supervision and some gaps have been identified by NSAs when using the information:

- According to the Commission Implementing Regulation (EU) 2015/2450 the information in respect to the EEA insurance and reinsurance undertakings has only to be reported regarding the undertakings when deduction and aggregation method or a combination of methods is used and supervisors believe the information is also relevant for the ones included in method 1
- The non-EEA undertakings also need to be included.

7.101 It is crucial that the template provides information to supervisors that allow to assess the amount of diversification effects which is not the case at the moment.

## **Advice**

7.102 EIOPA proposes that information regarding own funds and SCR (cells C0060 to C0230) should be reported also for all EEA and all non EEA (not only on local basis) insurance and reinsurance undertakings under method 1 to provide supervisory authorities an overview of all solo SCRs and an estimation of the diversification benefits at group level.

## **S.34.01 - Other regulated and non-regulated financial undertakings including insurance holding companies and mixed financial holding company individual requirements**

### **Identification of the issue**

7.103 Template S.34.01 is a core template required to be reported by groups using method 1 as defined in Article 230 of Directive 2009/138/EC, method 2 as defined in Article 233 of the Directive 2009/138/EC and a combination of methods and covers the individual requirements of financial undertakings other than insurance and reinsurance undertakings, and of non-regulated undertakings carrying out financial activities as defined in Article 1(52) of Delegated Regulation (EU) 2015/35, such as credit institutions, investment firms, financial institutions, alternative investment fund managers, UCITS management companies, institutions for occupational retirement provisions, non-regulated undertakings carrying out financial activities, insurance holding companies and mixed financial holding companies.

7.104 Stakeholders during the EIOPA Call for input made the following comments:

- S.33.01 and S.34.01: these QRTs could be deleted, given that these QRTs seem of very limited importance for group supervision. Note that requirements for SCR of sub holdings in s.34 are also overly burdensome (requires interpretation on how to treat related undertakings, which is not straightforward). Any requirements in S.33.01 and s.34.01 could be met by extending s.32.01 QRT, and eliminating s.33 and s.34.

### **Analysis**

7.105 EIOPA considered the following option:

- 1) Keep template as in current ITS
- 2) Amend the template

### **Advice**

7.106 EIOPA proposes to keep S.34.01 as it is now, since the information provided is relevant for the assessment of the contributions from undertakings belonging to other financial sectors and non-regulated undertakings in the scope of group solvency. However, the instructions need to be clarified in cases when groups report banking contribution on a subconsolidated basis.

## **S.35.01 - Contribution to group Technical Provisions**

7.107 The template S.35.01. is a core template and provides an overview on the contribution of technical provisions to the group's provisions giving additionally an overview on reinsurance effects within the group. EIOPA considers it crucial to

obtain an overview as group supervisor on the development gross/net and the contribution to technical provisions.

7.108 EIOPA considered the following option:

- 1) Keep template as in current ITS
- 2) Amend the template

## **Advice**

7.109 EIOPA proposed to keep S.35.01 as it now, since it provides useful information to the group supervisor.

## **S.36.01 IGT - Equity-type transactions, debt and asset transfer**

### **Identification of the issue**

7.110 Stakeholders during the EIOPA Call for input and from the supervisory reporting roundtable made the following comments:

- We see a significant need to simplify and clarify. For example the reporting of static equity holding (holding of related undertakings) in the s.36.01 QRT, as required according to the guidance in the relevant ITS, requires very much interpretation and on quantitative metrics (like 'contractual value', 'outstanding amount on reporting date') it seems that you can only conclude that nothing is applicable for that type of IGT (C0100, type 3 IGTs).
- The materiality threshold has been set up by type of intra-group transaction (IGT) which depends on the bilateral solos concerned by the IGT. The materiality thresholds are defined as a % of the SCR of the solo(s) involved in the bilateral transaction.
- The threshold depends on the companies of the group having the transaction: The transactions have to be aggregated by risk type and have to respect some thresholds. Firms normally keep track of the IGTs at closing date but they do not for all the IGTs taking place all over the year. As a result, firms submit all IGTs without any threshold.
- This template would have to be reviewed.
- All transactions shall be reported

### **Analysis**

7.111 In addition to the comments received from the stakeholders EIOPA and the NSAs considered:

- The possibility of extending by projected expected cash flow and valuation of future cash flows at 1-year-period in S.36.03.
- Alignment with the reporting package included in the draft ITS for FICO reporting that is largely based on Solvency II.

- The outcome of the EU/US work – IGTs at solo level of subsidiaries of 3rd country undertakings, especially when they are not equivalent for group supervision?
- Article 242 feedback on most common mistakes
- Really base everything on a transaction base reporting within the reporting period (especially equity type transactions);
- Add a line with overall number of transactions and number of transactions not reported per template to get an overview of transactions outside of reporting;
- Add information if it is a single transactions or a bundle of connected transactions grouped together (as in the FICOD package).

7.112 EIOPA considered the following options:

- 1) Keep template as in current ITS
- 2) Amend the template with relevant information

## **Advice**

7.113 After analysing the comments received EIOPA proposes to improve the template considering the input received:

7.114 EIOPA proposes to clarify the instructions and the scope of the template and consider alignment with work under development for the FiCo, but considering the different purposes of the SII and Fico, when the proposal for reporting IGTs in the financial conglomerates is finalised<sup>187</sup>.

## **S.37.01 - Risk concentration**

### **Identification of the issue**

7.115 Stakeholders during the EIOPA Call for input and during the supervisory reporting roundtable made the following comments:

- Risk Concentration S.37.01 is time consuming because firms have to: identify all the individual exposures or group of exposures in their firm's portfolio which are above certain thresholds defined by the supervisor; report detailed information for each individual exposure identified above as an example one company submitted, last reporting date, 61 individual exposures in this template; however they consider to be exposed to certain classes of risks only. This template would have to be simplified.
- The risk exposures reported in S.37 are most often sourced from other information reported elsewhere in the QRT's, but with a different final presentation in the risk concentration QRT due to a slightly different requirement. Thresholds are also applied for risk concentration purposes (set by each NSA). As one example, significant asset risk concentrations (which makes up the majority of the QRT) are already reported (although not explicitly

<sup>187</sup> <https://eba.europa.eu/-/esas-launch-consultation-on-technical-standards-on-the-reporting-of-intra-group-transactions-and-risk-concentration-for-financial-conglomerates>

as concentrations) in the S.06.02 QRT. Additionally, the guidance for this QRT is a little too vague, which has the potential to impact the consistent completion of this QRT across Europe, impacting comparability & EIOPA / NSA analysis and interpretation of risk concentrations. It is worth considering if this QRT could be eliminated or significantly simplified based on the above.

- We question why it is not limited to asset balances only. With the inclusion of liabilities, the amount of data needed increases substantially and it is not clear to us what the benefit is to NSAs. Collecting the rating information for the gross technical provisions is also very cumbersome.
- The limits on risk exposures should be defined in relation to Own Funds (OF) rather than SCR. Although it appears clear that the SCR is a lower measure than OF, risk limits should be compared to the risk coverage capability (OF) rather than total SCR itself.
- No standard way of completing this and the fact that the data from the assets and other QRTs is used in their construction feels like duplication. Although not explicitly reported as concentrations significant asset risk concentrations (which makes up the majority of the QRT) are already reported in the S.06.02 QRT. The guidance for this QRT could also be much improved.
- More specifically, we would like to draw the attention on a group of regulatory reports that the Group considers challenging: the Financial Conglomerate Report (as requested by the Commission Delegated Regulation (EU) 2015/2303 of 28 July 2015 supplementing Directive 2002/87/EC of the European Parliament and of the Council with regard to regulatory technical standards specifying the definitions and coordinating the supplementary supervision of risk concentration and intra-group transactions); the Concentration Risk Report and the Intercompany Liquidity Report, and the fulfilment of QRT S.37.01.04 on Risk concentration.
- A Risk based threshold should be introduced for the reporting of outgoing reinsurance and the thresholds should be more explicit. For example, in S.37.01.04 requests "significant" risk concentration. There is however no definition of "significant".

## **Analysis**

7.116 EIOPA considered the following options:

- 1) Keep template as in current ITS
- 2) Simplify the template
- 3) Consider the proposal at FICO level and align the template to it

7.117 The proposed risk concentration reporting package at FICO level is the combination of:

- an "open" template less granular compared to the Solvency II one, for the collection of data on exposures broken down by counterparty (but not on single exposure), that allows supervisors to identify and monitor the significant exposures by counterparty and type of risks. This open template should be reported only for significant exposures, i.e. exposures that hit the thresholds;

- 2 synthetic tables (S.07 Currency sector country and S.08 Asset and class rating in annex TS on FICO reporting) reporting the risk concentration, at financial conglomerate level, broken down by sector, country and currency and by asset class and rating. The proposal is that such tables are based on the whole amount of the financial conglomerate's exposures to third parties, significant and not significant, in order to have a synthetic view on the major exposures at the financial conglomerate level for each feature.

## Advice

7.118 EIOPA proposes to:

- Consider amending of the template in line with the proposal under discussion in the context of ESAs work on the Risk concentration reporting at the level of the financial conglomerate<sup>188</sup> when the proposal for reporting risk concentrations in the financial conglomerates is finalised considering the different purposes of the templates. The draft template on RC under discussion in that context is simplified and less granular (not by single exposure but by counterparty) with expected benefits for both the groups and the supervisors;
- Clarify the instructions and the scope of the template.

### 7.3.8 Group Solvency and financial condition report

7.119 It is also important that lessons are learnt regarding the structure and the content of the SFCR. This part addresses only the SFCR part addressing other users than policyholders.

#### 7.3.8.1 Addresses of the SFCR

## Advice

7.120 EIOPA proposes no amendments in Level 1 (Directive) and Level 2 (Delegated Regulation) regarding the addresses of the group SFCR.

7.121 Group SFCR is proposed to be kept as currently is – one SFCR including Executive summary.

7.122 EIOPA proposes amendments in Level 1 (Directive) and Level 2 (Delegated Regulation) regarding the content of the group SFCR in line with the proposal at solo level.

#### 7.3.8.2 Structure and content of the SFCR

7.123 Please refer to EIOPA proposal at solo level currently under public consultation – Solvency and Financial Condition Report (SFCR) and Narrative Supervisory Reporting<sup>189</sup>.

<sup>188</sup> <https://eba.europa.eu/-/esas-launch-consultation-on-technical-standards-on-the-reporting-of-intra-group-transactions-and-risk-concentration-for-financial-conglomerates>

<sup>189</sup> <https://eiopa.europa.eu/Pages/News/Consultation-on-supervisory-reporting-and-public-disclosure.aspx>

### **7.3.8.3 Gaps identified in the SFCR information**

7.124 Please refer to EIOPA proposal at solo level currently under public consultation – Solvency and Financial Condition Report (SFCR) and Narrative Supervisory Reporting<sup>190</sup>.

### **7.3.8.4 Availability of the SFCR**

7.125 Please refer to EIOPA proposal at solo level currently under public consultation

7.126 Solvency and Financial Condition Report (SFCR) and Narrative Supervisory Reporting<sup>191</sup>.

### **7.3.8.5 Audit of the SFCR**

#### **Identification of the issue**

7.127 For the background information please refer to EIOPA proposal at solo level currently under public consultation – Solvency and Financial Condition Report (SFCR) and Narrative Supervisory Reporting<sup>192</sup>.

7.128 In the context of the audit of a group SFCR several Member States have introduced full or partial audit requirements with regard to Solvency II “figures”. The requirement is either limited to the full SFCR or its main elements (BS, SCR or EOF). In some cases, it might extend to the RSR, including all QRTs disclosed in the SFCR.

#### **Analysis**

7.129 Regarding audit of the group SFCR, the proposals considered by EIOPA were the following:

- 1) Keep the legislation as it is – no audit requirement at group level in the Solvency II Directive – Members discretion;
- 2) Minimum requirement explicit in Solvency II Directive on audit to audit group Solvency II Balance-Sheet (Members discretion to additional requirements);
- 3) Minimum requirement explicit in Solvency II Directive on audit to audit group Solvency II BS/SCR/EOF (Members discretion to additional requirements)

7.130 All options should explain the level of assurance, in particular regarding the expectations regarding the internal model.

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<sup>190</sup> <https://eiopa.europa.eu/Pages/News/Consultation-on-supervisory-reporting-and-public-disclosure.aspx>

<sup>191</sup> <https://eiopa.europa.eu/Pages/News/Consultation-on-supervisory-reporting-and-public-disclosure.aspx>

<sup>192</sup> <https://eiopa.europa.eu/Pages/News/Consultation-on-supervisory-reporting-and-public-disclosure.aspx>



7.131 Where auditing requirements are in place all NSAs consider these to be beneficial, improving the quality of the data, assisting in supervision thus helping to protect policyholders and also probably benefiting at least smaller groups that struggle more with Solvency II compliance.

7.132 Indeed EIOPA has always been of the opinion that only high quality disclosed figures and good public reports can fulfil the goals set out by Solvency II (please refer to the EIOPA publication<sup>193</sup>). Otherwise, stakeholders may be misguided in their judgements, in comparison to other public disclosure like financial statements, which are strictly regulated and scrutinised. Therefore, EIOPA and its members will be very attentive to the actual application of the Solvency II public disclosure by insurance groups and potentially divergent levels of quality in different Member States. Currently auditing requirement at group level are in place in several Member States, and there are contradictory views from stakeholders on the costs (see above).

7.133 The disclosure of information in the SFCR is to serve transparency which to be meaningful requires that there is some assurance that the information disclosed is complete and correct. There is also the timing dimension to consider.

7.134 The SFCRs are disclosed to the market and sent to the NSAs at the same time, therefore the review from supervisors can only take place after the undertakings published their SFCR. In the SRP NSAs will of course check the information provided by groups on their solvency and financial position in the SFCR. However, as much as possible groups should not publish deficient data in the first place.

7.135 Regarding proportionality principle the following was considered:

- Complete exemption: all stakeholders including policyholders deserve the same level of assurance about the completeness and correctness of the information disclosed, regardless of the size or risk profile of the groups, therefore it is not recommendable to have different requirements for different type of groups. Proportionality should be embedded as audit should be less complex, however there is evidence that audit fees might be significantly higher as a proportion of premium income for small groups vs larger groups;
- Allow NSAs to exempt with a minimum frequency of auditing every 3 years: as said before, all stakeholders including policyholders, deserve the same level of assurance about the completeness and correctness of the information disclosed, regardless of the size or risk profile of the groups, therefore it is not recommendable to have different requirements for different type of groups.

7.136 In fact, EIOPA believes that auditing should be about transparency and accuracy of the information and therefore those values should not be subject to proportionality principle.

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<sup>193</sup> EIOPA-BoS-15/154 of the 29<sup>th</sup> June 2015 "Need for high quality public disclosure: Solvency II's report on solvency and financial condition and the potential role of external audit

## Advice

7.137 EIOPA proposes to introduce an auditing requirement in the Solvency II Directive for the group and for the single SFCR. This should ensure that as a minimum the group Solvency II Balance-Sheet is subject in all Member States to external auditing by a qualified auditor. The output should be an audit opinion published together with the SFCR.

7.138 Each Member State/NSA could on top of this minimum requirement request additional auditing requirements, namely covering the SCR and EOF.

7.139 EIOPA will further clarify either through Guidelines, Supervisory Statements or other tool deemed adequate the expectations towards the level of assurance of the audit required.

### 7.3.8.6 Language requirements

#### Identification of the issue

7.140 As part of the assessment, it was important to know from stakeholders their views on the language requirements.

7.141 The comments received from stakeholders were as follows:

- We consider the current language requirements as adequate;
- Disclosing the Group SFCR in multiple languages (local language and English based on the request of the Group Supervisor according to articles 360 (1) and (2) of the Delegated Act) is a very costly and labour-intensive requirement due to the volume of the required information in the SFCR. The necessity of translating the executive summary of the Group SFCR into local languages of the EEA (re)insurance subsidiaries as stipulated by Article 360 (3) of the Delegated Act should be revised. This is a very burdensome requirement for a group that has subsidiaries in numerous EEA-states and has very little added value;
- Flexibility should be allowed regarding the reporting language.
- We would like to request that there be an option to report in English in agreement with the local NSA. This would eliminate an extensive amount of work and expense incurred in the preparation of the regulatory reports (RSR, SFCR, ORSA).
- For us as an international company with business to business dealings we should be allowed to provide the SFCR in English only, as providing a public document only in our national language is not beneficial to our stakeholders. This would allow us to reduce the costs of preparing this report. For this purpose, Article 360 of the delegated acts should be adjusted accordingly.
- Undertakings should always have the option to report SFCR in English. Disclosing the Group SFCR in multiple languages (local language and English based on the request of the Group Supervisor according to articles 360 (1) and (2) of the Delegated Act) is due to the volume of the required information in the SFCR a very costly and labour-intensive requirement.

- In addition, the necessity of translating the executive summary of the Group SFCR into local languages of the EEA (re)insurance subsidiaries as stipulated by Article 360 (3) of the Delegated Act should be revised. This is a very burdensome requirement for a group that has subsidiaries in numerous EEA-states and has very little added value.
- The necessity of translating the executive summary of the Group SFCR into local languages of the EEA (re)insurance subsidiaries as stipulated by Article 360 (3) of the Delegated Act should be revised. This is a very burdensome requirement for a group that has subsidiaries in numerous EEA-states and has very little added value. Disclosing the executive summary in English should suffice as the latter is a commonly understood language.
- The language requirement should also refer to the various stakeholders to whom the SFCR is addressed to. If for example a national language is used, the investors/analyst/rating agencies will normally not be able to understand the information. Therefore, a version in English is always prepared doubling the workload. However, we wonder whether policyholders from an undertaking preparing the report in English would be able to understand the information. If the SFCR were to be split into different parts to provide meaningful information to the different users of information, different languages could be allowed without increasing the burden for insurers.

## Analysis

7.142 Two options have been considered:

- 1) Keep language requirements as laid out in current Delegated Regulation
- 2) Improve language requirements following the comments received

7.143 Regarding group SFCR most supervisors believe the language requirements are adequate, e.g.:

- the summary must be available in national language and more detailed information could be provided in English. Regarding the SFCR for group, English seems to be the most relevant language. Only the executive summary should be translated in the national languages.
- At present, the language requirements are clear for group SFCRs (Article 360 of the delegated acts) and single SFCRs (Article 366).

7.144 EIOPA agrees that the language requirements are clear for group SFCR and for single SFCR.

7.145 To reflect on the comments from the stakeholders regarding the translation of the executive summary of the group SFCR especially for groups having subsidiaries in numerous EEA-states EIOPA proposes amendments in Article 360 of Delegated Regulation.

## Advice

7.146 EIOPA proposes amendment to Article 360 of Level 2 Delegated Regulation – deleting Article 360 (3) thus not requiring the translation of the summary into the

official language or languages of the Member States where any of the insurance or reinsurance subsidiaries of the participating insurance or reinsurance undertaking, insurance holding company or mixed financial holding company has its head office.

### **7.3.8.7 Templates used in the SFCR**

#### **Identification of the issue**

7.147 The aim of this section is to address the templates already included in the SFCR and assess if changes are needed.

#### **Analysis**

7.148 Two options have been considered:

- 1) Keep templates as in current Commission Implementing Regulation 2015/2452
- 2) Improve the templates

7.149 This proposal needs to be seen together with the proposal under 4.5.3 (Gaps).

7.150 There are currently different versions of S.25.01 for the full annual QRT and the publicly available (SFCR) version. The individual SCR components are different between the two versions due to the different treatment of aggregation and diversification benefits. The benefit of having the two different versions of this QRT was questioned. It adds extra work to the preparation of the SFCR QRTs that is needless.

#### **Advice**

7.151 EIOPA proposes to keep unchanged the templates that are currently disclosed. For S.05.02 this means that a new entry point only for SFCR is needed due to the changes being proposed in the supervisory reporting package.

### **7.3.8.8 Deadlines of disclosing single SFCR**

#### **Identification of the issue**

7.152 The deadlines for the single SFCR were defined in Solvency II Directive with a transitional period of 4 years<sup>194</sup>. The deadlines were defined as follows:

- 2016 Single SFCR: 26 weeks after end-year
- 2017 Single SFCR: 24 weeks after end-year
- 2018 Single SFCR: 22 weeks after end-year
- 2019 Single SFCR: 20 weeks after end-year
- From 2020 same deadlines as solo SFCR: 14 weeks after year-end

7.153 Stakeholders, during the regular dialogue and as part of the Call for Input performed by EIOPA raised concerns regarding the deadlines at the end of the

<sup>194</sup> Article 300 of and Article 368 of Commission Delegated Regulation (EU) 2015/35

transitional period and identified the 14 weeks in a steady state as very challenging.

## Analysis

7.154 For the single SFCR EIOPA considered the following different combinations:

- 1) The disclosure deadlines could be aligned with the single SFCR deadlines applicable for 2019 both for the policyholder and other financial users sections;
- 2) The disclosure deadlines could be aligned with the single SFCR deadlines applicable for 2019 only for the other financial users section while no changes are proposed for the disclosure of the policyholders section.

7.155 As for the number of weeks it is understood that the market should be ready to apply the final deadlines during 2019 and following years and extending the deadline by one/two additional weeks in the review would not be adequate.

7.156 For the single SFCR EIOPA proposes to extend the deadlines for the disclosure of the policyholders section with 6 weeks to 20 weeks. For the other financial users section the proposal is to extend the deadline by 2 weeks stemming from the proposal for audit of the SII Balance sheet.

## Advice

7.157 Considering that the Single SCFR includes both the SCFR at group level and SFCR at solo level, that the solo SFCR is proposed to have two distinctive parts (one for policyholders and another one for other financial users, and that the group SFCR will only have the part of other financial users, EIOPA proposes to:

- Extend the deadline by 2 weeks of the Group SFCR to accommodate the proposal for audit of the SII Balance sheet, i.e. to from 20 to 22 weeks.
- Align the deadline of the policyholder section of a Single SFCR with the solo SFCR deadline, i.e 14 weeks + 2 weeks extension as currently being proposed at solo level; i.e. 16 weeks;
- Align the deadline of the other financial users sections of a Single SFCR with the deadline of the groups SFCR, i.e. 22 weeks;
- The Solvency II Directive should also foresee the situation that the deadline for SFCR disclosure should not be sooner, in any case, than the disclosure of regular Audited Annually Reported Financial Statements in case of listed (public) companies.

### 7.3.9 Group RSR

#### 7.3.9.1 Identification of the issue

7.158 During EIOPA Call for input the following comment was provided from stakeholders:

- While it is possible to apply for a single SFCR or a single ORSA report, i.e. one report is filed for the whole group, this possibility is not provided for

the RSR. Further, if undertakings got approval for a single group SFCR, the approval for a single group RSR should be given automatically. It is acknowledged that it is theoretically possible for undertakings to submit a single group RSR, as cross-references to specific pieces of information are permitted. In practice, this approach has worked well for some groups and their supervisors.

7.159 EIOPA has duly considered the proposal and propose not to include an option for a single RSR with the following arguments:

- the nature of the document: it is a detailed and long document, if merged in a single document it would be of limited use by supervisors due to its length. Additionally, it may contain sensitive information that is not opportune to be shared among supervisors at group level.
- the deadlines: the frequency of the RSR of each solo undertaking and the group can be different, the different deadlines can have an impact on the performance and utility of a single RSR;
- the language: the translation in a foreign language can have an impact on the quality of the information provided in the RSR. This is not convenient from a supervisory perspective given the important of the RSR information.

## 8. Proportionality

### 8.1. Thresholds for exclusion from Solvency II

#### 8.1.1 Extract from the call for advice

##### **3.16. Proportionality and thresholds**

*EIOPA is asked to assess whether proportionality in the application of the Solvency II framework could be enhanced, and in particular in the following areas:*

- *the appropriateness of the thresholds for the exclusion from the scope of Solvency II, as defined in Article 4 of Directive 2009/138/EC*
- *[...]*

#### 8.1.2 Relevant legal provisions

8.1 The relevant legal provision is Article 4 of the Solvency II Directive.

#### 8.1.3 Identification of the issue

8.2 Proportionality principle is one of the overarching principles of Solvency II framework. All Solvency II requirements should be proportionate to the nature, scale and complexity of the risks undertakings face or may face. Implementation of the proportionality principle should consider the risks of each individual undertaking. In order to ensure the effectiveness of the supervision, all practices and powers taken by the supervisory authorities should be proportionate to the nature, scale and complexity of the risks inherent in the business of an insurance or reinsurance undertaking, regardless of the importance of the undertaking concerned for the overall financial stability of the market.

8.3 It is generally acknowledged<sup>195</sup> and even if proportionality principle is not comprehensively defined, it applies throughout the Solvency II legislation and Supervisory Review Process. The reference to the principle of proportionality in certain articles should not lead to the conclusion that it does not apply or applies less where it is not explicitly mentioned.

8.4 The importance of the principle of proportionality is explicitly linked to the need to avoid excessive strain on small and medium-sized undertakings. In particular, Solvency II should not be too burdensome for insurance undertakings that specialise in providing specific types of insurance or services to specific customer segments, and it should recognise that specialising in this way could be a valuable tool for managing risks efficiently and effectively.

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<sup>195</sup> Article 5 of the Treaty on the EU states that the content and form of Union action should not exceed what is necessary to achieve the objectives of the Treaties

- 8.5 This means that size is not the only relevant factor when the principle is considered. The principle is to be applied where it would be disproportionate to the nature, scale and complexity of undertakings' risks inherent to the business to apply the requirements (both quantitative and qualitative) without relief.
- 8.6 As the application of the Solvency II framework should not lead to a one-size fits all approach, also the proportionality principle should not reflect a one-size-fits all approach being translated for example into an automatic exemption of parts of the market to all member States. This approach would not be risk-based and would not take into account the specificities of the undertakings or the markets.
- 8.7 Associated to the proportionality principle a risk-based system is implemented.
- 8.8 A risk-based system and proportionate regime allow NSAs to prioritise and use their own resources efficiently and effectively. It is important that relevant risks are kept on the radar even when identification or measurement is more complex. Risk-based prioritisation should be complemented by an assessment of the potential reputational risk to the market or risk of market disruption that the failure of an undertaking (even if low impact) could have on the market as a whole.
- 8.9 With all this in mind EIOPA analysed the approach under Article 4 of the Solvency II Directive which defines the insurance undertakings that might be excluded from the scope of Solvency II.
- 8.10 In preparing this opinion, EIOPA considered the input received from the industry via dedicated papers and opinions on proportionality over the last years. It is identified that part of the market is currently unsatisfied with the proportionality implementation by legislation and their respective NSAs and see an urgent need for improvement.
- 8.11 EIOPA agrees that proportionality principle should be assessed and revised but also believes that to promote a proper and fair revision is important to fully understand the application of proportionality principle currently implemented.

#### **Article 4 of Solvency II Directive 2009/138/EC**

- 8.12 Both direct insurance and reinsurance undertakings generally fall within the scope of the Solvency II Directive, irrespective of their legal form. Institutions for occupational retirement provision, death benefit funds and small insurance undertakings are excluded from its scope. Article 4 of Solvency II Directive determines the exclusion from Solvency II scope using different quantitative thresholds:
- a. size of the business volume in terms of premiums and technical provisions - annual gross written premium income lower than 5 million Euros or gross technical provisions lower than 25 million Euros
  - b. where the undertaking belongs to a group, the total of the technical provisions of the group defined as gross of the amounts recoverable from reinsurance contracts and special purpose vehicles not exceeding EUR 25 million;
  - c. size of reinsurance business in terms of premiums and technical provisions - EUR 0,5 million of its gross written premium income or EUR 2,5 million of its technical provisions gross of the amounts recoverable from reinsurance contracts and



special purpose vehicles, or more than 10% of its gross written premium income or more than 10% of its technical provisions gross of the amounts recoverable from reinsurance contracts and special purpose vehicles.

8.13 These thresholds reflect both the size and nature perspective due to the special treatment of reinsurance business. Undertakings exceeding any of the predefined article 4 thresholds are therefore in the scope of the Solvency II framework.

8.14 Article 4 does not consider the size and nature based exclusion criteria but also looks at the complexity of the business. Direct insurance undertakings who underwrite insurance or reinsurance activities covering liability, credit and suretyship insurance risks, which are considered complex, are covered by Solvency II framework even if they comply with the predefined relative thresholds.

**Table: Art. 4 Solvency II Directive Thresholds for Exclusion due to size and nature**

<b>Thresholds for applying the Solvency II Directive</b>	
Premium income threshold for applying Solvency II,	EUR 5 mln.
Technical provisions threshold for applying Solvency II,	EUR 25 mln.
Maximum reinsurance business allowed (premium income),	EUR 0.5 mln.
Maximum reinsurance business allowed (premium income),	10 %
Maximum reinsurance business allowed (technical provisions),	EUR 2.5 mln.
Maximum reinsurance business allowed (technical provisions)	10 %

8.15 It should be noted that undertakings that wish to apply Solvency II framework, for example to benefit from the European passport, have the right to do so. In the table below the total number of insurance undertakings currently excluded from Solvency II is presented.

**Table: Undertakings currently excluded from Solvency II<sup>196</sup>.**

<b>Country</b>	<b>Total number of insurance and reinsurance undertakings</b>	<b>Of which number of insurance undertakings that are below the Article 4 threshold and excluded from Solvency II</b>
Austria	84	49
Belgium	69	3
Bulgaria	37	5
Croatia	18	0
Cyprus	32	1
Czech Republic	27	0
Denmark	82	11
Estonia	10	0
Finland	50	6

<sup>196</sup> Numbers based on a survey to the NSAs in Summer 2019

France	713 (including 97 undertakings linked to another by a substitution link <sup>3</sup> )	237 (including 97 undertakings linked to another by a substitution link <sup>197</sup> )
Germany	402 (without funeral insurance undertakings, reinsurance undertakings in run off (Abwicklung) and 1 life insurance undertaking)	27
Greece	38	2
Hungary	33	10
Iceland	11	0
Ireland	201	1
Italy	100	1
Latvia	6	0
Liechtenstein	38	0
Lithuania	9	0
Luxembourg	278	0
Malta	68	0
Netherlands	134	22
Norway	68	0
Poland	60	1
Portugal	41	0
Romania	29	1
Slovak Republic	14	0
Slovenia	15	0
Sweden	187	26
United Kingdom	493	170

8.16 In 13 Member States there are no insurance undertakings excluded from the scope of Solvency II. For the ones that have, each Member State decided and defined the regime to apply to the excluded insurance undertakings. In the table below such regimes are presented.

**Table: Prudential regime applied to undertakings excluded from Solvency II**

Country	Which prudential regime is applicable to undertakings excluded from the scope of Solvency II?
Austria	Other than Solvency I or Solvency II
Belgium	Solvency I rules
Bulgaria	Solvency I rules
Croatia	Solvency II rules, but with some differences (e.g. exemptions)

<sup>197</sup> In France all undertakings linked to another by a substitution link are excluded from Solvency II

	No undertakings excluded
Cyprus	Solvency II rules, but with some differences (e.g. exemptions)
Czech Republic	Solvency II rules No undertakings excluded
Denmark	Solvency II rules, but with some differences (e.g. exemptions)
Estonia	Solvency II rules No undertakings excluded
Finland	Other than Solvency I or Solvency II
France	Solvency I rules
Germany	Other than Solvency I or Solvency II
Greece	Solvency II rules, but with some differences (e.g. exemptions)
Hungary	Solvency I rules
Iceland	Other than Solvency I or Solvency II No undertakings excluded
Ireland	Solvency I rules
Italy	Other than Solvency I or Solvency II
Latvia	Solvency II rules No undertakings excluded
Liechtenstein	Other than Solvency I or Solvency II No undertakings excluded
Lithuania	Solvency II rules No undertakings excluded
Luxembourg	Solvency II rules No undertakings excluded
Malta	No undertakings excluded
Netherlands	Solvency II rules, but with some differences (e.g. exemptions)
Norway	Other than Solvency I or Solvency II No undertakings excluded
Poland	Solvency II rules, but with some differences (e.g. exemptions)
Portugal	No undertakings excluded
Romania	Solvency I rules
Slovak Republic	No undertakings excluded
Slovenia	Solvency II rules No undertakings excluded
Sweden	Other than Solvency I or Solvency II
United Kingdom	Other than Solvency I or Solvency II

8.17 From the 17 Member States that have insurance undertakings excluded from the scope of Solvency II, 5 apply a regime similar to Solvency II but with some

exemptions, 6 apply Solvency I and 6 a regime different from Solvency I or Solvency II.

### Stakeholders and supervisory feedback

8.18 Stakeholders, during the regular dialogue raised the following concerns and concrete proposals:

- Solvency II produces extra costs and extra work for smaller undertakings but no compensating benefits. E.g., there are very few people in small Solvency II undertakings with the management body heavily involved in the operational day-to-day work that changes very little from year to year. With this small workforce direct communication works very well and the undertaking does not really benefit from written policies, additional documentation and internal reporting requirements or a three lines of defence approach (though the latter is only implied and not explicitly required by Solvency II).
- Introduction of an EEA-wide Solvency II light regime – besides Solvency II and the national supervisory regime for excluded undertakings – often referred to as “toolbox of proportionate measures under Solvency II”. A consistently applied pre-defined set of proportional applications of Solvency II, that eligible medium-sized insurance undertakings may employ by default and which would result, according to the proposal, in the same capital requirements (Pillar I) but fewer Pillar II and III requirements than the full Solvency II such as exemption of Actuarial function for non-life undertakings, simplified ORSA, waivers from quarterly reporting or simplified SFCR, RSR.
- Other proposals (cumulative or not with the previous one) suggest raising the general Art. 4 *Premium income threshold for applying Solvency II* from currently EUR 5 million to EUR 10 million to align Solvency II with the European Commission’s definition of small and medium-sized Enterprises<sup>198</sup> (SME): Companies with a turnover up to € 10 million qualify as small and companies up to € 50 million turnover qualify as medium-sized. These types of companies often have a special regime under EU directives (cf. Prospectus Regulation and MiFID II). A higher Solvency II threshold would serve that principle.

8.19 Business model might be also a relevant criterion which can be used by NSAs for deciding exceptions from SII application, based on a risk-based approach. There might be cases where companies and their business models are set-up through local special legislation, for specific purposes (i.e. NAT-CAT risks, terrorism, etc.), with very limited possible intervention of management in adjusting risk profiles, exposures, sales channel distribution, etc. or/and special intervention possibility from state in providing financial support in case of occurrence of significant events under certain circumstances, etc.

8.20 In such specific cases, it might be that certain departures from standard formula assumptions are possible and development of an internal/partial internal model development and implementation is a remote possibility due to lack of relevant statistical information, internal organisation of the companies does not fully support implementation of such a model, too costly to implement, etc.

8.21 Considering the stakeholders proposals different views were expressed by the NSAs:

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<sup>198</sup> [https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition\\_en](https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en)

- The majority of NSAs believe that the thresholds identified in the Solvency II Directive are still adequate while others consider that some requirements, which were established with larger and more complex undertakings in mind, cannot be proportionally implemented and do not really serve to improve the quality of the management of small and non-complex undertakings. Therefore, a general increase of Solvency II thresholds might foster relief for very small and low risk undertakings that today are subject to Solvency II.
- With regard to the threshold in Article 4 (4)(d) some NSAs argue that since policyholder protection is the main objective, the existence of suitable financial guarantee scheme in place to cover all the policyholders and beneficiaries of a failed insurance undertaking writing liability insurance should be considered.

8.22 Opinions on the issue differ along the size of the national markets. For this reasons, one option addressing the market share was explored.

8.23 Both NSAs and stakeholders note that the condition laid down in Article 4(1) (b) - technical provisions, gross of the amounts recoverable from reinsurance contracts and special purpose vehicles as referred to in Article 76 does not exceed EUR 25 million might not be adequate as the threshold originates from the old life insurance directives<sup>199</sup> that should not apply to non-life undertakings. Moreover, as pointed the old life insurance directive thresholds have not been raised in spite of market wide GDP growth in the EEA.

#### **8.1.4 Analysis**

8.24 EIOPA has analysed two different policy issues:

- Policy issue 1: Approach towards exclusion from Solvency II;
- Policy issue 2: Revision of article 4 content.

8.25 The first one addresses the approach of article 4 and whether a new intermediate regime could be created as proposed by stakeholders (Approach towards exclusion from Solvency II framework). This policy issue is analysed regardless of any amendment to article 4 thresholds and explores only the pros and cons of having a third category of undertakings.

8.26 The options considered were the following:

- 1) No Change
- 2) Maintain the exclusion from Solvency II to certain undertakings as defined in Article 4 (see also Policy Option 2 regarding the content of article 4) and reinforce proportionality across the three pillars of Solvency II;
- 3) Maintain the exclusion from Solvency II to certain undertakings as defined in Article 4 (see also Policy Option 2 regarding the content of article 4) and introduce a specific supervisory regime for medium sized undertakings, who would fall under the scope of Solvency II but with a special regime.

Policy issue 1: Approach towards exclusion from Solvency II framework

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<sup>199</sup> Directive 2002/83/EC of the European Parliament and of the Council of 5 November 2002 concerning life assurance

- 8.27 The proposal put forward by some stakeholders represents a fundamental change to the Solvency II legal framework. The main objective of the Solvency II Directive is the protection of policyholders. This protection should be similar to all policyholders regardless of the Member State, nature of the undertaking, nature of the business and size of the undertaking. This similar level of policyholder protection cannot, from EIOPA's view be achieved with a Solvency II lighter regime where fundamental cornerstones of the regime such as the actuarial function or timely supervisory reporting are eliminated from the requirements.
- 8.28 This proposal is primarily based on the size of the insurance company and does not take sufficient account of the individual risk profile of the insurance company.
- 8.29 Therefore, EIOPA does not believe that Option 3 is adequate as it would create two categories within Solvency II which will lead to different levels of protection of Solvency II. This would also create legal uncertainty to undertakings as the decision could not be based on size only but would need to have other risk-based criteria in place. The initial decision would be burdensome for both undertakings and NSAs and the monitoring of the decision would be very difficult considering the reduced supervisory reporting in place.
- 8.30 In general, in the discussion on the SME definition, it should be bared in mind that such definition did not had in mind regulated and supervised activities where policyholders protection is at stake. Such an approach would be misleading to policyholders and the meaning of "compliant with Solvency II" would become unclear. In principle Solvency II requirements should be applicable to all undertakings and general application of proportionality principle and specific targeted proportionality solutions based on risk (as for example exemption proposed under remuneration principles) should be enough.
- 8.31 However, EIOPA agrees that application of the proportionality principle should be improved. Option 2 reflects a risk-based approach and does not create two categories within Solvency II which will lead to different levels of protection of Solvency II. Application of proportionality principle should not be a one-size fits all approach.
- 8.32 EIOPA believes that an adequate implementation of the proportionality principle at the level of both the requirements applicable to undertakings and the Supervisory Review process should be enough to guarantee a proportionate approach. The preference for this option should be seen in conjunction with EIOPA's proposals on proportionality on Pillar I, Pillar II and Pillar III which aim to further improve the application of the proportionality principle while acknowledging that keeping flexibility on its application is crucial and the supervisory convergence work in this area should continue.

### **8.1.5 Advice**

8.33 EIOPA proposes to maintain the methodology exclusion from Solvency II to certain undertakings as defined in Article 4 of the Solvency II Directive (see also Policy Option 2 regarding the content of Article 4) and to reinforce proportionality across the three pillars of Solvency II. See also 8.2 section referring to the discussion on the levels of the thresholds.

8.34 The second policy issue addresses the adequacy of the different thresholds within article 4 in terms of size (Revision of article 4 content). In this case several options were discussed:

- 1) No Change
- 2) Raise all thresholds to align Solvency II with the European Commission's definition of small sized companies by doubling all quantitative thresholds:

<b>Option 2 thresholds</b>	
Premium income threshold for applying Solvency II, and	EUR 10 mln.
Technical provisions threshold for applying Solvency II, and	EUR 50 mln.
Maximum reinsurance business allowed (premium income), or	EUR 1.0 mln.
Maximum reinsurance business allowed (premium income), and	10 %
Maximum reinsurance business allowed (technical provisions), or	EUR 5.0 mln.
Maximum reinsurance business allowed (technical provisions)	10 %

- 3) Same as option 2 but with Member States discretion to decide on the premium income threshold.

<b>Option 3 thresholds</b>	
Premium income threshold for applying Solvency II, and	EUR 5 – 25 mln.
Technical provisions threshold for applying Solvency II, and	EUR 50 mln.
Maximum reinsurance business allowed (premium income), or	EUR 0.5 mln.
Maximum reinsurance business allowed (premium income), and	10 %
Maximum reinsurance business allowed (technical provisions), or	EUR 5.0 mln.
Maximum reinsurance business allowed (technical provisions)	10 %

- 4) Changing article 4 thresholds methodology by incorporating pre-defined annual average growth rates of the insurance market (and/or ECB's inflation goal and/or EEA GDP growth rate)
- 5) Changing Article 4 thresholds methodology to apply premium related threshold to Non-life business and Technical Provision threshold to life insurance undertakings (new amounts tested)

6) Predefine the exclusion from the scope of Solvency II based on percentage share of the total insurance national market (both Solvency II and non-Solvency II) instead of on strict size criteria as laid out in Art. 4

8.35 In all options the remaining conditions of Article 4 are kept as they currently are as they were considered as adequate.

8.36 EIOPA has analysed all options considering, in addition to the concerns/proposals put forward by NSAs and stakeholders, the following:

- experience on the application of proportionality principle, both on the requirements and supervisory practices;
- differences between markets, in particular regarding the size of the business;
- the size and impact of the undertakings excluded within the European insurance market over time;
- the regime applicable in the different Members to the undertakings excluded from Solvency II together with the number of Member States where the full market apply Solvency II;
- EIOPA proposals on proportionality regime in all areas covered by 2020 Solvency II review.

#### Policy issue 2: Revision of article 4 content

8.37 EIOPA has analysed all options considering not only the impact on the number and type of undertakings excluded, but also considering the difference between markets and the stability and practicability of the approach proposed.

8.38 EIOPA has performed analysis of the different options (see the relevant Impact Assessment).

8.39 The option considered as option 4 - changing article 4 thresholds methodology by incorporating pre-defined annual average growth rates of the insurance market (and/or ECB's inflation goal and/or EEA GDP growth rate) – was excluded due to the following challenges:

- How far back to go in the analysis;
- The growth rates of insurance market over the last years were volatile, reflecting both increases and decreases, which would mean only a slight update of the amount, with residual impact, and with the potential of leading to decreases of the thresholds in the future and as a consequence the inclusion within the scope of undertakings previously excluded;
- The use of inflation and of GDP would lead to similar challenges;
- It would create legal uncertainty on the undertakings excluded or included but with figure close to the threshold.

8.40 The option considered as option 6 – predefine the exclusion from the scope of Solvency II based on percentage share of the total insurance national market (both Solvency II and non-Solvency II) instead of on strict size criteria as laid out in article 4 – was excluded due to the following challenges:



- The application of proportionality principle should take into account the risks inherent to the business. These risks are undertaking specific and should not be completely impacted by the size of the market;
- option was not considered as risk based (as undertakings with similar risk profiles could be subject to different regimes in different markets);
- the level of protection of policyholders would be different from Member State to Member State;
- option would endanger the level playing field;
- the option also creates uncertainty as exclusion would not only depend on the undertaking business development but also on the development of national market as a whole.

8.41 Options 1, 2, 3 and 5 address the thresholds, being the current ones or the newly proposed ones:

- **Option 1:** assumes no changes to the thresholds;
- **Option 2:** assumes an up-date of the thresholds by doubling all of them;
- **Option 3:** assumes an up-date of the thresholds by doubling the ones related to technical provisions and allow Member State option regarding the size of the threshold related to premium income. The rationale behind is to consider the Technical Provisions as the first line of defence of policyholders protection and therefore not be flexible in this amount but to allow for flexibility on the premiums income threshold to allow undertakings with premiums higher than 5 to 25 mln to be excluded if Member State allows it considering the specificities of the market;
- **Option 5:** applies different thresholds to life and non-life undertakings, following traditional approach of using premiums as the main indicator to non-life undertakings and TP to life undertakings. In this case composites would apply both thresholds to each part of the business.

8.42 In the table below a summary, at an European level is presented (results by country are included in the Impact Assessment)

	<b>Number of undertakings excluded</b>	<b>Market share of premiums</b>	<b>Market share of TP</b>
Option 2	275 (from the ones currently covered)	0,04% Max: 1,02%	0,01% Max: 2,87%
Option 3 5GWP/50TP	189 (from the ones currently covered)	0,01% Max: 0,30%	0,04% Max: 0,83%
Option 3 15GWP/50TP	320 (from the ones currently covered)	0,08% 27 countries below 1,02% Max: 8,4%	0,09% 29 countries below 2,87% Max: 12,13%

Option 3 25GWP/50TP	377 (from the ones currently covered)	0,15% 25 countries below 1,02% Max: 8,44%	0,13% 29 countries below 2,87% Max: 12,13%
Option 5 - L	92 (from 558 currently covered)	0,45% Max: 100%	-0,02% Max: 100%
Option 5 - NL	209 (from 1537 currently covered)	0,14% Max: 3,06%	1,69% Max: 24,79%

8.43 The analysis of the results allow the following conclusions:

- There is room to increase the current thresholds leading to impact only a residual share of the market, i.e. very small undertakings – see results for **option 2**.
- **Option 3** allows for the exemptions of a fair number of undertakings representing a small share of the insurance market and if Member States opt for an increase on the side of the premiums at least 27 countries could have a threshold of 15 mln premium with the impact lower than the maximum impact of option 2 and 25 countries could have a threshold of 25 mln premiums with the impact lower than the maximum impact of option 2;
- **Option 5** does not seem adequate as it leads to exemptions of material business.

### 8.1.6 Advice

8.44 EIOPA proposes to revise article 4 thresholds by:

- doubling the thresholds related to the technical provisions;
- allowing a Member-State option to set the threshold referring to premium income between the current 5 mln and until a maximum of a 25 mln.

8.45 The rationale behind is to consider the Technical Provisions as the first line of defence of policyholders protection and therefore not be flexible in this amount but to allow for flexibility on the premiums income threshold to allow undertakings with premiums higher than 5 mln to be excluded if Member State allows it considering the specificities of the market (Option 3).

## 8.2. Proportionality in pillar 1

### 8.2.1 Technical provisions

8.58 Following the call of advice from the Commission, EIOPA has considered the possibility to waive some requirements on the calculation of technical provisions.

However, it has to be noted that calculation of technical provisions under the Solvency II framework is more principle based compared to other quantitative requirements, like the Solvency Capital Requirement. Consequently, proportionality is usually applied embedded in the calculation process itself, for example choosing the calculation method or the underlying assumptions, without needing specific additional provisions. In other cases, the Solvency II framework already includes specific simplifications, like the simplified calculation of the best estimate for insurance obligations with premium adjustment mechanism or the simplified calculation of the risk margin. Therefore, EIOPA has also explored the possibility to have new simplifications to ensure a proportionate framework.

8.59 Proportionality has been assessed for all the relevant topics highlighted in the section 3.17. of the call for advice (Best estimate). Some options considered along chapter 3 on best estimate valuation include proportionate approaches, although finally these options have been disregarded for different reasons. The two main issues addressed have been:

- Section 3.1.3.1: Alignment with IFRS 17. EIOPA has considered to introduce a new simplification in line with Premium Allocation Approach under IFRS 17. However, as discussed in Section 3.1 this option has been dismissed.
- Section 3.1.8: Dynamic policyholder behaviour modelling. As option 3, EIOPA has considered the possibility to allow static policyholder behaviour under certain circumstances, therefore waiving some of the requirements set in Article 26 of the Delegated Regulation.



### Questions to stakeholders

**Q8.1:** In your view, are are changes to the provisions on the calculation of technical provisions necessary in order to improve the proportionality of the requirements? Please make concrete proposals.

## 8.2.2 Solvency Capital Requirement standard formula

### 8.2.2.1 Extract from the call for advice

#### **3.7. c) Simplified calculation of the Solvency Capital Requirement standard formula**

*EIOPA is asked to report on the application of the life and SLT health underwriting risk modules, as well as on the non-life lapse risk sub-module, identifying any divergent application of insurance and reinsurance undertakings. In particular, EIOPA is asked to report on areas where supervisory experience indicate the need for additional simplified calculations as referred to in Article 109 and 111(1)(l) of the Solvency II Directive and where appropriate propose relevant methods.*

#### **3.16. Proportionality and thresholds**

*EIOPA is asked to assess whether proportionality in the application of the Solvency II framework could be enhanced, and in particular in the following areas:*

- *the appropriateness of the thresholds for the exclusion from the scope of Solvency II, as defined in Article 4 of Directive 2009/138/EC;*
- *the possibility to waive certain requirements relating to any of three Pillars of the framework based on size thresholds or the nature of the undertaking or of its risks;*
- *rules for the simplified calculation of sub-modules that form an immaterial part of the Solvency Capital Requirement of an individual insurance or reinsurance undertaking.*

#### **8.2.2.2 Previous advice**

8.68 In the context of 2018 SCR review of specific items in the Delegated Regulation (second set of Advice), EIOPA advised to further simplify calculations for natural, man-made and health catastrophes, in particular fire risk and mass accident its advice. In addition, to enhance proportionality in the framework, further simplifications to unjustifiably burdensome or costly elements of the capital requirement standard formula were proposed, including inter alia a carve-out from the mandatory application of the look-through in investment funds and exceptions to the use of external ratings. In details proposal were made by allowing for:

- a simplified calculation based on the application of groupings of policies in the standard formula calculation of lapse risk;
- a simplified calculation of the standard formula submodules for natural catastrophe risk based on groupings of risk zones;
- a simplified calculation of the standard formula calculation for fire risk;
- modifications to the capital at risk element of the simplified calculations for life and health mortality risk;
- a simplified calculation for parts of the debt portfolio for which external ratings are not available;
- a number of simplified calculations for counterparty default risk.

8.69 With regard to EIOPA's proposals to further simplify the standard formula calculations, stakeholders highlighted that the effective application of the proportionality principle is highly dependent on national supervisors' implementations of the Solvency II provisions.

#### **8.2.2.3 Relevant legal provisions**

##### Solvency II Directive

- Recital 19
- Recital 20
- Article 29(4) on the general principles of supervision
- Article 109 on simplifications in the standard formula

##### Delegated Regulation

- Article 88 on proportionality

#### **8.2.2.4 Other regulatory background**

8.70 On 11 March 2019 EIOPA disclosed a supervisory statement on Application of the proportionality principle in the supervision of the Solvency Capital Requirement (see "EIOPA's Supervisory Statement Solvency II: Application of the proportionality principle in the supervision of the Solvency Capital Requirement" ) The option 3 set out in the analysis section is based on this supervisory statement.

#### **8.2.2.5 Identification of the issues**

8.71 The standard formula SCR consists of 7 risk modules and 39 risk sub-modules. Some of these are further divided into different risks, scenarios, types or regions that all have their capital requirements. Typically, all these parts of the SCR are not equally material when measured by their impact on the SCR. Some of them might even be immaterial for an undertaking. Nevertheless, the calculation of an immaterial part of the SCR may be as complicated as the calculation of more material parts.

8.72 Although a capital requirement is small or even immaterial, it is not prudent from risk management point of view to set any such capital requirement to zero. It is important for both undertakings and supervisors to monitor the development of each risk over time. This would not be the case if a risk is ignored completely: it could happen that an immaterial risk gradually grows in size, but this is not noticed since its capital requirement has been dropped out of the SCR calculation.

8.73 There are several simplifications given for capital requirements in Article 89 to 112 of the Delegated Regulation. But still there is room to find further simplifications to be applied under the principles of proportionality. In particular, in case of immaterial risks and in case of small undertakings the simplifications given in the Delegated Regulation can still be complicated.

To name some examples:

- In life underwriting risk module, the quantification of mortality and longevity risks require identifying contracts for which the shocks lead to a loss. This identification involves a process of several steps with a first ex-ante assessment and a second ex post computation for the SCR. The process is seen by some NSAs burdensome for a limited quantitative impact.
- Similar burden has been claimed for the design of health underwriting risk module, currently requiring to differentiate between SLT and NSLT health: while it may contribute to risk sensitivity in some specific cases, there can be others where this cannot be justified in terms of costs and benefits.
- In the non-life underwriting risk module, the non-life lapse risk sub-module requires applying the discontinuance rate of 40% on a policy by policy basis, what may create some operational challenge.
- Despite of the existing and new simplifications, the counterparty default risk module is still complex due to the required hypothetical SCR calculation of the risk mitigating effect.

8.74 Option 2 and option 3 set out in the analysis section below would effectively address the computational burden in the mentioned parts of the standard formula. The suggestion to base the calculations on the same homogeneous risk groups for the non-life lapse risk module that are used for the calculation of the best estimate

is seen as an improvement. However, some stakeholders continue to believe that EIOPA should consider removing the lapse risk within the non-life underwriting risk sub-module from the standard formula as this sub-module adds unnecessary complexity for a risk that is immaterial for non-life business.

8.75 In addition, Insurance Europe reiterates that there is a double counting of lapse risk between the lapse risk module and the premium risk module which needs to be addressed (in particular, Insurance Europe provided these comments in the second set of advice in the in the SCR Review). This is because the calibration of the premium risk module was based on historical premium volumes which also included the effect of lapses. If a separate risk module for lapses is kept, then the calibration of the premium risk must be recalculated based on data from which lapses have been removed.

#### **8.2.2.6 Analysis**

##### **8.76 Policy issue: enhance proportionality of the framework by introducing further simplifications to the calculation capital requirements for immaterial risks of the SCR standard formula**

8.77 In the following, two approaches to simplified calculation of capital requirements are introduced. The status quo is option 1 with no change, i.e. no specific simplified calculation of immaterial risks.

##### **Option 2 – Introduce a new set of simplified calculation of capital requirements for immaterial risks**

8.78 The following can be applied to risks that form an immaterial part of the SCR of an individual undertaking. Instead setting to zero, an immaterial capital requirement can be replaced by a simplified capital requirement having the following properties:

- easy to calculate
- dependent on the risks of the undertaking
- always at least the size of the original capital requirement
- not too far from the original capital requirement

8.79 Two examples of such simplified capital requirements are given below. Some of the same approaches are already in use in the Delegated Regulation. All these methods can only be used if the criteria for proportionality are complied with.

##### **a. Grouping risks**

8.80 One simplified method that could be used is based on grouping exposures and using the highest risk parameters within the group. This type of a simplification can already be found in the Delegated Regulation. According to Article 90b in the simplification for natural catastrophe risks the sum insured is based on a group of risk zones instead of treating each risk zone separately. The risk weight is chosen as the highest risk weight within that group. A similar technique is also used in the simplification for counterparty default risk in Article 110 of the Delegated Regulation.

8.81 This technique results in a capital requirement that is generally larger than the original one. But since it is based on the same data, the same calculation methods and risk parameters relevant for the undertaking, the method is also risk sensitive.

8.82 For example, the grouping method would be feasible for non-life and health NSLT premium and reserve risk. There all lines of business could be grouped together by summing up their respective volume measures. In this case, the whole line of business should be included in the grouping. The standard deviations would then be the highest standard deviation for premium risk and the highest standard deviation for reserve risk within the group. Another example could be some life and health SLT risks, where one could assume that all policyholders are similar to the highest risk in the group, for instance with respect to age, sex, health etc.

#### 8.83 b. Method for risk mitigation, diversification and adjustments

Another technique to simplify the calculation of capital requirements is to assume that the impact of a risk mitigating technique or diversification benefits is zero. One example of such an approach can be found in Articles 116(7) and 147(7) of the Delegated Regulation. There the default factor for geographical diversification is either 1 or calculated in accordance with Annex III. In other words, an undertaking has the option to choose simpler calculation instead of a lower capital requirement by using factor 1.

8.84 In a similar way one could as a simplification not take into account the risk mitigation of reinsurance contracts or derivatives when calculating a capital requirement. As a result there also would not be any risk mitigating effect linked to this, and thus the calculation of the counterparty default risk would also be simplified.

8.85 This would be particularly helpful with respect of the application of outwards reinsurance in context of non-life catastrophe risks. The application of reinsurance can be very burdensome, especially if the same reinsurance contract covers several regions and types of catastrophes and no double counting of risk mitigation is allowed.

8.86 Other examples of this type of simplified calculation could be found in the calculation of net Basic Capital Requirement, nBSCR. As a simplification one could choose not to recalculate some or all capital requirements for nBSCR. For instance one could use the same capital requirement for counterparty default risk in both BSCR and nBSCR.

#### **Option 3: Introduce an integrated simplified calculation of capital requirements for immaterial risks**

8.87 In the following, a simple approach is outlined to calculate the SCR of immaterial risks. Unlike Option 2 above, which contains a set of simplifications, the approach considered here is an integrated approach. The approach is based on the EIOPA supervisory statement approach and follows a three-step procedure. The first step is the identification step where all immaterial risks are identified using quantitative information. The second step is the application phase, where the basic idea is to derive the immaterial risk SCR from the Basic capital requirement excluding all immaterial risks identified in step 1. The third step is the reassessment phase where the immateriality of the risks identified in step 1 are reassessed.

##### Step 1: Identification of immaterial risks: Regular BSCR calculation

8.88 It is of paramount importance to identify immaterial risks before a simplified approach can be applied to them. The identification therefore requires a regular calculation of the BSCR including a regular calculation of the SCRs for all immaterial

risks. Regular calculation means a calculation as it is prescribed by the provisions in the Delegated Acts. In this regular calculation, undertakings can also use the usual optional simplifications from the Delegated Acts. For instance when performing a regular calculation of the counterparty default risk undertakings could use the optional simplification for the risk mitigating effect.

8.89 After the regular calculation of the BSCR, immaterial risks can be identified as described by the EIOPA supervisory statement.

8.90 Here immaterial risks are identified applying quantitative criteria. Following this approach, the immaterial risk makes up less than x% of the BSCR and the sum of all immaterial risks makes up less than y% of the BSCR. At this stage the selection of x and y is kept open.

### Step 2: Application phase and calculation of immaterial risks: Simple update of the SCR for immaterial risks

Two methodologies have been developed to update the SCR of immaterial risks.

#### Method 1

8.91 The regular BSCR calculation is performed at  $t=0$ . The regularly calculated BSCR is denoted by  $BSCR_0$ . In  $t=1, \dots, T$  the proportionate approach is then applied where  $T$  is the last year the proportionate approach is applied before immateriality of risks is reassessed.

8.92 To calculate the SCR for immaterial risks in the application phase the BSCR without all identified immaterial risks is calculated in the first step. Then the SCR for the immaterial risks can be determined as a fraction of this BSCR.

8.93 More formally, the calculation is

$$SCR_t^k = (\alpha_0^k + z_t^k) \widetilde{BSCR}_t, \quad (1)$$

where

- $SCR_t^k$  denotes the SCR of immaterial risk  $k$  at time  $t$ ,
- $\alpha_0^k$  is the fraction of immaterial risk  $k$  of the regular calculated BSCR,  $BSCR_0$ , at the identification time  $t_0$ ,
- $\widetilde{BSCR}_t$  is the BSCR at time  $t$  where  $SCR_t^k$  is set to 0,
- $z_t^k$  is a prudence factor for immaterial risk  $k$  set at time  $t$ .

8.94 A sensible minimum condition for the prudence factor is to ensure that the immaterial risk calculation at time  $t$  is indeed prudent, i.e.

$$SCR_t^k > \alpha_0^k BSCR_0. \quad (2)$$

8.95 Rearranging equation (2) the condition can be formulated as

$$z_t^k > \alpha_0^k \frac{BSCR_0 - \widetilde{BSCR}_t}{\widetilde{BSCR}_t}. \quad (3)$$

An additional prudence can be achieved to set

$$z_t^k > \max\left(0, \alpha_0^k \frac{BSCR_0 - \widetilde{BSCR}_t}{\widetilde{BSCR}_t}\right). \quad (4)$$

Condition (4) ensures that the prudence factor is nonnegative, even if the BSCR has increased at time  $t$ .

A sensible choice for the final prudence factor could then be



$$z_t^k = \alpha_0^k + \max\left(0, \alpha_0^k \frac{BSCR_0 - \widetilde{BSCR}_t}{\widetilde{BSCR}_t}\right) \quad (5)$$

8.96 This ensures that the SCR of the considered immaterial risk is indeed set in a prudent way. From equation (5) one can see that the prudence factor for each immaterial risk is driven by the share of the immaterial risk at the identification step and the approximated relative change of the BSCR.

### Method 2

8.97 An alternative approach for the calculation of immaterial risks is based on the use of approximations. There the regular BSCR calculation is first performed at  $t=0$ . This regularly calculated BSCR is denoted by  $BSCR_0$ . In  $t=1, \dots, T$  the approximation method is then applied where  $T$  is the last year the method is applied before immateriality of risks is reassessed.

8.98 In the application phase the capital requirement for an immaterial risk  $k$  at  $t=0$  is first calculated using the standard formula. This capital requirement is then expressed as a product of a factor and a volume measure.

More formally

$$SCR_0^k = f^k \times Volume_0^k,$$

where

- $SCR_0^k$  is the capital requirement for immaterial risk  $k$  at  $t=0$
- $Volume_0^k$  is a volume measure for risk  $k$  that reflects the exposure at  $t=0$

and

- $f^k = \frac{SCR_0^k}{Volume_0^k}$  is a risk factor for risk  $k$

8.99 In the approximation method the volume measure is updated for  $t=1, \dots, T$  but the factor remains the same. This approximation can however not be used to lower the capital requirement from what it was in the original full calculation. The approximation for immaterial risk  $k$  at time  $t$  is therefore

$$SCR_t^k = \max(SCR_0^k; f^k \times Volume_t^k).$$

8.100 Within the application phase, it is furthermore important that the undertaking assesses qualitatively the immateriality of the risks for which the approach is applied.

### Step 3: reassessment phase

8.101 After  $T$  years the identification of immaterial risks is fully reassessed as described in the step 1. It is important to perform this full reassessment after some years since the risk profile of the undertaking can change over time.  $T$  can be set for instance to 3 years as suggested by the supervisory statement.

8.102 The proposed simplified approach for immaterial risks is based on the approach in the EIOPA supervisory statement, but it improves the approach considered there. The main difference and advantage is that the SCR is not frozen in the application step but updated in a simple way, which makes the approach more risk sensitive.

8.103 The main advantage of the approach is that it is simple, transparent and easy to apply. Although the approach could in general be applied to many immaterial

risks, it is particularly suited for risks like the counterparty default and non-life lapse risk. Due to the rapidly changing market conditions and exposures towards different market risks and the consequence that immaterial market risks can quickly become material it is proposed to exclude the market risk module from this approach.

### **Impact of immaterial risks on the overall SCR**

8.104 According to Article 88(2) of the Delegated Regulation simplified calculation is not proportionate to the nature, scale and complexity of the risks if the error caused by it leads to a misstatement of the SCR that could influence decision-making or judgement, unless the simplified calculation leads to an SCR which exceeds the SCR that results from the standard calculation.

8.105 In the proposals above, in case of immaterial risks, the misstatement caused by the simplifications can typically be shown to be immaterial, too. This is due to the fact that a change in the value of a capital requirement for a sub-module or for an even smaller part of it, will result in a considerably smaller change at the SCR level. The methods also fulfil the latter requirement since they always result in an SCR that exceeds the value of the standard calculation.

8.106 The impact of a change on SCR depends on the number of aggregation levels before the SCR, the correlations used and the loss absorbing capacity of technical provisions and deferred taxes. Also the size of the change is significant. The smaller the change the less it will impact the SCR. For instance, if a capital requirement of a sub-module is increased by a small amount, it is possible that the SCR grows by an amount that is less than 8% of that increase. This means that more than 92% of the increase could be lost in aggregation.

8.107 Both approaches presented in option 2 and option 3 would significantly reduce the computational burden for immaterial risks for SCR and thus promote the principle of proportionality.

8.108 Option 3 is a direct update of the SCR for immaterial risk, while option 2 introduces techniques to simplify the calculation of immaterial risks. At this stage, EIOPA has not decided upon a preference for option 2 or option 3, but both option 2 and option 3 are preferred to the option 1 of 'no change'. Concerning option 2 EIOPA has not formed a preference for method 1 or method 2 at this stage.

8.109 EIOPA will carry out further analysis on the framework for applying the simplifications, for example with regard to the consent of the supervisory authority and the opinion of the key function holder of the actuarial function on the outcome and unaffected compliance with any requirement on adequate and effective risk-management systems.

### **8.2.2.7 Advice**

8.110 EIOPA is considering two different approaches to enhance proportionality in the framework by introducing further simplifications to the calculation of the SCR standard formula:

- Option 2: Introduce a set of simplified calculation of capital requirements for immaterial risks

- Option 3: Introduce an integrated simplified calculation of capital requirements for immaterial risks



### Questions to stakeholders

**Q8.2** What is your preference with regard to the options on introducing further simplifications to the calculation of the SCR standard formula?

## 8.3. Proportionality in pillar 2

### 8.3.1 Extract from the call for advice

#### **3.16. Proportionality and thresholds**

*EIOPA is asked to assess whether proportionality in the application of the Solvency II framework could be enhanced, and in particular in the following areas:*

- [...]
- *the possibility to waive certain requirements relating to any of three Pillars of the framework based on size thresholds or the nature of the undertaking or of its risks;*

### 8.3.2 Previous advice

8.111 CEIOPS submitted in October 2009 its advice to the Commission on system of governance<sup>200</sup> as part of the advice on Solvency II Level 2 implementing measures.

8.112 More recently, EIOPA's submitted in April 2018 its advice to the Commission for the integration of sustainability risks and factors in the delegated acts under Solvency II and IDD<sup>201</sup>, which includes some proposed amendments to the provisions on system of governance in the Delegated Regulation.

### 8.3.3 Relevant legal provisions

8.113 The most relevant provisions with respect to Pillar II in the Solvency II framework are the following:

- Articles 40 to 50 and 246 of the Solvency II Directive;

<sup>200</sup> <https://eiopa.europa.eu/CEIOPS-Archive/Documents/Advices/CEIOPS-L2-Final-Advice-on-System-of-Governance.pdf>

<sup>201</sup> [https://eiopa.europa.eu/Publications/EIOPA-BoS-19-172\\_Final\\_Report\\_Technical\\_advice\\_for\\_the\\_integration\\_of\\_sustainability\\_risks\\_and\\_factors.pdf](https://eiopa.europa.eu/Publications/EIOPA-BoS-19-172_Final_Report_Technical_advice_for_the_integration_of_sustainability_risks_and_factors.pdf)

- Articles 258 to 275 of the Delegated Regulation;
- EIOPA’s Guidelines on system of governance<sup>202</sup> and Guidelines on Own Risk Solvency Assessment (ORSA)<sup>203</sup>.

8.114 In particular, Article 41 establishes the requirement for insurance and reinsurance undertakings to have in place an effective system of governance which provides for sound and prudent management of the business; paragraph 2 of that article provides that “the system of governance shall be proportionate to the nature, scale and complexity of the operations of the insurance or reinsurance undertaking”.

8.115 A general reference to proportionality is made in Recital (19) of the Solvency II Directive as follows: *“This Directive should not be too burdensome for small and medium-sized insurance undertakings. One of the tools by which to achieve that objective is the proper application of the proportionality principle. That principle should apply both to the requirements imposed on the insurance and reinsurance undertakings and to the exercise of supervisory powers”*.

### **8.3.4 Identification of the issue**

8.116 The principle of proportionality applies throughout the Solvency II framework and very specifically in the context of its governance requirements since the system of governance should consider the nature, scale and complexity of the risks run by undertakings. The principle is not a right of undertakings to be excluded from certain requirements, but that neither the requirements nor the supervisory powers executed with regard to those requirements are too burdensome for small and medium-sized undertakings.

8.117 In order to assess whether proportionality in the application of the Pillar II requirements could be enhanced, EIOPA has taken into account input provided by NSAs and industry, in particular:

- A dedicated survey to NSAs in the context of the Solvency II review (May-June 2019) regarding proportionality on Pillar II;
- Stakeholders feedback during the Public Event on the discussion of various topics of the Solvency II 2020 review (including Proportionality on Pillar II) on 16 July 2019;
- NSAs experience gathered through the following peer reviews exercises:
  - Peer review on propriety of administrative, management or supervisory body members and qualifying shareholders<sup>204</sup>; and
  - Peer review on key functions<sup>205</sup>.

<sup>202</sup> <https://eiopa.europa.eu/publications/eiopa-guidelines/guidelines-on-system-of-governance-solvency-ii>

<sup>203</sup> [https://eiopa.europa.eu/publications/eiopa-guidelines/guidelines-on-own-risk-solvency-assessment-\(orsa\)](https://eiopa.europa.eu/publications/eiopa-guidelines/guidelines-on-own-risk-solvency-assessment-(orsa))

<sup>204</sup> See report in the following link: <https://eiopa.europa.eu/Publications/Reports/2019-01025%20PeerReviewProprietyReport.pdf>

<sup>205</sup> See report in the following link: <https://eiopa.europa.eu/Publications/Reports/Peer%20review%20Key%20Functions22-11-18.pdf>

8.118 EIOPA has identified the following areas where proportionality could be enhanced in the Pillar II provisions in the Solvency II Directive or the Delegated Regulation:

- key functions,
- ORSA,
- written policies,
- administrative, management or supervisory body (AMSB), and
- remuneration.

8.119 In addition to the possible regulatory changes at the level of the Solvency II Directive and the Delegated Regulation, EIOPA is planning a review of the Guidelines on system of governance following an evidence-based assessment of the extent to which the guidelines:

- Have been effective and efficient;
- Have been relevant given the needs and its objectives;
- Have been coherent and have shown EU added value; and/or
- Have been proportionate.

8.120 Proportionality is one of the main objectives of the review of the guidelines; other objectives are: advance in supervisory convergence, streamline the number and content of guidelines, respond to new developments or changes (e.g. on the area of sustainable finance or insurtech) and improve the format/layout.

8.121 Some examples where proportionality could be enhanced at the level of the guidelines are:

- amendment of guideline 14 (outsourcing of key functions) by granting more flexibility to undertakings within a group<sup>206</sup>;
- introduction of common flexible criteria for the definition of “small/less complex undertakings”,
- development of further guidance on remuneration, including the requirement to establish a remuneration committee.

8.122 This paper is focused on the proposed changes to pillar II requirements in the Solvency II Directive and the Delegated Regulation. EIOPA is planning to publish a separate consultation paper on the review of the Guidelines on system of governance only after the submission of the technical advice to the Commission on the 2020 review of Solvency II.

### **8.3.1.1 Key functions**

8.123 Undertakings are required to establish the functions included in the system of governance requirements, namely those outlined in the following articles of the Solvency II Directive: Article 44(4) – Risk Management Function, Article 48(1) –

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<sup>206</sup> See pages 52 and 53 in the Report of EIOPA’s Peer review on key functions

Actuarial Function, Article 46(1) – Compliance Function and Article 47(1) - Internal Audit Function. These key functions are also considered important and critical functions<sup>207</sup>; they are further regulated in Article 268 to 272 of the Delegated Regulation. The key functions are an essential part of an effective system of governance under Solvency II.

8.124 These key functions are expected to be operationally independent to ensure an effective and robust internal control environment within an undertaking and support a high quality of decision making by management<sup>208</sup>.

8.125 Typically, different individuals are responsible for each key function within the undertaking. As no explicit prohibition exists in this area, undertakings may combine key functions. However, such combinations have to be justified in relation to the principle of proportionality and undertakings need to properly address any underlying conflicts of interest that may arise from combining these functions. Best practise dictates that performing the tasks of key functions, or the role of the key function holder, should generally not be combined with operational tasks or administrative, management or supervisory body (AMSB) membership because of the latter's controlling objective. Thus, combinations of this type should only occur in exceptional cases, taking into account a risk-based approach and in consideration of the manner in which the undertaking avoids and manages any potential conflict of interest.

8.126 In developing the advice regarding key functions EIOPA has identified the following policy issues:

- a) Combination with operational functions
- b) Members of the AMSB and key function holder
- c) Combination of several key functions

(a) Combination with operational functions:

8.127 Regarding the combination of key functions with operational functions, as key functions can be seen as the second line of defence<sup>209</sup> in an undertaking's system of governance it is good practise that they be operationally independent in order to fulfil their role as a control function. Nevertheless, having separate key functions which are not allowed to carry out any operational tasks might be too burdensome for small undertakings with limited staff; combination of tasks may save costs (e.g. recruitment of additional staff or outsourcing).

8.128 Apart from the Internal Audit Function, which must remain objective and independent from operational functions as per Article 47(2) of the Solvency II Directive, the practise of combining key functions with operational functions has been permitted, though not expressly provided for within the Solvency II Framework. While no rule exists prohibiting this practise NSAs and undertakings engaged in this practice need to be mindful that (i) it is appropriate to do so based

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<sup>207</sup> Recital 33 of the Solvency II Directive

<sup>208</sup> Article 268 of the Delegated Regulation

<sup>209</sup> The first line of defence is within the operational performance of a function, the second is the control of such function and the third line of defence is the internal audit of such controls.

on the nature, scale and complexity of the undertaking and (ii) that any conflicts of interests are managed and mitigated by the undertaking.

8.129 This practise was reviewed as part of EIOPAs Peer Review of Key Functions. Cases of combinations with operational tasks or responsibilities were observed in almost all insurance markets within the EEA<sup>210</sup>. The Peer Review found that combinations generally occur in smaller and less complex undertakings (up to the 5% market share) with the most common combinations being: Actuarial Function Holder and technical provisions calculation/pricing; Risk management function holder and financial department director/employee; Compliance function holder and legal department director/employee; and Actuarial function holder and appointed actuary. The Report recommended that NSAs *'should increase the monitoring process of combinations of key function holders and operational tasks and the knowledge of the situation in their national market and assess whether combinations of key functions fulfil the necessary conditions in relation to independence in the undertaking's organisational structure'*<sup>211</sup>.

8.130 One of the challenges faced by undertakings when deciding to combine key functions with operational functions is primarily around managing conflicts of interest. Conflicts of interest should be avoided when combining the responsibilities of key function holder with any operational tasks. In the situation where this is not possible, the undertaking needs to demonstrate that proper mitigating measures of this potential operational risk are implemented and that the conflict is continuously monitored.

8.131 As a rule, for larger and more risky undertakings combinations with operational tasks should generally be challenged by NSAs and only accepted in exceptional cases on a temporary basis. Potential conflicts of interest can only be assessed using a case-by-case approach as responsibilities and powers vary widely depending on each individual undertaking's organisational structure.

(b) Members of the AMSB and key function holder:

8.132 It is important to understand the different nature of the responsibilities and activities of the AMSB members and that of the key function holders. The key function holder is responsible for providing expert advice to the AMSB on the particular key function. It is therefore essential that the individual responsible for a key function (key function holder) complies with the relevant requirements, which calls for a more specific level of expertise. Nevertheless, finding individuals who comply with the fitness requirements to be member of the AMSB and key function holders might be particularly challenging for small undertakings.

8.133 The key function is the control function of a specific area and should report to the AMSB. Where the key function holder is also a member of the AMSB, this might create operational risk whereby the key function holder may be less likely to be challenged by other AMSB members regarding the performance of their key function. Article 268 of the Delegated Regulation specifies that 'each function is free from influences that may compromise the function's ability to undertake its

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<sup>210</sup> See page 38 in the Report of EIOPA's Peer review on key functions.

<sup>211</sup> See page 37 in the Report of EIOPA's Peer review on key functions

duties in an objective, fair and independent manner'. Where such cases occur, NSAs should clearly communicate their expectation that the undertaking ensures that it is aware of possible conflicts of interest arising from such a combination and manages them effectively.

8.134 EIOPAs findings in their Report on the Peer Review of Key Functions states that the combination of key function holder with AMSB member generally occurs in small undertakings, in captives or in less complex undertakings where the activities of the key functions are outsourced.

8.135 The Peer Review also found that in general the combination between key function holders and AMSB members rarely occurs (with the combination of Internal Audit Function Holder with AMSB being the least likely to occur). NSAs have allowed the combination between key function holder and AMSB members in cases where undertakings (usually small undertakings) have taken proper measures to manage possible conflicts of interest.

(c) Combination with other Key Functions:

8.136 This provides for circumstances where the same person has been appointed as a key function holder for two or more different key functions. Having different individuals as key function holders for each of the key functions in Solvency II might be too burdensome for small undertakings with limited staff; combination may save costs.

8.137 While Solvency II does not expressly prohibit this practise, it is expected that undertakings should only look to combine key functions where the nature, scale and complexity of the risks of the undertaking allows i.e. in line with the proportionality principle. NSAs and undertakings should ensure that in such cases, appropriate additional processes and procedures have been implemented by the undertaking in order to fulfil all necessary requirements in compliance with the Solvency II requirements, in particular, Articles 258 and 268 of the Delegated Regulation and Guideline 5 of EIOPAs Guidelines on System of Governance.

8.138 One of the main findings of EIOPAs Peer Review on Key Functions was that almost all NSAs observed combinations of key function holders within their market. The most frequent combinations were between the risk management and actuarial function followed by risk management and compliance function. Combinations are more commonly used by smaller undertakings due to their limited human and financial resources, but combinations have been seen/permitted in large insurance groups. Some NSAs carry out a more rigorous scrutiny and challenge the combinations of key functions holders in large and/or more complex undertakings. Certain NSAs, such as in the Netherlands and Poland do not allow combinations of key function holders for some of the largest and most significant undertakings in their jurisdiction. One of the main risks of combining key functions is that conflicts of interest may arise which may pose an operational risk to the undertaking.

8.139 A key finding of the Peer Review was that where the same person was appointed as a key function holder for two or more different key functions, it was not always as a result of the application of the proportionality principle. In some jurisdictions combinations occur as a result of legislation that existed prior to Solvency II. In



other cases lack of competent individuals along with the availability of financial resources have led to combinations. Where combinations exist, the majority of NSAs adopt a case-by-case approach, taking into consideration a number of factors, such as: combination with operational functions, direct reporting to the AMSB, appointment of the responsible key function holder by the AMSB and how the AMSB defines the objectives of the key function holder and the remuneration of the responsible key function holder.

8.140 With respect to the internal audit function, Article 271 of the Delegated Regulation states that, whereas the general principle is that the person in charge of the audit function shall not assume any responsibility for any other function, persons carrying out the internal audit function could also carry out other key functions, where all of the following conditions are met: (a) this is appropriate with respect to the nature, scale and complexity of the risks inherent in the undertaking's business; (b) no conflict of interest arises for the persons carrying out the internal audit function; (c) the costs of maintaining persons for the internal audit function that do not carry out other key functions would impose costs on the undertaking that would be disproportionate with respect to the total administrative expenses. The internal audit key function is also expected to be operationally independent from other tasks<sup>212</sup> in line with the assumptions made as third line of defence.

8.141 EIOPAs Peer Review on Key Functions found that for large undertakings, combinations of the internal audit function with other key functions did not occur. Where mid-sized undertakings combined the internal audit function with other key function holders NSAs expected that these undertakings applied mitigating measures e.g. direct reporting lines to the AMSB, to ensure no conflicts arose. In relation to the practise within small undertakings, once the conditions outlined in Article 271(2) were met, then NSAs were not seen to intervene or object.

### **8.3.1.2 ORSA**

8.142 Article 45 of the Solvency II Directive provides that every insurance and reinsurance undertaking shall conduct its own risk and solvency assessment, including:

- the overall solvency needs,
- the compliance on a continuous basis with the capital requirements and technical provisions, and
- the significance with which the risk profile of the undertaking deviates from the assumptions underlying the SCR.

8.143 For the purposes of the overall solvency needs assessment, undertakings are requested to have in place processes which are proportionate to the nature, scale and complexity of the risks inherent in its business. However, Solvency II provides for limited guidance on how undertakings may apply proportionality in the development of the ORSA.

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<sup>212</sup> Article 47 of the Solvency II Directive and Article 271 of the Delegated; see also EIOPA Guideline 40 on system of governance

- 8.144 Undertakings shall conduct the ORSA regularly and without any delay following any significant change in their risk profile. Guideline 61 of EIOPA's Guidelines on ORSA further specifies that undertakings shall perform the ORSA at least annually.
- 8.145 The undertakings shall inform the NSAs of the results of each ORSA; the minimum content of the ORSA supervisory report is established in Article 306 of the Delegated Regulation. The ORSA supervisory report is very important and effective for supervision purposes; however, there are cases in which a simple straightforward document would suffice to obtain the required insights. The specific content of the ORSA supervisory report will depend on the complexity of the undertaking's risk profile. In particular, small and less complex undertakings face uncertainty regarding the supervisory expectations on the depth and length of the ORSA supervisory report. Small undertakings are faced with capacity restraints providing a lengthy report on an annual basis. In particular the requirement to assess annually the significance of the deviation of the risk profile from the assumptions underlying the SCR may create unnecessary burden in case there are no significant changes in the undertaking's risk profile.
- 8.146 Also supervision might be more effective if small and less complex undertakings provide less extensive, more to-the-point ORSA supervisory reports. Having received multiple ORSAs since the entering into force of Solvency II, NSAs could be triggered to provide more guidance on what is expected from different undertakings with different profiles in this respect<sup>213</sup>.

### **8.3.1.3 Written policies**

- 8.147 Under Solvency II, undertakings are required to establish at least written policies for risk management, internal control, internal audit, fit and proper, remuneration and, if applicable, outsourcing<sup>214</sup>.
- 8.148 Written policies have to be reviewed annually, be subject to prior approval by the AMSB and be adapted, if there is a significant change in the system or area concerned.
- 8.149 Undertakings define in written policies their system of governance and use them as a means of self-regulation. Written policies help to establish processes and procedures and to define tasks, powers, responsibilities and competences. However, establishing and maintaining all these policies might be too burdensome for small/less complex undertakings. In practise, small/less complex undertakings struggle with the amount of written policies and how detailed the written policies should be. Furthermore, the strict time limit to review the policies annually may lead to unnecessary burden taking into account the undertaking's risk profile.

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<sup>213</sup> Some examples of initiatives adopted by NSAs are:

- [ORSA template](#) developed by the Central Bank of Ireland for undertakings classified as low/medium low impact
- Specification of the minimum content of the ORSA supervisory report by IVASS in annex 3 to the Italian ORSA Regulation

<sup>214</sup> Art. 41 (3) Solvency II Directive, Art. 273 (1), Art. 275 (1)(d) Commission Delegated Regulation (EU) 2015/35, Art. 4 (2) Commission Delegated Regulation (EU) 2017/2358. Furthermore, there are broad requirements within the Level 3-guidelines, e.g. for risk management, see Guidelines 18, 20-22, 24-26, 36.

#### **8.3.1.4 AMSB**

8.150 Article 258 (4) of the Delegated Regulation states that insurance and reinsurance undertakings shall ensure that at least two persons effectively run the undertaking. However, Solvency II does not provide any specific requirement on the composition of the AMSB. The composition of the AMSB is one of the areas where different level of requirements could be foreseen for undertakings based on their size and the complexity of their business.

#### **8.3.1.5 Remuneration**

8.151 Article 275 of the Delegated Regulation defines the remuneration principles undertakings have to comply with when establishing and applying their remuneration policies.

8.152 Considering that the remuneration principles defined in the Delegated Regulation are high-level and divergent practices have emerged across the European Union, EIOPA has developed an opinion (subject to public consultation)<sup>215</sup> aimed to enhance supervisory convergence by giving guidance to the supervisory authorities on how to challenge the application of certain principles. The opinion focuses on a reduced scope of staff identified as potential higher profile risk-takers to promote a proportionate approach.

8.153 Article 275.2 letter c provides that “the payment of a substantial portion of the variable remuneration component, irrespective of the form in which it is to be paid, shall contain a flexible, deferred component that takes account of the nature and time horizon of the undertaking’s business: that deferral period shall not be less than three years and the period shall be correctly aligned with the nature of the business, its risks, and the activities of the employees in question”.

8.154 The mandatory deferral of a significant portion of the variable remuneration component is also foreseen in the banking framework; however, Directive (EU) 2019/878 of the European Parliament and of the Council of 20 May 2019 has recognised that while all institutions should in general be required to apply all the remuneration principles to all of their staff whose professional activities have a material impact on the institution's risk profile, it is necessary to exempt small institutions and staff with low levels of variable remuneration from the principle on deferral.

### **8.3.2 Analysis**

#### **8.3.2.1 Key functions**

8.155 With respect to the combination of key functions with operational functions, the options analysed as part of this review are as follows:

- **Option 1:** No change.

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<sup>215</sup> See Consultation Paper in the following link: <https://eiopa.europa.eu/Pages/News/Consultation-Paper-on-draft-Opinion-on-the-supervision-of-remuneration-principles-in-the-insurance-and-reinsurance-sector.aspx>

- **Option 2:** Combination explicitly allowed based on proportionality (except the internal audit function).

8.156 With respect to the possibility that Members of the AMSB are at the same time key function holders, the options analysed as part of this review are as follows:

- **Option 1:** No change.
- **Option 2:** Combination of roles explicitly allowed based on proportionality.

8.157 With respect to the combination of several key functions, the options analysed as part of this review are as follows:

- **Option 1:** No change.
- **Option 2:** Combination explicitly allowed based on proportionality

### **Policy issue 1a: Combination with operational functions**

8.158 The preferred policy option for this policy issue is **option 1a.2 Combination explicitly allowed based on proportionality (except the internal audit function)**. The combination of key functions and operational functions is only explicitly forbidden in Solvency II with respect to the internal audit. For other key functions, combinations are implicitly allowed by the regulation, subject to the supervisory challenge based on the general principle of operational independence in Article 268 of the Delegated Regulation. EIOPA considers that a more explicit provision in the regulation may improve the application of the proportionality principle; specifying the conditions under which combinations should be allowed would add clarity for the benefit of both undertakings and supervisors. These conditions are aimed to ensure that the robustness of the system of governance is not impaired by the combination of functions and consequently may also be regarded as safeguards for policyholder protection. Undertakings should monitor the continuous compliance with such conditions. The requirement to properly manage potential conflicts of interest is crucial in case of combination of a key function, which is an independent control function, with an operational function. Where potential conflicts of interest cannot be properly managed, the combination should not be allowed. In particular, combination with risk generating operational functions (e.g. underwriting or investments) would normally not be allowed; while combination with less risk generating operational functions (e.g. legal, human resources or other support functions) could be acceptable.

### **Policy issue 1b: Members of the AMSB and key function holder**

8.159 The preferred policy option for this policy issue is **option 1b.2 Combination of roles explicitly allowed based on proportionality**. The combination of roles of key function holder and member of the AMSB in the same person is not explicitly forbidden in Solvency II. Such combination is implicitly allowed by the regulation, subject to the supervisory challenge based on the general principle of operational independence in Article 268 of the Delegated Regulation. EIOPA considers that a more explicit provision in the regulation may improve the application of the proportionality principle; specifying the conditions under which combination should be allowed would add clarity for the benefit of both undertakings and supervisors. These conditions are aimed to ensure that the robustness of the system of

governance is not impaired by the combination of roles and consequently may also be regarded as safeguards for policyholder. Undertakings should monitor the continuous compliance with such conditions.

### **Policy Issue 1c: Combination of key functions**

8.160 The preferred policy option for this policy issue is **option 1c.2 Combination explicitly allowed based on proportionality**. The combination of key functions is not explicitly forbidden in Solvency II. Such combination is implicitly allowed by the regulation, subject to the supervisory challenge based on the general principle of operational independence in Article 268 of the Delegated Regulation. EIOPA considers that a more explicit provision in the regulation may improve the application of the proportionality principle; specifying the conditions under which combination should be allowed would add clarity for the benefit of both undertakings and supervisors. These conditions are aimed to ensure that the robustness of the system of governance is not impaired by the combination of key functions and consequently may also be regarded as safeguards for policyholder. Undertakings should monitor the continuous compliance with such conditions.

#### **8.3.2.2 ORSA**

8.161 With respect to the ORSA supervisory report, the following options have been analysed:

- **Option 1:** No change. Minimum content on the report as provided in Article 306 of the Solvency II Delegated Regulation with flexibility for undertakings.
- **Option 2:** Standardised ORSA supervisory report for small/less complex undertakings.

8.162 With respect to the frequency of the ORSA, the following options have been analysed:

- **Option 1:** No change. Every undertaking should perform the ORSA at least annually. The assessment should include:
  - the overall solvency needs,
  - the continuous compliance with capital requirements and technical provisions and
  - the significance with which the risk profile of the undertaking deviates from the assumptions underlying the SCR.
- **Option 2:** Biennial assessment of significance with which the risk profile of the undertaking deviates from the assumptions underlying the SCR, calculated with the standard formula. Annual frequency would still be requested for the assessment of overall solvency needs and the continuous compliance with capital requirements and technical provisions. The assessment of the significance with which the risk profile of the undertaking concerned deviates from the assumptions underlying the SCR should only be done every two years and following any significant change in the undertaking's risk profile.

8.163 In addition, EIOPA has considered the convenience to explicitly reflect in the regulation that taking into account the proportionality principle the complexity of the stress tests and scenario analyses performed in the ORSA could vary between undertakings. Undertakings with a less complex risk profile may choose only key risks for stress tests and/or may apply simplified methods.

#### **Policy issue 2a: ORSA supervisory report**

8.164 The preferred policy option for this policy issue is **option 1 (no change)**. **EIOPA considers that the minimum content provided in Article 306 of the Delegated Regulation** allows for a proper application of the proportionality principle, since undertakings would have sufficient flexibility with respect to the content and format of the ORSA supervisory report provided that the prescribed minimum elements are covered. While a standardised ORSA supervisory report might guide small and less complex undertakings through the key aspects to be considered in the ORSA process, it might result in unintended restrictions for undertakings and an eventual increase of the burden. Nevertheless, the current approach does not prevent further guidance on the supervisory expectations with respect to the level of detail in which the elements provided in Article 306 should be presented in the report to supervisors, taking into account the nature scale and complexity of the risks of the undertakings.

#### **Policy issue 2b: ORSA frequency**

8.165 The preferred policy option for this policy issue is **option 2 (Biennial assessment of significance with which the risk profile of the undertaking deviates from the assumptions underlying the SCR, calculated with the standard formula)**. This option allows to partially relieve the burden for undertakings by reducing the frequency of the assessment in Article 45.1(c) of the Directive. An annual assessment of the significance with which the risk profile of the undertaking deviates from the assumptions underlying the SCR calculation is not deemed strictly necessary; an assessment every two years should be sufficient, provided that there is no significant change in the undertaking's risk profile. This helps in particular small/less complex undertakings to lessen the concrete engagement in respect to this part of the ORSA, i.e. they have less workload and save both time and resources. Keeping the annual frequency for the assessment of overall solvency needs and continuous compliance with capital requirements and technical provisions is consistent with the role of the ORSA, as an integral part of the business strategy to be taken into account in the on-going management of the undertaking.

#### **8.3.2.3 Written policies**

8.166 With respect to the frequency of the review of the policies, the following options have been analysed:

- Option 1: No change. Annual review is requested for all undertakings, including small/less complex undertakings.
- Option 2: Flexibility on the frequency of the review of policies, up to three years. Change in Article 41(3) of the Directive so that there is the flexibility for less complex/small undertakings not performing that review annually.

8.167 In addition, EIOPA considers that the remuneration policy should also be added to the list of written policies in Article 41 since currently there is no explicit reference to remuneration in the Directive. The requirement of a remuneration policy is currently in Article 258 (1) letter I of the Delegated Regulation.

8.168 The preferred option for this policy issue is **option 3.2 (Less frequent review allowed, up to three years, based on proportionality)**. Practical experience has shown that small/less complex undertakings do not need to annually review their policies. To have more room for manoeuvre the review should be appropriate to the undertaking's risk profile. Therefore Art. 41 (3) of the Solvency II Directive should be amended and state that undertakings may be allowed to review the written policies less frequently, at least every three years. As a consequence, small/less complex undertakings could be allowed to review their policies every three years. Other undertakings would still have to carry out the review annually. To benefit from the exemption of the general requirement of an annual review, undertakings and supervisors will have to agree on the application of the proportionality principle; however, no complex formal authorisation procedures should be established at national level for that purpose. Supervisory Authorities may assess where a less frequent review is needed on the basis of the annual supervisory process.

#### **8.3.2.4 AMSB**

8.169 With respect to the minimum composition of the AMSB the following options have been analysed:

- **Option 1:** No change
- **Option 2:** Specific requirements on the composition of the AMSB
- **Option 3:** Regular assessment on the adequacy of the composition, effectiveness and internal governance of the AMSB considering proportionality.

8.170 The preferred policy option for this policy issue is **option 4.3 (Regular assessment on the adequacy of the composition, effectiveness and internal governance of the AMSB considering proportionality)**. This option is considered to reinforce the undertakings' system of governance while keeping current flexibility in Solvency II with respect to the composition of the AMSB.

#### **8.3.2.5 Remuneration**

8.171 With respect to the deferral of a substantial portion of the variable remuneration component the following options have been analysed:

- **Option 1:** No change
- **Option 2:** Scope of the mandatory deferral of a substantial portion of the variable remuneration component to be limited considering proportionality.

8.172 The preferred policy option for this policy issue is **option 5.2 (Scope of the mandatory deferral of a substantial portion of the variable remuneration component to be limited considering proportionality)**. This option is expected to improve proportionality as well as cross-sectoral consistency by limiting the scope of this requirement taking into account the size of the undertaking as well as the

absolute and relative amount of the variable remuneration perceived by the staff member. The limited scope would be in line with the exemption in Article 94 of the Directive (EU) 2019/878 of the European Parliament and of the Council of 20 May 2019 amending Directive 2013/36/EU as regards exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures; however, the thresholds in the banking framework should be adapted to the characteristics of the insurance market.

### 8.3.3 Advice

8.173 In view of the analysis above, EIOPA proposes the following amendments in Solvency II in order to improve the application of the proportionality principle with respect to the Pillar II requirements:

#### Key functions

8.174 EIOPA proposes that the following situations should be admitted provided they are justified in accordance with the proportionality principle:

- combination of key functions (except the internal audit function) with operational functions,
- combination of key functions, and
- combination of the condition of key function holder with the condition of member of the AMSB.

8.175 In particular new paragraphs could be added to Article 268 of the Delegated Regulation as follows:

*x. The person responsible for a key function, except the internal audit function, may also be responsible for operational functions provided that the following conditions are met:*

*(a) it is appropriate with respect to the nature, scale and complexity of the risks inherent in the undertaking's business;*

*(b) potential conflicts of interests are properly managed; and*

*(c) the combination does not compromise the person's ability to carry out her or his responsibilities.*

*x. The person responsible for a key function may also be responsible for other key functions provided that the following conditions are met:*

*(a) it is appropriate with respect to the nature, scale and complexity of the risks inherent in the undertaking's business;*

*(b) potential conflicts of interests are properly managed; and*

*(c) the combination does not compromise the person's ability to carry out her or his responsibilities.*

*x. The person responsible for a key function may also be a member of the administrative, management or supervisory body provided that the following conditions are met:*

*(a) it is appropriate with respect to the nature, scale and complexity of the risks inherent in the undertaking's business;*



*(b) potential conflicts of interests are properly managed; and*

*(c) the combination does not compromise the person's ability to carry out her or his responsibilities.*

#### ORSA

8.176 EIOPA proposes that the regular ORSA is only provided with annual frequency for the overall solvency needs and the continuous compliance with capital requirements and technical provisions. The assessment of the significance with which the risk profile of the undertaking deviates from the assumptions underlying the SCR, calculated with the standard formula, should only be provided every two years and following any significant change of the risk profile.

8.177 In particular paragraph 5 of Article 45 of the Solvency II Directive could be amended as follows:

*"5. Insurance and reinsurance undertakings shall perform the assessment referred to in paragraph 1 at least annually and without any delay following any significant change in their risk profile.*

*By way of derogation from the first sub-paragraph of this paragraph, insurance and reinsurance undertakings using the standard formula to calculate their Solvency Capital Requirement may perform the assessment referred to in letter c of paragraph 1 at least every two years and without any delay following any significant change in their risk profile.*"

8.178 In addition, EIOPA proposes that an explicit reference to proportionality is included with respect to the complexity of the stress test and scenario analysis which are part of the ORSA.

8.179 In particular paragraph 2 of Article 262 of the Delegated Regulation could be amended as follows:

*"The elements referred to paragraph 1 shall take the following into account:*

*(a) the time periods that are relevant for taking into account the risks the undertaking faces in the long-term;*

*(b) valuation and recognition bases that are appropriate for the undertaking's business and risk profile;*

*(c) the undertaking's internal control and risk-management systems and approved risk tolerance limits;*

*(d) the result of stress tests and scenario analysis that are proportionate to the nature, scale and complexity of the risks inherent in the undertaking's business.*"

#### Written policies

8.180 EIOPA proposes that more flexibility is introduced with respect to the frequency of the review of written policies. The remuneration policy should also be added to the list of written policies.

8.181 In particular paragraph 3 of Article 41 of the Solvency II Directive could be amended as follows:

*"3. Insurance and reinsurance undertakings shall have written policies in relation to at least risk management, internal control, internal audit, remuneration and,*

*where relevant, outsourcing. They shall ensure that those policies are implemented.*

*Those written policies shall be reviewed annually. Insurance and reinsurance undertakings may be allowed to perform a less frequent review, up to three years, taking into account the nature, scale and complexity of the risks inherent in their business.*

*Those written policies shall be subject to prior approval by the administrative, management or supervisory body and be adapted in view of any significant change in the system or area concerned.”*

#### AMSB

8.182 EIOPA proposes that undertakings regularly assess the composition and effective operation of the AMSB.

8.183 In particular paragraph 6 of Article 258 of the Delegated Regulation could be amended as follows:

*“6. Insurance and reinsurance undertakings shall monitor, and on a regular basis evaluate, the adequacy and effectiveness of their system of governance and take appropriate measures to address any deficiencies. The evaluation shall include an assessment on the adequacy of the composition, effectiveness and internal governance of the administrative, management or supervisory body taking into account the nature, scale and complexity of the risks inherent in the undertaking’s business.”*

#### Remuneration (deferral of the variable component)

8.184 EIOPA proposes that the scope of the mandatory deferral of a substantial portion of the variable remuneration component in Article 275.2 letter c of the Delegated Regulation is limited taking into account the size of the undertaking as well as the absolute and relative amount of the variable remuneration perceived by the staff member. The limited scope would be in line with Article 94 of the Directive (EU) 2019/878 of the European Parliament and of the Council of 20 May 2019; however, the thresholds in the banking framework should be adapted to the characteristics of the insurance market.

8.185 With respect to the deferral of variable remuneration as well as other high-level principles on remuneration defined in the Delegated Regulation, it should be noted that EIOPA is in the process to finalise an opinion aimed to enhance supervisory convergence<sup>216</sup>. EIOPA will further assess the need to have more detailed provisions on remuneration in the legislative framework after the public consultation of the Draft Opinion.

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<sup>216</sup> See Consultation Paper in the following link: <https://eiopa.europa.eu/Pages/News/Consultation-Paper-on-draft-Opinion-on-the-supervision-of-remuneration-principles-in-the-insurance-and-reinsurance-sector.aspx>

## 8.4. Proportionality in pillar 3

8.186 EIOPA published in July 2019 a consultation paper setting out technical advice on the reporting and disclosure requirements of Solvency II.<sup>217</sup> Proportionality of the requirements was one of the foci of the review. The proposed changes include the following:

- Complement Article 35 of the Solvency II Directive with a more risk-based supervisory reporting package
- Revision, and improvement, of the risk-based thresholds in line with the proportionality principle
- Simplification of the quarterly submission
- Deletion of several quantitative reporting templates and the simplification of a number of other quarterly and annual templates.

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<sup>217</sup> See <https://eiopa.europa.eu/Pages/News/Consultation-on-supervisory-reporting-and-public-disclosure.aspx>.

## 9. Group supervision

### 9.1 Introduction

#### 9.1.1 Context

- 9.1 This chapter is dedicated to the section on Group Supervision CfA 3.14 of the call for advice of the European Commission on the review of Directive 2009/138/EC (Solvency II). The Call for Advice covers a broad variety of topics on groups, including all key pillars of the Solvency II Framework.
- 9.2 The call for advice covers also some topics on Group Reporting and those are captured under Chapter 7 of this Opinion.

#### 9.1.2 Extract from the call for advice

##### **3.14. Group Supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- the scope of application of group supervision and the supervision of intra-group transactions, including the supervisory powers in cases where the parent company is headquartered in a non-equivalent third country;*
- the rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*
- the appropriateness of the rules governing the calculation of the minimum consolidated group Solvency Capital Requirement, including their impact on the level of diversification benefits that may be allowed within a group;*
- uncertainties or gaps related to the application of governance requirements at group level.*

#### 9.1.3 Relevant legal provisions

- 9.3 The relevant provisions of the Solvency II framework applicable to group insurance are considered in the context of this review, in particular:
- 1. Solvency II Directive, Articles that refer to supervision of Insurance and Reinsurance undertakings in a group (Articles 212 to 266)*
  - 2. Solvency II Delegated Regulations applicable to Insurance Groups (Articles 328 to 342)*
  - 3. EIOPA-BoS-14/181 EIOPA's Guidelines on group solvency (2014)*
  - 4. EIOPA-BoS15/201 EIOPA's Opinion on the group solvency calculation in the context of equivalence (September 25 of 2015)*
  - 5. EIOPA\_BoS\_16\_008 Opinion on the application of a combination of methods to the group solvency calculation (January 27 of 2016)*

6. *EIOPA 17-648 Report to the European Commission on the Application of Group Supervision under the Solvency II Directive (December 22 of 2017)*

9.4 Other articles of the Solvency II framework are also referred to in the Advice. Such details are provided in within the specific policy issue sections.

#### **9.1.4 Previous work**

9.5 In 2018, EIOPA published a Report to the European Commission on Group Supervision and Capital Management with a Group of Insurance or Reinsurance Undertakings, and FoS and FoE under Solvency II<sup>218</sup> (EIOPA's report on Article 242(2)). This report was issued in response to the European Commission Call for Information on various aspects of Group Supervision of Insurance and Reinsurance Undertakings in a Group as outlined in Article 242(2) of Directive 2009/138/EC ("Solvency II Directive"), and specific topics related to the freedom to provide services (FoS) and freedom of establishment (FoE).

9.6 In 2017, EIOPA also published a Report to the European Commission on the Application of Group Supervision under the Solvency II Directive (EIOPA 17-648 of December 22 of 2017) which was based on the Commission's request on Article 242(1) of the Solvency II Directive<sup>219</sup>.

9.7 In the context of this Advice, EIOPA also conducted a survey among National Competent Authorities (NSAs) regarding Group issues covered in the scope of this Advice. The outcome of this survey is used in this Advice and is referenced to as "EIOPA survey to NSAs 2019".

#### **9.1.5 Other reports relevant to this Analysis**

9.8 The European Commission published its report to the European Parliament and the Council on group supervision and capital management within a group of insurance or reinsurance undertakings<sup>220</sup>. The European Commission report is based on EIOPA's report on Article 242(2).

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<sup>218</sup> [https://eiopa.europa.eu/Publications/Reports/Report%20on%20Article%20242%20COM%20Request\\_FINAL%2014%20Dec%202018.pdf](https://eiopa.europa.eu/Publications/Reports/Report%20on%20Article%20242%20COM%20Request_FINAL%2014%20Dec%202018.pdf)

<sup>219</sup> Link to the COM's Request: <https://eiopa.europa.eu/Publications/Requests%20for%20advice/I-2018-168%20Annex%20COM%20Request%20to%20EIOPA%20for%20a%20report%20%28GBE%29.pdf>

<sup>220</sup> Report to the European Parliament and the Council on the application of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking and pursuit of the business of Insurance and Reinsurance (Solvency II) with regard to group supervision and capital management within a group of insurance or reinsurance undertakings.

## 9.1.6 Scope of Review on Group Issues

9.9 The European Commission call for advice sets out the scope of the review on group supervision. Such scope is broad in nature and in the Advice is classified under three main sections:

- i. Scope of Application of Group Supervision issues, IGTs, and RCs
- ii. Rules governing the methods for calculating group solvency (including Own Fund requirements), the interactions with Directive 2002/87/EC "FICOD".
- iii. Rules governing the calculation of the minimum consolidated group SCR (including the impact on the level of diversification benefits)
- iv. Governance Requirements at group level

9.10 For the sake of simplicity, EIOPA will use the following terms in this chapter:

- OF = Own Funds
- OFS = Other Financial Sectors
- EOF = Eligible Own Funds
- IHC= Insurance Holding Company
- MFHC = Mixed Financial Holding Company
- MAIHC = Mixed Activity Insurance Holding Company
- EPIFP =Expected Profits Included in Future Premiums
- ASU = Ancillary Services Undertaking
- SPV = Special Purpose Vehicle
- IGT = Intra-Group Transaction
- RC = Risk Concentration

## 9.2 Overview of policy options included in this chapter

Section	Policy Issue	Options
<b>Scope of Application of Group Supervision issues; supervision of intra-group transactions and risk concentrations; and others</b>		
<b>Scope of application of group supervision</b>		
9.3.1 Definition of the Group, including issues of Dominant Influence ; and Scope of the Group Supervision	1. Lack of clarity on the definition of group in Art. 212 of the SII Directive, as well as on the concepts of 'acting in concert', 'centralised coordination', identification of dominant influence; control definition and sister undertakings.	1.1 No Change  <b>1.2 To revise the definition of group under Solvency II framework to capture undertakings, which, together, form a de facto group, upon supervisory powers, as well as to clarify other elements of Article 212 of the SII Directive</b>

	2. Need to facilitate the application of group supervision under Art. 213 in the case of horizontal groups or with multiple points of entry in the EEA.	2.1 No Change <b>2.2 To provide the NSAs with powers to require groups to restructure for the purpose of exercising group supervision.</b>
	3. Need to clarify certain definitions that support scope of the group.	3.1 No Change <b>3.2 Clarify the definitions of subsidiary, parent undertaking, control, participation and the definition of groups, to secure the scope of existing groups</b>
9.3.2 Definition of Insurance Holding Company and other challenges related to Insurance holding companies and Mixed financial holding companies	1. Lack of clarity of the meaning of 'exclusively or mainly' in the definition of IHC	1.1 No Change <b>1.2 Clarify on the term "exclusively" or "mainly" used in the definition of IHC contained in Art. 212(2)(f) of the Solvency II Directive</b>
		2.1 No change <b>2.2 Amend Article 214(1) of the SII Directive to allow the group supervisor to have certain powers to ensure an effective group supervision; and enforceability over such undertakings</b>
9.3.3 Exclusion from group supervision	1. Different practices related to the exclusion of undertakings from the scope of group in accordance with Art. 214 of the SII Directive which leads to cases such as (i) exclusion of holding leading to complete absence of group supervision; (ii) exclusion of holding company leading to the application of group supervision at a lower/intermediate level in the group structure.  2. Further clarity is required on "negligible interest" with respect of achieving the objectives of group supervision as laid down in Article 214(2)(b).	1.1 No Change <b>1.2 To introduce an overall principle in the SII Directive on the exclusion from group to ensure that exceptional cases as well as cases of potential capital relief are adequately justified, documented and monitored and all relevant parties in the decision are also involved in the process.</b>
		2.1 No change <b>2.2 To provide criteria to be considered for the purpose of assessing "negligible interest"</b>
<b>Supervision of Intra-Group Transactions (IGTs) and Risk Concentrations (RCs)</b>		
9.3.4 Supervision of IGTs and RCs	1. The current definition of IGTs as provided in Art. 13(19) of the SII Directive does not	1.1 No Change <b>1.2 Amend the wording of Art. 13(19) of the SII Directive to</b>

	explicitly include the reference to the Insurance Holding Companies (IHC, MAIHC or MFHC) and third country (re)insurance undertakings as one of the possible counterparties of the IGTs.	<b>include at least holding companies (IHC, MFHC, MAIHC) and third country (re)insurance undertakings as a possible counterparty to the transaction.</b>
		1.3 Enlarge the IGT definition to any transaction among all undertakings within the group (i.e. ancillary services, etc.)
	2. Lack of consistency in application of thresholds for IGTs and RCs and the basis for setting up these thresholds in accordance with Art. 244(3) of the SII Directive	2.1. No Change
		<b>2.2 To amend Art. 244(3) to allow the introduction of additional criteria, for the purpose of setting thresholds for IGTs and RCs reporting as deemed necessary by the group supervisor.</b>
<b>Issues with Third Countries</b>		
9.3.5 Article 262 Solvency II Directive - Clarification	1. Further clarity needed on the application of Art. 262 of the SII Directive	1.1 No Change
		<b>1.2 Clarify the circumstances for establishment of EU-holdco depending on already existing EU structure as well as on the objectives of the use of 'other methods'.</b>
	2. Ensure consistency between Article 213 and 262 of the SII Directive, as well as be precise on the expectations on the use of 'other methods'.	2.1. No change
		<b>2.2 Clarify and ensure consistency between Art. 213 and 262 of the SII Directive, as well as to outline clearly the objective of the SII Directive 'other methods' applicable under Art. 262 of the Directive.</b>
<b>Rules governing the methods for calculating Rules governing the methods for calculating group solvency (including Own Fund requirements)</b>		
<b>Method 1 -Calculation of Group Solvency</b>		
9.3.6 Treatment of Insurance Holding Companies (IHC), Mixed Financial Holding Companies (MFHC)	1. Need to clarify how to treat the IHC and MFHC for the purpose of the group solvency calculation, in particular of a notional SCR and OFs for such undertakings.	1.1. No Change
		<b>1.2 State that a notional SCR is equal to zero for the intermediate IHC and MFHC</b>
		<b>1.3. Include clearly the provision of a notional SCR for both the parent and intermediate IHC and MFHC, including those in third countries.</b>
9.3.7		1.1. No Change



<p>Article 229 of the Solvency II Directive – Proxy Methods</p>	<p>1. Lack of a clarity and consistency in the application of Article 229 of SII Directive in particular in cases where imposing SII calculation is burdensome or impossible.</p>	<p><b>1.2 Introduce a clear methodology to the calculation of own funds and the group SCR calculation for undertakings for which the SII calculation is not possible and for immaterial undertakings. The use of the simplifications should be subject to approval by the group supervisor. Such simplified methodology could favour the equity method with a cap on own funds.</b></p>
<p><b>Method 2 -Calculation of Group Solvency</b></p>		
<p>9.3.8 Scope of method 2 (where used exclusively/or in combination with method 1)</p>	<p>1. Need to clarify the scope of undertakings to be included under method 2 and their treatment to ensure a consistent treatment across methods (same scope of entities under all methods) and across EEA</p>	<p>1.1 No Change</p> <p><b>1.2 Provide clarity on the scope of undertakings to be included under method 2 and their treatment.</b></p>
<p>9.3.9 Partial Internal Model (PIM) and Integration Techniques</p>	<p>1. Lack of a provision in the SII framework about the application of integration techniques to partial internal models at group level to ensure adequate appropriateness.</p>	<p>1.1 No Change.</p> <p><b>1.2 Introduce a requirement to demonstrate appropriateness by clarifying that in general there is no mutatis mutandis approach to translate integration techniques for risks in Article 239 of the DR to groups, but a demonstration of the appropriateness is required similar to Article 229 (4) of the DR. Also an explicit link between the requirements of Articles 328 and 343 of the DR should be established.</b></p>
<p><b>Combination of Methods – Calculation of Group Solvency</b></p>		
<p>9.3.10 Group SCR calculation when using Combination of methods</p>	<p>1. Need for clarification of principles that will ensure an appropriate coverage of risks in the group SCR under the combination of methods. This especially concerns equity, concentration and currency risk.</p>	<p>1.1 No Change</p> <p><b>1.2 Introduce principles of no double counting and no omission of material risks (approaches based on amendments of article 328 or 335 and 336 of the DR to be used alternatively or appropriately combined)</b></p>
<p>9.3.11 Group Solvency – Application when using combination of methods</p>	<p>1. Need for clarification in Article 233 of the Solvency II Directive to explicitly state that Method 2 (where used exclusively or in combination</p>	<p>1.1 No Change.</p> <p><b>1.2 Indicate that method 2 (where used exclusively or in combination with method 1)</b></p>

	with Method 1) applies to single undertakings.	<b>applies to single undertakings. It is also advised to amend Articles 220, 227, 234 and 235 of the SII Directive to refer to the advised changes on this section.</b>
<b>Own funds requirements for groups</b>		
9.3.12. Classification of Own Funds	1. Need for clarification of Article 330(1)(d) of the Delegated Regulations versus assessing if criteria outlined in articles 71,73 and 77 of the Delegated Regulation is met at group level	1.1 No Change
		<b>1.2 A deletion of the paragraph (1)(d) of article 330 of the DR would avoid that an own-fund item (under method 2) not compliant with art 331-333 or the DR (including reference to art. 71/73/77) could still be considered available at group level.</b>
	2. Include the aim of the Recital 127 and its effective application to groups	2.1 No Change
		<b>2.2 Include a principle indicating the purpose of Recital 127 to clearly indicate that it is sufficient to provide for the suspension of repayment/redemption of the own-fund item when there is a winding-up situation of any EEA related (re)insurance undertaking of the group.</b>
9.3.13. Availability Assessment of Own Funds (Article 330 of the DR)	1. Inclusion of own fund items to cover the solo contribution to group SCR (Art 330 (5) DR)	<b>1.1. No Change</b>
		1.2 Introduce a principle based approach that takes into account the quality of non-available own funds covering the solo contribution to the group SCR.
	2. Need to clarify the inclusion of <u>all</u> undertakings taken into account in the SCR Diversified.	1.1 No Change
		<b>1.2 Clarify the inclusion of all undertakings taken into account in the SCR diversified.</b>
	3. Need to clarify the availability of certain items within the reconciliation reserve under the availability assessment at group level ( Article 330(3) DR): the benefit of transitional measures on	3.1. No Change
		<b>3.2 Clarify that the benefit of transitional measures on technical provisions and interest rate is assumed to be unavailable by default within</b>

	technical provisions and interest rate	<b>the meaning of Article 330(3) of the DR.</b>
	4. Need to clarify the availability of certain items within the reconciliation reserve under the availability assessment at group level ( Article 330(3) DR): EPIFP	4.1 No Change 4.2 Clarify that EPIFP is assumed to be unavailable by default within the meaning of Article 330(3) of the DR
9.3.14. Minority Interest	1. Need for a clear definition and approach for the calculation of minority interest at regulatory level.	1.1. No Change. <b>1.2. Further clarify the definition of the item minority interest in Solvency II and the approach to be followed for its calculation.</b>
<b>Calculation of the minimum consolidated group SCR, including the impact on the level of diversification benefits that may be allowed within a group</b>		
9.3.15. Minimum Consolidated Group SCR	1. Lack of clarity and alignment of the scope of undertakings included in the minimum consolidated group SCR.	1.1 No change in the scope undertakings included in the minimum consolidated group SCR calculation <b>1.2. Upgrading the current Guideline 21b) of EIOPA Guidelines on Groups Solvency to an explicit law provision and enhancement the scope by the IHC and MFHC – the notional MCRs would be equal to 35% of the notional SCR (middle of the corridor 25% - 45%)</b>
	2. Change of calculation method for minimum consolidated group SCR	<b>2.1 No Change on the methodology of calculation</b> 2.2 Change the way how minimum consolidated group SCR is calculated
<b>Solvency II and the interactions with Directive 2002/87/EC (FICOD), and any other issues identified with Other Financial Sectors</b>		
9.3.16. Inclusion of Other Financial Sectors (OFS)	1. Lack of clarity on Inclusion of undertakings in Other Financial Sectors (OFS) into Solvency II.	1.1 No change. <b>1.2 Clarify that Article 329 of the DR is applicable for the inclusion of OFS entities in the group solvency calculation, regardless of methods used</b>
	2. Lack of clarity on the allocation of OFS own funds into relevant Solvency II tiers	2.1 No change. 2.2 No allocation of own funds from OFS into relevant Solvency II

		<p>tiers when including these in the group solvency calculation</p> <p><b>2.3 Allocation of clearly identified own- fund items from OFS into relevant Solvency II tiers where practicable and material</b></p>
	<p>3. Lack of clarity about the availability assessment of OFS own funds</p>	<p>3.1 No change</p> <p>3.2 Clarify that no availability assessment should be done for own funds from OFS</p> <p><b>3.3 Clarify that an availability assessment of OFS own funds is required to ensure that OFS own funds in excess of sectoral capital requirement is available at group level</b></p>
		<p>4.1 No change</p> <p><b>4.2 Clarify that group own funds and group capital requirements calculated according to sectoral rules should be used in the group solvency calculation when OFS entities form a group.</b></p>
		<p>5.1 No change</p> <p><b>5.2 Include the answer to Q&amp;A 1344 in the regulations i.e. that the same capital requirements, including buffers and add-ons, should be used in the Solvency II calculation as in the supplementary capital adequacy calculation according to FICOD.</b></p>
<p>9.3.17 Application of Article 228 of the Solvency II Directive</p>	<p>1. Lack of clarity regarding Article 228 of the Solvency II Directive, and its interaction with other articles of the Solvency II framework.</p>	<p>1.1. No change</p> <p>1.2 Clarify Article 228 of Solvency II Directive</p> <p><b>1.2 Delete Article 228 of Solvency II Directive</b></p>
<p><b>Governance Requirements - uncertainties or gaps related to the application of governance requirements at group level.</b></p>		
<p>9.3.18 Application of Article 40 of the Solvency II Directive (definition of the AMSB for groups); and Mutatis Mutandis under Article 246 of Solvency II Directive)</p>	<p>1. Lack of clarity regarding the application of the mutatis mutandis principle set out in Article 246 at group governance requirements</p>	<p>1.1. No Change</p> <p><b>1.2 Extend the application of art 40 of the SII Directive at group level and amend the Article 246 of the SII Directive</b></p>

## **9.2.1 Data Sources and Evidence**

- 9.11 EIOPA used various sources of data in preparing the Advice on Group Supervision: annual and quarterly reporting data for the years 2016 to 2019; EIOPA's Questions and Answers on Regulation; relevant public information available in EIOPA's website; EIOPA's observations through the activities carried out to discharge its mandates; discussions held with NSAs when developing the Advice.
- 9.12 It is important to acknowledge that data quality issues are still present on the information submitted by solo or groups to their supervisors, and therefore, the data presented in this report should be read taking into account such constraints.
- 9.13 Where applicable, the advice highlights that a more detailed analysis will be required to reach definite conclusions in some areas. In that regard, it is expected that the inputs from the public consultation process would help in addressing any gaps.
- 9.14 In addition, EIOPA designed two dedicated online surveys regarding the COM's request on Group Supervision issues. One survey focused on Group Governance Issues while the second one covered issues on Group Solvency; Scope of the Group; Intragroup transactions; and Risk concentrations.
- 9.15 It should also be noted that the information collated and presented in this report reflects the views of the NSAs as of the time when they were surveyed. EIOPA analysed such information on a best effort basis.
- 9.16 The Advice focuses on policy recommendations and does not make an assessment on the supervisory practices of the NSAs.
- 9.17 Additional evidence is expected to be collected at a later stage as part of the public consultation process.

## **9.3 Identification of the Issues**

- 9.18 The issues are presented in the next sections according to topic and as summarised in the Overview of policy options and policy issues.

### **Scope of Application of Group Supervision**

#### **9.3.1 Definition of the Group, including issues of dominant Influence; and Scope of the Group Supervision**

##### **9.3.1.1 Extract from the call for advice:**

##### ***3.14. Group supervision***

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- the scope of application of group supervision and the supervision of intra-group transactions, including the supervisory powers in cases where the parent company is headquartered in a non-equivalent third country;*

### **9.3.1.2 Relevant legal provisions**

9.19 Article 13 of the Solvency II Directive – definitions of parent undertaking, subsidiary undertaking, participation

9.20 Article 212 of the Solvency II Directive – definitions of participating undertaking, related undertaking, group.

9.21 Article 213 of the solvency II Directive – application of group supervision

### **9.3.1.3 Other regulatory background**

9.22 Article 1 of the Consolidated accounts Directive (83/349/EEC)

9.23 Article 12 of the Consolidated accounts Directive (83/349/EEC)

### **9.3.1.4 Identification of the issue**

#### **Policy Issue 1– Article 212 of the Solvency II Directive and identification of groups**

9.24 It is noted that there can be insurance and reinsurance undertakings, which can fulfil several or all of the following conditions:

- Partly or fully have the same shareholders;
- Have members of the AMSB in common, but not a majority;
- Partly or fully have the same management bodies;
- Partly or fully have the same system of policies (investments, risk management, compliance, etc.) and outsourcing arrangements;
- Partly or fully share the same personnel, including personnel in key functions and key function holders themselves;
- Have financial links (reciprocal financing links) which could be considered as intra-group transactions if within a group;
- Have common investments, including joint holdings in other undertakings.

- Partly or fully the same shareholders are members of AMSB, personnel, key personnel, key functions.

9.25 The undertakings as described in the above cases act as if they formed a group but these undertakings do not form a group according to Article 212 definitions:

- There are no capital ties between them (Article 212(1)(c)(i));
- The undertakings do not share a majority of their AMSB members, and they are not managed on a unified basis pursuant to a contract or provisions in the memorandum or articles of association of those undertakings (Article 212(1)(c)(i));
- There exist strong and sustainable financial relationships but there is no identified undertaking which exercises a dominant influence through centralised coordination (Article 212(1)(c)(ii));
- The supervisory authority has not enough elements to consider that a dominant influence is exercised by one undertaking over the other ones (Article 212(2)).

### **Policy Issue 2: Article 213 of the SII – application of group supervision**

9.26 It is also noted that there is no definition of “centralised coordination”, leading to potential divergent interpretations, and that the list of criteria which define the “dominant influence” in the Guideline 1 of EIOPA Guidelines on the treatment of related undertakings could be revised and/or be more specific.

9.27 It was also noted that, in the following situations, it is not always possible to correctly identify a group and / or to apply group supervision in a meaningful / relevant way:

- *Horizontal groups* with undertakings linked to each other pursuant to criteria in Article 212(1)(c)(i) or pursuant to situations described in the First Issue. In these cases, there is no unique undertaking that would be responsible for group supervision requirements (e.g. reporting requirements).
- *Groups with multiple points of entry in the EEA:*
  - Several undertakings or groups are part of a same third-country group;
  - Several undertakings or groups are part of a unique financial conglomerate;
  - Several undertakings or groups are part of a unique non-insurance group.
- *Multiple groups held by the same individual or legal entity in the EEA.* In that case, several separate groups are under supervision while one might need to have only one group

9.28 In the case of several undertakings or groups being part of a same third-country group, it was noted that supervisory authorities shall have powers to require the establishment of an EU holding company which is heading the EEA undertakings (Article 262 of the Solvency II Directive). Please refer to section 9.3.5 Third Country Issues – for further information on Other Methods]

### **Policy Issue 3: Scope of groups**

- 9.29 In the presentation of this issue, “subsidiaries” over which a dominant influence is exercised are called in this section “influenced subsidiaries” hereafter. An influenced subsidiary can either (i) belong to a group defined by the establishment of strong and sustainable relationships characterized by a dominant influence through a centralised coordination (Article 212 (1) (c) (ii)) or (ii) belong to a group because a supervisory authority has taken a decision to consider the effective exercise of a dominant influence from an undertaking to another (Article 212 (2)).
- 9.30 First of all, it is unclear that “subsidiaries” and “participations” of “influenced subsidiaries” are included in the scope of the group. Indeed:
- a subsidiary of an “influenced subsidiary” does not necessarily fulfil at least one of the criteria in order to be considered as the subsidiary (within the meaning of Directive 83/349/EEC) of the undertaking which exerts a dominant influence. Therefore, it cannot be considered as within scope of the group, according to the current Solvency II definitions.
  - Similarly, an undertaking which exerts a dominant influence and has no direct ownership nor any ownership by way of control, of 20% or more of the voting rights or capital of the participation of the “influenced subsidiary”. Consequently, the participation of the “influenced subsidiary” cannot be considered as a participation of the undertaking which exerts a dominant influence according to the Solvency II definitions.
- 9.31 In case of joint subsidiaries and participations held by “influenced subsidiaries” of the same undertaking which exerts the influence, it is unclear whether percentages of control shall be added up. In the case where the percentages cannot be added up, the undertakings, which are jointly held by “influenced subsidiaries” of a unique parent undertaking may not necessarily belong to the group.
- 9.32 It is unclear if sub-paragraphs (i) and (ii) of the definition of group in Article 212 (1) (c) of the SII Directive are exclusive or not. Indeed :
- Assuming that subsidiaries of an “influenced subsidiary” can be considered as subsidiaries (see 9.2), subsidiaries of an “influenced subsidiary” could be considered as part of the group in accordance with subparagraph (i) of Art. 212(1)(c). However, this would require that both subparagraphs (i) and (ii) of the definition are used, while at present it can be interpreted that they are mutually exclusive based on the current drafting of Article 212(1)(c) of the Solvency II Directive. Therefore, there is a need for clarification in that regard.
- 9.33 Finally, undertakings, which are linked to each other by a relationship as set out in Article 12(1) of Directive 83/349/EEC, which is referred to in Article 212 of the Solvency II Directive can hold subsidiaries and participations. According to the definition of groups pursuant to Article 212(1) of the Solvency II Directive, only the subsidiaries and participation of the undertaking which is considered as head of group can be considered as belonging to the group, not the subsidiaries and participations of the undertaking which is linked to the undertaking considered as head of group. In the case where both linked undertakings own subsidiaries and participations or in the case where the jointly own subsidiaries and participations, the scope of the group is unclear. Therefore, it is recommended to clarify the



definition of groups formed of undertakings linked to each other and whether their subsidiaries and participations hold alone or jointly, are included.

### **9.3.1.5 Analysis and Policy Options**

#### **Policy Issue 1: – Article 212 of the Solvency II Directive and identification of groups**

##### *Policy Option 1: No Change*

9.34 No change does not help with current issues as challenges with identification of a group under the current criteria remain.

##### *Policy option 2: To capture undertakings, which, together, form a de facto group, upon supervisory powers.*

9.35 For horizontal groups, Article 212 of the Solvency II Directive could be amended to allow the supervisory authorities to consider as undertakings linked to each other the undertakings which, in the opinion of the supervisory authorities (and not necessarily on the basis of a contract), are effectively managed on a unified basis.

9.36 The regulatory framework should contain a definition of 'centralised coordination' in paragraph (1)(c)(ii) of Article 212. There is also a need for the framework to define criteria for considering when undertakings are linked to each other. In that regard, in the case of undertakings linked to each other, the regulatory framework should also provide for criteria, which shall be used to identify the undertaking, which is responsible for group supervision requirements.

9.37 It is also advised to revise the criteria for considering that an undertaking exercises a dominant influence over another one (laid down in GL 1 of EIOPA Guidelines on the treatment of related undertakings), pursuant to paragraph (2) of Article 212 of the Solvency II Directive.

9.38 It is also advised to clarify in the regulatory framework that the exercise of a dominant influence within the meaning of paragraph (1)(c)(ii) of Article 212 does not necessarily fulfil the same criteria as the exercise of a dominant influence within the meaning of paragraph (2) of this article.

#### **Policy Issue 2: Article 213 of the SII – application of group supervision**

##### *Policy Option 1: No Change*

9.39 No change does not help with current issues and uncertainty regarding the application of group supervision.

*Policy Option 2- To provide supervisory authorities to require their supervised undertakings, to structure in such a way, which enables the relevant NSA to exercise group supervision, in particular in cases where the group supervision would not be applicable otherwise.*

- 9.40 To provide supervisory authorities to require their supervised undertakings, to structure in such a way, which enables the relevant NSA to exercise group supervision, in particular in cases where the group supervision would not be applicable otherwise.
- 9.41 To ensure a consistent use of such powers at EU level, in the case of cross-border groups, other supervisory authorities concerned and EIOPA should be consulted as part of the process.
- 9.42 Within this framework, the NSA should be allow to require the establishment of an EU holding company (similarly to the possibility allowed in Art. 262 of the SII Directive) or the establishment of an undertaking that exercises centralized coordination and dominant influence as laid down in art 212 (1)c (ii). In cases where the group supervisor is not the supervisor of the designated entity (this could be happening if the designated entity is a holding company), both should cooperate to exercise supervision under it.

### **Policy Issue 3: Scope of groups**

*Policy Option 1: No Change*

- 9.43 No change does not help with current issues and uncertainty regarding the scope of groups.

*Policy Option 2: Clarify the definitions of subsidiary, parent undertaking, control, participation and the definition of groups, to secure the scope of existing groups*

- 9.44 The definition of groups under Solvency II is first based on accounting provisions to which then specific SII provisions have been added up (e.g. the identification of a dominant influence by the supervisor). Some uncertainties may arise from the interactions of those different sets of rules as regards the definition of the group. For this reason, some definitions should be amended to clarify the scope of groups.
- 9.45 Policy option 2 intends:
- to clarify that sub-paragraphs (i) and (ii) in Article 212(1)(c) are not mutually exclusive
  - to clarify that subsidiaries and participations of undertakings over which a dominant influence is exerted are within the scope of the same group as the undertaking which exerts the dominance influence
  - to clarify that percentages of control and of ownership can be added up for joint subsidiaries and joint participations when these joint subsidiaries and joint participations are held by undertakings over which a dominant influence is exerted by a unique undertaking.
  - to clarify that, in the case of groups defined by undertakings which are linked with another by a relationship as set out in Article 12(1) of Directive

83/349/EEC, subsidiaries and participations of each of these linked undertakings are also part of the group

### 9.3.1.6 Advice

#### **Policy Issue 1: Article 212 of the Solvency II Directive and identification of groups**

9.46 It is recommended that Art. 212 of the SII Directive is amended to allow the supervisory authorities to consider undertakings as undertakings related to each other which, in the opinion of the supervisory authorities (and not necessarily on the basis of a contract), are effectively managed on a unified basis.

9.47 The exercise of a dominant influence within the meaning of paragraph (1)(c)(ii) of Article 212 does not necessarily fulfil the same criteria as the exercise of a dominant influence within the meaning of paragraph (2) of this article.

9.48 The regulatory framework should contain a definition of 'centralised coordination' in paragraph (1)(c)(ii) of Article 212. There is also a need for the framework to define criteria for considering when undertakings are linked to each other. In that regard, in the case of undertakings linked to each other, the regulatory framework should also provide for criteria, which shall be used to determine the undertaking, which is responsible for group supervision requirements.

#### **Policy Issue 2: Article 213 of the SII Directive and application of group supervision**

9.49 It is recommended that supervisory authorities have powers to require their supervised undertakings, to structure in such a way, which enables the relevant NSA to exercise the group supervision, in particular in cases where the group supervision would not be applicable otherwise. To ensure a consistent use of such powers at EU level, in the case of cross-border groups, other supervisory authorities concerned and EIOPA should be consulted as part of the process. Within this framework, the NSA should be allowed to require the establishment of an EU holding company (similarly to the possibility allowed in Art. 262 of the SII Directive) or the establishment of an undertaking that exercises centralised coordination and dominant influence as laid down in art 212(1) c (ii).

#### **Policy Issue 3: Scope of the Group**

9.50 EIOPA advises to clarify the definitions of subsidiary, parent undertaking, control, participation and the definition of groups, to secure the scope of existing groups. This includes :

- to clarify that sub-paragraphs (i) and (ii) in Article 212(1)(c) are not mutually exclusive
- to clarify that subsidiaries and participations of undertakings over which a dominant influence is exerted are within the scope of the same group as the undertaking which exerts the dominance influence

- to clarify that percentages of control and of ownership can be added up for joint subsidiaries and joint participations when these joint subsidiaries and joint participations are held by undertakings over which a dominant influence is exerted by a unique undertaking.
- to clarify that, in the case of groups defined by undertakings which are linked with another by a relationship as set out in Article 12(1) of Directive 83/349/EEC, subsidiaries and participations of each of these linked undertakings are also part of the group

### **9.3.2 Definition of Insurance Holding Companies and other challenges related to Insurance holding companies and Mixed financial holding companies**

#### **9.3.2.1 Extract from the call for advice**

##### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- *the scope of application of group supervision and the supervision of intra-group transactions, including the supervisory powers in cases where the parent company is headquartered in a non-equivalent third country;*

#### **9.3.2.2 Relevant legal provisions**

9.51 Article 212(1)(f) of the Solvency II Directive: definition of an insurance holding company.

9.52 Article 214 of the solvency II Directive: scope of group supervision.

#### **9.3.2.3 Other regulatory background**

9.53 A question in relation to the definition of 'financial holding company'<sup>221</sup> in banking supervision contained in Regulation (EU) No 575/2013 (CRR) as amended was raised via the EBA Q&A tool seeking to clarify when a group of entities (of which at least one is an institution) consists of mainly institutions or financial institutions.

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<sup>221</sup> The previous version of the definition of a 'financial holding company' contained in the CRR has read as "a financial institution, the subsidiaries of which are exclusively or mainly institutions or financial institutions, at least one of such subsidiaries being an institution, and which is not a mixed financial holding company."

The EBA was asked to provide more guidance on what is meant with 'mainly'. Subsequently, the definition of financial holding company was amended to read as follows in the CRR 2: financial holding company' means a financial institution, the subsidiaries of which are exclusively or mainly institutions or financial institutions, and which is not a mixed financial holding company; the subsidiaries of a financial institution are mainly institutions or financial institutions where at least one of them is an institution and where more than 50% of the financial institution's equity, consolidated assets, revenues, personnel or other indicator considered relevant by the competent authority are associated with subsidiaries that are institutions or financial institutions;'

9.54 Article 21a of the Capital Requirements Directive (CRD)

### **9.3.2.4 Identification of the issue**

#### **Policy Issue 1: Definition of Holding Companies**

9.55 Article 212 of the Solvency II Directive does not provide additional explanation of the meaning of 'exclusively or mainly' in the definition of IHC. This can cause inconsistencies in the application of Article 212(1)(f) and (g) and lead to supervisory convergence issues.

#### **Policy Issue 2: Article 214(1) of the Solvency II Directive and powers over holdings.**

9.56 Article 214(1) of the Solvency II Directive states a holding company can be excluded from the scope of supervision, except for fit and proper requirements. Article 214(1) SII seems to contradict with articles 218, 219 and 235 of the SII Directive which contain explicit requirements for adequate capital at group level and Article 257 on governance requirements. The assumption is that these requirements can be fulfilled by a supervised subsidiary in the group, however this is not possible if it is not empowered to ensure compliance with the group requirements and has no responsibility for the group governance requirements.

9.57 In some Member States group requirements cannot be upheld towards to the holding company of the group when transposing Article 214(1), in other MS national legislation did implement group requirements for holding companies, in others there are requirements for holdings but no sanctions due to a strict implementation of Article 213 and 214(1) in that group supervision takes place at the level of the insurance undertaking.

### **9.3.2.5 Analysis**

#### **Policy Issue 1: Definition of Holding Companies**

9.58 The issues concerning the definition of holding companies (IHC, MAIHC) are causing inconsistencies in the application of Article 212(1)(f) and (g) of the Solvency II Directive leading to supervisory convergence matters. For example if

an IHC is identified, the group would be subject to full group supervision including capital requirements, governance and reporting. If a MAIHC is identified only the IGTs are reported, leading to unlevelled playing field compared to the reporting requirements applicable to IHC.

9.59 For that reason, some NSAs have introduced certain criteria to be used when determining whether an undertaking can be identified as an IHC. For example, some NSAs examine the proportion of the consolidated balance sheet that is represented by the insurance undertakings. In order to determine whether an undertaking is considered to be an IHC a range of thresholds is used. These thresholds used vary, with the most common being used of 50% of the consolidated balance sheet. Such divergent practices may result in potential competitive disadvantages for certain groups depending on the interpretation by the group supervisor and/or national transposition issues. It is also noted that limiting the criteria for the purpose of identifying an IHC only to the number of subsidiaries only is not representative and other aspects, such as the size of the balance sheet of insurance companies in the group/and or other parameters, should be also considered.

### **Policy Issue 2: Article 214(1) of the Solvency II Directive and powers over holdings.**

9.60 The issues concerning the interpretation of Article 214(1) are causing inconsistencies in the application of group requirements to holding companies leading to ineffective supervision and supervisory convergence issues as whether the holding of the insurance group is under supervision depends on the local law.

## **9.3.2.6 Policy Options**

### **Policy Issue 1: Definition of Holding Companies**

#### *Option 1 – No Change*

9.61 No change in the regulatory framework would maintain the quo status. Instead of amending the definition of IHC in Article 212(2) of the Solvency II Directive it is proposed to develop guidelines, which would provide further details on the criteria that should be considered for the purpose of identifying an IHC.

#### *Policy Option 2 – To clarify the term “exclusively” or “mainly” used in the definition of IHC contained in Article 212(2)(f) of the Solvency II Directive*

9.62 To provide further clarity on the term “exclusively” or “mainly” used in the definition of IHC contained in Article 212(2)(f) of the Solvency II Directive so that it should be understood to refer to a situation where more than 50% of the total of the balance sheet of the holding company or another indicator (i.e. the solvency capital requirement, equity, personnel, etc.) deemed relevant by the national

supervisory authority, is derived from the insurance sector (including third country insurance undertakings).

9.63 The above option, while providing further clarity with a view to support the identification of an IHC, would also allow some level of flexibility for supervisors to take into account, in certain circumstances, other criteria, which would be more relevant for the purpose of identification of IHC. In that regard if the 50% threshold based on the total balance sheet of the holding company is not reached, other criteria could be used to support the assessment (i.e. the solvency capital requirement, equity, etc.).

## **Policy Issue 2: Article 214(1) of the Solvency II Directive; and powers over insurance holding companies and mixed financial holding companies**

### *Policy Option 1: No Change*

9.64 No change does not help with current issues and uncertainty regarding the lack of clarity of the current wording of Article 214(1) of the SII Directive.

*Policy Option 2: Amend Article 214(1) of the SII Directive to allow the group supervisor to have certain powers to ensure an effective group supervision; and enforceability over such undertakings.*

9.65 Wording of Article of the 214 (1) SII Directive should be amended to allow supervision and enforcement of power over insurance Holding companies and mixed financial holding companies (excluding MAIHC) or to request the holding to ensure a corporate structure and structural organisation that enables group supervision, even if it applies at another level in the group.

9.66 It is also recommended that the group supervisor should have appropriate and effective supervisory powers to be applied and enforced against such holding companies. The powers referred to in the previous paragraph granted to supervisors should include at least one of the following:

- suspending the exercise of voting rights attached to the shares of the subsidiary insurance or reinsurance undertaking held by the insurance holding company or mixed financial holding company;
- issuing injunctions or penalties against the insurance holding company, the mixed financial holding company or the AMBS of that holding company;
- giving instructions or directions to the insurance holding company or mixed financial holding company to transfer to its shareholders the participations in its subsidiary insurance or reinsurance undertakings;
- designating on a temporary basis another insurance holding company, mixed financial holding company or insurance or reinsurance undertaking within the group as responsible for ensuring compliance with the requirements set out in Articles 218 to 246 of the Solvency II Directive;
- restricting or prohibiting distributions or interest payments to shareholders;

- requiring insurance holding companies or mixed financial holding companies to divest from or reduce holdings in insurance or reinsurance undertakings or other financial sector entities;
- requiring insurance holding companies or mixed financial holding companies to submit a plan on return, without delay, to compliance.

### 9.3.2.7 Advice

#### **Policy Issue 1: Definition of a Holding Company**

9.67 The European Commission should further clarify Article 212(2)(f) in relation to the term “exclusively” or “mainly used in the definition of IHC so that it should be understood to refer to a situation where more than 50% of the total balance sheet of the holding company or of the group or any another indicator (e.g. the solvency capital requirement, equity, personnel, etc.) deemed relevant by the national supervisory authority, is derived from the insurance sector (including third country insurance (re)undertakings).

#### **Policy Issue 2: Article 214(1) of the Solvency II Directive and powers over holdings**

9.68 It is recommended to amend the wording of Article of the 214 (1) SII Directive to allow supervision and enforcement on the top insurance holding company or mixed financial holding companies of the group and to request of a structural organisation that enables group supervision at holding level or another level in the group.

9.69 It is also recommended that the group supervisor have appropriate and effective supervisory powers to be applied and enforced against such holding companies. A list of possible enforcement measures and the powers referred to be granted to supervisors should include at least one of the following:

- suspending the exercise of voting rights attached to the shares of the subsidiary insurance or reinsurance undertaking held by the insurance holding company or mixed financial holding company;
- issuing injunctions or penalties against the insurance holding company, the mixed financial holding company or the AMBS of that holding company;
- giving instructions or directions to the insurance holding company or mixed financial holding company to transfer to its shareholders the participations in its subsidiary insurance or reinsurance undertakings;
- designating on a temporary basis another insurance holding company, mixed financial holding company or insurance or reinsurance undertaking within the group as responsible for ensuring compliance with the requirements set out in Articles 218 to 246 of the Solvency II Directive;
- restricting or prohibiting distributions or interest payments to shareholders;



- requiring insurance holding companies or mixed financial holding companies to divest from or reduce holdings in insurance or reinsurance undertakings or other financial sector entities;
- requiring insurance holding companies or mixed financial holding companies to submit a plan on return, without delay, to compliance.

### **9.3.3 Article 214(2) of the SII Directive - Exclusion from the scope of group supervision**

#### **9.3.3.1 Extract from the call for advice**

##### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- *the scope of application of group supervision and the supervision of intra-group transactions, including the supervisory powers in cases where the parent company is headquartered in a non-equivalent third country;*

#### **9.3.3.2 Previous advice**

9.70 EIOPA answer to Q&A 485 states that “the possibility to exclude an undertaking from the scope of group supervision provided in Article 214(2) is an option which can be exercised by National Supervisory Authorities at their sole discretion, based on their assessment whether the criteria mentioned in this Article are fulfilled”; and also expresses “in case the decision to apply Article 214(2) has a consequence of non-applying group supervision, the underlying circumstances and the validity of such a decision should be monitored on a regular basis. The above approach is in line with the proportionality principle. Depending on the nature, scale and complexity of the risks of the group, the group supervisor considers the proportionality principle in the application of group supervision”.

#### **9.3.3.3 Relevant legal provisions**

9.71 Article 214(1)&(2) of the Solvency II Directive –scope of group supervision

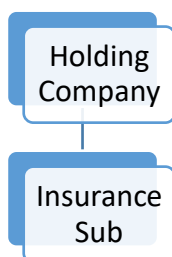
#### **9.3.3.4 Identification of the issue**

- 9.72 The possibility to exclude an undertaking from the scope of group supervision provided in Article 214(2) of the Solvency II Directive is an option, which can be exercised by NSAs, based on their discretionary assessment provided that the criteria mentioned in Article 214(2) are fulfilled. However, in accordance with Article 213(1) of the Solvency II Directive, Member States shall provide for supervision of insurance groups. For that reason the NSAs are recommended not to exclude an undertaking from the scope of the group supervision when it leads to a waiver of the group supervision, especially on the basis of justification that this undertaking is of negligible interest with respect to the objectives of group supervision.
- 9.73 However, in practice different supervisory approaches regarding the exclusion of a company from the scope of the group supervision are observed (see Issues 1 and 2 below) and this results in some degree of inconsistencies between the Member States as different conclusions can be reached based on the supervisory processes and supervisory judgment that is applied.

**Policy Issue 1: Different practices related to the exclusion of undertakings from the scope of group supervision, which can lead to complete absence of group supervision or application of group supervision at a lower / intermediate level in the group structure**

*Case 1: Exclusion of holding company; leading to complete absence of group supervision.*

Group structure concerned:

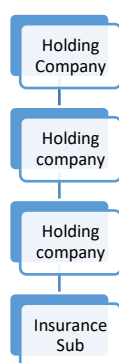


- 9.74 For the group structure presented above, the exclusion of the Holding Company would lead to complete absence of group supervision, an outcome that cannot be justified as “negligible”. A holding company in such a structure fully controls the insurance subsidiary and even if it is presenting itself as a passive investor, the fact that it only holds an insurance company outlines its interest in extracting as much financial benefit as possible from its only economic activity. These interests may be at odds with those of the insurance subsidiary policyholders and group supervision needs to be applied in order to ensure that the policyholder interests are adequately protected.
- 9.75 From the market perspective, it is observed that when private equity firms using a leveraged buyout Model structure (LBO), an empty shell (commonly outside the EEA) is generally created using bank debt, in order to invest in the insurance

subsidiary. This could create pressure on the insurance subsidiary to generate sufficient cash flows to service such debt. As a result, in many cases, insurance companies can become "over-leveraged" and they may not in position to generate sufficient cash flows to service their debt. This in turn can lead to illiquidity and insolvency. In that regard, while it may be the case that it is a simple group structure with only two companies, the need for the application of group supervision is still highly desired on the basis of the pressure associated with high dividend and coupon payments.

*Case 2: Exclusion of holding company; leading to application of group supervision at a lower / intermediate level in the group structure.*

Group structure concerned:



9.76 The instances, where a holding company was excluded from the scope of group supervision on the basis of Article 214(2) of the Solvency II Directive, decisions were mostly based on the size of the holdco and the negligible interest it represented in relation to the objectives of group supervision (Art. 214(2)(b)). For example, where the holdco was only holding of shares and its only activity consisted of the collection and distribution of dividends without any other intragroup activity, it was considered that such holdco had no significant interest for the purposes of group supervision. This situation is particularly plausible where an intermediate entity in the group is known (or proven) to actively manage the insurance activities in the group.

9.77 Some cases where holding companies at the top of the group were exempted from the scope of the group and as a result the group solvency is applied at the next level were also observed. This potentially could lead to substantial capital relief for the group SCR, which is then calculated at sub-holding level in those cases where the top holding is not the entire owner of the group. In that regard, the criterion for exemption of the scope of supervision in such cases should be further clarified and developed.

9.78 Several cases of exclusion of the top holding in the EEA were reported, as the NSA qualified the holding as of negligible interest for group supervision under Article 214(2)(b) of the Solvency II Directive. In many of these cases the holding excluded from supervision was a stock company holding the majority of the shares of a

former mutual company. In all these cases the result was a change in the level of group supervision to a sub-holding in the group structure and not the total absence of group supervision.

### **Policy Issue 2: Negligible interest vs. achieving the objectives of group supervisions**

9.79 It was also noted that there can be some different interpretations as to what “negligible interest” with respect to the objective of group supervision (as laid out in Article 214(2)(b)) means. In some cases the assessment of negligible interest was limited only to comparing the size of the entity potentially subject to exclusion with the size of the group. This, however, is not the only factor that should be considered in such assessment.

#### **9.3.3.5 Analysis**

### **Policy Issue 1: Different practices related to the exclusion of undertakings from the scope of group supervision, which can lead to complete absence of group supervision or application of group supervision at a lower / intermediate level in the group structure.**

9.80 Article 214 should be clearer in stating that the exclusion of one or more entities from the scope of group supervision on basis of negligible interest cannot lead to a situation where such decision results in complete absence of for group supervision.

9.81 The criteria for exemption of the scope of supervision under Article 214 would benefit from further clarity. Also, further supervisory convergence could be achieved by introducing a practice where EIOPA is consulted before the final decision for exemptions are taken by the NSAs.

9.82 In relation to potential capital relief deriving from the exclusion of top holding company a convergent application of Article 214(2)(b) of the Solvency II Directive should be better assured by a process in which EIOPA is consulted before the final decision for exemptions are taken by the NSA.

### **Policy Issue 2: Negligible interest vs. achieving the objectives of group supervisions**

9.83 The assessment for the purpose of exclusion from the scope of group supervision on the basis of negligible interest should not be only limited to comparing the size of the entity potentially subject to exclusion with size of the group. It should also take into account other factors, for example, impact on group solvency, etc. Also, the NSAs may not exclude undertakings if they are collectively of non-negligible interest and the supervisor should check if any undertakings belonging to the group have already been excluded from group supervision under Solvency II. If

undertakings have already been excluded, the NSA is recommended to assess whether the additional exclusions would create a non-negligible interest.

### 9.3.3.6 Policy Options

**Policy Issue 1: Different practices related to the exclusion of undertakings from the scope of group supervision, which can lead to complete absence of group supervision or application of group supervision at a lower / intermediate level in the group structure.**

*Policy Option 1 – No Change*

9.84 No change in the regulatory framework would maintain the quo status.

*Policy Option 2- A clearer principle on the exclusion from group supervision*

9.85 To introduce an overall principle in the SII Directive on the exclusion from group supervision to ensure that exceptional cases as well as cases of potential capital relief are adequately justified, documented, monitored and all relevant parties in the decision are also involved in the process. It is proposed to introduce a principle in the SII Directive stating the exclusion should not “normally” result in complete absence of group supervision. The exclusion of undertakings can lead to absence of group supervision in very exceptional cases only after consulting EIOPA and any relevant NCAs and should be subject to continuous monitoring.

9.86 It is also proposed that in case of potential capital relief deriving from the exclusion of top holding company a convergent application of Art. 214 (2)(b) should be better assured by a process in which EIOPA is consulted before the final decision for exemptions are taken by the NSA.

**Policy Issue 2: Negligible interest vs. achieving the objectives of group supervisions**

*Policy Option 1 – No change*

9.87 No change in the regulatory framework would maintain the quo status.

*Policy Option 2 – To provide criteria to be considered for the purpose of assessing “negligible interest”*

9.88 The assessment of “negligible interest” with respect to the objective of group supervision should take into account at least the following criteria: the size of the entity potentially subject to exclusion when compared with the size of the group; the potential impact on group solvency; whether the related undertaking (other than a subsidiary) belongs also to another group as a subsidiary and is included in the scope of group supervision exercised over the other group; whether

encompassing by the group supervision would lead to receiving the additional valuable information about the group (for example related but not subsidiary regulated entities).

### 9.3.3.7 Advice

#### **Policy Issue 1 -Different practices related to the exclusion of undertakings from the scope of group which can lead to complete absence of group supervision or application of group supervision at a lower / intermediate level in the group**

9.89 It is advised to introduce in the Solvency II framework an overall principle on the exclusion from group supervision to ensure exceptional cases are adequately justified, documented, monitored and all relevant parties in the decision are also involved in the process (including EIOPA):

9.90 *"Exclusion from group supervision should be carefully considered by group supervisors, taking into consideration the nature, scale and risks the entity excluded poses to the group. The group supervisors should not exclude one or more undertakings from scope of group supervision where such a decision would result in complete absence of group supervision. In very exceptional and justified cases, a waiver from group supervision could be allowed after consulting EIOPA and any relevant competent authority concerned and should be subject to continuous monitoring. When assessing each case on its own merits, the group supervisor should also ensure that any supervisory decision to exclude the top holding/ultimate parent undertaking/major shareholding from scope of group supervision and to apply the group supervision at an intermediate level should carefully consider any potential impact on the solvency position of the group and full overview of the risks the group faces or may face".*

#### **Policy Issue 2 -Further clarity on "negligible interest" with respect of achieving the objectives of group supervision (as laid down in Article 214(2)(b))**

9.91 The consideration of criteria of "negligible interest" with respect to the objective of group supervision (as laid down in Article 214(2)(b) of the SII Directive should take into account at least the following criteria: the size of the entity potentially subject to exclusion when compared with the size of the group, the potential impact on group solvency, whether the related undertaking (other than a subsidiary) belongs also to another group as a subsidiary and is included in the scope of group supervision exercised over the other group. whether encompassing by the group supervision would lead to receiving the additional valuable information about the group (for example related but not subsidiary regulated entities).

### 9.3.4 Supervision of Intragroup Transactions (IGTs) and Risk Concentrations (RCs)

#### **9.3.4.1 Extract from the call for advice**

##### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- the scope of application of group supervision and the supervision of intra-group transactions, including the supervisory powers in cases where the parent company is headquartered in a non-equivalent third country;*

#### **9.3.4.2 Relevant legal provisions**

9.92 Article 13(19) of the Solvency II Directive –definition of intra-group transaction.

9.93 Article 244 of the Solvency II Directive – supervision of risk concentrations.

9.94 Article 245 of the SII Directive – supervision of intra-group transactions.

9.95 Article 265 of the Solvency II Directive on supervision of intra-group transactions where the parent undertaking of one or more (re)insurance undertakings is a mixed-activity insurance holding company.

#### **9.3.4.3 Other regulatory background**

9.96 In accordance with Article 2(18) of the FICOD 'intra-group transaction' means all transactions by which regulated entities within a financial conglomerate rely directly or indirectly on other undertakings within the same group or on any natural or legal person linked to the undertakings within that group by close links, for the fulfilment of an obligation, whether or not contractual, and whether or not for payment.

9.97 Under FICOD the Member States shall require regulated entities or mixed financial holding companies to report, on a regular basis and at least annually, to the coordinator all significant intra-group transactions of regulated entities within a financial conglomerate, in accordance with the rules laid down in this Article and in Annex II. The thresholds shall be based according to Annex II on own funds or technical provisions and before setting the threshold an intra-group transaction shall be presumed to be significant if its amount exceeds at least 5% of the total amount of capital adequacy requirements at the level of a financial conglomerate.

9.98 With regards to reporting thresholds for RCs, FICOD provides that until the entry into force of any regulatory technical standards adopted in accordance with Article 21a(1)(b), the opinion referred to in point (17)(c) shall, in particular, take into account the market share of the regulated entities of the financial conglomerate in other Member States, in particular if this share exceeds 5%, and the importance in the financial conglomerate of any regulated entity established in another Member State.

9.99 EIOPA's Q&A process tool – question 490. The response provided by EIOPA states the following:

"Intra-group transactions (IGTs) to be reported regularly in S.36.01, S.36.02, S.36.03, S.36.04, in accordance with Article 245 of the Solvency II Directive, should be those as defined in Article 13 point 19 of Directive 2009/138/EC, according to which IGT means "a transaction by which (re) insurance undertaking relies, either directly or indirectly on other undertakings...." and that are performed by insurance and reinsurance undertakings within a group. Therefore, only IGTs in which at least one insurance or reinsurance undertaking is involved, either directly or indirectly, are subject of reporting obligations under Article 245 of the Solvency II Directive.

Information about the transactions which do not fall under the scope of the above mentioned definition may be requested in addition by the relevant supervisory authority on the basis of Article 254(2) of the Solvency II Directive, according to which supervisory authorities shall have access to any information relevant for the purpose of group supervision, regardless of the nature of the undertaking concerned."

#### **9.3.4.4 Identification of the issues**

##### **Policy issue 1 - IGTs Definition**

9.100 The current definition of IGTs as provided in Article 13(19) of the Solvency II Directive does not explicitly include the reference to the Insurance Holding Companies (IHC), Mixed Activities Insurance Holding Companies (MAIHC) or Mixed Financial Holding Companies (MFHC) as one of the possible counterparties of the IGT as well as between other non-insurance undertakings part of the group supervision scope.

9.101 From a supervisory perspective, the lack of explicit reference to holding companies and other related parties as one of the possible counterparties is considered as a gap since it doesn't allow to capture clearly the information regarding IGTs that involve only holding companies and other related parties, for example when the group consists of a cascade of holding companies (with insurance subsidiaries at the bottom of the cascade). The information is deemed fundamental to understand the movements of capital (the funding system) within the group. Indeed, EIOPA underlines that according to Article 235 of the Solvency II Directive, holding companies should be considered, for the purpose of group solvency, as insurance or reinsurance undertakings.

9.102 The definition is not including also the reference to third country insurance and reinsurance undertakings in the scope of the group. This is considered another fundamental gap from a supervisory perspective, since the (re)insurance undertakings should be treated equally regardless of their location, EEA or not EEA, for the purpose of IGTs supervision.

9.103 Moreover, in case of third country groups with no EU group supervision the level of details provided on the IGTs is not the same as for the EU groups and the information provided depends on the third country supervisor and might not include relevant information for the major solo undertakings.



9.104 An additional issue relates to the case where a mixed-activity insurance holding company (MAIHC) is the head of a Financial Conglomerate. In some Member States a regulated entity other than an insurance undertaking, for example a bank, can be identified as MAIHC, as defined in Article 212(1)(g) of the Solvency II Directive. It is justified with the fact that no explicit provision prevents a regulated financial undertaking from being a MAIHC as credit institutions are not excluded in this definition. In this case intra-group transactions should be monitored on the basis of Article 265 of the Solvency II Directive. However, in some jurisdictions Solvency II IGTs-reporting with a MAIHC was replaced by FICOD IGTs-reporting, which is subject to higher thresholds and thus considered of limited value from insurance supervisory perspective. Therefore, in principle IGTs between the insurance undertakings and the bank should be monitored.

### **Policy issue 2 - IGTs and RCs Thresholds**

9.105 Thresholds for IGTs are set according to Art 245(3) in connection with Art 244(3) of the Solvency II Directive. The group supervisor based on the specific assessment of the significance of IGTs for a specific group and after consulting the other supervisory authorities concerned and the group, decides upon appropriate thresholds for the reporting by type of IGT. Thresholds should be based on solvency capital requirements, technical provisions, or both. However, nature and structure of a group might result in the necessity of different thresholds for different types of transactions.

9.106 The thresholds should take into account the risk profile of the individual undertakings, such as the SCR of the individual (re)insurance undertakings, as IGTs can significantly affect the solvency and liquidity of an individual group member.

9.107 Thresholds for RCs are set according to Art 244(3) of the Solvency II Directive. The group supervisor based on the specific assessment of the significance of RCs for a specific group and after consulting the other supervisory authorities concerned and the group, decides upon appropriate thresholds for the identification and reporting of significant RCs or RCs to be reported in any circumstance. Similarly to IGTs, thresholds should be based on solvency capital requirements, technical provisions, or both. When defining the thresholds, the group supervisor and the supervisory authorities concerned should take into account the specific group and risk-management structure of the group.

9.108 At present there is a lack of consistency in application of thresholds for IGTs and RCs among the NSAs with different procedures and thresholds set up for each group for the identification and reporting of significant, very significant IGTs or IGTs to be reported in any circumstance as well as for significant RCs or RCs to be reported in any circumstance. Some common practices for IGTs include the use of relative thresholds based on the solvency capital requirement of the solo undertaking involved in the transaction (e.g. x% of the lowest solo solvency requirement of the undertakings involved in the transaction), while for RCs thresholds are based on the group solvency capital requirement. However, these thresholds differ and in some cases they are not defined at all. As a result, setting

thresholds that too high or too low may impair the analysis of transactions or risk concentrations that can be important in understanding the overall risks of the group.

- 9.109 Moreover IGTs and RCs reporting may become onerous and in turn it can become difficult for supervisors to analyse. Thresholds should be set in such a way that they are useful from perspective of supervisors and in the same time they do not create an excessive reporting burden for groups.
- 9.110 It is also noted that the current basis for thresholds for IGTs reporting are limited, in accordance with Article 244(3) of the Solvency II Directive, to solvency capital requirements, technical provisions, or both. From IGTs perspective this can present potential issue in the cases of transactions involving non-regulated entities considering that thresholds will be applied to a regulated undertaking. In the case where such undertaking has high SCR and /or technical provisions this may lead to a risk of not capturing all of the information necessary from perspective of the group supervisor. With regards to RCs where the most common practice is to use the group solvency capital requirement for the purpose of setting RCs thresholds, this can be not always relevant for all single risk exposures and combinations of risk exposures, which may arise in a group.
- 9.111 Additionally the threshold based on SCR/technical provision may result in unintended consequences, as the increase of these value will increase the threshold. This means that the higher risk/higher technical provisions will effect in lower number of transaction/exposure reported, which is not the aim of the reporting.

#### **9.3.4.5 Analysis and Policy Options**

##### **Policy Issue 1: IGTs Definition**

*Policy Option 1: No change of the current regulation.*

- 9.112 No change. In this case, the definition included in Article 13(19) of the Solvency II Directive would remain limited to IGTs where at least one EEA insurance or reinsurance undertaking is involved, either directly or indirectly.
- 9.113 The information on IGTs, which do not fall under the scope of definition in Article 13(19) (i.e. transaction where one of the counterparty is a Holding Company or other related entity, or a third country insurance undertakings) can be requested by the relevant supervisory authority on the basis of Article 254 of the Solvency II Directive, according to which supervisory authorities shall have access to any information relevant for the purpose of group supervision, regardless of the nature of the undertaking concerned.
- 9.114 The current definition might affect supervisory convergence stemming from the divergent supervisory practices observed in closing the gap identified.

*Policy Option 2: Amend the wording of Article 13(19) of the Solvency II Directive to include at least holding companies (IHC, MFHC, MAIHC) and third country (re)insurance undertakings as a possible counterparty to the transaction.*

9.115 This would allow the supervisor to have access to information also about transactions between holding companies or third country (re)insurance undertakings and any other entity of the group, which would be a counterparty to such transaction.

9.116 Amend Article 13 (19) of the Solvency II Directive to include at least any transaction by which a (re)insurance undertaking, third country (re)insurance undertaking, insurance holding company, mixed financial holding company and mixed activity insurance holding company relies, either directly or indirectly, on other undertakings within the same group or on any natural or legal person linked to the undertakings within that group by close links, for the fulfilment of an obligation, whether or not contractual, and whether or not for payment. The NSAs may add further type of counterparties based on their supervisory needs.

*Policy Option 3: Enlarge the IGT definition to any transaction among all undertakings within the group (i.e. ancillary services, etc.)*

9.117 The enlargement of the definition to any kind of IGTs, which can include also transactions that have no impact on (re)insurance undertakings of the group (e.g. transaction between entities belonging to other sectors) can provide the group supervisor with an overall picture of all main transactions within the group. The downside however, is that it could be very burdensome for the group to provide such information, while not being very efficient from a supervisory perspective.

9.118 To reduce the reporting burden, the group supervisor in cooperation with the other supervisors, could eventually define separate thresholds for the different kind of transactions with a view of receiving information, which would be of focus from supervisory perspective taking into account specificities of the supervised group.

## **Policy Issue 2: Thresholds for IGTs and RCs**

9.119 Considering the issues highlighted above, further convergence on IGTs and RCs reporting can be achieved by providing further guidance for setting up thresholds and supervision of IGTs and RCs. This work will be supported by cross analysis of NSAs approaches in order to identify best practices and foster supervisory convergence. It will be completed by the end of 2020.

9.120 In relation to setting up thresholds for IGTs and RCs reporting it is recommended the appropriateness of the current basis used for setting thresholds prescribed in Article 244(3) of the Solvency II Directive is also reviewed to allow an introduction of other criteria in order to take into account specificities of the supervised group. In that regard other indicators should be also considered for that purpose. For example eligible own funds or qualitative criteria deemed relevant.

*Policy Option 1 – No change*

9.121 No change in the regulatory framework would maintain the status quo.

*Policy Option 2: To provide further clarity in Article 244(3) of the Solvency II Directive*

9.122 It is recommended that Art. 244(3) of the Solvency II Directive is amended with a view of allowing the introduction of additional criteria, such as eligible own funds or a qualitative criterion, to these being of the SCR and/or technical provisions for the purpose of setting thresholds for IGTs and RCs reporting as deemed necessary by the group supervisor

#### **9.3.4.6 Advice**

##### **Policy Issue 1 – Definition of IGTs**

9.123 EIOPA advises the European Commission to amend Article 13 (19) of the Solvency II Directive in order to include at least any transaction by which a (re)insurance undertaking, third country (re)insurance undertaking, insurance holding company, mixed financial holding company and mixed activity insurance holding company relies, either directly or indirectly, on other undertakings within the same group or on any natural or legal person linked to the undertakings within that group by close links, for the fulfilment of an obligation, whether or not contractual, and whether or not for payment.

9.124 Within this framework, the NSAs would be allowed to include in the scope of IGTs reporting further type of counterparties based on their supervisory needs. For instance, in the cases where a bank is the parent of an insurance undertaking and independently of its classification as being/or not a MAIHC, the group supervisor could require additional reporting of any intra/group transactions between insurance undertaking(s) and that bank.

##### **Policy Issue 2 – IGTS and RCs Thresholds**

9.125 It is recommended that Article 244(3) of the Solvency II Directive is amended with a view of allowing the introduction of additional criteria, such as eligible own funds or a qualitative criterion, to these being of the SCR and/or technical provisions for the purpose of setting thresholds for IGTs and RCs reporting as deemed necessary by the group supervisor.

## Third Countries

### 9.3.5 Article 262 Solvency II Directive - Clarification

#### 9.3.5.1 Extract from the call for advice

##### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- the scope of application of group supervision and the supervision of intra-group transactions, including the supervisory powers in cases where the parent company is headquartered in a non-equivalent third country;*

#### 9.3.5.2 Relevant legal provisions

9.126 Article 247 of the Solvency II Directive – Group Supervisor

9.127 Article 262(1) and (2) of the Solvency II Directive: Parent undertakings outside the Community: absence of equivalence

#### 9.3.5.3 Identification of the issue

9.128 If the ultimate parent undertaking of an EEA (re)insurance undertaking is situated in a third-country that is not recognised as equivalent according to Article 260 of the Solvency II Directive, the competent EEA group supervisor may determine the scope of group supervision as follows:

- application of the relevant Solvency II requirements to the world-wide group as if it was based in the EEA; or
- application of “other methods” to achieve the objectives of group supervision as mentioned in Article 262(2) of the Solvency II Directive.

9.129 The Directive in its current form provides one example of what an “other method” could mean as it mentions the establishment of a holding company in the EU and the application of Solvency II group supervision principles at that level. In supervisory practice, the following other methods have been identified as effective means of collecting information as to the wider group to which EEA operations belong to:

<b>Objectives related to group supervision</b>	<b>Example of methods</b>

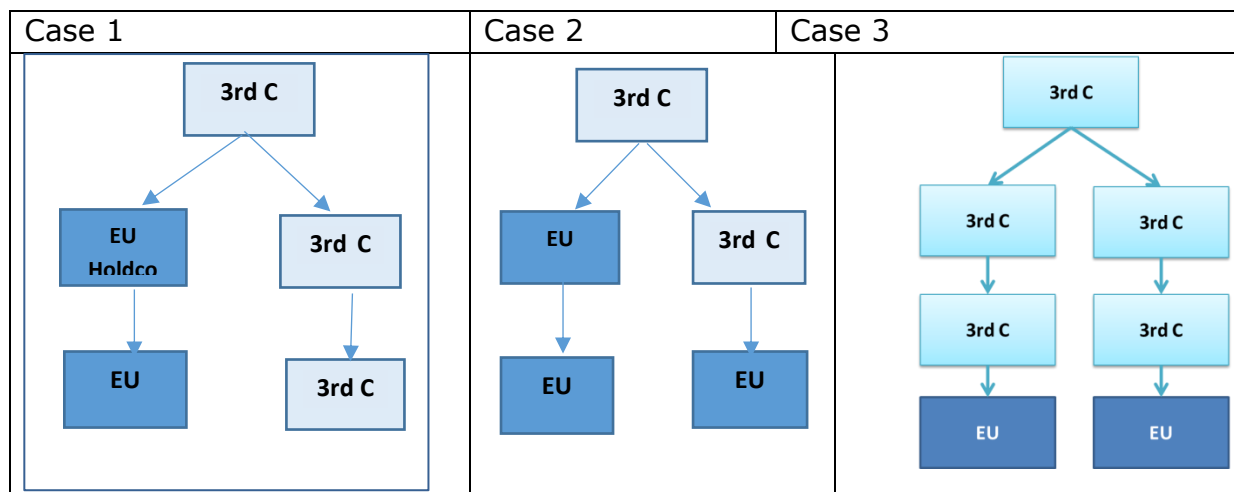
Limit the contagion risk within the group	<ul style="list-style-type: none"> <li>- Require the group to establish/maintain an insurance holding company (or a MFHC) with its head office in the EEA (with all EEA insurance undertakings owned and controlled by that entity). This is specifically referred in Article 262 of the Solvency II Directive;</li> <li>- Require the board of the EEA holding company to be independent in composition of the parent;</li> <li>- Prohibit, limit or restrict transactions between the EEA undertakings and the rest of the group.</li> </ul>
Preserve the capital allocation	<ul style="list-style-type: none"> <li>- Prohibit the payment of dividends outside the EEA entities (or EEA group) without notifying the group supervisor;</li> <li>- Prohibit, limit, restrict or require pre-notification of transactions between the EEA undertakings and the rest of the group including (but not limited to): <ul style="list-style-type: none"> <li>• reinsurance;</li> <li>• investment in loans to related undertakings; and</li> <li>• any other transaction that involves the transfer of economic benefits to, or the assumption of liabilities from, a related non-EEA undertaking or group.</li> </ul> </li> </ul>
Assess the risks of an insurance group in a group-wide context with a particular focus on the risk of contagion and the impact of unregulated entities within a group	<ul style="list-style-type: none"> <li>- Receive any solvency reports provided to third-country supervisors for any (or all) parent undertakings of the EEA supervised firm or group;</li> <li>- Receive reports prepared for the board of the third-country parent undertaking which concern: <ul style="list-style-type: none"> <li>• the group’s overall financial and/or solvency position;</li> <li>• the assessment and measurement of risks the group is exposed, to i.e. any ORSA like or equivalent reports;</li> </ul> </li> <li>- Requiring the group to provide copies of letters, reports or other correspondence from their auditors.</li> </ul>
Ensure at least one supervisor has an overall view of the group and its associated risks and establish protocols for cooperation between groups	<ul style="list-style-type: none"> <li>- Require the group to provide any correspondence from another supervisory authority relating to the financial position or solvency of the parent undertaking or the group as a whole;</li> <li>- Presence of a world-wide college or a more limited alternative, e.g. creation of a memorandum of understanding (MoU) to facilitate dialogue and exchange of information with other supervisors.</li> </ul>

#### 9.3.5.4 Analysis

##### **Policy Issue 1: Article 262 of the Solvency II Directive - Clarity needed**

9.130 The option to require the set up of an EEA hold-co was intended to refer to different situations where there is no ultimate parent undertaking at the EU level:

- A single EU group within the world-wide group (case 1),
- An EU sub-group which is part of a world-wide group but does not include all of the EU undertakings (case 2),
- There is no parent undertaking at the EU level and therefore no EU group (case 3).



9.131 The option to establish an EU holding company not relevant in case 1, where there is no need for an EU holding company, as there is already a EEA holding company which means that Article 213(2)(a) or (b) applies at the level of the EU group. In such a case, the EEA group supervisor would only need to decide whether any additional “other methods” such as the one listed in table above are needed. Supervisors will make these decisions on a case-by-case basis taking into account the particular circumstances of a group and may equally decide that no other methods, in addition to the establishment of a holding company, are necessary.

9.132 In cases 2 or 3, the current wording in Article 262(2) is not clear whether, when such an EU holding company is to be established, it shall be the parent undertaking of all (re)insurance undertakings in the EU as it only states that “The supervisory authorities may in particular require the establishment of an insurance holding company which has its head office in the Community, and apply this Title to the insurance and reinsurance undertakings in the group headed by that insurance holding company.”).

9.133 Some supervisors have also informed that the creation of an EU holding company is not necessarily easy to enforce. This is mainly the case in Member States where the supervisor does not have specific statutory powers to require the group to restructure. In that regard it is necessary that supervisory authorities have adequate powers to require restructuring in such a way which allows for the establishment of such an EU holding company. To ensure a consistent use of such powers at EU level, in the case of cross-border groups, other supervisory authorities concerned and EIOPA should be consulted as part of the decision process. This is not necessary in the case of a restructure carried out at national level.

## **Policy Issue 2: Other issues identified in the application of current provisions on third countries consistency and clarity of language**

*Case 1 - Consistency of drafting between Articles 213 and 260 of the Solvency II Directive:*

- 9.134 In the absence of equivalence as referred to in Article 260, Article 262 provides that Solvency II principles for group supervision shall apply “at the level of the insurance holding company, third-country insurance undertaking or third-country reinsurance undertaking”.
- 9.135 The provision appears inconsistent with the different types of ultimate third-country parent undertakings, as referred to in Article 213(2)(c): “an insurance holding company having its head office outside the Community or a third-country insurance or reinsurance undertaking”.

*Case 2 - Clarity of language as to objective of “other methods”*

- 9.136 Paragraph 2 of Article 262 states that, where other methods are to be applied, they must “ensure appropriate supervision of the insurance and reinsurance undertakings in a group”. While not specifically said, is understood in practice that this provision aims at ensuring appropriate supervision of EU insurance and reinsurance undertakings which belong to a group with the meaning of Article 212 and Article 213(2)(c), i.e. which ultimate parent undertaking is located in a non-equivalent third-country (Article 260 equivalence).

*Case 3 - Clarity of language as to role of the EEA group supervisor in setting “other methods”*

- 9.137 Article 262(2) requires that these other methods must “be agreed by the group supervisor, after consulting the other supervisory authorities concerned”. It is understood that the “group supervisor” which is referred to is the EU group supervisor, in accordance with Article 247.
- 9.138 Some undesirable confusion was reported as to whether the “group supervisor” could be interpreted as the third-country Authority in charge of the supervision of the worldwide group, with the meaning of Article 212.

### **9.3.5.5 Policy Options**

#### **Policy Issue 1: Article 262 of the Solvency II Directive - Clarity needed**

*Option 1: No change*

- 9.139 No change in the regulatory framework would maintain the status quo.

*Option 2: to clarify the application of Art. 262 of the SII Directive.*



9.140 Providing further clarity on the circumstances for establishment of EU-holdco would benefit the EEA group supervisor when assessing the most appropriate method to apply taking into account the existing group depending already existing EU structure. In addition, providing further clarity on the objectives of the use of 'other methods' would be of benefit.

**Policy Issue 2: Other issues identified in the application of current provisions of Article 262 on third countries**

*Option 1: No change*

9.141 No change in the regulatory framework would maintain the status quo.

*Option 2: To ensure consistency and clarity of the language contained in Art. 262 of the SII Directive*

9.142 The European Commission should seek to further amend Article 262(2) to improve consistency of drafting with Article 213 regarding definition of third country ultimate parent of the group and to clarify that it is the EEA group supervisor that applies "other methods" to ensure appropriate supervision of EEA entities belonging to a wider international group. This will ensure more consistency in the application of other method and further convergence among the NSAs.

**9.3.5.6 Advice**

**Policy Issue 1: Article 262 of the Solvency II Directive - Clarity needed**

9.143 The European Commission should retain the current wording of Article 262(1) and in doing so continue to offer EEA group supervisors the option to either apply Solvency II group supervision at the level of the ultimate non-equivalent third country group or to apply "other methods".

9.144 The European Commission should further clarify Article 262(2) to set out an expectation that supervisors can make use of "other methods" in addition to what is already provided in this article. With a view to support the objectives of Solvency II group supervision the following methods should be also considered:

- i) Methods aiming to limit the contagion risk from the third-country group and the EU sub-group(s) or isolated undertakings;
- ii) Methods aiming to preserve the capital allocation of the EU sub-group(s) or isolated undertakings and prevent creation of capital;
- iii) Methods aiming to assess risks at the level of the world-wide group context with a particular focus on the risk of contagion and the impact of unregulated entities within the group;
- iv) Methods aiming to ensure cooperation between all concerned supervisors (within the EU and/or outside of the EU) and that at least one supervisory

authority has an overall view of the group and its associated risks and establish protocols for cooperation between groups.

- v) Other methods as deemed necessary by the NCA (this is to let the NCA the possibility to come up with their own experience).

9.145 It is also advised that the supervisory authorities shall clearly document the rationale for the choice of one or several methods as defined above.

9.146 The European Commission should clarify Article 262(2) to indicate that the establishment of an EEA holding company can be required as an "other method" when no such holding company exists encompassing all EEA business of the group. However, the establishment of an EEA holding company should not be mandatory where the supervisor applies "other methods" that allow it to achieve the objectives of Solvency II group supervision.

### **Policy Issue 2: Other issues identified in the application of current provisions of Article 262 on third countries**

9.147 The European Commission should seek to further amend Article 262(2) of the SII Directive to improve consistency of drafting with Article 213 of SII Directive regarding definition of third country ultimate parent of the group and to clarify that it is the EEA group supervisor that applies "other methods" to ensure appropriate supervision of EEA entities belonging to a wider international group.

## **Rules governing the methods for calculating Rules governing the methods for calculating group solvency (including Own Fund requirements), including the interaction with Directive 2002/87/EC "FICOD"**

### **Method 1 -Calculation of Group Solvency**

#### **9.3.6 Treatment of Insurance Holding Companies (IHC), Mixed Financial Holding Companies (MFHC)**

##### **9.3.6.1 Extract from the call for advice**

##### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- [...]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds*

### **9.3.6.2 Relevant legal provisions**

9.148 Article 226 and Article 235 of Directive 2009/138/EC

9.149 Articles 329, 330, 335, 336, 359, 372 of the Delegated Regulation 2015/35 (DR)

9.150 Guideline 21 of EIOPA Guidelines on Group Solvency.

### **9.3.6.3 Identification of the issue**

9.151 Article 226 and Article 235 of Directive 2009/138/EC provide, respectively, that IHC and MFHC as well as IHC and MFHC that are at the top of the insurance group should be treated for the sole purpose of the group solvency calculation as if they were insurance or reinsurance undertakings subject to the Solvency II rules as regards the solvency capital requirements and eligible own funds. The same treatment would be applicable to a parent IHC, MFHC in a non-equivalent third country according to art 262 of the Solvency II Directive, unless other methods are applied. In addition, articles 329, 330, 335, 336, 359 and 372 of the Delegated Regulation specifies additional aspects of the treatment on IHC and MFHC for the purpose of the group solvency calculation, in particular with regard to the treatment of own funds.

9.152 It is not clear how to treat the IHC and MFHC for the purpose of the group solvency calculation, in particular if a notional SCR should be calculated for such undertakings.

9.153 A notional capital requirement is instead required explicitly for a non-regulated undertaking carrying out financial activities in article 329(1)(e) of the Delegated Regulation.

9.154 When method 1 is used, Article 335(1) (a) and (c) of the Delegated Regulation requires a full or proportional (line by line) consolidation of any related IHC or MFHC, if subsidiaries. This means that IHC and MFHC, both at the top and at intermediate level, contribute to the consolidated group SCR according to Article 336 (a) of the Delegated Regulation.

9.155 However, there are situations where the solvency assessment of an IHC or MFHC is needed at individual level for the purpose of the group solvency calculation:

- the consolidated group SCR should also include the proportional share of the SCR of the intermediate IHC and MFHC that are not subsidiaries according to Article 336 (b) of Delegated Regulation;
- for the assessment of the availability of own funds, according Article 330(5) of the Delegated Regulation "where an own-fund item of a related insurance or reinsurance undertaking, third-country insurance or reinsurance undertaking, IHC or MFHC cannot effectively be made available to cover the

group Solvency Capital Requirement, this own fund item may only be included in the calculation of group solvency up to the contribution of that related insurance or reinsurance undertaking, third-country insurance or reinsurance undertaking, IHC or MFHC to the group Solvency Capital Requirement". Therefore a notional SCR would be needed, in general, when assessing any potential deduction of non-available own funds.

9.156 Moreover, Article 372(2)(c)(ii) of Delegated Regulation foresees that the group regular supervisory report includes the "qualitative and quantitative information on the Solvency Capital Requirement and own funds for each intermediate insurance holding company, insurance holding company, intermediate mixed financial holding company, mixed financial holding company and ancillary services undertaking within the group, in so far as it is included in the calculation of the group solvency".

9.157 An additional aspect relates to the calculation of their contribution to the minimum consolidated group SCR, where article 230 of the Directive only includes a reference to the MCR of the participating and related (re)insurance undertakings and it does not extend it to other undertakings such as IHC, MFHC. The rationale for having a different scope for the minimum consolidated SCR and the Group SCR is not clear except for the fact that certain undertakings are not imposed a notional minimum capital requirement<sup>222</sup>. However, closing the issue on the lack of alignment on the scope between these two would be favourable. In particular for the issue highlighted in this section regarding IHC and MFHC, further details on proposals on the minimum consolidated SCR are available at section 9.3.15 of this Chapter

9.158 In addition to that, there is no clarity regarding the treatment of the IHC and the MFHC when applying method 2, whether the IHC and the MFHC should be included in the scope of the group solvency calculation with a notional OF and a notional SCR. This issue is also addressed separately in the section 9.3.8 on the scope of application of method 2.

#### **9.3.6.4 Analysis and Policy Options**

##### *Option 1- No change*

9.159 No change means the current issues will remain.

##### *Option 2 – A notional SCR equal to zero*

9.160 A notional SCR equal to zero. When applying method 1 a notional SCR equal to zero would lead to that, for example, all minority interest in an intermediate IHC and MFHC would be deducted from the group own funds. There will be no contribution to group SCR of related not subsidiary IHC and MFHC, in comparison to the treatment for related not subsidiary insurance and reinsurance undertakings.

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<sup>222</sup> Guideline 21 of EIOPA Guidelines on Group Solvency, explanatory text 2.64: Insurance holding companies, mixed financial holding companies, ancillary services undertakings and special purpose vehicles are not separately included in the minimum consolidated group solvency capital requirement since no notional minimum capital requirement is required for them.

- 9.161 When applying both method 1 and method 2 (combination of methods), any subordinated debt issued by an intermediate IHC or MFHC would be assumed non-available (if not proven otherwise) and the whole amount of subordinated debt would be deducted from the group own funds.
- 9.162 When applying method 2, in practice, there will be no inclusion of IHC or MFHC since OF and SCR are equal to zero.
- 9.163 In general, the solvency position of the group will not be reflecting real risks from IHC and MFHC.

*Option 3 - Request for a notional SCR to be calculated*

- 9.164 A notional SCR would be calculated on the basis that the IHC or MFHC should be treated as an insurance undertaking for the purpose mentioned in, inter alia, Article 336(b), Article 330(4)(a) and Article 372(2)(c)(ii) of the Commission Delegated Regulation (EU) 2015/35.
- 9.165 This would mean that when applying method 1, only the amount of, for example, minority interest that exceeds the contribution of that related undertaking to the group SCR is deducted from the group own funds.
- 9.166 Any subordinated debt issued by an intermediate IHC or MFHC would be assumed be non-available (if not proven otherwise) and only the amount exceeding the contribution of that related undertaking to the group SCR would be deducted from the group own funds. If IHC or MFHC is included under method 2 (as proposed in the section 9.3.8 on Scope of method 2), these should also be treated as an insurance undertaking and will be included in the group solvency calculation with a notional OF and a notional SCR.
- 9.167 The notional SCR of an IHC and MFHC should cover relevant risks listed in Article 101(4) of Directive 2009/138/EC, depending on the risk profile of the insurance holding company or mixed financial holding company. Considering that a holding company does not carry out (re)insurance activities, their potential exposures to market, credit and operational risks should still be covered. The same treatment applies in case of the standard formula and an internal model.

### **9.3.6.5 Advice**

**Policy Issue 1: Need to clarify how to treat the IHC and MFHC for the purpose of the group solvency calculation, in particular of a notional SCR for such undertakings**

- 9.168 EIOPA advises that the regulatory framework is amended to include clearly the provision of a notional SCR for both the parent and intermediate IHC and MFHC, including those in third country, similarly to the provision of a notional capital requirement for non-regulated undertakings carrying out financial activities.

9.169 A notional SCR would be calculated on the basis that the IHC or MFHC should be treated as an insurance undertaking for the purpose mentioned in, inter-alia, Article 336(b), Article 330(4)(a) and Article 372(2)(c)(ii) of the Commission Delegated Regulation (EU) 2015/35. If IHC or MFHC are included under method 2, these will be treated as an insurance undertaking when calculating notional OF and SCR for the purpose of the group solvency calculation.

9.170 The notional solvency capital requirement for IHC and MFHC should be calculated in accordance with Articles 100 to 127 of Directive 2009/138/EC.

### **9.3.7 Article 229 of the Solvency II Directive – Proxy Methods**

#### **9.3.7.1 Extract from the call for advice**

##### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- *[...]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

#### **9.3.7.2 Relevant legal provisions**

9.171 Article 214 of the Solvency II Directive

9.172 Article 229 of the Solvency II Directive

#### **9.3.7.3 Identification of the issue**

9.173 There are cases where imposing Solvency II calculations to non-equivalent third countries insurance undertakings (subsidiaries) is currently operationally burdensome (for small undertakings in non-equivalent third countries) or impossible (for instance, no rate curve for this country) and where Article 214 of the Solvency II Directive is not applicable. Indeed, the concerned entities cannot be considered as negligible, or there are no legal barriers to the transfer of information, or the inclusion of the concerned entities is not inappropriate or misleading with respects to the objectives of group supervision. Should Article 214 be applicable to single entities, it is not applicable because, the excluded entities taken together are not negligible.

9.174 In some cases, applying Article 229 does not necessarily lead to efficient supervisory results (for instance, the group may end up excluding from the calculation of group solvency some material subsidiaries as the SII calculation would not be possible for those), and using method 2 with proxies is also judged as burdensome.

#### **9.3.7.4 Analysis**

9.175 In order to avoid the issue identified above, and facilitate efficient group solvency supervision, it is recommended to introduce a clear methodology that is easily applicable to the calculation of own funds and the group SCR calculation as an alternative to the exclusion from group solvency calculation, when the calculation is impossible:

- For the OF calculations, the adjusted equity method with cap of own-funds it means to consider the excess over the SCR value as non-available.
- For the SCR calculation, this value is shocked for the equity risk, currency risk and concentration risk; this capital requirement is then added to the group SCR.

9.176 Extend the application of the above methodology in line with the proportionality principle in very specific circumstances for the immaterial undertakings.

9.177 For the application of such a proportionality principle, where several undertakings of the same group, taken individually, may be concerned, the NCAs should check that they are of negligible interest when collectively considered.

9.178 The use of any simplified calculations should be subject to the group supervisor approval.

#### **9.3.7.5 Policy Options**

##### *Option 1 – No change*

9.179 No change means that the current issues will continue.

##### *Option 2 – Introduce a simplified methodology in favour of equity method with a cap on own funds for undertakings for which Solvency II calculation is not possible or small undertakings (proportionality principle)*

9.180 Introducing a simplified methodology in favour of equity method with a cap on own funds for undertakings for which Solvency II calculation is not possible or allows in some way an explicit application of the proportionality principle to small undertakings covered under this case.

9.181 With this approach, the controlled (re)insurance undertaking (for which information is not available or small) is still part of the group solvency calculation (using equity method), and for the own funds, a prudent approach is adopted by considering that the excess over the SCR value is non-available.

9.182 Two cases could be identified regarding the value of the participation:

- i. If the value of the participation is positive: in that case, the participation has a positive value in the group balance sheet (equity method), with equity/currency/concentration risk shocks
- ii. If the value of the participation is negative: in that case, the participation has a negative value in the group balance sheet (equity method) but no shock

9.183 The use of the simplified methodology should be subject to the group supervisor's approval.

### **9.3.7.6 Advice**

#### **Policy Issue 1: Article 229 and Proxy Methods**

9.184 EIOPA advises the European Commission to introduce a simplified calculation for the purpose of group solvency calculation as an alternative to the use of article 229 of the Directive (exclusion from the scope of group solvency calculation) in two specific cases:

(i) when imposing Solvency II calculations according to article 335 (1) of the Delegated Regulation letter a and b to (re)insurance undertakings is operationally impossible (for instance no rate curve for this country) - Issue 1;

(ii) for proportionality reasons, where the application article 335 (1) of the Delegated Regulation letter a and c to small (re)insurance undertakings, insurance holding companies, mixed financial holding companies and ancillary services undertakings could be operationally burdensome - Issue 2

9.185 The simplified calculation proposed is the use of the adjusted equity method, with a cap on own funds. The use of any simplification should be subject to approval by the group supervisor.

## **Method 2 -Calculation of Group SCR**

### **9.3.8 Scope of method 2 (where used exclusively or in combination with method 1)**

#### **9.3.8.1 Extract from the call for advice**

#### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings*



*published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- [...]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

### **9.3.8.2 Relevant legal provisions**

9.186 Article 220(2) of the Solvency II Directive

9.187 Article 233 of the Solvency II Directive

9.188 Article 328 of the Delegated Regulation

### **9.3.8.3 Identification of the issue**

9.189 There is a need to clarify the scope of undertakings to be included under method 2 and their treatment to ensure a consistent treatment across methods (same scope of entities under all methods) and across EEA.

9.190 Article 220(2) of the Solvency II Directive states that when the supervisory authority is of the opinion that the use of the exclusive application of the default method (method 1) is not appropriate, the group can, after approval, apply method 2 or a combination of method 1 and 2.

9.191 Article 233 in the Solvency II Directive sets out how the calculation of group solvency is done with method 2 (the alternative method). This article is only referring to the inclusion of related (re)insurance undertakings and there is no reference to other types of undertakings such as third country insurance and reinsurance undertakings, insurance holding companies (IHC) and mixed financial holding companies (MFHC) or undertakings in other financial sector (OFS).

9.192 Article 328 of the Delegated Regulation lists the elements to consider when assessing whether to approve the inclusion of a related undertaking with method 2. In this article the reference is to related undertakings and, specifically, to third-country (re)insurance undertakings (Article 328(1)(f)).

9.193 Therefore, a predominant question among supervisors is if the use of method 2 is for all related undertakings in general.

- Should the use of method 2 also include related IHC and MFHC?
- If the IHC or MFHC is included under method 2, these should be treated as an insurance undertaking when calculating notional SCR and OF for the purpose of the group solvency calculation.
- Should the use of method 2 also be applied to related undertakings in Other Financial Sectors (OFS)?

9.194 Article 329(1) of the Delegated Regulation (which is theory valid for both method 1 and method 2) provides that related undertakings in OFS should be included with the relevant sectoral rules referred to in letter (a) to (e). However, it's not definitely clear if the use of method 2 was intended to be used for related undertakings OFS.

#### 9.3.8.4 Analysis

9.195 The insurance holding company and mixed financial holding company could be included in the scope of application of method 2 on the basis of article 226 and 235 of the Solvency II Directive that states that IHC and MFHC shall be treated as if they were insurance undertakings for the purpose of group solvency calculation, regardless of the method of calculation.

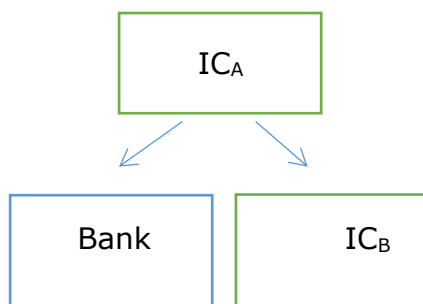
9.196 In relation to the undertakings in OFS, their inclusion in the scope of method 2 is less straightforward.

9.197 First of all the regulatory framework should clarify if method 2 is applicable to undertakings in OFS or not. From the reading of article 233 of the directive it seems that method 2 was not necessarily designed for the inclusion of undertakings in OFS.

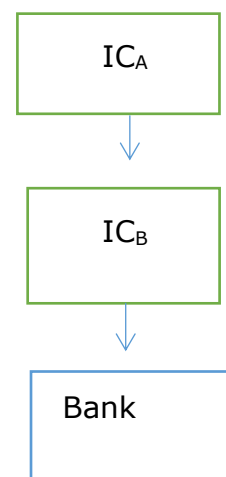
9.198 Additionally, there are still uncertainties related to the treatment of OFS entities, in particular, it is not clear if article 329 of the Delegated Regulation should be always followed for OFS entities regardless of the method of calculation used.

9.199 Two simple cases are illustrated below: insurance undertaking A controls both an insurance undertaking B and a bank directly (case 1) or indirectly through ICB (case 2). The insurance undertaking B is included via method 2.

Case 1



Case 2



9.200 In the case illustrated above, the ICB is included with D&A, the question is how do we treat the Bank in both cases? To ensure consistency of treatment regardless the group structure itself, it should be clear that the contribution of the bank is taken into account according to article 329 of the DR in both cases.

### 9.3.8.5 Policy Options

#### *Option 1: No Change*

9.201 No change keeps the uncertainty and therefore not a preferred choice.

#### *Option 2: Provide clarity regarding Article 233 of the Solvency II Directive and Article 329 of the Delegated Regulation.*

9.202 Article 233 of the Solvency II directive should clearly identify the undertakings to which method 2 would be applicable and the Delegated regulation should clearly prescribe the treatment for such undertakings. In particular:

- if the IHC or MFHC can be included under method 2, a notional SCR and OF should be calculated on the basis that the IHC or MFHC is treated as an insurance undertaking;
- if the undertakings in other financial sectors can be in the scope of method 2, Art 329 of the Delegated Regulation should clearly apply to both method 1 and 2.

### 9.3.8.6 Advice

**Policy Issue 1: Need to clarify the scope of undertakings to be included under method 2 and their treatment to ensure a consistent treatment across methods (same scope of entities under all methods) and across EEA**

9.203 EIOPA is of the view that the regulatory framework should clarify the scope of undertakings to be included under method 2 and their treatment to ensure a consistent treatment across methods (same scope of entities under all methods) and across EEA.

9.204 EIOPA is of the view that article 233 of the Solvency II directive should clearly identify the undertakings to which method 2 would be applicable and the Delegated regulation should clearly prescribe the treatment for such undertakings. In particular:

- (i) if the IHC or MFHC can be included under method 2, a notional SCR and OF should be calculated on the basis that the IHC or MFHC is treated as an insurance undertaking;

(ii) if the undertakings in other financial sector can be in the scope of method 2, Article 329 of the Delegated Regulation should be valid for both method 1 and 2.

### **9.3.9 Partial Internal Model (PIM) and Integration Techniques**

#### **9.3.9.1 Extract from the call for advice**

##### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- [...]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

#### **9.3.9.2 Relevant legal provisions**

9.205 Recital 134 of the Delegated Regulation.

#### **9.3.9.3 Identification of the issue**

9.206 There is no special regulatory provision about application of integration techniques to the partial internal model at group level. Probably the *mutatis mutandis* approach may be used in practice, however this is not expressed explicitly in the regulations and may lead to an un-level playing field.

9.207 Recital 134 of the Delegated Regulation provides that there are two specific possibilities (or combination of them) when the model at the group level may be classified as "partial" internal model, which leads to three cases: when the limited scope of the model refers to risks or to the undertakings or both of them. While the case of risks does not cause material doubts concerning the *mutatis mutandis* approach for the consolidated group Solvency Capital Requirement calculated using a combination of the internal model and the standard formula, the case of limited scope of undertakings (in most cases present in practice) may not be clearly treated in the legal provisions.

9.208 Article 343 of the Delegated Regulation treats the appropriateness of the integration technique in the general sense of "reflection of the overall risk profile" but no details are available explaining the above described issues.

- 9.209 Considering that there is no special regulatory provisions about application of integration techniques to the partial internal model at group level, the application of integration techniques causes some questions, in particular:
- 9.210 Several integration techniques are provided in Annex XVIII of the Delegated Regulation but when looking at them it is important to consider that they always refer to "risks" not to "undertakings".
- 9.211 Relation between the integration technique 1 and method 2

#### **9.3.9.4 Analysis**

*1) Several integration techniques are provided in Annex XVIII of the Delegated Regulation but when looking at them it is important to consider that they always refer to "risks" not to "undertakings".*

- 9.212 The references to "risks" may be intentional, as the integration techniques aim to mirror the standard formula aggregation, where risks are aggregated, not undertakings. Nevertheless, similar issues arise in the case of a solo undertaking with more than one major business unit, some of which are in the scope of the internal model. This suggests that the use of the techniques provided in Annex XVIII of the Delegated Regulation for the integration of internal models based on major business units (at solo or group level) needs clarification.
- 9.213 Moreover, having references to risks and no explicit provision that the integration techniques from Annex XVIII of the Delegated Regulation may be applied at group level for the purpose of integration undertakings causes the questions how the integration from the first and the third case referred to in Recital 134 of the Delegated Regulation should be performed. Article 343 of the Delegated Regulation requires only:
- "a description shall be provided of the methods used to assess the risks in these excluded related undertakings in order to demonstrate that the exclusion does not lead to an underestimation of the overall risks to which the group is exposed; the application shall demonstrate that the consolidated group Solvency Capital Requirement calculated using a combination of the internal model and the standard formula will adequately reflect the overall risk profile of the group".
- 9.214 Article 343 of the Delegated Regulation does not clarify whether the integration techniques from Annex XVIII should be used as a default method like at solo case or could be used without restrictions or cannot be used at all. The only hint that they could be used as default methods of integration is the mutatis mutandis approach, but this approach might be in conflict with some of the methods which mirror the standard formula aggregation. It is worth to mention that when applying standard formula at group level it assumes that the fully consolidated part is one undertaking therefore mirroring the aggregation structure of the standard formula for the integration of undertakings seems to be over interpretation.

9.215 When for example two undertakings have the same types of risk (let's assume the same market risk) there is a concern that the aggregation of both undertakings using the standard formula correlation structure used in integration techniques may recognise diversification effects which do not exist. This may require an assessment of the appropriateness of the integration techniques and of their operation in these cases and potentially in general.

9.216 Therefore, from a conceptual point of view it is necessary to consider the appropriateness of the integration techniques used at solo level for the group purposes.

## *2) Relation between the integration technique 1 and method 2*

9.217 The integration technique 1 is the only technique which does not mirror the standard formula correlation structure and therefore it is clear that it is not restricted to the risks. Moreover it has a simple interpretation. Therefore its using for the group purposes seems to be a reasonable approach. However it will probably give the higher capital requirement and two issues should be considered in this context.

- a. Case 1: separated undertaking excluded from the scope of the model for which its SCR solo is calculated by the standard formula. According to the provisions there are two possibilities how to aggregate this undertaking into the group SCR. It may be done by method 2 or by method 1, while using integration technique 1 is technically the same calculation operation as using method 2, therefore the result may be similar. It is worth to mention that the application of method 2 for a specific undertaking is subject to a detailed assessment of the group supervisor and may be applied only when the conditions allow to do it. On the other hand the integration technique 1 is subject to the whole detailed internal model assessment, but it is not clear from the provisions which issues the group supervisor should take into account in the assessment of the appropriateness of this integration technique (apart from "reflection of the overall risk profile of the group") and what are relations with the conditions of using method 2. Especially when the technique is easily available due to its presence in the Delegated regulation there is a temptation to use it without deep analysis, as it is simple and does not cause questions about the interpretation of the result (simple sum).
- b. Case 2: more than one undertaking is excluded from the model and the undertakings are not treated separately. Using the integration technique 1 imposes the method of adding the standard formula part and the internal model part. It means that all undertakings excluded from the model scope should be consolidated even if they are no capital links among them and for such "new" hypothetical undertaking the standard formula capital requirement should be calculated and added to the capital requirement calculated by the model. In such case the interpretation of such consolidation process (should the undertakings which are not linked be treated as one undertaking?) is not straightforward and brings the question on the economic sense of such calculation. Moreover, when using the analogy with the case a) it means that such approach results in applying the same calculation

technique as in case of method 2 but not for one undertaking (for which method 2 is allowed) but for a group of undertakings (sub-consolidation) which is not allowed under method 2.

9.218 Article 343 of the Delegated Regulation treats the appropriateness of the integration technique in the general sense of “reflection of the overall risk profile” but no details are available explaining the above described issues.

9.219 In order to avoid at the least problems with lack of clarity between method 1 and method 2, it would be desirable to make an explicit references in the provisions linking the assessment of appropriateness of method 2 (Article 328 of Delegated Regulation) with the assessment of appropriateness of the use of method 1 with the integration techniques (Article 343 of the Delegated Regulation). The decision about the use or refusal of the method 2 should be made in conjunction with the analysis of the use of method 1 as an alternative and vice versa.

9.220 This approach ensures and makes clear that the decision of how to treat undertakings excluded from the model scope should be undertaken after a deep analysis and understanding of the links and consequences of both available possibilities (method 1 or method 2).

9.221 However necessary this link does not provide any clarification to the NSAs of the appropriateness assessment on how and in which cases the integration techniques may be applied at group level. The outcome of the survey to the NCAs (done for the purpose of Article 242 report<sup>223</sup>) suggests that the integration techniques provided for the solo purposes are widely used also at group level while in the most cases the limited scope is due to undertakings exclusion not risks.

### **9.3.9.5 Policy Options**

9.222 Therefore in addition to the above mentioned clarification and taking into account that development of a technique which could be appropriate for the aggregation of the whole undertakings for all groups may be impossible in practice two policy options were considered:

#### *Option 1: Not to change the current legislation*

9.223 The lack of clarity in application of the mutatis mutandis application of the integration techniques at group level will remain. For instance, keeping the possibility to apply techniques designed for risk aggregation as a default option also for the undertakings which may not make sense.

#### *Option 2: Clarify that in general there is no mutatis mutandis approach to translate integration techniques for risks in Article 239 of the Delegated Regulation to groups*

9.224 Clarify that in general there is no mutatis mutandis approach to translate integration techniques for risks in Article 239 of the Delegated Regulation to groups, especially in cases, in which the model is partial with respect to entities.

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<sup>223</sup> See section 3.2.3 of the Report to the European Commission on Group Supervision and Capital Management with a Group of Insurance or Reinsurance Undertakings, and FoS and FoE under Solvency II (Article 242(2) Report)

In such cases, integration technique 1 may be feasible in most cases but the assessment of its appropriateness should take into account:

- i) Its effectiveness and similarity to method 2, and
- ii) The fact that in case of isolated undertakings excluded from the scope of the model adding the capital requirements for the modelled part and non-modelled part requires the full consolidation of isolated undertaking and may not have economic sense.

9.225 For all other integration techniques at group level or in the case of several major business unit within a solo undertaking, the appropriateness of this technique for the specific case would have to be demonstrated as stipulated in Article 239 (4) of the Delegated Regulation for an alternative integration technique from par. 3 of Article 239. In doing so similar to Article 343 (5) (a) (iii) of the Delegated Regulation the undertakings and groups should explicitly show that this technique does not result in an underestimation of the overall risks the group is exposed to as part of the assessment required in Article 239(5)(b) that the resulting Solvency Capital Requirement appropriately reflects the risk profile of the undertaking or group. This would imply to demonstrate that there is no recognition of diversification benefits that do not exist (e.g. between the same risk in the modelled and un-modelled parts)(see par. 9.215) Regarding the techniques referred to in paragraphs 2 and 3 of article 239 of the Delegated Regulation different from the solo case, they are not recommended due to the reasons presented in the analysis <sup>224</sup> but if chosen, these would have to satisfy the same requirements as an alternative technique in order to ensure that in a specific case they are still appropriate (cf. Article 239 (5) of the Delegated Regulation).

9.226 The benefit of the proposal will limit the application of those integration techniques which are not appropriate for the integration of undertakings, and clarify the cases when the technique 1 may not be appropriate. It will ensure that any technique that is used has been properly justified and no inappropriate diversification benefit is recognised.

9.227 Cases in which the internal model would be partial with respect to risks and entities and in which a standard integration technique could be considered, would be forced to follow the alternative method. This disadvantage is considered to be of less importance as appropriateness of methods will have to be documented anyway.

### **9.3.9.6 Advice**

9.228 EIOPA proposes to clarify the regulatory requirements on integration techniques for internal models at group level that are partial with respect to entities by clarifying that:

9.229 In general, there is no *mutatis mutandis* approach to translate integration techniques for risks in article 239 of the Delegated regulation to groups, especially in cases, in which the model is partial with respect to entities. In such cases, integration technique 1 may be feasible in most cases but the assessment of its appropriateness should take into account:

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<sup>224</sup> See par. 9.212 -9.216



(i) Its effectiveness and similarity to method 2, and

(ii) The treatment of isolated undertakings excluded from the scope of the model whose capital requirements are added to those of the modelled part, in particular where the proposed recognition of full or partial diversification between the isolated entities may have no economic sense<sup>225</sup>.

9.230 For all other integration techniques at group level or in the case of several major business unit within a solo undertaking, the appropriateness of this technique for the specific case would have to be demonstrated as stipulated in Article 239(4) of the Delegated Regulation for an alternative integration technique from par. 3 of Article 239. In doing so similar to Article 343(5) (a) (iii) of the Delegated Regulation the undertakings and groups should explicitly show that this technique does not result in an underestimation of the overall risks the group is exposed to as part of the assessment required in Article 239(5)(b) that the resulting Solvency Capital Requirement appropriately reflects the risk profile of the undertaking or group. This would imply to demonstrate that there is no recognition of diversification benefits that do not exist (e.g. between the same risk in the modelled and un-modelled parts). Regarding the techniques referred to in paragraphs 2 and 3 of article 239 of the Delegated Regulation, different from the solo case, they are not recommended due to the reasons presented in the analysis<sup>226</sup>, but if chosen, these would have to satisfy the same requirements as an alternative technique in order to ensure that in a specific case they are still appropriate (cf. Article 239 (5) of the Delegated Regulation).



### Questions to stakeholders

#### **Partial Internal Models and Integration Techniques.**

**Q9.1:** EIOPA invites all stakeholders to share their experience on the issues discussed above regarding the interlinkages of partial internal models, and integration techniques.

In particular to provide EIOPA with information on:

- Are you using integration techniques 2 to 5 for groups or solo undertakings with major business units? Please provide details
- What are your experience in using such integration techniques?

## **Combination of Methods – Calculation of Group SCR**

<sup>225</sup> For details please refer to the case description in paragraph 9.181

<sup>226</sup> See par. 9.176-9.180

## 9.3.10 Group SCR calculation when using Combination of methods

### 9.3.10.1 Extract from the call for advice

#### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- *[...]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

### 9.3.10.2 Relevant legal provisions

9.231 Articles 220 and 233 of the Solvency II Directive.

9.232 Articles 335 and 336 of the Solvency II Delegated Regulation.

### 9.3.10.3 Identification of the issue

9.233 It is noted that current regulation guidance regarding the calculation of the group SCR under the combination of methods leads to questions by undertakings and supervisors and thus could affect the level playing field on group supervision. A key issue when using the combination of methods to calculate the group SCR is whether equity, concentration and currency risk are appropriately considered.

9.234 The identification of the issue can be best presented by considering a case which looks at the following:

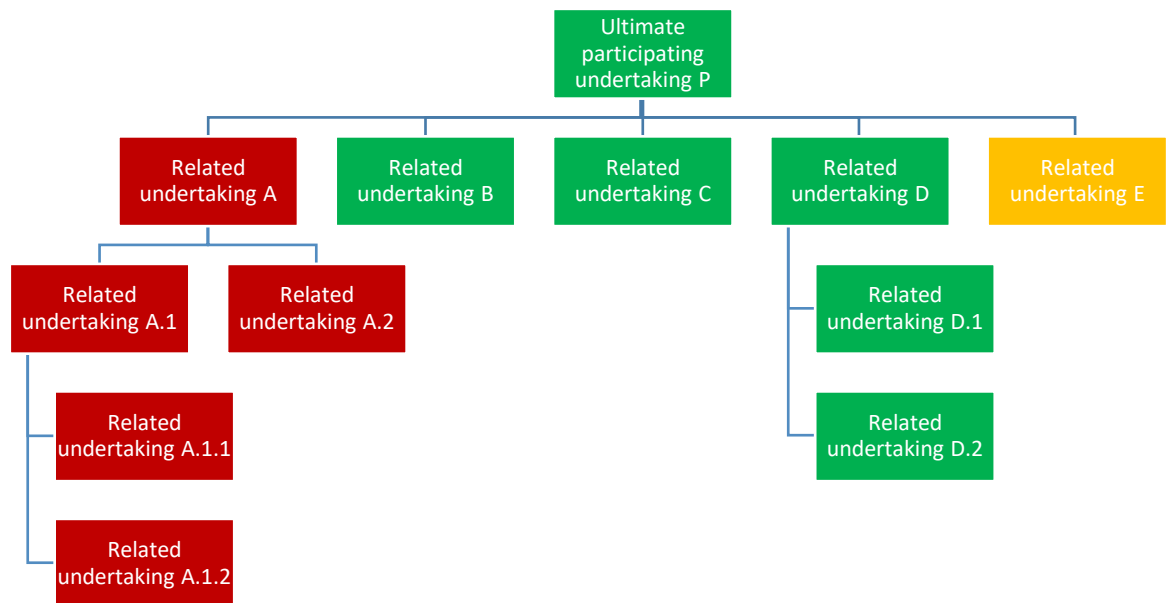
- Questions around the combination of methods in general concern all groups, e.g. those with simple group structure and those with complex staged group structure and groups falling under Solvency II completely or with third country parts.
- Whether the ultimate EEA parent undertaking is an insurance or reinsurance undertaking or a holding company for the topic seems not to be crucial.
- Whether the group is applying an internal model is not considered to be relevant. For simplicity reasons the case is described in a standard formula setup.

9.235 The case for consideration of the issues covers:

- a. The ultimate parent P is an insurance company in the EEA falling under solvency II with related undertakings A, B, C, D and E of which A and D are participating insurance companies with related undertakings A.1, A.1.1, A.1.2, A.2 and D.1, D.2 respectively.
- b. Undertaking A and its related undertakings are located in a third country with different currency but solvency regime equivalent to Solvency II. All other

undertakings are located in the EEA, falling under Solvency II and have EUR as reporting currency.

- c. The Group applies the combination of methods in the calculation of group own funds and group SCR as follows: Undertakings P, B, C, D and the undertakings related to D are considered by method 1 and form the consolidated part (marked in green). Undertaking A and its related undertakings (marked in red) as well as undertaking E (marked in orange) are not consolidated but included by method 2.
- d. In the combination of methods, the consolidated part would be considered as one undertaking holding participations in undertakings A and its related undertakings as well as in undertaking E



9.236 A key issue raised by group supervisors relates to the coverage of all relevant risks, namely equity risk for participations, sometimes called 'participation risk' (see below), currency risk and concentration risk, at the same time avoiding double counting. The following two subsections will provide the details.

9.237 While in general there are no differences between cases of use of the standard formula or use of an internal model, in the case of internal models consistency between the assessment of the admissibility of the use of method 2 and the use of integration techniques has to be ensured. Especially the principle of 'substance over form' would have to be respected.

9.238 For groups with related undertakings in third countries the following is assumed: In case the solvency regime is considered to be equivalent to Solvency II for insurance undertakings the respective local requirements are applied. If the regime is not considered to be equivalent, Solvency II metrics have to be applied.

#### 9.3.10.4 Analysis

- 9.239 The Solvency II directive in article 220 (2) establishes the combination of methods without describing the details. But, in a canonical view there is a part of the group which is consolidated and another part which is not included. In the context of method 2, deduction and aggregation method, described in Article 233 of the Solvency II Directive, this means that the consolidated part is with relation to the non-consolidated part taking the role of the participating undertaking.
- 9.240 With respect to the consolidated part, EIOPA's view is that the consolidated data according to Article 335 of the Delegated Regulation for the purpose of the calculation of the own funds of the consolidated part, are net of the related undertakings outside the consolidated part and net of any intra-group transactions (IGTs).
- 9.241 With respect to the non-consolidated part, EIOPA's view is that related insurance or re-insurance undertakings are considered each on their own, e.g. no subgroup consolidation is allowed.
- 9.242 In the example provided above, the group's SCR is the sum of the SCR for the consolidated part (undertakings P, B, C, D, D.1, D.2) and the solo SCRs of related undertakings A, A.1, A.2, A.1.1, A.1.2 and E.
- 9.243 In a kind of 'gross view', the 'deduction & aggregation' algorithm described in Article 233 of the Solvency II Directive could be read as replacing the parts of capital requirements caused by that related undertaking in a participation view by the SCR for the related undertaking. This operation eliminates all connections including diversification, the latter introducing a certain level of prudence.
- 9.244 In assessing whether the use of combination of methods is allowed, supervisors have to check the criteria of Article 328 of the Delegated Regulation. Inter alia, supervisors have to consider whether the use of method 2 does not materially affect the group solvency calculation. This especially implies that no material risks should be disregarded. While risks associated with the assets and liabilities in the solo view are considered by the SCR of the related undertakings included by deduction and aggregation, any group specific risks have to be assessed – according to the specific group setup. The next paragraphs consider three risks recently discussed by supervisors and undertakings.
- 9.245 'Participation risk': Is considered to be 'equity risk' for the specific equity type 'participation', i.e. in the sense of Article 105 (5) b) of the Solvency II Directive "the sensitivity of the values of assets, liabilities and financial instruments to changes in the level or in the volatility of market prices of equities (equity risk)". This type of risk is relevant in general for undertakings of the group not being consolidated, and in the case of combination of methods for those related undertakings not included in the consolidated part. In the case of valuation of these undertakings by the 'adjusted equity method', the value is the net asset value in terms of the Solvency II balance sheet of these undertakings in the solo perspective. The changes in the level of the value essentially are reflected in the solo SCR. Corresponding considerations apply in case of (temporarily) equivalent regulatory regimes where the local capital requirement takes the role of the solo SCR.
- 9.246 'Currency risk' is "the sensitivity of the values of assets, liabilities and financial instruments to changes in the level or in the volatility of currency exchange rates" (Article 105 (5) e) of the Solvency II Directive). In constellations of related

undertakings outside the consolidated part, with reporting currency different from the reporting currency of the group, EIOPA's view is that the SCR calculated in that currency would be included with the exchange rate relevant for the respective key date. To assess whether changes in exchange rates are sufficiently reflected, one perspective to consider is the own funds full consolidation. To illustrate this, suppose the following simplified constellation: Undertaking B would have a net asset value of 100 in currency CB, different from the reporting currency CA of the group and all assets and liabilities of B would be in currency CB, while all other assets and liabilities of the group would be in currency CA. In this constellation, undertaking B in the solo perspective would not face any currency risks, but in the consolidated view a currency risk for the net asset value of B relative to currency CA would exist and have to be capitalised, e.g. in the standard formula essentially a charge of 25% would apply.

9.247 'Concentration risk' reflects "additional risks to an insurance or reinsurance undertaking stemming either from lack of diversification in the asset portfolio or from large exposure to default risk by a single issuer of securities or a group of related issuers" (Article 105 (5) e) of the Solvency II Directive). In the standard formula, the reflection of this risk is described in articles 182 to 187 of the Delegated Regulation. As in the combination of methods, related undertakings outside the consolidated part, would not be included in the consolidated data, neither their value nor their assets would be included in the concentration risk within the consolidated part. However, in a consolidated view, the assets of the participations outside the consolidated part would contribute to the exposures to consider, as well as to the calculation base.

#### *Summary of principles*

9.248 With respect to the non-consolidated part, EIOPA's view is that related insurance or re-insurance undertakings are considered each on their own, e.g. no subgroup consolidation is allowed.

9.249 According to the supervisory reading of Article 335 of the Delegated Regulation, the combination of methods should:

- (i) not lead to any double counting of risks, namely the equity risk for participations outside the consolidated part, as this risk is expected to be covered by adding the solo SCR without allowing for diversification.
- (ii) nor should lead to material risks being neglected from being adequately covered in the group solvency calculation. This particularly pertains to currency risk and market concentration risk.

9.250 Considering method 2 or the use of method 2 in a combination of methods to be a simplification compared to the consolidated view of method 1, theoretically a comparison would have to be performed to assess if the simplification is acceptable and prudent. In such a comparison one would have to appropriately reflect equivalence decisions, Furthermore, to avoid burdensome method 1 calculations, a sufficiently prudent estimate of it might be considered to be favourable.

### **9.3.10.5 Policy Options**

#### *Option 1 – No Change*

9.251 No change will not improve the situation and will probably continue to lead to divergent supervisory approaches.

*Option 2 – Introduce principles of no double counting and no omission of material risks*

9.252 The policy advice covers a single principle, and in order to implement such principle two approaches or a combination of those could be considered:

*Approach 1: Assessment criteria of the choice of method as anchor point combined with open approach for appropriate coverage of risks*

9.253 In considering the proper allowance for material risks in the combination of methods under Article 328 (1) letters c and d of the Delegated Regulation, neither should risks be double counted nor material risks be omitted. Under the combination of methods, regarding insurance subsidiaries excluded from the consolidated data according to Article 335 of the Delegated Regulation, the consolidated part in for that purpose takes the role of the ultimate parent undertaking (at EEA level) of the insurance subsidiaries included by deduction and aggregation (method 2). Especially, for any of those subsidiaries own funds and SCR would be treated one by one, each from a solo perspective excluding diversification among them.

9.254 Risks to be considered connected with these participations especially are equity risk, currency risk and concentration risk. Equity risk is considered to be covered by the SCR of the respective subsidiary as contributing to the Group SCR. The materiality assessment of currency and concentration risk would be measured against the respective risk under method 1. Prudent estimates leveraging on standard formula requirements could be used. In case those risks are considered material, a potential added calculation of currency and concentration risks could be applied or otherwise the use of method 2 could not be authorised.

9.255 In any supervisory assessment as hinted in article 328 (1) (f) of the Delegated Regulation third country equivalence would have to be taken into account, in this case simplified approaches for currency and concentration risks could be used.

9.256 The following table is presenting the pros/cons of such an option:

<b>Pros</b>	<b>Cons</b>
Coverage of risks is improved but still subject to materiality assessments. Prudent estimates allow for risk based solutions.	The standard formula only to a very limited extent allows for adjustments.
The principles do not anticipate a closed list of potential risks but open for further risk currently not known.	

*Approach 2: Introduce the entities under D&A into the consolidated data*

9.257 For consistency with pure D&A method, one could argue that the data of entities under D&A should be introduced into the consolidated data. In that way, the risks of the entity under D&A would be included also in the calculation of the SCR under method 1.

9.258 The inclusion of the entities under D&A into the consolidated data would permit to capture the “currency risk” and the “concentration risk” in all cases, instead of having to make consideration if such risks are material or not.

9.259 Concretely, such inclusion would imply amending Article 335 and 336 of the Delegated Regulation in the following way:

- for the purpose of the determination of the consolidated data the contribution of related undertakings that are included through deduction and aggregation should be treated similarly to Article 335 (1)f) of the Delegated Regulation
- for the calculation of the consolidated group SCR the contribution of the above mentioned undertakings should be treated similarly to Article 336 d) of the Delegated Regulation but limited to concentration and currency risks

9.260 The following table is presenting the pros/cons of such an option:

Pros	Cons
Approach 2 appears simpler than approach 1, as no materiality assessment of “currency risk” and “concentration risk” is needed	The consolidated data are extended to the undertakings included by method 2 but only partly and with selected risks.
“currency risk” and “concentration risk” are captured in all cases	
No risk is dismissed or double-counted	

### 9.3.10.6 Advice

**Policy Issue 1: A need for a regulatory principles to ensure that there is neither double counting of risks nor omission of material risks**

9.261 EIOPA advises to introduce explicit principles to the Delegated Regulation that ensure that (i) there is no double counting of risks, namely the equity risk for participations outside the consolidated part, as this risk is expected to be covered by adding the solo SCR without allowing for diversification and (ii) no material risks are being neglected but are adequately covered in the group solvency calculation. This particularly pertains to currency risk and market concentration risk.

9.262 Approaches considered to implement these principles are adjustments to Article 328 of the Delegated Regulation or adjustments of Article 335 and 336 of the Delegated Regulation.



## Questions to stakeholders

### Group SCR when using Combination of Methods

**Q9.2:** EIOPA invites all stakeholders to share their experience on the issues discussed above regarding the reflection of equity, currency and concentration risk in the group SCR under the combination of methods. In particular EIOPA is interested in input from the perspective of the standard formula and the perspective of internal models.

## 9.3.11 Group Solvency –Application when using combination of methods

### 9.3.11.1 Extract from the call for advice

#### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- *[...] The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

### 9.3.11.2 Relevant legal provisions

9.263 Article 220 of the Solvency II Directive – Choice of Method

9.264 Article 227 of the Solvency II Directive - Related third-country insurance and reinsurance undertakings

9.265 Article 233 of the Solvency II Directive - Method 2 (Alternative method): Deduction and aggregation method

9.266 Recital 125 of the Solvency II Delegated Regulation

9.267 Q&A 1401 (published in July 2018)

#### Answer

We understand the overall question as if there is a possibility of applying combination of methods to a Group that intends to establish sub-groups and intends to apply Method 1 for its sub-groups in order to calculate its total Group Solvency.

We wish to emphasise that Solvency II Framework is very specific regarding the choices of calculation method for group solvency:



- Method 1 is the default method of application and that involves full consolidation so that all the risks of the group are taken into account, and it does not foresee any sub-consolidation.

- When other methods are applied (Method 2, and Combination of Methods), the calculation of the group solvency applies to related undertakings and not to sub-groups.

Therefore, a combination of the methods as described in your question one to four are not acceptable under the Solvency II framework.

We also wish to outline that the application of other methods (Method 2, and Combination of Methods) follows a rigorous supervisory assessment and should be used looking at the substance of it based on the criteria outlined in Article 328 of the Delegated Regulations, and not encouraged for a temporary use.

Where method 2 is needed for temporary reasons (as in the situation described in scenario 4), we advise that you liaise with your national competent authority to ensure your individual case is carefully analysed in detail. This includes to assess the issues of a 'strong use' of discretion and level playing field and to consider adequate supervisory measures (as an example, an agreed plan to implement a method compliant with the Solvency II requirements). Moreover, as this subject may relate to sub-groups in jurisdictions other than the member state from where your question is issued, we also encourage your national competent authority to engage with the supervisory authorities that may be involved on this case to ensure consistency of supervisory practices.

In any case, we reiterate that should method 2 be granted for a temporary use, it will apply to related undertakings and not to sub-groups.

### **9.3.11.3 Other regulatory background**

9.268 Annex I, Section II of the Directive 2002/87/EC (FICOD)

### **9.3.11.4 Identification of the issue**

9.269 There is a need for Article 233 of the Solvency II Directive to explicitly state that Method 2 (where used exclusively or in combination with Method 1) used to calculate the group solvency requirements applies to single undertakings (where used exclusively or in combination with Method 1).

9.270 Where Method 2 is used exclusively, Article 233 of the Solvency II Directive is fully OR somehow explicit as to how own funds and capital requirements shall be aggregated. EIOPA and NSAs interpretation has been that own funds shall be aggregated undertaking by undertaking, and capital requirements shall also be aggregated undertaking by undertaking. In particular, as there is no other way prescribed to aggregate own funds and capital requirements.

9.271 Where Method 2 is used in combination with Method 1, there are no provisions as to how the combination of methods shall be processed. In practice, it is not explicit whether, for example, it could be allowed that some parts of the group use Method 1 first, which are then "aggregated" with Method 2. Such allowance would lead to situations where Deduction and Aggregation method is applied at a "sub-group" level rather than undertaking by undertaking.

9.272 Q&A 1401 provides with some clarification that, in all cases, Method 2 applies to undertakings and not to "sub-groups". This position derived from the reading that is made of Article 233 when applied to groups which apply Method 2 exclusively. However, it was noted by NSAs that Q&A 1401 was strongly opposed by firms in absence of legal provisions.

- 9.273 It is noted that Method 2 is intended to apply as a by-exception method for small and isolated undertakings which data are insufficient to allow for the application of Method 1, in relation to their size.
- 9.274 It is also noted that, by virtue of Recital 125 of the Delegated Regulations, Method 2 apply in practice to groups having large subsidiaries in equivalent third-countries, which could lead in some cases to potential substantial solvency gains.
- 9.275 As the method 2 allows for a simplified calculation (e.g. simple aggregation and no consolidation) and potentially to substantial gains, it was designed in a prudent manner that does not allow for diversification between undertakings (simple sum of solo SCRs) and encompasses potential multi counting of risks (when solo SCRs take into account exposures to related undertaking which SCRs are added up). Contrarily, applying Method 2 at a "sub-group" level would allow for diversification between undertakings that use Method 2 and re-treat potential multiple counting of risks via the consolidation process.
- 9.276 Furthermore, where Method 2 is applied to groups having subsidiaries in equivalent third-countries, local solvency capital requirements and own funds eligible locally to satisfy that requirement, can be used in accordance with Article 227 of the Solvency II Directive. However, Article 227 equivalence decisions only relate to solo requirements and own funds, not to group equivalence. Therefore, Article 227 equivalence decisions are not meant to encompass any equivalence in terms of how diversification between undertakings is accounted for. It was thus noted that applying Method 2 at a "sub-group" level would lead to the use of unjustifiable diversification benefits.
- 9.277 Additionally, it is noted that, where Method 2 is applied to groups having subsidiaries in equivalent third-countries, the application of Method 2 at a "sub-group" level could lead to arbitrages depending on what parent undertaking of the "sub-group" is chosen and what equivalent third-country it is located in.
- 9.278 Overall, it is noted that there is a risk of an unlevel playing field between jurisdictions because NSAs can have divergent positions. In that regard, Article 233 could be more explicit.

### **9.3.11.5 Analysis**

### **9.3.11.6 Policy Options**

*Option 1- No change.*

- 9.279 No change will keep the status quo.

*Option 2 – Explicitly state that Method 2 applies (where used exclusively or in combination with Method 1) to the individual undertakings.*

- 9.280 In order to ensure consistency of application, it is advised that Article 233 of the Solvency II Directive should be changed to indicate that method 2 (where used exclusively or in combination with method 1) applies to individual undertakings and not to sub-groups. Introducing such a clarification would be also consistent with the wording in the FICOD Directive which is more explicit about the need for

capital adequacy requirements and states that they shall be carried out on the basis of each of the entities in the group.

9.281 It is also advised to amend Articles 220, 227, 234 and 235 to refer to the new policy advise to ensure clear referencing.

### 9.3.11.7 Advice

#### **Group Solvency –Application when using combination of methods**

9.282 EIOPA advises the European Commission to state explicitly that Method 2 as outlined in the Solvency II framework applies to individual undertakings (where used exclusively or in combination with Method 1), i.e. entity by entity.

9.283 It is also advised to amend Articles 220, 227, 234 and 235 to refer to the new wording.

## **Own Funds Requirements for Groups**

### 9.3.12 Own Funds Requirements for Groups

#### 9.3.12.1 Extract from the call for advice

#### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- *[...] The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

#### 9.3.12.2 Relevant legal provisions

9.284 Articles 331 to 333 in the Delegated Regulation (EU) 2015/35 outline the criteria for classification of own-fund items at group level and makes reference to criteria at solo level as set out in Articles 71, 73 and 77. Recital 127 provides further elements to consider regarding the meaning of free from encumbrance at group level when an own-fund item is issued by an IHC or a MFHC.

9.285 EIOPA Guidelines on the Classification of Own Funds (EIOPA-BoS-14/168 EN) support supervisory convergence regarding the classification of own funds. The guidelines focus mainly on issues encountered by solo undertakings.

### 9.3.12.3 Identification of the issue

9.286 Articles 331 to 333 in the Delegated regulation define that the classification of own-fund items at group level shall follow the solo criteria for classification of own-funds items. The criteria of the Delegated Regulation rely on the wording and interpretation of the framework for solo undertakings.

9.287 The classification criteria for groups require, among others, that:

- The undertaking complies with the classification criteria set out at solo level (Articles 71,73 and 77 of the Delegated Regulation). Articles 331 to 333 of the Delegated Regulation provide the meaning of some terms in the solo Articles that have to be adapted to group level when assessing classification of solo own-fund items from a group perspective;
- The own-fund item is free from encumbrances and it is not connected with any other transaction at group level. The encumbrance assessment, which is carried out at solo level may therefore require additional assessment from a group point of view.

9.288 The following policy issues have been identified in this section:

- Need to clarify the application of Article 330(1)(d) of the DR as well as the requirement to follow criteria for classification of own-fund items at solo level. There is also a need to clarify the title for Article 331 of the DR as well as to clarify the context/references in Article 332 of the DR.
- Need to clarify how to apply recital 127 (“free from encumbrances”) in relation to own-fund items issued by IHC and MFHC.

#### **Policy Issue 1: Classification of own funds at group level and the reliance on criteria for classification at solo level**

9.289 When an own-fund item is issued by an EEA (re)insurance undertaking, the group supervisor relies on the classification made at solo level for solo purposes. When assessing if this own-fund item also complies with the requirement at group level set out in Article 331 of the DR, SCR shall mean both solo SCR and group SCR, MCR shall mean the minimum as calculated in accordance with method 1 or when a combination of methods is used the minimum calculated for the part covered by method 1. Also, when article 331 of the Delegated Regulation refers to insurance and reinsurance undertaking, this shall mean both the participating (re)insurance undertaking and the related (re)insurance undertaking, as stated in paragraph 3 of the article, even though the title of this article only refers to related undertakings.

9.290 When an own-fund item is issued by a related third country undertaking which does not follow the same rules as Solvency II for classification at local level, a reclassification according to the provision of articles 71, 73 and 77 of the Delegated Regulation must be carried out at group level in order to be compliant with article 332 of the Delegated Regulation. For this purpose, SCR shall mean the group SCR, MCR shall mean both the local capital requirement and the minimum as calculated according to method 1 or when a combination of method is used the minimum calculated for the part covered by method 1.

- 9.291 The same additional assessment is to be done at group level in case of an equivalent third-country (re)insurance undertakings included with method 2 even though, according to article 227(1) of the Solvency II Directive, own funds eligible to satisfy local requirement shall be taken into account in the group solvency calculation.
- 9.292 It is also noted that Article 332 of the Delegated Regulation only makes reference to related third-country (re)insurance undertakings. The question arises if the group should ensure that an own-fund item of a top parent third-country insurance undertaking (e.g. a subordinated debt) should comply with the Solvency II requirements at group level.
- 9.293 Article 333 of the Delegated Regulation refers to own-fund items in IHC and MFHC and intermediate IHC, MFHC and subsidiary ancillary services undertaking (ASU). When assessing if this own-fund item also complies with the requirement at group level, SCR shall mean group SCR, MCR includes both non-compliance with the minimum as calculated in accordance with method 1 or when a combination of methods is used the minimum calculated for the part covered by method 1, and the insolvency of the undertaking that issued the own-fund item. Insurance and reinsurance undertaking shall mean both parent undertaking (not ASU) and the subsidiary undertaking.
- 9.294 It is noted that articles 331 to 333 of the Delegated Regulation currently apply to both method 1 and method 2; in earlier versions of the DR these articles were only applicable for method 1. Also, it is EIOPA and the NSA's understanding that the availability assessment (as required under article 330 of the DR) is done after the classification of own-fund items in accordance with articles 331 to 333 of the Delegated Regulation.
- 9.295 Therefore, there seems to be an inconsistency with art 330(1)(d) which implies that when method 2 is used for a related undertaking, an own-fund item issued by that related undertaking which does not comply with the classification requirements as set out in articles 71,73 and 77 of the DR and referenced to in articles 331 to 333 of the Delegated Regulation, can still be assessed for being eligible to cover the group SCR.
- 9.296 For example, when a debt has been issued by a third country (re)insurance undertaking included with method 2, the terms and conditions must refer to group SCR in order to be classified in accordance with article 332 of the Delegated Regulation. However, article 330(1)(d) of the Delegated Regulation seems to suggest that even though an own-fund item is not meeting the classification requirements set out in article 332 of the Delegated Regulation, it could still be included up to the contribution to group SCR.

**Policy Issue 2: assessing "free from encumbrances" in particular in relation to own-fund items issued by an insurance holding company or mixed-financial holding company (recital 127)**

- 9.297 An own-fund item, issued by an IHC, MFHC or subsidiary ASU has to comply with the provisions as set out in article 333 of the Delegated Regulation in order to be included in the group own funds.
- 9.298 Article 333 (1)(b) of the Delegated Regulation sets out that own fund items should be free from encumbrances and not connected with transactions which

would undermine the quality of that own-fund item at group level. Recital 127 of the same regulations states that an own-fund item, such as a subordinated debt, issued by an IHC or a MFHC should not be considered to be free from encumbrances unless the claims relating to those own-fund items rank after the claims of all policy holders and beneficiaries of the (re)insurance undertakings belonging to the group.

9.299 In Q&A 400, EIOPA answered that the aim of this recital is to explain the requirement laid down in Article 333(1)(b) of the Delegated Regulation. Therefore, this article needs to be read together with the recital and "Recital 127 cannot be disregarded by national supervisory authorities (NSAs) and they should ensure that the condition included in this recital are taken into account when compliance with Article 333 is assessed..... As regards the way of ensuring compliance with Article 333 in the context of the conditions included in this recital, neither the Directive nor the Delegated Regulation provides a specific requirement in this regard."

9.300 Currently there is uncertainty whether and to what extent recital 127 is to be taken into account, as well as its enforceability. Some member states indicate they take the recital into consideration, but in the situation where a NSA is challenged there is a lack of binding provisions and different views can exist about the legal status of the recitals compared to the articles of the Delegated Regulation. Moreover, in a cross border context, the enlargement of the "subordination" to all the policyholders of the group in case of the winding-up of any (EEA) insurance and reinsurance undertaking of the group may be not possible in practice, depending from the specific winding-up regulatory framework in place in each jurisdiction. The enforceability of this provision may be difficult in the absence of a European Recovery & Resolution framework.

9.301 As recital 127 of the DR makes specific reference to certain type of undertakings ( IHC and MFHC), it would also be needed to clarify whether the principle set out in recital 127 also applies to groups whose ultimate parent is an (re)insurance undertaking who has issued an own-fund item.

#### **9.3.12.4 Analysis and Policy options**

##### **Policy issue 1: Article 330 (1)(d) of the Delegated Regulation**

*Option 1 – No change.*

9.302 In this case contradiction with Articles 331 to 333 of the DR will remain.

*Option 2 – Delete the paragraph (1)(d) of article 330 of the D.R.*

9.303 Starting from the assumption that if the provisions in Articles 331-333 of the DR (including the requirements in Articles 71/73/77) are not met, this would lead to the non-recognition of the full amount of that own-fund item at group level. A deletion of this paragraph would avoid that an own-fund item under method 2 and not compliant with Articles 331-333 (including reference to Articles 71/73/77) is still considered available at group level.

**Policy issue 2: Assessment of free from encumbrances in conjunction with Recital 127**

*Option 1 - No change.*

9.304 Still divergent practices among NSA's on the assessment of free from encumbrances for IHC and MFHC and unclear how and to what extent the recital 127 should be taken into account as well if this recital is legally binding provision or not.

*Option 2: Include in the SII regulation the aim of recital 127 and its effective application to groups*

9.305 Amend the SII Regulation to include a principle indicating the purpose of recital 127 and clearly indicate what is sufficient when there is a winding-up situation.

9.306 Taking into account the challenges related to the enforceability of the "subordination" in all jurisdictions, the proposal is to clarify that it is sufficient to provide for the suspension of repayment/redemption of the own-fund item when there is a winding-up situation, but limiting the scope to when there is a winding-up of any EEA related (re)insurance undertaking of the group. The supervisory authority should still have the possibility to waive the suspension of repayment or redemption of that item in exceptional circumstances.

*Option 3 – Similar to option 2 but applicability of the aim of recital 127 extended to ultimate parent (re)insurance undertaking.*

9.307 The criteria as described in option 2 (suspension of repayment/redemption) will be used for ensuring consistency with article 331 (1) (b) and Article 332 (1)(b). Taking into account that, (re)insurance undertakings have their own policyholders and beneficiaries, contrary to the IHC and MFHC, this additional requirement would be extended only to the ultimate parent.

**9.3.12.5 Advice**

9.308 The classification of own-fund items at group level shall follow the solo criteria and therefore it relies on the wording and interpretation of the framework of solo undertakings. It shall also meet additional requirements at group level. EIOPA recommends the European Commission to provide for that the regulation on classification of own-fund items at group level is clarified, in particular:

**Policy issue 1 – Application of Article 330(1)(d) of the Delegated Regulation**

9.309 EIOPA advises a deletion of the paragraph (1)(d) of article 330 of the Delegated Regulation.

9.310 Such an amendment would clarify and confirm that in the case the provisions in Articles 331-333 (including the requirements in Articles 71/73/77) are not

met, this would lead to the non-recognition of the full amount of that own-fund item at group level. It would also avoid that an own-fund item (under method 2) not compliant with Articles 331-333 (including reference to Articles 71/73/77) could still be considered available at group level.

### **Policy issue 2 – Clarify how to assess “free from encumbrances” in conjunction with Recital 127**

9.311 EIOPA advises to amend the Delegated Regulation to include a principle indicating the purpose of recital 127 to clearly indicate that it would be sufficient to provide for the suspension of repayment/redemption of an own-fund item when there is a winding-up situation, and EIOPA proposes that this is limited to when there is a winding-up situation of any EEA (re)insurance undertaking of the group.

9.312 The supervisory authority should still have the possibility to waive the suspension of repayment or redemption of that item in exceptional circumstances.

#### **Other issues**

9.313 EIOPA recommends to clarify the title of Article 331 of the Delegated Regulation by revising the subheading/title for Article 331 of the Delegated Regulation to be aligned with paragraph (3) of the same Article which mentions both participation and related (re)insurance undertakings.

9.314 EIOPA also recommends to clarify Article 332 of the Delegated Regulation to also include reference to parent third-country (re)insurance undertakings. This would ensure a consistent application with the Articles 331 and 333, which do not only mention related undertakings.



#### **Questions to stakeholders**

##### **Own Fund Requirements and Free From Encumbrances – Policy Issue 2**

**Q9.3:** In light of option 2, stakeholders are invited to share their view on how this option contributes to a consistent policyholders’ protection of related EEA (re)insurance undertakings regardless of the nature of the parent company of the group (group headed by a holding company vs group headed by an insurance or reinsurance company).

**Q9.4:** In light of option 3, stakeholders are invited to provide their view on the potential challenges that groups may face to implement this principle.



### **9.3.13 Availability Assessment of Own Funds**

#### **9.3.13.1 Extract from the call for advice**

##### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- *[...]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

#### **9.3.13.2 Previous advice**

9.315 CEIOPS advice CEIOPS-DOC-52/09, CEIOPS" Advice for Level 2 implementing Measures on Solvency II: Assessment of Group Solvency.

#### **9.3.13.3 Relevant legal provisions**

9.316 Article 222 of the Solvency II Directive provides that when calculating eligible group own funds, no impact on own funds generated by double use of own funds is allowed and addresses taking into account potential availability constraints of the own-fund items among the different undertakings.

9.317 Article 330 of the Delegated Regulation

9.318 Guideline 16 of Guidelines of group solvency, EIOPA-BoS-14/181

#### **9.3.13.4 Identification of the issue**

9.319 As stated in Article 222(3) of the Solvency II Directive, if the supervisory authorities find that certain own funds eligible for the SCR of a related (re)insurance undertaking other than those referred to in Article 222(2) of the Directive cannot effectively be made available to cover the SCR of the participating insurance or reinsurance undertaking for which the group solvency is calculated, those own funds may be included in the calculation only in so far as they are eligible for covering the SCR of the related undertaking.

9.320 Article 330(1) of the Delegated Regulation lists elements to consider by the supervisory authorities when assessing whether certain own funds of related insurance and reinsurance undertakings, third-country insurance and insurance undertakings, insurance holding companies (IHC) and mixed financial holding

companies (MFHC), cannot effectively be made available at group level to cover the Group SCR.

9.321 Article 330(3) of the Delegated Regulation lists own-fund items that shall be assumed not to be effectively available to cover the group SCR and introduces the possibility for the participating undertaking to demonstrate to the supervisory authority that the assumption of non-availability is inappropriate.

**Policy Issue 1: Inclusion of own fund items to cover the solo contribution to group SCR (Article 330(5) of the Delegated Regulation)**

9.322 Article 330(5) of the Delegated Regulation provides that an own fund item that cannot effectively be made available to cover the group SCR, may still be included in the calculation of group solvency up to the contribution of the related insurance or reinsurance undertaking concerned to the group SCR. The determination of the contribution to group SCR is calculated where the related undertaking is included with Method 1. When method 2 is used, the contribution to group SCR correspond to the solo SCR of that related undertaking.

9.323 In a few Member States, non-available own funds can be significant and lead to deductions from group own funds (the main reported item subject to availability restrictions being surplus funds). However, the approach provided in Article 330 of the DR may lead to the inclusion of almost all non-available own funds items in the group solvency calculation (including subordinated debt and solo deferred tax asset). In these cases, the sum of the non-available own fund items of each related undertaking is less than the amount corresponding to that related undertakings contribution to the group SCR.

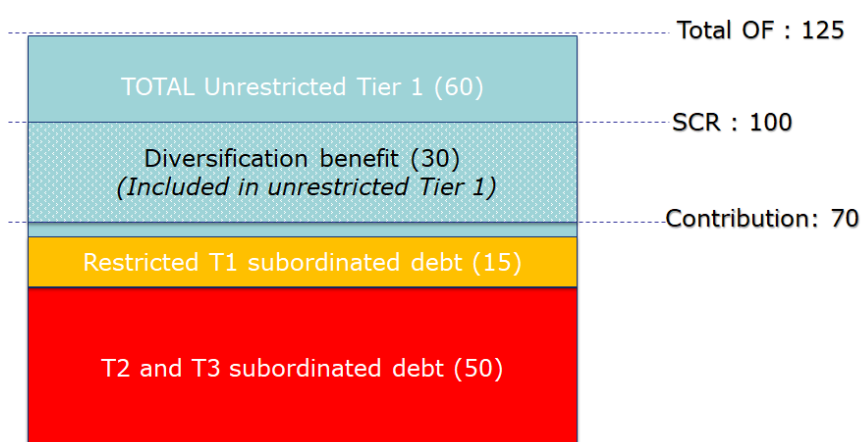
9.324 A few NSAs consider that a different approach should be followed and that groups should not “stack” own fund items of each subsidiary in such a way that the contribution of each undertaking to the group SCR is first covered by non-available items. The argument used is that the contribution to the group SCR cannot be covered mainly by Tier 2 and Tier 3 instruments (since the solo SCR itself has to be mainly covered with Tier 1 own funds, and several own fund items deemed unavailable are not “unrestricted Tier 1 item”). And, this interpretation is followed by some groups in a few jurisdictions in a very non-homogeneous way (more or less conservative).

9.325 The below example illustrates the potential limitations of the current approach. A solo company has an amount of own funds of 65 that are eligible to cover the solo SCR of the undertaking, but those are deemed unavailable (e.g. external subordinated debt). By applying the current approach, the output would be that the whole amount of subordinated debt is taken into account to cover the contribution to the group risks, despite that they represent the majority (93%) of the contribution to the group SCR. In addition, if the default approach under article 330(5) of the Delegated Regulation is followed (solo SCR not assumed a barrier to transferability), the unrestricted Tier 1 items are also fully taken into account at group level. On the other hand, because the amount of eligible restricted Tier 1 is dependent on the overall amount of Tier 1, the maximum amount that can be

transferred from the solo to the group while still complying with the solo SCR is 20 (out of the 25 of excess own funds over the SCR)<sup>227</sup>.

9.326 Therefore, in this example, the current approach could lead to an overestimation of the real ability of the solo undertaking to provide support to the other entities of the group<sup>228</sup>.

9.327 Said that, it may happen that in cases of not well capitalised groups and where the quality of non-available own funds items is not sufficient, the actual provision of support from a solvent undertaking to another undertakings in the group can put the former at risk of breaching its solo SCR.



### Policy Issue 2: The formula for calculating the contribution to group SCR

9.328 The determination of the contribution to group SCR is calculated where the related undertaking is included with Method 1.

9.329 The availability assessment is applied to the related undertakings as mentioned in Article 330(1) of the Delegated Regulation, however the calculation of the contribution is only done for undertakings calculating SCR at solo level. When determining the contribution of a related undertaking to the group SCR (when the standard formula is used), the following formula<sup>229</sup> is applied, where j=undertaking:

$$\text{Contrib}_j = \text{SCR}_i \times \frac{\text{diversified SCR}}{\sum_{j \in \text{diversified SCR}} \text{SCR}_j} .$$

<sup>227</sup> In the example presented, if 20 of own funds are transferred, then the amount of unrestricted Tier 1 is 40, the amount of eligible restricted Tier 1 is 10 (so in that case the restricted Tier 1 represents 20% of total Tier 1). Therefore, total own funds equal 100 (hence a 100% SCR ratio).

<sup>228</sup> It is worth noting that if the group could demonstrate its ability to dispose of the related undertaking within 9 months, the capital would be available when needed and the current approach would not overestimate the real amount of fungible capital.

<sup>229</sup> Technical annex 1 of the Guidelines of group solvency

9.330 When the company is an IHC or MFHC, there is no clear legal requirement to require a notional SCR (see section 9.3.16). By not including such holding companies in the calculation of the denominator, the group would overestimate the contribution of each company to the group SCR, which would result in including a greater amount of non-available own funds in the eligible own funds at group level.

**Policy Issue 3: Availability assessment of specific items of the reconciliation reserve, in particular the benefit from transitional measure on Technical provisions or -free interest rates**

9.331 In addition to the own-fund items clearly identified in the legal framework, the group supervisor can identify additional own-fund items that should also be subject to the availability assessment according to article 330(1) of the Delegated Regulation. It is currently under discussion whether specific components of the reconciliation reserve which can be clearly identified (e.g. the benefit of transitional measures on technical provisions or on risk-free interest rates, or the expected profits included in future premiums) can effectively be made available to the group.

9.332 It was noted a potential uncertainty as to whether the benefit from the solo transitional measures can be transferred to other undertakings in a group or not. If it is deemed non-transferable, it cannot be considered as available to absorb losses at the level of the group according to Article 330 of the Delegated Regulation.

9.333 According to the legislation, the benefit from a solo transitional measure on Technical provisions or risk-free interest rates is not identified as a non-available of own-fund (as not listed in 330 (3) or 330 (4) of the Delegated Regulation). In this way (issue 1 above), the question of transferability should still be raised for any element of own funds, but there is no convergence on this matter; and, the onus of proof might lie with supervisory authorities should they want to challenge the availability assessment made by a group.

9.334 Considering that the benefit of the transitional measures strictly derives from the nature of the solo undertaking's business, portfolio and risk profile, it is not evidently clear that this benefit could absorb losses elsewhere in the group.

9.335 The discussion could lead to a change of article 330 of the Delegated Regulation to reflect that, by default, the benefit of solo transitional measures is assumed not available unless the group can otherwise effectively prove it to the group supervisor.

**Policy Issue 4: Availability assessment of specific items of the reconciliation reserve: EPIFP**

9.336 A similar question on the availability of specific and clearly identifiable items of the RR could arise from expected profits (EPIFP) which intend to reflect future profits of a given life insurance portfolio.

- 9.337 While they can be considered as available to cover future losses of these given portfolios, it is not obvious nor easily proved that they can be transferred within 9 months to absorb losses in another undertaking, at group level.
- 9.338 It is noted that, in cases where a group is composed of a large undertaking and several very small undertakings, considering these elements as non-available by default could result in significantly reducing the amount of own funds eligible to cover the group SCR.
- 9.339 At the same time it is also noted that, as the very large undertaking is the principal contributor to the group SCR, these elements should still be taken into account to a certain extent in the group own funds, because their main purpose is to absorb losses arising from that undertaking.
- 9.340 Therefore, EIOPA is not recommending a particular advice on the availability assessment of EPIFP but is seeking inputs from stakeholders (see question below) on the methods or tools that could be used to ensure availability of such items, when material.

### **Other issues considered by EIOPA**

#### Elements to consider in the Assessment of availability of own fund items

- 9.341 Article 330(1) of the Delegated Regulation lists elements to be considered in the assessment of the own-fund items of each related insurance or reinsurance undertaking, third-country insurance or reinsurance undertaking or IHC or MFHC, in order to determine if each item can effectively be made available to cover the group SCR. All elements should be considered in the assessment, i.e. these elements are cumulative.
- 9.342 Article 330(1) of the Delegated Regulation paragraph (a) refers to the loss-absorbency ability of own funds, wherever the loss arises within the group, and paragraph (b) refers to the transferability of the assets “backing” the own funds. Regarding (a) and (b), the assessment should be done taking into account any legal or regulatory restrictions. Paragraph (c) refers to a 9-month timeline in order to make the own funds available.
- 9.343 There are uncertainties regarding how the 9-months assessment would be done in practice and how this criterion could be considered to remediate any assumption on non-availability of any own-fund items. For example, can a future loan granted within 9 months considered as fulfilment of the 9 months period condition? If yes, the possibilities to make own funds available are unlimited and make the criterion useless and would denature the very nature of the availability assessment of own funds.
- 9.344 There is also uncertainty potentially on how to evidence that some own funds which in principle are not available like Ancillary Own Funds (AOF), subordinated debt or Deferred Tax Asset (DTA) may in some cases be available. Taking into account the nature of such own funds the difference between them and the own funds which by default are non-available is not clear.

9.345 Even if aware of the uncertainties regarding the assessment of the 9-month period, EIOPA believes that a time framework for the availability assessment should be kept in order to let the group develop a plan on what could be available on realistic basis and to take into account the business specificities of an insurance group. The timeframe of 9 months is considered reasonable enough.

Where to demonstrate availability of own-fund items in accordance with article 330(3) of the Delegated Regulation

9.346 According to article 330(3) of the Delegated Regulation, it is unclear to which supervisory authority the participating undertaking shall demonstrate that the assumed non-available own-fund item indeed is available at group level. The common view among supervisors has been that the participating undertaking should demonstrate it to the satisfaction of the group supervisor.

Inconsistency between Article 330(5) of the Delegated Regulation and Article 222(4) of the Solvency II Directive

9.347 The wording of Article 222 (4) of the SII Directive and Article 330 of the Delegated Regulation has led to the interpretation that the sum of all non-available own funds (with the exception of the minority interest) are compared entity by entity with the contribution to group SCR. However, Article 330 (5) of the Delegated Regulation seems to refer to an own-fund item and not to the sum of all own-fund items that cannot effectively be made available to cover the group SCR.

### **9.3.13.5 Analysis and Policy Options**

#### **Policy Issue 1: Inclusion of own fund items to cover the solo contribution to group SCR (Article 330(5) of the Delegated Regulation)**

*Option 1: No change*

9.348 Keep the approach where the sum of non-available own funds of each related undertaking is compared to that related undertaking's contribution to group SCR. This is considered by a few NSAs a balanced approach between the spirit of recognizing own funds as available up to the coverage of the solo SCR diversified, and the need to take into account the diversification benefits, and to limit the transferability over the contribution to the group SCR.

*Option 2: Introduce a principle based approach that takes into account the quality of the non-available own fund items, in particular where it is not sufficient. (i.e. it should not predominantly consists of Tier 1)*

9.349 As described in the analysis section, in cases where most of the non-available own fund items are not of the highest quality (i.e. mainly tier 2 and tier 3 items), the current approach may lead to an overestimation of the ability of the

undertaking to provide support to other undertakings of the group and put the former at risk of breaching the solo SCR if the capital is really transferred. This unintended consequence of the current approach can be addressed by advising, within the same framework, that the group should ensure to the satisfaction of the group supervisor that any transfer of capital will not affect the ability of the individual undertakings -in the scope of the availability assessment to be compliant with the solo requirements. In the cases where this ability can not be proved, an additional hair cut to the non-available items should be requested by the group supervisor.

## **Policy Issue 2: The formula for calculating of the contribution to group SCR**

### *Option 1: No change*

9.350 No change will left the current uncertainty a float.

### *Option 2: clarify the inclusion of all undertakings taken into account in the SCR diversified.*

9.351 Since Articles 226 and 235 of the Solvency II Directive clearly provide that insurance holding companies and mixed financial holding companies should be treated as insurance undertakings for the purpose of group solvency calculation, the current approach of calculation of the diversification benefits (SCR diversified/Sum of solo SCRs) leads to an underestimation of the actual amount of diversification benefits within the group. Therefore, it seems justified that those undertakings are to be taken into account when calculating the contribution of each company to the group SCR.

9.352 Subsidiary ancillary services undertakings also contribute to the calculation of the SCR diversified. Therefore, in principle, the same treatment should apply for both insurance holding companies and ancillary services undertakings. However, EIOPA is of the view that requiring the calculation of a notional SCR for ancillary services undertaking would be burdensome for insurance groups with very limited added value for the group solvency calculation.

## **Policy Issue 3 - Availability assessment of specific items within the reconciliation reserve, the benefit from transitional measure on Technical provisions or risk-free interest rates**

### *Option 1 - No change*

9.353 No change means that the uncertainty will remain.

### *Option 2 - Clarify in the regulations that by default, the benefit of transitional measures on technical provisions and risk-free interest rate is assumed to be unavailable in the meaning of Article 330(3) of the Delegated Regulation.*

9.354 Considering that the benefits of the transitional measures on technical provisions and risk-free interest rate strictly derives from the nature of the solo undertaking's business, portfolio and risk profile, it is not evidently clear that this

benefit could absorb losses elsewhere in the group. Therefore, there would be a need to in the regulations that by default, the benefit of transitional measures on technical provisions and risk-free interest rate is assumed to be unavailable in the meaning of Article 330(3) of the Delegated Regulation.

**Policy Issue 4 - Availability assessment of specific items within the reconciliation reserve: EIPFP**

*Option 1 – No change*

9.355 No change means that the uncertainty will remain.

*Option 2 - Clarify in the regulations that by default, EIPFP is assumed to be unavailable in the meaning of Article 330(3) of the Delegated Regulation.*

9.356 Treat EIPFP as a non-available own fund item by default. It could be argued that since most premiums considered in the EIPFP calculation are not to be received before 9 months, EIPFP should by default be considered as non-available. This does not prevent the group from demonstrating, to the satisfaction of the supervisory authority, that it is able to make EIPFP available within 9 months (for instance by transferring the portfolio).

**9.3.13.6 Advice**

**Policy Issue 1- Inclusion of own fund items to cover the solo contribution to group SCR (Article 330(5) of the Delegated Regulation)**

9.357 No change is proposed with regard to the availability assessment under Article 330(5) of the Delegated Regulation.

**Policy Issue 2 -The formula for calculating of the contribution to group SCR**

9.358 EIOPA advices to clarify the inclusion of the undertakings to be taken into account in the calculation of the contribution to the group SCR for the purpose of the availability assessment according to article 330 of the Delegated Regulation.

**Policy Issue 3 - Availability assessment of specific items within the reconciliation reserve, the benefit from transitional measure on Technical provisions or risk-free interest rates**

9.359 Clarify that benefits from transitional measures on interest rate and transitional measures are to be assumed as non-available own funds within the meaning of Article 330(3) of the Delegated Regulation.





## Questions to stakeholders

### **Inclusion of own fund items to cover the contribution of the solo to group SCR (Policy Issue 1)**

**Q9.5:** Taking into account that the availability assessment of own fund at group level is a complex issue, EIOPA would like to request feedback from stakeholders on which possible principle-based rules could be considered to reflect more appropriately the effective amount of available own funds at group level.

In particular, how could the minimum required quality of own funds, which solo insurers must comply with at all times, be reflected in the availability assessment at group level? (i.e. the question is not querying on the quality of the solo own funds at a given point in time, but how the availability assessment by the group supervisor can take into account the impact of a (potential) transfer of own funds within a group on the composition of solo own funds and on ongoing compliance with solo tiering limits – *As an illustration, please refer to the case presented on the identification of the policy issue, paragraphs 9.325 to 9.327*).

### **Availability assessment at group level and EPIFPs (Policy Issue 4)**

**Q9.6:** Which methods/tools would be possibly used to make own funds available within 9 months from one undertaking to another when large amounts of EPIFP exist?

## **9.3.14 Minority Interest**

### **9.3.14.1 Extract from the call for advice**

#### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- *[...]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

### **9.3.14.2 Previous advice**

9.360 CEIOPS advice CEIOPS-DOC-52/09, CEIOPS'' Advice for Level 2 implementing Measures on Solvency II: Assessment of Group Solvency

### **9.3.14.3 Relevant legal provisions**

- 9.361 Article 222 of the Solvency II Directive provides that when calculating eligible group own funds no double use of own funds is allowed and any potential availability constraints of the own-fund items among the related undertakings shall be taken into account.
- 9.362 Article 222(3) of the Solvency II Directive states that certain own funds that cannot be considered available at group level may only be included up to the SCR of the related undertaking, provided that the own funds are eligible at solo level.
- 9.363 Article 330(4) of the Delegated Regulation states that minority interests shall not be considered as effectively available to cover the group SCR.
- 9.364 Recital 126 of the Delegated Regulation, provides that when considering whether certain own funds cannot effectively be made available to cover the group SCR, supervisory authorities should pay particular attention to any minority interest in the eligible own funds covering the Solvency Capital Requirement of a subsidiary insurance or reinsurance undertaking, third-country insurance or reinsurance undertaking, insurance holding company or mixed financial holding company.
- 9.365 Guideline 14 of Guidelines of group solvency, EIOPA-BoS-14/181

#### **9.3.14.4 Identification of the issue**

- 9.366 Solvency II regulation does not provide any explanation on how the minority interest is calculated. Recital 126 of the Delegated Regulation provides that supervisory authorities should pay particular attention to any minority interests in subsidiary (re) insurance undertakings, third-country (re)insurance undertakings, IHC and MFHC, and the article 330(4) of the Delegated Regulation states that minority interest shall be considered as a non-available own-fund item.
- 9.367 In the guidelines on Group Solvency, guideline 14 explain the necessary steps to calculate the part of minority interest that could cover the group SCR, having prior to that taken into consideration any other non-available own-funds that could cover the SCR and where the amount exceeds the individual related undertakings contribution to group SCR.
- 9.368 The process described in guideline 14 ensures that the minority interests are deducted pro rata after any deduction of other non-available own funds in order not deduct the amount twice.
- 9.369 The calculation of the actual amount of minority interests still poses challenges since some fundamental questions should be clearly addressed in the regulations.

#### **9.3.14.5 Analysis**

- 9.370 In order to ensure consistent application of the calculation of minority interests and to close the gaps identified on the open questions, the guideline 14 should be brought into the regulations in conjunction with the proposed recommendation.

9.371 The following two approaches could serve in identifying the nature of and defining a minority interest:

1) *It should be a solvency II item, to be recalculated according to solvency II rules, on the basis of the excess of assets over liabilities to take into account any revaluation from accounting to solvency II;*

With this approach, some additional questions follow:

- Should the minority interest be calculated on the basis of the own funds of the subsidiary, including not only equity but also subordinated debt?
- Moreover, should the minority interest be calculated on the basis of solo eligible own funds net of any intragroup transactions, after any adjustments for double use of capital, intragroup creation of capital or profits/losses?
- Guidelines 14 seems to be based on a “gross view”, including any subordinated debt and gross of IGTs.

2) *It is an item defined with reference to the accounting framework, always equal to the amount as calculated in group consolidated financial accounts. In such case, minority interest should be clearly identified as an additional group specific item on the list of own fund items (in article 69 of the Delegated Regulation).*

9.372 The accounting value is based on two principles:

- it is based on equity, hence, the subordinated debts are not included;
- it is calculated after any adjustment for IGTs.

*Table: Calculation of Minority interest in the accounting framework.*

	Company B1	Company B2	Eliminations DR	CR	Consolidated Results
<b>Assets:</b>					
Cash	10,000.00	4,000.00			14,000.00
Receivables	20,000.00	16,000.00			36,000.00
Merchandise	25,000.00	35,000.00			60,000.00
Investment in B2	40,000.00			40,000.00	0.00
	<u>95,000.00</u>	<u>55,000.00</u>			<u>110,000.00</u>
<b>Liabilities/Equity:</b>					
Payables	25,000.00	5,000.00			30,000.00
Non-Controlling Interest				10,000.00 *	10,000.00
<b>Capital Stock:</b>					
Company B1	50,000.00				50,000.00
Company B2		35,000.00	35,000.00 **		0.00
<b>Retained Earnings:</b>					
Company B1	20,000.00				20,000.00
Company B2		15,000.00	15,000.00**		0.00
	<u>95,000.00</u>	<u>55,000.00</u>	<u>50,000.00</u>	<u>50,000.00</u>	<u>110,000.00</u>

9.373 In the above table the parent undertaking B1 owns 80% of the undertaking B2. The Minority interest is reported as "Non-Controlling Interest" and is calculated on the basis of the equity of undertaking B2. The Minority interest in the table is calculated as 20% of the equity of B2 (50,000) which would give the result of 10,000 and equals the minority's share of undertaking B2.

Possible two approaches described as four cases

9.374 Looking at the possible solutions under each of the two approaches described above, the following four cases are envisaged:

- Case 1.a: Based on the solvency II valuation and according to Guideline 14, the technique is described with a "gross view", i.e. on the basis of OFs including all sub debts and gross of IGTs (i.e. including intragroup subordinated debts);
- Case 1.b: In addition to case 1.a, it could also be argued that the minority interest should be calculated on the basis of the own funds net of IGT, therefore including only external sub debt (no intra-group subordinated debts);
- Case 1.c: In addition to case 1.a. but calculated similarly to the accounting approach where the minority interest is calculated on the basis of equity (no subordinated debts included);
- Case 2: same amount as for accounting, as an additional group specific item on the list (article 69 of the DR). In the accounting framework, the minority interest is mainly calculated on the basis of equity (no subordinated debt are included) and net of IGTs.

9.375 The actual amount of minority interest to be deducted changes according to the different cases outlined above and numerically exemplified here after. Assuming the composition of eligible own funds of the subsidiary to be:

Unrestricted Tier 1 (UT1)	70
Restricted Tier 1 (T1r)- intragroup subordinated debts	10
Tier 2	20
<b>Total solo eligible own funds</b>	<b>100</b>

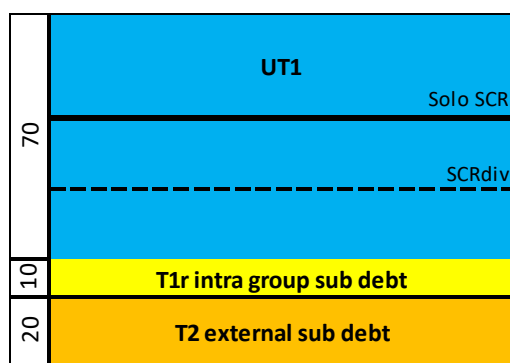
Solo SCR: 70

Contribution to group SCR: 50

Assuming there are no other non-available OFs

Minority Interest: 20%

Accounting value for minority interest: 45



	Solvency II valuation			Accounting valuation
<b>Cases</b>	<b>1.a</b> Calculated on the basis of OFs including (intra-group and external) sub debt (as mentioned in GL 14)	<b>1.b</b> Calculated on the basis of OFs net of IGT, therefore including only external sub debt (no intra-group sub debt)	<b>1.c</b> Calculated on the basis of equity (no subordinated debt) as recalculated according to Solvency II and net of IGTs	<b>2.</b> Same amount as for accounting, calculated only on equity (no subordinated debts) and net of IGTs
<b>OFs</b>	100	90	70	45
<b>SCRdiv</b>	50	50	50	50
<b>Minority Interest deduction</b>	20% [max (0; 100-50)]= <b>10</b>	20% [max (0; 90-50)]= <b>8</b>	20% [max (0; 70-50)]= <b>4</b>	20% [max (0; 45-50)]= <b>0</b>

### 9.3.14.6 Policy Options

#### *Option 1: No Change*

9.376 No change does not help with current issues and uncertainty

#### *Option 2: Further clarify the definition of the item minority interest in Solvency II and the approach to be followed for its calculation.*

9.377 Include in the regulation a clarification on the approach to be followed in line with Guideline 14 of the Guidelines of group solvency, and close the regulatory gap regarding the definition and basis of calculation of minority interest in Solvency II, either:

- i. to be recalculated in the context of solvency II (similarly to the approach followed for deferred taxes) or
- ii. to be based on the accounting value and identified as an additional group specific item on the list of own fund items (article 69 of the DR).

9.378 In the cases illustrated, approach 1 (the solvency II approach) is preferred, and the following issues are to be addressed:

- a) should the calculation be based on the own funds according to solvency II valuation and following the Guideline 14 of the Guidelines of group solvency where the Minority interest will be calculated on the basis of total solo own funds (i.e. including IGTs and intra-group sub debt)
- b) should the calculation be based on the own funds according to solvency II valuation, as describe under case a), but excluding the intra-group sub debts (and net of any other IGTs);
- c) should the calculation be based on the own funds according to solvency II valuation, as described under case a), but where the own funds is adjusted both for any IGT and excluding all subordinated debts. This is similar to the accounting approach and could be considered consistent with the nature of Minority interest:
  - mainly on equity, therefore excluding subordinated debts;
  - net of any IGTs.

9.379 The preferred policy option is option 2, since further clarification is deemed necessary to ensure consistent calculation across groups. With regard to the definition and basis of calculation of minority interest, it is recommended that the calculation is based on the own funds according to Solvency II valuation. Split views are related to the inclusion or not of external subordinated debts (split views on cases 1.b and 1.c)

### 9.3.14.7 Advice

9.380 EIOPA advises the European Commission to further clarify the definition of the item minority interest in Solvency II and the approach to be followed for its calculation.

9.381 EIOPA recommends that the calculation is based on Solvency II valuation to take into account any revaluation from accounting to solvency II.



#### Questions to Stakeholders

##### Minority Interest

**Q9.7:** EIOPA invites all stakeholders to share their experience on the issues discussed above regarding the clarification of the definition of the item Minority interest in Solvency II and the approach to be followed for its calculation. In particular, EIOPA is interested in input from stakeholders to assess if the calculation of the minority interest should include of external subordinated debts.

## [Rules governing the calculation of the minimum consolidated group SCR \(including the impact on the level of diversification benefits\)](#)

## 9.3.15 Minimum Consolidated Group SCR

### 9.3.15.1 Extract from the call for advice

#### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- [...]the appropriateness of the rules governing the calculation of the minimum consolidated group Solvency Capital Requirement, including their impact on the level of diversification benefits that may be allowed within a group;*

### 9.3.15.2 Relevant legal provisions

9.382 Article 230 of the Solvency II Directive

9.383 Guideline 21 of Guidelines on Group Solvency - Minimum consolidated group solvency capital requirement (floor to the group solvency capital requirement)

9.384 Guideline 22 of Guidelines on Group Solvency- Minimum consolidated group solvency capital requirement:

### 9.3.15.3 Identification of the issue

#### **Policy Issue 1 – lack of clarity and alignment of the scope of undertakings included in the minimum consolidated group SCR**

9.385 There is lack of clarity regarding the scope of undertakings included in the minimum consolidated group SCR. Firstly the legislation does not explicitly states how undertakings from third countries should be treated. Moreover EIOPA has identified lack of consistency regarding scope in the in the minimum consolidated group SCR and the group SCR. The first issue was explained in the Guideline 21b) of EIOPA Guidelines on Groups Solvency<sup>230</sup>, however the lack of clear provision was considered in Q&A 625 as an inconsistency with the directive, where insurance and reinsurance undertaking is a separate object than third country insurance or reinsurance undertaking (Article 230 refers only to insurance and reinsurance undertakings). While this approach is considered as pure legalistic one (third countries insurance and reinsurance undertakings contribute to the group SCR and therefore should be also considered in minimum consolidated group SCR the clarification which amount should be treated as “MCR” for third country insurance and reinsurance undertakings in the law provision is desired. The second issue stems from the fact, that IHCs, MFHCs, ASUs and SPVs are included in the

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<sup>230</sup> This Guideline states that for third country insurance and reinsurance undertakings the local capital requirements, at which the authorisation would be withdrawn should be used independently of any equivalence finding.

calculation of consolidated group SCR, but they are not included in the minimum consolidated group SCR calculation due to lack of a defined "MCR"s for such undertakings. This approach may lead to lack of change in the minimum consolidated group SCR for certain group structures in spite of a significant change of group SCR.

### **Policy Issue 2 – change of calculation method for minimum consolidated group SCR**

- 9.386 The way of calculation for minimum consolidated group SCR does not ensure that its amount correspond to the amount of group SCR in the same way as at solo level - ensuring that the ratio of EOF/MCR is always greater than ratio EOF/SCR.
- 9.387 The reverse relation between the ratios, comparing to the expected one, may stem from a high diversification effect and/or consolidation effect in the group SCR with lack of recognition of such effect in the minimum consolidated group SCR. Moreover in the consolidation process some own funds do not arise at the group level, while the minimum consolidated group SCR should be covered with high quality of capital. This may have significant impact especially in the case of the cascade structure of the group, using floor 25% for MCR calculation at solo level. As the amount of minimum consolidated group SCR is treated as "group MCR" (article 139 of the Directive applies mutatis mutandis) it may cause problems with the trigger inversion in particular with some strong immediate restrictions on the debt issued without earlier more soft measures when the group SCR is not covered.

#### **9.3.15.4 Analysis**

### **Policy issue 1 -Lack of clarity and alignment of the scope of undertakings included in the minimum consolidated group SCR**

- 9.388 Considering the importance of third country insurance and reinsurance undertakings in the calculation of the group SCR and to ensure a clear level playing field through sufficiently harmonised rules regarding the amount that should be treated as a „MCR" for third country insurance and reinsurance undertakings, as well as EIOPA is of the opinion upgrading the GL 21 was considered. Including in the calculation IHC and MFHC (taking into account that the notional SCR for such undertakings is necessary due to other reasons) could partly solve the problem of lack of alignment of the scope between minimum consolidated group SCR and group SCR ensuring that the changes in the group SCR will be more appropriately reflected in the minimum consolidated group SCR. On the other hand the inclusion of ASU and SPV seem to be disproportional to the impact which they may have for the final amounts, however especially in the groups with a complicated structure and many ASUs and SPVs it may be relevant.

### **Policy issue 2: Change of calculation method for minimum consolidated group SCR**

- 9.389 The proper relation between ratios could be achieved by the change in the calculation way of minimum consolidated group SCR (for example by the



introducing a concept of “corridor” at group level like at solo level or recalculation of MCRs at solo level used for minimum SCR calculation).

### **9.3.15.5 Policy Options**

#### **Policy issue 1: Lack of clarity and alignment of the scope of undertakings included in the minimum consolidated group SCR**

*Option 1: No change in the scope undertakings included in the minimum consolidated group SCR calculation*

9.390 The benefit is that there is no additional requirements. While the downside, is that omitting many entities included in group SCR in minimum consolidated MCR may lead to underestimation of the value which at group level is considered as “group MCR”; difficulties with the interpretation of the relation between group SCR and minimum consolidated group SCR.

*Option 2 Upgrading the current Guideline 21b) of EIOPA Guidelines on Groups Solvency to an explicit law provision and enhancement the scope by the IHC and MFHC – the notional MCRs would be equal to 35% of the notional SCR (middle of the corridor 25% - 45%)*

9.391 This option will improve the clarity that the content of GL 21 is consistent with the directive and the alignment of the scope of undertakings, without significant burdens as notional SCR for such undertakings is necessary anyway for another purposes. The simple way of calculation when notional SCR is already available. the same scope will help to interpret the minimum consolidated group SCR as the “group MCR” amount. The requirement to calculate the notional SCR for ASUs and SPVs seem to be disproportional to the impact which they may have for the final amounts.

9.392 The necessity to calculate the notional SCR will require some efforts, however this calculation would be required not only for the purposes of this policy issue but will also be required to close other policy issues.

9.393 The lack of reflection of the group SCR change in the minimum consolidated group SCR will remain for some groups with significant Ancillary Services Undertakings (ASUs) and SPVs.

#### **Policy issue 2: Change of calculation method for minimum consolidated group SCR**

*Option 1: No change in the calculation method*

9.394 The change in the calculation of the minimum consolidated group SCR method has been considered as disproportionate to the aim. Generally the problem arises for certain type of groups with very specific structures and in specific jurisdictions, and it, is not only connected to the method how minimum consolidated group SCR is calculated (as mentioned above) but also to the consolidation process on the own funds side.

- 9.395 Moreover, the change in the calculation method would diminish the effect embedded in the current calculation method: the same intervention point at solo and at group level. The minimum consolidated group SCR lowered by a calculation method in comparison with the simple sum of solo MCRs would cause necessity of group supervisor intervention while at solo level no significant measures are expected to undertake. Therefore, the alignment between both minimum values should be preserved as it ensures more coordinated measures at group and solo level. The recalculation of solo MCRs would not be in line with the principle of simplicity and auditability of the MCRs at solo level.
- 9.396 EIOPA also considers that the requirement to have an amount of group own funds of proper quality, which is higher than the sum of solo MCRs is not a demanding condition. MCRs must be covered also at solo level with an adequate level of own funds so in case of a reverse ratio relation, the group probably has a high share of intragroup transaction or non-available own funds.

*Option 2: Change the way how minimum consolidated group SCR is calculated*

- 9.397 This option could be solving the problem of reverse relation of solvency ratios: Eligible Own Funds (EOF)/group SCR and EOF/minimum consolidated group SCR and which may have impact on the restriction on debt issues.
- 9.398 Trying to solve an issue which has been identified for a few insurance groups would jeopardise the desired characteristics of the minimum consolidated group SCR like having the same intervention point and coverage of minimum consolidated group SCR with own funds of the best quality -which is already a requirement at solo level.

### **9.3.15.6 Advice**

**Policy issue 1: Lack of clarity and alignment of the scope of undertakings included in the minimum consolidated group SCR**

9.399 EIOPA advises to include into the legislation the content of EIOPA guideline 21b) included in the set of Guidelines on group solvency calculation and to align partly the scope of undertakings included in the minimum consolidated group SCR with the scope of undertakings included in the group SCR by the adding of notional MCRs of IHC and MFHC equal to 35% of notional their SCRs to the current value of minimum consolidated group SCR.

**Policy issue 2: Change of calculation method for minimum consolidated group SCR**

9.400 EIOPA advises not to change the methodology of the minimum consolidated group SCR calculation. EIOPA is aware that some concerns may arise in case of cascade structure when minimum consolidated group SCR is breached before group SCR, however the current method of calculation has many advantages protecting from the too high level of own funds leverage, coordination of supervisory actions at solo and group level and therefore it is advised to maintain it.

## **Solvency II and the interactions with Directive 2002/87/EC (FICOD) and any other issues identified with Other Financial Sectors (OFS)**

### **9.3.16 Inclusion of Other Financial Sectors (OFS)**

#### **9.3.16.1 Extract from the call for advice**

##### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- *[...]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

#### **9.3.16.2 Previous advice**

9.401 CEIOPS advice CEIOPS-DOC-52/09, CEIOPS Advice for Level 2 implementing Measures on Solvency II: Assessment of Group Solvency

#### **9.3.16.3 Relevant legal provisions**

9.402 Article 228 of the Solvency II Directive provides for alternative methods for including credit institutions, investment firms and financial institutions.

9.403 Article 329(1)(a) to (e) of the Delegated Regulation 2015/35, sets out how specific related undertakings shall be included in the group solvency calculation (credit institutions, investment firms and financial institutions, AIFM, UCITS, IORPs as well as non-regulated undertakings carrying out financial activities)

9.404 Articles 335(1)(e) and 336(c) of the Delegated Regulation which regulate how to include OFS when calculating group own funds and group solvency capital requirement according to Method 1 of Solvency II.

9.405 GL 11 of Guidelines of group solvency, EIOPA-BoS-14/181 states that, when the undertakings of other financial sectors form a group, solvency requirements of such a group should be considered to be used instead of the sum of the requirements of each individual undertaking when calculating the group solvency.

9.406 EIOPA Q&A 1344 which clarifies how to include credit institutions, investment firms and financial institutions in the calculation of group solvency capital requirement.

#### **9.3.16.4 Other regulatory background**

- 9.407 Directive 2002/87/EC, Financial Conglomerate Directive (“FICOD”)
- 9.408 Commission Delegated Regulation (EU) No 342/2014 supplementing Directive 2002/87/EC of the European Parliament and of the Council and Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards for the application of the calculation methods of capital adequacy requirements for financial conglomerates (“DR 342/2014”).

#### **9.3.16.5 Identification of the issue**

- 9.409 Solvency II places reliance on the regulatory framework of other financial sectors. The Solvency II framework does not provide sufficient guidance on how relevant sectoral rules, in practice, should be taken into account when calculating group solvency, and on the interactions, if any, with other applicable regulations (FICOD, IORP Directive, etc.).
- 9.410 EIOPA Q&A 1344 clarified that the same capital requirements for related credit institutions, investment firms and financial institutions should be used in the Solvency II calculation as in the supplementary capital adequacy calculation for a financial conglomerate. Nonetheless, it is unclear to what extent FICOD and the DR 342/2014 should be taken into account in other areas of the Solvency II group solvency calculation.
- 9.411 As a consequence, there is no certainty at this stage on how to adequately supervise the inclusion of related undertakings in other financial sectors (OFS) in the group solvency calculations.
- 9.412 Issues which need to be clarified refer to the inclusion of undertakings in OFS and whether the choice of method would lead to the same result when including such undertakings. It also includes issues referring to classification and availability assessment of own funds for related undertakings in OFS.

#### **Policy Issue 1: Inclusion of related undertakings in OFS**

- 9.413 Article 329 of the Delegated Regulation provides details on which capital requirements and own funds to be included regarding related credit institutions, investment firms and financial institutions as well as other related undertakings in other financial sectors. This Article is applicable unless the book value of the related undertaking has been deducted in accordance with Article 229 of the Solvency II Directive. The references in Article 329 of the Delegated Regulation letter (a)-(e) are to capital requirements and own funds calculated according to relevant sectoral rules. The outcome of discussions held within EIOPA and previous analysis done, is that the contribution of these undertakings to the group solvency is the same, independent of calculation method used, since the proportional share

of capital requirements and own funds calculated according to sectoral rules are simply aggregated (also referred to as a “D&A technique”).

9.414 Since Article 329 of the Delegated Regulation does not mention anything in relation to the method used for including such an undertaking, it should be clarified if article 329 is applicable regardless of the calculation methods used (method 1 or 2 according to FICOD unless article 228 of the Solvency II Directive is amended as suggested in the advice given regarding article 228, method 1 or 2 according to Solvency II).

### **Policy Issue 2: Allocation of OFS own funds into relevant Solvency II tiers**

9.415 There is no explicit provision stating if and how own funds from OFS entities should be classified into the Solvency II tiers. This could lead to own-fund items regarded as of lower quality according to sectoral rules to be included as Tier 1 in the group solvency calculation.

9.416 EIOPA Q&A 1344 clarified that all requirements including buffers and add-ons according to Article 9 in DR 342/2014 should be included in the group solvency calculation for a related credit institution, investment firm and financial institution. Nonetheless, there is still a need to clarify how the different own fund-items eligible to cover each of these requirements should be included in the group solvency calculation.

9.417 If an allocation of own funds from OFS should be made, it is not clear if Tier 1 from OFS can or should be assumed to be fully taken into account as a Tier 1 under Solvency II. In the absence of explicit provisions it is noted that some NSAs have applied the following principles when classifying own funds from OFS:

- a) Regarding credit and financial institutions, Article 68(5) of the Delegated Regulation describes how to deduct, at solo level, such an OFS entity’s value from an insurance undertaking’s own funds. The underlying mapping between the OFS’s tiers and the Solvency II tiers which stems from this Article is considered as applicable when aggregating OF from OFS to group OF.
- b) Regarding other OFS entities which are regulated by CRD IV/CRR, the same underlying mapping is considered to apply.

9.418 It should be noted that an allocation of own funds from OFS into the relevant Solvency II tier would have an impact on reporting and disclosure but not on quantitative requirements.

### **Policy Issue 3: Availability assessment of OFS own funds**

9.419 There is no specific provision in the Solvency II framework which explicitly allows supervisors to assess the availability of own-fund items from other financial sectors. The assessment, according to Article 330 of the Delegated Regulation, is required only for certain own funds in related (re) insurance undertakings, third country (re)insurance undertakings, IHC and MFHC.

- 9.420 As for credit institutions, investment firms, and financial institutions, Article 329(1)(a) of Delegated Regulation includes a reference to relevant sectoral rules in FICOD when defining how to include such undertakings in the group solvency. It is however unclear if and to what extent the FICOD regulations should be considered in the Solvency II-calculation. For example, the FICOD regulations, Article 4.1 DR 342/2014, requires an availability assessment of all regulated entities in a financial conglomerate.
- 9.421 It needs to be clarified if an availability assessment similar to the one described in DR 342/2014 should be applicable also for the Solvency II calculation and if such an assessment should be performed for all own funds in undertakings in OFS, including IORPs, or only for some significant own funds.
- 9.422 A total absence of availability assessment of the excess own funds of an OFS entity would imply that in some cases, where the “insurance part” of the group is undercapitalised, the solvency ratio of the overall insurance group may still be satisfactory. This regardless of whether the excess of capital of the OFS entities can effectively absorb losses stemming from the insurance undertakings within the group.

**Policy Issue 4: Inclusion of own funds and capital requirements subject to sectoral rules when OFS entities form a group**

- 9.423 EIOPA GL 11 in Guidelines on Group Solvency clarified that when related undertakings of OFS form a group subject to sectoral capital requirements, the group capital requirement should be considered instead of the sum of each individual capital requirements. It should be considered whether this should also be the treatment of own funds from OFS. This would mean, for example, that own funds in this group have already been assessed for availability according to that OFS sectoral rules when included in the Solvency II group solvency calculation. It should also be considered if this clarification regarding capital requirements and own funds should be included in the Solvency II Delegated Regulation.

**Policy Issue 5: Inclusion of capital requirements from credit institutions, investment firms and financial institutions**

- 9.424 EIOPA Q&A 1344 clarified that the same capital requirements for related credit institutions, investment firms and financial institutions, i.e. including buffers and add-ons, should be used in the Solvency II calculation as in the supplementary capital adequacy calculation for a financial conglomerate. It should be considered if this clarification should be included in the Solvency II regulation.

**9.3.16.6 Analysis and Policy Options**

**Policy Issue 1: Inclusion of related undertakings in OFS**

*Policy Option 1: No Change*

- 9.425 No change does not help with current issues and uncertainty.

*Policy Option 2- clarify the inclusion of OFS entities in the group solvency calculation in Solvency II Directive*

9.426 Since Article 329 of the Delegated Regulation is not mentioning anything in relation to the method used for including OFS entities, it should be clarified that article 329 is applicable regardless of the methods used (methods 1 or 2 according to FICOD) unless article 228 of the Solvency II Directive is modified as proposed in this advice, methods 1 or 2 according to SII.

### **Policy Issue 2: Allocation of OFS own funds into relevant Solvency II tiers**

*Policy Option 1- No change.*

9.427 No change does not help with current issues and uncertainty.

*Policy Option 2 – No allocation of own funds from OFS into relevant Solvency II tiers when including these in the group solvency calculation.*

9.428 If the determination of tiering of eligible own funds to cover the group SCR would not include any of the related undertaking in OFS, this could lead to own-fund items regarded as lower quality according to sectoral rules to be included as Tier I in the group solvency calculation.

*Policy Option 3– Allocation of own-fund items from OFS into relevant Solvency II tiers where practicable and material*

9.429 Allocation on a high-level and only for specific, clearly identified own-fund items such as subordinated debt and similar, when it is practicable and the own-fund items materially affect the amount of group own funds.

9.430 If practicable, the mapping of own funds as described in Article 68(5) in the Delegated Regulation could be followed:

- The underlying mapping between the OFS's tiers and the Solvency II tiers which stems from this Article might be considered as applicable when aggregating own funds from OFS to group own funds.

9.431 It should be noted that an allocation of own funds from OFS into the relevant Solvency II tier would have an impact on reporting and disclosure but not on quantitative requirements.

### **Policy Issue 3: Availability assessment of OFS own funds**

*Option 1 – No change.*

9.432 No change does not help with current issues and uncertainty.

*Option 2 – Clarify that no availability assessment should be done for own funds from OFS*

9.433 Clarify in the regulation that no availability assessment of own funds from OFS should be done in Solvency II.

*Option 3 – Clarify in the Delegated Regulation that own funds from related OFS in excess of sectoral capital requirement should be available*

9.434 The own funds items of a related OFS entity in excess of the sectoral capital requirements should only be taken into account when calculating group solvency insofar the own fund items can be made available to absorb losses stemming from (re)insurance undertakings within the group. This requires close cooperation with the relevant supervisors of other financial sectors.

9.435 As a minimum, it would be expected that the following (non-exhaustive list of) own fund items, which are included in sectoral own funds, in excess of sectoral capital requirement are by default not included in the group solvency:

- Subordinated debt instruments;
- Deferred tax assets;
- Any non-distributable reserve.

**Policy Issue 4: Inclusion of own funds and capital requirements subject to sectoral rules when OFS entities form a group**

*Option 1 – no change.*

9.436 No change does not help with current issues and uncertainty.

*Option 2 – Clarify the inclusion of own funds and capital requirements from OFS entities subject to sectoral rules when OFS entities form a group*

9.437 Clarify in Articles 329, 335 and 336 of the Delegated Regulation that when related undertakings in OFS form a group subject to sectoral group supervision, group own funds and group capital requirements calculated according to sectoral rules should contribute to the group solvency calculation instead of the sum of the capital requirement and own funds of each individual undertaking.

**Issue 5: Inclusion of capital requirements from credit institutions, investment firms and financial institutions**

*Option 1 – no change*

9.438 No change does not help with current issues and uncertainty

*Option 2 – Include the answer to Q&A 1344 in Delegated Regulation*

9.439 Include the answer to Q&A 1344 in the Delegated Regulation to clarify that the same capital requirement for related credit institutions, investment firms and financial institutions, i.e. including buffers and add-ons, should be used in the Solvency II group solvency calculation as used in the supplementary capital adequacy calculation for a financial conglomerate.



### 9.3.16.7 Advice

9.440 EIOPA recommends the European Commission to provide sufficient guidance on how relevant sectoral rules, in practice, should be taken into account when calculating group solvency, and on the interactions, if any, with other applicable OFS regulations. In particular:

#### **Policy Issue 1: Inclusion of related undertakings in OFS.**

9.441 EIOPA advises to clarify that Article 329 is applicable regardless of methods used (methods 1 or 2 according to FICOD unless article 228 is amended as suggested in the advice given regarding Article 228, methods 1 or 2 according to Solvency II).

#### **Policy Issue 2: Allocation of OFS own funds into relevant Solvency II tiers.**

9.442 EIOPA recommends that groups should be required to allocate into the relevant Solvency II tiers, on a high-level and only for specific, clearly identified own-fund items of undertakings in OFS such as subordinated debt and similar, when it is practicable and the own-fund items materially affect the amount of group own funds.

#### **Policy Issue 3: Availability assessment of own funds from OFS**

9.443 EIOPA recommends that the own funds items of a related OFS entity in excess of the sectoral capital requirements should only be taken into account when calculating group solvency insofar the own fund items can be made available to absorb losses stemming from insurance and insurance undertakings within the group. This would require close cooperation with the relevant supervisors of other financial sectors.

9.444 As a minimum, it would be expected that the following (non-exhaustive list of) own fund items in excess of sectoral capital requirement are by default not included in the group solvency: i) Subordinated debt instruments; (ii) Deferred tax assets which are included in sectoral own funds; (ii) Any non-distributable reserve

#### **Policy Issue 4: Inclusion of own funds and capital requirements subject to sectoral rules when OFS entities form a group**

9.445 EIOPA advises the European Commission to clarify in Articles 329, 335 and 336 of the Delegated Regulations that when related undertakings in OFS form a group subject to sectoral group supervision, group own funds and group capital requirements that are calculated according to sectoral rules should contribute to the group solvency calculation instead of the sum of the capital requirement and own funds of each individual undertaking.

### **Policy Issue 5: Inclusion of capital requirements from credit institutions, investment firms and financial institutions**

9.446 EIOPA advises that the answer to Q&A 1344 should be included in the SII regulation. This Q&A clarifies that the same capital requirements for related credit institutions, investment firms and financial institutions, i.e. including buffers and add-ons, should be used in the Solvency II calculation as in the supplementary capital adequacy calculation for a financial conglomerate.

9.447 Furthermore, EIOPA is also aware that changes to the regulatory framework of Other Financial Sectors may affect the interaction with the existent Solvency II framework. It is important that any revision by the legislator on the solvency requirements of other financial sectors avoids any unintended spill overs on the interaction between the legislation for other sectors with the existent Solvency II framework.

## **9.3.17 Application of Article 228 of the Solvency II Directive**

### **9.3.17.1 Extract from the call for advice**

#### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- *[...]The rules governing the calculation of group solvency, when method 1, method 2 or a combination of methods is used, including own-funds requirements and the interactions with Directive 2002/87/EC (hereafter "FICOD");*

### **9.3.17.2 Relevant legal provisions**

9.448 Article 228 of the Solvency II Directive - Related credit institutions, investment firms and financial institutions

9.449 Article 68(3) of the Delegated Regulation

### **9.3.17.3 Identification of the issue**

#### **Policy Issue 1: Scope of Article 228 Solvency II Directive**

9.450 The article 228 of the Solvency II Directive is not clear as to how FICOD methods 1 and 2 should be used for the Solvency II group solvency calculation.

- 9.451 By reading this article, it could be understood that FICOD methods 1 and 2 should be applied to the whole group for the calculation of the capital requirement. With this interpretation, it could also be understood that insurance groups owning banking participations are allowed to use FICOD methods and not the method laid down in Articles 335 to 36 of the Delegated Regulation, regardless if they are Financial conglomerates subject to FICOD capital requirements or not.
- 9.452 As a result, it appears necessary to specify that FICOD method 1 or 2 should be used only to include the credit financial institution undertakings into the group solvency. However, if Article 228 of the SII Directive is meant to refer only to the related undertaking and not the whole group, the reason for applying method 1 according to FICOD is unclear. Some NSAs consider there is no difference between applying FICOD method 1 only to the banking participation or to the whole group, while some others see a difference.
- 9.453 Article 228 of the SII Directive states that “method 1 set out in that Annex shall *be applied only* where the group supervisor is satisfied as to the *level of integrated management and internal control* regarding the entities which would be included in the scope of consolidation”. In practice, no guidance has been provided on how to assess the level of integrated management and internal control. Therefore, checking that this condition is fulfilled is hardly operable in practice.
- 9.454 It was also noted that in some Member States, Article 228 of the SII Directive was transposed in national legislation in such way that requires the application of FICOD methods (instead of applying Article 335(1)(e) of the Solvency II Delegated Regulation).
- 9.455 Article 68(3) of the Delegated Regulation on treatment of participations in the determination of basic own funds offers the possibility for groups not to deduct strategic participations which are included in the calculation of the group solvency on the basis of Solvency II method 1 and FICOD method 1.
- 9.456 However, Solvency II method 1 and FICOD method 2 are conducting to similar results. In that way, undertakings are “encouraged” to apply Solvency II method 1 to be able not to deduct the participation.
- 9.457 This issue could be solved by amending Article 68 of the Delegated Regulations or by amending 228 of the Solvency II Directive for instance, removing the possibility to use FICOD methods.

#### **9.3.17.4 Analysis and Policy Options**

##### *Option 1: No Change*

- 9.458 No change will not be an option due to the lack of regulatory clarity.

##### *Option 2: Clarify the scope of Article 228*

- 9.459 Need to change Article 228 to clarify that methods 1 and 2 according to FICOD should be used only to include the undertaking which is a credit institution,

investment firm or financial institution in the group solvency calculation and not to the rest of the whole group.

9.460 Clarification is also needed on:

- how the assessment of the level of integrated management and internal control should be performed in practice
- how FICOD method 1 should apply in practice. In particular, clarification is needed on whether applying FICOD method 1 only to the related undertaking is different from applying FICOD method 1 to the whole group.

*Option 3: Delete Article 228*

9.461 Due to the lack of clarity regarding Article 228 of the Solvency II Directive as well as to the national transposition issues, an option would also be to remove Article 228 from the Solvency II Directive.

9.462 A deletion of Article 228(1) will have the following consequences:

- FICOD methods could no longer be used to include such related undertakings in the group solvency calculation but only Solvency II methods;
- Groups that are currently using FICOD methods to include such related undertakings in the group solvency calculation will have to re-compute the group solvency calculation using method 1 Solvency II.

Pros	Cons
Reducing the number of methods to include an undertaking which is a credit institution, investment firm or financial institution (the most common case is that of a banking participation) in the group solvency calculation will be easier to monitor	Restricting the number of possible methods could be burdensome for some groups. Indeed, groups currently using method 1 FICOD will have to recalculate the group solvency using method 1 Solvency II for the integration of banking undertakings.
In some countries the incentive created by art. 68(3) of the Delegated Regulations to use Solvency II method 1 instead of FICOD method 2 will disappear with the deletion of FICOD methods	
no need to clarify how the assessment of level of integrated management and internal control should be performed	

9.463 According to Article 228 second paragraph, the NSAs could decide to deduct the participation from the own funds eligible at group level. A deletion of this paragraph would have the following consequences:

- Deduction of participations will not be possible at group level

- NSAs would not have the possibility to request the participating undertaking to deduct a participation referred to in article 228 from the group own funds

### 9.3.17.5 Advice

9.464 EIOPA considers that related undertakings which are credit institution, investment firm or financial institution should be included in accordance with sectoral rules in the group solvency calculation. This treatment should be independent of the method used for including such participations.

9.465 Since Article 228 in the Solvency II Directive has been transposed differently into national law between the Member States and due to that the interpretation has been a debate over a number of years, it is important to ensure that the treatment of participations referred to in Article 228 and the result of such treatment would be the same in order to have a harmonised application.

9.466 EIOPA advises to delete Article 228 of Solvency II Directive, as a result a related credit institution, investment firm and financial institution could only be included using method 1 or method 2 Solvency II. Such treatment would result in a harmonised treatment of such participations. Article 68(3) of the Delegated Regulation should be amended accordingly.

## Governance Requirements - uncertainties or gaps related to the application of governance requirements at group level.

### 9.3.18 Application of Article 40 of the Solvency II Directive (definition of the AMSB for groups); and Mutatis Mutandis under Article 246 of Solvency II Directive

#### 9.3.18.1 Extract from the call for advice

#### **3.14. Group supervision**

*EIOPA is asked to advise on how the main issues identified in its Report on group Supervision and Capital Management of Insurance of Reinsurance Undertakings published on 19 December 2018 could be remedied. In particular, EIOPA is asked to focus on the following items:*

- *[...] uncertainties or gaps related to the application of governance requirements at group level.*

#### 9.3.18.2 Relevant legal provisions

9.467 Article 40 of the Solvency II Directive – Responsibility of the administrative, management or supervisory body

9.468 EIOPA Guidelines on governance - Guideline 65 – Responsibilities for setting internal governance requirements (paragraphs 1.118 and 1.119)

### **9.3.18.3 Identification of the issue**

9.469 Article 246 of the Solvency II Directive imposes the *mutatis mutandis* application by insurance groups of the requirements laid down in Articles 41 to 50 of the Directive (which are applicable to solo entities), but it doesn't explicitly refer to Article 40 (responsibility of the AMSB of insurance and reinsurance undertakings).

9.470 There is not a clear and defined system of governance for groups. The system of governance that applies to groups rely on the application of *mutatis mutandis*. This regulatory gap creates an uncertainty and leads to an un-level playing field. As well, it appears necessary to precise group governance requirements in order to identify easily responsibilities at group level, to guarantee that groups are correctly identifying and managing group risks and to ensure consistency between group and solo systems of governance within the group. This is also necessary to reinforce financial stability and group resilience.

### **9.3.18.4 Analysis**

#### **Article 40 of Solvency II Directive**

9.471 The rationale of why Article 40 does not apply *mutatis mutandis* at group level is not clear. It is understood that a simple referencing to Article 40 would not be practical for groups, and some additional safeguards or specifications may be needed to ensure clarity on the need for groups also having regard to Article 40 of the Solvency II Directive. Some of the considerations are :

- Article 40 refers only to insurance and reinsurance undertakings and, obviously, it doesn't include the reference to insurance holding companies or mixed financial holding companies;
- it should be clear that the AMSB of each insurance and reinsurance undertaking within the group is still responsible for its own compliance with all solo requirements;
- the identification of the responsible AMSB at group level may not be always straightforward, depending on the structure and organization of the group.

9.472 In light of those considerations, EIOPA is of the opinion that Solvency II Directive would benefit from including a specific reference to Title I, Chapter IV, Section 1, with further specifications that clarifies the *mutatis mutandis* application of Article 40 at group level. In particular:

- the AMSB of the ultimate participating insurance or reinsurance undertaking, insurance holding company or mixed financial holding company which is in the scope of group supervision in accordance with Articles 213 par. 2 a), b) and c) , *by default*, has the ultimate responsibility for the compliance with the Solvency II requirements at group level;

- The group supervisor, in consultation with the group and the other supervisory authorities concerned where applicable, on the basis of the structure and organization of the group, could also identify a different entity responsible for the compliance with all requirements at group level.
- In some cases, the proper identification of the AMSB responsible for the group governance could lead the NCA and the other involved authorities to ask to the group to restructure or to establish a holding company or an undertaking that exercises centralised coordination and dominant influence as laid down in Article 212 (1) c) (ii) (see policy issue 2 on dominant influence).

9.473 Moreover, it is recommended to specify that the ultimate responsibility at group level should not impair the responsibilities of the AMSB of each insurance and reinsurance undertaking within the group, which remains responsible at solo level according to Articles 40 and 213(1) of the Solvency II Directive.

9.474 It is also underlined that the clarification on the application of Article 40 of the Solvency II Directive at group level would also solve the current regulatory gap in Article 246 of the Solvency II Directive, where it is not clear which entity and board is really responsible for the group governance requirements.

9.475 In particular, if it is clarified that Article 40 of the Solvency II Directive is applicable at group level, the AMSB of the participating insurance or reinsurance undertaking, the insurance holding company or the mixed financial holding company would become - by default - responsible for setting adequate internal governance requirements across the group, that is appropriate to the structure, business model and risks of the group and of its related entities. A different entity and related board can be identified according to the approach outlined above (see the following paragraphs on article 246 of the SII Directive).

### **Article 246 of the Solvency II Directive**

9.476 The mutatis mutandis principle set out in Article 246 of the Solvency II Directive imposes to insurance groups to define a supervision system of governance at group level that complies with the obligations laid down in Articles 41 to 50 of the Directive (which are applicable to solo entities), applicable directly at the level of the group.

9.477 The mutatis mutandis application of solo requirements on system of governance may raise difficulties and uncertainties regarding the following issues

#### *The identification of the administrative, management or supervisory body (AMSB) of the group.*

9.478 The AMSB which has the ultimate responsibility, within a group, for the compliance with the obligations of governance set out in the Directive is not currently clearly identified. Some countries, in their national transposition, have clarified that the AMSB of the ultimate participating (re)insurance undertaking or insurance holding company or mixed financial holding company (i.e. ultimate parent company) has to set an adequate system of governance at the level of the group, taking into account the structure, the business model and risks of the group

and solo undertakings belonging to the group in order to allow a sound and prudent management of the group.

9.479 This provision would be consistent with the current Solvency II framework and with the proposal under discussion to refer clearly to the ultimate responsibility of such undertaking for the compliance with group requirements.

9.480 EIOPA is aware that there may be cases where the identification of the group AMSB responsible for group requirements is challenging for example, where the parent undertaking is outside the EEA or in cases of horizontal groups with no common parent company, or where at the top there is a participating (non-controlling) undertaking.

9.481 In those cases, the group supervisor - in consultation with the group and the college of supervisors if any – should have the power to identify a different responsible entity, to ask the group to restructure or to create an undertaking designated to be the ultimate parent undertaking for the group requirements including governance ones (see policy issue 2 on dominant influence).

*The identification of the persons who effectively run the group and the group's key functions holders (KFHs)*

9.482 The persons who effectively run the group and the group KFHs are not clearly identified either. Some NSAs have further indicated that:

- the persons who run the group are to be identified in the AMSB and in the senior management of the ultimate parent undertaking;
- the AMSB of the ultimate parent company has the responsibility to define the group key functions and the persons who effectively will be designated as group KFHs within the group.

9.483 Therefore it can happen that the group KFHs are simultaneously the KFHs of the same undertaking at solo level. In that case, cumulating both functions is submitted to strict conditions (i.e. availability of the KFH for the entities he is responsible for, materiality of the key functions' management for each entity). Furthermore, any potential conflict interest between the two roles should be addressed in a group policy.

*Fit and proper (F&P) at group level*

9.484 The analysis of the F&P of persons who effectively run the group and group KFHs is not obvious. Does the analysis have to be done at the level of the parent entity only or at perimeter of the group as a whole? The fulfilment of fit and proper requirements has to be ensured at the level of the ultimate parent company, where clearly called to set up the group governance requirements. The scope of the F&P assessment is expected to be broader compared to solo: it should take into account the broader perimeter of the business model and complexity of the group.



*The definition of the group system of governance (SoG) and its articulation with solo SoG within the group.*

- 9.485 About **group policies**, there is no precision about which policies are applicable at group level and how to coordinate the policies set up within a group. Do the policies which must be defined within a group have to be specific or could it be the policies defined by the parent undertaking? How can the parent undertaking make sure that the policies set up at solos levels are compliant with the ones define at group level?
- 9.486 About **group risk-management system and the own risk solvency assessment**, it may seem obvious but it is uncertain what the risk management system at group levels is meant to cover. Is it explicit that all undertakings included in the group definition have to be covered, including risks which are arising from undertakings not submitted to the Solvency II regime and, consequently, are not submitted to supervision at solo level? Should group risk management only limit its monitoring to risks that are specific to the fact of being a group?
- 9.487 The ultimate parent undertaking should make sure that the group has an effective risk management system, proportionate with the nature, scale and complexity of the activity exercised by the group companies which includes at least the definition and review of:
- risk management policy and strategies;
  - risk appetite and the risk tolerance limits, also with a medium-long term view, consistently with the group's strategic guidelines.
  - suitable processes and procedures to assure the adequate identification, measurement, assessment, monitoring, management and representation, with adequate frequency, of the current and prospective risks, to which the group and its entities are exposed and, when possible, the related interdependencies. Particular attention at group level should be paid to risks that could affect the group as a whole and the risks posed by companies in third country, not regulated ones or other regulated undertakings;
- 9.488 About the **internal control and audit deployed at group level**, there is no precision on the ways to manage internal control at group level and how a group should monitor its entities. Does the parent undertaking just have to define a framework for internal control to coordinate the internal control of the solo entities or does it have to act as a control function within the group?
- 9.489 Regarding the **outsourcing of any functions within a group or outside of the group**, the articulation between solo and group assessment and the assessment of the group outsourcing decision are not obvious. Can the parent undertaking give any advice or even objection on the decision of a solo undertaking within a group to outsourced one of these functions? If yes, which criteria does the parent undertaking have to take into account to make its decision? How the parent undertaking analyse the decision to outsource any functions at group level? To resolve such issues, it seems necessary that group SoG must ensure consistency between policy and decisions adopted at group and solo levels about the outsourcing of any key functions within or outside of the group.

*The application of the proportionality principle at group governance issues*

- 9.490 There are some questions about the application of the proportionality principle on group governance issues. Is it appropriate or not to reduce obligations on the governance for less significant groups and to enhance exigencies for significant groups? In particular, the proportionality question could apply towards how group governance requirements are applied to non-controlled participations within a group: does a non-controlled participation have to comply with all of the requirements from the group(s) it belongs to?
- 9.491 Given the lack of detailed European provisions on the group governance system, some NSAs have defined some indicators, which would allow the ultimate parent company to ensure a more tailored definition and application of the governance tools according to the group specificities. These frameworks include the following indicators to be taken into account in the calibration of the governance system:
- a) the links among undertakings: if there is a control, the ultimate parent company is in a better position to impose stricter requirements and to monitor their application;
  - b) the activities carried out by the undertakings and the nature of companies (if regulated or not);
  - c) the risk profile of each undertaking and their contribution to the riskiness of the group;
  - d) the possible listing on the stock exchange;
  - e) the location of the undertaking, if it is in a third country.
- 9.492 Additionally, the ultimate parent undertaking is required to self-assess its group's risk/complexity profile in order to apply a more or less complex system of governance. The self-assessment should be based on a mixed criteria of (i) quantitative (e.g. size measured as the amount of technical reserves or premiums), and (ii) qualitative elements (e.g. use of an internal model for the calculation of the Group Solvency Capital Requirement; complexity of the asset management strategies; complexity of the ownership structure; complexity of the technical risks undertaken and of other sector specific risks; substantial cross-sector operations, especially if carried out in countries outside the EEA; risk appetite at group level).
- 9.493 With reference to the concrete application of the proportionality principle within the group, some stricter requirements would be expected for higher risk profile groups, on the contrary some simplified solutions are allowed for groups with a lower risk profile. Examples of stricter requirements are:
- non-executive role of the chair of the group AMSB;
  - setting up of committees such as remuneration and risk committees;
  - appointment of different key functions holders for each key function and set up of different unit for each key function;
  - designated groups (for example group relevant for financial stability reporting) have to draw up and send to the Supervisor a group emergency plan (so called "recovery plan"). The minimum contents of the plan have been defined,

including, among other things, indications regarding the prospective management of liquidity risk;

- remuneration issues (as the identification of a percentage of the remuneration to be deferred, to be awarded in shares etc.).

9.494 Examples of simplified solutions for the undertakings that are part of the group and for the ultimate parent company:

- internal committees set up (such as the Remuneration or Risk Committee) at the Ultimate Parent Company level and not at the level of the subsidiaries, if the group Committee is adequate to cover also the risk profile of the solo level undertaking;
- key functions set up at the level of the ultimate Parent undertaking and not at the level of the subsidiaries, if they are adequate also for the controlling tasks at solo level undertaking without prejudice to the appointment of the KF holders in the subsidiaries and to the responsibility of each undertakings to ensure the compliance with the solo level provisions on the governance system;
- outsourcing of key functions into the group (UPC and subsidiaries): the regime applicable to the key function outsourcing is more flexible within the group (including only the subsidiaries);
- possibility to merge into a single organizational unit the key functions other than the internal audit and to appoint an unique key function holder for different key functions;
- combination of key functions within the group or a solo entity if the group or the solo entity is below the indicative size thresholds defined.

### **9.3.18.5 Policy Options**

#### **Article 40 of Solvency II Directive**

##### *Option 1: No Change*

9.495 No change to, the text of Article 40 of the Solvency II Directive would remain not explicitly applicable at group level.

##### *Option 2: Amend the Solvency II Directive*

9.496 Amend the Solvency II Directive to ensure that Article 40 of the Solvency II Directive also applies to insurance groups within the reading of the issues presented above. In particular, the legal text should state clearly that the AMSB of the parent (re)insurance or IHC or MFHC at top of the group would be responsible for the compliance with all group requirements. The group supervisor should be granted power to designate a different company of the group or a specific company in the case of horizontal group, groups with multiple points of entry or multiple groups hold by the same individual or legal entity (where the parent company is not clearly identifiable) (see policy issues 2 on dominant influence).

## **On Article 246 of the Solvency II Directive**

### *Option 1: No Change*

9.497 No change to, the text of Article 246 of the Solvency II Directive means that the lack of clarity due to mutatis mutandis will remain for the systems of governance.

### *Option 2: Define/Provide guidance on the system of governance for groups*

9.498 EIOPA advises the European Commission to define a system of governance. According to the problems identified on the implementation of governance principles at group level, it seems necessary to modify Article 246 of the Solvency II Directive to provide clarity on how to set up a compliant and efficient governance system at group level.

9.499 Without prejudice of the principles defined in Articles 41 to 50 of the Directive, Article 246 should, at least, clarify the expectations on the subject by setting out principles as follows:

- The responsible undertaking for group governance requirements (and other types of requirements) is the ultimate parent undertaking as referred to in Art 213 and Art 215 of the Solvency II Directive. In case of horizontal groups or groups with multiple points of entry, a responsible undertaking should also be designated;
- The persons who effectively run an insurance group are the persons who effectively run the responsible parent undertaking;
- The group key functions holders are the key function holders of the responsible parent undertaking or the persons, under its responsibility, designated by the responsible parent entity as such within the group. In case of accumulation of key functions of a solo entity and the ones of the group, the competencies and functions have to be clearly distinguished and justified;
- The undertaking responsible for group governance should define policies so that they can ensure the consistency between the policies of all the entities within the group, even those which are not submitted to Solvency II regime, and modified in accordance with the requirements set out in Article 41§3 of the Solvency II Directive;
- The undertaking responsible for group governance should also ensure that those policies are formally enacted and applied consistently within the group;
- Group level own risk solvency assessment and risk management system should cover at least all activities conducted at group level and the risks that are relevant to deal with at group level. In addition, the ultimate parent undertaking shall keep at all times a degree of monitoring of all its entities (including non-regulated entities) that is proportionate with the risks these entities' activities generate for the whole group. Additional supervisory requirements could be needed to avoid conflict of interest when group control functions also provide support to local entities;
- As a result, the KFJs of the group have to ensure, in their own field, the harmonisation of the group's methods and assess the proper implementation of policies defined at group level;

- The group needs to ensure that harmonized set of data in all areas necessary is available to build the bases for transparent and educated decisions and the identification of group-specific risks;
- The group ensures a clear and transparent group structure to guarantee efficient supervision;
- In case of a joint-participation between two different groups, each group has the responsibility to ensure that the joint-participation is compliant with both system of governance policies. It is to the heads of each group which have to make sure that the policies of the participation are compliant with both. In practice, it could be through a memorandum / contract between the groups (as in the case of joint ventures) or through ad hoc decisions.

### **9.3.18.6 Advice**

9.500 EIOPA advices to amend the Solvency II Directive to ensure that Article 40 of the Solvency II Directive also applies to insurance groups within the reading of the issues presented above. In particular, the legal text should state clearly that the AMSB of the parent (re)insurance or IHC or MFHC at top of the group would be responsible for the compliance with all group requirements. The group supervisor should be granted power to designate a different company of the group or a specific company in the case of horizontal group (where the parent company is not clearly identifiable).

9.501 EIOPA advices to define a system of governance. According to the problems identified on the implementation of governance principles at group level, it seems necessary to modify Article 246 of the Solvency II Directive to provide clarity on how to set up a compliant and efficient governance system at group level.

## 10. Freedom to provide services and freedom of establishment

### 10.1 Extract from the call for advice

#### **3.13. Freedom to provide services and freedom of establishment**

*EIOPA is asked to assess whether the current supervisory powers at the disposal of the home National Supervisory Authorities and EIOPA are sufficient to prevent failures of insurance companies operating cross-border through freedom to provide services and the freedom of establishment and to properly assess the fit and proper requirements.*

### 10.2 Previous advice

10.1 On 7 June 2018, based on Article 242(2) of the Solvency II Directive, the European Commission asked EIOPA to identify challenges and divergent practices on group supervision, as well as in the supervision of freedom of establishment and freedom to provide services.<sup>231</sup>

10.2 On 18 December 2018, EIOPA submitted to the European Commission the Report on Group Supervision and Capital Management of (Re)Insurance undertakings and specific topics related to freedom to provide services (FoS) and freedom of establishment (FoE) (Article 242 Report).<sup>232</sup>

10.3 Article 242 Report concluded that the tools developed by EIOPA to strengthen the supervision of cross-border issues contributed to a substantial progress in the convergence of practices of National Competent Authorities (NSAs), but that significant challenges remain.

10.4 Another important document to mention is the Special Report of the European Court of Auditors (ECA) on EIOPA's actions to ensure convergence between national insurance supervisory systems in the EU between 2015 and 2017.<sup>233</sup> In the field of the supervision of cross-border insurance business, the ECA noted that "Systemic weaknesses in the current supervisory system for cross-border business remain, but EIOPA made an effort to protect policyholders" and provides an example explaining that "several NSAs approached EIOPA about an insurance company that was doing cross-border business in their markets but offering unusually low premiums and showing evidence of fast growth. As the home supervisor chose to not to focus its supervisory activities on cross-border business, it did not regard the insurance company as a priority. Following EIOPA's intervention, the home supervisor found that the insurance company was not viable, was in a distressed financial position and did not fulfil its capital requirements. As a result, the company's authorisation for new business was withdrawn."

10.5 More in particular, the ECA recommended EIOPA to<sup>234</sup>:

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<sup>231</sup> Link to the [letter](#) and the [Annex](#)

<sup>232</sup> Link to the [letter](#) and the [Report](#)

<sup>233</sup> Link to the [Report](#)

<sup>234</sup> See Recommendation 2 – Strengthen the supervision of cross-border companies.

(a) co-operate with the Commission and the co-legislators to address systemic weaknesses in the supervision of cross-border business, e.g. by improving legal provisions through the ESAs' review process. In particular, it should aim to ensure an equal level of supervision for companies running their business in another Member State, regardless of the chosen business model;

(b) in parallel to these efforts, continue to protect consumers by acting through cooperation platforms and by monitoring cross-border activities.

### **10.3 Relevant legal provisions**

10.6 The legal provisions in place to take into account for this Advice are:

- Directive 2009/138/EC (Solvency II Directive), in particular Article 18 (Conditions for authorisation), Article 23 (Scheme of operations), Article 25 (Refusal of authorisation), Article 153 (Language).

10.7 Furthermore, even if not included in the legal framework yet, EIOPA considered the proposal for amending the EIOPA Regulation<sup>235</sup> and the Solvency II Directive as a result of the ESAs review<sup>236</sup>, namely:

- The new Articles 152a (Notification) and 152b (Collaboration platforms) under the new 'Section 2a Notification and collaboration platforms' of the Solvency II Directive;<sup>237</sup>
- The amended Article 16 (Guidelines and recommendations) of the EIOPA Regulation.<sup>238</sup>

### **10.4 Other regulatory background**

10.8 From other regulatory background the following is considered for this Opinion:

- EIOPA Board of Supervisors' Decision on the Collaboration of the insurance supervisory authorities (EIOPA-BoS-17/014) (Decision).<sup>239</sup>

### **10.5 Identification of the issues**

10.9 EIOPA advises to address the issues, in relation to the supervision of the cross-border business, reported in Article 242 Report and also reflected in the Special Report of the ECA, without jeopardising the home country financial supervision approach.

10.10 EIOPA concludes in the Article 242 Report that the reliance on the home country financial supervision approach requires strong collaboration among home and host supervisors to avoid arbitrage and to ensure a similar level of protection to

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<sup>235</sup> Regulation (EU) No 1094/2010

<sup>236</sup> Proposal to review the functioning of the current European system of financial supervision

<sup>237</sup> [Agreed text of Solvency 2 and MIFID amendments as endorsed by Coreper on 1 April 2019](#)

<sup>238</sup> [Agreed text of the ESAs reform as endorsed by Coreper on 1 April 2019](#)

<sup>239</sup> Link to the [Decision](#) and to the [Annex](#)

policyholders across the EEA regardless of the location of the undertaking's head office.

10.11 The advice aims at further optimising the cooperation between home and host supervisor, in the phase of authorisation and during the ongoing supervision, especially through:

- Efficient information gathering during the authorisation process;
- Information exchange between home and host supervisors in case of material changes in the FoS activities;
- Enhanced role for EIOPA in complex cross-border cases where NSAs fail to reach a common view in the collaboration platform;
- Cooperation between home and host NSAs during the ongoing supervision;
- Explicit power of the host supervisor to request information in a timely manner;
- Enhanced reporting requirements and exchange of information.

10.12 The proposals further facilitate the sharing of information between home and host supervisor to optimise effective cooperation. The outcome of the amendment should ensure an equal level of supervision for companies running their business in another Member States, regardless of the chosen business model as requested by the ECA audit.

10.13 The above mentioned issued are presented and assessed, together with the proposed amendment of the legal framework, in the next paragraphs.

## **10.6 Efficient information gathering during the authorisation process**

### *Issue identified*

10.14 Cooperation between home and host supervisors and timely and effective information exchange are sometimes hindered during the authorisation process, especially information on former rejections by other NSAs is relevant in this context.

10.15 Some recent concrete cases indicated that some undertakings had not been authorised by the home supervisor to take up business in a certain Member state or decided to withdrawn their application after discussion with the supervisor on the conditions for authorisation. The same undertakings then decided to submit the application to the NSA of another Member State with the intention to operate exclusively (or almost exclusively) in the Member State that originally refused the authorisation.

### *Analyses*

10.16 The principle of the single authorisation foreseen by the Solvency II Directive and more in general the entrepreneurial freedom cannot jeopardize the objective of the protection of policyholders/beneficiaries.



10.17 By adding to the Solvency II Directive the requirement, currently foreseen by the Decision<sup>240</sup>, on the applicant to inform the NSA on rejections/withdrawals of former requests for authorisation, the NSA who received the application will be in a better position to assess the condition for authorisation and collaborate with the NSA that rejected the authorisation in the past. This will ultimately prevent supervisory arbitrage and contribute to supervisory convergence.

### Comparison of options

#### **Policy issue 1**

10.18 The preferred policy option for this policy issue is option 1.2 to have a legal obligation in the Solvency II Directive to provide information on former rejections for authorisation to the to the supervisory authority where the request for authorisation is submitted. An obligation for submission of this essential documentation in level 1 legislation is the best assurance to have the relevant information delivered and opens the possibility for sanctions in case the information is hold back or incomplete. The other option considered have been disregarded because the obligation for NSAs to request the information under the Decision on collaboration does not create a clear legal obligation across the EEA for the industry to submit the information.

10.19 The selection of the preferred option has required a trade-off between the current obligation for NSAs to ask the information on former rejections of authorisation on the basis of the Decision on collaboration and the legal obligation for the industry to submit the information. More weight has been given to a strong legal basis for the submission of this crucial information because it is the most effective legal instrument.

#### *Advice*

10.20 EIOPA advises to amend the first paragraph of Article 18 of the Solvency II Directive, including in a new point the requirement currently included in par. 2.5.1 of the Decision, as follows:

*“(I) To declare if there had been a formal or informal request for an authorisation to establish an insurance or reinsurance undertaking or other financial undertaking or intermediary in another Member State or third country which has been rejected or withdrawn and the reasons for the rejections or withdrawal”*

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<sup>240</sup> See par. 2.5.1.

## **10.7 Information exchange between home and host supervisors in case of material changes in the FoS activities**

### *Issue identified*

- 10.21 The principle of single authorisation permits undertakings who received the authorisation from the home supervisor to pursue business for entire Community (EEA) through FoS.
- 10.22 It is a common practice that undertakings communicate their intention to pursue their activities under FoS in several other Member States, but often after that, they do not commence the cross-border activities.
- 10.23 Where the cross-border activities commence only some years after the notification to the host supervisor or in case the activity change materially from the original plan<sup>241</sup>, the host supervisor becomes aware of activity pursued in its territory with some delay, for instance at the moment of the distribution of some information regarding the cross-border business by EIOPA.
- 10.24 There may be cases where the undertakings change their initial business plan operating exclusively, or almost exclusively, in other Member States on FoS basis<sup>242</sup>. In such case, no specific exchange on information between home and host supervisor is explicitly foreseen.

### *Analyses*

- 10.25 In view of the situation described above, there is the risk that the host supervisors is informed too late that the undertaking has commenced a material part of its business in its territory.
- 10.26 In order to promote a preventive and effective supervision, the home supervisor should receive relevant information on the starting of any material cross border business in a timely manner and inform the host supervisor without delay.

### Comparison of options

#### **Policy issue 2**

- 10.27 The preferred policy option for this policy issue is option 2.2. to have a legal obligation in the Solvency II Directive for information exchange from home to host supervisor in case of material changes in the FoS activities also in case where the nature of the risks or commitments does not change or might change as stated in the current text of Article 149 of the Solvency II Directive. Currently the

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<sup>241</sup> For FoE the undertaking has to inform the home supervisor if the new activities coming under FoE do not fit the original plan of operations (Article 145 (4) of the Solvency II Directive).

<sup>242</sup> If such situation occur in the phase of initial notification, par. 3.2.1.3 of the Decision requires the Home Supervisor to communicate additional information to the Host Supervisor on a non-systematic basis. Furthermore, new Article 152a of the Solvency II Directive, proposed in the context of ESAs review, states that: "Where the supervisory authority of the home Member State intends to authorise an insurance or reinsurance undertaking whose scheme of operations indicates that a part of its activities will be based on the freedom to provide services or the freedom of establishment in another Member State and where the scheme of operations also indicates that these activities are likely to be of relevance with respect to the host Member State's market, the supervisory authority of the home Member State shall notify EIOPA and the supervisory Authority of the relevant host Member State."

information available to host supervisors is only updated by the home supervisor if the nature of the risk or commitments is changed (Article 149 of the Solvency II Directive), which leads to the risk supervisory issues can only be observed and cannot be prevented. The negative effects might have consequences for the policy holders. The other option considered has been disregarded because the only alternative of sharing updates on changes in FoS activities between home and host supervisors is not to request this information to be shared.

10.28 The selection of the preferred option has required a trade-off between requesting the home supervisor to inform the host supervisory of material changes against no exchange of information then in case a new FoS procedure is started because the nature of the risks or commitments will change. More weight has been given to preventing supervisory issues because timely information exchange reduces the risk of damage to policy holders and reduce the risk of the need for supervisory actions.

10.29 EIOPA advises to amend Article 149 of the Solvency II Directive by adding a new paragraph, as follows:

*"In case of any material change in the business pursued by the insurance undertaking under the freedom to provide services, the insurance undertaking shall inform the supervisory authority of the home Member State immediately. The supervisory authority of the home Member State shall inform the supervisory authority of the host Member State concerned without delay."*

## **10.8 Enhanced role for EIOPA in complex cross-border cases where NSAs fail to reach a common view in the cooperation platform**

### *Issue identified*

10.30 In view of the risks and challenges posed by the current system of supervision for cross-border insurance business, EIOPA has made efforts to protect policyholders/beneficiaries by establishing cooperation platforms since 2016.

10.31 In the absence of colleges, cooperation platforms<sup>243</sup> are set up when EIOPA and the relevant NSAs see the merit in strengthening cooperation in case of material cross-border business in order to enable a sound internal market. Cooperation platforms provide direct benefit for both home and host supervisors in sharing information and acting on commonly agreed measures where appropriate.

10.32 In the ECA's view, as reported in its Special Report, "EIOPA's platforms provided a helpful ad hoc solution to tackling problems arising from cross-border services.

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<sup>243</sup> The use of cooperation platforms is based on the Decision on the collaboration of the insurance supervisory authorities

In several cases, EIOPA helped to facilitate between NSAs and successfully pushed for solutions”.

10.33 As reported in the EIOPA “Report on Supervisory Activities in 2018”<sup>244</sup>, by the end of 2018 9 cooperation platforms were operational with the involvement of 19 national supervisory authorities. The home supervisors of the operational platforms are Bulgaria, Denmark, Ireland, Romania, Slovakia and United Kingdom overseas territories (Gibraltar).

10.34 EIOPA is pleased to note that in the ESAs review new articles on notification and cooperation platforms has been proposed to the Solvency II Directive (see Annex 10.1). This proposal on cooperation platform, which is fully in line with EIOPA’s practices and with one of the conclusions of the Article 242 Report<sup>245</sup>, enables EIOPA to set up - on its initiative or at request of one or more NSAs - collaboration platforms to facilitate further cooperation where needed.

10.35 EIOPA notes that in several cases where cooperation platforms have been established, due also to the complexity of the supervisory issues or different factors considered as priorities by NSAs in cross-border business, the concerned NSAs failed to reach a common view on how to follow up on these actions.

#### *Analyses*

10.36 Based on the experience gained in the cooperation platform since 2016, EIOPA is of the view that the proper functioning of the cooperation platform can be further optimised by introducing in the Solvency II Directive EIOPA’s explicit power to:

- Issue a recommendation in accordance with Article 16 of the revised EIOPA Regulation (see Annexes 10.2 and 10.3);

#### *Comparison of options*

### **Policy issue 3**

10.37 The preferred policy option for this policy issue is to have an explicit reference in the Solvency II Directive to the EIOPA Regulation to raise awareness for seeking solutions through an EIOPA recommendation in complex cross border cases where NSAs fail to reach a common view on how to follow up on supervisory issues. The timeframe of two months to follow up on the Recommendation as provided for in Article 16 of the EIOPA Regulation aims to end the a dead-lock in direct adequate follow up on supervisory issues and policyholders are a risk because of supervisory inaction

#### *Advice*

10.38 EIOPA advises to amend the new Article 152b of the Solvency II Directive, as proposed in the negotiation of the ESAs review (see Annex 10.1), by adding a new paragraph 1a, as follows:

*“1a. In case the supervisory authorities concerned fail to reach a common view in the collaboration platform within a time limit established by EIOPA, EIOPA may, in*

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<sup>244</sup> Link to the [Report](#)

<sup>245</sup> See par. 3.418 of the [Report](#).

*accordance with Article 16 of Regulation (EU) No 1094/2010 issue recommendation to the supervisory authority concerned.*

*Where the supervisory authority concerned do not follow the recommendations of EIOPA within 2 months, it shall state the reasons including the steps it has taken or intends to take in order to address the concerns of the other supervisory authorities involved.*

*EIOPA shall assess those steps and decide whether they are sufficient and appropriate. In case they are not deemed appropriate, EIOPA makes its recommendation public together with those reasons and proposed steps."*

10.39 Furthermore, in order prevent risks, which can also result in consumer protection issues, EIOPA advises to slightly amend the paragraph 2 of the new Article 152a of the Solvency II Directive, as follows:

*"(2) The supervisory authority of the home Member State shall also notify EIOPA and the supervisory authority of the relevant host Member State where it identifies deteriorating financial conditions or other emerging risks, including consumer protection risks, posed by an insurance or reinsurance undertaking carrying out activities based on the freedom to provide services or the freedom of establishment that may have a cross-border effect. The supervisory authority of the host Member State shall also notify EIOPA and the supervisory authority of the relevant home Member State where it has serious and reasoned concerns with regard to consumer protection. The supervisory authorities may refer the matter to EIOPA and request its assistance in case no bilateral solution could be found".*

## **10.9 Cooperation between home and host NSAs during ongoing supervision**

### *Issue identified*

10.40 When an insurance and reinsurance undertaking pursues business on cross-border basis under FoE or FoS, the undertaking might not have a clear understanding of the risks that it faces, or may face, in the host territories. Also the home supervisor might face some challenges relating to: the need for local market knowledge, an understanding of the specific local insurance products, relevant laws and requirements, knowledge of local claims environment, awards and court systems, and knowledge of local intermediaries used to distribute the products.

10.41 According paragraph 27 of the Special Report of the ECA this leads to a situation where NSAs supervise business in other Member States without having to bear the consequences of poor supervision, because it has no impact on the home market.

### *Analyses*

10.42 When an insurance and reinsurance undertaking pursues business on cross-border basis under FoE or FoS, the home supervisor should cooperate with the host supervisor to understand, within its continuous supervisory review process,

whether the undertaking has a clear understanding of the risks that it faces, or may face, in the host territories.

10.43 EIOPA recommended home/host supervisors to establish and keep a close cooperation in the Decision<sup>246</sup> and more recently in an Opinion<sup>247</sup>, published in December 2018, in relation to non-life cross border insurance business of a long-term nature.

### Comparison of options

#### **Policy issue 4**

10.44 The preferred policy option for this policy issue is to have a legal obligation in the Solvency II Directive for the home supervisor to contact the host supervisor if there are material changes in the cross border business to the host state. The proposal is in line with Part IV 'supervision on a continuous basis' of the Decision on collaboration especially paragraphs 4.1.1.1 to 4.1.1.3.

10.45 The selection of the preferred option has required a trade-off between keeping the current info package shared via the EIOPA Hub and making use of the extra data coming available from the enhanced reporting requirements stemming from the 2020 Review. More weight has been given to the most efficient and cost effective way of data sharing ensuring that all host supervisors receive the data of the same quality and at the same time.

### *Advice*

10.46 EIOPA advises to amend Article 36 of the Solvency II Directive by adding a new paragraph 7 as follows:

*"7. In case of material cross-border insurance business under the right of establishment or the freedom to provide services, the supervisory authority of the home Member State shall actively cooperate with the supervisory authority of the host Member State to assess whether the insurance undertaking has a clear understanding of the risks that it faces, or may face, in the host Member State.*

*This cooperation shall cover at least the following areas:*

*(a) system of governance including the ability of the head office management to understand the cross border market specificities, risk management tools, internal controls in place and compliance procedures for the cross-border business;*

*(b) outsourcing arrangements and distributions partners;*

*(c) business strategy and claims handling;*

*(d) consumer protection.*

*8. Where appropriate, the supervisory authority of the home Member State shall inform in a timely manner the supervisory authority of the host Member State about the outcome of its supervisory review process which concerns the cross-border*

<sup>246</sup> See par. 4.1.1.2 and 4.1.1.3

<sup>247</sup> Link to the [Opinion](#).

*activity, in particular where the supervisory authority of the host Member State has already raised concerns.”*

## **10.10 Explicit power of the host supervisor to request information in a timely manner**

### *Issue identified*

10.47 Under Article 153 Solvency II Directive, there is no requirement for undertakings nor their branches to provide information on conduct of business issues to host supervisors in a timely manner.

10.48 The issue was also reported in 'Article 242 Report'<sup>248</sup>. Several NSAs mentioned that in their role as a host supervisor, they are often facing difficulties in obtaining (timely) answers on questions regarding conduct of business or specific product information directed to insurance undertaking operating under the FoS and FoE license, as FoS and FoE undertakings do not consider themselves obliged to provide the host supervisor directly with information on request.

10.49 The host supervisor may approach the undertaking and request data relating to the host Member State, but is not able to oblige the undertaking without recourse to the home Member State, which leads to the conclusion that there is a lack of mandate to enforce these timely answers, as the current Solvency II framework does not foresee deadlines or enforcement measures regarding the lack of answers on questions asked by the host supervisor.

### *Analyses*

10.50 In many cases, it is expected that the Host Supervisor contact the Home Supervisor.

10.51 Anyway, there might be cases where the Host Supervisor should be empowered to ask undertakings for some information within a reasonable timeframe in order to perform the conduct of business supervision more effectively.

### *Comparison of options*

#### **Policy issue 5**

10.52 The preferred policy option for this policy issue is option 5.2 which aims to have a legal obligation in the Solvency II Directive for timely answers to information requests from host supervisors to FoE and FoS providers because as no specific requirement for timely answers is set in the level 1 text.

10.53 The selection of the preferred option has required a trade-off between setting a timeframe and not setting a timeframe for industry to answer information requests from host supervisors. More weight has been given to requesting a reasonable timeframe without mentioning a specific timeframe as to keep flexibility to set the timeframe toward the content of the request.

### *Advice*

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<sup>248</sup> Par. 3.376 of the [Report](#).



10.54 EIOPA advises to amend the title and the text of Article 153 of the Solvency II Directive as follows:

10.55 The title of Article 153 is replaced by the following: "*Timeframe and language of information*".

10.56 The text of Article 153 is replaced by the following:

*"The supervisory authorities of the host Member State may require the information which they are authorised to request with regard to the business of insurance undertakings operating in the territory of that Member State to be supplied to them by the home supervisor or by the insurance undertakings in a reasonable timeframe and in the official language or languages of that State. The host Member State shall discuss with the home supervisor how to proceed with the information requests in order to guarantee the adequate timeliness and in case it is the host supervisor addressing the insurance undertaking directly it shall inform the home Member State about any information request."*

## **10.11 Enhanced reporting requirements and exchange of information**

10.57 In 'Article 242 Report', EIOPA concludes "information regarding cross-border business should be enhanced in the Solvency II reporting package given its importance from a prudential perspective. The current requirements were designed to comply solely with Article 159 of Solvency II which is mainly addressing statistical needs and should be reviewed having in mind prudential needs of both home and host supervisors".

10.58 On this regard, it is worth mentioning that EIOPA addressed this topic in the consultation package on supervisory reporting and public disclosure.

10.59 Furthermore, EIOPA is considering to improve the information exchange between the Home and Host supervisor via the EIOPA hub. For instance, EIOPA is considering to share with the Host supervisor the Individual Quantitative Reporting Templates on product-by-product information for life contract (S.14.01), where individual Host country is reported, and the percentage of cross-border business per undertakings and Host country.<sup>249</sup>

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<sup>249</sup> This will require a decision taken at level of EIOPA Board of Supervisors to exchange additional confidential data.



## 11. Macroprudential policy

### 11.1. Extract from the call for advice

#### **3.10. Macro-prudential issues**

*EIOPA is asked to assess whether the existing provisions of the Solvency II framework allow for an appropriate macro-prudential supervision. Where EIOPA concludes that it is not the case, EIOPA is asked to advise on how to improve the following closed list of items:*

- *the own-risk and solvency assessment;*
- *the drafting of a systemic risk management plan;*
- *liquidity risk management planning and liquidity reporting;*
- *the prudent person principle.*

*This assessment should be based on strong supporting evidence, also assessing the possible impact of such additional specifications of insurers' behaviour and possible interactions with other Solvency II instruments.*

11.1 In addition, section 3.11 of the call for advice addresses recovery and resolution aspects. It also includes recovery and resolution planning, which is also an element considered in the context of the macroprudential tools and measures.

11.2 EIOPA will cover in this section all the tools included in the call for advice (CfA). However, EIOPA has also identified other tools that should be part of the macroprudential framework to effectively reduce systemic risk too. Guidance is also provided on these additional tools, based on previous work done.

11.3 In EIOPA's view, the financial crisis revealed that either no appropriate tools existed or microprudential measures were used for addressing identified system-wide risks, which were not successful or sufficient in the financial sector.<sup>250</sup> Lim *et al.* (2011) consider that tackling one specific risk by combining multiple instruments has the advantage of addressing it from different angles, reduces the scope for circumvention and increases the effectiveness.<sup>251</sup> In summary, sufficient macroprudential tools need to be available to be effective in the achievement of the operational objectives and mitigate systemic risk.

### 11.2. Relevant legal provisions

11.4 EIOPA is competent to work on systemic risk and macroprudential policy in insurance in relation to its responsibilities under the EIOPA Regulation,<sup>252</sup> in particular:

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<sup>250</sup> See EIOPA (2018a): [Systemic risk and macroprudential policy in insurance](#), EIOPA, first paper on macroprudential policy in insurance.

<sup>251</sup> Lim, C., Columba, F., Costa, A., Kongsamut, P., Otani, A., Saiyid, M., Wezel, T. and Wu, X. (2011): "Macroprudential Policy: What Instruments and How to Use Them?", *IMF Working Paper* WP/11/238.

<sup>252</sup> Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC (OJ L 331, 15.12.2010, p. 48).

- The third sub-paragraph of Article 1(6) thereof, requiring from EIOPA in the context of the exercise of its powers to pay particular attention to any potential systemic risk posed by financial institutions, the failure of which may impair the operation of the financial system or the real economy;
- Article 8(1)(i) thereof, providing among other things for EIOPA's task to contribute to "the monitoring, assessment and measurement of systemic risk";
- Article 18(1) thereof, requiring from EIOPA to actively facilitate and, where deemed necessary, coordinate any actions undertaken by the relevant national competent supervisory authorities in the case of adverse developments which may seriously jeopardise the orderly functioning and integrity of financial markets or the stability of the whole or part of the financial system in the Union;
- Article 22(1) thereof, seeking from EIOPA to consider and address any systemic risk and risk of disruption in financial services;
- Article 23 thereof, providing that EIOPA has to, in consultation with the ESRB, develop criteria for the identification and measurement of systemic risk.

### 11.3. Identification of the issue

11.5 The 2007-2008 financial crisis has shown the need to further consider the ways in which systemic risk is created and/or amplified, as well as the need to have proper policies in place to address those risks. So far, most of the discussions on macroprudential policy have focused on the banking sector due to its prominent role in the recent financial crisis.

11.6 Given the relevance of the topic, EIOPA initiated the publication of a series of three papers on systemic risk and macroprudential policy in insurance with the aim of contributing to the debate and ensuring that any extension of this debate to the insurance sector reflects the specific nature of the insurance business (Box 11.1).

#### **Box 11.1: EIOPA's work on systemic risk and macroprudential policy in insurance**

EIOPA started the work in an effort to see whether Solvency II could serve to address macroprudential concerns as well. In this respect, EIOPA followed a step-by-step approach, seeking to address the following questions:

1. *Does insurance create or amplify systemic risk?* In the first paper entitled "Systemic risk and macroprudential policy in insurance",<sup>253</sup> EIOPA identified and analysed the sources of systemic risk in insurance and proposed a specific macroprudential framework for the sector.
2. *If yes, what are the tools already existing in the current framework, and how do they contribute to mitigate the sources of systemic risk?* In the second paper, "Solvency II tools with macroprudential impact",<sup>254</sup> EIOPA identified, classified and provided a preliminary

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<sup>253</sup> EIOPA (2018a), *op. cit.*

<sup>254</sup> EIOPA (2018b): [Solvency II tools with macroprudential impact](#), EIOPA, second paper on macroprudential policy in insurance.

assessment of the tools or measures already existing within the Solvency II framework, which could mitigate any of the systemic risk sources that were previously identified.

3. *Are other tools needed and, if yes, which ones could be promoted?* The third paper, "Other potential macroprudential tools and measures to enhance the current framework",<sup>255</sup> carried out an initial assessment of other potential tools or measures to be included in a macroprudential framework designed for undertakings. In the paper, EIOPA carried out an analysis focusing on four categories of tools: a) Capital and reserving-based tools; b) Liquidity-based tools; c) Exposure-based tools; and d) Pre-emptive planning. EIOPA also considered whether the tools should be used for enhanced reporting and monitoring or as intervention power.

The publication of the three EIOPA papers on systemic risk and macroprudential policy in insurance constituted an important milestone by which EIOPA defined its policy stance and laid down its initial ideas on several relevant topics.<sup>256</sup>

In a subsequent step, EIOPA launched in April 2019 a public consultation based on a Discussion paper that essentially summarised the three papers previously published.<sup>257</sup> 13 stakeholders provided feedback.

The policy proposals included in this Opinion build upon this previous work and should be considered in conjunction with it.

11.7 In EIOPA's view, the fact that topics around systemic risk and macroprudential policy in insurance are less developed in comparison with the banking sector constitutes a deficiency that may manifest itself in upcoming crises. Indeed, the lack of a comprehensive macroprudential framework does not allow to properly address the different sources of systemic risk in insurance.

11.8 This deficiency can lead to considerable costs if the positive direct and indirect impact of macroprudential policies cannot be fully implemented. To the extent that these policies achieve their objectives, they will be providing a decisive contribution to minimising the social costs of financial crises in terms of output losses, rising unemployment and declining living conditions. The lack thereof will therefore result in undesirable economic and social consequences.

11.9 As a starting point, EIOPA has sought to lay down the status of the discussion in insurance regarding systemic risk and macroprudential policy in insurance. This can be summarised as follows:<sup>258</sup>

- It is widely acknowledged that the traditional insurance activities are generally less systemically important than banking. However, insurance can also

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<sup>255</sup> EIOPA (2018c): *Other potential macroprudential tools and measures to enhance the current framework*, EIOPA, third paper on macroprudential policy in insurance.

<sup>256</sup> It should be noted that the ESRB has also identified a shortlist of options for additional provisions, measures and instruments, which reaches broadly similar conclusions as EIOPA (see ESRB (2018): *Macroprudential provisions, measures and instruments for insurance*, November 2018).

<sup>257</sup> (2019): *Discussion paper on systemic risk and macroprudential policy in insurance*, EIOPA-BoS-19/131, 29 March 2019.

<sup>258</sup> Relevant references to support these statements can be found in EIOPA (2018a), *op. cit.*

potentially create or amplify systemic risk. Therefore, a macroprudential approach seems justified beyond banking, including insurance.

- Macroprudential policies for insurance could also have the benefit of crisis prevention. They should, however, be tailored to insurance.
- A balance between the entity-based and activity-based approaches also needs to be struck in insurance. Special attention should be devoted to the systemic risk arising from certain activities or products.<sup>259</sup>
- Sufficient tools need to be in place to address the sources of systemic risk.
- There could be a risk of regulatory arbitrage if insurance is not included within the wider macroprudential framework.

11.10 These statements are generally accepted at international level. In particular, it is worthwhile highlighting the IAIS work on the Holistic Framework for Systemic Risk in the Insurance Sector to assess and mitigate systemic risk in the insurance sector.

11.11 The purpose of EIOPA's proposal contained in this Opinion is to overcome the current lack of a macroprudential framework to address any potential episode of systemic risk arising from or amplified by the insurance sector. This requires, as a first step, a) a proper understanding of the sources of systemic risk in insurance; b) the development of a macroprudential framework to address them; and c) the consideration of how the current Solvency II framework contributes to the macroprudential objectives defined, and which gaps do exist. These issues are briefly introduced below, based on the work done by EIOPA so far.

11.12 As a preliminary remark, there are currently different institutional models for the implementation of macroprudential policies across EU, in some cases involving different parties (e.g. ministries, supervisors, etc.). This Opinion adopts a neutral approach by referring to the generic concept of the "relevant authority in charge of the macroprudential policy", which should encompass the different institutional models existing across jurisdictions. Sometimes a simplified term such as "the authorities", "the competent authorities" or "national supervisory authorities" (NSAs) is used. EIOPA notes, however, that this issue should also be addressed at some point in time to ensure a more harmonised and efficient way of implementing macroprudential policies.

### **11.3.1 Understanding systemic risk in insurance**

11.13 The discussion on systemic risk and macroprudential policy is less developed in insurance than in banking. Nevertheless, several studies have pointed out that insurance might originate or amplify systemic risk under certain circumstances. EIOPA has provided an overview of relevant literature and developed a conceptual

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<sup>259</sup> As will be explained in Section 11.3.1, EIOPA distinguishes three sources of systemic risk, i.e. entity-based, activity-based and behaviour-based sources of systemic risk.

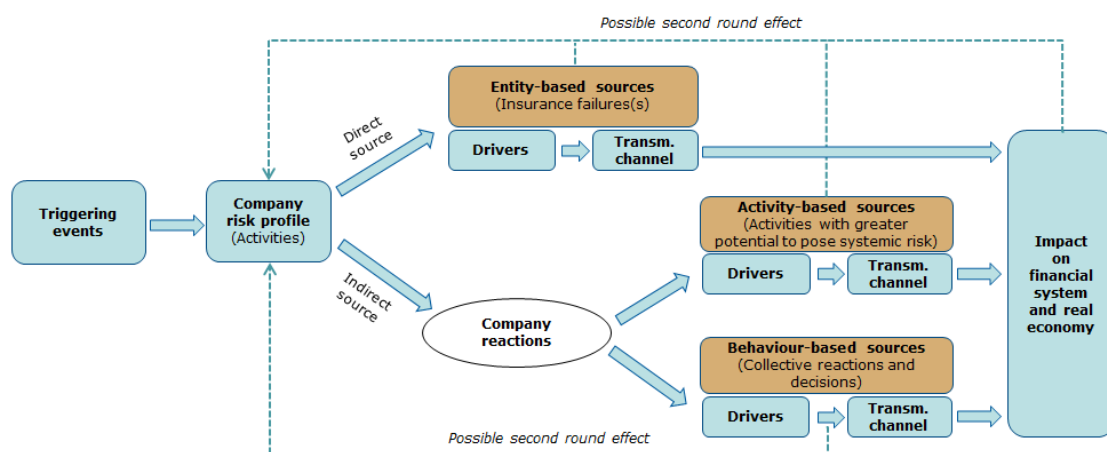
framework, which is broadly in line with other relevant studies by the ESRB or the International Association of Insurance Supervisors (IAIS).<sup>260</sup>

11.14 As depicted in Figure 11.1, the approach developed by EIOPA to understand systemic risk in insurance considers that a “triggering event” initially has an impact at entity level, affecting one or more undertakings through their “risk profile”. Potential individual or collective distresses may generate systemic implications, the relevance of which is determined by the presence of different “systemic risk drivers” embedded in the insurance undertakings.

11.15 In EIOPA’s view, systemic events could be generated in two ways.

- i. The “direct” effect, originated by the failure of a systemically relevant insurer or the collective failure of several undertakings generating a cascade effect. This systemic source is defined as “entity-based”.
- ii. The “indirect” effect, in which possible externalities are enhanced by engagement in potentially systemic activities (*activity-based sources*)<sup>261</sup> or the widespread common reactions of undertakings to exogenous shocks (*behaviour-based source*).

Figure 11.1: An approach to systemic risk in insurance



11.16 Potential externalities generated via direct and indirect sources are transferred to the rest of the financial system and to the real economy via specific channels (i.e. the transmission channel) and could induce changes in the risk profile of undertakings, eventually generating potential second-round effects.

11.17 In annex 11.1, an overview of possible examples of triggering events, risk profile, systemic risk drivers and transmission channels is provided. It should therefore not be considered as a comprehensive list of elements.

<sup>260</sup> See EIOPA (2018a) and ESRB (2018) *op. cit.* and IAIS (2018): *Holistic Framework for Systemic Risk in the Insurance Sector*, Public Consultation Document, 14 November 2018.

<sup>261</sup> The idea is not to label specific products or activities as intrinsically systemic. Instead, the focus is put on the design and management by insurance undertakings.

### Box 11.2: Why is systemic risk important in insurance? – Some facts

Aside from relevant literature on the topic,<sup>262</sup> there are two main facts that explain why systemic risk is also important in insurance.

- *The relevance of the insurance sector.* Insurance and pensions fulfil an important role in the society. When they function well, they take on risks and contribute to economic growth and financial stability, ultimately bringing greater financial security to citizens. With assets worth 11.7 trillion or 70% of EU Gross Domestic Product (GDP),<sup>263</sup> playing a fundamental role in different markets such as the bonds or equity markets, the EU insurance sector is a significant part of the financial sector. With liabilities involving millions of policyholders and comprising one third of European households' wealth, consumers depend on parts of the insurance sector for their security and future income. Therefore, severe distresses in the insurance sector may have an impact on the financial system and the real economy.
- *The available evidence.* There are real examples where the sources of systemic risk could materialise:
  - From an entity-based point of view, some undertakings in the EU required public intervention to avoid potential systemic disruptions in different Member States during the past financial crisis.<sup>264</sup> Furthermore, the exposure to common shocks may eventually act as a trigger potentially leading to collective failures. An example of it is the protracted low interest rate environment, which is considered as an important source of systemic risk particularly for the life sector.
  - From an activity-based perspective, the widely known case of AIG illustrated the risks of moving away from core insurance activities and engaging in certain activities or products such as speculative derivative trading, which might compromise the stability of the financial system.
  - From a behaviour-based point of view, excessive risk takings by insurance undertakings such as a reaction to the above-mentioned low interest environment may create the risk of "search for yield". EIOPA has identified a number of trends that could be associated with a search for yield behaviour.<sup>265</sup> Furthermore, the IMF has put forward the idea of a "tsunami" view of systemic risk, whereby even solvent undertakings may propagate or amplify shocks to the rest of the financial system and the real economy.<sup>266</sup> The IMF considers that the systemic risk contribution of insurance has increased, due to a rise in common exposures not only within the insurance sector itself, but also with the rest of the economy.

EIOPA is in favour of supplementing the current prudential framework with additional macroprudential provisions that provide authorities with relevant tools and measures to address systemic risk in insurance.

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<sup>262</sup> See, for example, IAIS (2011): *Insurance and Financial Stability*, November 2011; Eling and Pankoke (2014): "Systemic Risk in the Insurance Sector: Review and Directions for Future", *Working Papers on Finance No. 2014/21*, Institute of Insurance Economics, November 2014; or Hufeld, F., Koijen, R.S.J. and Thimann, Ch. (eds.) (2017): *The Economics, Regulation, and Systemic Risk of Insurance Markets*, Oxford University Press, UK.

<sup>263</sup> Data from Q3 2018, source: <https://eiopa.europa.eu/financial-stability-crisis-prevention/financial-stability/statistics>.

<sup>264</sup> This was the case for some large groups such as Ethias Group in Belgium or AEGON, ING Group and SNS Reaal in the Netherlands. See EIOPA (2017a): *Opinion to Institutions of the European Union on the Harmonisation of Recovery and Resolution Frameworks for (Re)insurers across the Member States*, EIOPA-BoS/17-148, July 2017.

<sup>265</sup> EIOPA (2017b): *Investment behaviour report*, EIOPA-BoS-17/230, 16 November 2017.

<sup>266</sup> IMF (2016): *Systemic Risk from Insurance Product Features*, 16 June 2016.

Indeed, EIOPA considers that a *preventive* approach is preferred as compared with the *reactive* approach of taking regulatory actions only once different systemic risk events affect the financial system and the real economy.

### 11.3.2 Addressing systemic risk. A macroprudential framework for insurance

11.18 Given that, under certain circumstances, insurance can indeed originate or amplify systemic risk, a macroprudential approach is justified also for the insurance sector.

#### **Box 11.3: Some remarks on the effectiveness of macroprudential policy**

The experience in the banking sector shows that it is quite challenging to provide sound empirical evidence of the effectiveness of macroprudential policies implemented after the financial crisis in the banking sector in a number of countries.

The understanding of the effectiveness of macroprudential policies implemented is still rather preliminary and limited.<sup>267</sup> Nevertheless, some available evidence in the banking sector seems to point out that, in general, macroprudential policy may indeed have contributed to achieve its main objectives.

The challenge to provide sound empirical evidence also applies to insurance. There is, however, a certain consensus on the need to have macroprudential frameworks in place also for the insurance sector. This has been stressed by EIOPA in different recent publications.<sup>268</sup> Furthermore, the ESRB and IAIS have also called for an enhancement of the currently existing frameworks to also address macroprudential concerns in insurance.<sup>269</sup>

As stressed before, EIOPA is of the view that a comprehensive macroprudential framework addressing the specific sources of systemic risk identified for the insurance sector should be implemented in the context of the Solvency II review.

11.19 A macroprudential framework should lay down the essential elements of the macroprudential strategy and allow for a coherent decision-making process. EIOPA proposed a framework fully focusing on the insurance sector, which is shown in Figure 11.2.

*Figure 11.2: EIOPA's macroprudential strategy*

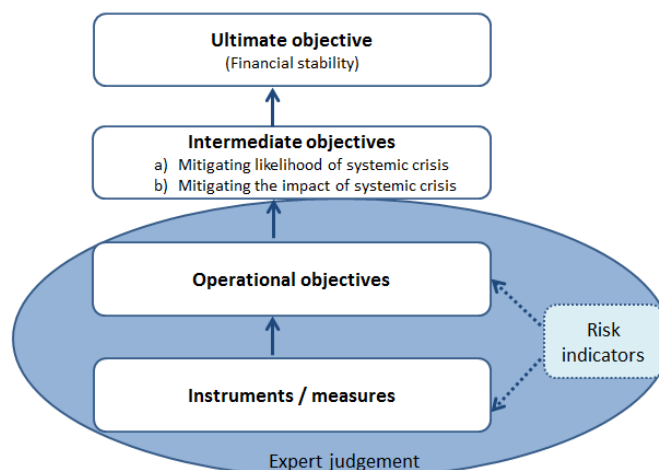
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<sup>267</sup> Akinci, O. and Olmstead-Rumsey, J. (2015): "How effective are macroprudential policies? An empirical investigation", *Board of Governors of the Federal Reserve System International Finance Discussion Papers 1136*, June 2015.

<sup>268</sup> See EIOPA, 2018(a,b,c) *op. cit.*

<sup>269</sup> ESRB (2018) and IAIS (2018), *op. cit.*





11.20 The main elements of EIOPA’s framework are the following:

- The consideration of three layers of objectives: (1) the ultimate objective, i.e. to ensure financial stability; (2) the intermediate objective in which the ultimate objective is split, i.e. mitigating the *likelihood* and the *impact* of systemic crises; and (3) the operational objectives, which should be pursued by authorities.
- A set of instruments to be used by the relevant authorities in charge of the macroprudential policy to achieve the operational objective. These instruments could either be available in the current regulatory framework or be new.
- Other relevant elements that complete the framework, such as risk indicators and the need to leave room for expert judgement.

11.21 The operational objectives — a cornerstone of the framework — should be defined to specifically address the sources of systemic risk in insurance that have been previously identified. Table 11.1 provides an overview of the sources of systemic risk and the operational objectives proposed.

**Table 11.1: Sources of systemic risk and operational objectives**

Sources of systemic risk	Operational objectives
<b>Entity-based related sources – Direct sources</b>	<ul style="list-style-type: none"> <li>➤ Ensure sufficient loss-absorbency capacity and reserving</li> <li>➤ Discourage excessive involvement in certain products and activities</li> <li>➤ Discourage excessive levels of direct and indirect exposure concentrations</li> <li>➤ Limit procyclicality</li> </ul>
<ul style="list-style-type: none"> <li>• Deterioration of the solvency position leading to failure(s) of systemically important insurers or collective failures, the latter as a result of exposures to common shocks</li> </ul>	
<b>Activity-based related sources – Indirect sources (i)</b>	
<ul style="list-style-type: none"> <li>• Involvement in certain activities or products with greater potential to pose systemic risk</li> <li>• Potentially dangerous interconnections</li> </ul>	
<b>Behaviour-based related sources – Indirect sources (ii)</b>	



<ul style="list-style-type: none"> <li>• Collective behaviour by undertakings that may exacerbate market price movements (e.g. fire-sales or herding behaviour)</li> </ul>	<p>➤ Discourage risky behaviour</p>
<ul style="list-style-type: none"> <li>• Excessive risk-taking by insurance undertakings (e.g. "search for yield" and the "too-big-too fail" problem)</li> </ul>	
<ul style="list-style-type: none"> <li>• Excessive concentrations</li> </ul>	
<ul style="list-style-type: none"> <li>• Inappropriate exposures on the liabilities side (e.g. as a result of competitive dynamics)</li> </ul>	

### 11.3.3. Solvency II and macroprudential policies. The need to further develop the framework

11.22 Following the step-by-step approach, EIOPA considered the way in which the current Solvency II framework contributes to mitigating the sources of systemic risk identified as well as the gaps that would need to be overcome.

11.23 Although Solvency II is not a macroprudential framework, it contains several elements that may have financial stability impact. The impact of these elements was analysed first in order to determine whether additional tools, or changes to the existing ones, were warranted for macroprudential purposes.

11.24 Solvency II has macroprudential impact in three different ways:

- The design of the framework itself. Solvency II is a comprehensive microprudential regime for the EU insurance sector. Capital is held against market risk, credit risk, underwriting risk and operational risk. In itself, this regime is designed to ensure sufficient loss absorbency capacity and reserving, one of the operational objectives identified in section 11.3.2 as relevant for insurance. Furthermore, significant emphasis in Solvency II is also put on the identification, measurement and proactive management of risks, providing ground also on the operational objectives linked to discouraging risky behaviour and discouraging excessive levels of direct and indirect exposure concentrations.
- Some elements in the framework with *indirect* macroprudential impact. Solvency II has some additional elements with indirect macroprudential impact that should not be ignored. These instruments, which were not primarily designed as instruments to mitigate systemic risk, could nevertheless contribute to a certain extent to different operational objectives when considered at an aggregated level. The main ones are the prudent person principle (PPP), the own risk and solvency assessment (ORSA) and the capital add-on under specific circumstances.
- The elements with *direct* macroprudential impact. The tools with macroprudential impact that were identified and further analysed in EIOPA's second paper are essentially the long-term guarantees measures and measures on equity risk introduced in the Solvency II directive, the design of which has

a direct macroprudential impact.<sup>270</sup> In short, these tools are the ones shown in Table 11.4.<sup>271</sup>

11.25 In addition, another measure allowing authorities to prohibit or restrict certain types of financial activities was also considered. This measure, which is not part of Solvency II, is however included because it pursues similar objectives and applies EU-wide.

11.26 The assessment carried out by EIOPA shows that the tools with direct macroprudential impact contained in Solvency II essentially contribute to limiting procyclicality (Table 11.2).<sup>272</sup> Indeed, these tools seek to address the risk of collective behaviour by undertakings that may exacerbate market price movements. In addition to that, prohibiting or restricting certain types of financial activities is linked to the operational objectives of discouraging excessive involvement in certain products and activities as well as discouraging risky behaviours.

**Table 11.2: Solvency II tools with macroprudential impact**

Tools with direct macroprudential impact	Sources of systemic risk addressed	Operational objectives
<ul style="list-style-type: none"> <li>➤ Symmetric adjustment for equity risk</li> <li>➤ Volatility adjustment</li> <li>➤ Matching adjustment</li> <li>➤ Extension of the recovery period</li> <li>➤ Transitional measure on technical provisions</li> </ul>	<ul style="list-style-type: none"> <li>• Collective behaviour by undertakings that may exacerbate market price movements</li> </ul>	<ul style="list-style-type: none"> <li>• Limit procyclicality</li> </ul>
<ul style="list-style-type: none"> <li>➤ Prohibit or restrict certain types of financial activities</li> </ul>	<ul style="list-style-type: none"> <li>• Involvement in certain activities or products with greater potential to pose systemic risk</li> <li>• Excessive risk-taking by insurance undertakings</li> </ul>	<ul style="list-style-type: none"> <li>• Discouraging excessive involvement in certain products and activities</li> <li>• Discourage risky behaviours</li> </ul>

11.27 It should be mentioned that the tools considered may have limitations from a macroprudential perspective as well. Furthermore, some of the sources of systemic risk identified do not seem to be sufficiently addressed with the existing tools.

<sup>270</sup> EIOPA (2018b) *op. cit.*

<sup>271</sup> Given that Solvency II entered into force in 2016, there is not an extensive amount of experience. This analysis should only be considered as a first step. Further work might be needed at a later stage, once more information and data are available.

<sup>272</sup> EIOPA (2018b), *op. cit.*

11.28 In summary, while some measures of Solvency II can be considered to contribute to the mitigation of systemic risk, EIOPA concludes that Solvency II is lacking a comprehensive macroprudential toolbox, and that additional tools and measures are strongly needed.

11.29 In EIOPA's view, Solvency II should include a specific provision covering macroprudential policy and surveillance. As defined by the IAIS,<sup>273</sup> the primary objective would be limiting or mitigating systemic risks and, in turn, maintaining financial stability. In contrast to microprudential supervision, a market-wide perspective should be adopted with the aim of minimising negative externalities. "Macroprudential *surveillance* is predicated on: (i) the assessment of system-wide vulnerabilities and the accurate identification of threats arising from the build-up and unwinding of financial imbalances; (ii) the assessment of system-wide vulnerabilities from shared exposures to macro-financial shocks; and (iii) possible contagion or spillover effects from individual institutions and markets due to direct or indirect connectedness". Based on this surveillance, some tools or measures should be designed to mitigate systemic risk.

11.30 The proposals included in this Opinion primarily focus on the "principles" or fundamental elements of each tool, trying to explain their rationale, providing technical details to the extent possible, and including a cost-benefit analysis. As such, it does not cover all the operational aspects/challenges of each tool (e.g. calibration, thresholds, etc.) in a comprehensive manner. Similar to the approach followed with other legislative initiatives, the full technical details could be addressed by means of technical standards, guidelines or recommendations, once the relevant legal instrument has been enacted.

- *Advice*

11.31 EIOPA is of the view that the macroprudential perspective should be incorporated into the current prudential framework (see Boxes 1 and 2). This would supplement the current microprudential approach in a consistent and coherent way.

11.32 EIOPA proposes that a general article covering macroprudential objectives, policy and surveillance is included in the Directive. This article should define the macroprudential objectives and refer to the need for supervisors to identify and measure systemic risk. It should also broaden the toolkit of authorities with the additional tools and measures set out in this Opinion, including capital-, liquidity-, exposure-, and pre-emptive based tools and measures.

11.33 The new article proposed would supplement certain provisions that already have a certain macroprudential impact, in particular, those that refer to the long-term guarantees measures and measures on equity risk.

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<sup>273</sup> IAIS (2013): *Macroprudential Policy and Surveillance in Insurance*, 18 July 2013.

## 11.4. Analysis

11.34 In this section, EIOPA analyses the different options regarding the tools and measures that have been considered to enhance the current prudential framework from a macroprudential point of view. EIOPA has analysed the costs and benefits of the main options considered. These options are listed in the table 11.3 below.

**Table 11.3: Macroprudential policy issues and options**

Policy issues	Options
1. Capital surcharge for systemic risk > <i>[Capital-based tool]</i>	1.1 No change, i.e. not granting NSAs with the power to require a capital surcharge for systemic risk. <b>1.2 Grant NSAs with the power to require a capital surcharge for systemic risk.</b>
2. Concentration thresholds > <i>[Exposure-based tool]</i>	2.1 No change, i.e. not to granting NSAs with the power to define "soft" thresholds. <b>2.2 Grant NSAs with the power to define "soft" concentration thresholds.</b>
3. Expansion in the use of own risk and solvency assessment (ORSA) report(*) > <i>[Exposure-based tool]</i>	3.1 No change, i.e. the ORSA would remain as it currently is. <b>3.2 Expand the use of the ORSA to include the macroprudential perspective.</b>
4. Expansion of Prudent Person Principle (PPP)(*) > <i>[Exposure-based tool]</i>	4.1 No change, i.e. the PPP would remain as it currently is. <b>4.2 Expand the PPP to take into account macroprudential concerns.</b>
5. Pre-emptive recovery and resolution plans(*) > <i>[Pre-emptive planning]</i>	5.1 No change, i.e. Solvency II would not be supplemented with the requirement for pre-emptive recovery and resolution planning. 5.2 Require pre-emptive recovery and resolution planning from all undertakings subject to Solvency II. <b>5.3 Require pre-emptive recovery and resolution planning from undertakings covering a very significant (for recovery planning) and significant (for resolution planning) share of the national market.</b>
6. Systemic Risk Management Plan (SRMP)(*) > <i>[Pre-emptive planning]</i>	6.1 No change, i.e. Solvency II would not be supplemented with the requirement for SRMPs. 6.2 Require SRMPs from all undertakings subject to Solvency II. <b>6.3 Require SRMPs from a subset of undertakings.</b>
7. Liquidity risk management plans (LRMP)(*) > <i>[Pre-emptive planning / Liquidity-based tool]</i>	7.1 No change, i.e. Solvency II would not be supplemented with the requirement for LRMPs. 7.2 Require LRMPs from all undertakings subject to Solvency II.

	<b>7.3 Require LRMPs with possibility to waive undertakings.</b>
8. Temporary freeze on redemption rights ➤ [ <i>Liquidity-based tool</i> ]	8.1 No change, not granting NSAs with this power. <b>8.2 Grant NSAs with the power to impose a temporarily freeze on redemption rights in exceptional circumstances.</b>

(\*) Considered specifically in the European Commission's call for advice.

11.35 As stressed in EIOPA's first paper, in some cases, the borders between microprudential policies and macroprudential consequences cannot be established.<sup>274</sup> That means, for example, that instruments that may have been designed as microprudential instrument may also have macroprudential consequences and contribute to mitigate the difference sources of systemic risk identified.

11.36 EIOPA would like to highlight six main principles when considering the use of the proposed tools to be included in the macroprudential framework:

- *Proportionality*. The tools and measures should be applied in a proportionate way, taking into account the costs and benefits. Applying this principle should, however, not hinder a consistent application across Member States.
- *Cooperation*. Several measures exposed in this draft advice imply a high level of coordination not only between national insurance supervisors but potentially also between other institutions or bodies (e.g. ministry of the economy and finance or banking supervisors). Proper governance and cooperation arrangements should be developed where needed.
- *Cross-border implications*. In line with the previous principle, the impact of certain macroprudential measures may also have implications for other Member States. Some kind of reciprocation arrangements might be needed from some measures.
- *Trade-off between national flexibility and consistent application* in the EU. Taking into account the differences between the national insurance sectors across EU, flexibility at national level is required. However, in order to ensure uniform conditions of application, EIOPA should develop draft implementing technical standards or guidance where needed.
- *Principle-based framework*. The establishment of the macroprudential framework should keep the essence of a principle-based framework like Solvency II. Automatic triggers or hard thresholds are therefore avoided.
- *Avoid distortions*. The use of any macroprudential tools should seek to avoid, to the extent possible, any potential distortion in the social and long-investor role of insurance. Nor should it put undertakings at a competitive disadvantage compared to other (financial) institutions.

11.37 In the analysis of the different tools and options, two consideration should be made:

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<sup>274</sup> EIOPA (2018a), *op. cit.*

- EIOPA has taken into account the ongoing work at global level. This refers, in particular, to the IAIS work on the *Holistic Framework for Systemic Risk in the Insurance Sector*.
- The selection of objectives against which the different options are assessed is based on EIOPA's third published paper "*Other potential macroprudential tools and measures to enhance the current framework*".

11.38 A relevant aspect around the application of macroprudential measures refers to the reciprocation of measures. This Opinion includes some references to reciprocation in different parts, where a specific tool could have cross-border implications in another Member State, or in case a similar risk being faced in different countries could indeed call for such reciprocation (see Box 11.4).

#### **Box 11.4: Reciprocation of measures**<sup>275</sup>

Macroprudential measures taken in one Member State would apply only to the risks of undertakings in that Member State, i.e. domestic undertakings and subsidiaries of foreign undertakings. In other Member States, insurers exposed to same risk are not automatically covered by the same macroprudential measure. Reciprocity is the policy instrument that ensures that these risks, which would otherwise not be subject to these measures, would also be covered.

Reciprocation would occur when the relevant authority in one Member State would apply the same, or equivalent, macroprudential measure as that activated in another Member State in order to address a similar risk. Undertakings in both Member States would therefore be affected in a similar way by that risk. Reciprocation should ultimately ensure that the macroprudential measure applies to all undertakings within the EU exposed to the targeted risk, regardless of where they are located.

The reciprocation of macroprudential measures enhances the effectiveness and consistency of macroprudential policy in the EU. It also contributes to a level playing field in the Single Market.

In the banking sector, the ESRB put in place a framework of voluntary reciprocity for macroprudential policy measures. The reciprocity framework lays the basis for a coordinated approach to the reciprocation of macroprudential measures for which EU legislation does not foresee compulsory reciprocation.<sup>276</sup> The reciprocation process is started by a formal request from the relevant authority initially activating the measure. If deemed justified, the ESRB will issue a recommendation. In response to the ESRB recommendation, Member States will subject the financial institutions in their jurisdiction to the same, or equivalent, macroprudential measure. Following the proportionality principle, Member States may exempt financial institutions with non-material exposures (so called "de minimis exemption").

#### **11.4.1. Capital surcharge for systemic risk**

- *Description of the proposal*

11.39 A capital surcharge tool should grant NSAs with the power to increase the capital requirement with the aim of ultimately creating an additional buffer to withstand shocks, therefore avoiding the deterioration of the solvency position of undertakings potentially leading to insurance failure(s). Such a tool could also be useful to de-incentivise the involvement of undertakings in certain activities or

<sup>275</sup> See [https://www.esrb.europa.eu/national\\_policy/reciprocation/html/index.en.html](https://www.esrb.europa.eu/national_policy/reciprocation/html/index.en.html)

<sup>276</sup> The reciprocity framework is based on the following documents: Recommendation ESRB/2015/2; Article 5 of Decision ESRB/2015/4; and Chapter 11 ("Cross-border effects of macroprudential policy and reciprocity") of the ESRB Handbook on operationalising macroprudential policy in the banking sector.

products or the excessive risk-taking by insurance undertakings (e.g. “search for yield” and the “too-big-too fail” problem).

11.40 A capital surcharge could be triggered to address the sources of systemic risk identified, i.e. entity-, activity- and behavioural-based sources. In line with the approach currently under discussion at the IAIS (see Box 11.5), a capital surcharge for systemic risk should meet the following conditions:

- Discretion of NSAs. NSAs should have the discretion to make use of this tool, whenever they deem it necessary, i.e. if it mitigates an identified systemic risk. Therefore, this tool should not be triggered automatically.
- Clear rationale. Supervisor should clearly document the rationale for the surcharge, including the specific systemic risk it is intended to mitigate or to protect against macroprudential risks and explaining why other tools were considered less effective. A capital surcharge should not be considered as the first line of defence against a source of systemic risk.
- Proportionality. Proportionality should be ensured by clearly defining and explaining why the undertakings are subject to this tool as well as the amount of the surcharge.
- Timing considerations. A capital surcharge for systemic risk is generally not intended to be a permanent uplift, but rather a measure of transitory nature. This will of course depend on the specific source, which will determine its length.<sup>277</sup> In any case, the uplift should be subject to regular reviews (e.g. on a yearly basis) and be removed as soon as the conditions that lead to the imposition have changed.

11.41 As can be seen in the “Report on the use of capital add-ons during 2017”,<sup>278</sup> NSAs have made use of the existing capital add-on based on similar conditions as the one highlighted above. Overall, the usage seems very limited in line with “exceptional”/“last resort” conditions. NSAs use it when duly justified, and the surcharge is reviewed on a regular basis and at least once a year.

#### **Box 11.5: IAIS references to capital surcharge**

*(Source: IAIS, 2018, Holistic Framework for Systemic Risk in the Insurance Sector, Public Consultation Document, 14 November 2018, p. 38)*

“Requiring an increase in capital, for instance via capital add-ons, may be a useful tool for supervisors in mitigating identified systemic risk. It is a measure to improve resiliency and eventually reduce the risk of a potentially systemic event materialising. As such, it is considered an intervention tool to address risks that supervisors have identified through their monitoring activities. The supervisor should clearly document the rationale for the add-on, including the specific risk it is intended to mitigate or to protect against. Such an increase is not intended to be a permanent uplift. In the event that a supervisor applies a capital add-on to a particular exposure or activity, it would be expected that the capital add-on would return to zero at the end of a pre-determined fixed period (for example, 12 months) from the date that the add-on amount is announced to the firm(s) unless the supervisor announces, to the insurer(s), a decision to maintain the add-on amount or adjust it again before the expiration of the fixed

<sup>277</sup> Indeed, if the trigger is the existence of systemically important institution, the surcharge should remain in place as long as this situation persists. In case the surcharge has been triggered because of the involvement in certain activities, a reduction or a discontinuation of these activities should be taken into account to either reduce or remove the surcharge. A capital surcharge triggered by a shock that leads to common behaviour should be removed as soon as the potential systemic risk created by this shock has disappeared.

<sup>278</sup> EIOPA (2017c): *Report on the use of capital add-ons 2017*, EIOPA-BoS/17-336 rev2, 21 December 2017.



period. An add-on may also help incentivise insurers to reconsider the engagement in these potentially systemically risky activities. For instance, if the supervisor identifies that, in the current economic environment, a product exposes the insurer or a group of insurers to excessive macroeconomic exposure or that the insurer or a group of insurers is overexposed to assets where values are not justified by fundamentals, they may require those insurers to hold additional capital against the risks from these exposures”.

11.42 Such a tool also has several operational challenges that require further technical work. Table 11.4 summarises the main elements of the proposal as well as the main operational challenges identified.

**Table 11.4: EIOPA proposal and main challenges**

<b>EIOPA proposal according to the trigger</b>	<b>Scope of institutions</b>	<b>Responsibility</b>	<b>Main challenges</b>
Possibility of authorities to apply a surcharge to systemically important insurers	<ul style="list-style-type: none"> <li>Formerly identified global systemically Important insurers<sup>279</sup></li> </ul>	<ul style="list-style-type: none"> <li>FSB</li> </ul>	<ul style="list-style-type: none"> <li>Not clear if the identification will continue in the future. Pending review by the FSB, the identification has been suspended. EIOPA is closely monitoring the developments in this field.</li> </ul>
	<ul style="list-style-type: none"> <li>Domestic systemically important insurers or other criteria at national level (e.g. insurers with total assets larger than a certain amount)</li> </ul>	<ul style="list-style-type: none"> <li>NSAs</li> </ul>	<ul style="list-style-type: none"> <li>Guidance needed to ensure level playing field at EU level</li> <li>Level and calibration of the surcharge is to be defined</li> </ul>
Possibility of authorities to apply a surcharge based on the involvement of undertakings in certain types of activities that	<ul style="list-style-type: none"> <li>Those involved in the specific activities</li> </ul>	<ul style="list-style-type: none"> <li>NSAs</li> </ul>	<ul style="list-style-type: none"> <li>Agreement at EU level on the activities that should be subject to such measure or approach to identify activities. Some kind of threshold might also have to be defined, which poses several challenges</li> </ul>

<sup>279</sup> The FSB decided to suspend the identification of global systemically important insurers (G-SIIs) in 2018. The FSB will assess the IAIS’s recommendation to suspend G-SII identification from 2020 once the holistic framework is finalised in November 2019. In November 2022, the FSB will, based on the initial years of implementation of the holistic framework, review the need to either discontinue or re-establish an annual identification of G-SIIs by the FSB in consultation with the IAIS and national authorities. Even if the identification of G-SIIs by the FSB were to continue after 2022, a capital add-on for these undertakings would not (directly) be in place as this would depend on an IAIS decision on this matter



are more prone to create systemic risk			<ul style="list-style-type: none"> <li>• Level and calibration of the surcharge is to be defined by NSAs</li> </ul>
Possibility of authorities to apply a surcharge based on the collective behaviour of insurance undertaking	<ul style="list-style-type: none"> <li>• Those subject to a domestic shock</li> </ul>	<ul style="list-style-type: none"> <li>• NSAs</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of common macroprudential shocks</li> <li>• Point in time in which this tool would be activated/de-activated</li> <li>• Level of the surcharge</li> <li>• Distinction between domestic and EU shocks, which would activate EIOPA's coordinating role</li> </ul>
	<ul style="list-style-type: none"> <li>• Those subject to an EU shock</li> </ul>	<ul style="list-style-type: none"> <li>• NSAs but under the coordination of EIOPA and potentially the ESRB</li> </ul>	

11.43 Given the difficulties of identifying macroprudential shock that trigger “common behaviour” and, therefore, to activate the surcharge in a pre-emptive way, a capital surcharge might not be easy to implement to address behaviour-based sources of systemic risk.

11.44 In order to address the main challenges, a similar approach as the one used for the existing Solvency II capital add-on could be used, i.e. to ensure uniform conditions of application. EIOPA could be required to develop draft implementing technical standards or guidelines on the procedures for decisions to set, calculate and remove capital surcharge. EIOPA is of the view that coordination at EU level is fundamental.<sup>280</sup>

11.45 Furthermore, there are four fundamental issues to make this tool operational, i.e., the methodology to determine the capital surcharge, its integration in Solvency II, the need of being consistent with the global developments and reciprocation aspects.

11.46 The capital surcharge could be determined using the same methodology as with the existing capital add-on (Article 37 of the Solvency II Directive), i.e. the SCR calculated via a (partial) internal model or the standard formula would be increased to reflect macroprudential risks regardless of the amount of eligible own funds. In case of need, alternatives to meet the new capital requirements would essentially be raising capital, restricting the distribution of dividends or taking de-risking measures.

11.47 EIOPA wants to state that a macroprudential capital surcharge for systemic risk should take into account developments at level of the International Association of Insurance Supervisors (IAIS) in order to ensure level-playing field. This refers, in particular, to the Holistic Framework for Systemic Risk that is being considered (see Box 5).

11.48 The need for reciprocation arrangements will depend on the trigger and on the specific circumstances. In case the surcharge is triggered to address entity-based sources, reciprocation does not appear relevant as the source of systemic risk is

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<sup>280</sup> Furthermore, where deemed necessary, some interaction with the ESRB might be needed, e.g. where there is a risk of arbitrage for other financial sectors.

analysed undertaking by undertaking (or insurance group by insurance group). If, however, the capital surcharge is triggered to address an activity-based source of systemic risk, reciprocation in another Member State where undertakings are involved in that activity could be considered. In similar terms, if the surcharge is triggered to address a behaviour-based source, reciprocation could also be considered in case the undertakings in other Member States behave similarly, e.g. as a result of common exposures or common shocks.

- *Options considered*

11.49 Two options are being considered:

1. No change, i.e. not granting NSAs with the power to require a capital surcharge for systemic risk.
2. Grant NSAs with the power to require a capital surcharge for systemic risk to mitigate an identified systemic risk. NSA should be able to impose a capital surcharge as defined before to address one of the three sources of systemic risk identified, i.e. entity-based, activity-based and behaviour-based sources. The approach to be followed for the capital surcharge could be similar to the currently existing Solvency II capital add-on.

11.50 EIOPA also considered the possibility of a broad-based capital buffer that would anticyclically (i.e. buffers are built up during upswings of the credit cycle and run down during periods of financial market stress). Given the risk of overlaps with work of current countercyclical features of Solvency II, and the operational difficulties, a broad-based countercyclical capital buffer was not further considered. EIOPA concluded that a more targeted capital tool such as the capital surcharge for systemic risk, to be used as an intervention power at the discretion of NSAs whenever they see the need, could be more appropriate for targeting different sources of systemic risk identified than tools based on automatic triggers.

11.51 The costs and benefits assessment of both options on the different stakeholders is analysed in the impact assessment.

- *Comparison of options*

11.52 The comparison of the option to grant NSAs with the possibility to impose a capital surcharge for systemic risk against the baseline scenario (i.e. no change) has been based on its contribution to mitigate the sources of systemic risk identified and to achieve the following objectives:

	<b>Main source(s) of systemic risk</b>	<b>Operational objective(s)</b>
<b>Capital surcharge for systemic risk</b>	<ul style="list-style-type: none"> <li>• Deterioration of the solvency position leading to:               <ul style="list-style-type: none"> <li>○ Failure of a systemically important insurer</li> <li>○ Collective failures of non-systemically important institutions as</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ Ensuring sufficient loss absorbency capacity and reserving</li> <li>➤ Discourage excessive involvement in certain products and activities</li> </ul>

	<p>a result of exposures to common shocks</p> <ul style="list-style-type: none"> <li>• Involvement in certain activities or products</li> <li>• Excessive risk-taking by insurance undertakings (e.g. “search for yield” and the “too-big-too fail” problem)</li> <li>• Inappropriate exposures on the liabilities side (e.g. as a result of competitive dynamics)</li> </ul>	<p>➤ Discourage risky behaviour</p>
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11.53 The preferred policy option for this policy issue is to give NSAs the power to impose a capital surcharge for systemic risk, which they could trigger to address the entity, activity- and behaviour-based sources of systemic risk. This would provide authorities with a targeted capital-based tool that would contribute to meet several of the sources of systemic risk identified. The tool would consist of increasing the solvency requirements of undertakings, which – unless they are close to a breach of the SCR – would leave flexibility to undertakings as to what strategy they should follow. Indeed, any surplus held above the SCR is entirely at undertakings’ discretion. Should they want to keep a similar SCR, they would have different options such as raising capital, ceasing the distribution of dividends or de-risking measures.

11.54 In the decision, more weight has been given to the benefits of having this tool available. The reason is that having the tool at the disposal of NSAs does not immediately imply using it, but rather having the flexibility to do so in case of need.

11.55 In addition to that, the option chosen is preferred to other capital-based tools that are sometimes considered, such as a countercyclical capital buffer, which in EIOPA’s view is less suitable for insurance.<sup>281</sup>

- *Advice*

11.56 EIOPA is of the view that, following a macroprudential analysis, supervisory authorities should have the power to set a capital surcharge to address one or more of the entity-, activity-, or behaviour-based sources of systemic risk as defined in this Opinion (see EIOPA, 2018a *op. cit.* for more detailed information).

11.57 NSAs should have the discretion to make use of this tool, whenever they deem it necessary to mitigate an identified systemic risk. They should clearly document the rationale for the surcharge, apply it in a proportionate way and only as long as the conditions that lead to the application of the surcharge remain in force.

11.58 However, in order to ensure uniform conditions of application and avoid inconsistent use across the EU, EIOPA should develop draft implementing technical

<sup>281</sup> See EIOPA (2018c) *op. cit.* for further information.

standards or guidelines on the procedures for decisions to trigger, set, calculate and remove capital surcharge for systemic risk.

11.59 While it should be set up as a separate tool, EIOPA considers the capital surcharge for systemic risk as a useful supplement to the currently existing microprudential capital add-on that can be applied in cases where the standardised approach does not adequately reflect the very specific risk profile of an undertaking (Article 37 of the Solvency II Directive).

11.60 To ensure consistency EIOPA is of the view that a capital surcharge for systemic risk should be considered as a Pillar 2 tool. This tool could be included as part of a new article covering macroprudential surveillance and supervision or in a dedicated article, separate from the currently existing article on capital add-on (Article 37 of Solvency II Directive).

11.61 It is, however, fundamental that such a tool takes into consideration developments at the IAIS level in order to ensure level-playing field.



### Questions to stakeholders

**Q11.1:** What principles should be taken into account by NSAs in their decision to trigger, set, calculate and remove capital surcharge for systemic risk?

## 11.4.2. Concentration thresholds

- *Description of the proposal*

11.62 Excessive concentrations was identified as one of the potential sources of systemic risk by EIOPA. In line with the current Solvency II approach, this risk should be addressed in a first instance by putting the emphasis on enhancing risk management practices and, in general, accurate application of the prudent person principle and appropriate implementation of own risk assessment functions by the undertakings. This should foster proper diversification and avoid unintended implications at market level (fire sales, pro-cyclical behaviour) especially in time of stress.

11.63 Several provisions in the Solvency II directive 2009/138/EC provide for supervisory actions in case of excessive concentrations in undertakings' investment portfolios. For example Article 110 states that NSAs may require the undertaking to replace a subset of the parameters of the standard formula when the risk profile significantly deviates from the base assumptions, which may be the case when there are excessive concentrations. Article 44 para 2 provides that the risk management system covers concentration risk and that there is a respective policy which likely includes internal concentration risk thresholds. Furthermore in the context of group supervision, Article 244 is dedicated to the supervision of risk concentrations.

11.64 However, EIOPA is of the view that Solvency II should be completed by granting NSAs with the power to define some thresholds or benchmarks on (the growth of)

certain types of exposures that are being identified, in order to understand, monitor and eventually avoid excessive (direct and indirect) concentrations.

11.65 There are two types of thresholds that could be considered: “hard thresholds” and “soft thresholds”. Hard thresholds are regulatory limits that cannot be breached. For example, if the exposure limit to a specific asset class is set at a certain percentage of the investment portfolio, undertakings are simply not allowed to exceed this limit. Hard thresholds are not deemed appropriate in a principle-based framework like Solvency II and are therefore not further considered.<sup>282</sup>

11.66 Soft thresholds are, in turn, less intrusive tools. They are effectively used as a monitoring tool. This implies the identification of benchmarks to refer to when examining specific concentrations, which would show if certain exposure increases dramatically and/or reaches a significant level. Soft thresholds can therefore be exceeded, but would raise special awareness of authorities, who would take action as appropriate where they believe there is a risk to the stability of the financial system.

11.67 This approach goes in line with the one considered by the IAIS in its consultation paper.<sup>283</sup> The IAIS is considering additional supervisory measures based on macroprudential surveillance. One of the options under consideration refers to large exposure limits. Concentration limits “may be used for the supervisor to intervene when it identifies broader macroeconomic trends that, through undertakings’ behaviour, could pose a risk to financial stability or other, previously unidentified risks building in the insurance sector”.

11.68 In EIOPA’s view, the power should be understood in the following sense:

- NSAs should have the power available, to be used under their discretion, without any kind of automatic trigger; and
- An important element to consider is that high concentrations *per se* do not point at a risk to financial stability, a pre-condition for supervisors to intervene.

11.69 Aside from microprudential concerns on specific undertakings, from a macroprudential/sector-wide perspective, NSAs should essentially intervene where there is a risk to financial stability. If such a risk is identified, the first action to be taken by NSAs would be intensifying monitoring, and/or requiring additional or more frequent reporting for specific undertakings. Other measures to de-incentivise high concentrations could also be considered if the risk to financial stability would persist.

11.70 Soft concentration thresholds at market level should be considered as a supplement to other existing tools in Solvency II, such as the ORSA and the PPP, which are essentially microprudential in nature (see Box 6). In order not to depart excessively from the principles of Solvency II, the criteria and conditions to be met

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<sup>282</sup> See EIOPA (2018c), *op. cit.*

<sup>283</sup> IAIS (2018): *Holistic Framework for Systemic Risk in the Insurance Sector*, Public Consultation Document, 14 November 2018.

should be fixed at EU level, and some kind of guided discretion mechanism should be set at first. The inclusion of the ability to put in place “reciprocity arrangements” can help authorities avoid regulatory arbitrage and spillover from tools set at national level. These arrangements can be complex and onerous to implement but there are examples of it working successfully in the banking sector.

11.71 It should be noted that there has been recent cases in which a measure adopted to address the risk of large exposures in a specific Member State was – in the view of the ESRB – potentially less effective because it could not be implemented in the insurance and asset management sectors.<sup>284</sup> In EIOPA’s view, this is a limitation of the current framework that would be solved with the current approach.

- *Options considered*

11.72 EIOPA has followed a sequential approach regarding concentration thresholds. In a first step, potential concentrations were identified and monitored. In EIOPA’s view, the following asset-side exposures could be considered as relevant:<sup>285</sup>

- Exposures to certain asset classes:
  - Government and corporate bonds;
  - Equity;
  - Real estate, including mortgages and loans;
- Exposures to assets issued by undertakings (or governments) in emerging markets
- Exposures to certain sectors, in particular, the banking sector;
- Derivatives:
  - Exposure to banks
  - Counterparty concentration
  - Intragroup transactions using derivatives
  - Gross notional amount outstanding by type of risk (interest rates, equity, FX, other)

11.73 The possibility of establishing certain soft thresholds for action at market level by national authorities if a certain exposure increases dramatically and/or reaches a significant “risky level”, was considered in a subsequent step.

11.74 Regarding concentration thresholds, two options are being considered:

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<sup>284</sup> The [ESRB assessed the intention of the French High Council for Financial Stability to adopt a national measure so as to limit concentration risk](#) with regard to highly indebted large French non-financial corporations. It concluded the following: “Another potential channel that may affect the effectiveness of the measure consists of the insurance and asset management sectors, which are reported to hold a substantial amount of French corporate debt, but which are nevertheless not covered by the measure. The ESRB notes that for now the French authorities do not consider the risks associated with the exposures of these sectors to large NFCs to be excessive; furthermore, the HCSF lacks the relevant macroprudential tools to address such risks if they do start to emerge”.

<sup>285</sup> These concentrations have been analysed by EIOPA in an internal research. Specific indicators were defined with the aim of providing an initial overview of the main exposures at country level. Other alternative investments, illiquid assets or indirect concentrations (e.g. investment funds) could also be considered relevant in this context.

1. No change, i.e. not granting NSAs with the power to define soft concentration thresholds.
2. Grant NSAs with the power to define soft concentration thresholds or benchmarks and intervene accordingly where deemed necessary.

11.75 The two options are summarised in the impact assessment, together with the costs and benefits for all relevant stakeholders.

➤ *Comparison of options*

11.76 The comparison of the option to include a reference to concentration thresholds against the baseline scenario (i.e. no change) has been based on its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:

	<b>Main source(s) of systemic risk</b>	<b>Operational objective(s)</b>
<b>Concentration thresholds</b>	<ul style="list-style-type: none"> <li>• Excessive concentrations</li> </ul>	<ul style="list-style-type: none"> <li>➤ Discourage excessive levels of direct and indirect exposure concentrations</li> <li>➤ Promoting good risk management</li> </ul>

11.77 The objective “promoting good risk management” in the context of soft thresholds should also be understood in terms of achieving a better diversification.

11.78 The preferred policy option for this issue is granting NSAs with the power to define soft concentration thresholds or benchmarks on certain types of exposure concentrations and intervene where there is a risk to financial stability. After the analysis of benefits and costs, EIOPA considers that this option strikes a good balance between the current situation and a more prescriptive approach of defining hard thresholds, which is not considered suitable in the current principle-based framework.

- *Advice*

11.79 EIOPA is of the view that NSAs should be granted with the power to define soft thresholds for action at market level if a certain exposure increases dramatically and/or reaches a significant level, and this creates concerns from a financial stability perspective.

11.80 NSAs should have the discretion whether to intervene or not and how to intervene. It should be stressed that high concentrations, per se do not point at a risk to financial stability, a pre-condition for supervisors to intervene.

11.81 In order not to depart excessively from the principles of Solvency II and ensure uniform conditions of application, EIOPA should issue guidelines in accordance with Article 16 of Regulation (EU) No 1094/2010 to further specify on the procedures for decisions to set the soft thresholds at EU level, while taking into account the conditions in the different markets.

11.82 This should be specifically addressed in a new article focused on macroprudential surveillance and supervision.





## Questions to stakeholders

**Q11.2:** What factors should be taken into account by NSAs when setting soft thresholds at market-wide level?

### 11.4.3. Expand the use of the ORSA to include the macroprudential perspective

- *Description of the proposal*

11.83 In an ORSA, an undertaking is required to consider all material risks that may have an impact on its ability to meet its obligations to policyholders. In doing this, a forward-looking perspective is also required. The ORSA supervisory report documents the results of the ORSA assessment to supervisory authorities. The ORSA supervisory report is one of the elements of the regular supervisory reporting in Solvency II, as stated in Article 304.1(c) of the Solvency II Delegated Regulation. Article 306 of the Regulation specifies the content of the ORSA supervisory report, including the qualitative and quantitative results of the ORSA and the conclusions drawn by the insurance or reinsurance undertaking from those results as well as the methods and main assumptions used.

11.84 Undertakings are requested to include in their ORSA an assessment of their overall solvency needs including the risks the undertaking is or could be exposed to, taking into account potential future changes in its risk profile due to the undertaking's business strategy or the economic and financial environment, as provided in Article 262(1)(a) of the Solvency II Delegated Regulation.

11.85 Although conceived to serve mainly as a microprudential tool, the consideration of macroprudential aspects in the ORSA by undertakings and supervisors further developed. The proposal is to use the microprudential approach currently existing in Solvency II and seek to enhance the macroprudential dimension. The main channel for this would be the ORSA report and the regular supervisory dialogues.

11.86 Further developing the macroprudential dimension of ORSA and ORSA report would be for the benefit of supervisors and undertakings:

1. Supervisors and the authority in charge of macroprudential policy should be able to extract more easily relevant information from ORSA supervisory reports which, on an aggregate basis, should provide relevant market-wide/macroprudential information to be feed-backed to undertakings.
2. Undertakings, in turn, would benefit from the input received from supervisors, which could then be incorporated into subsequent ORSA exercises. In particular undertakings could receive information on macroprudential risks related to the economic and financial environment which might be relevant for their overall solvency needs assessment.

11.87 Box 11.6 provides two examples of how ORSA could be used from a macroprudential perspective.



### **Box 11.6: Examples of macroprudential use of ORSA**

- The Italian experience (for more details please refer to EIOPA, 2018c *op. cit.*)

With the entering into force of Solvency II Directive, IVASS issued Regulation 32/2016,<sup>286</sup> which basically transposes the principles of the specific EIOPA guidelines and take into consideration Italian specificities. The regulation further details the methods of application stated in Solvency II in particular regarding the reference date, transmission time of the ORSA Supervisory Report, as well as a minimum set of expectation relative to the content of the report. To this end IVASS provided a scheme so to structure in a uniform manner (key areas) and make more explicit the minimum set of information expected from undertakings. The undertakings are nevertheless free to develop the relative contents. When implementing the guidelines, the proportionality principle applies according to undertakings specific riskiness and operational complexity. The ORSA reports should adequately describe the contribution of the key functions to the process concerned and to the drafting and finalisation of the ORSA report.

This approach fosters a thorough assessment that serves both at micro- and at macroprudential level. The macroprudential comparative analyses allow to detect the presence on the market of risk concentration, common behaviours or use of similar methodologies and processes. By aggregating information received it is possible to detect a) similar/different approaches in managing specific risks by market; and b) common elements that have an influence on the managers' choices also under a forward looking perspective, likely to result in common behaviour. Indeed, although the ORSA expresses subjective consideration of risks – as well as subjective management approaches – it reveals attitudes of the operators that may drive or justify some strategic choices.

So far, undertakings were invited to include the following elements in their own analysis:

A) Consideration of the macroeconomic situation and potential sources of systemic risk. For example, ORSA has been considered as the best way to monitor sovereign risk and undertakings were invited to evaluate in their own risk analysis whether they would be forced to sell government bonds under stress situation – to take spread basis risk into account.

B) Consideration of assumptions used to stress specific risks. Undertakings were invited to integrate the ORSA report with a document that clarified the results of the analysis carried out regarding the potential impact of the 2016 EIOPA Stress Test scenarios (low for long/double hit), depending on the risk profile of undertakings.

The output of the analysis carried out by IVASS is then made public on the Authority web page through a "letter to the market" where the main aggregated results are shared together with improvements IVASS expects to see relative to the following ORSA report in the year to come.<sup>287</sup>

In summary, the experience in Italy proves that the ORSA can indeed go beyond its original microprudential use and also address concerns that are more macroprudential in nature. Eventually it should be considered that the role ORSA has in mitigating/addressing risky situations at micro level can be translated into macro one, once the effects are aggregated at market level.

<sup>286</sup> [https://www.ivass.it/normativa/nazionale/secondaria-ivass/regolamenti/2016/n32/Regolamento\\_32\\_del\\_9\\_novembre\\_2016\\_ORSA\\_1.pdf?language\\_id=3](https://www.ivass.it/normativa/nazionale/secondaria-ivass/regolamenti/2016/n32/Regolamento_32_del_9_novembre_2016_ORSA_1.pdf?language_id=3)

<sup>287</sup> <https://www.ivass.it/normativa/nazionale/secondaria-ivass/lettere/index.html> (available in Italian only).

- The Austrian experience

Following the “structured dialogue” with the industry and ahead of the introduction of Solvency II, FMA set up an ORSA guidance about the key elements of this new tool. Based on practice examples the guidance covers the following aspects among others: role of the board, proportionality, frequency and forecast time horizon, evaluation of the solvency requirement, deviation of the risk profile from the standard formula, assumptions and documentation.<sup>288</sup>

For the year 2016 and to set the new SCR figures into perspective, FMA conducted an in-depth sector-wide analysis of ORSA reports covering the following elements:

- Methods and assumptions of the own risk assessment (scenarios, time horizon, tools, adjustments to the standard formula), group-wide approaches.
- Consistency with and integration of the ORSA in the management strategy (e.g. limit systems, investment strategy, key risk indicators).
- Reasons for deviations from the standard formula.
- Summary of main findings (e.g. strongest risk drivers, main weaknesses, or best estimate calculation).

Supported by FMA’s specialists for risk management, the analysis was conducted by undertaking analysts and integrated into the analysis tool available to insurance supervisors via intranet. The results were subject to discussion in the regular management meeting. Since then ORSA reports are subject to annual scoring by analysts, who define further supervisory steps if applicable. The extensive sector-wide survey is planned to be repeated for the ORSA reports in 2019. Given the in-depth discussion of the capital requirements and sources of risk, the ORSA analysis enables to identify micro- but also macroprudential sources of risk for the largest undertakings.

11.88 As explained in EIOPA (2018c, *op. cit.*), authorities in charge of the macroprudential policy should be able to use the ORSA supervisory reports of undertakings within their jurisdictions to enhance the macroprudential approach by carrying out three different tasks (see Figure 11.3):

- 1) Aggregation of information. The aggregation of information should be a structured process whereby the relevant authority in charge of the macroprudential policy would receive and compile the individual information provided by undertakings. In order to be operational, authorities should be able to easily identify the relevant sections of ORSA.
- 2) Analysis of the information. Once aggregated, the relevant authority in charge of the macroprudential policy would seek to extract and analyse relevant information from macroprudential perspective and detect common major risks for the financial stability of the whole market. As shown in the Italian case, this information may allow detecting the presence on the market of risk concentration, common behaviours or use of similar methodologies and processes to manage specific risks. Additionally, a peer analysis focusing on a share of the market that e.g. have similar business model might reveal that they are actually presenting diverging views on the risks they are exposed and the way they are managed. This might trigger further supervisory action.

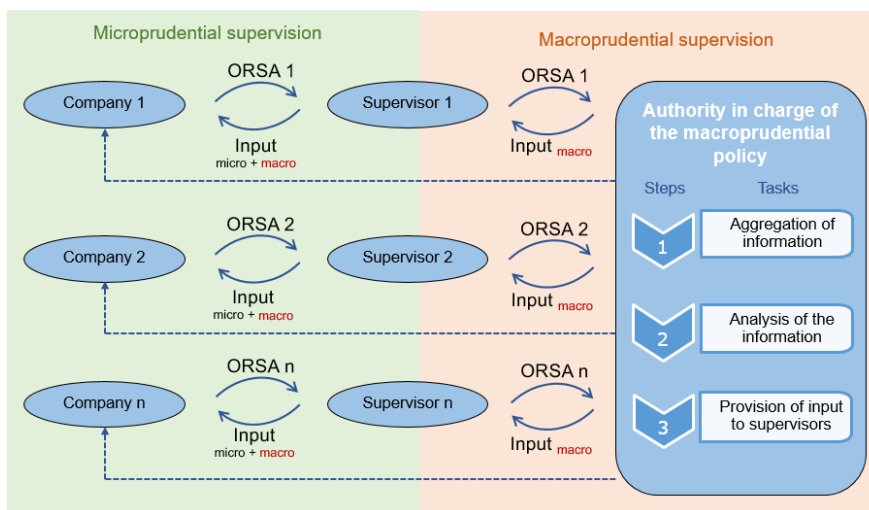
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<sup>288</sup> <https://www.fma.gv.at/fma/fma-leitfaeden/#17>.

3) Provision of certain information or parameters to undertakings to channel macroprudential concerns. As a result of this analysis, the relevant authority in charge of macroprudential policy would provide input to the supervisor on elements to be considered by undertakings to include, in their ORSAs, particular macroprudential risks.

11.89 As part of the supervisory process of ORSA carried out by the supervisors, undertakings would be expected to use this input as an additional source of macroprudential information to the extent that is relevant to them.

Figure 11.3: Incorporating the macroprudential perspective into ORSA



11.90 The main question is how the ORSA process and the ORSA supervisory report would be affected if macroprudential considerations are to be further developed. With regards to the structure of the ORSA supervisory report, the aim should not be prescribing a rigid structure to undertakings. A certain level of harmonisation would, however, be desirable so that authorities in charge of macroprudential policies are able to identify the relevant information (e.g. key areas such as emerging risks considered, assumptions made on the evolution of the markets, eventual macroeconomic stresses applied).

11.91 Content-wise, the principle that the ORSA is an undertaking's own tool should be kept. However, it is expected that undertakings would include the macroeconomic dimension and consider the macroprudential input provided by the supervisors when performing their ORSA assessment to the extent and the awareness that it is relevant for them as well.

- *Options considered*

11.92 Two options are being considered:

1. No change, i.e. the ORSA would remain as it currently is.
2. Expand the use of the ORSA to include the macroprudential perspective.

11.93 Both options are summarised in the impact assessment, together with the costs and benefits for all relevant stakeholders.

➤ *Comparison of options*

11.94 The comparison of the option to expand the ORSA against the baseline scenario (i.e. no change) has been based on its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:

	<b>Main source(s) of systemic risk</b>	<b>Operational objective(s)</b>
<b>Expansion of the use of the ORSA</b>	<ul style="list-style-type: none"> <li>• Excessive concentrations</li> <li>• Deterioration of the solvency position leading to:               <ul style="list-style-type: none"> <li>○ Failure of a systemically important insurer</li> <li>○ Collective failures of non-systemically important institutions as a result of exposures to common shocks</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ Discourage excessive levels of direct and indirect exposure concentrations</li> <li>➤ Ensure sufficient loss-absorbency capacity and reserving</li> <li>➤ Promoting good risk management</li> </ul>

11.95 The preferred policy option, i.e. to expand the use of ORSA to include the macroprudential perspective is also based on the limited costs identified particularly for undertakings, which are clearly outweighed by the potential benefits this tool could yield. The current proposal would not necessarily lead to a detailed ORSA template but would complement current micro analysis with macroprudential evaluation. It would only translate into further expectation on the content of the report, at least for the undertakings for which the macroprudential risks to be taken into account are material. As a result, the adaptation costs are not expected to be material for undertakings.

- *Advice*

11.96 EIOPA advises to include a specification in Article 45 of the Solvency II directive (“Own risk and solvency assessment”) that explicitly refers to the need to take the macroprudential perspective into account.

11.97 The need for (re)insurance undertakings to include explanations about their considerations about the macroeconomic situation and market-wide developments with the potential to turn into sources of systemic risk, as defined in this Opinion, should also be clarified.

11.98 In addition, NSAs should also be required to consider the ORSA reports from a macroprudential perspective and include these considerations in their microeconomic supervision of undertakings.

11.99 A general reference should also be added to a new article focused on macroprudential surveillance and supervision.



## Questions to stakeholders

**Q11.3:** How to ensure that the relevant macroprudential information from the ORSA reports of undertakings can be extracted and used at national level for macroprudential purposes?

### 11.4.4. Expand the prudent person principle to take into account macroprudential concerns

- *Description of the proposal*

11.100 The prudent person principle (PPP) states that undertakings shall only invest in assets and instruments whose risks the undertaking concerned can properly identify, measure, monitor, manage, control and report, and appropriately take into account in the assessment of its overall solvency needs. Its focus is therefore microprudential, and can basically address investment risks at individual level. Macroprudential concerns such as herding behaviour in investments or excessive exposure concentrations at the sectoral level can only be targeted through coordinated individual interventions.<sup>289</sup>

11.101 As will be explained the course of this section, EIOPA proposes to expand the prudent person principle to also cover macroprudential concerns. The relevant authority in charge of the macroprudential policy would seek to extract relevant information on the investment strategy of undertakings, analyse it together with other relevant information that might be available and provide input to supervisors and undertakings on potential macroprudential risks. The potential impact of expanding the PPP would work in two different ways:

- In the investment strategy of undertakings. As stated by the ESRB (2018, *op. cit.*), undertakings could be incentivised to consider macroprudential concerns when analysing the diversification and liquidity of their own investment portfolios. Examples could be the following:
  - Where this is not been considered as part of prudent person investment strategies in accordance with Article 132 of the Directive, macroprudential risks, such as credit cycle downturns, or reduced market liquidity, in addition to excessive concentrations at sector levels should be part of the investment decision; and
  - Decisions that could lead to procyclical behaviour, including any relevant management actions the undertaking has identified that it would rely on to manage their solvency position.
- As part of the supervisory review process. The PPP is a soft tool with corrective power. As part of the supervisory review process, NSAs are expected to also take into account macroprudential concerns when assessing whether the undertaking complies with the PPP. Furthermore, NSAs should also provide

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<sup>289</sup> ESRB (2018), *op. cit.*

relevant information to undertakings on trends and patterns that, at an aggregate level, may pose systemic risk.

- *Options considered*

11.102 Two options are being considered:

1. No change, i.e. the PPP would remain as it currently is.
2. Expand the PPP to take into account macroprudential concerns.

11.103 Both options are summarised in the impact assessment, together with the costs and benefits for all relevant stakeholders.

- *Comparison of options*

11.104 The comparison of the option to expand the PPP against the baseline scenario (i.e. no change) has been based on its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:

	<b>Main source(s) of systemic risk</b>	<b>Operational objective(s)</b>
<b>Expansion of the PPP</b>	<ul style="list-style-type: none"> <li>• Excessive concentrations</li> <li>• Involvement in certain activities or products with greater potential to pose systemic risk</li> </ul>	<ul style="list-style-type: none"> <li>➤ Discourage excessive levels of direct and indirect exposure concentrations</li> <li>➤ Discourage excessive involvement in certain products and activities</li> <li>➤ Promoting good risk management</li> </ul>

11.105 The preferred policy option, i.e. to expand the PPP to take into account macroprudential concerns is also based on the limited costs identified, particularly for undertakings that are clearly outweighed by the potential benefits that this tool could yield in the long-term.

- *Advice*

11.106 EIOPA advises to include a reference in Article 132 of the Solvency II Directive on the prudent person principle explicitly referring to the need for insurance undertakings to consider macroeconomic concerns (such as the risk related to the credit cycle and economic downturn, or other potential sources of systemic risk that may be relevant to them) when deciding on their investment strategy.

11.107 NSAs should also be required to consider macroprudential concerns that are relevant for the undertaking in their assessment on whether it complies with the prudent person principle.

11.108 A general reference should also be added to a new article focused on macroprudential surveillance and supervision.

### 11.4.5. Pre-emptive recovery and resolution planning

- *Description of the proposal*

11.109 In a pre-emptive recovery plan, which is drafted in normal times, the undertaking itself describes the possible measures it would adopt to restore its financial position following a significant deterioration caused by potential scenarios of stress. In a resolution plan, in turn, the competent authority considers how to resolve an undertaking without severe systemic disruption and without exposing taxpayers to loss, by identifying a range of resolution actions which may be taken if the undertaking enters into resolution.

11.110 By requesting undertakings and competent authorities to draft pre-emptive recovery and resolution plans respectively, this measure should contribute to the operational objective of ensuring sufficient loss absorbency capacity and reserving. This approach is consistent with chapter 12 on Recovery and Resolution.

- *Options considered*

11.111 Three options are being considered:

1. No change, i.e. the existing situation of different national practices is maintained. Solvency II would not be supplemented with the requirement for pre-emptive recovery and resolution planning as well as resolvability assessments.
2. Require pre-emptive recovery and resolution planning (as well as resolvability assessments) from all undertakings subject to Solvency II to be drafted, respectively, by undertakings and competent authorities.
3. Require these plans from undertakings covering a very significant (for recovery planning) and significant (for resolution planning and resolvability assessment) share of the national market. The decision as to which undertakings would be subject to the requirements should be based on a list of harmonized criteria, such as size, business model, risk profile, cross-border activities, interconnectedness and substitutability of undertakings.

11.112 The three options are summarised under sections 12.3.4.1 and 12.3.5.3, together with the costs and benefits for all relevant stakeholders. The comparison of the option to require recovery and resolution planning (as well as resolvability assessments) covering a (very) significant and significant share of the market respectively against the baseline scenario (i.e. no change) has been based on its contribution to achieving the different policy objectives. From a macroprudential point of view, these are the following:

	<b>Main source(s) of systemic risk</b>	<b>Operational objective(s)</b>
<b>Requirement of pre-emptive recovery and resolution plans</b>	<ul style="list-style-type: none"> <li>• Deterioration of the solvency position leading to:               <ul style="list-style-type: none"> <li>○ Failure of a systemically important insurers</li> <li>○ Collective failures of non-systemically important</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ Ensuring sufficient loss absorbency capacity and reserving</li> <li>➤ Promoting good risk management</li> </ul>



	institutions as a result of exposures to common shocks	
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- *Advice*

See chapter 12 on recovery and resolution

#### **11.4.6. Systemic risk management plans**

- *Description of the proposal*

11.113 The proposal is requiring undertakings to draft systemic risk management plans (SRMPs) in which they present all applicable measures they intend to undertake to address the systemic risk that the institution may pose in the financial system.

11.114 By requesting undertakings to draft SRMPs, this measure contributes to the operational objectives of discouraging excessive involvement in certain products and activities as well as discouraging excessive levels of direct and indirect exposure concentrations.

- *Options considered*

11.115 A key aspect refers to the scope of application of this measure, i.e. the undertakings that should be required to draft SRMPs. Given that at present this plan is required only to a group of large insurance undertakings, formerly identified as global systemically important undertakings, the aim would be covering also other undertakings (e.g. D-SIIs where they have been identified), that might pose systemic risk. The potential implications of belonging to a financial conglomerate should also be considered.

11.116 Three options are being considered:

1. No change, i.e. Solvency II would not be supplemented with the requirement for SRMP.
2. Require SRMPs from all undertakings subject to Solvency II.
3. Require SRMPs only from a subset of undertakings considering several aspects such as the size of the undertaking, its global activity, the interconnectedness with the financial system, potential substitutability concerns as well as the nature of exposures, scale, and complexity of the undertaking's activities. In order to ensure uniform conditions of application EIOPA should be required to issue guidelines to further specify the scope of undertakings subject to SRMP.

11.117 These three options are further analyzed in the impact assessment, elaborating on the costs and benefits of all the options for each of the stakeholders.

##### ➤ *Comparison of options*

11.118 The comparison of the option to require SRMPs to a subset of undertakings against the baseline scenario (i.e. no change) has been based on its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:



	<b>Main source(s) of systemic risk</b>	<b>Operational objective(s)</b>
<b>Requirement of SRMP</b>	<ul style="list-style-type: none"> <li>• Involvement in certain activities or products with greater potential to pose systemic risk</li> <li>• Potentially dangerous interconnections</li> </ul>	<ul style="list-style-type: none"> <li>➤ Discourage excessive involvement in certain products and activities</li> <li>➤ Discourage excessive levels of direct and indirect exposure concentrations</li> <li>➤ Promoting good risk management</li> </ul>

11.119 The preferred policy option for this policy issue is to require SRMPs to specific undertakings only, based on the expert judgement of NSAS. Requiring SRMPs to all undertakings has been disregarded because of the resource consumption it would imply for both undertakings and NSAs compared to relatively low benefits for a large proportion of undertakings.

- *Advice*

11.120 EIOPA is of the view that NSAs should have the power to require undertakings to draft and maintain SRMPs for systemically important undertakings, as well as to those that are involved in certain activities or products with greater potential to pose systemic risk.

11.121 NSAs should have the discretion to determine which undertakings should draft an SRMP, based on the size of the undertaking, its global activity, the interconnectedness with the financial system, potential substitutability concerns as well as the nature of exposures, scale, and complexity of the undertaking's activities.

11.122 This should be specifically addressed in a new article focused on macroprudential surveillance and supervision.

11.123 In order to ensure uniform conditions of application EIOPA should issue guidelines in accordance with Article 16 of Regulation (EU) No 1094/2010 to further specify the scope of undertakings subject to SRMP.



### **Questions to stakeholders**

**Q11.4:** What are the relevant factors to be taken into account to determine the scope of undertakings subject to SRMPs?

### 11.4.7. Liquidity risk management planning and reporting

- *Description of the proposal*

11.124 Liquidity risk in insurance is acknowledged to be of a different nature to banking.<sup>290</sup> The inverted production cycle generates a stable cash flow to undertakings and makes the traditional insurance business less dependent on short-term funding. In addition, the extended claims payment period allows for better planning of necessary funding.

11.125 Although much less pronounced than in banking, a market-wide liquidity problem cannot be ruled out. In the current regulatory framework, liquidity risk is only partially covered.<sup>291</sup> Article 44 of the Solvency II Directive addresses risk management, stressing the areas that need to be covered. Liquidity and concentration risk management are among those areas explicitly listed. However, there are no quantitative requirements covering liquidity risk. Furthermore, the quantitative reporting does not contain all necessary information for the supervisor to be able to fully assess liquidity risk from a quantitative perspective, which makes it difficult to monitor liquidity risk at sector level for macroprudential purposes.

11.126 EIOPA has approached the issue of market-wide liquidity risk in the insurance sector from different angles:

1. Enhancing the reporting framework to be able to capture liquidity risk;
2. Enhancing the monitoring framework based on the Solvency II reporting in place;
3. Considering the need of introducing binding liquidity requirements;
4. Considering the usefulness of requiring liquidity risks management plans (LRMP); and
5. Proposing to grant authorities with the power to temporarily forbid or limit lapses in exceptional circumstances

11.127 The first element (enhancing the reporting framework), which is part of the general review of the Solvency II reporting framework, will be briefly addressed in section 11.4.9. On the third element EIOPA is of the view that there is no evidence yet of material liquidity risk at macro level that would justify the development and implementation of binding liquidity requirements for undertakings.<sup>292</sup> The last element (the power to temporarily forbid or limit lapses) is a specific tool further developed in the next section. This section will therefore focus on the other elements listed above.

11.128 EIOPA considers the monitoring of liquidity risk an essential issue for undertakings and NSAs. Thus, there is a need to develop a meaningful set of

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<sup>290</sup> See IAIS (2011), *op. cit.*

<sup>291</sup> EIOPA (2018c), *op. cit.*

<sup>292</sup> See EIOPA (2018c), *op. cit.* Solvency II is a risk-based framework, which does not include specific quantitative (Pillar I) requirements for liquidity risk. According to the Solvency II Directive, the risk management framework (Pillar II) has to cover liquidity risk and hence it has to be seen as a valuable source of information. In the same vein, the PPP includes the liquidity aspects of investments and has to be respected by the undertakings.

liquidity risk indicators to monitor and assess liquidity risk both at micro and macro level. The liquidity of the assets shall be evaluated together with the liquidity of the liabilities, namely the time to maturity of the outstanding portfolio, the presence of product characteristics (e.g. penalties or notice periods) that might limit the incentives of policyholder to lapse and other liabilities that could create unexpected liquidity needs, such as ratings-triggers in insurance products or funding instruments or margin calls on derivatives. Several indicators could be considered, such as:

- Liquid assets/technical provisions
- Liquid assets/liquid liabilities, both off- and on-balance sheet
- Unencumbered assets/total assets
- Liquidity sources/liquidity needs, including off-balance sheet sources and needs
- Short term liquidity resources/short term liquidity needs
- Lapse ratios
- Other liquidity risks metrics that undertakings define to measure and monitor their own liquidity risk (e.g. stress-testing).

11.129 In addition to that, EIOPA is of the view that insurance and reinsurance undertakings applying the VA should report on liquidity buffer available to mitigate the risk of forced sale of assets during the next 12 months. Section 2.4 provides further information as to how to calculate the buffer.

11.130 These indicators should help undertakings to ensure that they are able to realise investments and other assets in order to settle their financial obligations when they fall due. EIOPA expects that undertakings consider as part of their risk management policies the total liquidity needs in the short and medium term, including an appropriate liquidity buffer to guard against a liquidity shortfall.<sup>293</sup>

11.131 NSAs should also carefully monitor these indicators. However, this should not lead to binding quantitative liquidity requirements. As mentioned above, in the absence of a strong evidence of material risk at macro level that would justify any quantitative liquidity requirement, EIOPA proposes a step-by-step approach to liquidity risk: the potential development of minimum quantitative liquidity requirements might be considered more in-depth only as a final step, once reporting requirements have been enhanced and a risk assessment framework has been put in place.

11.132 Supervisory authorities should be able to obtain from insurance and reinsurance undertakings the information that is necessary for the purposes of (micro and macro) supervision, including, relevant information on liquidity risk. The indicators above could serve as a basis for the supervisory dialogue. Furthermore, EIOPA is of the view that LRMPs to be drafted by undertakings could be a useful way to enhance reporting and monitoring of liquidity risk.

- *Options considered*

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<sup>293</sup> Guideline 26 - Liquidity risk management policy, EIOPA Guidelines on system of governance.

11.133 With the current proposal of requesting LRMP's to insurance undertakings, EIOPA seeks to enhance the current regulatory framework which is essentially based on the general provision in Article 44 and Pillar 2 requirements. The IAIS Guidance on Liquidity Risk and Management Planning provides a useful basis (see Box 11.7).

**Box 11.7: Extracts from the IAIS Guidance on Liquidity Risk and Management Planning (2014)**

Firms may achieve effective liquidity management and planning in various ways accounting for differences in scale, nature and complexity of the insurer and its business mix. The insurer, at the minimum addresses statements of objectives and the plans for execution.

Statement of objectives: This would typically be in the form of liquidity risk policy(ies) and would include a clear articulation of risk tolerance and the governance arrangements around liquidity management. Depending on the insurer's funding structure, such policies could be articulated at the level of the group, entity or other subset of the group.

Plans for execution: This would include liquidity risks management plan(s) and cover all aspects of identification, measurement, monitoring and mitigation of liquidity risk, as well as contingency funding plans. The focus should be on a liquidity gap analysis, which should include, at a minimum, the following:

- A projection over time of liquidity sources under current conditions and future stress scenarios (based on the insurer's liquidity sources).
- A projection over time of liquidity needs under current conditions and future stress scenarios should consider such situations as high rates of surrenders, cancellations or lapses, at the legal entity level and – where applicable - acceleration of liquidity needs at the group level (e.g. holding company obligation to repay its loans due to a credit rating trigger).
- Projections of both liquidity availability and needs must be based on consistent assumptions.
- G-SII's should be required to substantiate that the contingency funding plans are reasonable and have a likelihood of success under stressed conditions.
- Time intervals and overall time horizon needs to be appropriate for the business model. G-SII's should be encouraged to use a number of time horizons; particularly short term (which addresses the potential problems in collateral margin, money market funds freeze risk, etc.) and long term (which could be one year or longer).

Liquidity sources and liquidity needs should be presented separately under different time horizons and scenarios. The difference between liquidity sources and needs constitutes the respective excess liquidity (or shortfall thereof) of the insurer, in the time intervals. The ratio of the liquidity sources and liquidity needs on the other hand constitutes the coverage ratio in the time intervals. Both excess liquidity and coverage ratio should be calculated for each scenario and time horizon. "Early warning indicators", which could be expressed as coverage ratios or other quantitative criteria, should be part of regular monitoring.

11.134 As with the other plans, the key operational aspect is broadening the scope to cover a sufficiently large number of undertakings while taking into account proportionality concerns.

11.135 Against this background, three options are being considered:

1. No change, i.e. Solvency II would not be supplemented with the requirement for LRMPs.
2. Require LRMPs from all undertakings subject to Solvency II.
3. Require LRMPs with possibility to waive undertakings based on a set of harmonized criteria such as the nature or the exposures as well as the scale and complexity of the undertaking's activities that make them more vulnerable to liquidity stresses. In order to ensure uniform conditions of application EIOPA should be required to issue guidelines to further specify the scope of undertakings subject to LRMP.

11.136 These three options are further analyzed in the impact assessment, elaborating on the costs and benefits of all the options for each of the stakeholders.

➤ *Comparison of options*

11.137 The comparison of the option to require LRMPs with possibility to waive undertakings against the baseline scenario (i.e. no change) has been based on its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:

	<b>Main source(s) of systemic risk</b>	<b>Operational objective(s)</b>
<b>Requirement of LRMP</b>	<ul style="list-style-type: none"> <li>• Involvement in certain activities or products with greater potential to pose systemic risk</li> <li>• Potentially dangerous interconnections</li> </ul>	<ul style="list-style-type: none"> <li>➤ Discourage excessive involvement in certain products and activities</li> <li>➤ Discourage excessive levels of direct and indirect exposure concentrations</li> <li>➤ Promoting good risk management</li> </ul>

11.138 The preferred policy option is to require LRMPs with the option for NSAs to waive undertakings. The starting assumption should be that all undertakings are within scope, but NSAs should have the power to waive some of them based on certain criteria. Requiring LRMPs to all undertakings has been disregarded because of the resource consumption it would imply for both undertakings and for NSAs.

• *Advice*

11.139 EIOPA considers that Article 44 of the Solvency II should more explicitly refer to the need to have a liquidity risk framework in place as part of their risk management policies, which ensures that undertakings are able to realise investments in order to settle their financial obligations when they fall due, even under stressed conditions.

11.140 Furthermore, EIOPA is of the view that all undertakings within Solvency II should be required to draft LRMPs for identifying and addressing potential liquidity stresses.

11.141 However, in accordance with the proportionality principle, NSAs should be given the possibility to waive certain undertakings, based on the nature or the exposures as well as the scale and complexity of the undertaking's activities that make them more vulnerable to liquidity stresses.

11.142 These plans could be combined with those already required plans that project the incoming and outgoing cash flows in relation to assets and liabilities for undertakings using the matching adjustment and the volatility adjustment in line with Article 44 of the Solvency II Directive.

11.143 This should be specifically addressed in a new article focused on macroprudential surveillance and supervision.

11.144 In order to ensure uniform conditions of application EIOPA should issue guidelines in accordance with Article 16 of Regulation (EU) No 1094/2010 to further specify the scope of undertakings subject to LRMP.



### Questions to stakeholders

**Q11.5:** What are the relevant factors to be taken into account to determine the scope of undertakings subject to LRMPs?

#### 11.4.8. Temporary freeze on redemption rights

- *Description of the proposal*

11.145 From a macroprudential point of view, a power to temporarily forbid or limit lapses in exceptional circumstances would be applied to the whole or part of the market, or to systemically important institutions, in order to give the vulnerable entity or entities some time to implement necessary measures to reduce their liquidity risks without affecting the stability of the financial system. It could therefore be useful to address the risk of collective behaviour by undertakings that may exacerbate market price movements, such as fire-sales or herding behaviour.

11.146 This tool links the micro- and macroprudential concerns. Indeed, while this section essentially covers the macroprudential approach, the tool could be applied from a microprudential perspective, affecting one or a few specific undertakings that are subject to a severe liquidity stress which, however, would by themselves not compromise the stability of the financial system.<sup>294</sup> The only difference is, therefore, the type of risk that it is expected to address, i.e. a market-wide liquidity stress (macroprudential approach) or an individual liquidity risk (microprudential approach).

11.147 The IAIS is currently also considering this option.<sup>295</sup> Although it is usually used as to address microprudential concerns, the IAIS considers that "it may also be

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<sup>294</sup> See chapter 12 on recovery and resolution.

<sup>295</sup> IAIS (2018), *op. cit.*

helpful if the supervisor has the ability to take early-intervention action against undertakings based on macroprudential concerns”.

11.148 Having the right of temporarily freezing the redemption rights is a measure that could be used in exceptional circumstances to address macroprudential concerns. From that point of view, EIOPA considers that this tool would be a supplement (and not a replacement) to the requirement to hold capital for mass lapses at undertaking level, as part of the standard formula.

11.149 However, EIOPA considers a balanced approach in the application of this tool is necessary.<sup>296</sup> Potential self-inflicted problems should be avoided, i.e. freezing the redemption rights should not be seen as a way to solve bad management or pricing decisions.

11.150 Therefore, a thorough analysis about the reasons of the increased lapse risk should be carried out in order to ensure the measure to be an appropriate reaction and not a simplistic cure of symptoms while the underlying reasons are not properly addressed. This refers, in particular, in case that unsustainable guarantees were promised.

11.151 As with some of the other tools, reciprocation aspects should be duly considered in the context of this tool. Where this power is applied, reciprocation would avoid that redemption rights be used by policy holders located in another Member State.

11.152 NSAs should also seek to ensure funds’ redemption terms are consistent with their assets and investment strategy. Furthermore, the measures should ideally be applied consistently across the financial sector beyond insurance, such as asset management.

- *Options considered*

11.153 This tool temporarily freezes the rights of policyholders to surrender. It should therefore be carefully considered by authorities, and only applied in exceptional circumstances i.e. as a measure of last resort, when other measures are ineffective or inappropriate. This could be the case where there is a serious threat to policyholders or the stability of the financial system. An example could be the risk of mass lapse on multiple undertakings implying forced sales of non-liquid assets is identified, e.g. as a result of a sudden increase of interest rates or in case of panics.

11.154 The measure should be activated for a limited period of time, to prevent risks representing a strong threat for the financial stability of the whole insurance market or for the financial system. The period of time in which the measure remains active would depend on the triggering event. The measure should be reviewed on a regular basis (e.g. on a monthly basis).

11.155 A key operational challenge of this measure is the cross-border implication of this measure when undertakings operate in other Member States by means of freedom to provide services and freedom of establishment. It should be avoided that policyholders in the host country would be negatively affected by the application of the measure in the home country.

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<sup>296</sup> EIOPA (2018c), *op. cit.*

11.156 On this tool, EIOPA considered two main options:

1. No change, i.e. this power should not be available to NSAs in exceptional circumstances.
2. NSAs should be empowered to temporarily freeze the redemption rights in exceptional circumstances.

11.157 These two options are further analyzed in the impact assessment, elaborating on the costs and benefits of all the options for each of the stakeholders.

➤ *Comparison of options*

11.158 The comparison of the option to grant NSAs with the power to temporarily freeze the redemption rights against the baseline scenario (i.e. no change) has been based on its contribution to mitigating the sources of systemic risk identified and achieving the following objectives:

	<b>Main source(s) of systemic risk</b>	<b>Operational objective(s)</b>
<b>Temporary freeze on redemption rights</b>	<ul style="list-style-type: none"> <li>• Collective behaviour by undertakings that may exacerbate market price movements (e.g. fire-sales or herding behaviour)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Limit procyclicality</li> <li>➤ Policyholder protection</li> </ul>

11.159 While it is acknowledged that this options also has side effects, the prefer option is to grant NSAs with the power to temporarily freeze the redemption rights in exceptional circumstances. In the decision, more weight has been given to the benefits of having this tool available. The reason is that having the tool at the disposal of NSA does not immediately imply using it, but rather having the flexibility to do so in case of need.

• *Advice*

11.160 EIOPA considers that NSAs should be granted with the power to temporarily freeze the redemption rights of policyholders in exceptional circumstances.

11.161 The power should be applied as a last resort measure, for a short period of time and only to undertakings affected by a significant liquidity risk (e.g. upward interest rate shocks).

11.162 In order to ensure uniform conditions of application EIOPA should issue guidelines in accordance with Article 16 of Regulation (EU) No 1094/2010 to further specify the existence of "exceptional circumstances".

11.163 Authorities should pay special attention to potential side effects on the economy and effects on the rights of policyholders before temporarily freezing the redemption rights for the whole or a significant part of the market.

11.164 A reference to this power should be added to a new article focused on macroprudential surveillance and supervision.





### Questions to stakeholders:

**Q11.6:** What are the relevant factors to be taken into account to define the term "exceptional circumstances"?

#### **11.4.9. Other measures – Enhancing the reporting framework from a macroprudential point of view**

11.165 In addition to the above proposed tools and measures, EIOPA is working on other improvements to the reporting framework from macroprudential point of view.

11.166 EIOPA sees a need to enhance the reporting framework with the aim of detecting potential market-wide liquidity stresses.<sup>297</sup> Given that the information reported by undertakings on the asset side is quite comprehensive, special attention was devoted to the liabilities' side. Indeed, relevant elements that could affect the liquidity of a contract (and thus the technical provisions) are linked to the following:

- The existence of surrender options and the time to maturity of the contract,
- The contractual incentives (guarantees included or profit sharing), and
- The economic impact of early termination for policyholders (e.g. exit fees or taxation related issues).

11.167 These elements are relevant determinants that could trigger mass surrender decisions by policyholders. Reporting gaps around them should therefore be avoided, given that they could lead to two of the sources of systemic risk identified by EIOPA, i.e. the risk of insurance failure(s) as well as the risk of collective behaviour by undertakings that may exacerbate market price movements, such as fire-sales.

11.168 The risk of market-wide under-reserving is another area where enhancing the reporting is needed. The aim is identifying potential deviations of the assumptions from the actual experience in the calculation of the technical provisions. The information in the variation analysis templates is currently not granular enough to allow supervisors to detect problematic reserving, where it occurs and should therefore be enhanced. Additional information should be collected on the profit or losses that result from deviations of assumptions to actual experience from one year to another with regards to interest rate; longevity/mortality; lapse; disability; reinsurance, cost charges; currencies as well as on the impact of changes of assumptions (non-economical and economical) and new business.

11.169 Any proposal in the field of reporting is considered as part of the overall review on reporting, which will take place in light of the Solvency II review.

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<sup>297</sup> The relevance of liquidity risk stress-testing should also be highlighted in this context (see Box 5, EIOPA, 2018c, *op. cit.*). Such exercises allow supervisors to identify potential vulnerabilities that should be addressed either at micro level or at macro level and thus reinforces the resilience against liquidity risk.

## 12. Recovery and resolution

### 12.1 Introduction

#### 12.1.1 Extract from the call for advice

##### **3.11. Recovery and resolution**

*EIOPA is asked to assess whether the Solvency II rules on the recovery of undertakings in stressed situations should be further developed, including harmonised early intervention powers and preventive recovery planning. EIOPA is further asked to advise on which elements and rules should be added.*

*Similarly, EIOPA is asked to advise on whether there is a need for minimum harmonised rules regarding resolution of insurance or reinsurance companies, including resolution planning. In addition, EIOPA is asked to advise on which tools should be created to address the failure or the risk of failure of insurance or reinsurance companies as well as on what the scope of resolution planning should be.*

*Furthermore, EIOPA is asked, taking into account the experience with supervisory powers in cases of non-compliance with the Solvency Capital Requirement and the Minimum Capital Requirement, to advise on what the appropriate triggers for early intervention, entry into recovery and entry into resolution should be.*

#### 12.1.2 Relevant legal provisions

12.1 EIOPA's tasks and powers in the area of recovery and resolution of insurance undertakings are set out in Article 8(1)(i) of the EIOPA Regulation.<sup>298</sup> This article states that EIOPA is responsible for "[...] *the development and coordination of recovery and resolution plans, providing a high level of protection to policy holders, to beneficiaries and throughout the Union, in accordance with Articles 21 to 26*".

12.2 Other relevant articles in this context are:

- Article 24(2) of the EIOPA Regulation provides EIOPA with the responsibility to contribute to ensuring coherent and coordinated crisis management and resolution regime in Europe.

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<sup>298</sup> Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC (OJ L 331, 15.12.2010, p. 48).

- Article 25(2) of the EIOPA Regulation provides that "*[EIOPA] may identify best practices aimed at facilitating the resolution of failing institutions and, in particular, cross-border groups, in ways which avoid contagion, ensuring that appropriate tools, including sufficient resources, are available and allow the institution or the group to be resolved in an orderly, cost-efficient and timely manner.*"

Previous Advice

12.3 In July 2017, EIOPA published an Opinion on The harmonisation of recovery and resolution frameworks for (re)insurers across the Member States (hereafter referred to as EIOPA Opinion (2017)).<sup>299</sup> The Opinion was addressed to the EU Institutions and issued on the basis of Article 34 of the EIOPA Regulation, which lays down that EIOPA "*may, [...] on its own initiative, provide opinions to the European Parliament, the Council and the Commission on all issues related to its area of competence.*"

12.4 In the Opinion, EIOPA called for minimum harmonised and comprehensive recovery and resolution framework for (re)insurance undertakings to deliver increased policyholder protection and financial stability in the EU. It argued that harmonisation of the national frameworks and, particularly, the establishment of a common approach to the fundamental elements of recovery and resolution would avoid fragmentation and facilitate cross-border cooperation.

12.5 EIOPA proposed four building blocks for a European recovery and resolution framework, i.e. preparation and planning, early intervention, resolution and cross-border cooperation and coordination.

12.6 Finally, EIOPA advised to align a harmonised recovery and resolution framework with Solvency II and to apply the framework in a proportionate manner.

12.7 The views expressed in the EIOPA Opinion (2017) served as a basis for developing the current Advice; where necessary, the views have been further elaborated.

## **12.2 Identification of the issue**

### **12.2.1 Background**

12.8 One of the lessons learned from the past financial crisis is the need to have adequate recovery and resolution measures in place in order to be able to manage failing institutions in an effective and orderly manner.

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<sup>299</sup> See EIOPA [Opinion](#) to Institutions of the European Union on The harmonisation of recovery and resolution frameworks for (re)insurers across the Member States, July 2017.

- 12.9 At the global level, the G20 and the Financial Stability Board (FSB) have developed an extensive agenda for stabilising the financial system and the world economy more broadly. Initially, the focus was on the banking sector as banks were at the epicentre of the past financial crisis. In November 2011, the leaders of the G20 endorsed the recommendations issued by the FSB for a more effective resolution regime to deal with failing financial institutions: “Key Attributes of Effective Resolution Regimes for Financial Institutions” (hereafter, referred to as the “Key Attributes”).<sup>300</sup> The 2014 update of the Key Attributes included an insurance-specific annex.
- 12.10 At the EU level, the legislators adopted the Bank Recovery and Resolution Directive (BRRD)<sup>301</sup> in 2014 in response to the banking failures and unprecedented level of public intervention. The financial crisis revealed that the existing frameworks were unsuitable to deal with banks in crisis.<sup>302</sup> The BRRD introduced a harmonised framework with common European rules for the recovery and resolution of troubled credit institutions and investment firms in the EU.
- 12.11 The focus has, however, soon been extended to financial institutions other than banks. At the global level, the FSB supplemented the Key Attributes by including guidance on how the core principles for an effective resolution regime should be applied to the insurance sector.<sup>303</sup> The International Association of Insurance Supervision (IAIS) has been revising the Insurance Core Principles (ICPs) on the resolution of insurance undertakings.<sup>304</sup> The purpose of this was to improve the recovery and resolution measures available to national authorities.
- 12.12 In the EU, the European Commission consulted stakeholders on the possible framework for the recovery and resolution of non-bank financial institutions, including central counterparties (CCPs), central securities depositories (CSDs) and (re)insurance undertakings in 2012.<sup>305</sup> Following the consultation process, the European Commission decided to work on a proposal for an effective recovery and resolution regime for CCPs. For the

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<sup>300</sup> Press [release](#) of the FSB.

<sup>301</sup> Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council (OJ L 173, 12.6.2014, p. 190).

<sup>302</sup> European Commission, EU Bank Recovery and Resolution Directive (BRRD): Frequently Asked Questions, 15 April 2014 ([link](#)).

<sup>303</sup> FSB Key Attributes of an Effective Resolution Regime for Financial Institutions.

<sup>304</sup> [Revised](#) ICP12 and ComFrame.

<sup>305</sup> [Consultation](#) document of the European Commission (2012) “Consultation on a possible recovery and resolution framework for financial institutions other than banks” (See [link](#):)

insurance sector, it was decided back then to continue to monitor the situation.<sup>306</sup>

12.13 In 2017 and 2018, the European Systemic Risk Board (ESRB) published two reports in which it argued that a harmonised recovery and resolution framework is also essential in insurance.<sup>307</sup> It stated *“Given the importance of the insurance sector, a comprehensive regulatory framework is needed to help ensure that the sector can fulfil its essential role, even during times of crisis. Such a framework consists of a number of elements that complement each other: microprudential regulation and supervision [...], recovery and resolution regimes [...], and macroprudential policy [...]”* (ESRB (2018)).

12.14 Finally, EIOPA has been proactively contributing to the discussions on the need for a harmonised recovery and resolution framework in insurance. In 2017, it published an Opinion addressed to the EU Institutions and called for the establishment of a harmonised and effective framework for the recovery and resolution of (re)insurance undertakings in the EU.

## **12.2.2 The risks of the current fragmentation in the EU**

12.15 In EIOPA’s view, the main issue that needs to be addressed is the currently existing fragmentation in the EU, which has negative implications for policyholders and for stability of the financial system as a whole.

12.16 The lack of EU legislation governing the process of insurance resolution has resulted in a fragmented landscape of national recovery and resolution frameworks. The EIOPA Opinion (2017) showed that there are substantial differences between national frameworks.<sup>308</sup> There are differences in terms of legal framework, powers and tools available to national authorities, conditions under which these powers can be exercised and objectives pursued when resolving undertakings.

12.17 Prior to the introduction of the BRRD, the landscape of national recovery and resolution frameworks for banks was likewise fragmented which was seen as a significant impediment to the management of the past financial crisis. The financial crisis *“highlighted the lack of arrangements to deal effectively with failing banks that operated in more than one Member State”*,

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<sup>306</sup> Extract from [speech](#) by former Commissioner Jonathan Hill on 2016 priorities for an approach to resolution for CCPs, Centre for European Policy Studies.

<sup>307</sup> ESRB [report](#), “Recovery and resolution for the EU insurance sector: a macroprudential perspective, August 2017.

ESRB [Report](#) “Macroprudential provisions, measures and instruments for insurance”, November 2018.

<sup>308</sup> See EIOPA [Opinion](#) to Institutions of the European Union on The harmonisation of recovery and resolution frameworks for (re)insurers across the Member States, July 2017, Annex I.

according to the European Commission.<sup>309</sup> Additionally, the crisis revealed “*serious shortcomings in the existing tools available to authorities for preventing or tackling failures of systemic banks*”.

12.18 EIOPA is of the view that the absence of an effective harmonised recovery and resolution framework could similarly cause impediments to the orderly resolution of failing (re)insurance undertakings.

12.19 Furthermore, the ESRB argued that the current fragmented landscape could pose a risk for the financial stability and advocated the implementation of a harmonised recovery and resolution framework in insurance for macroprudential reasons.<sup>310</sup> In fact, the ESRB is of the view that “*a more harmonised approach towards recovery and resolution across the EU would help manage the failure of a large cross-border insurer or the simultaneous failure of multiple insurers in an orderly fashion.*”

### **12.2.3 Lack of an effective recovery and resolution framework**

12.20 Moreover, the FSB Key Attributes prescribe the core elements of an effective resolution regime. The EIOPA Opinion (2017) showed that most of the existing national frameworks do not contain these core elements.<sup>311</sup>

12.21 In fact, in most Member States the measures available to national authorities are usually limited to normal insolvency procedures. Consequently, twelve NSAs reported that they have identified some gaps and shortcomings in their national frameworks.

12.22 The identification of gaps and shortcomings has led to initiatives to reinforce the national frameworks in some Member States.<sup>312</sup> Table 12.1 shows examples of national initiatives aimed at strengthening the existing frameworks.

12.23 The emergence of national initiatives poses a risk for an increasing fragmentation of national frameworks in the EU, whereby the differences between Member States, especially with those lagging to reinforce their frameworks in line with the FSB Key Attributes, will grow. This might have

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<sup>309</sup> European Commission, EU Bank Recovery and Resolution Directive (BRRD): [Frequently Asked Questions](#), April 2014: “*The crisis also highlighted the lack of arrangements to deal effectively with failing banks that operated in more than one Member State. It was thus agreed that greater EU financial integration and interconnections needed to be matched by a common framework of intervention powers and rules. The alternative would be fragmentation and inefficiency in EU banking and financial services, something which would harm the single market and would impair its advantages for consumers, investors and businesses.*”

<sup>310</sup> ESRB [report](#), “Recovery and resolution for the EU insurance sector: a macroprudential perspective, August 2017.

<sup>311</sup> See EIOPA [Opinion](#) to Institutions of the European Union on The harmonisation of recovery and resolution frameworks for (re)insurers across the Member States, July 2017, Annex I.

<sup>312</sup> According to EIOPA’s Opinion (2017), seven NSAs indicated that there are plans to reinforce national recovery and resolution frameworks.

further implications for the effective resolution of cross-border insurance groups.

**Table 12.1: Examples of national initiatives to reinforce or establish national recovery and resolution frameworks for insurance undertakings**

	<b>France</b>	<b>The Netherlands</b>	<b>Romania</b>
<b>Action</b>	<ul style="list-style-type: none"> <li>• A recovery and resolution framework for insurance undertakings introduced in 2017.</li> <li>• Regime introduced pre-emptive recovery and resolution planning for certain insurers; resolution powers, in particular the power to transfer insurance portfolios and to create a bridge institution.</li> <li>• The NSA will continue to have the power to write down life insurance liabilities prior to a portfolio transfer, if needed to facilitate the transfer.</li> </ul>	<ul style="list-style-type: none"> <li>• A recovery and resolution framework for insurance undertakings applicable from 2019.</li> <li>• Framework introduced pre-emptive recovery and resolution powers.</li> <li>• The power to bail-in shareholders, creditors and policyholders is part of the framework.</li> </ul>	<ul style="list-style-type: none"> <li>• A recovery and resolution framework for insurance undertakings introduced in 2016.</li> <li>• Framework introduced of pre-emptive recovery and resolution planning, early intervention and resolution.</li> <li>• Amendment in insurance guarantee fund to funding of resolution actions.</li> </ul>
<b>Reason for action</b>	<ul style="list-style-type: none"> <li>• To introduce an efficient resolution regime (the former framework was mainly limited to (judicial) winding-up proceedings).</li> <li>• To foster a dynamic at EU level.</li> <li>• To comply with international standards, in particular with the commitment of the G20 to adopt a resolution regime for all financial institutions that could be systemically significant if they fail.</li> <li>• However, this was only a trigger to take action,</li> </ul>	<ul style="list-style-type: none"> <li>• To avoid the bail-out of insurance undertakings, like during the financial crisis</li> <li>• To ensure an orderly wind-up of a failing insurer with limited impact on society, financial markets and the economy.</li> </ul>	<ul style="list-style-type: none"> <li>• Primarily a response to adverse developments in the Romanian insurance market in 2014.</li> <li>• To enhance consumer protection, strengthen market conduct and address further adverse evolutions.</li> </ul>

	as the intended scope goes beyond insurance undertakings that are or could be systemic at the point of failure.		
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*Source: Information is gathered from the respective NSAs.*

## 12.3 Analysis

### 12.3.1 Introduction

12.24 The objective of this section is twofold:

- To assess whether the Solvency II rules on the recovery of (re)insurance undertakings in stressed situations should be supplemented with additional harmonised rules on pre-emptive planning and early intervention; and
- To consider whether there is a need for minimum harmonised rules regarding the resolution of (re)insurance undertakings. Finally, EIOPA analyses what appropriate triggers for entry into resolution could be.

12.25 Prior to the assessment, it is necessary to touch upon the concepts of recovery and resolution. This is explained in Box 12.1.

#### **Box 12.1: The concepts of recovery and resolution**

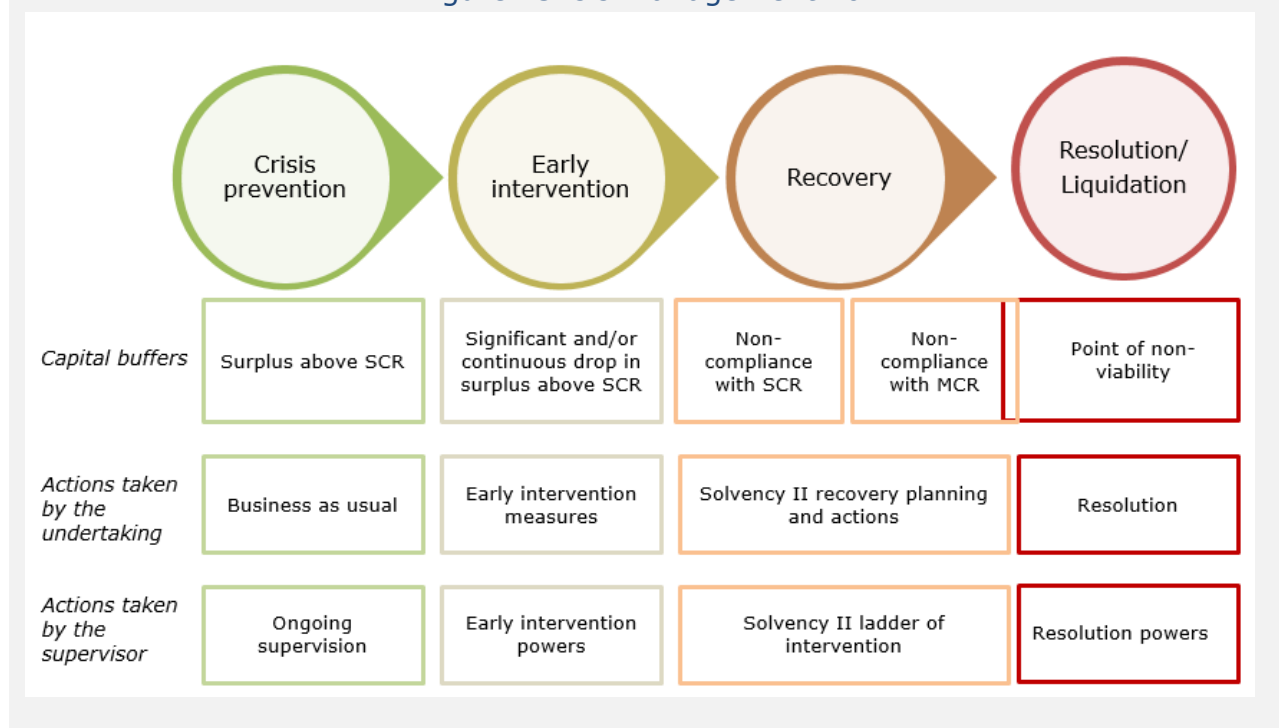
Recovery and resolution refer to different stages of a crisis management process and should be seen as part of a continuum of supervisory or resolution activities (see figure below). In simple terms, recovery relates to the situations where undertakings are in “going concern”, whereas resolution refers to situations where they have moved into “gone concern”, i.e. an undertaking is no longer viable or likely to be no longer viable.

Recovery could therefore be seen as the stage where the undertaking is still in charge of the operations, whereas in resolution a national (supervisory or resolution) authority will have likely (implicitly or explicitly) taken over the control from the undertaking.

The FSB uses the term “non-viability” to identify the transition from going concern to gone concern (i.e. from recovery to resolution). The FSB Key Attributes state that resolution should be initiated when an undertaking is no longer viable or likely to be no longer viable, and has no reasonable prospect of becoming so. This means that all possible recovery measures must have been exhausted and failed or ruled out.



Figure: Crisis management flow



### 12.3.2 Policy options

12.26 EIOPA has duly analysed the costs and benefits of the options considered from a qualitative perspective. The list of options is included in the table below. EIOPA's preferred option is depicted in bold.

12.27 Proportionality is a key principle that should be applied adequately throughout these options. Where applicable, the application of the proportionality principle is described in the relevant sections below.

**Table 12.2: Overview of policy options**

Policy issue	Options
<b>Harmonisation of recovery and resolution</b>	
1. Harmonised rules for recovery and resolution of (re)insurance undertakings	1.1 No change <b>1.2 Minimum harmonised rules for recovery and resolution</b> 1.3 Maximum harmonised rules for recovery and resolution
<b>Recovery measures</b>	

2. Introduction of pre-emptive recovery planning	<p>2.1 No change</p> <p>2.2 Require pre-emptive recovery planning from all undertakings subject to Solvency II</p> <p><b>2.3 Require pre-emptive recovery from undertakings covering a very significant share of the national market<sup>313</sup></b></p>
3. Introduction of early intervention powers	<p>3.1 No change</p> <p><b>3.2 Introduce early intervention powers</b></p>
<b>Resolution measures</b>	
4. Introduction of resolution planning, including resolvability assessment	<p>4.1 No change</p> <p>4.2 Require resolution planning from all undertakings subject to Solvency II</p> <p><b>4.3 Require resolution planning for undertakings covering a significant share of the national market<sup>314</sup></b></p>
5. Introduction of resolution powers	<p>5.1 No change</p> <p><b>5.2 Grant resolution authorities with a set of harmonised resolution powers</b></p>
6. Establishment of cross-border cooperation and coordination arrangements for crises	<p>6.1 No change</p> <p><b>6.2 Establish cross-border cooperation and coordination arrangements for crises</b></p>
<b>Trigger framework</b>	
7. Definition of early intervention triggers	<p>7.1 No change</p> <p>7.2 Rules-based early intervention triggers</p> <p><b>7.3 Judgment-based early intervention triggers</b></p>
8. Definition of triggers for entry into resolution	<p>8.1 No change</p> <p>8.2 Rules-based triggers for entry into resolution</p> <p><b>8.3 Judgment-based triggers for entry into resolution</b></p>

<sup>313</sup> In the calculation of the market coverage level, the subsidiaries belonging to a group domiciled in the EU could be taken into account if the subsidiaries are covered in the group pre-emptive recovery plan.

<sup>314</sup> In the calculation of the market coverage level, the subsidiaries belonging to a group domiciled in the EU could be taken into account if the subsidiaries are covered in the group resolution plan.

### **12.3.3 Harmonised rules for recovery and resolution**

#### *Assessment of need for harmonised rules for resolution*

- 12.28 The introduction of Solvency II has significantly improved the supervision of (re)insurance undertakings with its risk-based and forward-looking approach. It can reasonably be expected that the risk of failures has diminished, but has not been fully eliminated. Therefore, it is important that national authorities have an adequate framework in place to resolve failing undertakings in an orderly manner.
- 12.29 Currently, the lack of a European framework for the recovery and resolution of (re)insurance undertakings has resulted in a fragmented landscape of national frameworks across the Member States. The banking experience has proven that this fragmentation could result in impediments to the orderly resolution of failing institutions.
- 12.30 Furthermore, the EIOPA Opinion (2017) showed that a majority of the Member States do not have an effective recovery and resolution framework in place, as defined by the FSB in the Key Attributes.<sup>315</sup> According to the statistics in the EIOPA Opinion, twelve NSAs have identified gaps and shortcomings in their existing frameworks to deal with failing undertakings.
- 12.31 Moreover, the past financial crisis has also highlighted the importance of cross-border cooperation and coordination in times of crisis.<sup>316</sup> Cross-border cooperation and coordination is essential when dealing cross-border failures. In order to avoid impediments to the resolution of cross-border groups, national authorities in the affected Member States should work together.
- 12.32 A fragmented recovery and resolution landscape and different approaches, objectives and tools do not foster the required cross-border cooperation and coordination, which results in inefficient and competing resolution approaches by national authorities. This would ultimately affect the functioning of the single market in the EU and lead to suboptimal results for all affected stakeholders and policyholders.
- 12.33 A common set of resolution powers with consistent design, implementation and enforcement features would foster cross-border cooperation and coordination during crises and help to avoid any unnecessary economic costs stemming from uncoordinated decision-making processes between different jurisdictions.
- 12.34 The continued increase of cross-border activity in insurance emphasises the importance of cooperation and coordination between Member States. In the EEA, EUR 66.5 billion gross written premiums (GWP) are reported via

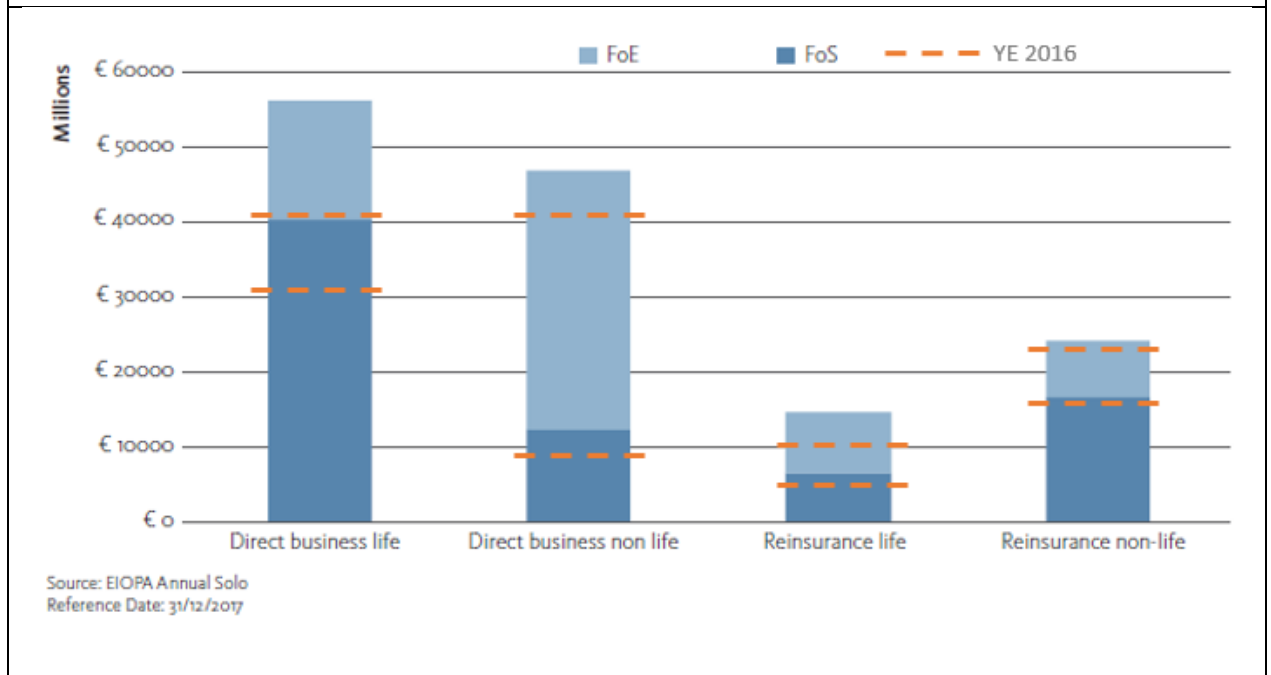
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<sup>315</sup> See EIOPA [Opinion](#) to Institutions of the European Union on The harmonisation of recovery and resolution frameworks for (re)insurers across the Member States, July 2017, Annex I, Section 6. Gaps and shortcomings.

<sup>316</sup> Please refer to European Commission, EU Bank Recovery and Resolution Directive (BRRD): Frequently Asked Questions, April 2014. (See link: [http://europa.eu/rapid/press-release\\_MEMO-14-297\\_en.htm?locale=en](http://europa.eu/rapid/press-release_MEMO-14-297_en.htm?locale=en)).

Freedom of Services (FoS) and EUR 75.5 billion via Freedom of Entity (FoE) (see figure 12.1). This accounts together for approximately 10% of all GWP in the EEA at the end of 2017, which is an increase of 25% compared to 2016 when the cross-border business accounted for 8% of GWP in the EEA.

**Figure 12.1: Cross-border insurance business at year-end 2017**



### Analysis of options

12.35 The following options are considered:

1. No change
2. Minimum harmonised rules for recovery and resolution of (re)insurance undertakings.
3. Maximum harmonised rules for recovery and resolution of (re)insurance undertakings.

*Option 1: No change*

12.36 This option means that the existing situation of fragmentation is maintained.

*Option 2: Minimum harmonised rules for recovery and resolution of (re)insurance undertakings*

12.37 This option introduces a minimum degree of harmonisation in the field of recovery and resolution of (re)insurance undertakings. Minimum degree of harmonisation means that Member States remain to have sufficient flexibility to adopt additional measures at the national level, subject to these measures being compatible with the minimum principles and objectives set at the EU level.

*Option 3: Maximum harmonised rules for recovery and resolution of (re)insurance undertakings*

12.38 This option introduces a maximum degree of harmonisation in the field of resolution of (re)insurance undertakings. Maximum harmonisation aims achieving the greatest level of convergence between the Member States of the EU.

*Comparison of options*

12.39 EIOPA's preferred option is to establish minimum harmonised rules at the EU level for recovery and resolution of (re)insurance undertakings. Please see box 12.2 for the application of recovery and resolution rules to reinsurance.

12.40 Solvency II has significantly improved the supervision, but the risk of failures still exists. It is therefore essential that Member States have effective recovery and resolution measures in place to mitigate the risk and, ultimately, deal with failing undertakings. The past financial crisis has proven the importance of having adequate measures in place for the prevention and orderly resolution of failing institutions. Currently, there is no harmonised framework for the recovery and resolution of (re)insurance undertakings in the EU.

12.41 This has resulted in a fragmented landscape in the EU, whereby a few Member States have adopted a recovery and resolution regime at the national level. However, a far majority of the Member States do not have an effective framework in place, which contains the core elements as identified by the FSB in the Key Attributes.

12.42 An EU initiative aimed at introducing effective recovery and resolution measures at the EU level would ensure that all Member States have an effective framework in place and avoid the undesirable situation of fragmented practices across the EU.

12.43 A fragmented landscape complicates cross-border cooperation and coordination, which is essential to avoid impediments to an orderly resolution process and suboptimal outcomes at the EU level. Moreover, the current dispatch of national approaches is not in line with the principles of the single market and distorts the level playing field in the EU.

12.44 Minimum harmonisation entails the definition of a common approach to the fundamental elements of resolution (i.e. recovery planning, early intervention powers, resolution planning, resolution authority, resolution objectives, resolution triggers, resolution powers, resolution funding and cross-border cooperation and coordination).

12.45 However, it also leaves room for Member States to adopt additional measures at the national level, subject to those measures being compatible

with the principles and objectives set at the EU level. These additional measures at the national level might be required in order to better address the specificities of the national markets. A minimum degree of harmonisation is therefore preferred over a maximum degree of harmonisation, which also requires further harmonisation of supervisory convergence.

12.46 Furthermore, EIOPA advises to carefully assess the application of a recovery and resolution framework to insurers which are part of a financial conglomerate. A consistent approach should be followed taking into account the already existing recovery and resolution framework for banks and the potential harmonised framework for insurers.

### Advice

12.47 EIOPA is of the view that minimum harmonised recovery and resolution framework for (re)insurance undertakings should be established. Harmonised recovery and resolution rules contribute to adequately protecting policyholders as well as maintaining financial stability in the EU.

12.48 Minimum harmonisation entails the definition of a common approach to the fundamental elements of recovery and resolution, while leaving room for Member States to adopt additional measures at the national level, subject to these measures being compatible with the principles and objectives set at the EU level.

## **Box 12.2: Recovery and resolution in reinsurance**

### I) Introduction

EIOPA is of the view that the recovery and resolution measures proposed in this Advice should apply to both insurance and reinsurance undertakings.

It should however be acknowledged that reinsurance is mainly a business to business activity, where reinsurance undertakings deal mostly with professional corporate counterparties, such as primary insurance undertakings, reinsurance brokers or multinational corporations and their own insurance undertakings, i.e. captive insurance undertakings.

At the same time, some reinsurance undertakings are large and global companies and the risks they reinsure may concentrate on their balance sheets. Therefore, the risks and implications of a reinsurance failure are different than the failure of a primary insurance undertaking. The characteristics of the reinsurance market should be taken into account in the application of the proposed recovery and resolution measures.

### II) Need for harmonisation of recovery and resolution

A failure of a reinsurance undertaking is more likely to have an impact on the financial system and potentially financial consumers.

According to the ESRB (2015), reinsurance undertakings pose systemic risk through the following three sources:

- a higher risk of contagion between insurance and reinsurance and within the reinsurance market;
- the high concentration in the reinsurance market, raising concerns about the substitutability of these activities;
- the creation of additional links between (re)insurance undertakings and financial markets stemming from the transfer of risks to capital markets.

Given the potential impact on financial stability, the failures of reinsurance undertakings should be dealt with in an orderly manner.

The identified sources of systemic risk make clear that the failure of reinsurance undertakings could directly or indirectly have an impact on insurance undertakings.

A higher interconnectedness between insurance and reinsurance undertakings and in the reinsurance market leads to a higher risk of spill-overs in case of a failure of a reinsurance undertaking. Moreover, reinsurance undertakings frequently reinsure their risks with other reinsurance undertakings (i.e. retrocession) and, hence, the failure of a reinsurance undertaking may in a similar fashion have a direct impact on other reinsurance undertakings.

The failure of a reinsurance undertaking may impact the insurance sector also in a more indirect way. For example, when the failure of a (large) reinsurance undertaking leads to a loss of confidence in the (re)insurance sector or results in insurance undertakings or other financial institutions having to take a loss on their investments in reinsurance undertakings.

Furthermore, it could be argued that the failure of a reinsurance undertaking might also impact policyholders. Over the recent years, the lines between primary insurance and reinsurance have blurred with primary insurance undertakings also writing reinsurance business. Moreover, reinsurance undertakings have considerable holdings in related undertakings at solo level, primarily due to the specific group structure of reinsurance groups.

### III) Specificities in application of measures to reinsurance undertakings

In the application of the recovery and resolution measures, it should be taken into account that reinsurance is a different business compared to insurance. For instance:

- In the pre-emptive recovery and resolution planning for reinsurance undertakings, more focus should be given to the potential impact of failures on other (re)insurance undertakings and financial stability as a whole.

- In the resolution planning, resolution authorities should evaluate the impact of the resolution actions on cedents, third parties and financial stability in general. For instance, it should be assessed whether identified resolution strategies would result in indirect losses for policyholders, contagion effect to other insurance and reinsurance undertakings, or a material adverse impact on economic activity. The latter could be caused by a disruption to the continuity of reinsurance cover and payments, a forced sale of distressed assets and/or by a lack of cedents' confidence.
- In the resolvability assessment, resolution authorities should also assess the concentration risk and to what extent the diversification in reinsurance is affected. The findings of which should be taken into account when designing the resolution strategy.
- In the exercise of the resolution powers, the nature of the business as well as the liabilities need to be taken into account, particularly with respect to the power "restructure, write down or limit (re)insurance liabilities". In reinsurance, a write down of reinsurance liabilities is more feasible than a restructuring of reinsurance liabilities.

## 12.3.4 Recovery measures

### 12.3.4.1 Pre-emptive recovery planning

#### *Assessment of need for pre-emptive recovery planning in Solvency II*

12.49 In a pre-emptive recovery plan, an undertaking describes the possible measures it would adopt to restore its financial position following a significant deterioration caused by potential scenarios of stress. Pre-emptive plans are drafted by undertakings during normal course of business and aim to increase awareness of and preparedness for adverse situations.

12.50 The pre-emptive nature of these plans is an important difference with the recovery plan required by Solvency II in case of a breach of the SCR. Pre-emptive recovery plans could therefore be regarded as an element of the risk management process of an undertaking, which already includes the ORSA<sup>317</sup> and contingency planning<sup>318</sup>. Pre-emptive plans also differ from the ORSA. Box 12.3 provides an overview of the main differences between ORSA and pre-emptive recovery plans.

<sup>317</sup> Article 45 of the Solvency II Directive (2009/138/EC).

<sup>318</sup> Article 41(4) of the Solvency II Directive (2009/138/EC).



### **Box 12.3: Difference between pre-emptive recovery plans and Solvency II recovery plans and ORSA**

#### Pre-emptive recovery plans and Solvency II recovery plans compared

A pre-emptive recovery plan is not the same as the recovery plan envisaged in Solvency II (Article 138 of the Solvency II Directive (2009/138/EC)).

According to Solvency II, undertakings are required to develop a recovery plan within two months after non-compliance with the SCR. These recovery plans are submitted to the NSA for approval and set out the measures the undertaking will take to achieve the re-establishment of the compliance with the SCR within six months.

In contrast, a pre-emptive recovery plan is drafted during normal times of business, i.e. before a non-compliance with the SCR. The pre-emptive recovery plan sets out the potential measures the undertaking could take in an adverse situation. Pre-emptive recovery planning stimulates undertakings to review their operations, risks and recovery options in potential stress scenarios. It therefore allows undertakings to make informed and timely decisions in times of crises.

#### Interaction between pre-emptive recovery plans and ORSA

The ORSA differs from pre-emptive plans in objective and nature. The objective of the ORSA is to prevent an undertaking from breaching its SCR and coming under severe stress, whereas in a pre-emptive recovery plan the undertaking envisages to be under severe stress and identifies the actions needed to restore its financial position.

In the ORSA, undertakings assess the adequacy of their risk management and capital to support current and anticipated business operations as a going concern. Pre-emptive recovery plans are designed for eventual breaches of prudential requirements (contemplating not only capital breaches, but also non-solvency related issues, such as liquidity). The focus is on the identification of possible measures to be adopted in severe stress scenarios to restore the financial position of the undertaking. These stress scenarios are likely to be broader and/or more severe in nature compared to those included in the ORSA.

12.51 Currently, there is no requirement for the development of pre-emptive recovery plans at the EU level. Some Member States, however, have introduced this requirement at the national level. Table 12.3 shows these Member States and indicates the scope of the requirement, which varies significantly across the jurisdictions.

**Table 12.3: Pre-emptive recovery planning requirement in the EU**

<b>Member State</b>	<b>Scope of pre-emptive recovery planning</b>
Denmark	All undertakings subject to Solvency II
France	14 insurance groups with a balance sheet size / total assets value of more than EUR 50 billion
Germany	G-SII and IAIGs
Netherlands	All undertakings subject to Solvency II
Romania	Undertakings with gross technical reserves exceeding 5% of the total gross technical reserves in the market OR undertakings with a market share of at least 5%.
Italy	8 Italian insurance groups with more than 12 billion in total assets
United Kingdom	G-SIIs and 2 other UK insurance groups

12.52 These diverging approaches in the Member States are not in line with the principles of supervisory convergence in the EU and raises concerns about the level playing field in insurance.

12.53 The introduction of pre-emptive recovery plans in Solvency II would mean that all Member States have a requirement for pre-emptive recovery planning.

12.54 Pre-emptive recovery plans are developed at the group level or at the level of an individual insurance entity, which is not part of a group.

12.55 However, EIOPA believes that the development of pre-emptive recovery plans at the group level should not prohibit the possibility for solo supervisors to require the development of such plans at the solo level. Close collaboration with the group supervisor should exist if pre-emptive recovery plans are also requested from individual entities belonging to a group.

12.56 The pre-emptive recovery plans should contain a few elements, including a strategic analysis of the group or undertaking, a set of possible recovery options to be used across a range of stress scenarios and a communication strategy.

- The strategic analysis should include a detailed description of the undertaking's legal structure, business model and core business lines. A detailed description of the risks that could lead to insolvency should be

included. If relevant, a description of the essential functions whose disruption could harm the financial stability and/or relevant economy should also be covered.

- Undertakings should consider severe stress scenarios in pre-emptive plans. Stress scenarios should combine adverse systemic and idiosyncratic conditions and identify the available recovery options and their feasibility in the stressed scenario. In the stress scenarios the potential detriment to policyholders, including potential recovery measures to mitigate this risk, should be assessed. The focus of the assessment should be on the available recovery options and their feasibility in the stressed environment. Such measures could include de-risking and/or actions to increase liquidity and capital.
- The plans should include an assessment of the necessary steps and time needed to implement the recovery measures (such as the raise of capital), including the risks associated with the implementation of the measures. This assessment should also determine whether any preparatory actions might be needed to ensure that the recovery measures can be implemented in an effective and timely manner.
- The communication strategy should set out the communication with internal and external stakeholders.

12.57 Pre-emptive recovery plans should be submitted for review to the NSA. NSAs should check the completeness of the plans and assess whether the recovery options are credible and realistic. Where the supervisor identifies material deficiencies in the plan or impediments in its implementation, the undertaking should re-evaluate its recovery plan and amend accordingly.

12.58 Moreover, pre-emptive recovery plans should be updated on a regular basis (e.g. annually) or when there are material changes which could have an impact on the pre-emptive recovery plans. These may include, but are not limited to, changes in the risk profile, business model or group structure of an undertaking.

#### Analysis of options

12.59 The following options are considered:

1. No change
2. Require pre-emptive recovery planning from all undertakings subject to Solvency II.
3. Require pre-emptive recovery planning from undertakings covering a very significant share of the national market

#### *Option 1: No change*

12.60 This option means that the existing situation of different national practices is maintained. Solvency II would not be supplemented with the requirement for pre-emptive recovery planning.

*Option 2: Require pre-emptive recovery planning from all undertakings subject to Solvency II*

12.61 In this option, the Solvency II framework is supplemented with a requirement for all undertakings within the scope of Solvency II to develop and maintain pre-emptive recovery plans.

*Option 3: Require pre-emptive recovery planning from undertakings covering a very significant share of the national market*

12.62 In this option, the Solvency II framework is supplemented with a requirement for undertakings to develop and maintain pre-emptive recovery plans. The undertakings should cover a very significant market level in each national market.

12.63 The exact definition of the very significant market coverage level needs further work and should be carefully determined.<sup>319</sup>

12.64 EIOPA is of the view that NSAs should decide upon the undertakings subject to the requirement on the basis of a set of harmonised criteria. The criteria include the size, business model, risk profile, cross-border activities, interconnectedness and substitutability of undertakings (see table 12.4).

12.65 Based on these criteria, NSAs could decide to waive undertakings from the requirement, whereby in principle all Solvency II undertakings are within scope and eligible undertakings are waived by NSAs. An alternative approach is that NSAs determine the undertakings by submitting eligible undertakings to the requirement. This is currently the practice in two Member States.

12.66 The eligibility of undertakings in both approaches should be based on the harmonised criteria. NSAs could base their decision on one or more criteria. For instance, the size of undertakings might be a decisive factor for NSAs' decision to waive or make undertakings subject to the requirement. Nonetheless, EIOPA believes that other criteria might be equally relevant and should be taken into consideration by NSAs.

12.67 In the exceptional situation that the pre-defined market coverage level determined at the EU level is not reached in a Member State, the NSA should report to EIOPA the reasons for non-compliance. Non-compliance could be the result of specificities of national market. For instance, the need to require a plan from a disproportionate number of very small undertakings with a simple business model and highly substitutable products could be regarded as a reason for the NSA.

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<sup>319</sup> In the calculation of the market coverage level, the subsidiaries belonging to a group domiciled in the EU could be taken into account if the subsidiaries are covered in the group pre-emptive recovery plan.

**Table 12.4: List of harmonised criteria**

Criteria	Assessment questions
Size	<p>To assess the size, NSAs should consider the following aspects at a minimum:</p> <ul style="list-style-type: none"> <li>• What is the size of the undertaking measured in terms of number of individual policies, total assets, technical provisions (TP) and gross written premiums (GWP)?</li> <li>• What is the size of the undertaking relative to the total national TP or GWP (including TP or GWP attached to FoE and FoS business written from this jurisdiction)?</li> </ul>
	<p><i>Illustrative assessment: if the size of an undertaking is (relatively) large, the undertaking should be within the scope of the requirement.</i></p>
Business model	<p>To assess the business model, NSAs should consider the following aspects at a minimum:</p> <ul style="list-style-type: none"> <li>• Does the undertaking have a stable business model?</li> <li>• Does the undertaking have a sustainable business model, i.e. is the business model “future-proof”?</li> <li>• Which segments of markets does the undertaking target?</li> <li>• Which countries does the undertaking target?</li> <li>• Which customers does the undertaking target, i.e. does the undertaking target mainly consumers?</li> <li>• How are investments prioritised?</li> </ul>
	<p><i>Illustrative assessment: if the business model of an undertaking is complex and/or deemed to be unsustainable for future developments, the undertaking should be within the scope of the requirement.</i></p>
Risk profile	<p>To assess the risk profile, NSAs should consider the following aspects at a minimum:</p> <ul style="list-style-type: none"> <li>• What are the risk limits/risk appetite of the undertaking?</li> <li>• What is the complexity of the products offered by the undertaking?</li> <li>• Does the undertaking offer a (wide) range of non-traditional types of insurance products?</li> </ul>

	<ul style="list-style-type: none"> <li>• Is there a high degree of volatility in earnings/capital?</li> <li>• What is the expected impact and potential risks if an undertaking fails?</li> </ul>
	<p><i>Illustrative assessment: if the risk profile of an undertaking is (relatively) high, the undertaking should be within the scope of the requirement.</i></p>
Interconnectedness	<p>To assess the interconnectedness, NSAs should consider the following aspects at a minimum:</p> <ul style="list-style-type: none"> <li>• Is the undertaking part of a financial conglomerate?</li> <li>• Does the undertaking have large exposures to a certain financial institution (undertaking or bank)?</li> <li>• Is the undertaking listed on the stock exchange market?</li> <li>• Does the undertaking have cross-border activities or a dominant market share in a country other than its home country?</li> <li>• Is the undertaking particularly active on financial markets, using derivative instruments and/or lending/borrowing securities (e.g. through repos)?</li> </ul>
Interconnectedness	<p><i>Illustrative assessment: if the undertaking is highly interconnected with the financial markets, the undertaking should be within the scope of the requirement.</i></p>
Cross-border activity	<p>To assess the cross-border activity, NSAs should consider the following aspects at a minimum:</p> <ul style="list-style-type: none"> <li>• Does the undertaking have (material) cross-border activities via FoE or FoS (measured as GWPs)?</li> <li>• Does the undertaking have a dominant market share in a country other than its home country via subsidiaries?</li> <li>• Does the undertaking undertake cross-border activities in multiple countries?</li> <li>• Does the undertaking write businesses or have subsidiaries in countries outside Europe?</li> </ul>
Cross-border activity	<p><i>Illustrative assessment: if the undertaking has (material) cross-border activities, the undertaking should be within the scope of the requirement.</i></p>
Substitutability	<p>To assess the substitutability, NSAs should consider the following aspects at a minimum:</p> <ul style="list-style-type: none"> <li>• Is there any noticeable concentration in the (national) insurance market?</li> </ul>

	<ul style="list-style-type: none"> <li>• Are there any barriers to entry for new providers in the (national) insurance market?</li> <li>• Is the undertaking active in a certain niche market?</li> <li>• Is the undertaking particularly active and important for a specific line of business; or are other players in the market offering similar or alternative products?</li> <li>• Does the undertaking have a relatively high or even a monopolistic market share in one market?</li> <li>• Does the undertaking have a special role in the operation of a relevant marketplace (e.g. the provision of expertise, capital or data, acting as lead undertaking, etc.)?</li> </ul>
	<p><i>Illustrative assessment: if the products offered by the undertaking are less substitutable, the undertaking should be within the scope of the requirement.</i></p>

### Comparison of options

- 12.68 EIOPA's preferred option is option 3, i.e. to further develop Solvency II with pre-emptive recovery planning with a proportionate application.
- 12.69 The inclusion of this requirement in Solvency II removes the supervisory divergence in this area and ensures a level playing field in the EU. Moreover, the requirement for developing and maintaining recovery plans in a pre-emptive manner is included in the FSB Key Attributes and, hence, is considered a core element for effective recovery and resolution.
- 12.70 Pre-emptive recovery planning enhances the awareness of and preparedness for adverse situations of undertakings. This allows them to take informed and timely remedial actions when needed.
- 12.71 The importance of adequate preparation for crises been highlighted by the outcome of the EIOPA stress test of 2018.<sup>320</sup> The stress test results confirmed the significant sensitivity to market shocks for the European insurance sector. Insurance groups are vulnerable to low yields and longevity risk as well as to a sudden and abrupt reversal of risk premia, combined with an instantaneous shock to lapse rates and claims inflation. In the stress test recommendations addressed to NSAs, EIOPA recommended that NSAs should encourage insurance groups to prepare themselves by considering severe stress scenarios and identifying the range of actions, which could be taken if these stress scenarios would occur.

<sup>320</sup> EIOPA [Stress](#) test 2018.

12.72 The proposed requirement for pre-emptive planning should, however, be applied in a proportional manner in order to avoid excessive (administrative) burdens. In practice, this will most likely result in undertakings being excluded from the scope following an assessment of their eligibility.

*Proportionality principle*

12.73 In order to avoid excessive burdens on undertakings and NSAs, it is essential that the proportionality principle be properly applied – both to the scope and to the content of the requirement.

12.74 EIOPA advises to apply the proportionality principle to the scope by allowing NSAs to define the undertakings submitted to the requirement, provided that the market coverage level set at the EU level is met or non-compliance has been reported to EIOPA.

12.75 Furthermore, EIOPA advises to apply the proportionality principle to the content by introducing the option of simplified obligations. This means that eligible undertakings subject to the requirement are allowed to develop simplified plans. The simplified obligations could refer to the required elements or in-depth analysis of the plan and/or the frequency of updating. NSAs should determine the eligible undertakings based on the same harmonised criteria as shown in table 12.4 above.

12.76 Finally, in order to avoid excessive administrative burdens, undertakings should assess to what extent the information in other reports could be used in pre-emptive recovery plans. For instance, the stress tests developed in the context of the ORSAs might be relevant for the pre-emptive recovery plans.

*Advice*

12.77 EIOPA is of the view that Solvency II should be supplemented with a requirement for undertakings to develop and maintain recovery plans in a pre-emptive manner.

12.78 The requirement should capture a very significant share of each national market in the EU. The exact market coverage level requires further work and needs to be carefully determined.

12.79 NSAs should decide on the undertakings subject to the requirement on the basis of harmonised criteria. These include the size, cross-border activity, business model, risk profile, interconnectedness, and substitutability of undertakings.

12.80 Moreover, in accordance with the proportionality principle, EIOPA advises to introduce simplified obligations for eligible undertakings.





## Questions to stakeholders:

**Q12.1:** How should the very significant market coverage across the Member States be determined? What are relevant factors to take into account?

### 12.3.4.2 Early intervention powers

#### *Assessment of need for early intervention powers in Solvency II*

12.81 Chapter VII of the Solvency II Directive (2009/138/EC) lists the rules on what to do when undertakings are in difficulty or in an irregular situation.

- Article 136 requires that undertakings have procedures in place to identify deteriorating financial conditions and immediately notify the NSA when such deterioration occurs.
- Article 138 prescribes the actions to be taken when undertakings are non-compliant with the SCR.<sup>321</sup>
- Article 139 prescribes the actions to be taken when undertakings are non-compliant with the MCR.<sup>322</sup>
- Notwithstanding Articles 138 and 139, Article 141 grants NSAs the power to take all measures necessary to safeguard the interests of policyholders where the solvency position of undertakings continues to deteriorate.
- Article 144 grants NSAs the power to withdraw the authorisation of undertakings in certain circumstances.

12.82 Solvency II is prescriptive on the actions to be taken in case of non-compliance with the SCR and MCR. However, Solvency II remains silent on the actions to be taken when NSAs are informed of a deterioration in the financial conditions of undertakings in accordance with Article 136. This could be described as the situation where undertakings are still compliant with the capital requirements, but observe a progressive and serious deterioration in their condition. Interventions by NSAs at this stage are defined as “early interventions” (see also Section 12.3.5.1 Triggers for early intervention).

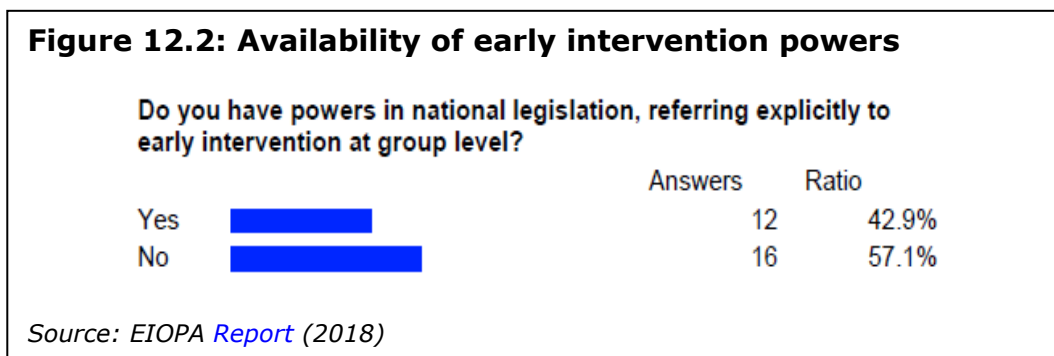
12.83 Figure 12.2 shows that 43% of the NSAs reported to have powers within the local legislation to make early interventions. Furthermore, the EIOPA

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<sup>321</sup> Non-compliance with the SCR is described as the situation where undertakings “observe that the SCR is no longer complied with, or where there is a risk of non-compliance in the following three months.”

<sup>322</sup> Non-compliance with the SCR is described as the situation where undertakings “observe that the MCR is no longer complied with, or where there is a risk of non-compliance in the following three months.”

Opinion (2017) showed that the list of early intervention powers available to NSAs ranges from powers aimed at restoring capital adequacy, powers affecting the management and governance, powers affecting the business and organisation and powers affecting the shareholders.<sup>323</sup>



12.84 Moreover, the Opinion (2017) stated that ten NSAs have identified gaps and shortcomings in the existing frameworks with respect to early intervention powers. Two of these NSAs explained that the powers they have currently at their disposal are not explicitly provided for in the regulation, while another NSA mentioned that the conditions for exercising the powers could be widened.

12.85 These diverging approaches of NSAs is not in line with the principles of supervisory convergence in the EU and raises concerns about the level playing field in insurance.

#### Analysis of options

12.86 The following options are considered:

1. No change
2. Introduce early intervention powers.

#### *Option 1: No change*

12.87 This option means that the existing situation of different national practices is maintained. Solvency II would not be supplemented with early intervention powers.

#### *Option 2: Introduce early intervention powers*

12.88 In this option, the Solvency II rules on recovery are further developed with the introduction of early intervention powers.

12.89 Early intervention can be seen as the ability of NSAs to change undertaking's behaviour through moral suasion or through supervisory

<sup>323</sup> See EIOPA [Opinion](#) to Institutions of the European Union on The harmonisation of recovery and resolution frameworks for (re)insurers across the Member States, July 2017, Annex I, charts 3-6.

actions, while the undertaking still meets the SCR (see also Section 12.3.5.1 Triggers for early intervention).

12.90 The early intervention measures are linked to an intensified supervision. It should not result in a new capital requirement. The following set of early intervention powers for NSAs is proposed to be introduced in Solvency II:

- a) Require additional or more frequent reporting;
- b) Require the administrative, management, or supervisory body of the undertaking to implement within a specific timeframe one or more measures set out in the pre-emptive recovery plan, or to update such a pre-emptive recovery plan when the circumstances which led to the early intervention are different from the assumptions set out in the initial pre-emptive recovery plan, and to implement within a specific timeframe one or more of the measures set out in the updated plan;
- c) Where the undertaking has no pre-emptive recovery plan in place, require the management or supervisory body of the undertaking to examine the situation, identify measures to overcome any problems identified, and implement within a specific timeframe one or more of those measures;
- d) Require the undertaking to limit variable remuneration and bonuses;
- e) In case of life undertakings, suspend or limit the right of policyholders to surrender their contracts on a temporary basis.

12.91 Examples of measures that undertakings could be expected to take under (b) and (c) are:

- Actions to raise own funds by using net profits to strengthen the solvency position;
- Reinforcement of governance arrangements, internal controls and risk management systems;
- Limit or restrict certain business lines and operations (e.g. to avoid certain risks, such as concentration, operational or liquidity risks);
- Limit intra-group asset transfers and transactions and limit asset transfers and transactions outside the group.

12.92 The power under (e) temporarily freezes the rights of policyholders to surrender. It should therefore only be applied after a careful consideration by NSAs and in exceptional circumstances. The exercise of the power should be justified from the perspective of financial stability and/or policyholder protection. This power therefore links the micro- and macroprudential concerns, as described in chapter 11.

12.93 Furthermore, The policyholders should be informed of the existence of this power and the possibility that this power might be exercised in exceptional circumstances. This could be done, for instance, by including a clause in the insurance contracts explaining the risks for the policyholders.

### Comparison of options

- 12.94 EIOPA's preferred option is to further develop Solvency II with the introduction of early intervention powers.
- 12.95 The main advantage of this option is that it removes the divergence in supervisory practices with respect to early intervention. As stated in Solvency II "*it is necessary to promote supervisory convergence not only in respect of supervisory tools but also in respect of supervisory practices*" (Recital 40 of the Solvency II Directive).
- 12.96 Furthermore, it reduces level playing field issues in this field and contributes to enhanced policyholder protection as early intervention aims to avoid the escalation of problems.

### Proportionality principle

- 12.97 Early interventions by NSAs should be appropriate and proportionate to the nature of the circumstances and be based on a forward-looking and risk-based approach. This means that NSAs should adapt the intervention to the actual risk and take into account the nature of the undertakings and the circumstances that led to the deterioration in the solvency position, especially in the presence of market-distorting factors. NSAs should consider the possibility of the markets normalising again and the impact that may have on the solvency position of the undertakings.

### Advice

12.98 EIOPA is of the view that the Solvency II rules on the recovery of (re)insurance undertakings should be further developed with the introduction of a set of early intervention powers for NSAs. The use of the powers should be based on reasonable justification.

12.99 The following set of powers should be introduced in Solvency II:

- Require additional or more frequent reporting;
- Require the administrative, management, or supervisory body of the undertaking to implement within a specific timeframe one or more measures set out in the pre-emptive recovery plan, or to update such a pre-emptive recovery plan when the circumstances which led to the early intervention are different from the assumptions set out in the initial pre-emptive recovery plan, and to implement within a specific timeframe one or more of the measures set out in the updated plan;
- Where the undertaking has no pre-emptive recovery plan in place, require the management or supervisory body of the undertaking to examine the undertaking's situation, identify measures to overcome any problems

identified, and implement within a specific timeframe one or more of those measures;

- Require the undertaking to limit variable remuneration and bonuses;
- In case of life undertakings, suspend or limit the right of policyholders to surrender their contracts on a temporary basis.

12.100 EIOPA is of view that the exercise of the power of suspending or limiting the right of policyholders to surrender their contracts on a temporary basis should be justified from the perspective of financial stability (i.e. the macroprudential approach) and/or policyholder protection (i.e. microprudential approach). Policyholders should be informed of the existence of this power and the possibility that this power might be exercised in exceptional circumstances.

## **12.3.5 Resolution measures**

### **12.3.5.1 Resolution authority**

12.101 For an orderly resolution process, it is essential to have an officially designated administrative resolution authority for (re)insurance undertakings. The authority should have in place statutory responsibilities, transparent processes, sound governance and adequate resources.

12.102 According to EIOPA, Member States should be given the flexibility to decide which authority to designate as the resolution authority for insurance undertakings. This could - for instance - be the NSA or the national central bank that operates as the NSA for insurance or a specially appointed resolution authority.

12.103 Notwithstanding the choice of Member States, the operational independence of the designated resolution authorities should be ensured. This is particularly relevant when resolution authorities are established within the NSAs. In these cases, appropriate checks and balances should be put in place in order to avoid supervisory forbearance, i.e. the risk that NSAs may procrastinate the decision to put an undertaking into resolution as this could be regarded by external observers as a sign of improper supervision.

#### *Advice*

12.104 EIOPA is of the view that Member States should have in place an officially designated administrative resolution authority for the resolution of (re)insurance undertakings.

### 12.3.5.2 Resolution objectives

12.105 The objectives for resolution should be clearly set out and consistent with the objectives for regulation.<sup>324</sup>

12.106 EIOPA is of the view that resolution authorities should consider the following objectives:

- To protect policyholders, beneficiaries and claimants;
- To maintain financial stability, in particular, by preventing contagion and by maintaining market discipline;
- To ensure the continuity of functions whose disruption could harm the financial stability and/or real economy;
- To protect public funds.

12.107 EIOPA is of the view that resolution authorities should have the flexibility to balance these objectives as appropriate to the nature and circumstances of each situation. An ex-ante ranking of the objectives is therefore not recommended. Nonetheless, EIOPA expects that, in practice, the protection of policyholders will likely take precedence in most resolution cases. There could, however, be instances where other objectives, such as maintaining the financial stability, are of higher importance.

12.108 Furthermore, when pursuing these objectives, resolution authorities should try to minimise the cost of resolution and avoid destruction of value unless necessary to achieve the resolution objectives.

#### Advice

12.109 EIOPA advises to clearly set out in the legal framework the objectives for resolution without an ex-ante predefined ranking:

- To protect policyholders, beneficiaries and claimants;
- To maintain financial stability, in particular, by preventing contagion and by maintaining market discipline;
- To ensure the continuity of functions of undertakings whose disruption could harm the financial stability and/or real economy;
- To protect public funds.

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<sup>324</sup> "The main objective [of Solvency II] is the adequate protection of policyholders and beneficiaries. Financial stability and fair and stable markets are other objectives of insurance and reinsurance regulation and supervision which should also be taken into account but should not undermine the main objective" (Recital 21 of the Solvency II Directive (2009/138/EC)). This is further substantiated by Article 27 and Article 28 of the Directive.

### 12.3.5.3 Resolution planning

#### Assessment of need for resolution planning, including resolvability assessments

12.110 Pre-emptive resolution planning consists of two elements: the development of resolution plans and resolvability assessments.

12.111 The purpose of resolution plans is to reduce the impact of potential failures on by preparing for such scenarios. National resolution authorities draft these plans in a pre-emptive manner. This allows national authorities to make informed and swift decisions when needed without exposing taxpayers to loss and without severe systemic disruption.

12.112 Resolvability assessments are part of the resolution planning process and aim to identify any impediments to the resolvability of undertakings.

12.113 Currently, there is no requirement for resolution planning at the EU level. Some Member States, however, have introduced this requirement at the national level. Table 12.5 shows these Member States and indicates the scope of the requirement, which varies significantly across the jurisdictions.

**Table 12.5: Resolution planning requirement in the EU**

Member State	Scope of resolution planning
France	14 insurance groups with a balance sheet size / total assets value of more than EUR 50 billion
Germany	G-SIIs
Netherlands	Undertakings that are likely to meet the public interest test upon failure (indicative thresholds: undertakings with over 1 million policyholders or over EUR 1 billion technical provisions).
Romania	Undertakings with gross technical reserves exceeding 5% of the total gross technical reserves in the market OR undertakings with a market share of at least 5%.
United Kingdom	G-SIIs

12.114 These diverging approaches in the Member States is not in line with the single market principle.

12.115 The introduction of harmonised rules for resolution planning at the EU level would mean that the requirement applies in all Member States. Resolution plans should be developed for insurance groups and individual insurance entities that are not part of a group. The development of group resolution plans, however, should not prohibit the possibility to develop resolution plans

for solo-entities belonging to a group. Close cooperation with the resolution authority responsible for the group resolution plan is essential in these cases.

12.116 EIOPA believes that pre-emptive resolution plans should contain a few elements, including:

- Various stress scenarios, including idiosyncratic or market-wide (systemic) scenarios. Examples of market-wide scenarios are persistent low interest rates or a major catastrophic event.
- Resolution strategy: the resolution authority should list the potential resolution actions for each of the scenarios, paying special attention to the risk of losses for policyholders.
- An assessment of the potential need for resolution funding, the sources of funding, the operational and practical arrangements for ensuring continuity of coverage and payment under insurance policies.
- An assessment of the critical shared services, group structure and intra-group transactions;
- A communication plan covering the communication strategy of resolution authorities with the undertaking, supervisory authorities, other resolution authorities, IGSs, and other relevant stakeholders.

12.117 EIOPA believes that resolvability assessments should contain an evaluation of the feasibility and credibility of the resolution strategies identified in the resolution plans. Resolvability assessments should also provide insights into the potential impediments to the resolvability of undertakings. These could, for instance, be structural (interconnectedness in the group structure), financial (intra-group liabilities or guarantees) or operational (IT, human resources).

- In the feasibility assessment, resolution authorities should assess aspects such as the sources of support, the continuity of different service agreements, the availability of a transferee or purchaser for the undertaking's portfolio, the capacity of an IGS or resolution fund to finance a potential transfer and the availability of human resources to run the resolution process.
- In the credibility assessment, resolution authorities should evaluate the impact of the resolution actions on policyholders, third parties and financial stability in general. Resolution authorities should assess whether identified resolution strategies would result in losses for policyholders or a material adverse impact on economic activity. The latter could be caused by a disruption to the continuity of insurance cover and payments, a forced sale of distressed assets and/or by a lack of policyholder confidence.

12.118 An important element of resolvability assessments is the power to require the removal of material impediments to the resolvability. This is a power to resolution authorities. The decision to impose any such requirement should take account of the effect on the soundness and stability of an undertaking's



ongoing business. The exercise of the power should be surrounded with safeguards and a mechanism by which an undertaking can challenge the decision of the resolution authority and seek impartial review of the proposed use of this power.

### *Analysis of options*

12.119 The following options are considered:

1. No change
2. Require resolution planning, including resolvability assessments, for all undertakings subject to Solvency II
3. Require resolution planning, including resolvability assessments, for undertakings covering a significant share of the national market

#### *Option 1: No change*

12.120 This option means that the existing situation of different national practices is maintained. At the EU level, no harmonised rules for the requirement of resolution planning will be introduced.

#### *Option 2: Require resolution planning (including resolvability assessments) for all undertakings subject to Solvency II*

12.121 This option introduces a requirement for resolution authorities to develop and maintain resolution plans and conduct resolvability assessments in a pre-emptive manner for all undertakings subject to Solvency II.

#### *Option 3: Require resolution planning (including resolvability assessments) for undertakings covering a significant share of the national market*

12.122 In this option, resolution authorities are required to develop and maintain resolution plans and conduct resolvability assessments in a pre-emptive manner for undertakings. The undertakings should cover a significant market level in each national market.

12.123 The exact definition of the significant market coverage level needs further work and should be carefully determined.<sup>325</sup>

12.124 Similar to the approach for pre-emptive recovery planning, EIOPA is of the view that resolution authorities should decide upon the undertakings on the basis of a set of harmonised criteria. The criteria include the size, business model, risk profile, cross-border activities, interconnectedness and substitutability of undertakings (table 4 above in section 3.4.1 Pre-emptive recovery planning).

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<sup>325</sup> In the calculation of the market coverage level, the subsidiaries belonging to a group domiciled in the EU could be taken into account if the subsidiaries are covered in the group pre-emptive recovery plan.

- 12.125 Nonetheless, some additional considerations might be relevant in the case of resolution planning. For instance, the need for resolution planning is less evident or non-existing if the resolution authorities assess the prospect of resolution to be remote or where normal insolvency proceedings would be the preferred strategy. Therefore, EIOPA believes that the scope for resolution planning would be smaller than the scope for pre-emptive recovery planning.
- 12.126 In the exceptional situation that the predefined market coverage level is not reached in a Member State, the resolution authority should report to EIOPA the reasons for non-compliance. Non-compliance could be the result of specificities of national market.

#### Comparison of options

- 12.127 EIOPA's preferred option is option 3, i.e. to require resolution authorities to develop and maintain resolution plans in a pre-emptive manner for undertakings. This includes the assessment of the resolvability of undertakings.
- 12.128 The introduction of this requirement at the EU level removes the divergent approaches in the EU and contributes to the single market. Pre-emptive resolution planning enhances the awareness of and preparedness for adverse situations of resolution authorities. This allows them to take informed and timely actions when needed.
- 12.129 The requirement should, however, be applied in a proportional manner in order to avoid excessive (administrative) burdens. Option 2 is therefore not preferred, as this would require resolution authorities to draft resolution plans for all undertakings subject to Solvency II. EIOPA is of the view that resolution authorities should be able to define the undertakings within the scope, provided that the minimum market coverage level is met.

#### Proportionality principle

- 12.130 In order to avoid excessive burdens on resolution authorities and undertakings, it is essential that the proportionality principle be properly applied to the requirement – both to the scope and to the content of the requirement.
- 12.131 EIOPA advises to apply the proportionality principle to the scope by allowing resolution authorities to define the undertakings submitted to the requirement, provided that the market coverage level set at the EU level is met or non-compliance has been reported to EIOPA. In fact, EIOPA believes that the outcome of this assessment will be that the scope for resolution planning is smaller than the scope for pre-emptive recovery planning.

12.132 Furthermore, EIOPA believes that the option to use simplified obligations with respect to the content of the plans and/or frequency of updating should be introduced. The decision to allow the use of simplified obligations should be based on the criteria listed in table 12.4 in Section 12.3.4.1 Pre-emptive recovery planning.

### Advice

12.133 EIOPA is of the view that resolution authorities should be required to develop and maintain resolution plans and conduct resolvability assessments in a pre-emptive manner for undertakings.

12.134 The requirement should capture a significant share of each national market in the EU. The exact market coverage level requires further work and needs to be carefully determined. EIOPA believes that the scope for resolution planning would be smaller than that for pre-emptive recovery planning.

12.135 Resolution authorities should decide on the undertakings subject to the requirement on the basis of harmonised criteria. These include the size, cross-border activity, business model, risk profile, interconnectedness, and substitutability of undertakings.

12.136 In accordance with the proportionality principle, EIOPA advises to introduce simplified obligations for eligible undertakings.

12.137 Furthermore, EIOPA is of the view that resolution authorities should be given the power to require the removal of identified material impediments to the resolvability of undertakings where duly justified.



### **Questions to stakeholders:**

**Q12.2:** How should the significant market coverage across the Member States be determined? What are relevant factors to take into account?

### **12.3.5.4 Resolution powers**

#### Assessment of need for introducing harmonised resolution powers

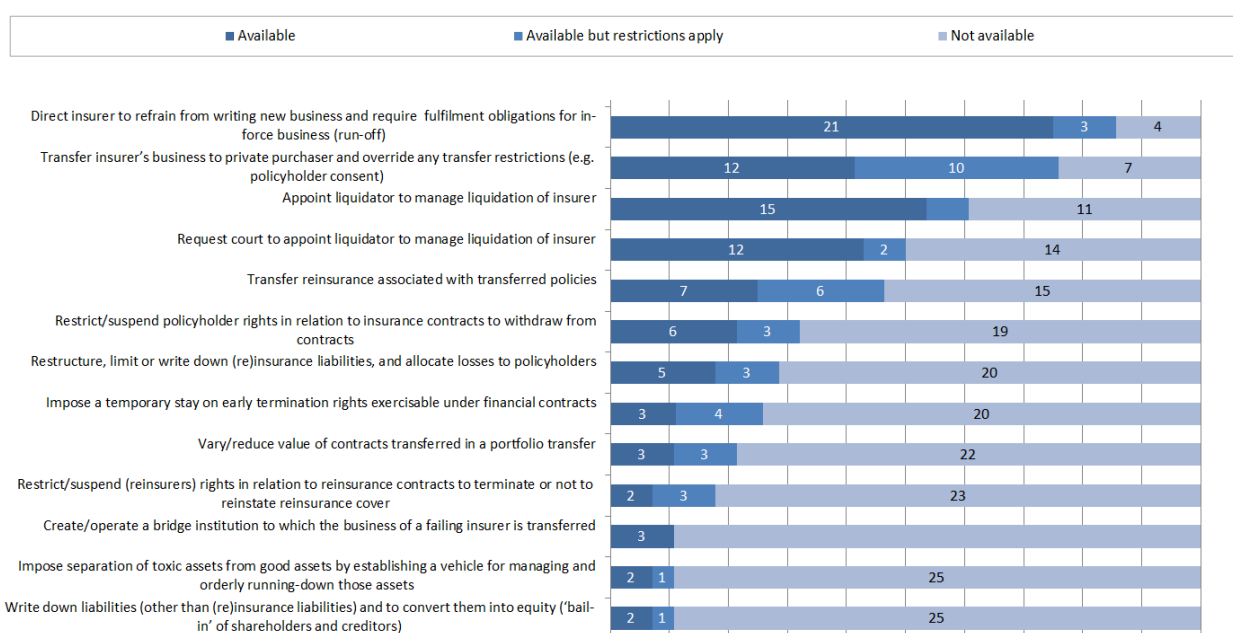
12.138 For an orderly resolution of failing undertakings, it is essential that resolution authorities have a broad set of resolution powers at their disposal.

12.139 Currently, national authorities across the EU are not equipped with similar powers. In some jurisdictions, the set of available powers is even rather limited. Figure 12.3 shows the availability of the resolution powers listed in the FSB Key Attributes across the Member States.

12.140 It can be concluded from the figure that most of the resolution powers are not widely available. For instance, the power to impose a temporary stay on early termination rights in insurance or financial contracts is only available in a limited number of jurisdictions. For those powers that are listed to be available in Member States, a court approval is often needed to use these powers.

12.141 In the EIOPA Opinion (2017), eleven NSAs reported to have identified gaps and shortcomings in the powers available to them to resolve failing undertakings. Commonly, it was mentioned that the set of powers is rather limited.

**Figure 12.3: Availability of resolution powers across the Member States**



Source: EIOPA Opinion (2017)

Analysis of options

12.142 The following options are considered:

1. No change
2. Grant resolution authorities with a set of harmonised resolution powers

*Option 1: No change*

12.143 This option means that the resolution powers available to national resolution authorities across the Member States are not harmonised. Every resolution authority has to rely on the powers granted to them by their national legislation.

*Option 2: Grant resolution authorities with a set of harmonised resolution powers*

12.144 This option provides national resolution authorities across the Member States with a common set of resolution powers with consistent design, implementation and enforcement features.

12.145 At a minimum, the set of common resolution powers should include, subject to adequate safeguards:

- Prohibit the payment and allow the recovery of variable remuneration to administrative, management, or supervisory body, Senior Management, key persons in control functions and major risk-taking staff, including claw-back of variable remuneration;
- Withdraw the license to write new business and put all or part of the insurance business contracts into run-off (i.e. requirement to fulfil existing contractual policy obligations for in-force business);
- Sell or transfer the shares of the undertaking in resolution to a third party;
- Sell or transfer all or part of the assets and liabilities of the undertaking under resolution to a solvent undertaking or a third party (including a bridge institution or management vehicle);
- Create and operate a bridge institution to which the assets and liabilities of the undertaking in resolution is transferred;
- Override any restrictions to the (partial) transfer of the assets and liabilities of the undertaking in resolution under applicable law (e.g. requirements for approval by shareholders, policyholders' consent for transfer of insurance contracts or consent of the reinsurance undertaking for transfer of reinsurance);
- Temporarily restrict or suspend policyholders' rights to surrender their insurance contracts;
- Stay rights of the reinsurance undertakings of the ceding undertaking to terminate or not reinstate coverage on the sole ground of the ceding undertaking's entry into resolution;
- Stay the early termination rights associated with derivatives and securities lending transactions;
- Impose a moratorium with a suspension of payments to unsecured creditors and a stay on creditor actions to attach assets or otherwise collect money or property from the undertaking in resolution;
- Ensure continuity of essential services (e.g. IT) and functions by requiring other entities in the same group to continue to provide essential services to the undertaking in resolution, any successor or an acquiring entity;
- Take control of and manage the undertaking in resolution, or appoint an administrator to do so;

- Restructure, limit or write down liabilities, including (re)insurance liabilities, and allocate losses to shareholders, creditors and policyholders<sup>326</sup>.

12.146 The order of the powers listed above should not be regarded as an indication of the sequence in which these powers could be exercised.

12.147 Furthermore, the exercise of the resolution powers should be subject to adequate safeguards:

- a) Resolution powers should be exercised in a way that respects the hierarchy of claims, while providing the flexibility to depart from the general principle of equal (*pari passu*) treatment of creditors of the same class;
- b) Creditors, including policyholders, should not incur a loss greater than they would have incurred in a winding-up under normal insolvency proceedings (the “no creditor worse off than in liquidation” (NCWOL) principle);

12.148 The NCWOL safeguard ensures that creditors, including policyholders, receive in resolution at a minimum what they would have received in a liquidation of the undertaking under normal insolvency procedures.

12.149 The exercise of certain resolution powers might need to be surrounded with additional safeguards. This is particularly true for the power to restructure, limit or write down insurance liabilities and allocate losses to policyholders (see box 12.4).

12.150 Finally, EIOPA believes that traditional resolution tools, such as portfolio transfer or (solvent and insolvent) run-off, which have proven to be adequate in the past, should be given priority when resolving undertakings. Nevertheless, the appropriateness of the choice and use of resolution powers should be assessed on a case-by-case basis by resolution authorities. The use of the powers should be proportionate to the nature, scale and complexity of the undertaking and the circumstances.

**Box 12.4: Additional safeguards for restructuring, limiting or writing down insurance liabilities and allocate losses to policyholders**

When allocating losses to policyholders, resolution authorities should take into account the following safeguards:

- a) The allocation of losses to policyholders should only take place as a last resort option, i.e. all other feasible measures and options that could have averted (further) losses for policyholders have been exhausted or have been deemed unlikely to be successful;

<sup>326</sup> See FSB [Key Attributes](#) 4.4 for examples of ways to restructure liabilities.

b) The exercise of the power is deemed necessary for other powers to be effective (for instance, to enable a portfolio transfer) and, hence, to limit the losses for policyholders;

c) Policyholders who are covered by IGSs or other mechanisms should be compensated to the extent possible.

Furthermore, EIOPA is of the view that policyholders should be informed of the existence of this power and the possibility that this power might be exercised in exceptional circumstances. This could be done, for instance, by including a clause in insurance contracts explaining the risks and financial consequences for policyholders.

### Comparison of options

12.151 EIOPA's preferred option is to grant national resolution authorities with a common set of resolution powers.

12.152 In order to ensure an orderly resolution process, it is essential that resolution authorities are equipped with adequate and effective resolution powers. Moreover, it is important that resolution authorities across the EU have a minimum set of common powers at their disposal. Powers with consistent design, implementation and enforcement features, foster cross-border cooperation and coordination. This helps to avoid unnecessary economic costs stemming from uncoordinated decision-making processes in cross-border failures.

12.153 The appropriateness of the choice and application of the powers in each situation should be assessed on a case-by-case basis. The choice and application of the powers should be proportionate to the nature, scale and complexity of the undertaking and the circumstances.

Advice

12.154 EIOPA is of the view that national resolution authorities should be equipped with a broad set of resolution powers.

12.155 At a minimum, the set of common resolution powers should include:

- Prohibit the payment and allow the recovery of variable remuneration to administrative, management, or supervisory body, Senior Management, key persons in control functions and major risk-taking staff, including claw-back of variable remuneration;
- Withdraw the license to write new business and put all or part of the insurance business contracts into run-off (i.e. requirement to fulfil existing contractual policy obligations for in-force business);
- Sell or transfer the shares of the undertaking in resolution to a third party;
- Sell or transfer all or part of the assets and liabilities of the undertaking under resolution to a solvent undertaking or a third party (including a bridge institution or management vehicle);
- Create and operate a bridge institution to which the assets and liabilities of the undertaking in resolution is transferred;
- Override any restrictions to the (partial) transfer of the assets and liabilities of the undertaking in resolution under applicable law (e.g. requirements for approval by shareholders, policyholders' consent for transfer of insurance contracts or consent of the reinsurance undertaking for transfer of reinsurance);
- Temporarily restrict or suspend policyholders' rights to surrender their insurance contracts;
- Stay rights of the reinsurance undertakings of the ceding undertaking to terminate or not reinstate coverage on the sole ground of the ceding undertaking's entry into resolution;
- Stay the early termination rights associated with derivatives and securities lending transactions;
- Impose a moratorium with a suspension of payments to unsecured creditors and a stay on creditor actions to attach assets or otherwise collect money or property from the undertaking in resolution;
- Ensure continuity of essential services (e.g. IT) and functions by requiring other entities in the same group to continue to provide essential services to the undertaking in resolution, any successor or an acquiring entity;
- Take control of and manage the undertaking in resolution, or appoint an administrator to do so;



- Restructure, limit or write down liabilities, including (re)insurance liabilities, and allocate losses to shareholders, creditors and policyholders.

12.156 The order of the powers listed above should not be regarded as an indication of the sequence in which these powers could be exercised.

12.157 Furthermore, the exercise of the resolution powers should be subject to adequate safeguards:

- The hierarchy of claims should be respected, while providing the flexibility to depart from the general principle of equal (*pari passu*) treatment of creditors of the same class;
- Creditors, including policyholders, should not incur a loss greater than they would have incurred in a winding-up under normal insolvency proceedings (the “no creditor worse off than in liquidation” (NCWOL) principle).

12.158 With respect to the resolution power to restructure, limit or write down insurance liabilities, resolution authorities should take account of some additional safeguards as set out in Box 5.

### **12.3.5.5 Cross-border cooperation and coordination**

12.159 Solvency II requires NSAs to cooperate and coordinate with each other through the establishment of supervisory colleges for cross-border insurance groups. The supervisory colleges are a platform for cooperation and coordination, including the exchange of (supervisory) information. The aim of these colleges is to foster a common understanding of the risk profile of the group (including entities) and to achieve a more efficient and effective supervision.<sup>327</sup>

12.160 Similar cross-border arrangements are equally essential for the efficient and effective resolution of failing undertakings. EIOPA is of the view that a platform for cross-border cooperation and coordination should also be established between national resolution authorities. This will help to deal with a crisis in an effective manner and facilitate the recognition and implementation of actions taken in different jurisdictions.

12.161 These platforms should be a means to ensure effective planning for crises, decision-making and coordination during crises between national resolution authorities when dealing with cross-border insurance failures. Effective cross-border arrangements could also help to ensure that the interests of all affected jurisdictions, including those where the parent company is located

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<sup>327</sup> Recital 139 Solvency II of the Solvency II Delegated Regulation ((EU) 2015/35).

as well as those where the subsidiaries and branches are located of a failed group, are given due consideration and are balanced appropriately.

12.162 These arrangements could take the form of resolution colleges or crisis management groups (as currently existing for the global systemically important insurers (G-SIIs)). In the set-up of the cross-border arrangements, the materiality and proportionality principle should be taken into account. The participation, role and responsibility of each national (resolution and supervisory) authority could be made proportionate to, for instance, the materiality of the undertaking belonging to the insurance group for which the arrangements are in place. The concept of materiality would need to be further defined.

12.163 More generally, the home authority should have the ability to arrange cross-border arrangements and meeting in different configurations to ensure that the coordination process is carried out in the most effective manner.

12.164 Furthermore, with respect to the involvement of EIOPA in these arrangements, EIOPA refers to Article 21(1) of the EIOPA Regulation. In accordance with this article, EIOPA has to contribute to promoting and monitoring the efficient, effective and consistent functioning of cross-border supervisory cooperation through the colleges of supervisors, which are based on coordination arrangements (Article 248(4) Solvency II). Moreover, EIOPA has a leading role in ensuring the consistent and coherent functioning of these colleges for cross-border institutions across the EU.

12.165 In order to perform the abovementioned responsibilities, EIOPA recalls that Article 21(2) of the EIOPA Regulation recognises it as “competent authority”, and therefore EIOPA enjoys full participation rights in the colleges of supervisors for cross-border institutions across the EU.

#### Advice

12.166 EIOPA advises to Member States to establish cross-border cooperation and coordination arrangements between national resolution authorities for crisis situations.

12.167 This should also include arrangements for the safe and secure exchange of information between jurisdictions.

12.168 In accordance with the principles set out in Article 21(1) of the EIOPA Regulation, EIOPA should have a leading role in ensuring the consistent and coherent functioning of these cross-border arrangements across the EU.

## 12.4 Triggers

### 12.4.1 Triggers for early intervention

#### Assessment of need for early intervention triggers

12.169 Early intervention is described as the stage where the solvency position of an undertaking started to deteriorate and where it is likely that it will continue to deteriorate and fall below the SCR if no remedial action is taken. Timely and effective interventions could avoid the escalation of problems and, hence, the need for more intrusive actions and potential losses for policyholders.

12.170 Currently, some NSAs intervene at an early stage to ensure troubled undertakings are back on track (see Section 12.3.3.2 Early intervention powers). They apply these measures based on their assessment of the need of early intervention. Figure 4 shows the nature of the triggers used by these NSAs in their assessment. Eight NSAs use both quantitative and qualitative triggers for intervention, whereas four NSAs use either purely quantitative or qualitative triggers.

12.171 Some of the early intervention triggers or factors that were reported to be taken into consideration by NSAs are:

- near breach of own funds requirements;
- quality of the own fund items;
- quantitative outcome of the Risk Assessment Framework;
- quality of the governance system;
- sufficiency of technical provisions;
- sufficiency of liquidity;
- departure of key people from the undertaking.

**Figure 12.4: Nature of early intervention triggers**

What is the nature of the triggers for your early intervention powers?

	Answers	Ratio
quantitative	2	7.1%
qualitative	2	7.1%
both	8	28.6%

Source: EIOPA Report (2018)

12.172 EIOPA is of the view that the current dispatch of national approaches is not in accordance with the principles set out in Solvency II and that a common approach towards the triggers for early intervention should be followed. These triggers should provide guidance for NSAs in their assessment to apply early intervention powers.

#### Analysis of options

12.173 The following options are considered:

1. No change
2. Rules-based triggers for early intervention
3. Judgment-based triggers for early intervention

#### *Option 1: No change*

12.174 This option means that no harmonised triggers for the use of early intervention powers are introduced at the EU level. Every NSA will base their decision to apply early intervention measures on their own national triggers.

#### *Option 2: Rules-based triggers for early intervention*

12.175 Early interventions are rules-based with quantitative triggers. There is a mechanistic decision-making process and not much room for judgment by the NSA.

#### *Option 3: Judgment-based triggers for early intervention*

12.176 Early interventions are judgment-based with soft triggers that could include both quantitative and qualitative factors to be taken into consideration by NSAs. The triggers allow for a sufficient degree of supervisory judgment and discretion.

12.177 Relevant factors that would need to be taken into consideration by NSAs in their assessment for intervening at an early stage include for instance:

- Solvency ratio and historical volatility of the SCR ratio;
- Trends in the financial statement figures;
- Business plan, including information about the products, risk mitigation techniques, investment plan and dividend policy;
- The possibility and likelihood for the undertaking to raise additional capital;
- ORSA, particularly, the three year projection of the SCR and MCR coverage ratios, the change in risk appetite and risk tolerance and the change in the investment strategy – business plan;
- Financial plans and strategy of the company, including recent changes in them that could cause risk of non-compliance with capital requirements;

- Impact of the sensitivity analysis on the SCR trigger and MCR trigger;
- Conclusions from inspections and meetings with the Administrative, Management or Supervisory Body (AMSB);
- Other issues or aspects (market triggers), such as interest rate volatility and the widening of the credit spread.

#### Comparison of options

12.178 EIOPA's preferred option is to define judgment-based triggers for the application of early intervention powers.

12.179 Early intervention conditions should be judgment-based to allow for the different nature of undertakings and changing economic circumstances. NSAs should use supervisory judgment and discretion to decide whether intervention is needed before the breach of the SCR. Early intervention conditions should not lead to a mechanistic decision-making process by the NSA.

12.180 EIOPA is of the view that the definition of early intervention triggers should not result in a new pre-defined intervention level or capital requirement, given that the current framework already has a quantitative intervention ladder. Hard, quantitative triggers should therefore be avoided. NSAs should assess each situation individually and decide upon the need for early interventions based on the circumstances and their supervisory judgment of the situation and undertaking.

#### Advice

12.181 EIOPA is of the view that adequate triggers for early interventions should be introduced at the EU level.

12.182 These triggers should be judgment-based and allow for sufficient supervisory discretion to assess the situation and decide on the need for early interventions.

12.183 The triggers should contain relevant qualitative and quantitative factors, but should not result in a new, pre-defined intervention level.



#### **Questions to stakeholders:**

**Q12.3:** What factors need to be considered by NSAs for early interventions?

### **12.4.2 Triggers for entry into recovery**

12.184 Solvency II defines the trigger for recovery as follows:

*"Insurance and reinsurance undertakings shall immediately inform the supervisory authority as soon as they observe that the Solvency Capital Requirement is no longer complied with, or where there is a risk of non-compliance in the following three months." (Article 138 of Solvency II Directive)*

12.185 In order to assess whether this is an appropriate trigger for entry into recovery, EIOPA conducted an information request among NSAs to collect their feedback. A majority of the NSAs confirmed that non-compliance with the SCR as defined in Solvency II is an appropriate trigger for recovery.

12.186 A minority of the NSAs replied that non-compliance with the SCR alone is not appropriate to trigger a recovery phase. Some of them mentioned that both quantitative and qualitative triggers should be considered, such as capital/solvency, liquidity, profitability, reserving, market-based and macroeconomic indicators.

12.187 A number of NSAs also referred to the need for actions before the breach of the SCR, i.e. early intervention.

12.188 Based on this outcome, EIOPA is of the view that non-compliance with the SCR, as defined in Solvency II, is an appropriate trigger for entry into recovery. This should be combined with the introduction of early intervention triggers.

#### Advice

12.189 EIOPA is of the view that non-compliance with the SCR, as defined in Solvency II, is an appropriate trigger for entry into recovery.

12.190 The Solvency II framework should however be supplemented with the introduction of early intervention measures.

### **12.4.3 Triggers for entry into resolution**

#### Assessment of need for triggers for entry into resolution

12.191 In order to optimise outcomes for policyholders and financial stability, the timing of initiating a resolution process for failing undertakings is essential. This means that there should be adequate triggers for entry into resolution.

12.192 Winding-up/liquidation of an undertaking is a last-resort resolution action and is usually initiated after an undertaking is declared insolvent. This could be based on either a balance sheet basis (i.e. the liabilities are greater than the assets), a cash-flow basis (the undertaking is unable to pay its debts as they fall due) or solvency basis (MCR is not met).

12.193 The triggers for entry into resolution should therefore be set before an undertaking is balance sheet insolvent.

### Analysis of options

12.194 The following options are considered:

1. No change
2. Rules-based triggers for entry into resolution
3. Judgment-based triggers for entry into resolution

#### *Option 1: No change*

12.195 This option means that no harmonised triggers for entry into resolution are introduced at the EU level. Resolution authorities will base their decision to apply resolution powers on their own national triggers.

#### *Option 2: Rules-based triggers for entry into resolution*

12.196 Triggers for entry into resolution are automatic and rules-based. Once the triggers are hit, resolution authorities take resolution actions. There is not much flexibility for judgment.

#### *Option 3: Judgment-based triggers for entry into resolution*

12.197 Triggers for resolution are defined in such a way that they provide for timely and early entry into resolution before an undertaking is balance sheet or cash flow insolvent and before all equity has been wiped out. The triggers allow a sufficient degree of judgment by the resolution authorities; automatic resolution triggers are avoided.

12.198 Resolution authorities use their experience and expert judgment to assess whether the conditions for entry into resolution are met and to initiate the resolution process. In doing so, resolution authorities also assess whether normal insolvency proceedings might be a more adequate solution than initiating a resolution process.

12.199 In accordance with the triggers listed in the FSB Key Attributes, the triggers for entry into resolution are set as:

- a) The undertaking is no longer viable or likely to be no longer viable and has not reasonable prospect of becoming so;
- b) Possible recovery measures have been exhausted – either tried and failed or ruled out as implausible to return the undertaking to viability – or cannot be implemented in a timely manner;
- c) A resolution action is necessary in the public interest.

12.200 With respect to condition (a), an undertaking could be considered to be no longer viable or likely to be no longer viable based on the following, non-exhaustive set of criteria:

- The undertaking is in breach or likely to be in breach of the MCR and there is no reasonable prospect of compliance being restored;

- The undertaking is in breach or likely to be in breach of other prudential requirements (e.g. requirements on assets backing technical provisions), there is no reasonable prospect of compliance being restored and such non-compliance will likely lead to balance sheet or cash flow insolvency;
- There is a strong likelihood that a policyholders and/or creditors will not receive payments as they fall due.

12.201 With respect to condition (c), resolution actions should be considered necessary in the interest of the public if the resolution objectives are achieved to a greater extent by putting the undertaking into resolution than by liquidating the undertaking by means of regular insolvency proceedings.

12.202 For instance, the public interest could be related to the relevance of the business carried out by the undertaking in a certain market, also considering the features of this market. For instance, the public interest may exist when the failure of an undertaking could cause a consistent reduction of the number of insurance products offered in a certain geographic area, without the capacity of other undertaking to timely offer the same products. Therefore, when a particular business is considered a segment of relevant activities for the real economy (e.g. air and road circulation, medical practice), the reduction of insurance products in that segment could determine the interruption of essential services necessary for the orderly operation of important economic activities.

#### Comparison of options

12.203 EIOPA's preferred option is to define judgment-based triggers for resolution.

12.204 EIOPA believes that resolution actions should be taken before an undertaking is balance sheet or cash flow insolvent and before all equity has been wiped out. This requires a careful assessment of the situation and circumstances by resolution authorities. Rules-based, hard triggers should therefore be avoided, as every situation is different.

12.205 Resolution authorities should have sufficient discretion to assess the need and timing for taking resolution actions. Judgment-based rules allow for this degree of flexibility and discretion.



Advice

12.206 EIOPA is of the view that adequate triggers for entry into resolution should be introduced at the EU level.

12.207 The triggers should be judgment-based and allow for sufficient discretion to assess the situation and decide on the need for resolution actions.

12.208 The triggers for resolution should include:

- a) The undertaking is no longer viable or likely to be no longer viable and has not reasonable prospect of becoming so;
- b) Possible recovery measures have been exhausted – either tried and failed or ruled out as implausible to return the undertaking to viability – or cannot be implemented in a timely manner;
- c) A resolution action is necessary in the public interest.



**Questions to stakeholders:**

**Q12.4:** How could resolution authorities determine whether undertakings are *likely* to be no longer viable and have no reasonable prospect of becoming so?

## **13. Insurance guarantee schemes**

13.1 The European Commission asked EIOPA to advise on whether there is a need for minimum harmonising rules for national insurance guarantee schemes. EIOPA started a consultation on such advice on 12 July 2019 (see <https://eiopa.europa.eu/Pages/News/Consultation-on-Advice-on-the-harmonisation-of-national-insurance-guarantee-schemes.aspx>). The consultation period ends on 18 October 2019. EIOPA will set out its advice on the harmonisation of national insurance guarantee schemes in the final Opinion on the 2020 review of Solvency II.

## **14. Other topics of the review**

### **14.1 Other transitionals**

#### **14.1.1 Extract from the call for advice**

##### **3.3. Transitional measures**

*Title VI Chapter I of the Solvency II Directive lays down a number of transitional provisions. EIOPA is asked to assess the ongoing appropriateness of the transitional provisions in terms of policyholder protection and level-playing field. This assessment should, where applicable, also assess whether the ongoing possibility for companies to newly apply for the transitional measures should continue. EIOPA may prioritise its work on the different transitional measures, provided that the advice states the reason for doing so. However, EIOPA's assessment should cover at least the transitional measures referred to in Articles 308b(12) and (13), Article 308c and Article 308d of the Solvency II Directive.*

#### **14.1.2 Previous advice**

14.1 EIOPA has not provided advice on the transitionals referred to in Article 308b of the Solvency II Directive.

#### **14.1.3 Relevant legal provisions**

14.2 The transitionals are set out in Article 308b of the Solvency II Directive. For the transitional set out in Article 308b(9) and (10) of the Solvency II Directive, Article 297(1)(f) of the Delegated Regulation requires undertakings to publicly disclose for each basic own-fund item that is subject to the transitional a description of the nature of the item and its amount. Article 311(1)(c) requires undertakings to report to NSAs their plans on how to replace basic own-fund items that are subject to the transitional arrangements.

#### **14.1.4 Prioritisation**

14.3 This section covers the transitionals referred to in Articles 308b(1) to (11) and (14) to (16) of the Solvency II Directive. The transitionals referred to in Articles 308b(12) and (13), Article 308c and Article 308d of that Directive are dealt with in sections 5.10, 2.11, 2.6 and 2.6 respectively.

14.4 The following table provides an overview of the transitionals relevant for this section:

Legal basis	Topic
308b(1) to (4)	Exemption from Solvency II of run-off undertakings expected to terminate activity by 1 January 2019 or subject to reorganisation measures
308b(5) to (8)	Deferral of deadlines for reporting and disclosure
308b(9) to (10)	Recognition of certain Solvency I own fund items
308b(11)	Deleted
308b(14)	Treatment of SCR non-compliance at the beginning of Solvency II
308b(15)	Exemption from Solvency II of insurance business subject to Article 4 of IORP
308b(16)	Approval of internal models for sub-groups

14.5 The call for advice states that EIOPA may prioritise its work on the different transitional measures, provided that the advice states the reason for doing so. EIOPA has assessed the need to revise the transitionals listed above and decided to review only the transitional of Article 308b(15) of the Solvency II Directive. The reason for not reviewing the transitionals are provided in the following.

- Exemption from Solvency II of run-off undertakings expected to terminate activity by 1 January 2019 or subject to reorganisation measures

14.6 EIOPA has carried out an information request to NSAs on the application of Article 308b(1) to (4) of the Solvency II Directive at the end of 2018. One NSA reported an insurance undertakings that had been subject to Article 308b(1)(a) at the end of 2018, but terminated its business in the meantime. All other NSAs reported no application of the transitional at the end of 2018.

14.7 As no undertaking is subject to the transitional anymore, EIOPA does not consider useful a review of the transitional.

- Deferral of deadlines for reporting and disclosure

14.8 The transitional will expire at the end of 2019, before EIOPA will provide its technical advice. Therefore, EIOPA does not consider useful a review of the transitional.

- Recognition of certain Solvency I own fund items

14.9 The transitional provision allows insurance and reinsurance undertakings to recognise specific own fund items that could be used to meet the solvency margin of Solvency I as Tier 1 or Tier 2 basic own funds items under Solvency II. The duration of the transitional is 10 years.

14.10 EIOPA has assessed the application of the transitional based on the supervisory reporting for the reference date of 31 December 2018. Accordingly, 135 undertakings apply the transitional. Transitional own funds constitute 3% of overall own funds (before applying limits) of all

undertakings. There are few undertakings which heavily rely on transitional provisions: for 12 undertakings the transitional provisions constitute more than 30% of their overall own funds (before applying limits). Comparison of application of the transitionals in national markets provided no indications of level playing field issues. More detailed results are set out in annex 14.1.

14.11 In view of the limited application of the transitional and that the Solvency II Directive already includes safeguard on the transitional, in particular Article 311(1)(c), EIOPA does not consider necessary the further review of the transitional.

- Treatment of SCR non-compliance at the beginning of Solvency II

14.12 EIOPA does it not consider useful the review of the transitional because it expired at the end of 2017.

- Exemption from Solvency II of insurance business subject to Article 4 of IORP

14.13 In view of the relevance of the provision for the policyholder protection and level playing field the transitional provision is reviewed, see following sections.

- Approval of internal models for sub-groups

14.14 The transitional allows NSAs to approve internal models at sub-group level. There is one insurance group that currently applies the transitional. The transitional will expire on 31 March 2022. EIOPA does not consider useful the review of the transitional because it has no relevant prudential impact, has limited application and is expected to expire soon.

### **14.1.5 Identification of the issue**

Why was transitional introduced and why was it extended?

14.15 The IORP Directive 2003/41/EC introduced through Article 4 the option for MS to apply the prudential requirements of the IORP Directive to the occupational pension business of life-assurance companies in order to avoid distortions of competition.<sup>328</sup>

14.16 The introduction of the Solvency II Directive resulted in a divergence between the risk-based solvency capital requirement (SCR) for life insurance undertakings and the regulatory own funds requirement for IORPs based on Solvency I. The relevant Solvency I requirements were copy-pasted into the IORP Directive (Articles 17 to 17c) through Article 303 of the Solvency II Directive. A transitional was included in Article 308b(15) allowing MS, which

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<sup>328</sup> Recital (12) of IORP Directive 2003/41/EC.

already did so on 23 May 2014, to continue applying to the occupational pensions business of life insurance undertakings the provisions referred to in Article 4 the IORP Directive as well as the capital requirements from Solvency I until 31 December 2019. This was anticipating that a “proper system of solvency rules” would be developed for IORPs at EU level.<sup>329</sup> The Commission was empowered to adopt delegated acts to amend the transitional period “where amendments to Articles 17 to 17c of Directive 2003/41/EC have been adopted before [...]”.

14.17 The review of the IORP Directive did not lead to an amendment of the (Solvency I) solvency rules applying to IORPs, renumbered as Article 15 to 18 in the IORP II Directive (EU) 2016/2341. The IORP II Directive explains that “no quantitative capital requirements, such as Solvency II or [...] models derived therefrom, should [...] be developed at the Union level with regard to IORPs” because this “is not realistic in practical terms and not effective in terms of costs and benefits, particularly given the diversity of IORPs within and across Member States” and “could potentially decrease the willingness of employers to provide occupational pension schemes”<sup>330</sup>. At the same time, “to ensure fair competition between institutions”<sup>331</sup>, the transitional period in Article 308b(15) of Solvency II was extended to 31 December 2022.

#### What is transitional doing?

14.18 The transitional is allowing MS to apply the provisions of the IORP II Directive to the occupational pensions business of life insurance undertakings. The most notable exception are the solvency requirements, for which MS are allowed to continue to apply the rules from the Solvency I Directive 2002/83/EC, as in force on 31 December 2015.

#### Application: Recent market developments in FR, SE and SI

14.19 The following findings are based on quantitative and qualitative information collected from NSAs in the context of the 2017 market development report<sup>332</sup> and additional information on Article 4 ring-fenced funds collected for 2017 and 2018<sup>333</sup>.

14.20 ‘Article 4 ring-fenced funds’ refers to the occupational retirement provision business of life insurance undertakings to which certain provisions of the IORP Directive are applied in accordance with Article 4 of the IORP Directive. Three member states choose to apply this option namely France, Sweden and Slovenia.

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<sup>329</sup> Recital (138) of Solvency II Directive.

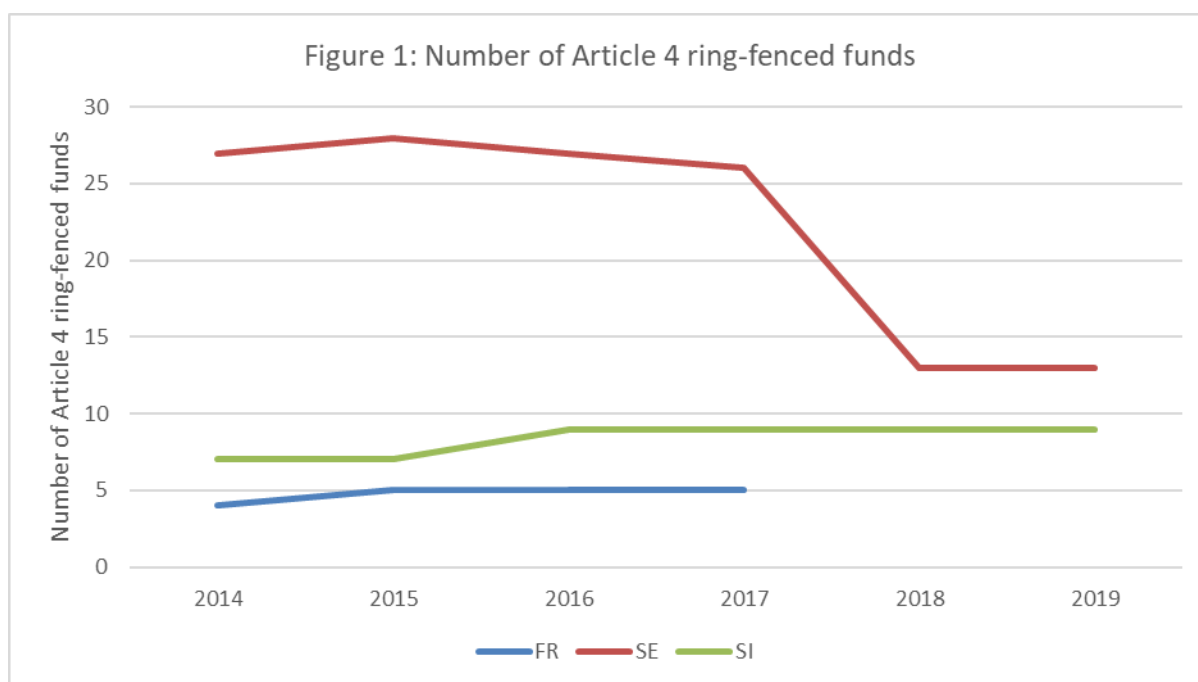
<sup>330</sup> Recital (77) of IORP II Directive.

<sup>331</sup> Recital (76) of IORP II Directive.

<sup>332</sup> <https://eiopa.europa.eu/Publications/Reports/EIOPA-BOS-18-013-2017%20Market%20Development%20Report.pdf>

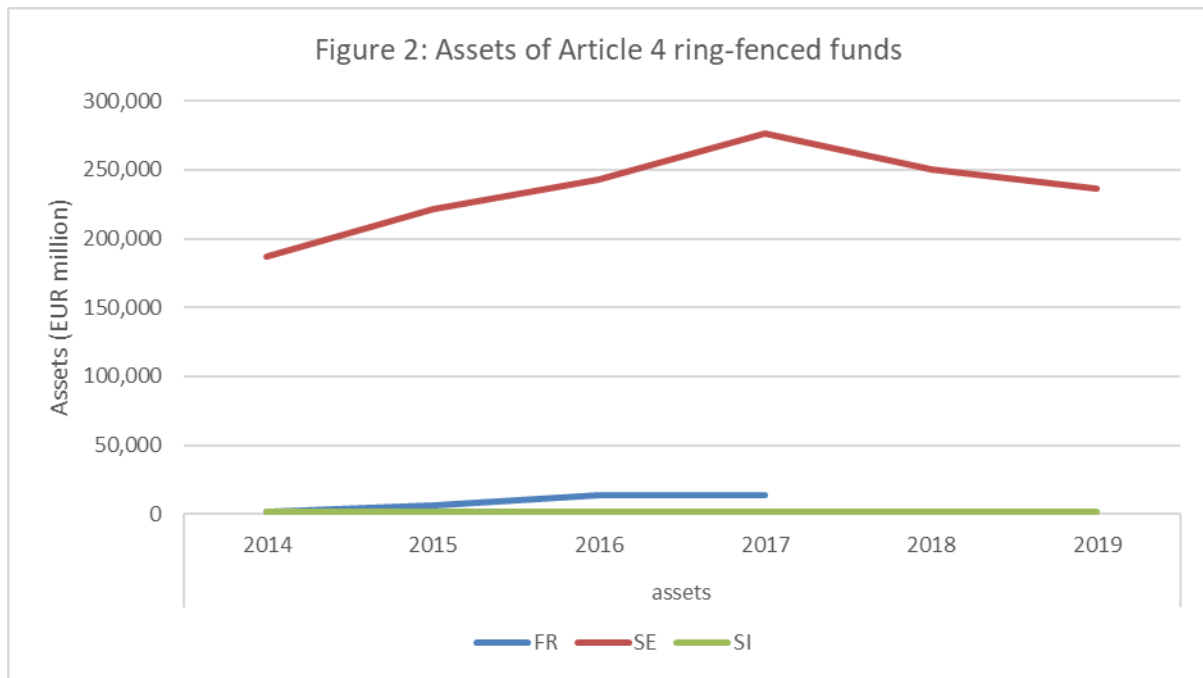
<sup>333</sup> For France data on Article 4 ring-fenced funds for 2017 and 2018 were not available.

14.21 Aggregated, the number of Article 4 ring-fenced funds decreased over the past years. This is mainly due to a strong decrease in the number of Swedish Article 4 ring-fenced funds over 2018 (see figure 1).



14.22 In contrast to assets of Article 4 ring-fenced funds in Sweden, assets of the Article 4 ring-fenced funds are relatively small in both France and Slovenia (see figure 2). Therefore, changes in Sweden entirely dominate any aggregated findings. Figure 2 also shows that the amount of assets had decreased over the last two years in Sweden after a continuous increase over the three preceding years. This reduction was less prominent compared with the reduction of the number of IORPs over the same period. At the end of each year, no country showed an underfunding of the Article 4 ring-fenced funds at an aggregate level.

14.23 For Slovenia and despite the number of Article 4 ring-fenced funds remaining stable, the number of members increased with 10 percent over the past three years totalling 400,000 members and beneficiaries. Accurate data on membership was not available for France and Sweden. However, for Sweden, the estimated number of members was approximately two million at the end of 2016.



Application: Article 4 ring-fenced funds in FR, SE and SI will automatically cease to exist after 2022

14.24 France, traditionally a Member State without any IORPs, adopted a new legislation in 2017 allowing the creation of IORPs. The new legislation introduces a new type of vehicles (Fonds de Retraite Professionnelle Supplémentaire - FRPS) subject to a framework compliant with the IORP Directive. The impact of the new legislation is already visible with the setup of a few IORPs.

14.25 The FRPS legislation also allows French life insurance undertakings to transfer their occupational pension plans into these new IORPs and was meant to allow the replace, largely, the current Article 4 ring-fenced funds. The French NSA believes that more IORPs will be created in the future and that life insurance undertakings will make use of these vehicles. Therefore, both the creation of the FRPS framework and the upcoming transposition of IORP II Directive should provide an appropriate framework to deal with pension engagements and a prolongation of the transitional becomes redundant.

14.26 A new Swedish occupational law implementing IORP II enters into force on 1 December 2019. As of then, Article 4 ring-fenced funds need to comply with either the national implementation of IORP II or Solvency II without an option to combine provisions of both Directives. The Swedish NSA expects that five of the current Article 4 ring-fenced funds, which mainly conduct occupational business, will comply with the rules for IORPs. The assessment for the remaining eight ring-fenced funds is harder to make, but it is expected that life insurance undertakings will split their business and transform the ring-fenced fund into a new type of IORP. While an early withdrawal of the



transition would probably interfere with the planning and transition of these entities there appears no need for a further extension after 2022.

14.27 Slovenia did not exercise the possibility offered in Article 308b (15) of the Solvency II Directive. The reasons were that the rules regarding the calculation of the SCR under the provisional were not very clear and life insurance undertakings had to calculate the SCR according to Solvency II rules in any case after the provisional ended. It had therefore decided that Slovenian life insurance undertakings needed to calculate the SCR for the whole undertaking, including the management of pension funds, immediately. Consequently, as of 2019, Slovenia is not an Article 4 country.

#### **14.1.6 Analysis**

14.28 Two options can be distinguished with regard to the transitional:

##### Option 1: No change

14.29 The possibility for MS to apply Article 4 of the IORP II Directive and the Solvency I solvency requirements will cease on 31 December 2022. The expected impact of this option is nil since the MS using this possibility will all have stopped using this allowance by that date.

14.30 The “no change” option does not resolve the divergence in quantitative requirements between the Solvency II Directive and the IORP II Directive, constituting the main reason for having the Article 4 provision in IORP II and the transitional in Solvency II.

14.31 Occupational pension providers under Solvency II will be subject to harmonised capital requirements which are market-consistent and risk-based. Providers under IORP II may be subject to rules which are not market-sensitive and, where the IORP bears risk itself, based on the former Solvency I rules, which are not risk-based. This inconsistency may give rise to regulatory arbitrage and unequal conditions of competition.

14.32 In that respect, EIOPA refers to its Opinion to the EU institutions on a common framework for risk assessment and transparency.<sup>334</sup> In this opinion, EIOPA advises that harmonised solvency rules should not be introduced for IORPs at this point in time. The IORP sectors in MS are very heterogeneous and experiencing varying challenges. As a consequence, a one-size-fits-all solvency regime would not be appropriate and less effective than the proposed common framework. The Opinion advises to strengthen the IORP II Directive with a common framework for risk assessment and transparency. This would allow for a better understanding of the risks and vulnerabilities IORPs, contributing to their resilience and sustainability and improving the protection of members and beneficiaries. Moreover, it would also increase

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<sup>334</sup> EIOPA, Opinion to EU Institutions on a Common Framework for Risk Assessment and Transparency for IORPs, EIOPA-BoS-16/075, 14 April 2016.

cross-sectoral consistency between the IORP Directive and the insurance framework.

14.33 On 10 July 2019, EIOPA issued a supervisory Opinion on the practical implementation of the common framework for risk assessment and transparency for IORPs.<sup>335</sup> The Opinion advised the national supervisory authorities to make IORPs aware of the availability of the common framework as a tool for risk assessment and to stand ready to support IORPs in the application of this tool as well as to consider, in the context of their national specificities, to use the common framework as a tool for the supervisory review as laid down in the IORP II Directive.

#### Option 2: Extend duration of transitional

14.34 The duration of the transitional is extended beyond 31 December 2022 until the solvency rules in IORP II are adapted during the review of this Directive by 13 January 2023. This option would also have no impact because MS will not be making use of the transitional anymore by end 2022.

14.35 The recent legislative developments in French and Sweden also make clear that the transitional is redundant. Also without the transitional, MS have the possibility to allow life insurance undertakings to establish vehicles (IORPs) for their occupational pensions business that are subject to the IORP II Directive.

14.36 Moreover, also under this option there would not be a level playing field between life insurance undertakings and IORPs. As advised by EIOPA and described under option 1, the introduction of a common framework for risk assessment and transparency for IORPs would increase cross-sectoral consistency and contribute to preventing regulatory arbitrage and to promoting equal conditions of competition.

#### **14.1.7 Advice**

14.37 EIOPA advises not to change the transitional provision of Article 308b(15) of Solvency II, considering that the transitional is no longer meaningful because Member States will no longer make use of it by 31 December 2022.

14.38 Keeping the transitional unchanged will not resolve the divergence in quantitative requirements between the Solvency II Directive and the IORP II Directive. EIOPA advises that harmonised solvency rules should not be introduced for IORPs at this point in time. In order to enhance cross-sectoral consistency and to contribute to preventing regulatory arbitrage and

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<sup>335</sup> EIOPA, Opinion on the practical implementation of the common framework for risk assessment and transparency for IORPs, EIOPA-BoS-19-246.

promoting equal conditions of competition, EIOPA reiterates its opinion to strengthen the IORP II Directive with a common framework for risk assessment and transparency for IORPs.<sup>336</sup>

## 14.2 Fit and proper requirements

### 14.2.1 Extract from the call for advice

#### **3.13. Freedom to provide services and freedom of establishment**

*EIOPA is asked to assess whether the current supervisory powers at the disposal of the home National Supervisory Authorities and EIOPA are sufficient to prevent failures of insurance companies operating cross-border through freedom to provide services and the freedom of establishment and to properly assess the fit and proper requirements.*

### 14.2.2 Previous EIOPA advice

14.39 More recently, following a number of cross-border cases indicating a lack of harmonisation in relation to the propriety assessment across the European Economic Area (EEA), EIOPA reviewed national regulatory frameworks and supervisory practices followed by NCAs to assess the propriety of administrative, management or supervisory body (AMSB) members (hereinafter: Peer review on propriety).<sup>337</sup> The Peer review on propriety concluded that the legal powers for NCAs provided in the Solvency II Directive to do ongoing assessments of AMSB members and qualifying shareholders need to be clarified and therewith strengthened. Subsequently the NCA's ability to take action in case a qualifying shareholder is not considered proper (following the approval of an acquisition) as well as the power to seek information from qualifying shareholders and other related parties. Furthermore, the Peer review on propriety highlighted a number of areas that could potentially result in impediments between countries in relation to propriety assessment within the internal market.

### 14.2.3 Relevant legal provisions

14.40 Directive 2009/138/EC (Solvency II Directive), in particular Article 19 (Close links), Article 24 (Shareholders and members with qualifying holdings), Article 29 (General principles of supervision), Article 36 (Supervisory review process), Article 42 (Fit and proper requirement for persons who effectively run the undertaking or have other key function), Section 4 (Qualifying holdings), Chapter IV, Title I (Articles 57 to 63).

<sup>336</sup> EIOPA, Opinion to EU Institutions on a Common Framework for Risk Assessment and Transparency for IORPs, EIOPA-BoS-16/075, 14 April 2016.

<sup>337</sup> <https://eiopa.europa.eu/Publications/Reports/2019-01025%20PeerReviewProprietyReport.pdf>

#### **14.2.4 Other regulatory background**

14.41 The European Supervisory Authorities' Joint Guidelines on the prudential assessment of acquisitions and increases of qualifying holdings in the financial sector (JC/GL/2016/01)<sup>338</sup>. The Joint Guidelines give guidance for among other things the elements to take into account for the propriety of qualifying shareholders.

#### **14.2.5 Identification of the issue**

14.42 Main focus in relation to the propriety of AMSB and qualifying shareholders is the legal basis in the Solvency II Directive for ongoing supervision and taking action in case AMSB members and qualifying shareholders are no longer proper as well as the provide clear power to NCAs to seek information from qualifying shareholders and other related parties to assess their propriety. This Opinion further is seeking solutions in complex cross-border cases in relation to propriety assessment within the internal market by offering joint propriety assessments and EIOPA's mediation when NCAs cannot agree on a common view.

#### **14.2.6 Need for harmonisation ongoing assessments of the propriety of AMSB members and qualifying shareholders**

##### *Issues identified*

14.43 A number of cross-border cases have indicated a lack of harmonisation in relation to the propriety assessment of AMSB members and qualifying shareholders across the EEA. This lack of harmonisation led to potentially divergent outcomes in different countries in relation to the same persons. The Peer review on propriety was initiated on foot of these cases with an aim to examine the causes of a lack of harmonisation and recommended actions to enhance supervisory convergence in the area of (fitness and) propriety. Some of those cases also related to the differences in the ongoing assessment.

##### *Analyses*

14.44 Before the last financial crisis, there was a growing recognition of the relationship between the lack of fitness and propriety of the key persons of institutions that failed, participated in market abuses or failed to protect their investors, creditors and policyholders. In several reports<sup>339</sup> published in 1997

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<sup>338</sup> [https://esas-joint-committee.europa.eu/Publications/Guidelines/JC%20GL%202016%2001%20\(Joint%20Guidelines%20on%20prudential%20assessment%20of%20acquisitions%20and%20increases%20of%20qualifying%20holdings%20-%20Final\).pdf](https://esas-joint-committee.europa.eu/Publications/Guidelines/JC%20GL%202016%2001%20(Joint%20Guidelines%20on%20prudential%20assessment%20of%20acquisitions%20and%20increases%20of%20qualifying%20holdings%20-%20Final).pdf).

<sup>339</sup> E.g in the *Mueller report published in 1997* it was recognised that: 'The frequent emphasis on management risk is striking. Almost all the submissions describe as very serious the dangers arising

and 2002 it was concluded that ongoing assessments as well as mutual exchange of information are important to reduce the management risk. The financial crisis in 2008 reaffirmed this recognition.

14.45 More specifically the recent Peer review on propriety concluded that:

- There is still a lack of harmonisation in the ongoing assessment of AMSB and qualifying shareholders and recommended a number of NCAs to take action to avoid impediments in cross-border cases.
- Propriety assessments of AMSB members and qualifying shareholders are completed as a one-off task with very few NCAs performing any ongoing assessment as part of their supervisory activities.
- The compliance with the ongoing assessment requirement should be subject to supervisory examination in accordance with Article 29 and other related provisions of the Solvency II Directive.'

14.46 Initial assessment at appointment and ad-hoc or triggered assessment of AMSB members and qualifying shareholders receive sufficient attention from NCAs. The frequency of ad-hoc or triggered assessment generally depends on new evidence or facts brought to NCAs' attention by insurers. (Fitness and) propriety assessment is not reviewed or examined as part of NCAs' ongoing supervisory activities. Therefore, twenty-five NCAs were recommended to carry out, using a risk-based and proportionate approach, ongoing assessment of propriety of qualifying shareholders and twelve NCAs to carry out ongoing assessment of propriety of AMSB members following the initial approval.

14.47 As explained in the peer review, the recommended actions are to be applied in a proportionate manner. The following text from the report reflects this: 'Most importantly this ongoing assessment should be carried out as part of the NCAs' supervisory activities and should not seek to replicate the acquiring transaction review process i.e. completion and submission of forms by the shareholders and/or supervised insurers and review by the NCAs.' Annex 3 of the Peer review on propriety outlines some examples from current supervisory practices of how an ongoing propriety assessment of AMSB

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*from management that fails to meet the "fit and proper" criteria. Most delegations also attribute the problems arising in the four core areas/ core risks ultimately to inappropriate management behaviour (management information system failure), with the result that management risk represents a kind of overarching or exceptional risk.'*

*The [Sharma report published in 2002](#) also advised a periodic reassessments of governance related processes: 'Fit & proper rules also present challenges, as it can be hard to decide when someone has become unfit. In some case studies, senior management's experience may have been appropriate when they took up their posts, but the business and marketplace has evolved around them while their knowledge becomes more out-of-date. We recommend periodic reassessment including re-analysis of the firm's business and environment, and in particular, where there is any change in its strategy.'*

members and qualifying shareholders can be implemented by using a risk-based and proportionate approach and without replicating the process used for initial or ad-hoc assessments.

*a. Ongoing assessment of AMSB members*

14.48 Twelve NCAs from EEA countries in smaller as well as larger insurance markets have received a recommended action following EIOPA's peer review to assure ongoing supervision of the propriety of AMSB in a risk-based and proportionate manner.

14.49 One of the explanations is that one has to combine several Articles of the Solvency II Directive to come to the conclusion NCAs are expected and required to supervise the fit and proper requirements of AMSB. Article 42 of the Solvency II Directive requiring undertakings to fulfil the propriety requirements for AMSB members sets forth a direct obligation for undertakings. The NCAs have to supervise the undertakings on a continuous basis and in a pro-active manner on the basis of Article 29 of the Solvency II Directive. Clarify this important task for NCAs in the Solvency II Directive could be achieved by some additional wording in Article 30.

*b. Ongoing assessments of qualifying shareholders*

14.50 During the Peer review on propriety "Some NCAs have expressed a view that supervisory powers in Article 62 Solvency II Directive in relation to taking supervisory action against qualifying shareholders are provided for initial assessment only and that the Solvency II Directive does not explicitly provide for ongoing assessment. An extension of this view is that this limitation is likely to undermine ongoing assessment in case such an assessment warrants supervisory measures against qualifying shareholders. This matter needs to be investigated as a follow up measure by EIOPA ..." The power for ongoing assessments of qualifying shareholders has then to be derived from paragraph 3 of Article 26 Solvency II Directive. "An ancillary matter that EIOPA also decided to investigate as a follow up of the peer review is whether Article 19 Solvency II Directive provides for adequate legal powers for NCAs to seek information directly from the qualifying shareholders or any other insurers or authorities that may have relevant information in this respect."

14.51 As a result of the Peer review on propriety twenty-five recommended actions require twenty-five NCAs to carry out, using a risk-based and proportionate approach, ongoing assessment of propriety of qualifying shareholders.

14.52 In line with the Peer review on propriety, the proposed option should clarify the Solvency II Directive text and thereby reinforce the powers of NCAs to:

- Collect information on qualifying shareholders and related undertakings directly from the undertakings concerned;
- Make ongoing supervision on (AMSB and) qualifying shareholders a clear part of the scope of supervision in Article 30 Solvency II Directive, currently it is not mentioned;
- The possibility of withdrawing authorisation in case of AMSB and qualifying shareholders not being fit and proper is added as a supervisory tool.

*Advice*

14.53 Convergence in the ongoing supervisory process in all fields of the financial services sector is very important. Furthermore, the Joint Guidelines on the assessment of qualifying shareholders are in force for the whole financial sector too. Changes in the Solvency II Directive should not be made without considering parallel changes in the CRD. EIOPA will thereto inform the Joint Committee about its proposals.

14.54 Clarification of the Solvency II Directive text to reinforce the powers for on-going supervision of AMSB and qualifying shareholders (Option 1.2) means a one-off costs for supervisors that did not implement clear powers for ongoing supervision and still need to develop their supervisory practice. In the peer review on propriety several suggestions based on supervisory practices are provided for ongoing assessments of AMSB and qualifying shareholders. Supervisors can inform and support each other being part of the EIOPA community. E.g. in relation to AMSB member ongoing assessments there are three options described in detail: as part of their ongoing supervisory activity, themed review and at the point of renewals of mandates or periodic reassessment.

*Comparison of options*

**Policy issue 1: Need for harmonisation ongoing assessments of the propriety of AMSB members and qualifying shareholders**

14.55 The preferred policy option for this policy issue is option 1.2 to amend and clarify the Solvency II Directive because the current situation as described in the peer review on propriety (option 1.1) was not satisfactory hence the number of recommended actions to supervisors.

14.56 It is expected that the costs will be only for undertakings that do not already assess the propriety in an ongoing manner although the law requires undertakings to already do so.

14.57 In the same manner also a number of supervisors might be having to do more assessments. Additional costs for supervisors will be a one-off costs to amend their processes. Costs can also be reduced by applying proportionality and risk-based supervision for which several examples are available in the EIOPA community. Also because of improvement of the clarity in the law and

the possibility to withdraw the license in case of non-compliance with the propriety requirements will reduce the costs of supervision. Overall given the proven link between the (almost) failures of companies as a consequence of a failed management the option 1.2 will reduce this risk and consequently its high social costs. Good risk management will be promoted by the proposal.

#### Advice

##### In relation to ongoing assessment of AMSB members

14.58 EIOPA's advice is to add under the scope of supervision in paragraph 1 of Article 30 Solvency II Directive (supervisory authorities and scope of supervision) the element of the system of governance and amend paragraph 2a of Article 36 Solvency II Directive (SRP process) by mentioning the 'fit and proper requirements' to the list of what is included in the system of governance.

14.59 This proposal would bring Article 30 of the Solvency II Directive on the scope of supervision also better in line with paragraph 2a of Article 36 Solvency II Directive that mentions governance as part of the SRP process.

14.60 EIOPA proposes to amend the Solvency II Directive as follows:

- Amend paragraph 2 of Article 30, Solvency II Directive 'Financial supervision pursuant to paragraph 1 shall include verification, with respect to the entire business of the insurance and reinsurance undertaking, *of its governance* and state of solvency, of the establishment of technical provisions, of its assets and of the eligible own funds in accordance with the rules laid down or practices followed in the home Member State under provisions adopted at Community level.'
- Amend paragraph 2(a) of Article 36, Solvency II Directive  
'The system of governance, including *the fit and proper requirements and the own-risk and solvency assessment*, as set out in Chapter IV, Section 2;'

##### In relation to ongoing assessment of qualifying shareholders

14.61 EIOPA proposes to amend the Solvency II Directive as follows:

- Amend paragraph 3 of Article 19:  
'The supervisory authorities shall require insurance and reinsurance undertakings, *its qualifying shareholders and other natural or legal persons with which the insurance and reinsurance undertakings have close links* to provide them with the information they require to monitor compliance with the conditions (..)'
- Amend paragraph 1, second sentence of Article 24:  
'Those authorities shall refuse or *in accordance with Article 62, shall withdraw the authorisation*, if (....)'
- Amend Article 25's title and first sentence:  
Refusal *or withdrawal* of authorisation



Any decision to refuse *or withdraw* an authorisation shall state full reasons and shall be notified to the undertaking concerned.

- Amend paragraph 1 of Article 62 Solvency II first sentence as follows:

`(...)where the influence exercised by the persons referred to in Article 57 is likely to operate against the sound and prudent management of an insurance or reinsurance undertaking, the supervisory authority of the home Member State (...) *is held*, sought or increased (...). Such measures may consist, for example (...) or withdrawal of authorisation.”

14.62 In the case EIOPA Advice is followed Articles 22 to 27 of the CRD IV Directive could be amended for consistency. Thereto EIOPA will also inform the Joint Committee.

### **14.2.7 Increase the efficiency and effectiveness of propriety assessments in complex cross-border cases**

#### *Issues identified*

14.63 The Peer review on propriety concluded that “In some complex cross-border cases, records or information about supervisory concerns are maintained in one country whereas the appointment application is lodged in another country. Since sharing of information, in particular information about concerns that could lead to refusal of application, is often quite a cumbersome process, in complex cases, NCAs from countries can support one another by conducting jointly assessments and interviews to ensure that the process is efficient as well as effective.”

#### *Analyses*

14.64 As a follow up on the peer review on propriety, EIOPA considers the option to improve the quality of the information exchanged by adding the possibility to do a joint assessment of the propriety of a potential qualifying shareholder if the outcome is relevant for several NCAs in Article 60 Solvency II Directive. The joint assessment does not change the responsibilities of the home NCA for their final decision.

14.65 EIOPA also considers the option to take a steering role in the cases where NCAs have not been able to come to a solution in such complex cross-border cases. The Peer review on propriety also referred to a case study whereby an authorisation is rejected for a person Z in country A based on doubtful financial transactions (including alleged money laundering). A license is provided for person Z in country B from which the person Z wants to do business on the basis of FoE into country A. However, the fact that important new information was provided by the NCA of country A at a certain point to the NCA of country B has led to a request from EIOPA to the NCA of the country B to reassess the propriety of Z.

### Comparison of options

#### **Policy issue 2 Increase the efficiency and intensity of propriety assessments in complex cross-border cases by providing the possibility of a joint assessment and allow in exceptional cases for EIOPA to conclude**

14.66 The preferred policy option for this policy issue is option 1.2 which encourages cooperation among NCAs in complex cross-border cases and refers to EIOPA's role as a facilitator in these cases. It is expected that there are no extra costs for industry whilst the costs for supervisors will be lower. EIOPA will bear some costs (human resources and travel costs) depending on the number of cases where its involvement is requested or needed. Equally policyholders will be better protected.

#### *Advice*

14.67 EIOPA advises to:

- Specify in the Solvency II Directive that EIOPA should assist, on request of one of the competent authorities or on its own initiative, the competent authorities, in reaching an agreement in relation to an assessment of propriety;
- EIOPA should issue a recommendation in case a common view is not reached;
- In case the concerned NCA does not follow the recommendation EIOPA:  
i) assess the reasons and ii) make the recommendation public and decide on a case-by-case basis to publish the reasons provided by the competent authority for not complying with the recommendation.

14.68 EIOPA proposes to amend the SII Directive as follows:

- Add the following two sentences to paragraph 3 of Article 26 of the Solvency II Directive:

*Where several supervisory authorities need to be consulted, a joint assessment may be requested by any supervisory authorities concerned from the supervisory authority of the home Member State where the authorisation has been sought or originally granted.*

*The supervisory authority of the home Member State shall consider the conclusions of the joint assessment when taking its final decision.*

- Add the following sentence to paragraph 3 of Article 26:

*The supervisory authorities referred to in paragraph 1 may refer the matter to EIOPA and request its assistance in accordance with Article 16 of Regulation (EU) No 1094/2010. EIOPA may also act on its own initiative on the basis of objective reasons in accordance with the powers conferred on it by that Article.*

## Annexes

### Annex 2.1 – DLT assessment methodology

#### Components of the DLT assessment

A.1 The DLT assessment consists of the components set out in the following table:

Component	Purpose
DLT assessment of the swap market	Decision on relevant financial instrument (swaps/govies) and DLT maturities
DLT assessment of the government bond market	
Assessment of the bond market	Additional criteria in particular on the LLP
DLT assessment of the bond market	
Matching criterion	
20 years LLP for the euro	
Residual volume condition for the euro	
DLT assessment of the OIS market	Decision on use of OIS in the CRA calculation
Conclusion from components 1 to 4	

A.2 The components of the DLT assessment are the same as currently applied. New are the subcomponents a and b of the assessment of the bond market that reflect Article 77a of the Solvency II Directive and recital 30 of the Omnibus II Directive. The following sections set out proposals for the criteria to be used for the assessment.

#### DLT assessment of the swap market

##### Depth and liquidity

A.3 The assessment of depth and liquidity of the swap market should be carried out on the basis of swap trade data, in particular the number and notional amount of trades. In order to ensure an assessment that is consistent across currencies it should be made in accordance with criteria that are objective and clearly specified.

A.4 The assessment should be based on the following thresholds for depth and liquidity:

- the average daily notional amount traded is at least EUR 50 000 000,
  - the average daily number of trades is at least 10.
- A.5 Only single-currency fixed-to-floating swaps should be considered for assessing the criteria. The assessment should be made separately for each currency and maturity. Where possible the thresholds should be assessed on the basis of data that cover the period of one year.
- A.6 These thresholds are the same that ESMA proposed for assessing liquidity for the purpose of MiFiD 2 (see page 92 of the draft RTS on transparency requirements for trading venues and investment firms in respect of bonds, structured finance products, emission allowances and derivatives: [https://www.esma.europa.eu/sites/default/files/library/2015/11/2015-esma-1464\\_annex\\_i\\_-\\_draft\\_rts\\_and\\_its\\_on\\_mifid\\_ii\\_and\\_mifir.pdf](https://www.esma.europa.eu/sites/default/files/library/2015/11/2015-esma-1464_annex_i_-_draft_rts_and_its_on_mifid_ii_and_mifir.pdf)).
- A.7 In order to ensure the stability of the DLT maturities, a market assessed liquid in the past should only be considered to have become illiquid if it is at least 20% below one of the two thresholds set out above. A market assessed illiquid in the past should only be considered to have become liquid if it is at least 20% above the two thresholds set out above.
- A.8 The swap trade data that EIOPA will have access to via EMIR covers the majority of the swap trade in EEA currencies. Trade numbers and notional amounts should be scaled up to allow for trade not covered by the data. Where data on the majority of swap trades is available for other currencies (e.g. most of the currencies of the American countries via the Dodd-Frank act of the US), the same approach should be taken. The scaling factors can be derived from the triannual OTC derivative statistics of the Bank for International Settlement.
- A.9 For currencies where not sufficient swap trade data are available to assess the depth and liquidity, the assessment should primarily be based on the size of bid-ask spreads and on the swap rate volatility.

#### Transparency

- A.10 The financial markets should be considered transparent for the swaps of a currency and maturity where up-to-date information on the market swap rates for that currency and maturity is available from a reliable data provider for each working day.

### **DLT assessment of the government bond market**

#### Depth and liquidity

- A.11 In order to improve the consistency of DLT assessment across currencies, the assessment of trade volume and trade frequency of government bonds should be mandatory for all currencies. Decision on depth and liquidity should be based primarily on these criteria. Where possible the assessment should be based on data that cover the period of one year.

A.12 This approach will also ensure consistency with the assessment of depths and liquidity of swap markets.

A.13 Where trade volume and frequency data are not available or their analysis not conclusive, other criteria should be assessed, including where possible, bid-ask spreads, the rate volatility, zero-trading days, the number of pricing sources and the number of quotes.

A.14 In particular with regard to non-EEA currencies the assessment of the government bond market should be proportionate to the size of exposure of European insurers and groups to that currency.

#### Transparency

A.15 The financial markets should be considered transparent for the government bonds of a currency and maturity where up-to-date information on market government bond rates for that currency and maturity is available from a reliable data provider for each working day.

#### **Assessment of the bond market**

A.16 The risk-free interest rates are derived from swaps or government bonds. The legal framework requires however that in addition to the depth, liquidity and transparency of swaps or government bonds also the general bond market should be assessed. On that assessment additional requirements for the DLT maturities and in particular on the LLP are based. In the following the relevant legal text is set out and proposals on the implementation of the legal text are made.

#### Legal basis

A.17 Recital 30 of the Omnibus II Directive:

*The relevant risk-free interest rate term structure should avoid artificial volatility of technical provisions and eligible own funds and provide an incentive for good risk management. The choice of the starting point of the extrapolation of risk-free interest rates should allow undertakings to match with bonds the cash flows which are discounted with non-extrapolated interest rates in the calculation of the best estimate. Under market conditions similar to those at the date of entry into force of this Directive, the starting point for the extrapolation of risk-free interest rates, in particular for the euro, should be at a maturity of 20 years. [...]*

A.18 Article 77a of the Solvency II Directive:

#### *Extrapolation of the relevant risk-free interest rate term structure*

*The determination of the relevant risk-free interest rate term structure referred to in Article 77(2) shall make use of, and be consistent with, information derived from relevant financial instruments. That determination shall take into account relevant financial instruments of those maturities where the markets for those financial instruments as well as for bonds are deep, liquid and transparent. For maturities where the markets for the*

*relevant financial instruments or for bonds are no longer deep, liquid and transparent, the relevant risk-free interest rate term structure shall be extrapolated.*

*The extrapolated part of the relevant risk-free interest rate term structure shall be based on forward rates converging smoothly from one or a set of forward rates in relation to the longest maturities for which the relevant financial instrument and the bonds can be observed in a deep, liquid and transparent market to an ultimate forward rate.*

A.19 Recital 21 of the Delegated Regulation:

*Under market conditions similar to those at the date of adoption of Directive 2014/51/EU, when determining the last maturity for which markets for bonds are not deep, liquid and transparent anymore in accordance with Article 77a of Directive 2009/138/EC, the market for bonds denominated in euro should not be regarded as deep and liquid where the cumulative volume of bonds with maturities larger than or equal to the last maturity is less than 6 percent of the volume of all bonds in that market.*

Components of the assessment of the bond market

A.20 With regard to the bond market the legal text sets out the following conditions on the DLT maturities and the LLP:

A.21 DLT conditions (Article 77a of the Solvency II Directive)

A.22 Matching criterion (recital 30 of the Omnibus II Directive)

A.23 20 years LLP for the euro (recital 30 of the Omnibus II Directive)

A.24 Residual volume condition for the euro (recital 21 of the Delegated Regulation)

A.25 The DLT conditions for the bond market can have an impact on the maturities and consequently the LLP used to derive the risk-free interest rates. The conditions can result in a lower LLP than found in the assessments of swap markets. It can also result in excluding some of the maturities lower than that LLP because the bond market is not DLT for those maturities.

A.26 The matching criterion, the specification of the 20 years LLP for the euro and the residual volume condition for the euro can result in a lower LLP than derived in the DLT assessment for the swap market or the government bond market. They do not affect the DLT maturities before that lower LLP.

A.27 The specification of the 20 years LLP and the residual volume condition are only relevant for the euro and should not be applied to other currencies.

A.28 It should be noted that three of the conditions are set out in recitals. Recitals do not establish requirements but rather explain the provisions in the articles of the law. On the other hand it has to be acknowledged that the recitals on the matching condition and on the 20 years LLP for the euro were part of the political compromise on the Omnibus II Directive.

### **Assessment of the bond market – DLT assessment**

- A.29 The depth, liquidity and transparency of the bond market should be assessed according to the same criteria as the depth, liquidity and transparency of the government bond market.
- A.30 As the bond market includes the government bond market, the trade volume and trade frequency of the bond market are at least as high as those of the government bond market. Therefore, where the government bond market for a currency is DLT also the bond market for that currency should be considered DLT. Where the risk-free interest rates are derived from government bonds because the swap market is not DLT, this implies in particular that the DLT assessment of the bond market does not introduce further restrictions for the use of DLT maturities identified in the DLT assessment of the government bond market.

### **Assessment of the bond market – Matching criterion**

- A.31 In order to check the matching criterion the following cash-flows should be compared:
- A.32 Bond cash-flows: expected payments of coupons and principal amounts of government bonds and financial and non-financial corporate bonds (but not of loans, securitisations, credit-linked notes or money-market funds)
- A.33 Liability cash-flows: expected cash-flows of insurance and reinsurance obligations of insurance and reinsurance undertakings as accounted for in the best estimate provisions net of reinsurance (but not including cash-flows from technical provisions valued as a whole)
- A.34 The narrow interpretation of “bonds” for the application of the matching criterion is based on a steer from the European Commission. The Delegated Regulation distinguishes between bonds and other assets like loans or securitizations (e.g. Articles 49 and 175 of the Delegated Regulation).
- A.35 The matching criterion requires that the annual bond cash-flows are equal or larger than the annual liability cash-flows for all the maturities up to the LLP. However, a shortfall of bond cash-flows for one or several maturities up to the LLP is in line with the matching criterion provided that there is surplus of bond cash-flows for nearby larger maturities that outweighs that shortfall. For this purpose two maturities should be considered nearby if they differ not by more than 5 years. This threshold should be reviewed in the 2017 DLT assessment.
- A.36 The matching criterion should be analysed separately for each relevant currency. However the euro and the currencies pegged to the euro should be treated as one currency for the analysis.
- A.37 Bonds and insurance liabilities with currency clauses as described in paragraph 74(b) of the RFR technical documentation should be included in the analysis for the currency in which the payment under the currency clause is made.

A.38 The matching criterion establishes an upper bound for the LLP. An LLP that is lower than the last maturity for which liability cash-flows can be matched with bonds is in line with the matching criterion.

A.39 The liability cash-flows should be derived from the annual reporting templates.

#### **Assessment of the bond market – 20 years LLP for the euro**

A.40 The specification of the LLP for the euro to be 20 years applies under market conditions similar to those at the date of entry into force of the Omnibus II Directive (i.e. Q2 2014).

A.41 An indication for market conditions having changed compared to Q2 2014 should be that the application of the matching criterion or the DLT criteria suggest a LLP significantly different from 20. A significant difference from 20 years should be understood to be at least 5 years. This approach is in line with the possibility to change the LLP for the euro only by at least 5 years because the swaps with maturities between 15 and 20 years and between 20 and 25 years are currently not liquid.

#### **Assessment of the bond market – Residual volume condition for the euro**

A.42 According to recital 21 of the Delegated Regulation the residual volume criterion applies under market conditions similar to those at the date of adoption of the Omnibus II Directive (i.e. Q2 2014). Whether the market conditions are similar to those in Q2 2014 should be assessed in the same way as for the specification that the LLP for the euro is 20 years (see section 3.4.3).

A.43 The residual volume condition should be calculated on the basis of a comprehensive database for bonds denominated in euro. The database should comprise government bonds and financial and non-financial corporate bonds, but not loans, securitisations, credit-linked notes or money-market funds.

#### **DLT assessment of the OIS market**

A.44 The current approach to the DLT assessment has not given rise to any issues and is proportionate. It should therefore be left unchanged for the future.

A.45 During the annual DLT assessment possible data sources for the OIS rates should be identified. In accordance with paragraph 101 of the RFR technical documentation, the decision on whether the OIS market for a currency is DLT should be made in every monthly RFR production on the basis of the availability of OIS rates (not more than 20% of business days without OIS rates or corresponding swap rate).



A.46 In the annual DLT assessment it should be checked whether, in addition to the currently used OIS information, OIS rates for other currencies are available.

A.47 This simplified approach is justified because the calculation of the credit risk adjustment is based on one-year averages of OIS rates, not on the OIS rate for a single reference date. The averaging of the rates over one year will ensure the reliability of the calculation input.

### **Conclusions from the assessments**

A.48 The results of the four components of the DLT assessment (swaps, government bonds, bonds, OIS) and of the subcomponents of the bond assessments (DLT assessment, matching criterion, residual volume condition for the euro, 20 years LLP for the euro) need to be combined to conclude on the instruments and maturities used to derive the risk-free interest rates.

A.49 The decision on the relevant instrument to derive the risk-free interest rates is made on the basis of the results of the DLT assessment for the swap and the government bond markets in accordance with Article 44 of the Delegated Regulation. According to that Article swaps are the default instruments.

A.50 Regarding the choice of the relevant financial instrument it should be taken into account that term structures based on swaps and government bonds for different maturities are problematic because the risk-free interest rates may jump at the maturities where the instrument changes when the interest rate levels of swaps and government bonds are significantly different. The resulting jumps in term structures are usually not in line with economic reality. In such a case a mixture of swaps and government bonds should be avoided. The DLT assessment should take account of overall soundness of resulting term structure.

A.51 The DLT assessment of the relevant instrument will inform about the DLT maturities that could be used in the derivation of the term structure. This outcome may need to be adjusted on the basis of the assessment of the bond market as follows:

A.52 Only maturities with a DLT bond market can be used to derive the risk-free interest rates (Article 77a of the Solvency II Directive).

A.53 The LLP has to meet the matching criterion. Where that is not the case the largest maturity that meets the matching criterion and where the markets for the relevant financial instrument and for bonds are DLT will be chosen as the LLP.

A.54 For the euro the additional restrictions to the LLP apply. As long as market conditions are similar to those in Q2 2014 the LLP is 20 years and needs to fulfil the residual volume condition. Where the market conditions are similar

to those in Q2 2014 and the two requirements contradict each other the recital on the 20 years LLP takes precedence.

A.55 Where swaps are the relevant financial instrument and the OIS market is found to be liquid the OIS rates will be used in the calculation of the credit risk adjustment to the swap rates. Otherwise a proxy on the basis of the credit risk adjustment for the euro or the US dollar will be used.<sup>340</sup>

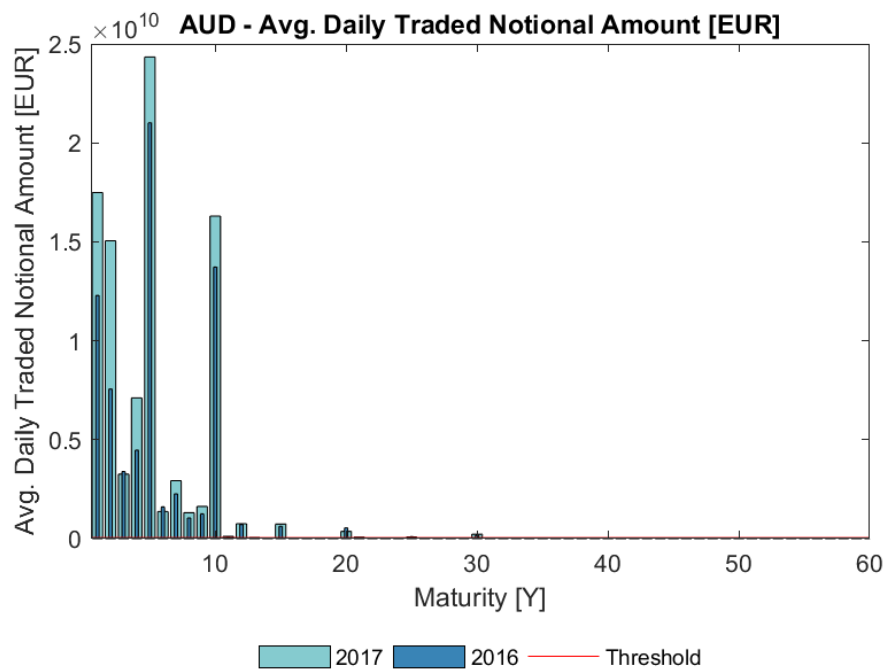
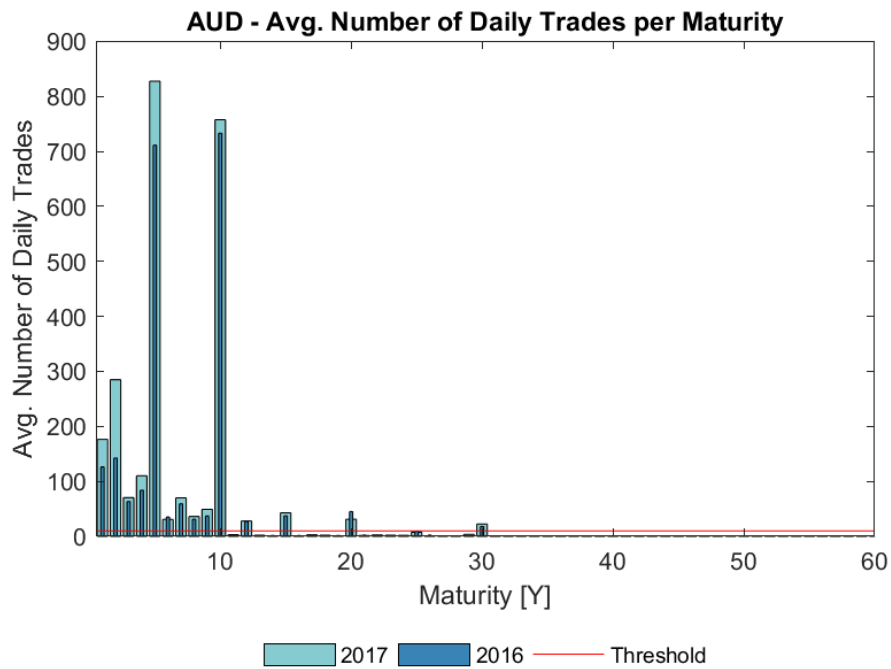
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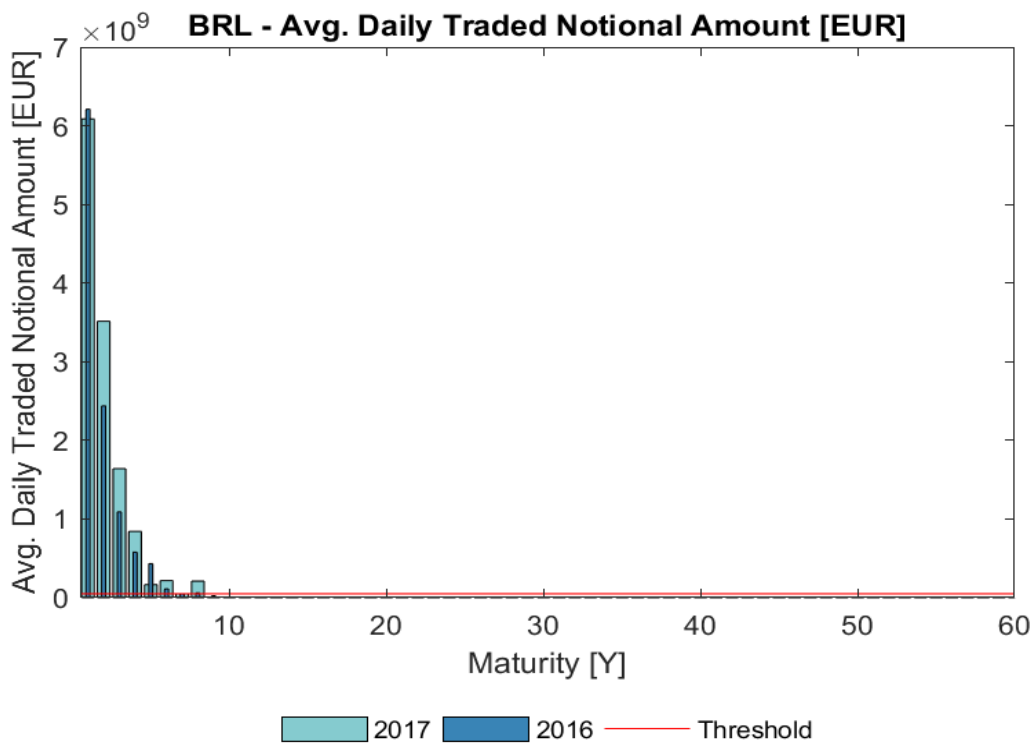
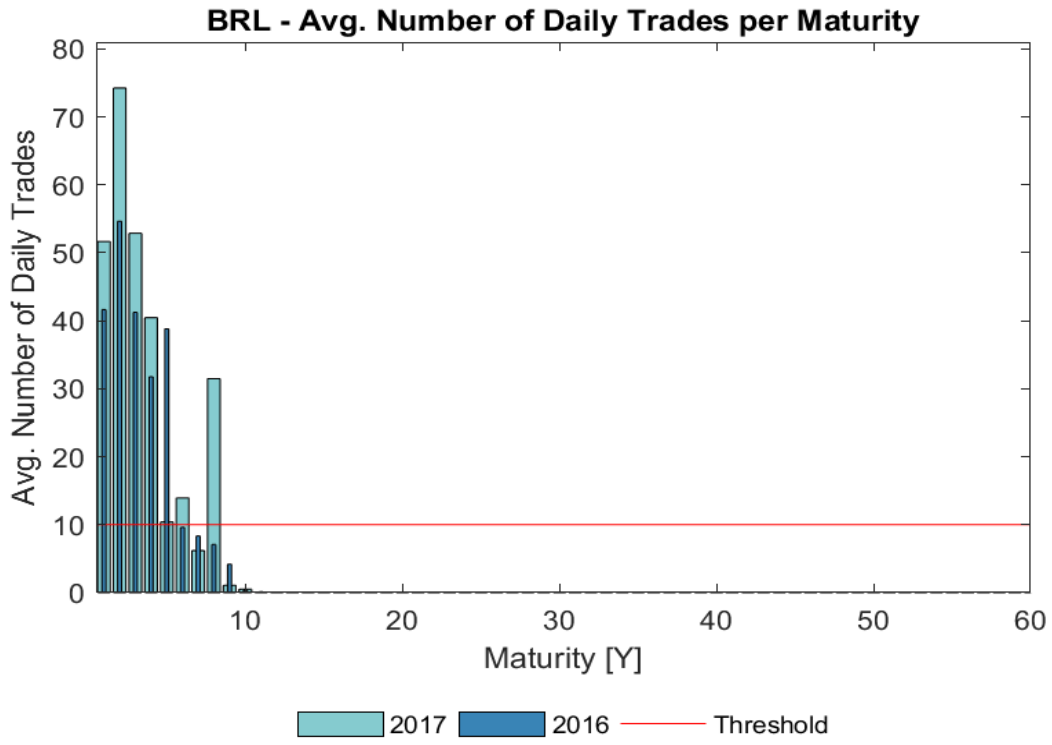
<sup>340</sup> See section 5.C of the RFR technical documentation.

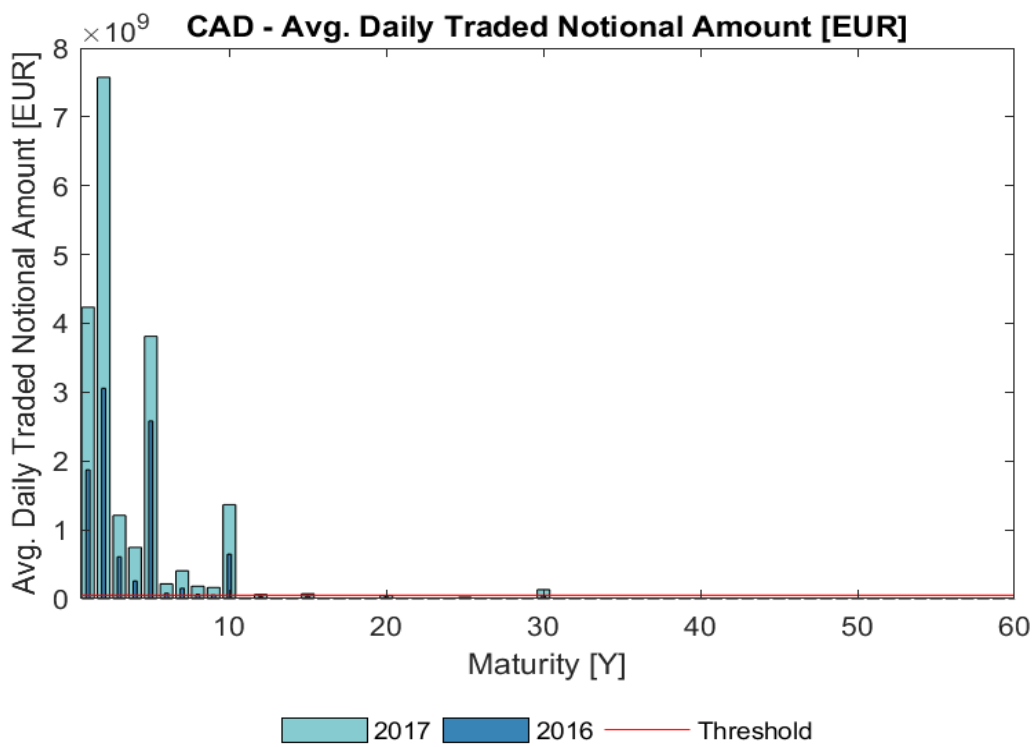
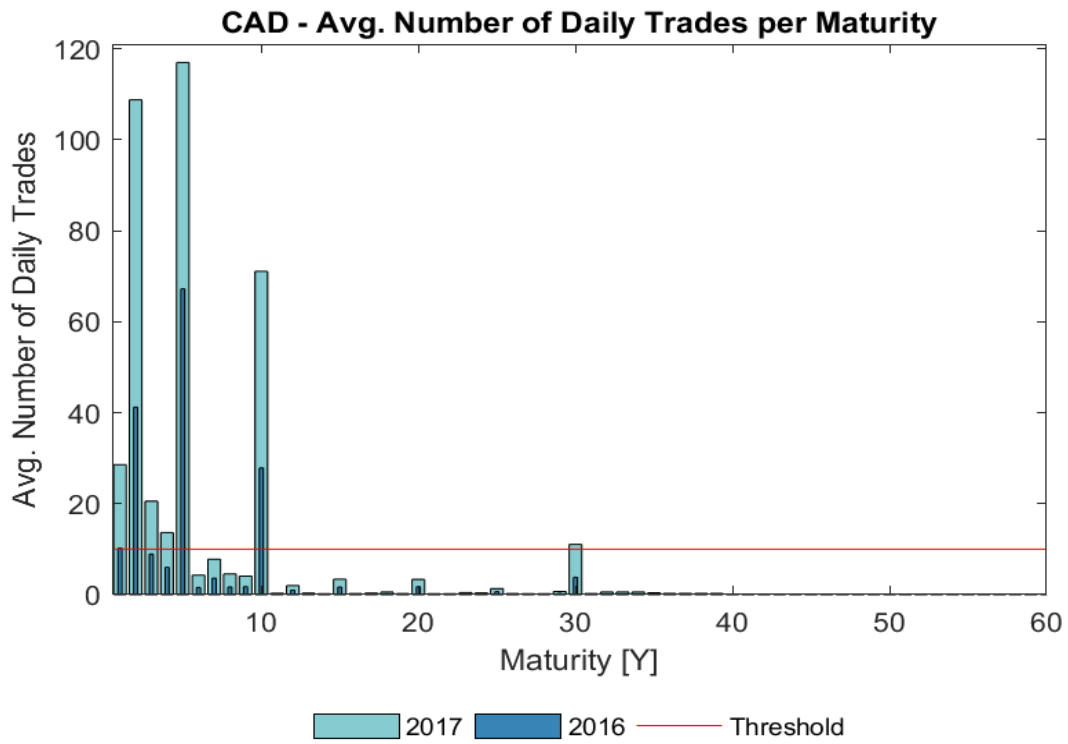
## Annex 2.2 – Results of the DLT assessment

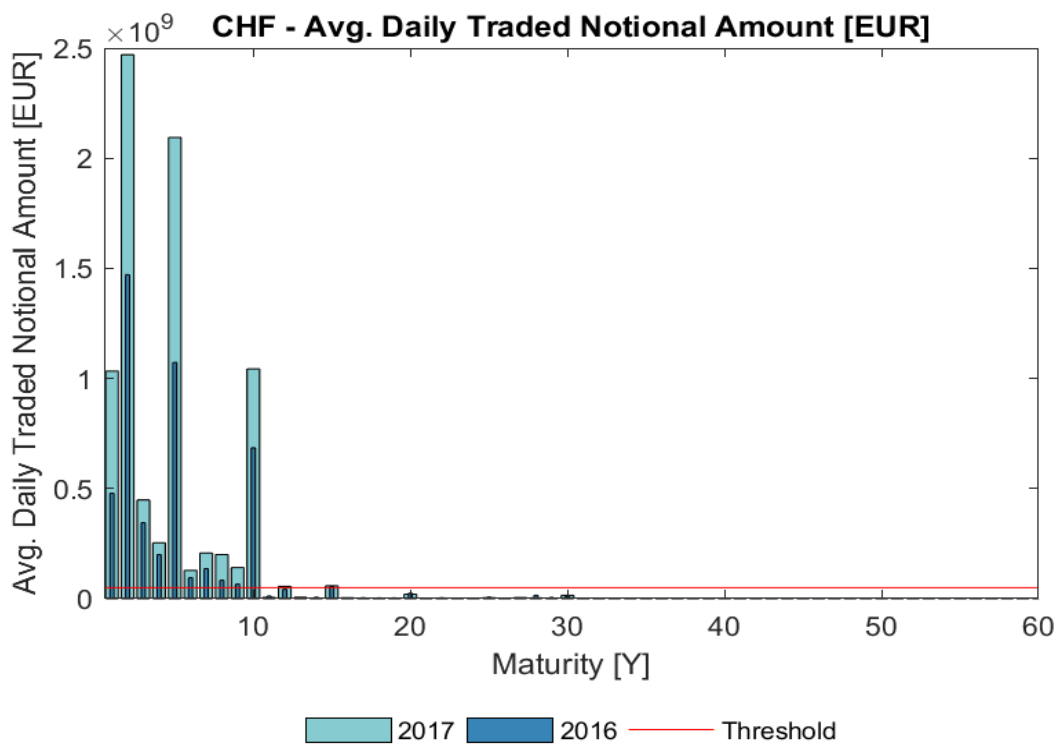
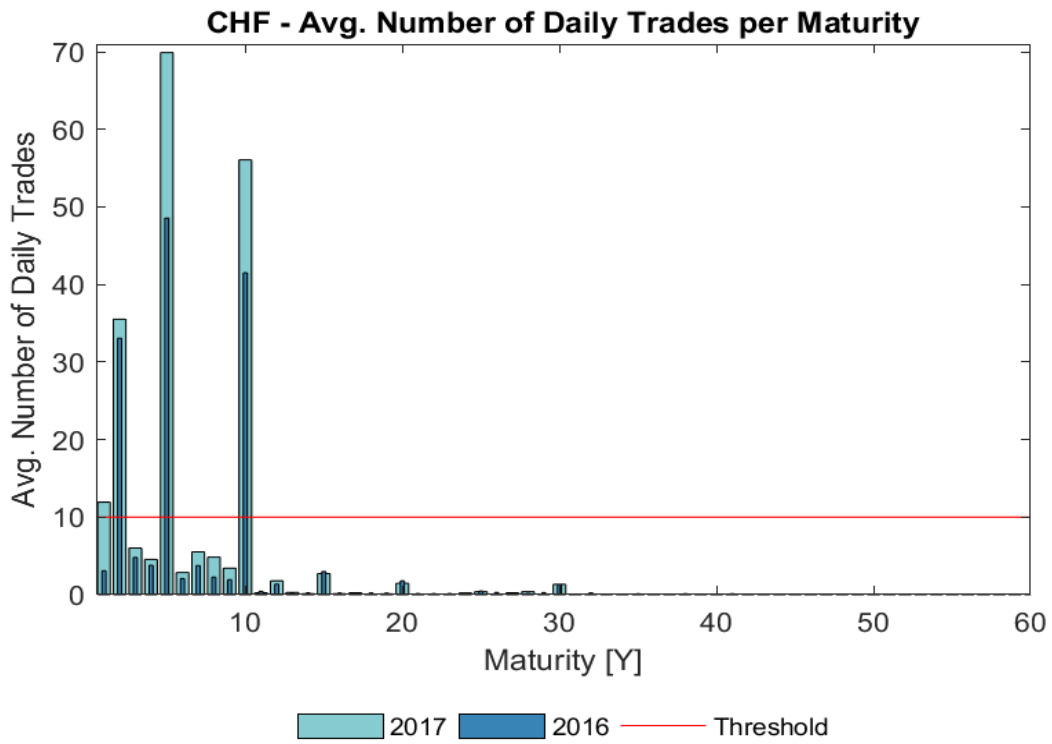
### DLT assessment of the swap market

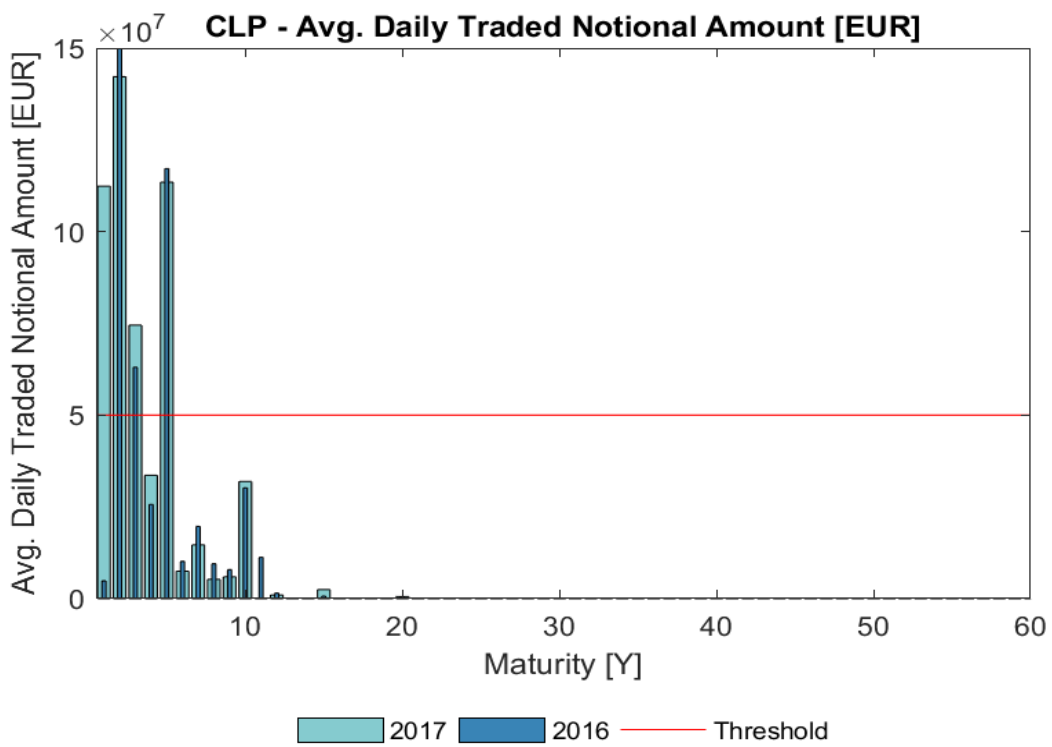
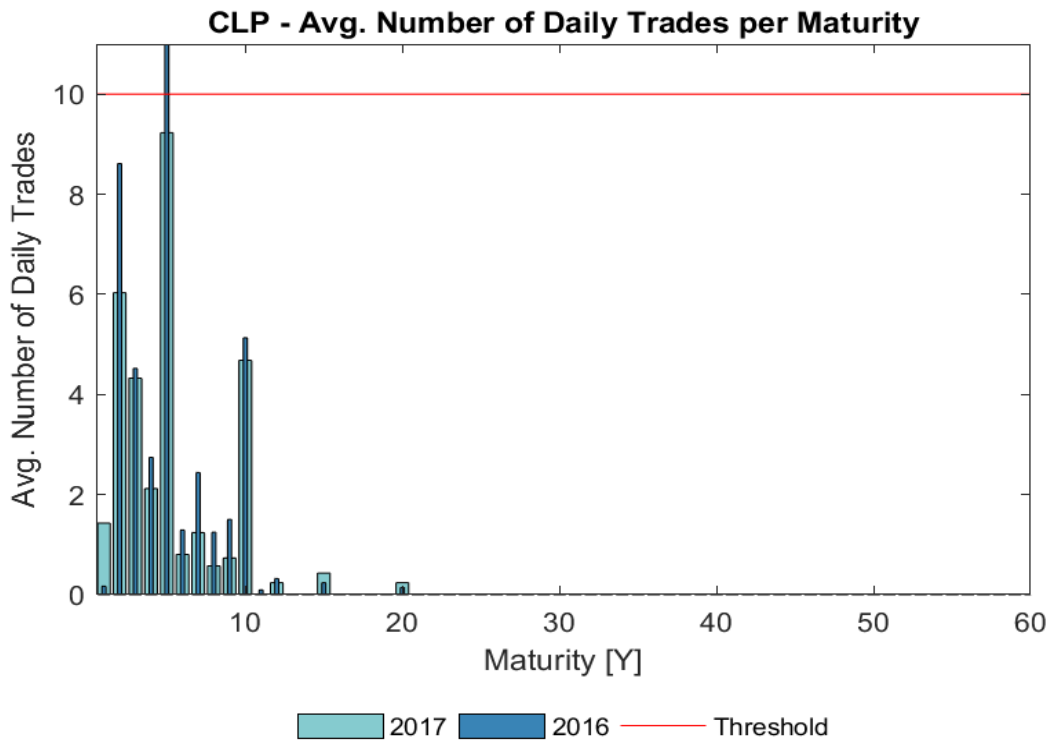
A.56 The following diagrams show the average daily swap trade volume and swap trade frequency during 2016 and 2017.

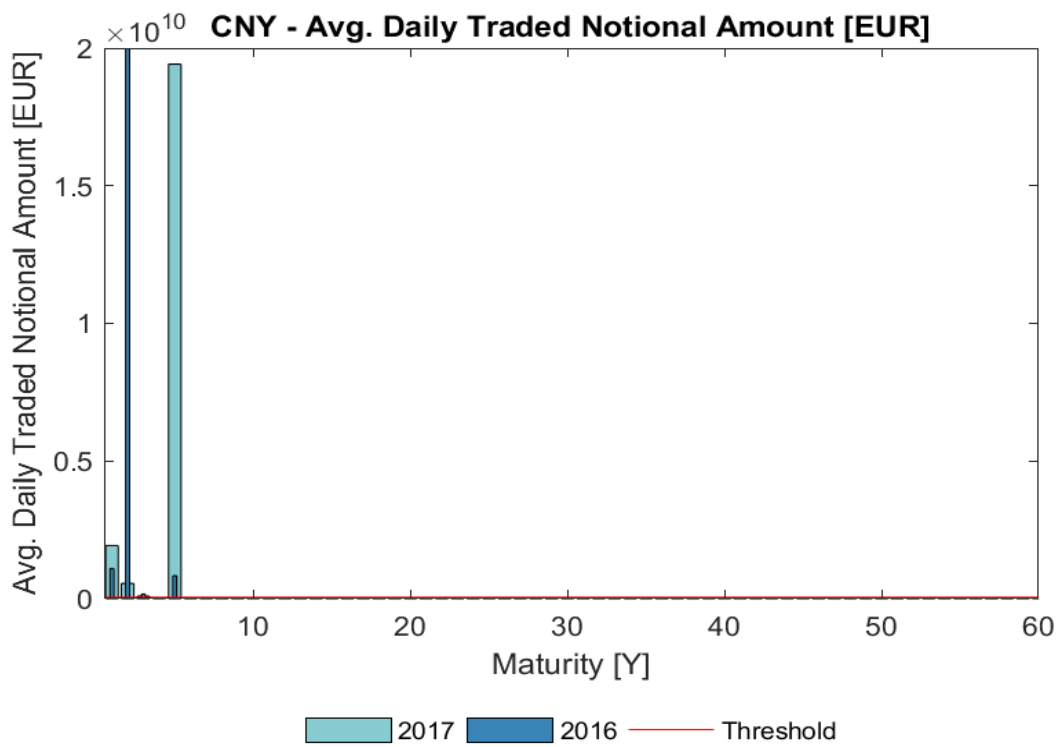
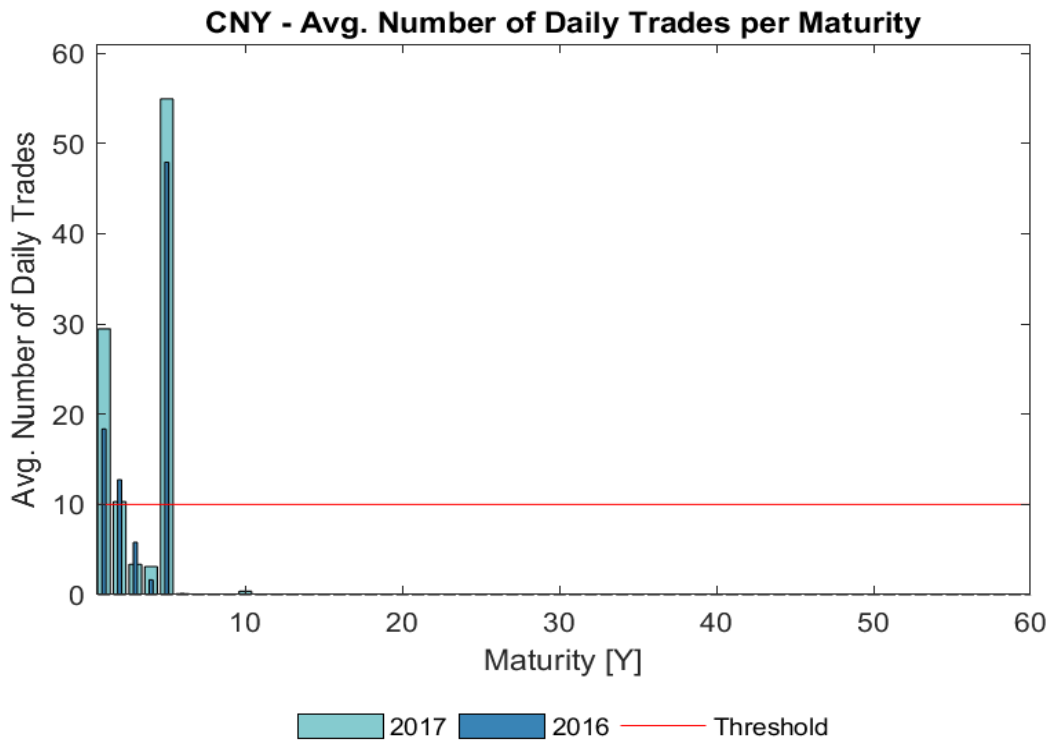




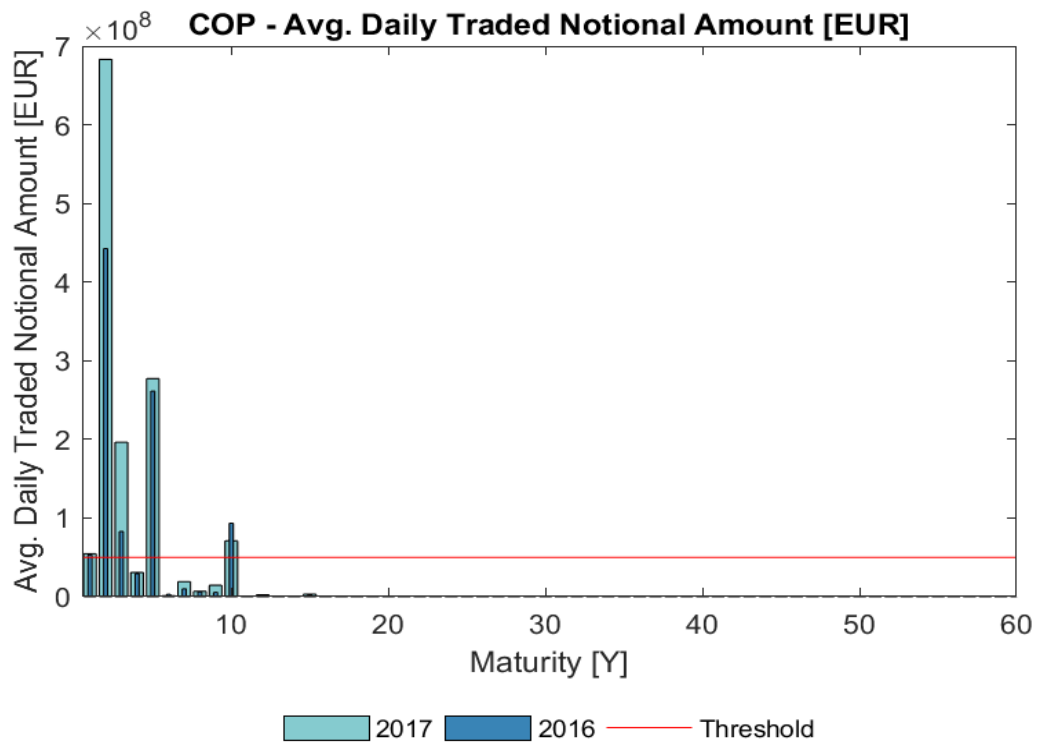
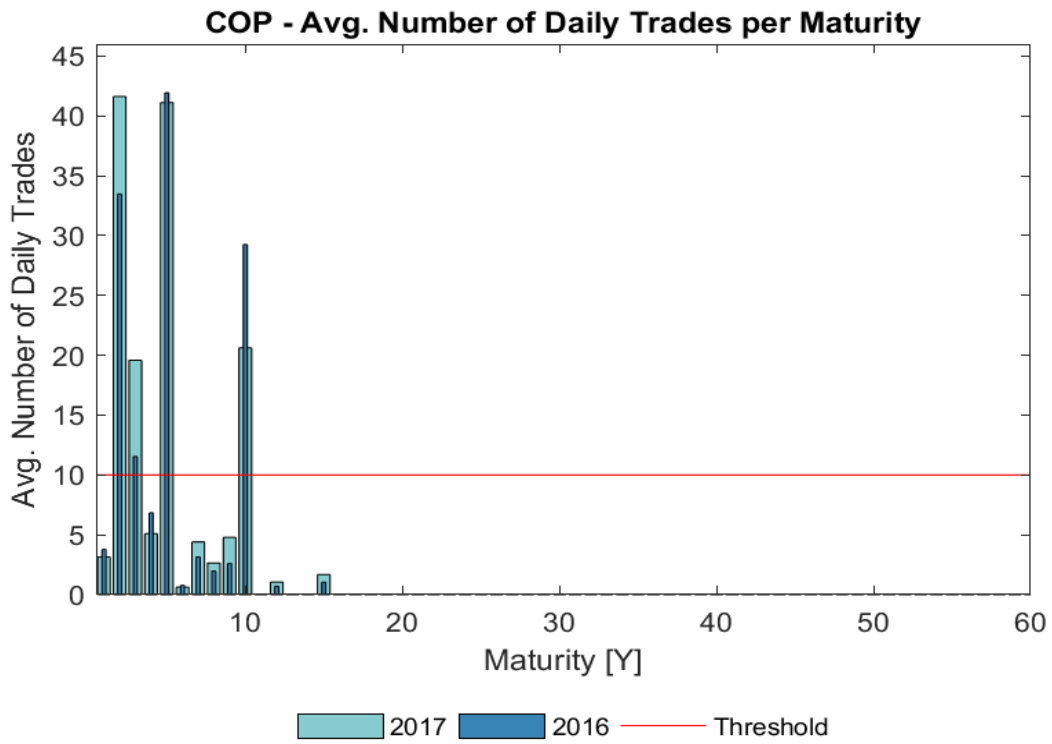


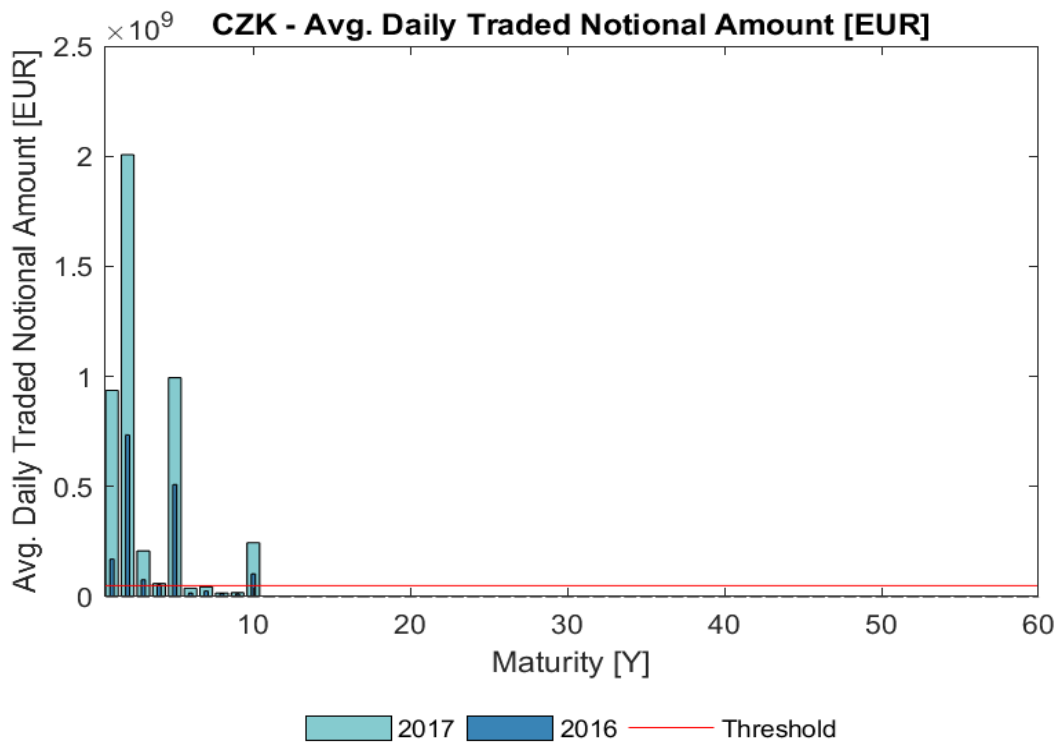
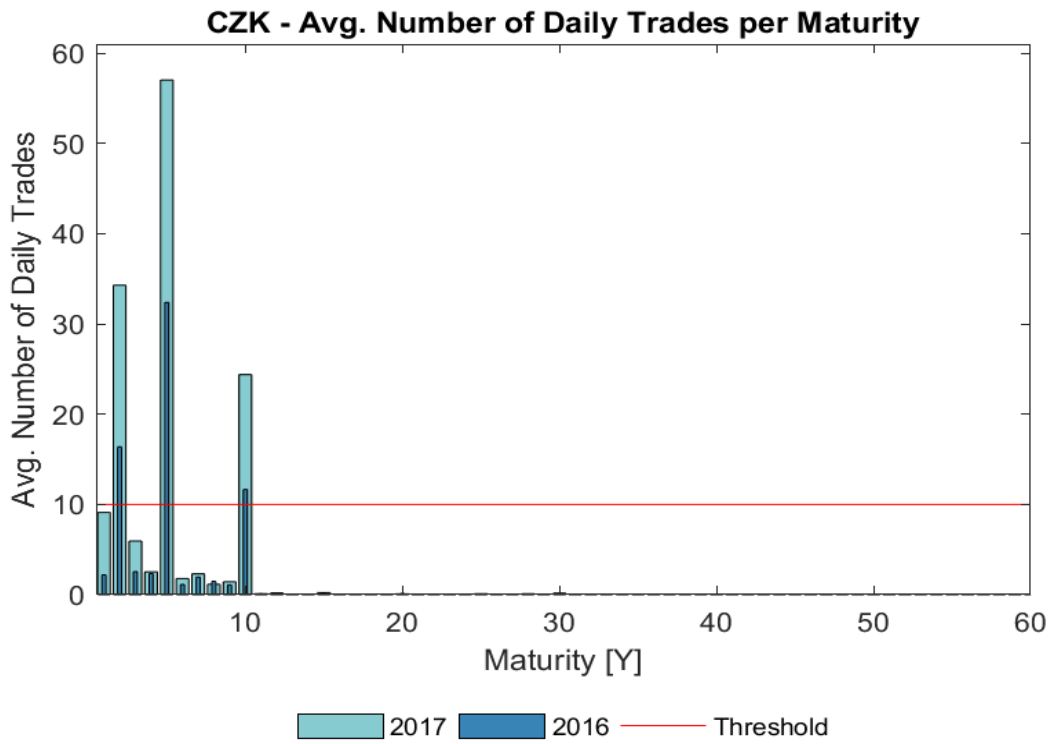


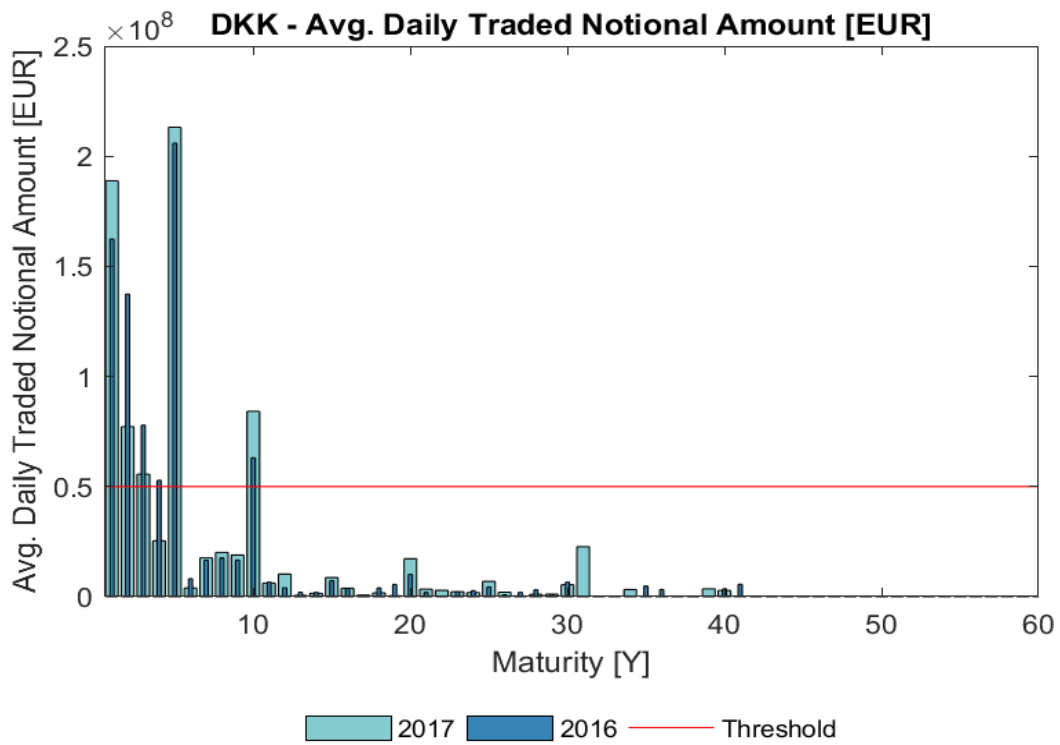
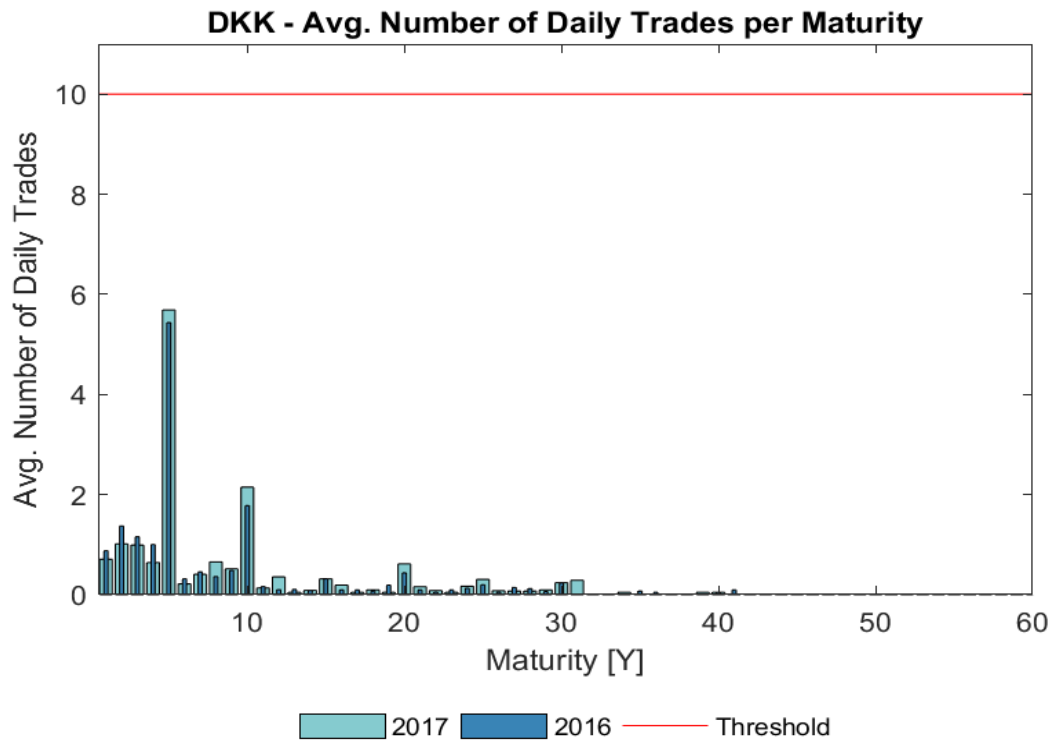


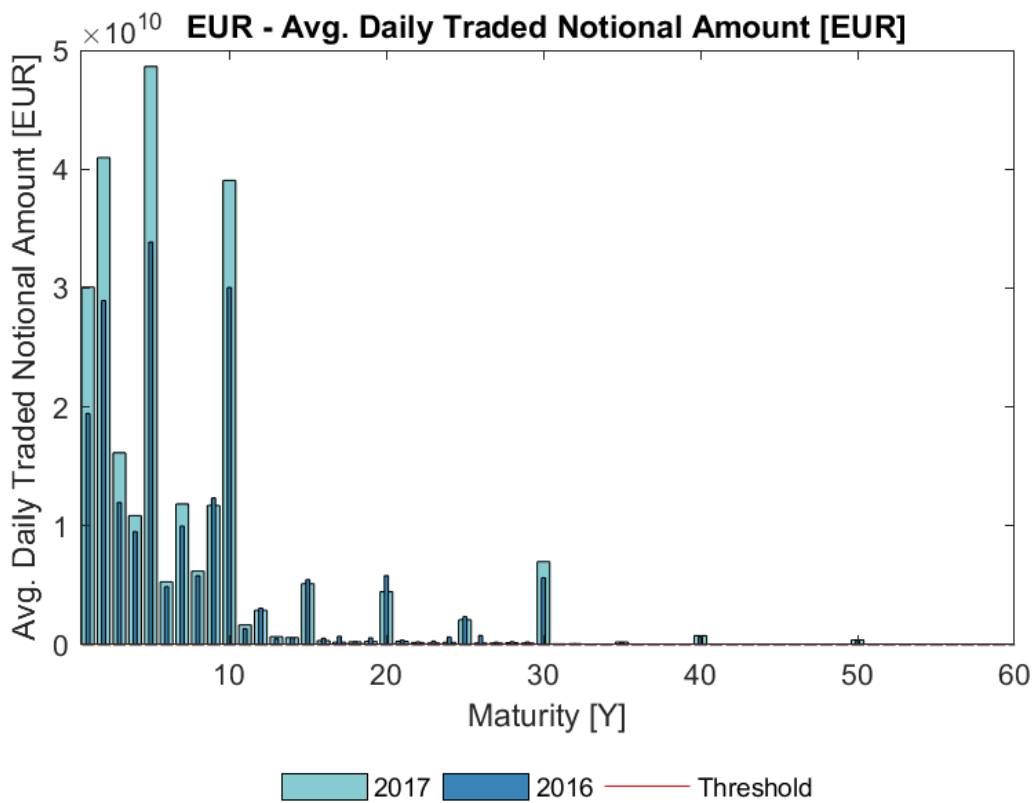
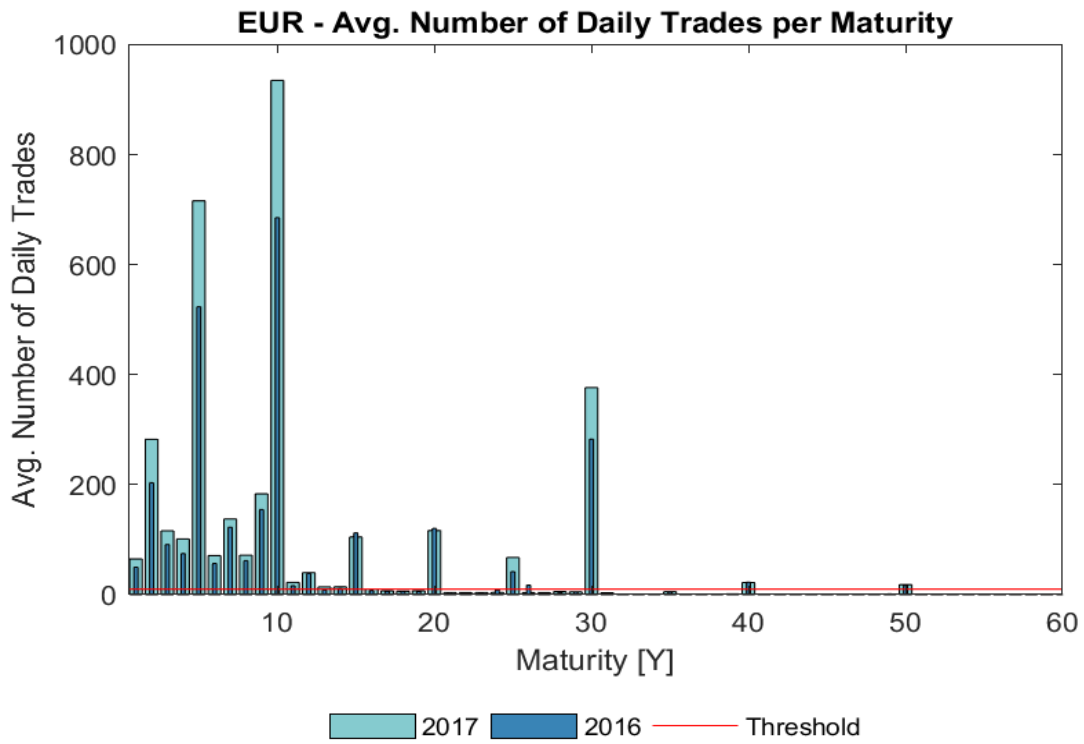


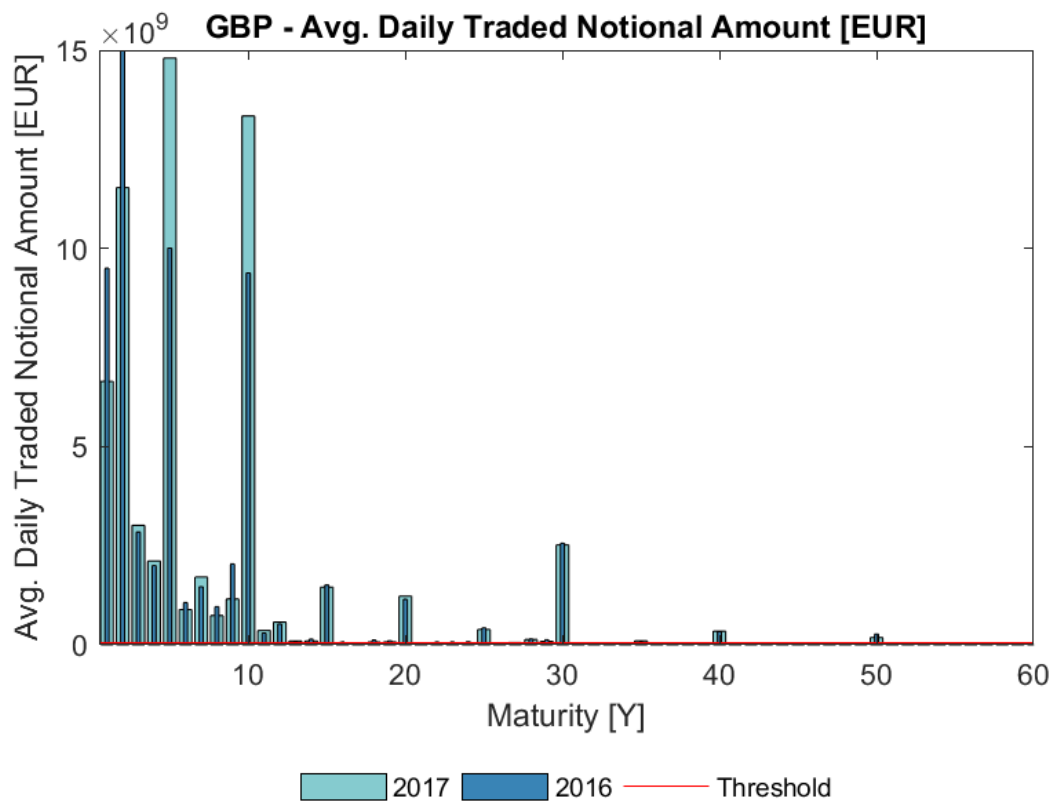
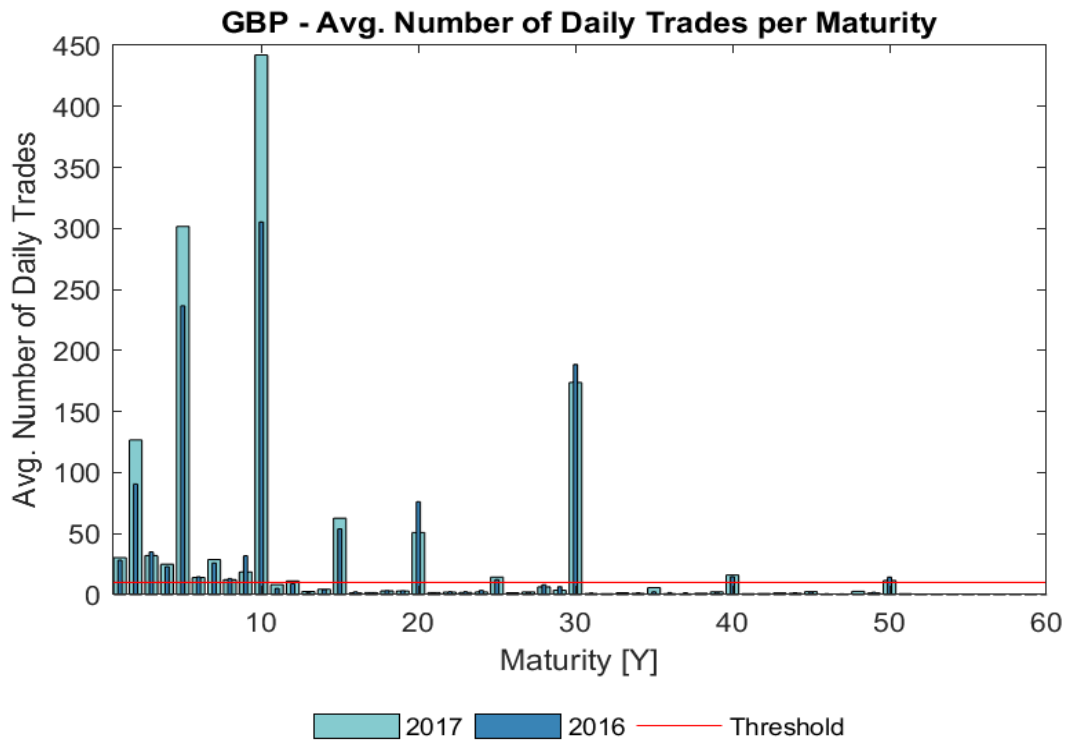


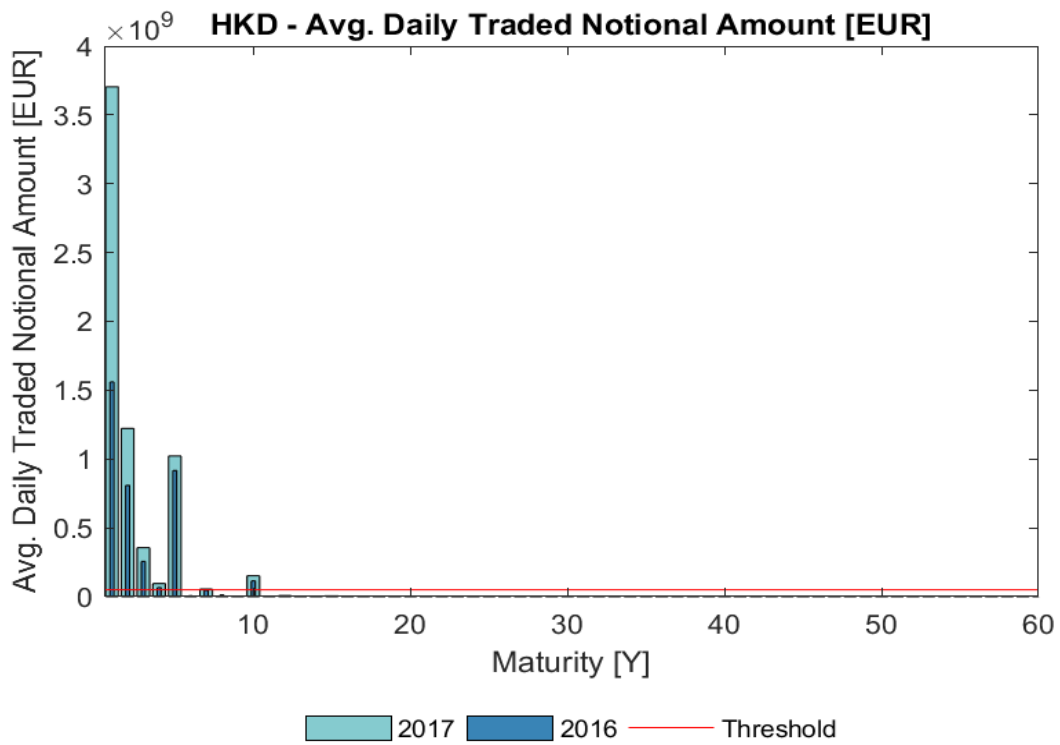
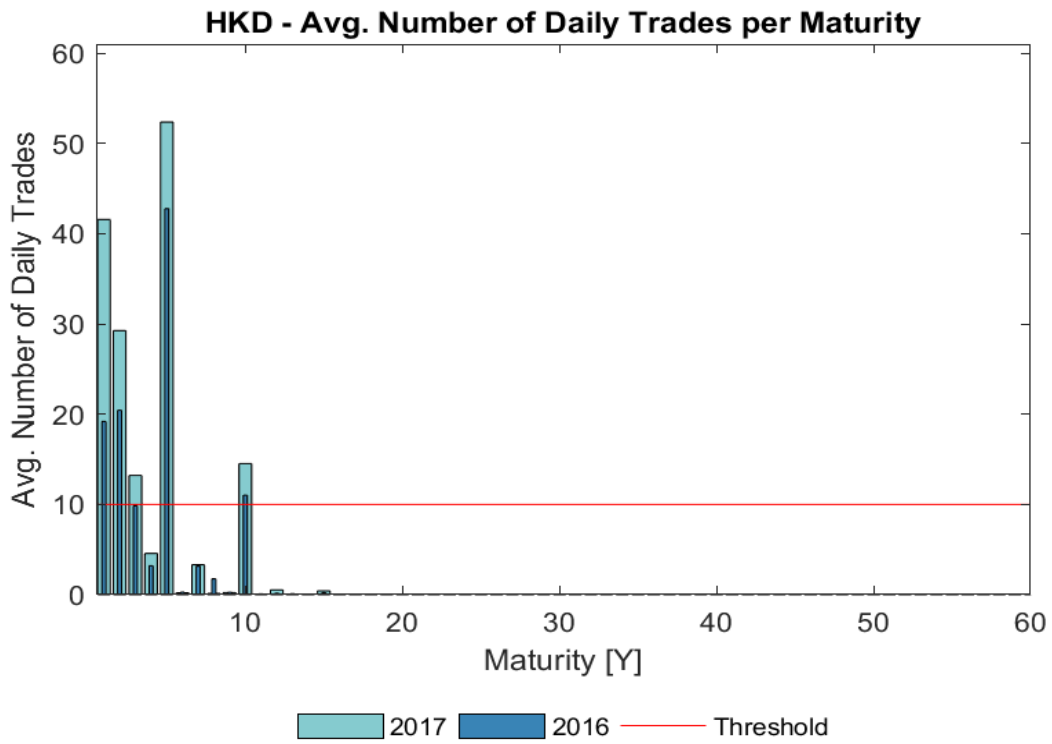


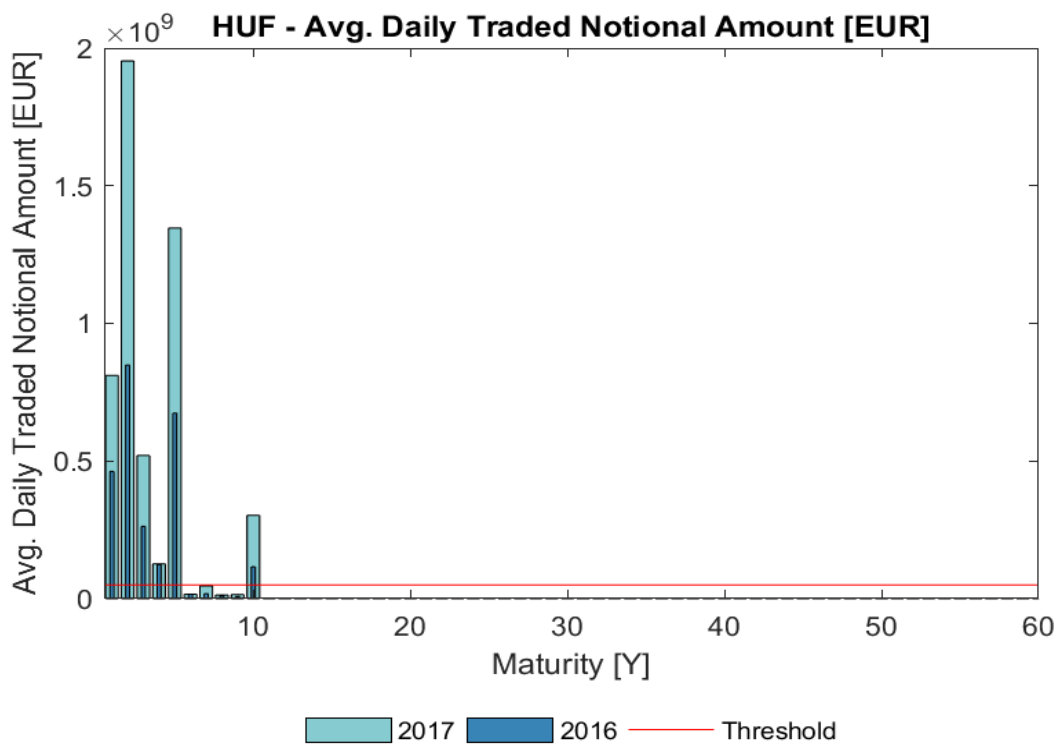
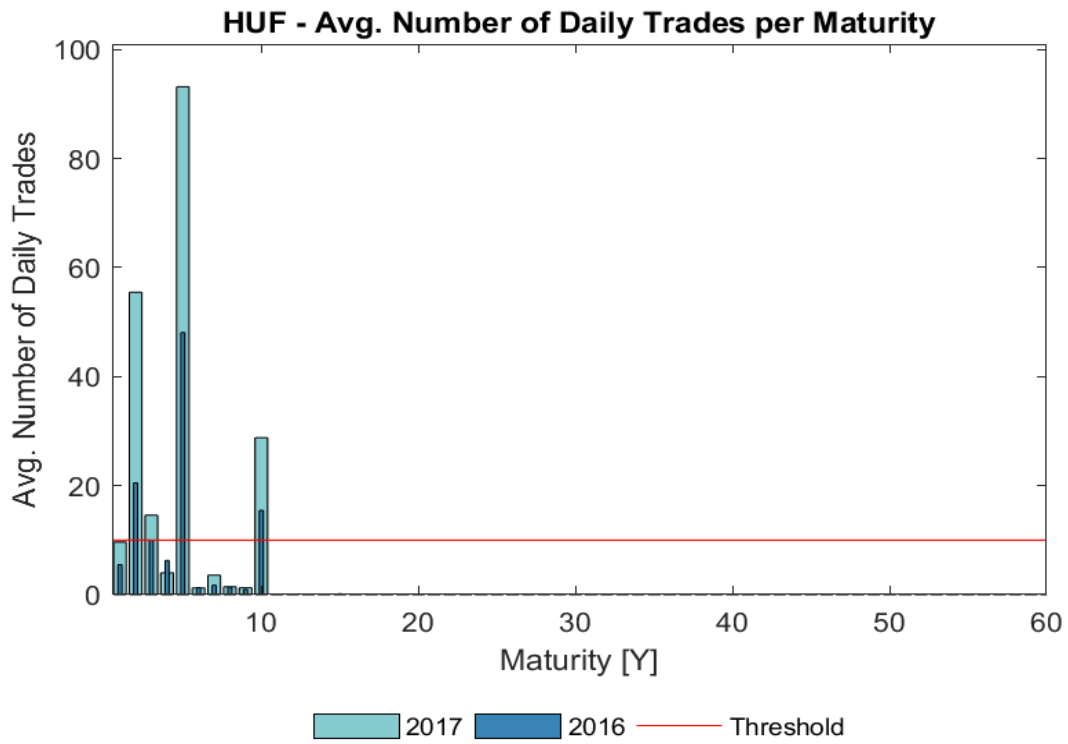


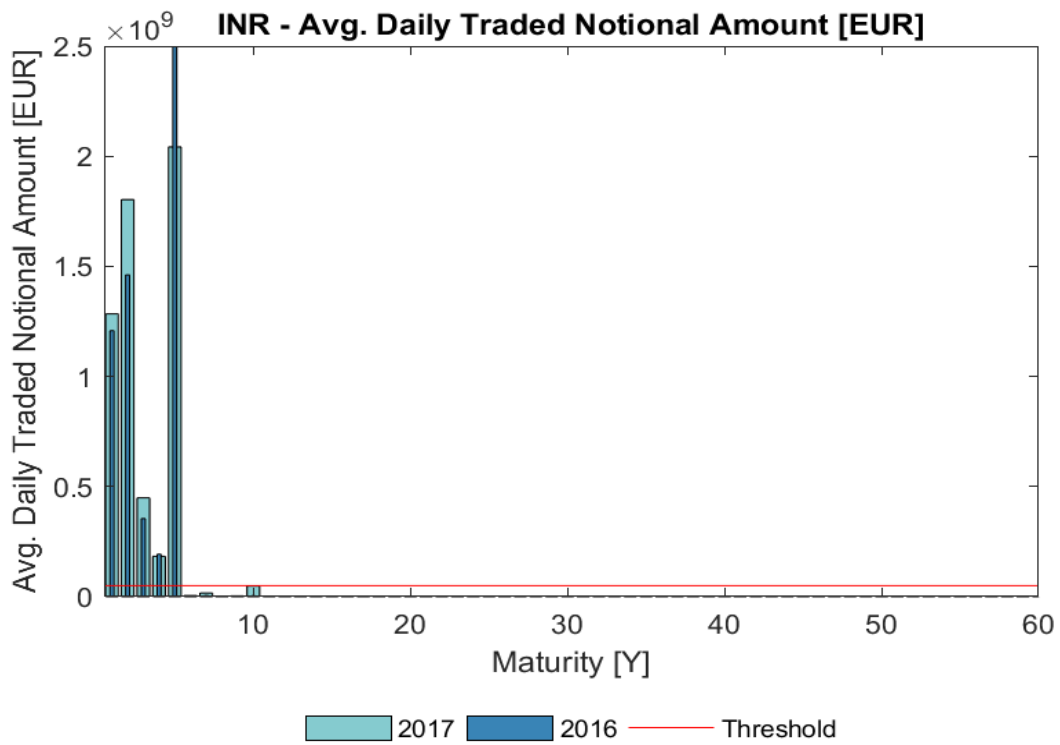
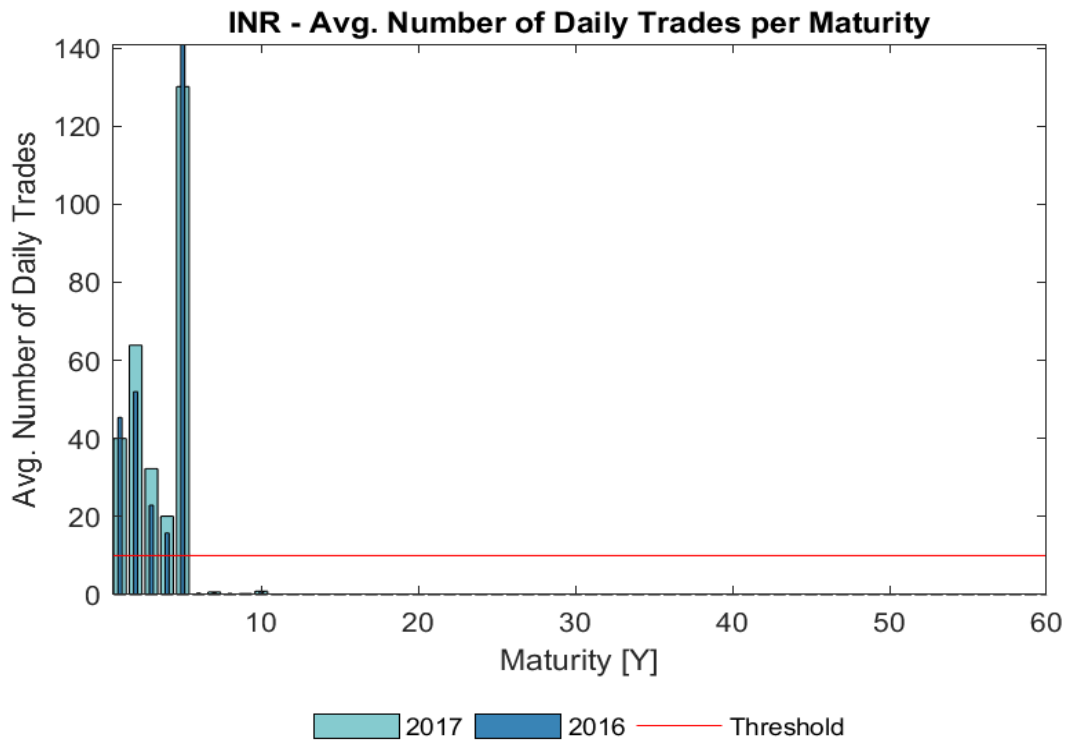




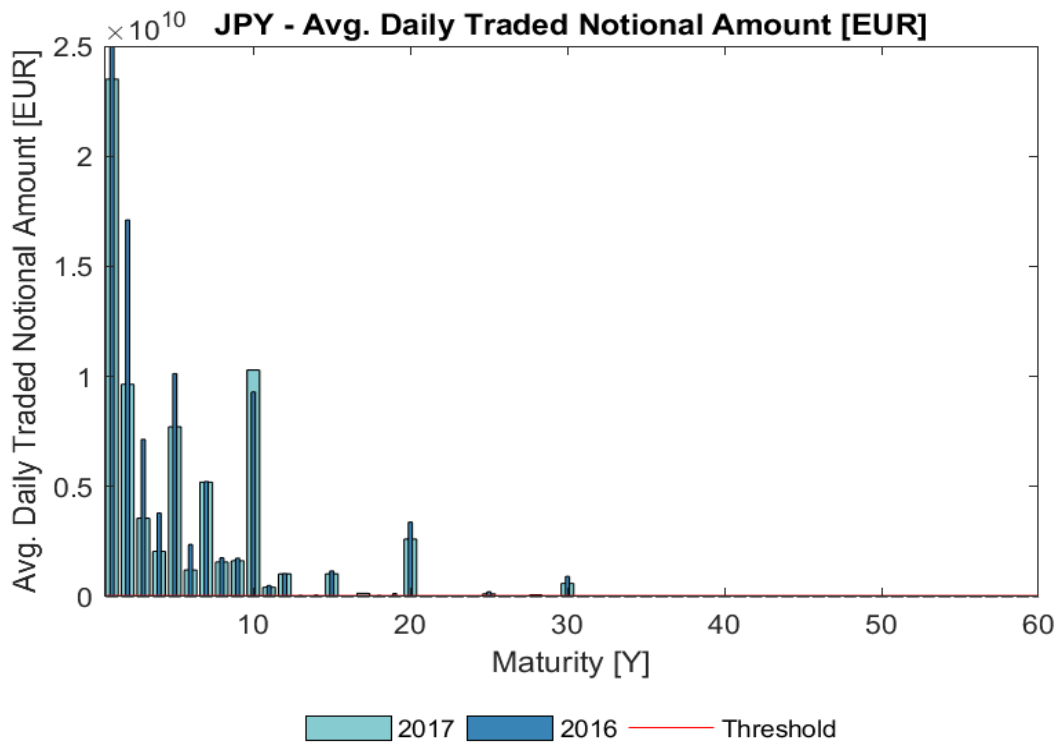
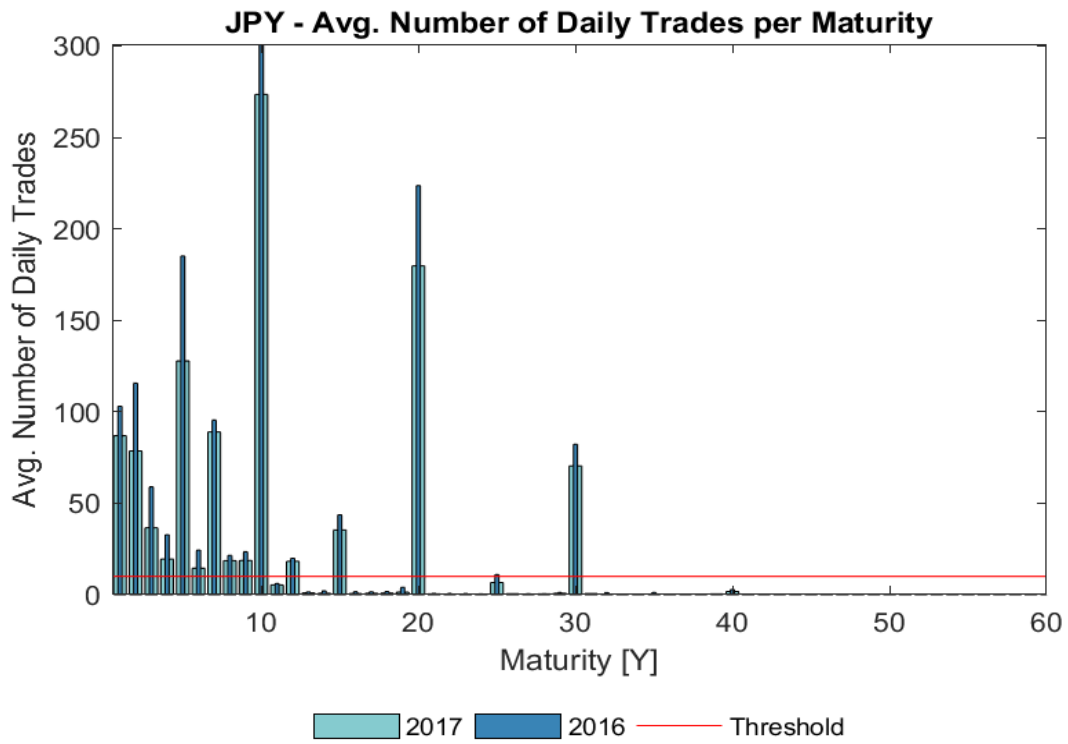


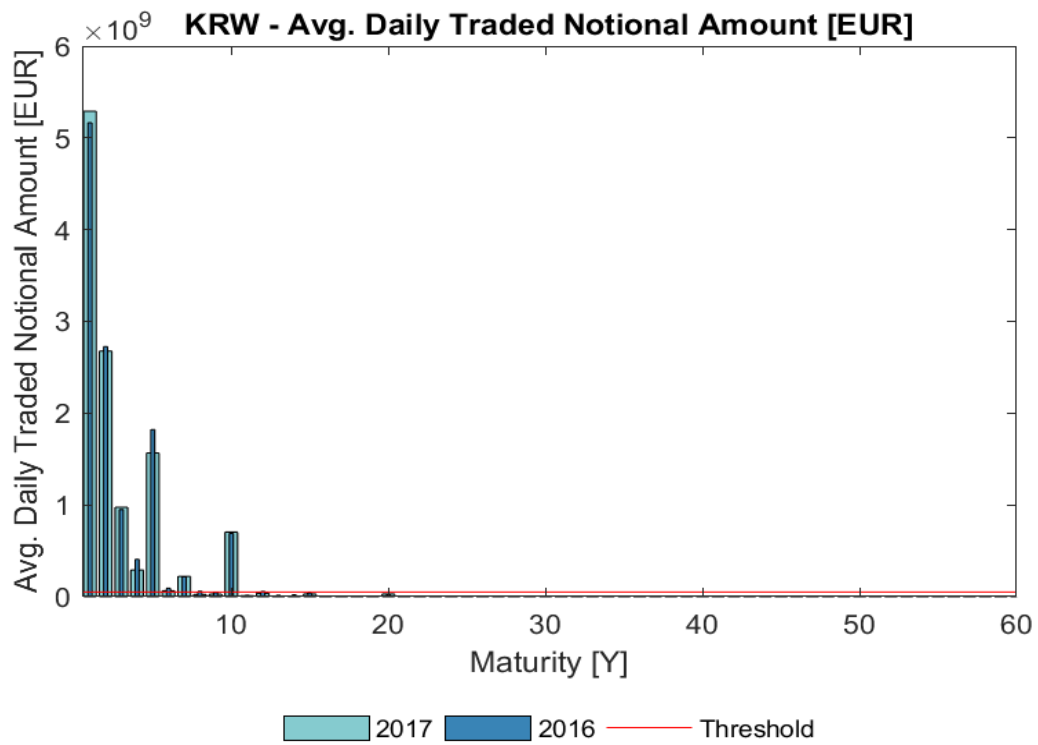
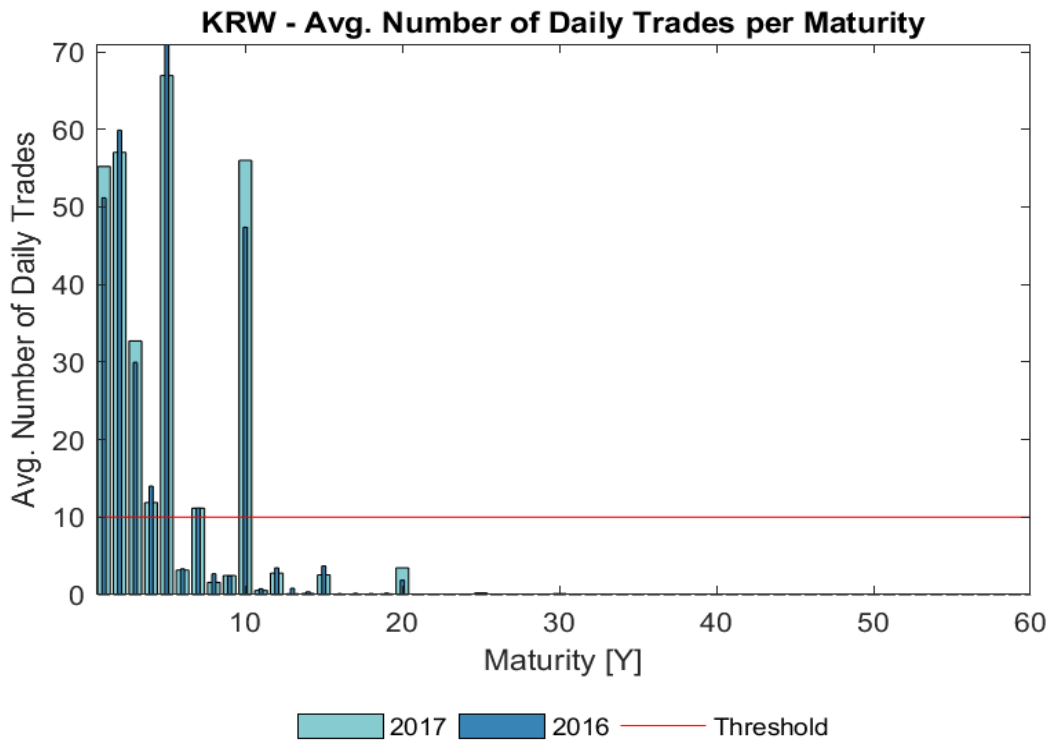


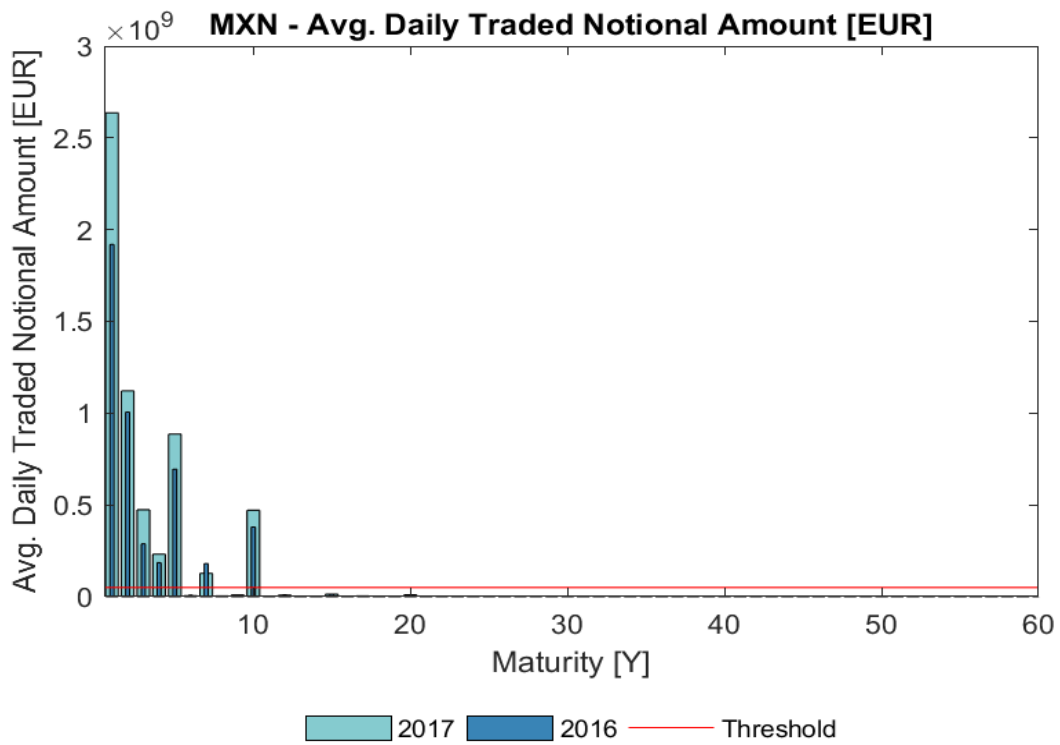
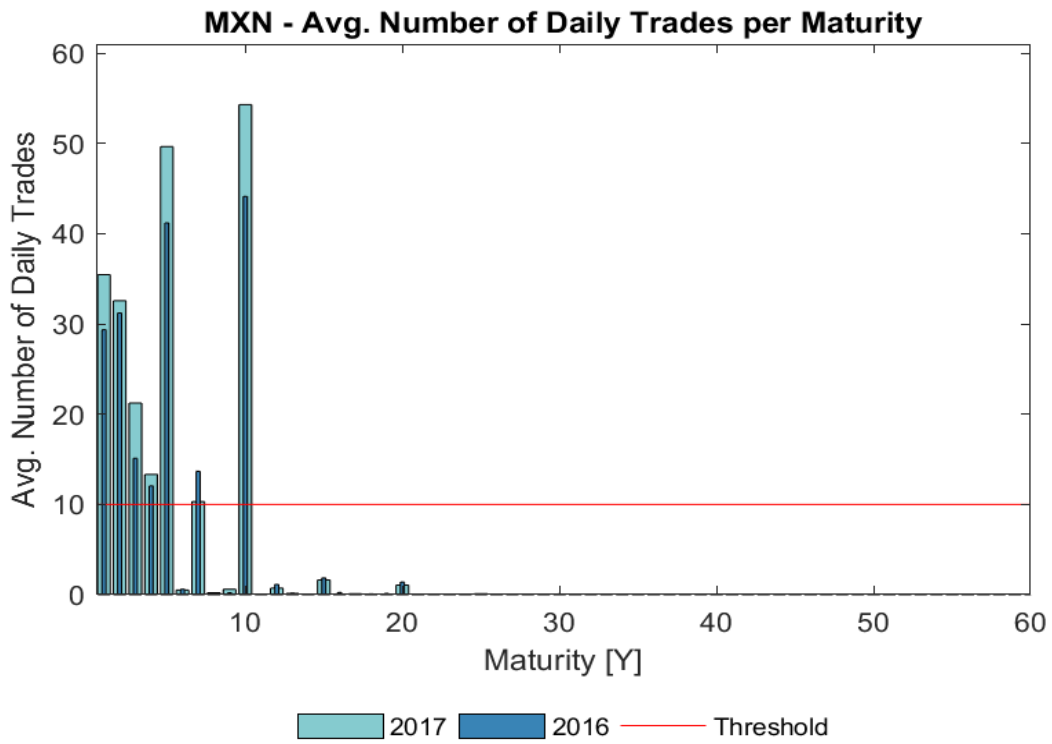


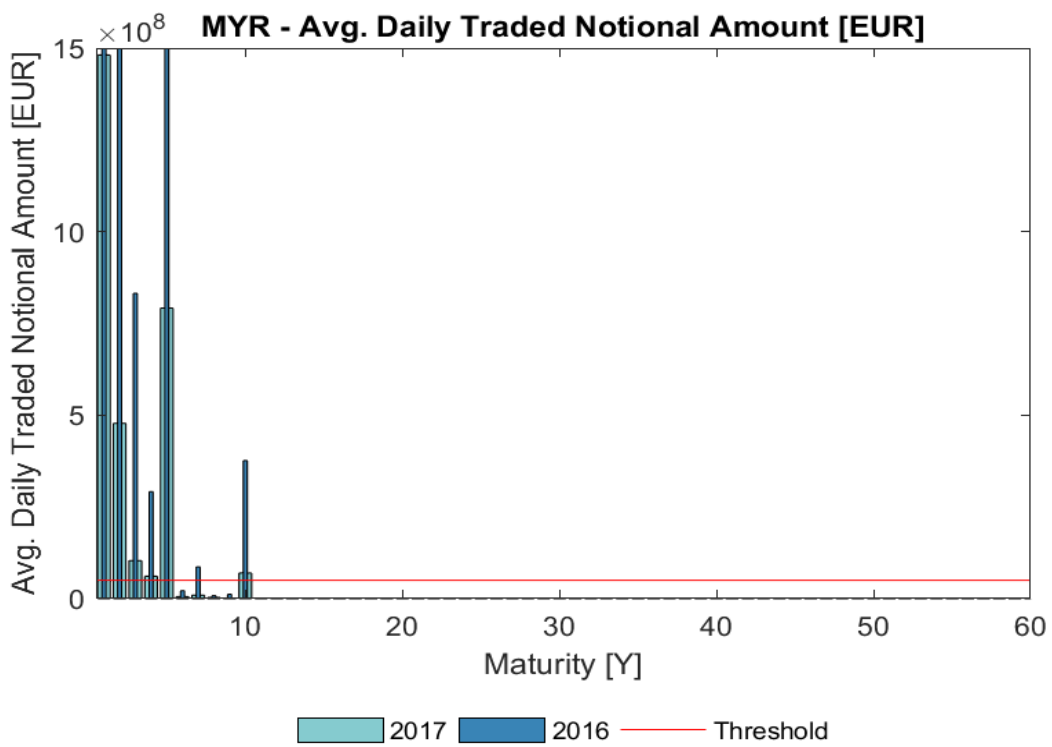
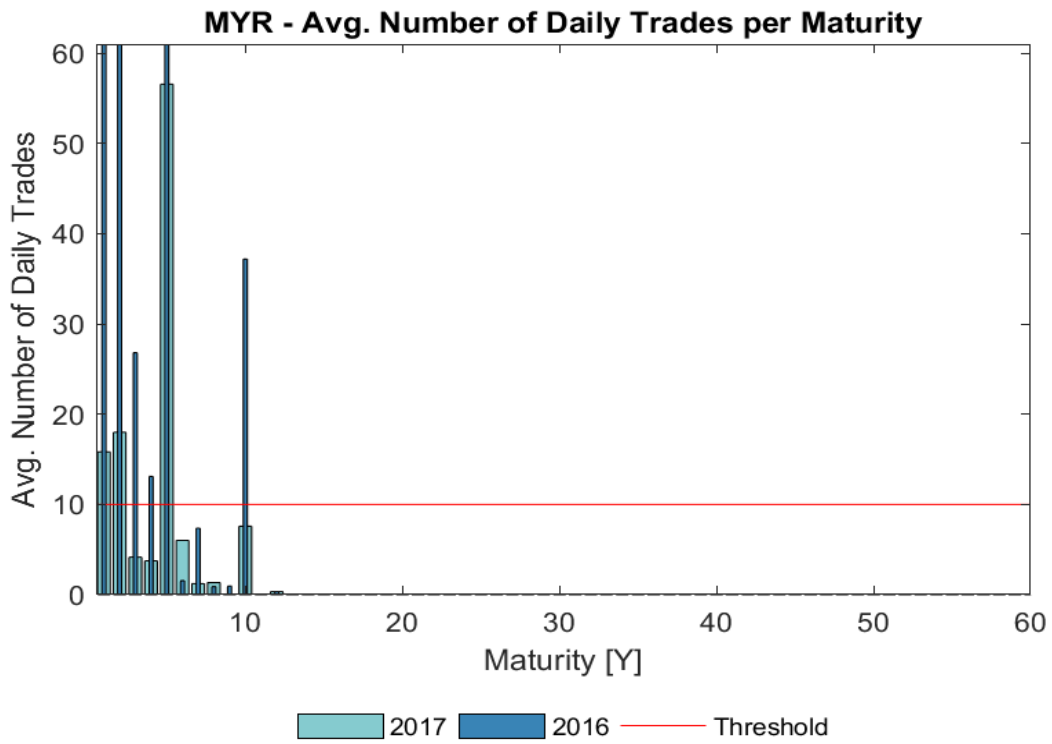


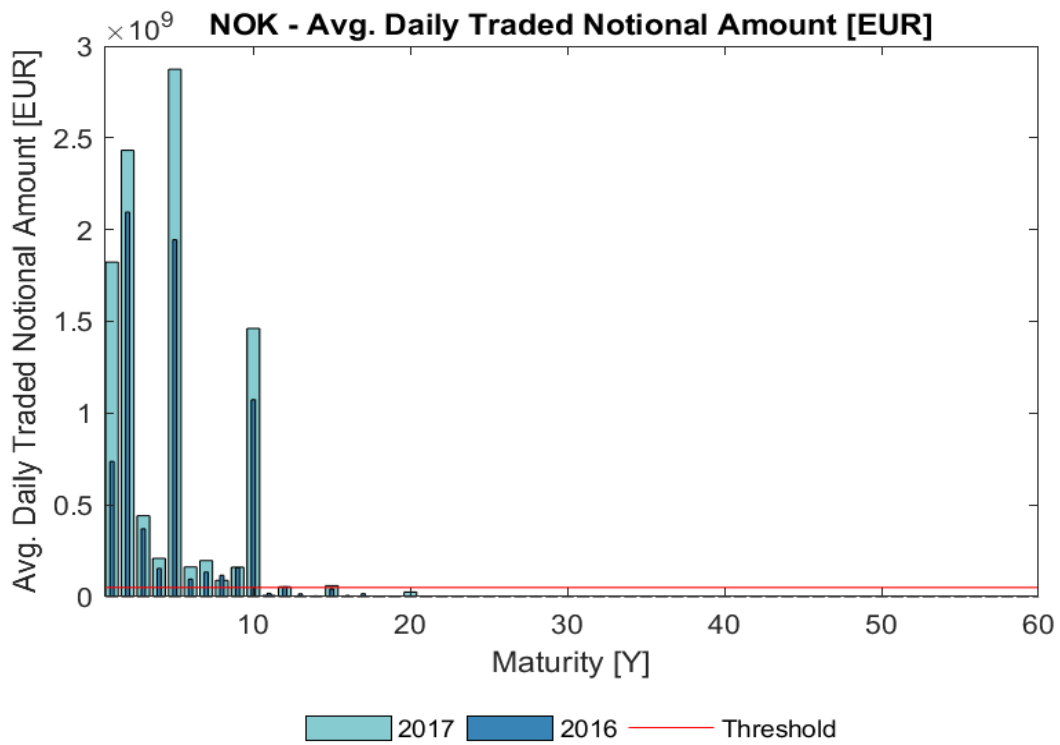
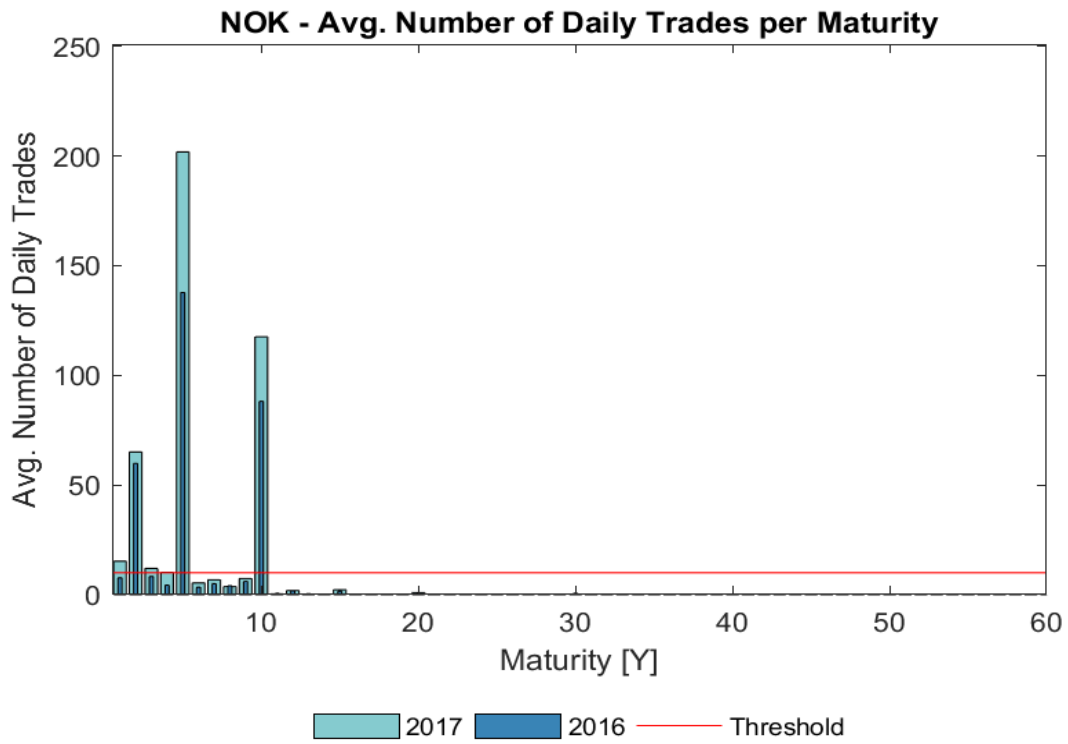


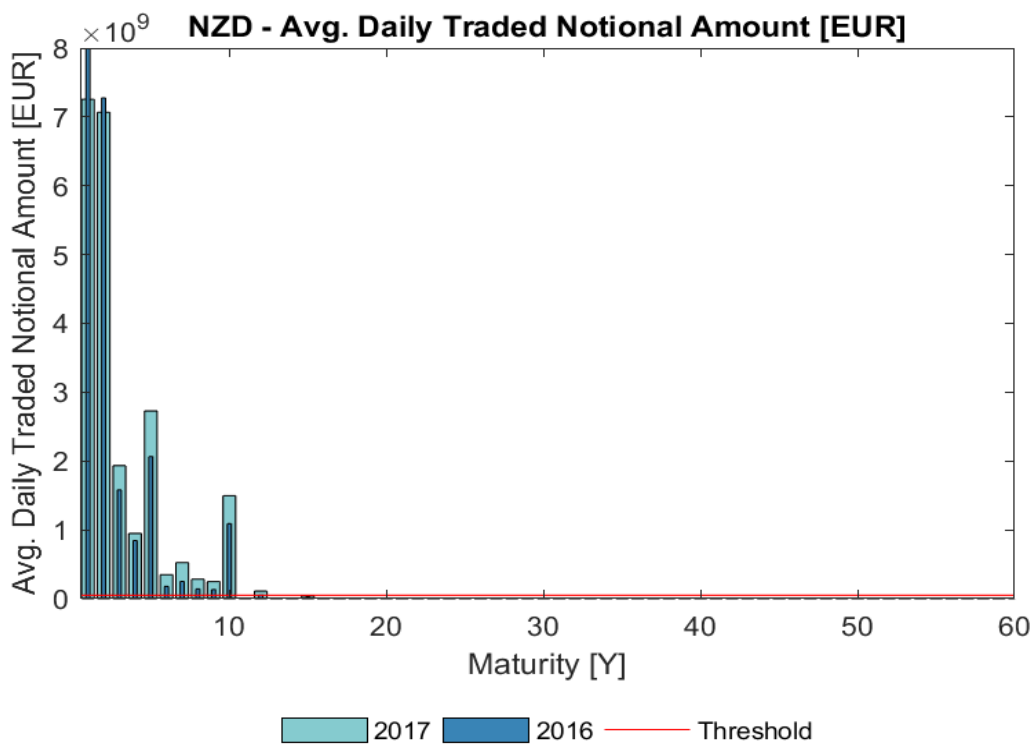
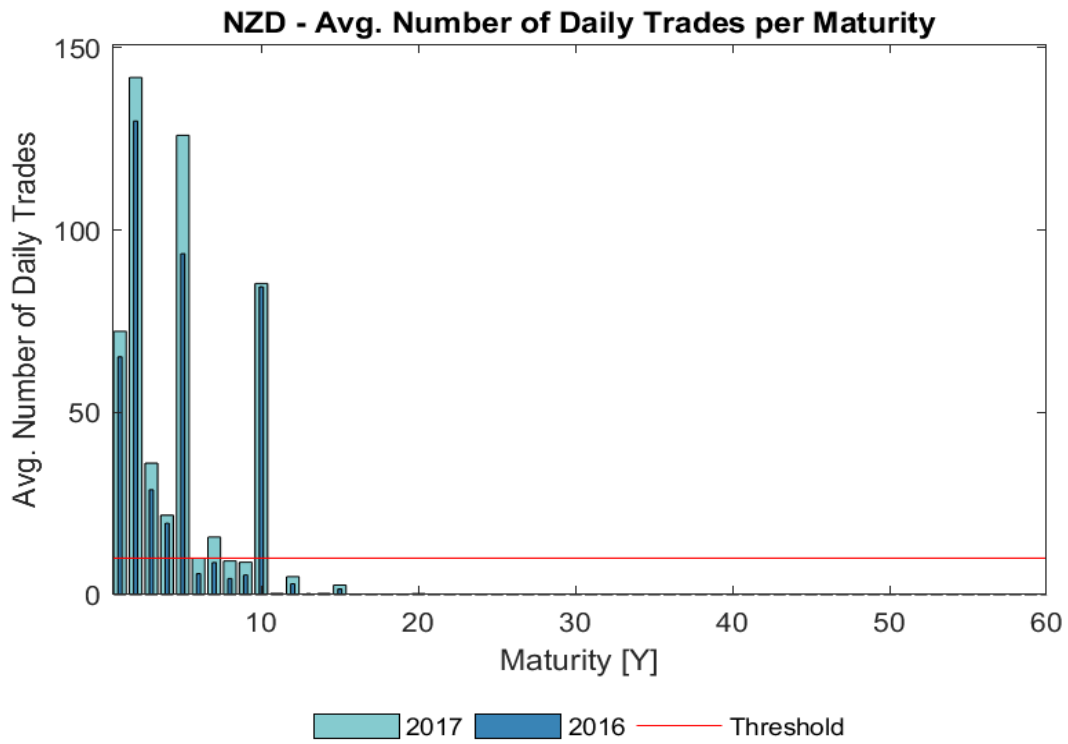


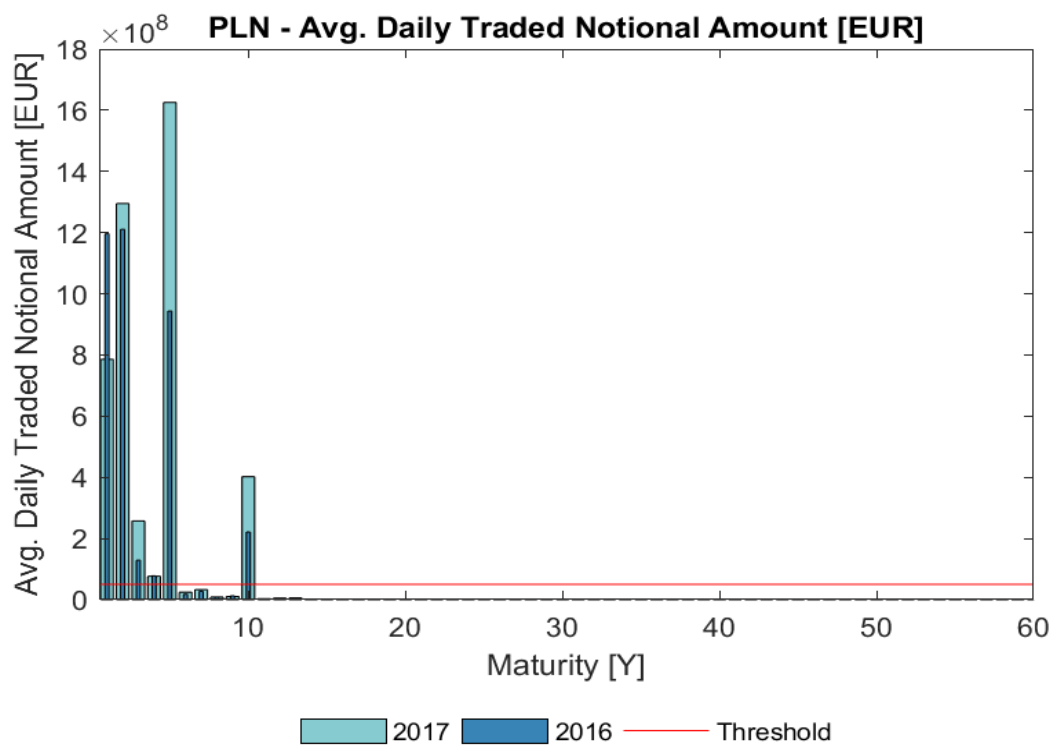
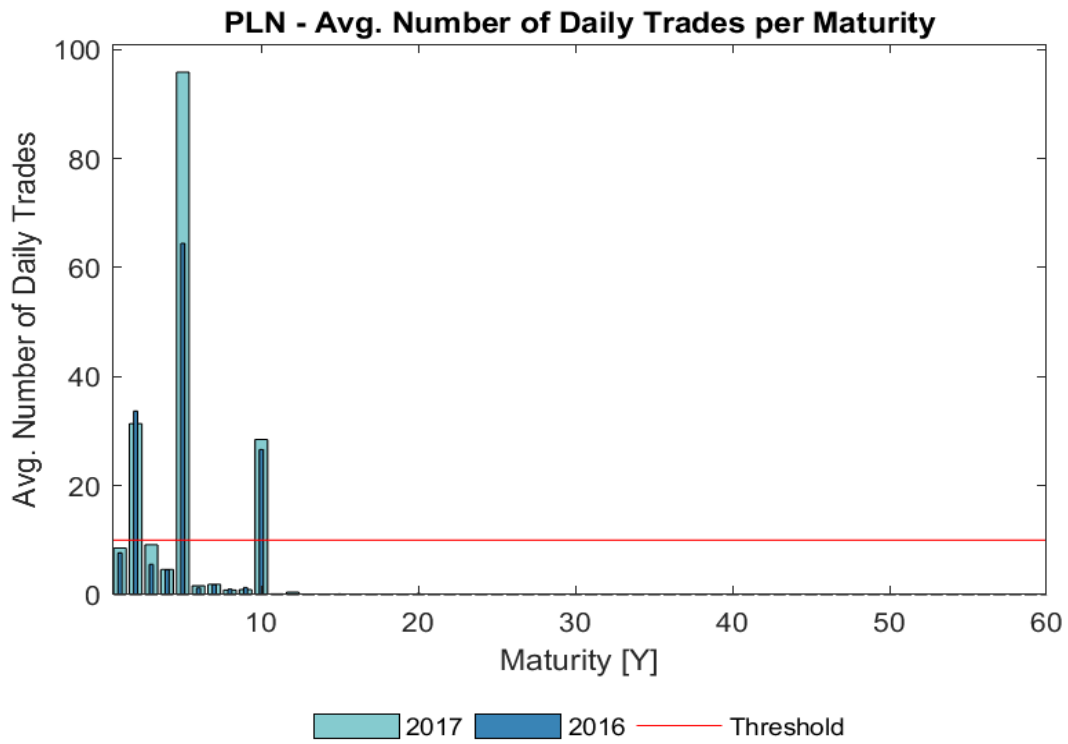


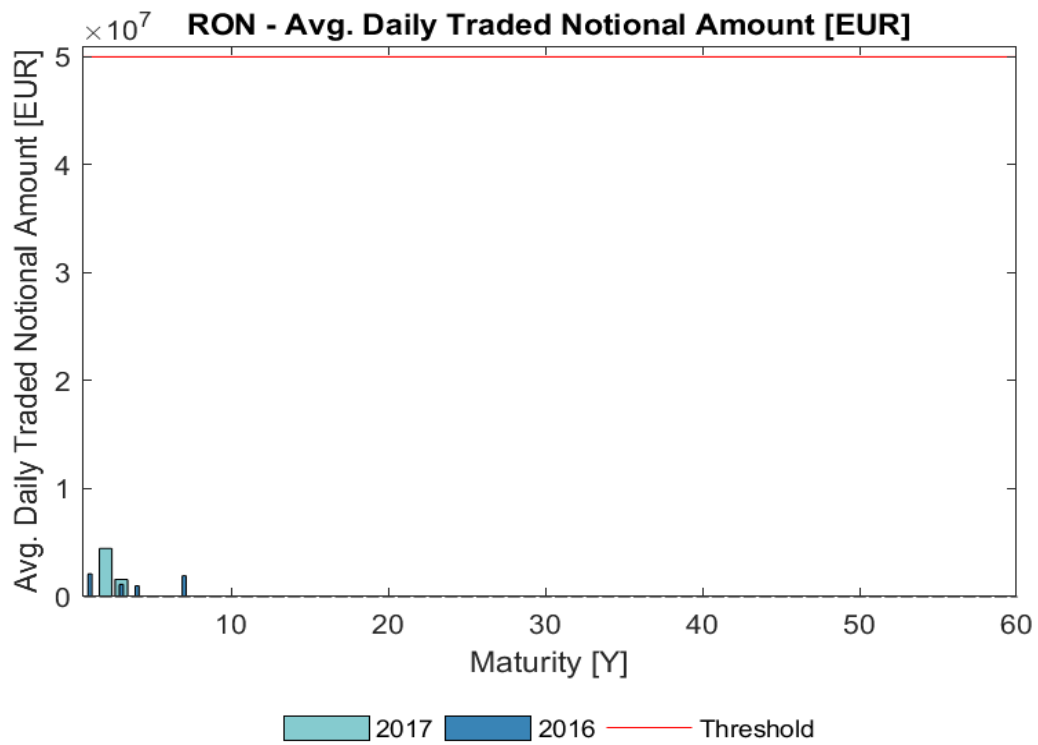
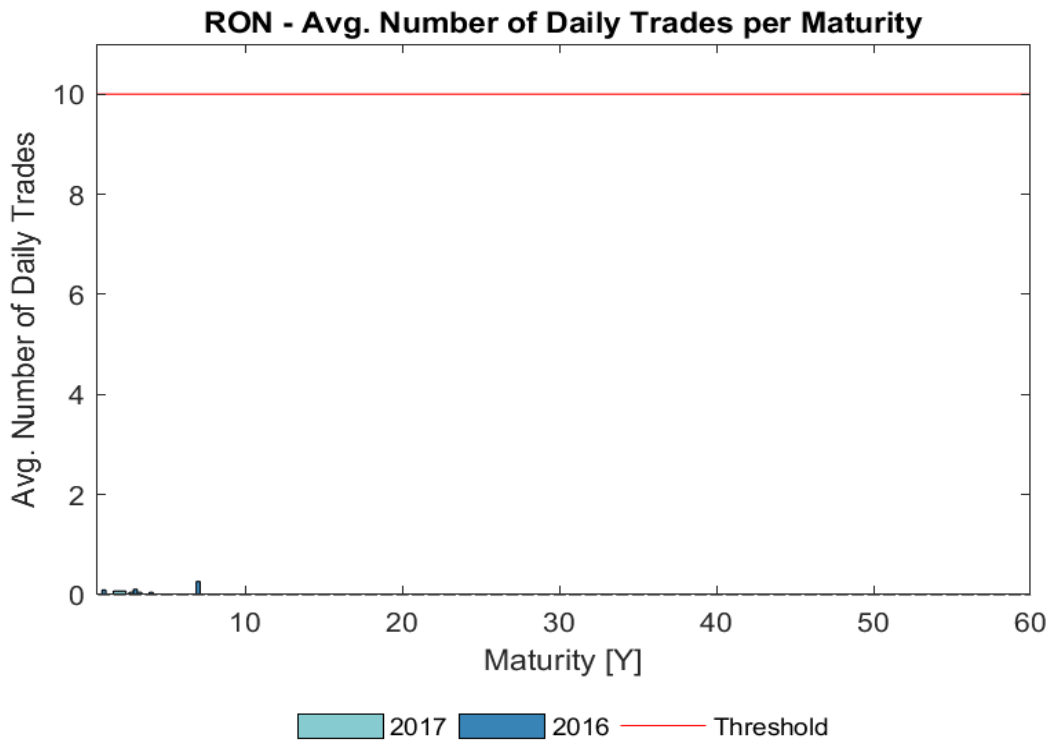




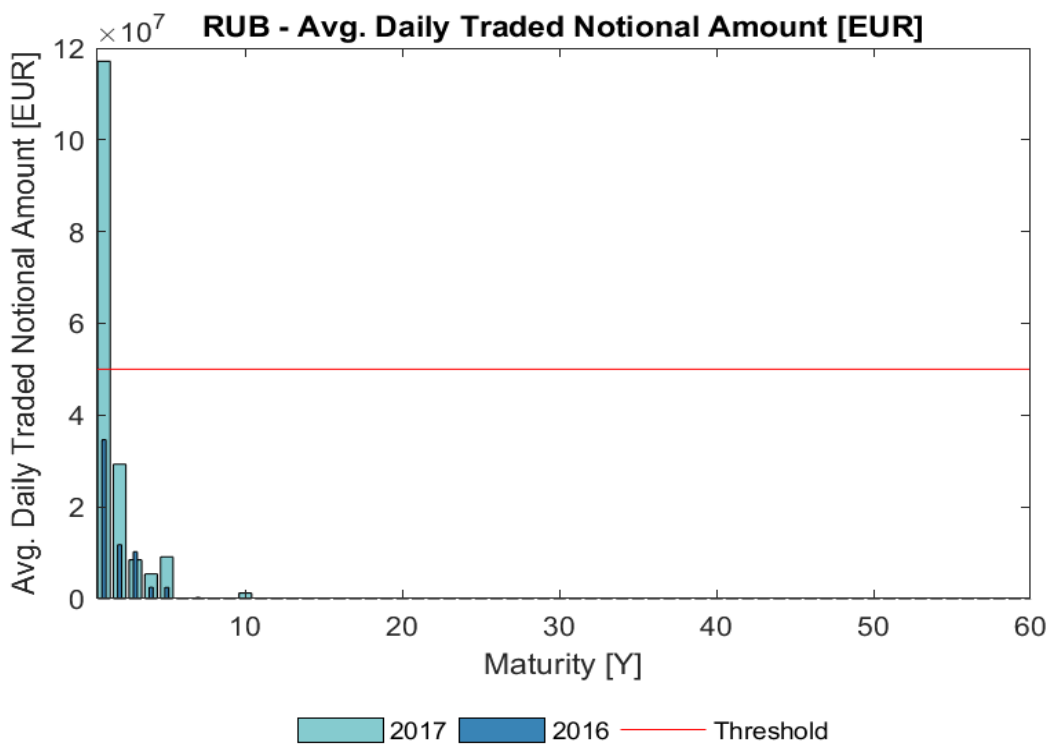
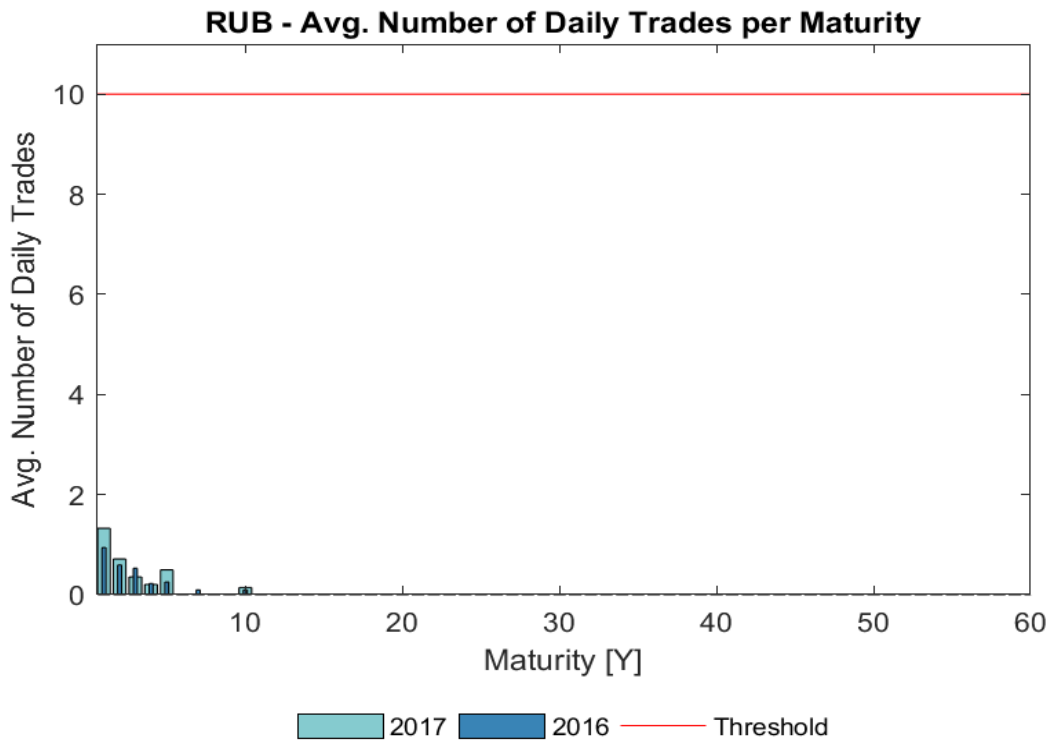


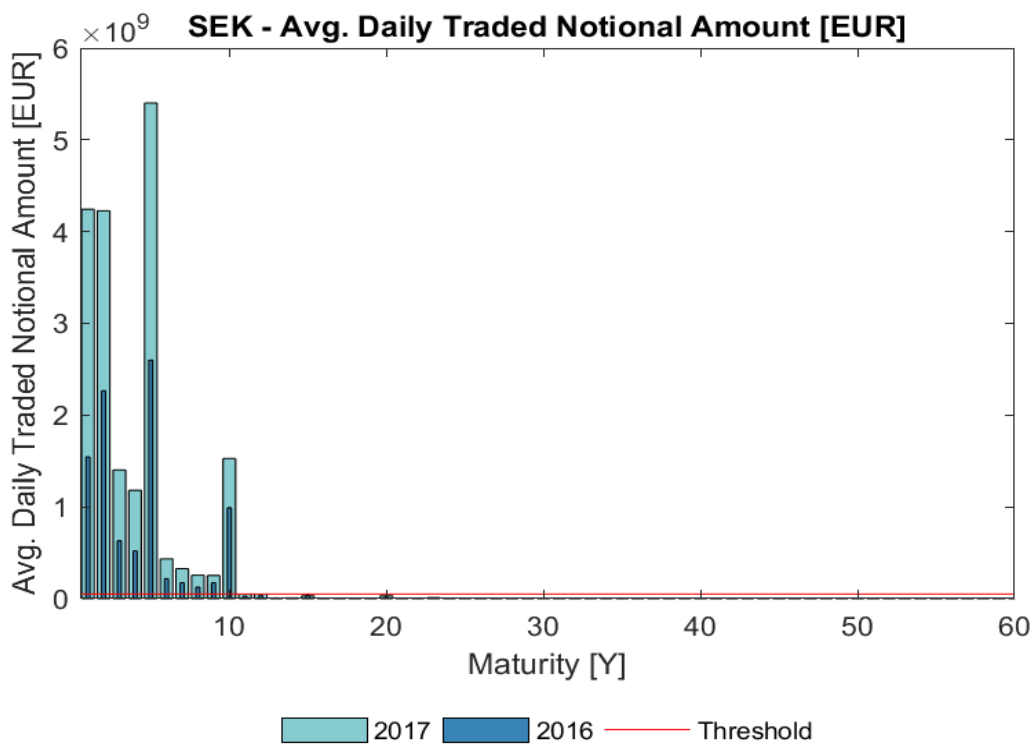
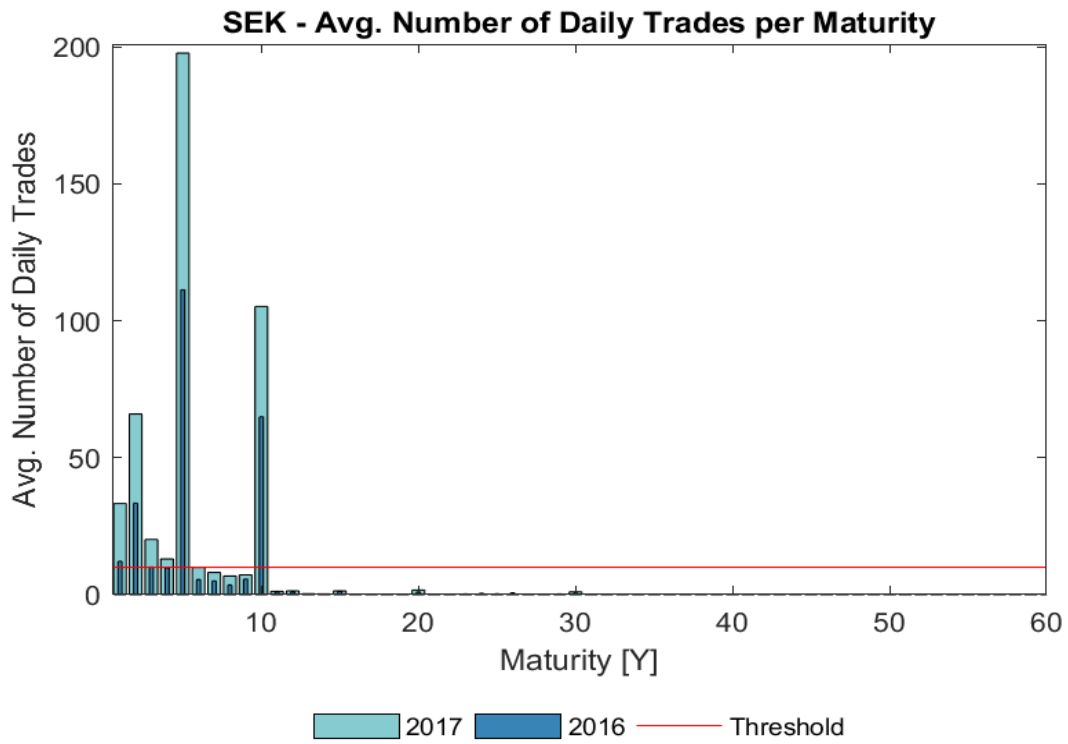


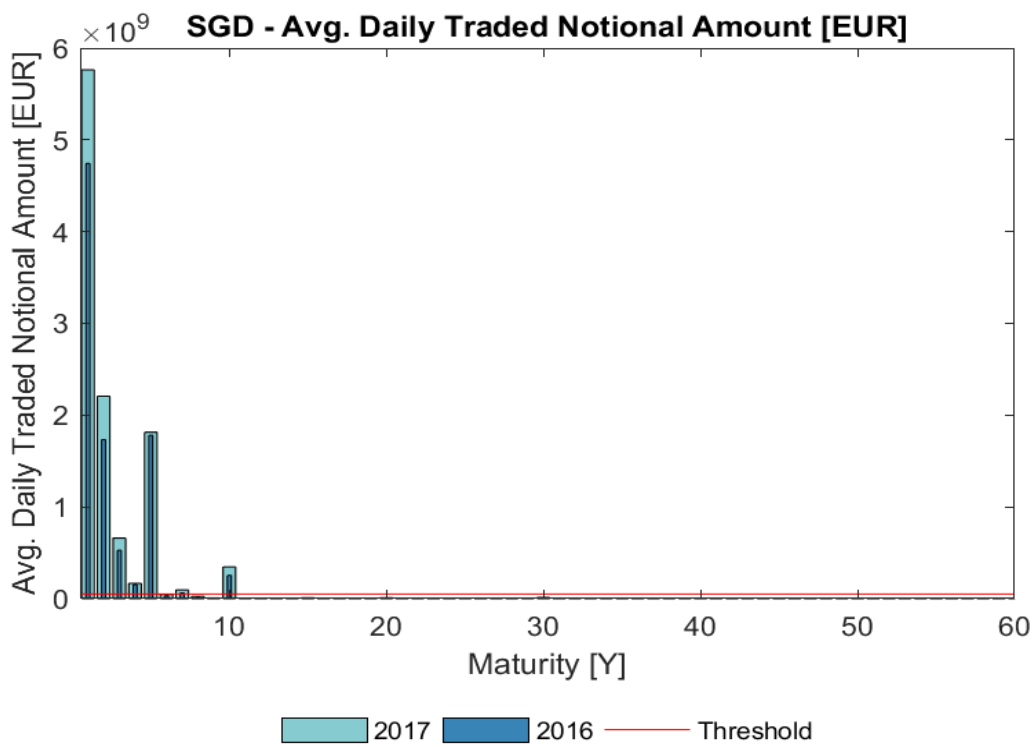
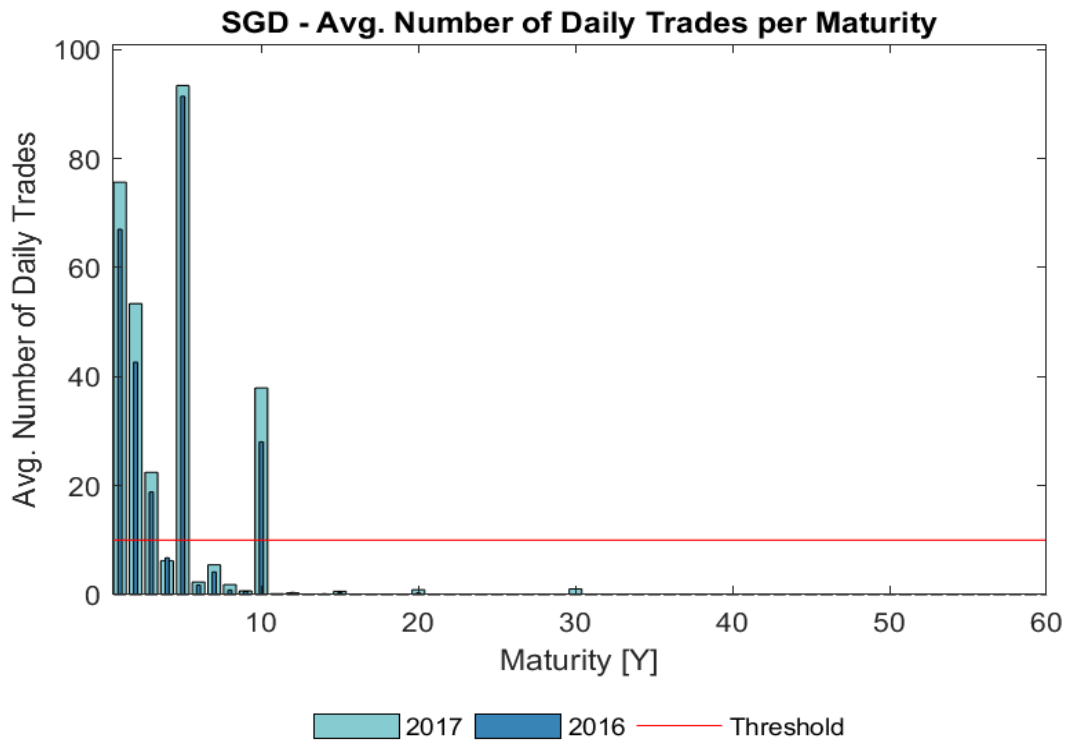


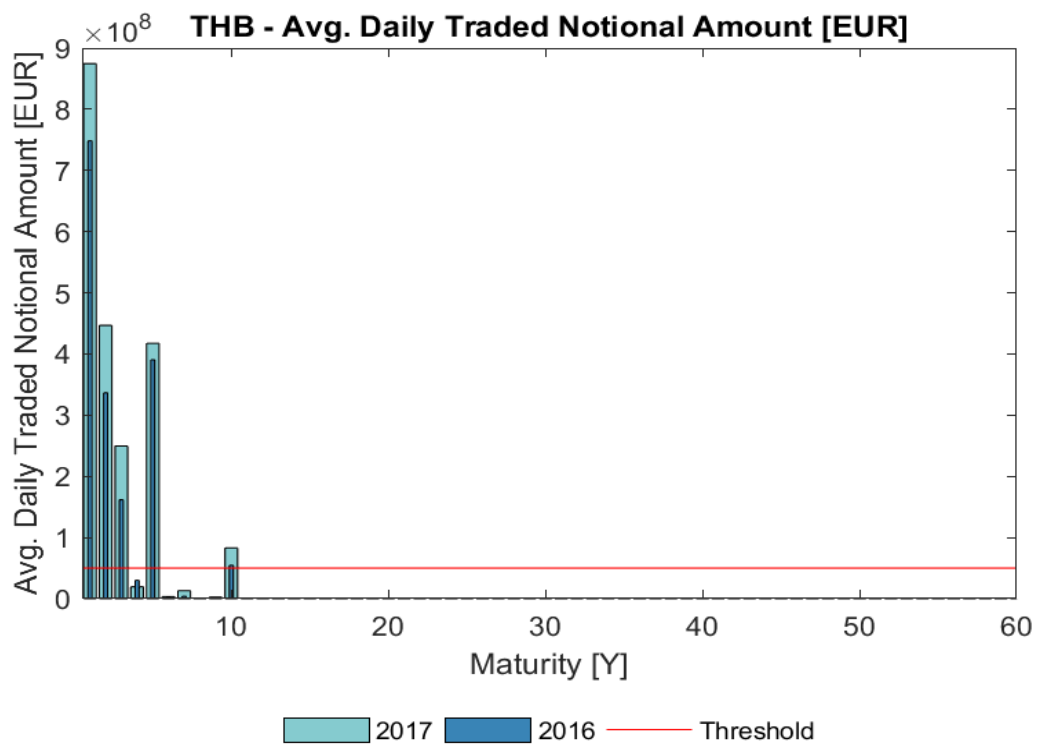
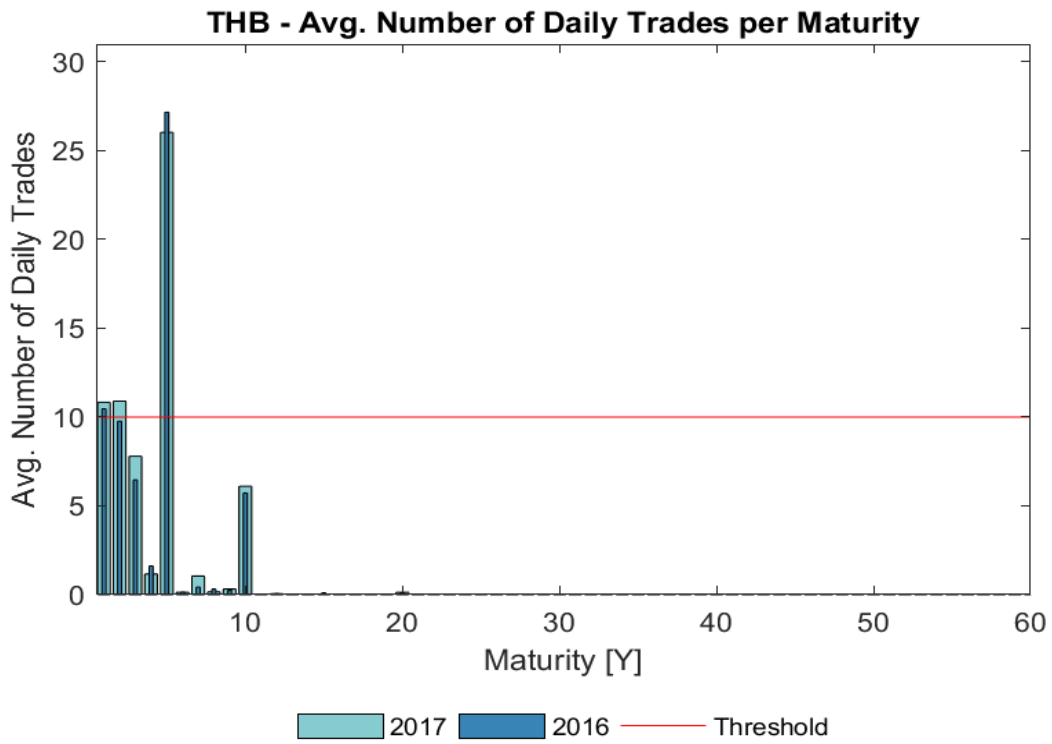


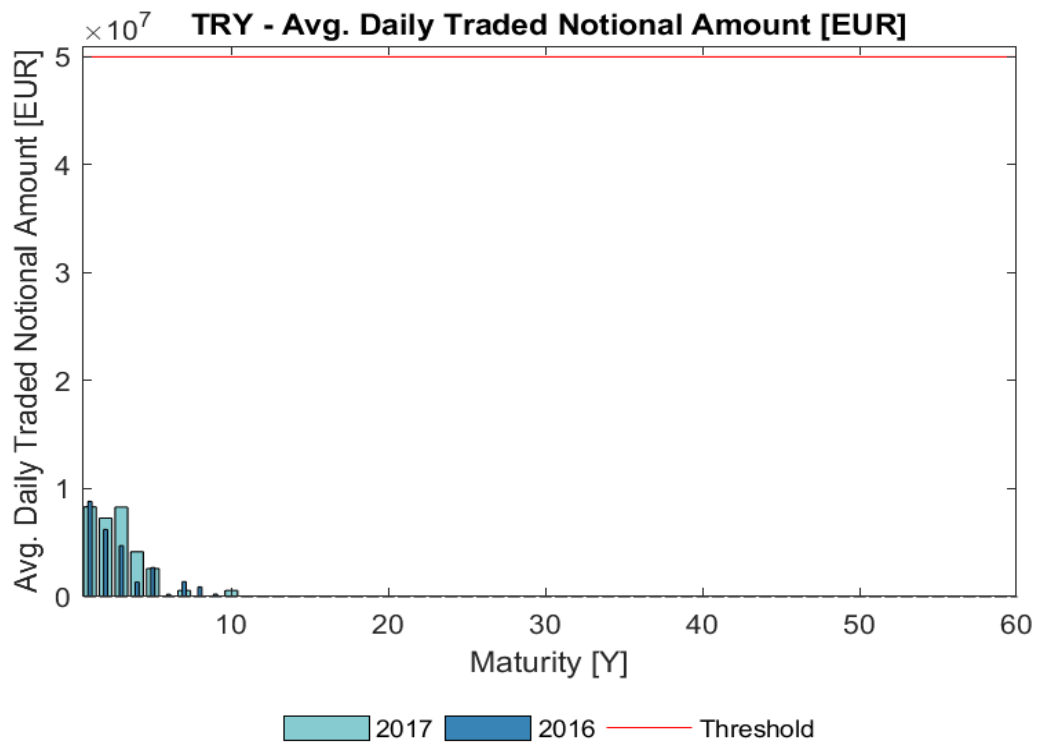
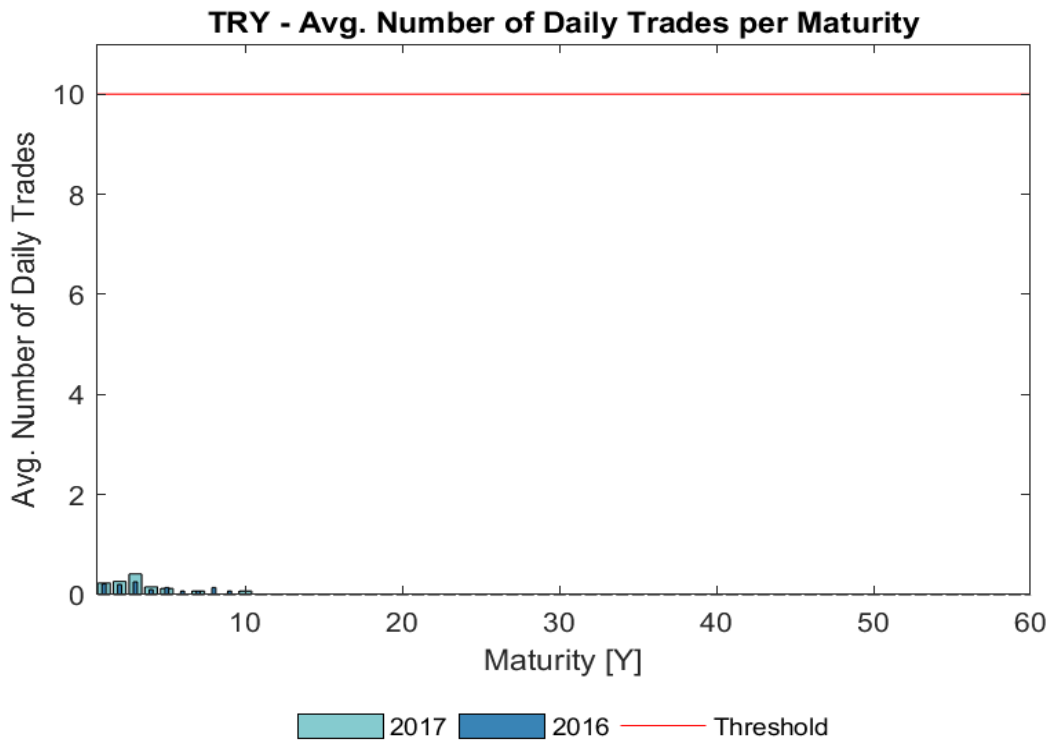


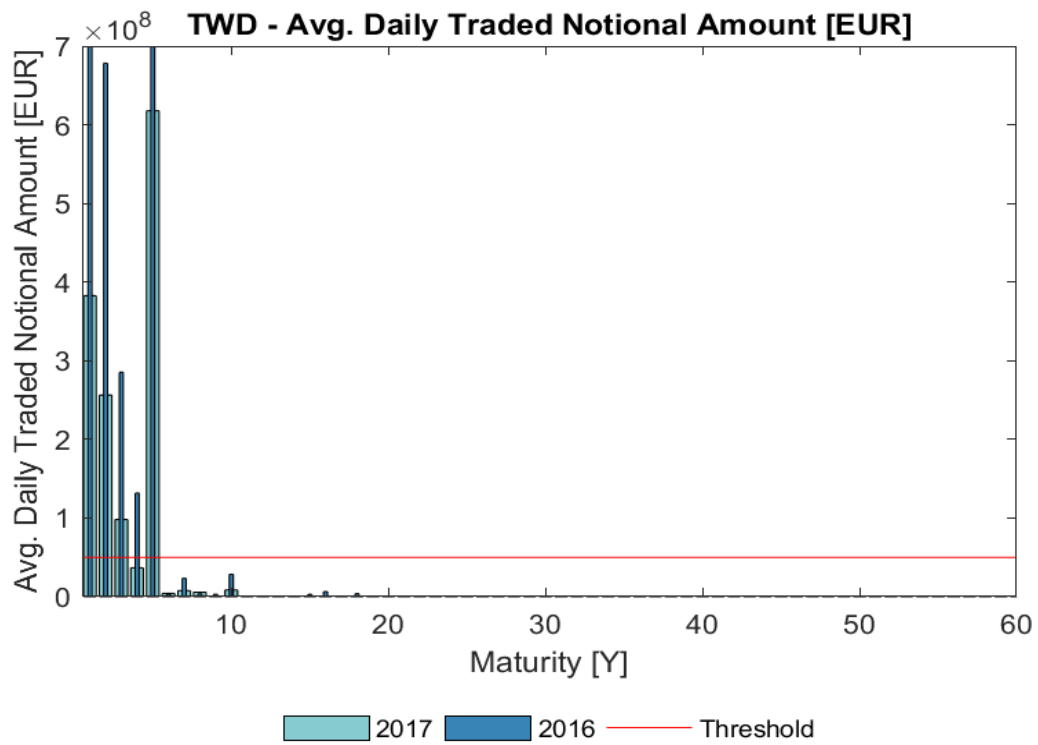
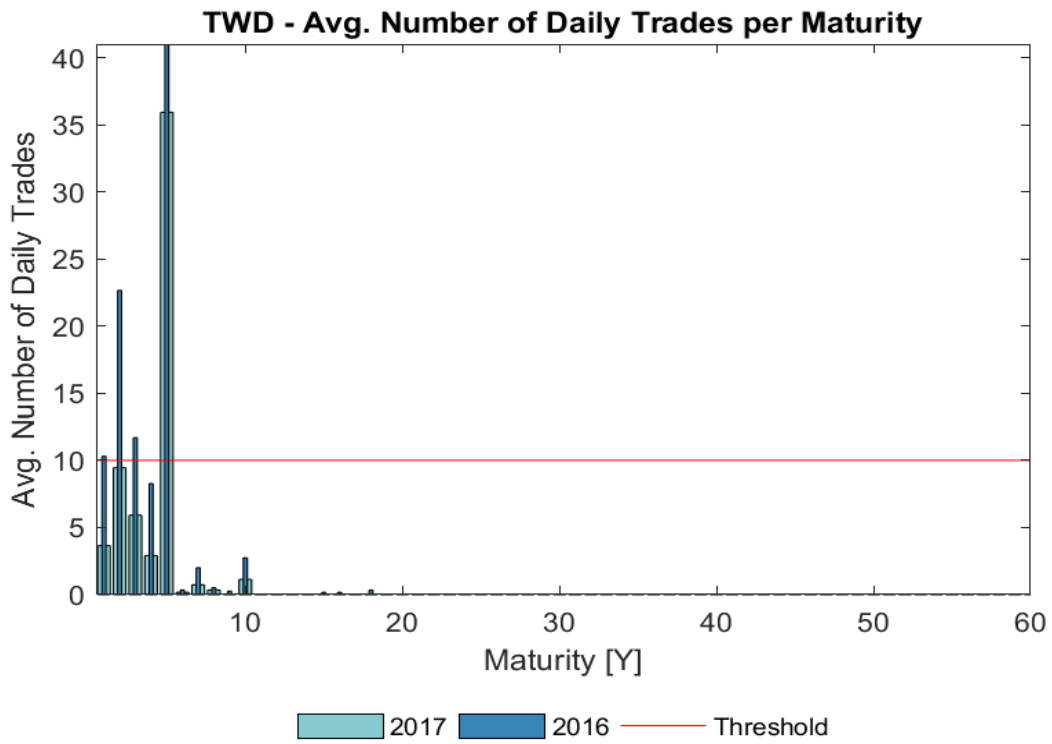


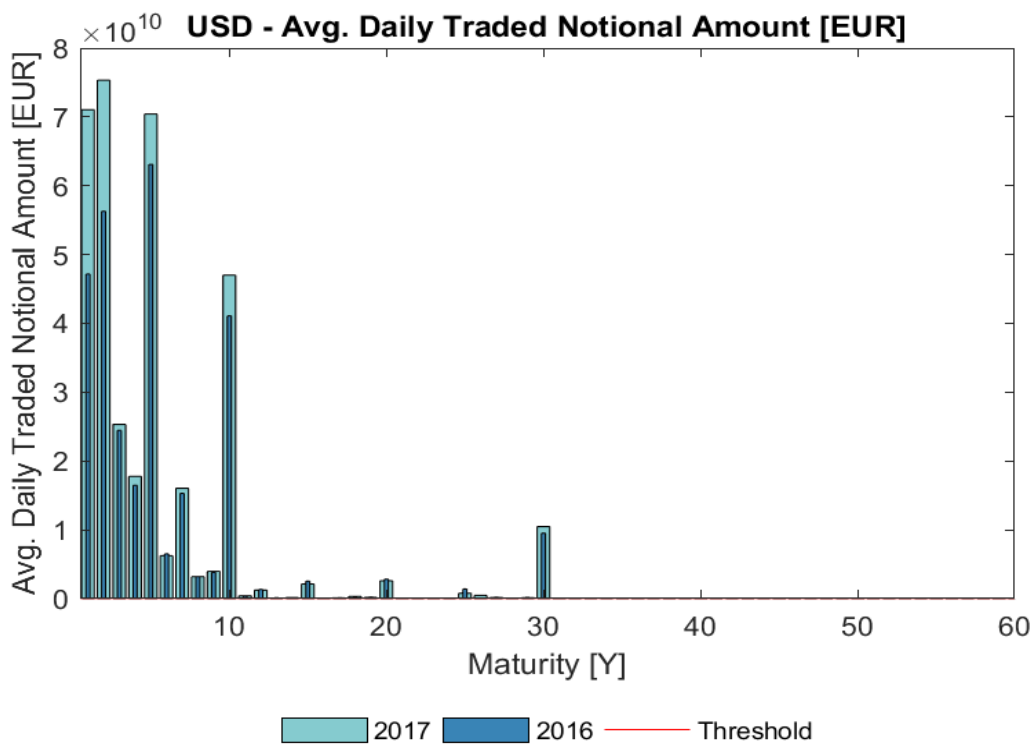
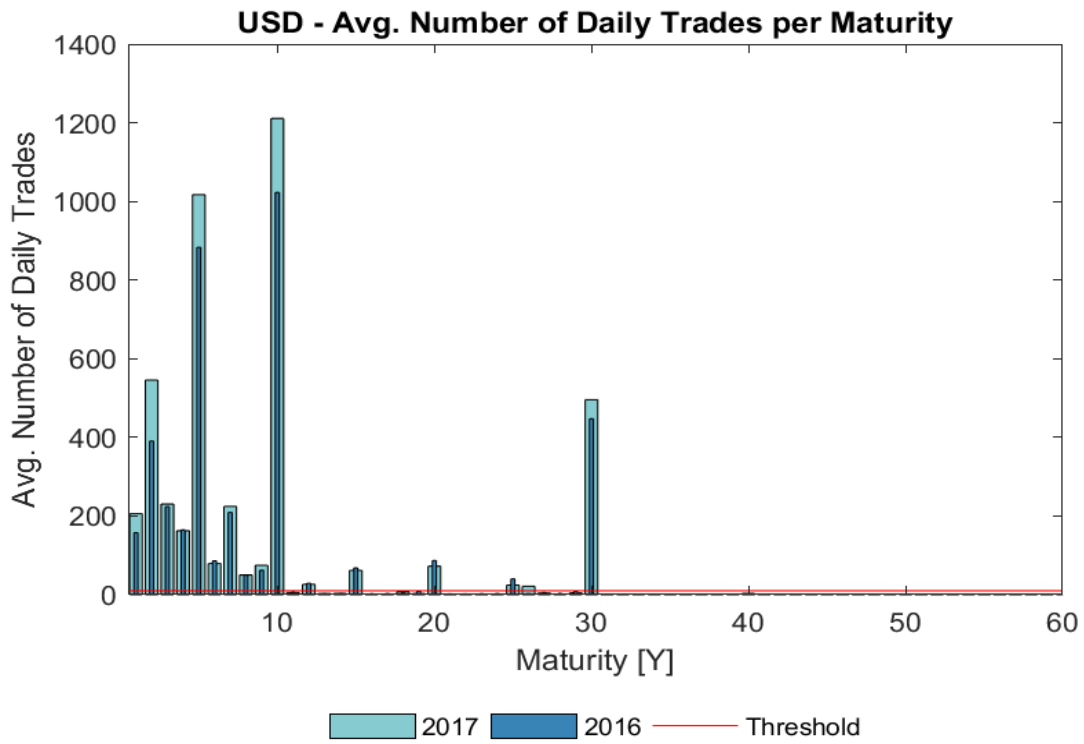


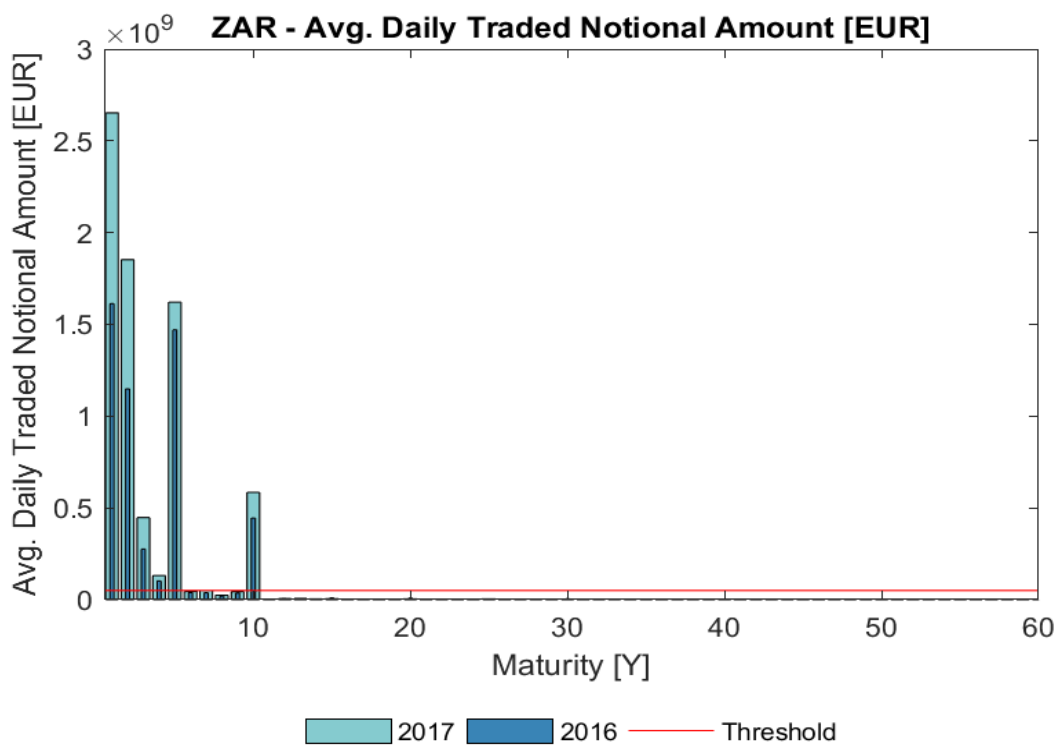
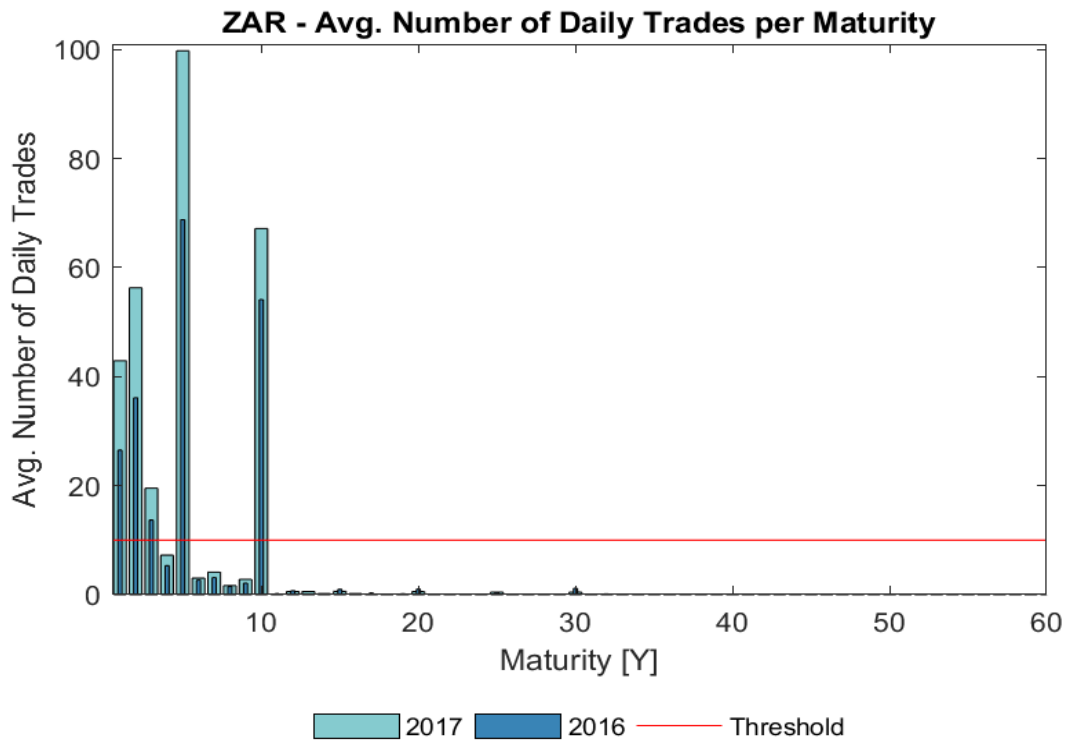














## Annex 2.3 - Sensitivity analysis of the swap DLT assessment 2017

A.57 The thresholds of the swap DLT Assessment (green shaded = 10 daily trades per month, 50.000.000 EUR daily traded notional) were scaled up and down in steps of 25% (and in 100% steps once 200% is reached) in order to assess the sensitivity of the assessment to the thresholds used.

A.58 Beyond the scaling factor of two, 100% steps were chosen to capture a larger range of variation.

A.59 The last point of liquidity as well as the number of DLT points are listed per sensitivity below.

### Last liquid point

	Sensitivity									
	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	3.00	4.00
AUD	30	30	30	30	30	30	30	30	20	15
BRL	8	8	8	8	8	8	8	8	4	3
CAD	30	30	30	30	10	10	10	10	10	10
CHF	15	10	10	10	10	10	10	10	10	10
CLP	10	10	10	5	5	0	0	0	0	0
CNY	5	5	5	5	5	5	5	5	5	5
COP	10	10	10	5	5	5	5	5	0	0
CZK	10	10	10	10	10	10	10	10	5	5
DKK	5	5	0	0	0	0	0	0	0	0
EUR	50	50	50	50	50	50	50	40	30	30
GBP	50	50	50	50	50	40	30	30	30	30
HKD	10	10	10	10	10	10	10	5	5	5
HUF	10	10	10	10	10	10	10	10	10	5
INR	5	5	5	5	5	5	5	5	5	5
JPY	30	30	30	30	30	30	30	30	30	30
KRW	20	10	10	10	10	10	10	10	10	10
MXN	10	10	10	10	10	10	10	10	10	10
MYR	10	10	10	5	5	5	5	5	5	5
NOK	10	10	10	10	10	10	10	10	10	10
NZD	15	10	10	10	10	10	10	10	10	10
PLN	10	10	10	10	10	10	10	10	10	5
RON	0	0	0	0	0	0	0	0	0	0
RUB	0	0	0	0	0	0	0	0	0	0
SEK	10	10	10	10	10	10	10	10	10	10
SGD	10	10	10	10	10	10	10	10	10	5
THB	10	10	5	5	5	5	5	5	0	0
TRY	0	0	0	0	0	0	0	0	0	0
TWD	5	5	5	5	5	5	5	5	5	0
USD	40	30	30	30	30	30	30	30	30	30
ZAR	10	10	10	10	10	10	10	10	10	10

## Number of DLT Points

	Sensitivity									
	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2	3	4
AUD	16	15	15	14	14	14	14	14	12	9
BRL	8	8	7	6	5	5	5	5	4	3
CAD	13	8	8	7	6	5	5	5	4	3
CHF	10	6	4	3	3	3	3	3	3	2
CLP	6	5	5	3	1	0	0	0	0	0
CNY	5	3	3	2	2	2	2	2	1	1
COP	6	5	5	4	4	3	3	3	0	0
CZK	6	5	4	3	3	3	3	3	2	1
DKK	1	1	0	0	0	0	0	0	0	0
EUR	34	28	23	20	20	20	18	17	15	15
GBP	26	20	17	17	17	13	11	10	9	8
HKD	7	6	5	5	5	5	4	3	3	2
HUF	7	5	5	5	4	4	3	3	3	2
INR	5	5	5	5	5	5	4	4	3	2
JPY	16	15	14	14	14	13	11	9	9	7
KRW	9	7	7	6	5	5	5	5	4	4
MXN	7	7	7	6	6	5	5	5	4	2
MYR	6	4	4	3	3	2	1	1	1	1
NOK	10	8	6	4	4	3	3	3	3	3
NZD	12	10	10	7	7	6	6	6	5	4
PLN	6	5	5	4	3	3	3	3	3	1
RON	0	0	0	0	0	0	0	0	0	0
RUB	0	0	0	0	0	0	0	0	0	0
SEK	10	10	8	6	6	5	5	5	4	3
SGD	7	7	5	5	5	5	5	5	4	3
THB	5	5	3	1	1	1	1	1	0	0
TRY	0	0	0	0	0	0	0	0	0	0
TWD	4	2	2	1	1	1	1	1	1	0
USD	24	18	17	17	16	16	16	16	13	13
ZAR	10	6	6	5	5	5	5	5	4	4



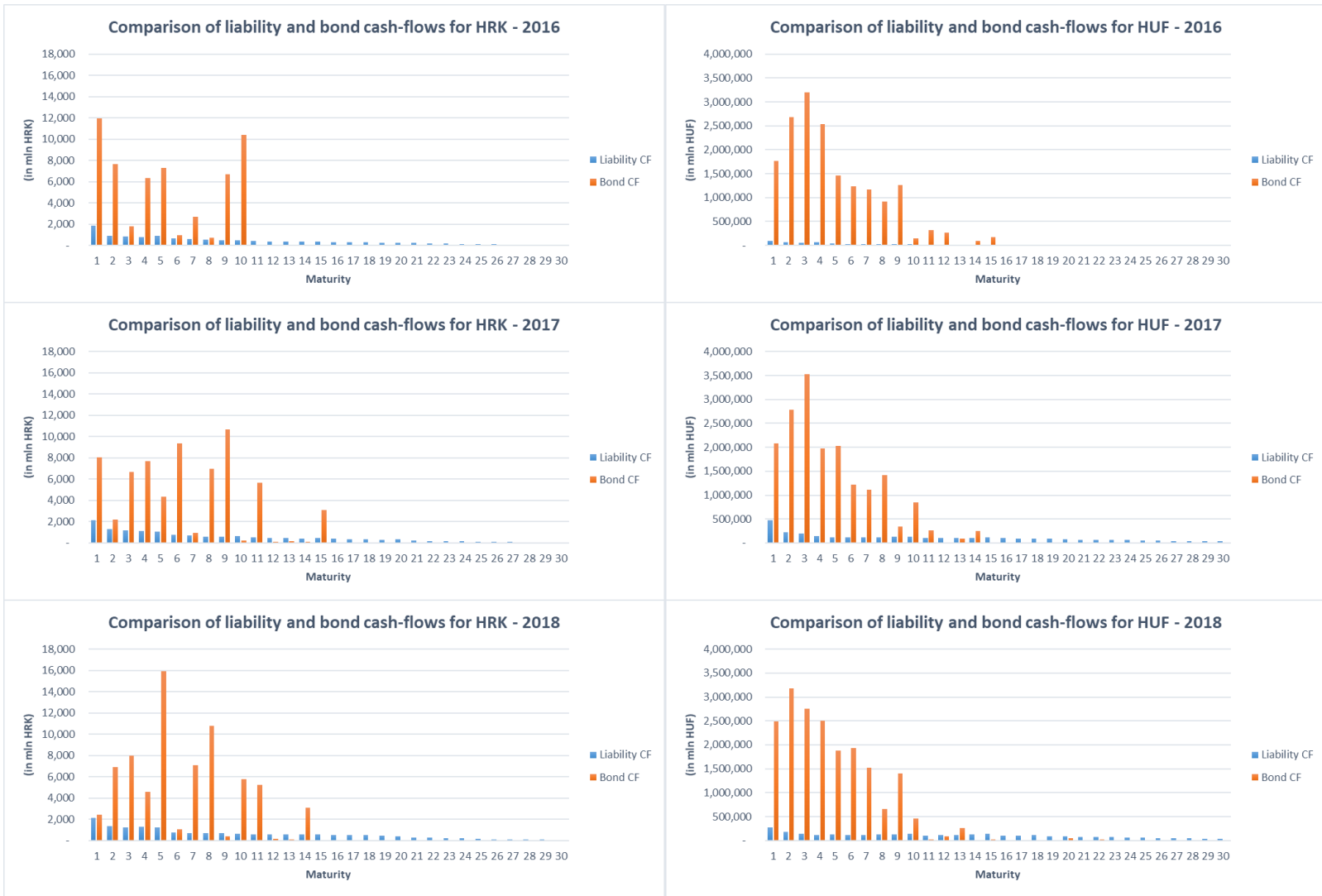


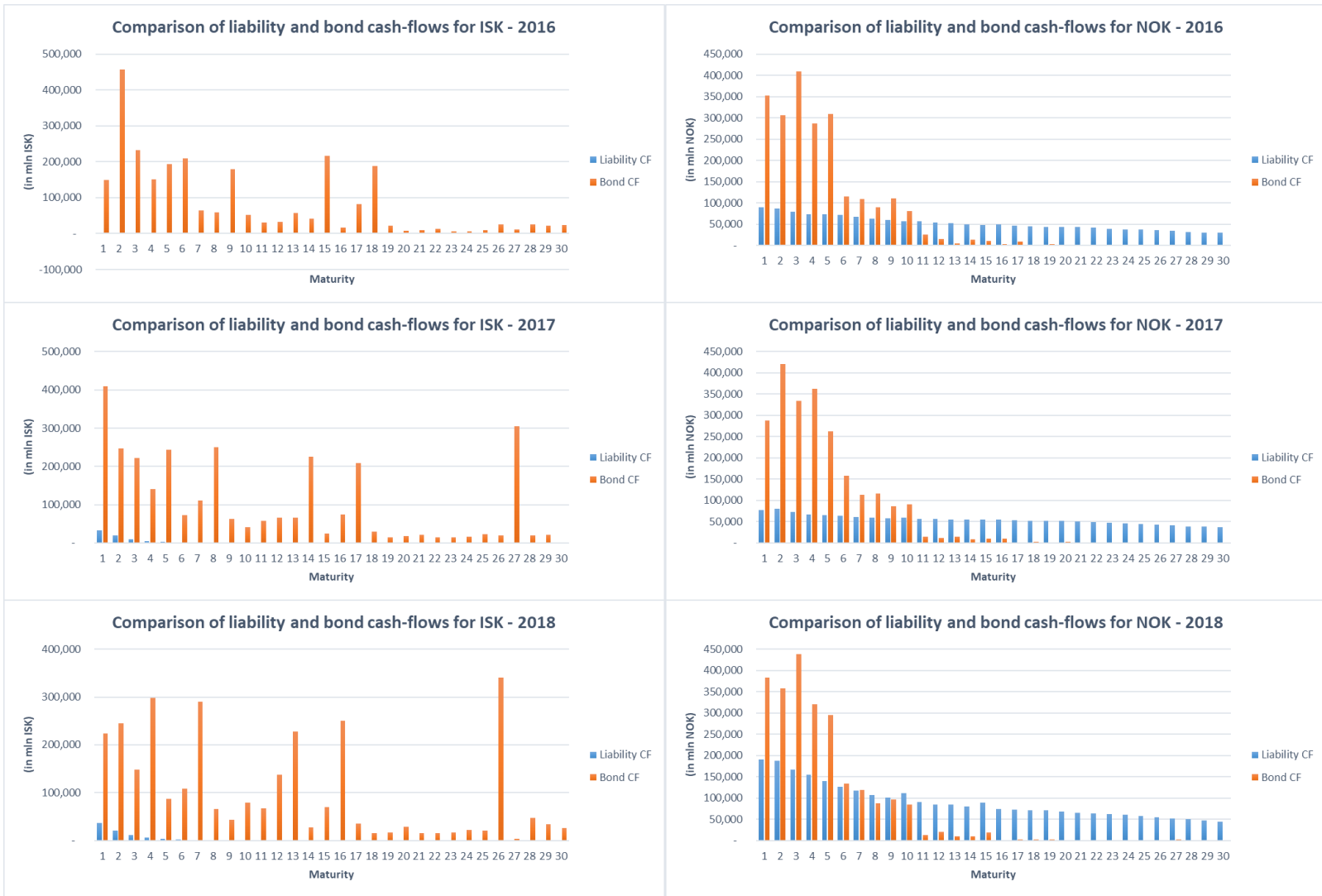
## Annex 2.4 - Matching criterion

### Liability cash-flows including all best estimate cash-flows

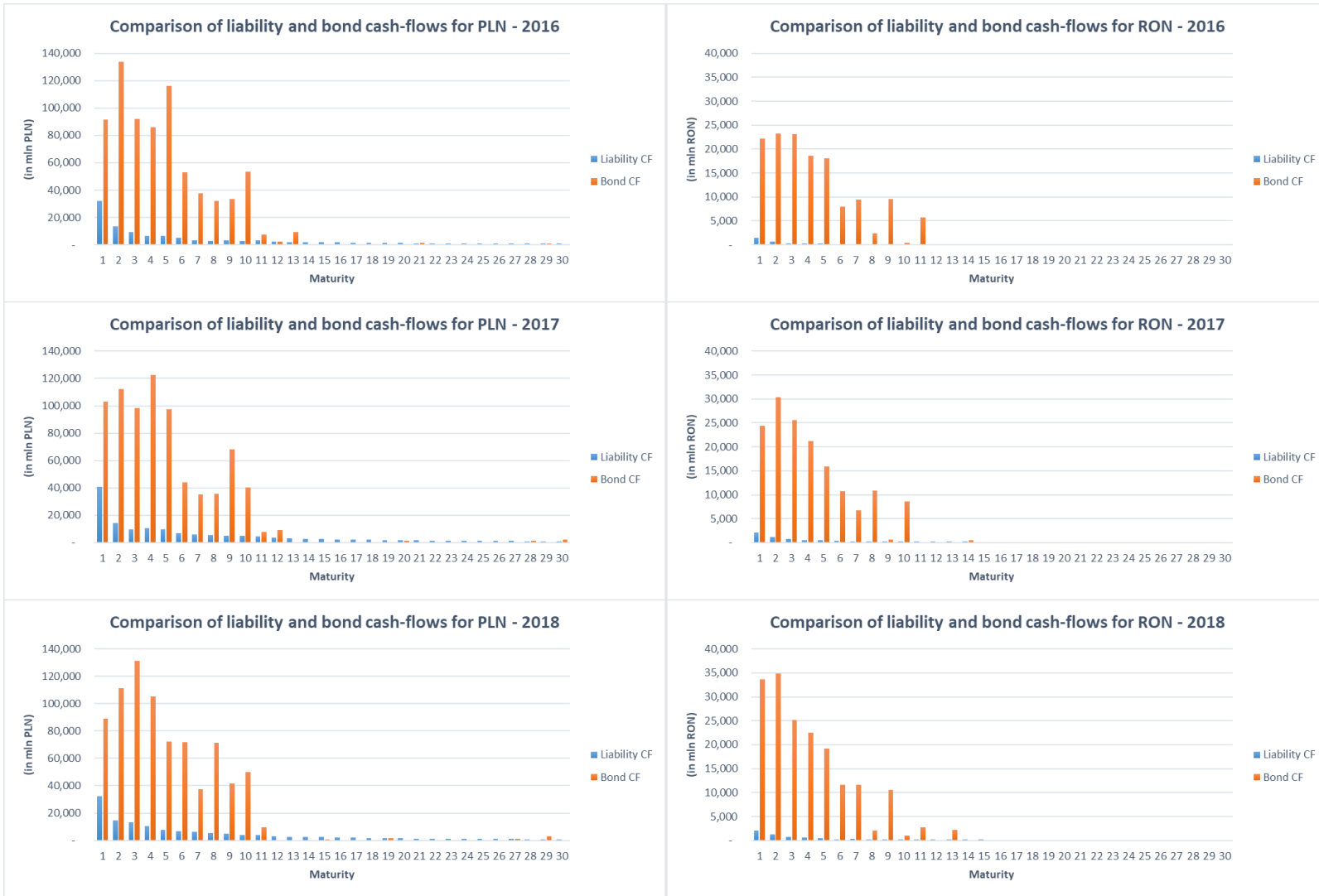


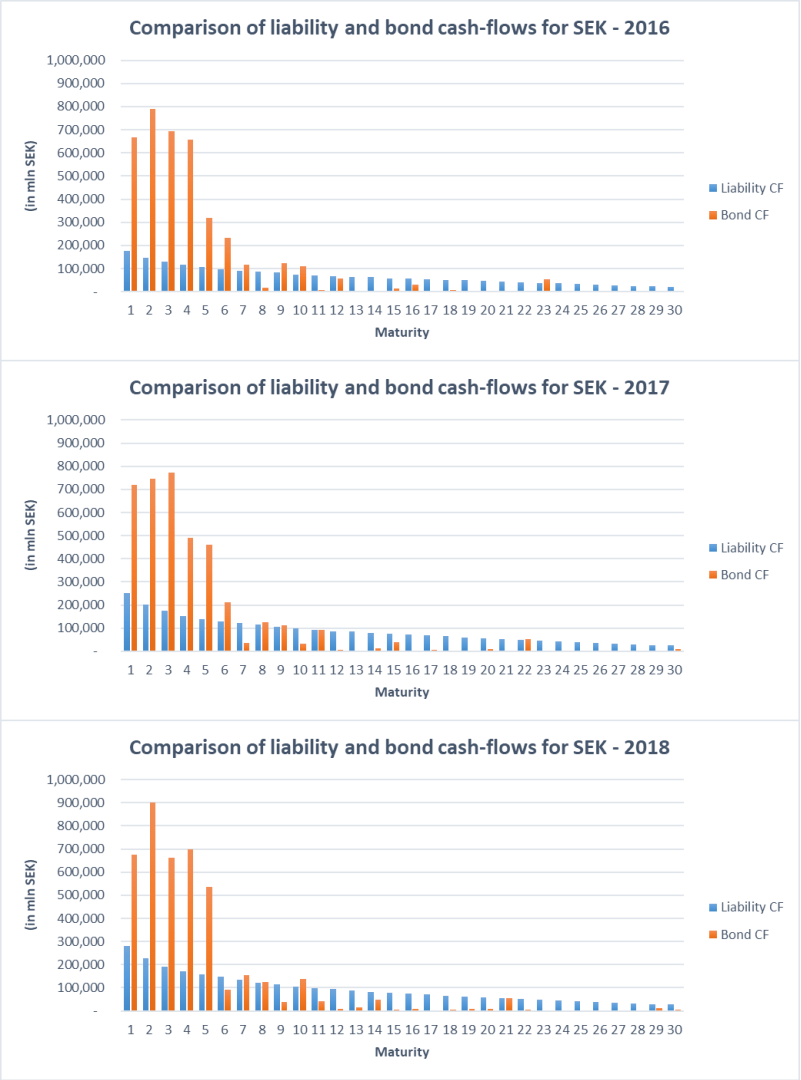










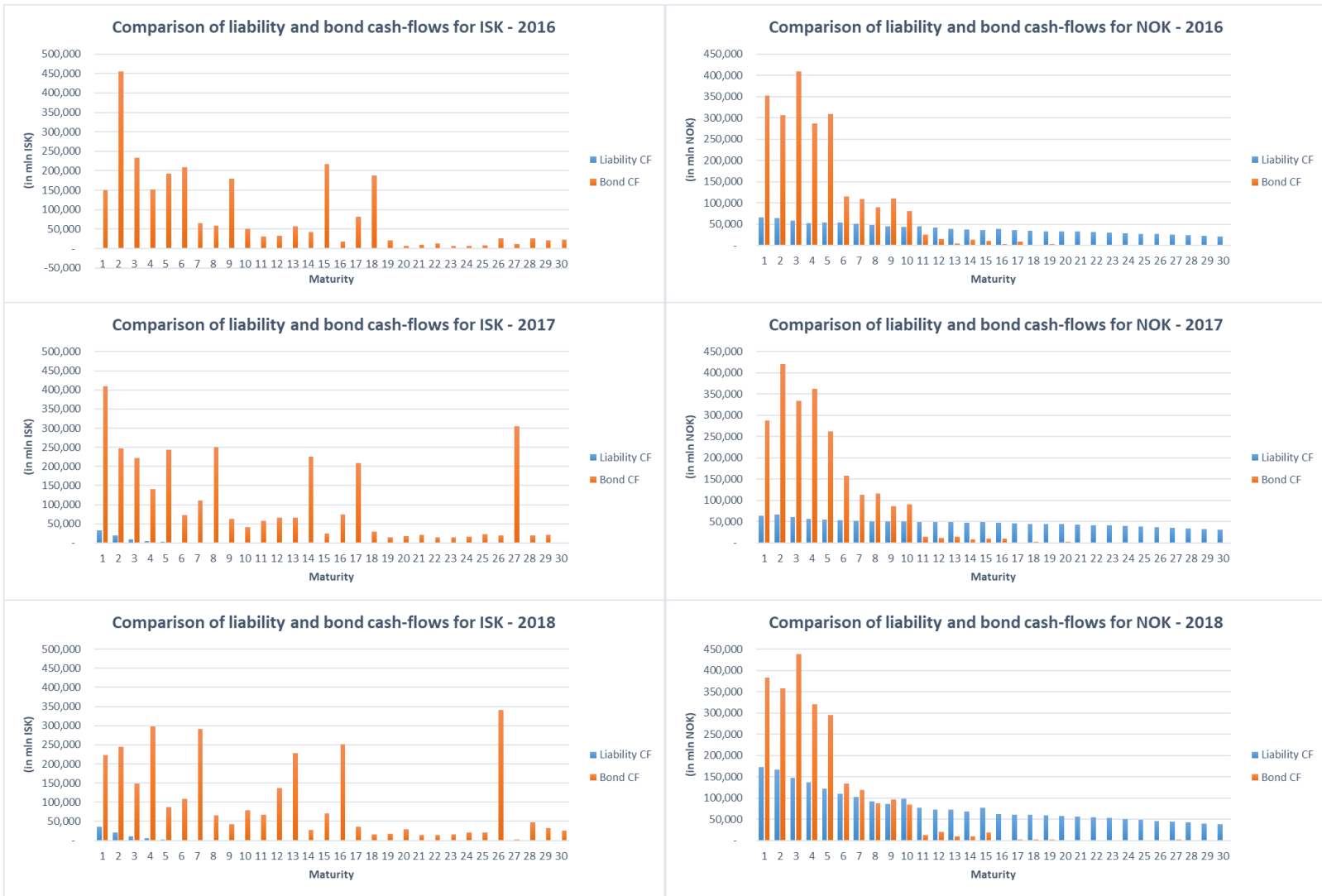


## Liability cash-flows excluding cash-flows from best estimates for unit-linked and index-linked insurance

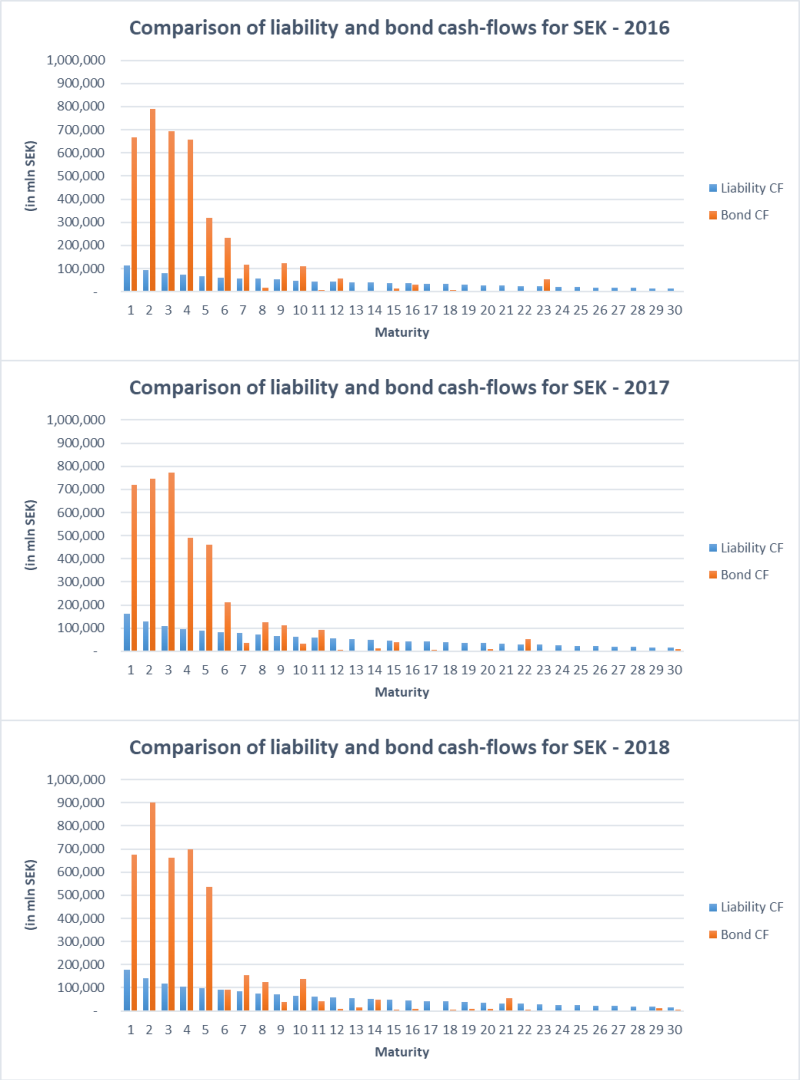








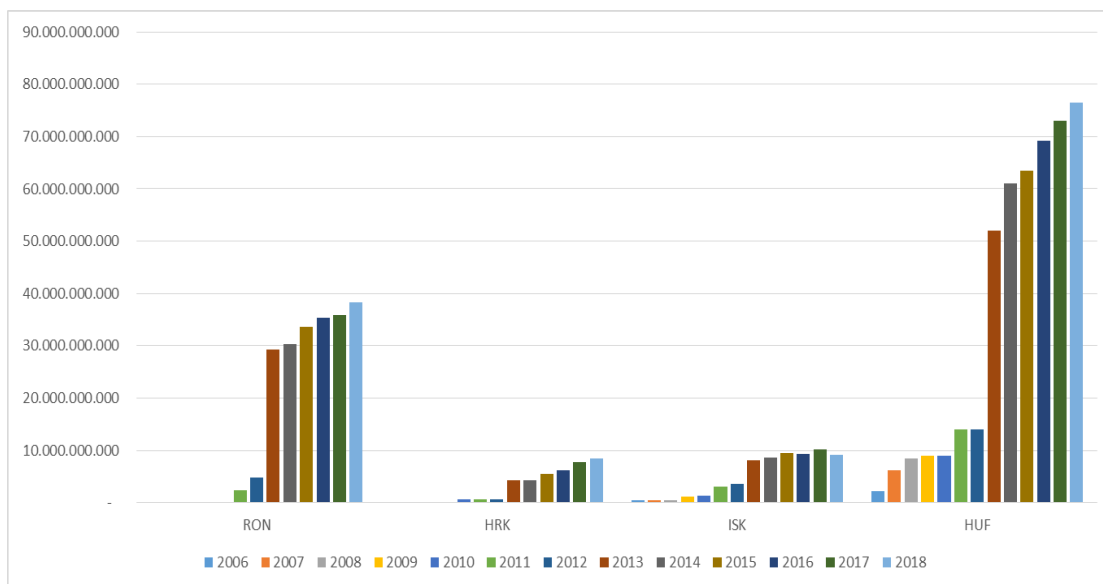
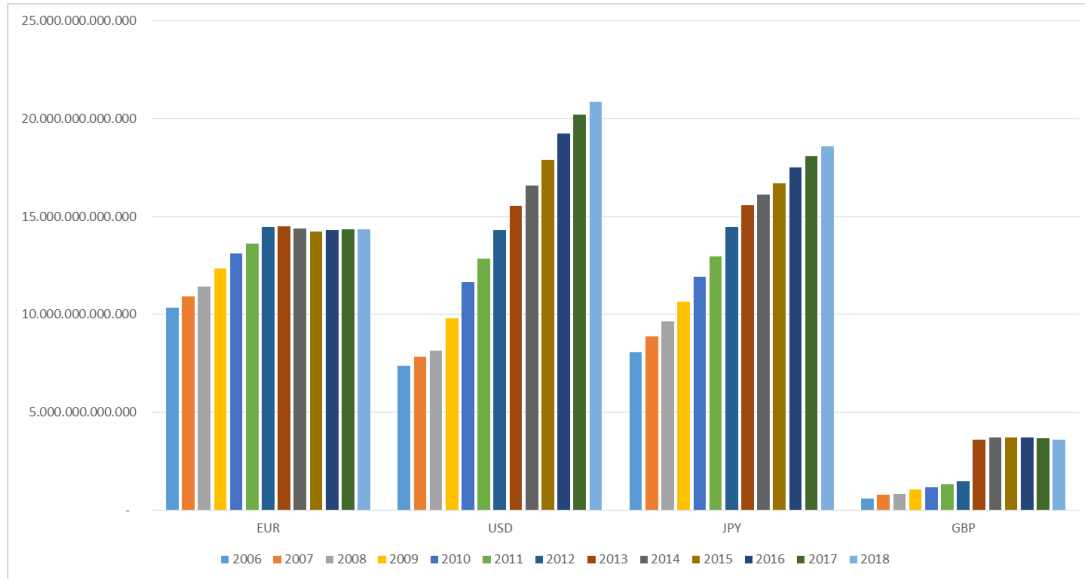


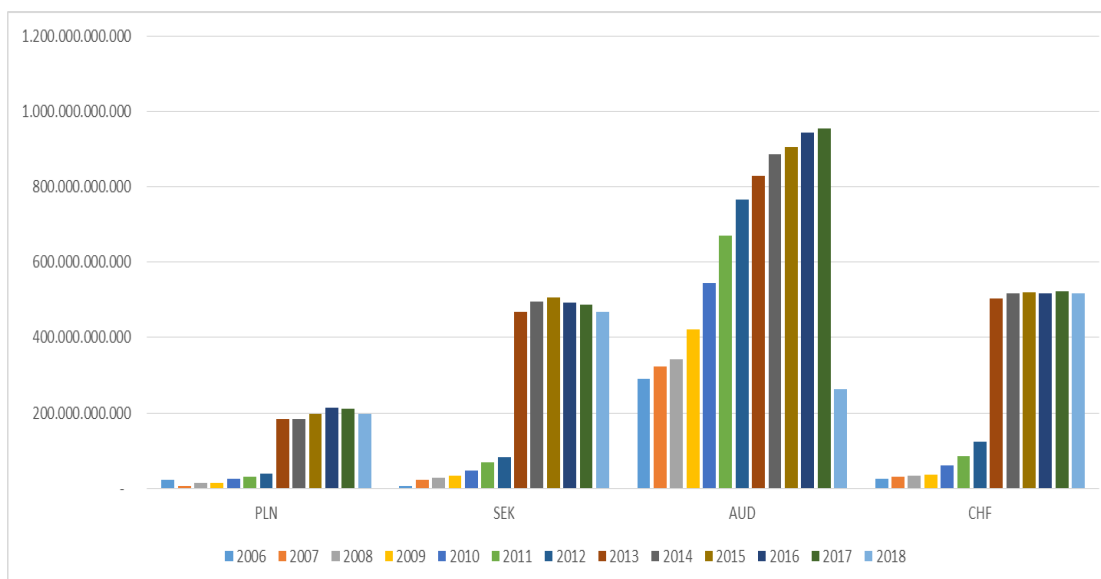




## Annex 2.5 - Residual volume criterion

Total amount of bonds outstanding in various currencies for the period 2006-2018





## Annex 2.6 – Alternative method to derive the risk free rate term structure

A.64 The alternative method for deriving the risk free term structure consists of three parts: (i) First smoothing point, (ii) the extrapolation method, (iii) the UFR-level.

- **First Smoothing point (FSP)**

A.65 The term structure for maturities up to and including the FSP is fully determined by market information and thus plays a similar role as the Last Liquid Point (LLP) in the current extrapolation method. Therefore, the FSP is – similarly as for the current LLP for the euro- determined using the residual bond criterion. Hence, the FSP is equal to 20 years for the Euro. For all other currencies the FSP would also be set according to the residual bond criterion. The rationale for using the residual bond criterion is that it indicates the relative availability of bond cash flows to match liabilities beyond the FSP (or LLP). The matching criterion would no longer play a role when determining the FSP. The FSP would be set equal to the closest maturity for which the reference rates are considered DLT. In order to ensure stability of the FSP maturities, the FSP maturity is only changed, if the residual bond criterion delivers results that vary for two consecutive years. The table below illustrates the behaviour of the FSP when these criteria are applied. The subsequent tables show what the FSP would be with a lower and a higher threshold.

### FSP resulting from the residual bond criterion – threshold 6%

	EUR	USD	AUD	JPY	CHF	GBP	RON	HRK
<b>2006</b>	20	25	15	20	30	50	15	n/a
<b>2007</b>	20	25	15	20	30	50	15	n/a
<b>2008</b>	20	25	15	20	30	50	15	n/a
<b>2009</b>	20	25	15	20	30	45	10	n/a
<b>2010</b>	20	25	10	20	25	45	20	n/a
<b>2011</b>	20	25	10	20	25	45	20	10
<b>2012</b>	20	25	15	20	25	45	10	10
<b>2013</b>	20	25	15	25	25	45	15	10
<b>2014</b>	20	25	15	25	20	40	15	5
<b>2015</b>	20	25	15	25	20	40	15	5
<b>2016</b>	20	25	15	25	20	35	10	10
<b>2017</b>	20	25	15	25	20	40	10	10
<b>2018</b>	20	25	15	25	20	40	10	10

	ISK	HUF	NOK	CZK	PLN	SEK
<b>2006</b>	20	15	25	30	20	15
<b>2007</b>	20	15	25	30	20	15
<b>2008</b>	20	15	25	30	15	20
<b>2009</b>	25	15	25	30	20	20
<b>2010</b>	25	15	20	30	20	30
<b>2011</b>	25	15	15	25	20	30
<b>2012</b>	25	15	15	25	20	30
<b>2013</b>	20	15	15	25	15	25
<b>2014</b>	35	10	10	25	15	10
<b>2015</b>	35	10	10	25	15	10
<b>2016</b>	35	10	10	20	10	10
<b>2017</b>	35	10	10	20	10	10
<b>2018</b>	30	10	10	20	10	10

### FSP resulting from the residual bond criterion – threshold 3%

	EUR	USD	AUD	JPY	CHF	GBP	RON	HRK
<b>2006</b>	30	25	15	30	45	50	15	n/a
<b>2007</b>	30	25	15	30	45	50	15	n/a
<b>2008</b>	30	30	15	30	40	50	15	n/a
<b>2009</b>	25	30	15	30	40	45	10	n/a
<b>2010</b>	30	30	15	30	40	45	20	n/a
<b>2011</b>	25	30	15	30	30	45	20	10
<b>2012</b>	25	30	15	30	30	50	10	10
<b>2013</b>	25	30	15	35	30	45	15	10
<b>2014</b>	25	30	15	35	25	40	15	5
<b>2015</b>	25	30	15	35	25	40	15	5

<b>2016</b>	25	30	20	35	25	45	10	10
<b>2017</b>	25	30	20	35	25	45	10	10
<b>2018</b>	30	30	20	30	25	45	10	15

	<b>ISK</b>	<b>HUF</b>	<b>NOK</b>	<b>CZK</b>	<b>PLN</b>	<b>SEK</b>
<b>2006</b>	20	15	30	30	20	15
<b>2007</b>	20	15	30	30	20	15
<b>2008</b>	20	15	25	50	30	20
<b>2009</b>	25	15	25	50	20	20
<b>2010</b>	25	15	25	50	20	30
<b>2011</b>	25	15	15	45	20	30
<b>2012</b>	25	15	15	25	20	30
<b>2013</b>	30	15	15	25	15	25
<b>2014</b>	40	15	10	25	15	15
<b>2015</b>	35	10	10	25	15	10
<b>2016</b>	35	15	10	20	15	15
<b>2017</b>	35	10	10	20	10	10
<b>2018</b>	35	10	10	20	10	10

**FSP resulting from the residual bond criterion – threshold 10%**

	<b>EUR</b>	<b>USD</b>	<b>AUD</b>	<b>JPY</b>	<b>CHF</b>	<b>GBP</b>	<b>RON</b>	<b>HRK</b>
<b>2006</b>	15	15	15	15	30	45	15	n/a
<b>2007</b>	15	15	15	15	30	45	15	n/a
<b>2008</b>	15	20	15	15	30	40	15	n/a
<b>2009</b>	15	20	15	15	30	40	10	n/a
<b>2010</b>	15	20	10	20	25	40	20	n/a
<b>2011</b>	15	20	10	20	25	40	10	10
<b>2012</b>	15	20	10	20	20	40	10	10
<b>2013</b>	15	20	10	20	25	40	15	10
<b>2014</b>	15	25	10	20	15	35	10	5
<b>2015</b>	15	20	10	20	15	30	10	5
<b>2016</b>	15	25	10	20	15	30	10	10
<b>2017</b>	15	25	10	20	15	35	10	10
<b>2018</b>	15	25	10	25	15	30	10	10

	<b>ISK</b>	<b>HUF</b>	<b>NOK</b>	<b>CZK</b>	<b>PLN</b>	<b>SEK</b>
<b>2006</b>	15	15	25	30	20	15
<b>2007</b>	15	15	25	30	20	15
<b>2008</b>	15	15	25	30	15	20
<b>2009</b>	15	15	20	30	20	20
<b>2010</b>	25	15	20	30	20	30

<b>2011</b>	25	15	15	25	20	20
<b>2012</b>	20	15	15	25	20	15
<b>2013</b>	20	15	15	25	10	20
<b>2014</b>	35	10	10	25	10	10
<b>2015</b>	30	10	10	25	10	10
<b>2016</b>	30	10	10	15	10	10
<b>2017</b>	30	10	10	15	10	10
<b>2018</b>	25	10	10	15	10	10

- **Extrapolation method.**

A.66 The term structure for maturities beyond the FSP depends on the Last Liquid Forward Rate (LLFR) and the Ultimate Forward Rate (UFR). The extrapolation takes place at the level of forward rates.

A.67 Forwards rates beyond the FSP are a weighted average of the LLFR and the UFR where the weight on the UFR gets larger for longer maturities. The formula for the weighting factor is derived from the Vasicek model for interest rates. It is parametrized with a convergence factor of  $\alpha=10\%$  following the “Commissie parameters 2014 report”.<sup>341</sup> A larger convergence factor implies that the weight on the UFR gets larger. In this way, the convergence factor also influences the volatility of the extrapolated forward rates.

A.68 The LLFR is a weighted combination of forward rates pre- and post FSP with weights that depend on the liquidity of the respective rates according to the annual EIOPA DLT assessment. In this way, market information beyond the FSP is also partially taken into account, but only as long as the respective swap rates are sufficiently liquid for these maturities and to the extent of the liquidity of the rates.

A.69 The LLFR for the euro depends on all DLT swap rates with a maturity up to 50 years, i.e. 25, 30, 40 and 50 where the weight for the 30 year swap rate is significantly larger than for the 40 and 50 year swap rates as it is more liquid (average daily volume of approximately 6 billion euros versus approximately 0.3 and 0.4 billion euros).

- **UFR-level:**

A.70 The extrapolated curve converges automatically to the designated long-term UFR level without ever reaching it. The UFR level is based on the current EIOPA method and currently equals 3.9% for the euro.

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<sup>341</sup> In the Netherlands, the convergence factor has been recently estimated at 2%. The estimation is based on recent data used in two versions of the Vasicek model. In the proposed method, 10% is used as a step towards a more market-consistent parameter, in line with the initial advice by the committee, see <https://www.government.nl/documents/publications/2013/10/06/advisory-report-of-the-ufr-committee>.

A.71 The alternative extrapolation method consists of two steps. First, zero coupon yields (up to and including the FSP) and forward rates (pre and post the FSP) are derived from the swap curve for maturities (for the Euro) 1-10, 12, 15, 20, 25, 30, 40 and 50 years. Second, zero-coupon yields beyond the FSP are derived using a weighted combination of the LLFR and the UFR.

**Step 1: Deriving zero coupon yields (up to and including the FSP) and forward rates (pre and post the FSP) from market data**

A.72 We only derive how zero-coupon yields and forward rates can be derived from annually compounded swap or, where applicable, bond data for the sake of brevity. The regular adjustments apply to change the compounding into annually compounded rates if the swap and bond rates have a different coupon frequency.

A.73 We use the following notations:

$r_t$  = the (par) rate at maturity  $t$

$z_t$  = the spot zero-coupon rate at maturity  $t$

$f_{t_1,t_2}$  = the forward rates between maturity  $t_1$  and  $t_2$

A.74 The zero-coupon rate is derived from the par swap rate by means of bootstrapping, starting with the 1-year swap. From  $(1 + r_1) / (1 + z_1) = 1$  follows that  $z_1 = r_1$ . The 2-year zero rate is determined by discounting the cash flows of the 2-year swap (only the fixed-income part) against the 1- and 2 year zero rates and equalling the discounted value to 1:

$$\frac{r_2}{1 + z_1} + \frac{1 + r_2}{(1 + z_2)^2} = 1$$

$$z_2 = \sqrt{\frac{1 + r_2}{1 - \frac{r_2}{1 + z_1}}} - 1$$

$z_3$  to  $z_{10}$  are determined in a similar fashion.

A.75 The forward rates are computed as follows:

$$(1 + z_2) = (1 + z_1)(1 + f_{1,2})$$

$$f_{1,2} = \frac{(1 + z_2)^2}{(1 + z_1)} - 1$$

A.76 For the maturities beyond 10 years, less market data are used. For the maturities between the 12, 15, 20 years interest rates are interpolated. For example, in order to compute the 16-year zero coupon rate an assumption has to be made. Here we assume that the 1-year forward is constant between 15 and 20 years; i.e. all 1-year forward rates between 15 and 20 years are the same. This assumption is reasonable because the forward is in fact a prediction of the 1-year interest rate 15, 16, etc. years ahead. There is little reason to assume that the market has a substantially different view of the 1-year interest rate 15 years from now compared to 16 years from now. Using this assumption we can write the following:

$$\begin{aligned}
(1 + z_{16})^{16} &= (1 + z_{15})^{15}(1 + f_{15,16}) = (1 + z_{15})^{15}(1 + f_{15,20}) \\
(1 + z_{17})^{17} &= (1 + z_{16})^{16}(1 + f_{16,17}) = (1 + z_{15})^{15}(1 + f_{15,20})^2 \\
(1 + z_{18})^{18} &= (1 + z_{17})^{17}(1 + f_{17,18}) = (1 + z_{15})^{15}(1 + f_{15,20})^3 \\
(1 + z_{19})^{19} &= (1 + z_{18})^{18}(1 + f_{18,19}) = (1 + z_{15})^{15}(1 + f_{15,20})^4 \\
(1 + z_{20})^{20} &= (1 + z_{19})^{19}(1 + f_{19,20}) = (1 + z_{15})^{15}(1 + f_{15,20})^5
\end{aligned}$$

A.77 Based on this we can write the following for the cash value of a 20-year swap:

$$\begin{aligned}
&\frac{r_{20}}{1 + z_1} + \frac{r_{20}}{(1 + z_2)^2} + \dots + \frac{r_{20}}{(1 + z_{19})^{19}} + \frac{1 + r_{20}}{(1 + z_{20})^{20}} \\
&= r_{20} \left[ \sum_{t=1}^{15} \frac{1}{(1 + z_t)^t} + \frac{1}{(1 + z_{15})^{15}} \sum_{t=1}^5 \frac{1}{(1 + f_{15,20})^t} \right] + \frac{1}{(1 + z_{15})^{15}(1 + f_{15,20})^5} \\
&= 1
\end{aligned}$$

A.78 Using a numeric procedure  $f_{15,20}$  can be determined and then replaced in the equation above in order to determine  $z_{16}$  to  $z_{20}$ . The same procedure is used to determine all other 1-year forward rates.

A.79 Zero-coupon yields up to and including the FSP are equal to zero-coupon yields derived above ( $z_1$  until  $z_{20}$  for the euro). The last forward rate pre and all forward rates post the FSP, if liquid maturities beyond the FSP exist, are used to calculate the LLFR (see next step).

### **Step 2: Deriving zero-coupon yields beyond the FSP using a weighted combination of the LLFR and the UFR**

A.80 First, the LLFR is computed based on forward rates (as calculated in step 1) between the last liquid point before the FSP (15 years for the euro) and the FSP itself (20 years for the euro) and forward rates derived from liquid maturities according to the annual DLT assessment, where available, after the FSP (currently 25, 30, 40 and 50 years for the euro). In the following, rates are continuously compounded.

A.81 This means the following for the euro given the current DLT assessment of the swap rates,

$$LLFR = w_{20} * f_{15,20} + w_{25} * f_{20,25} + w_{30} * f_{20,30} + w_{40} * f_{20,40} + w_{50} * f_{20,50}$$

A.82 The weighting factors  $w_x$  are based on the liquidity assessment of the swap market, where  $V_x$  represents the annual average notional amount traded for a particular maturity point  $x$ :

$$w_{20} = \frac{V_{20}}{V_{20} + V_{25} + V_{30} + V_{40} + V_{50}}$$

A.83 Next, the forward rates beyond the FSP are then extrapolated according to the following formula:

$$f_{20,20+h} = \ln(1 + UFR) + (LLFR - \ln(1 + UFR)) * B(a, h)$$

$$B(a, h) = \frac{1 - e^{-ah}}{ah}$$

where  $h$  takes on values from 1 to the desired maturity beyond the FSP and  $a$ , is the convergence factor and is equal to 10%.

- **Applying the volatility adjustment**

A.84 The application of the volatility adjustment is similar to the current Smith-Wilson extrapolation method. However, rather than extrapolating, again, the basic risk free rate term structure after adding the VA, the VA is added to the forward rates. For the rates up to the FSP this is done in the following way:

$$f_{x,x+y}^{VA} = f_{x,x+y} + VA$$

A.85 The VA is also added to the last liquid forward rate, LLFR, the rate from which the extrapolation starts at the FSP, but only to the last forward rate before this FSP. For the euro this implies the following:

$$LLFR^{VA} = w_{20} * f_{15,20}^{VA} + w_{25} * f_{20,25} + w_{30} * f_{20,30} + w_{40} * f_{20,40} + w_{50} * f_{20,50}$$

A.86 This is similar to the current Smith-Wilson method where the VA is also added to the rate for the last liquid point from which the extrapolation starts. The level of the UFR is not adjusted in the alternative extrapolation method, same as for the current Smith-Wilson method.

- **Reasoning behind the convergence factor**

A.87 The convergence factor plays a role in the extrapolation of post-FSP forward rates. The convergence factor determines the speed of post-FSP convergence to the UFR. The greater the convergence factor, the faster the extrapolated forward rates will converge to the designated UFR. Compared to the current method the speed of convergence and the criteria to reach the UFR in 40 years after the LLP within 3 basis points are not used anymore. No unequivocal evidence can be found in the economic empirical literature for the convergence factor and the existence of a convergence factor greater than zero is also often called into doubt. In 2019 the "Commissie Parameters" set the convergence factor to 2% based on recent data used in two versions of the Vasicek model<sup>342</sup>. In the proposed method the factor is set at 10% as was set in the 2013 "UFR committee" report<sup>343</sup>. The 10% was chosen out of prudence, given the big impact of a larger change, and as a step towards using more market consistent data. The size of this parameter could be reassessed and recalibrated in future reviews.

A.88 Finally, post-FSP zero coupon rates are extrapolated as follows.

$$z_{20+h} = \exp\left(\frac{20 * z_{20} + h * f_{20,20+h}}{20 + h}\right) - 1$$

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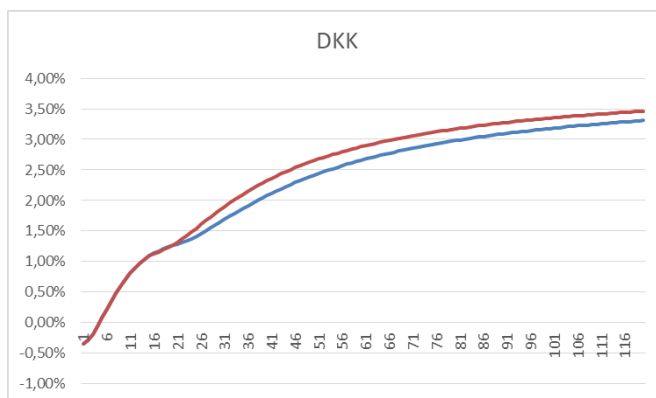
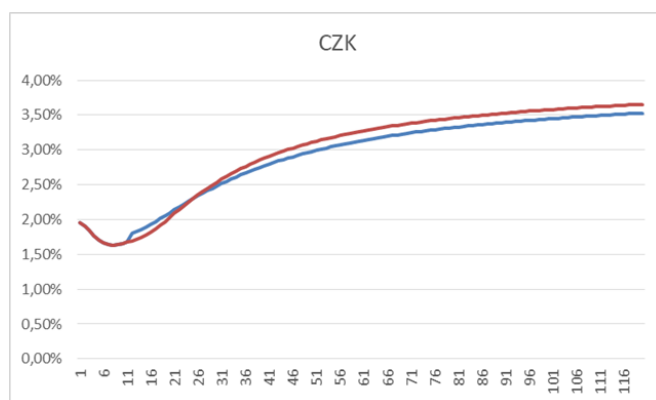
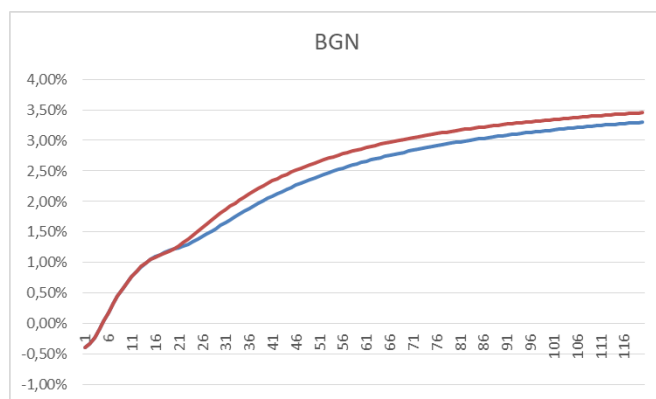
<sup>342</sup> See <https://www.rijksoverheid.nl/documenten/kamerstukken/2019/06/11/advies-commissie-parameters> on <https://www.rijksoverheid.nl/documenten/kamerstukken/2019/06/11/advies-commissie-parameters> (in Dutch).

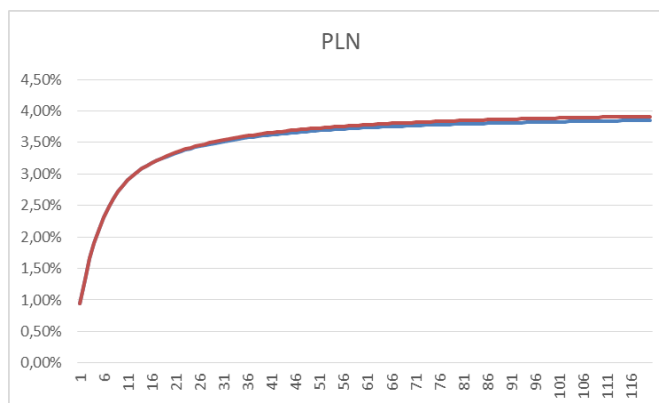
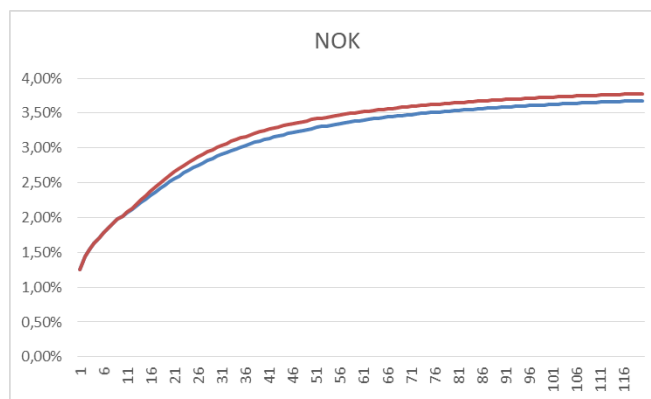
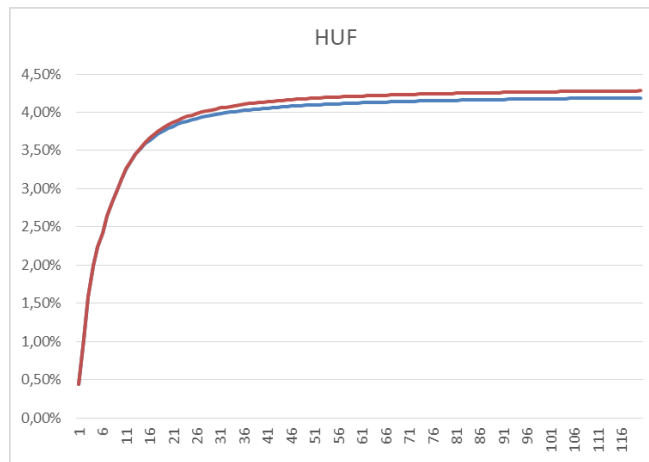
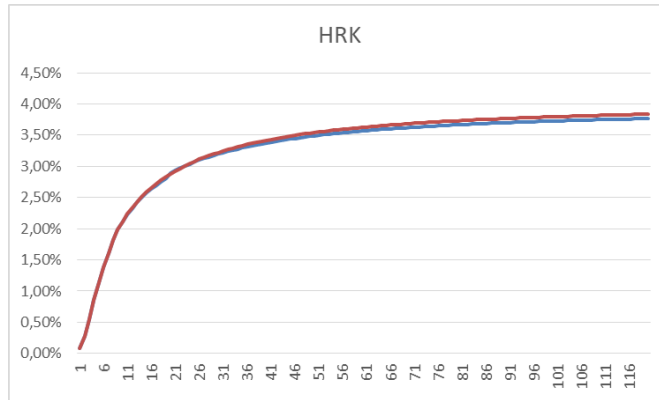
<sup>343</sup> <https://www.government.nl/documents/publications/2013/10/06/advisory-report-of-the-ufr-committee>

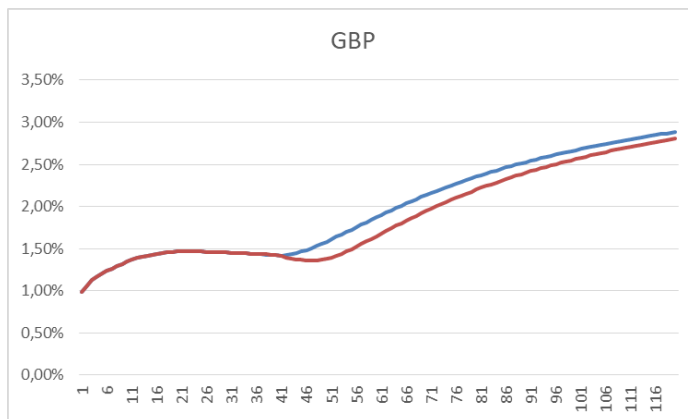
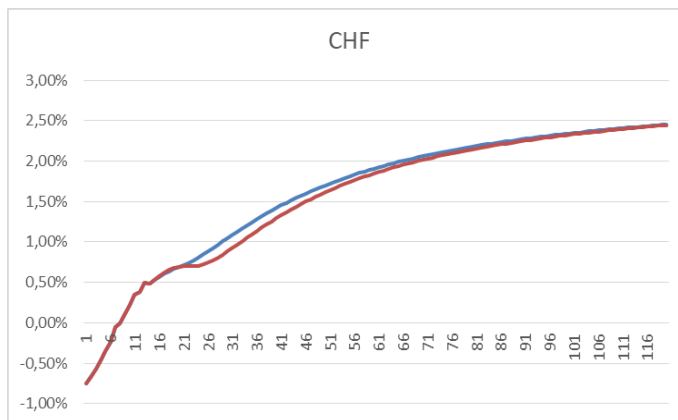
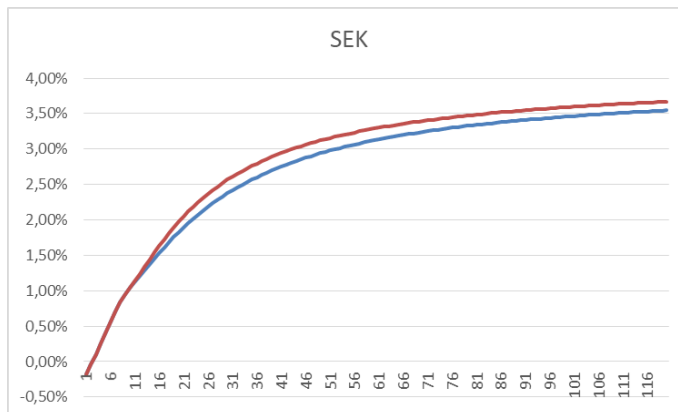
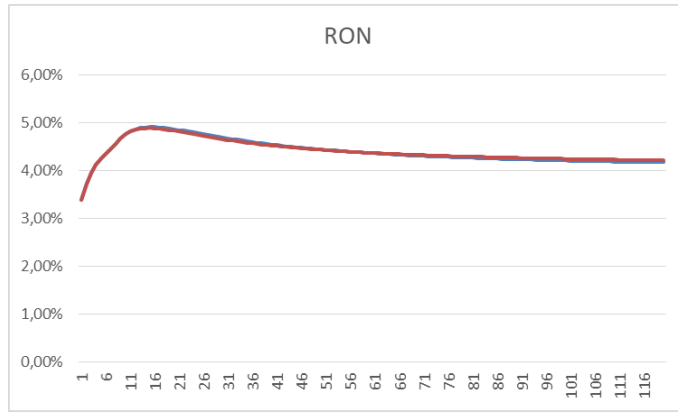


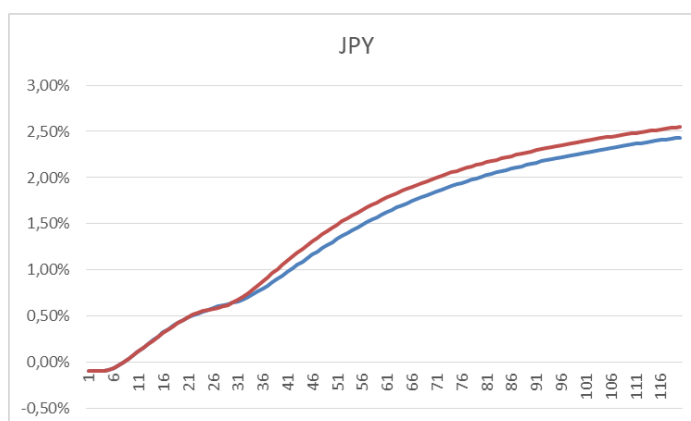
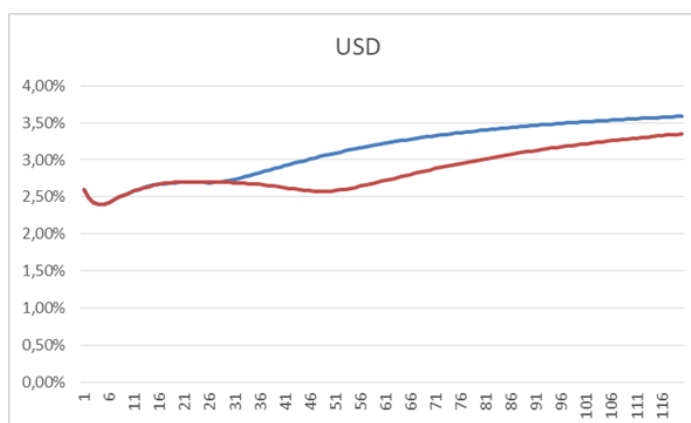
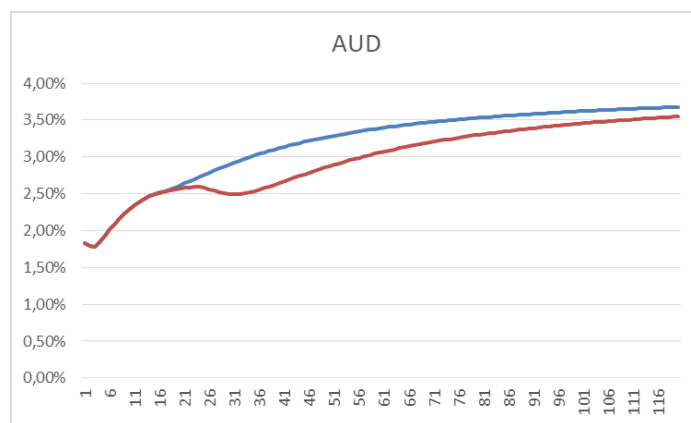
## Annex 2.7 – Comparison between current and alternative methodology for other currencies

A.89 Red term structure – current methodology; blue term structure – alternative methodology.









## Annex 2.8 - Further technical specifications for the calculation of option 1

A.90 For each currency, undertaking should identify a portfolio of its investments backing the (re)insurance liabilities denominated in that currency. Each investment should only be allocated to one portfolio, there may be investments which are not allocated to any portfolio.

- Assets backing unit-linked/separate account liabilities valued as a whole should be excluded;

- Assets rated below investment grade (i.e. CQS 4 and below) should be assigned to the weight of the CQS 3 portfolio (which in practice means that the spread generated by such assets is capped at the level of CQS 3 assets);

### Choice of eligible assets

A.91 The undertaking should identify the eligible assets in the portfolio according to the table below:

<b>CIC Category</b>	<b>CIC Sub-category</b>	<b>YES/NO</b>
1 - Government bonds	11 - Central Government bonds	YES
	12 - Supra-national bonds	YES
	13 - Regional government bonds *	YES *
	14 - Municipal government bonds *	YES *
	15 - Treasury bonds	YES
	16 - Covered bonds	YES
	17 - National Central banks	YES
2 - Corporate bonds	19 - Other	YES
	21 - Corporate bonds	YES
	22 - Convertible bonds	YES
	23 - Commercial paper	YES
	24 - Money market instruments	YES
	25 - Hybrid bonds	YES
	26 - Common covered bonds	YES
	27 - Covered bonds subject to specific law	YES
	28 - Subordinated bonds	YES
29 - Other	YES	
3 - Equity	31 - Common equity	NO
	32 - Equity of real estate related corporation	NO
	33 - Equity rights	NO
	34 - Preferred equity	NO
	39 - Other	NO
4 - Investment funds Collective Investment Undertakings (1)	41 - Equity funds	See note (1) below the table
	42 - Debt funds (1)	
	43 - Money market funds	
	44 - Asset allocation funds	
	45 - Real estate funds	
	46 - Alternative funds	
	47 - Private equity funds	
48 - Infrastructure funds (2)		
5 - Structured notes	49 - Other	
	51 - Equity risk	NO
	52 - Interest rate risk	NO
	53 - Currency risk	NO

	54 - Credit risk	NO
	55 - Real estate risk	NO
	56 - Commodity risk	NO
	57 - Catastrophe and Weather risk	NO
	58 - Mortality risk	NO
	59 - Other	NO
6 - Collateralised securities	61 - Equity risk	NO
	62 - Interest rate risk	NO
	63 - Currency risk	NO
	64 - Credit risk	NO
	65 - Real estate risk	NO
	66 - Commodity risk	NO
	67 - Catastrophe and Weather risk	NO
	68 - Mortality risk	NO
	69 - Other	NO
7 - Cash and deposits	71 - Cash	NO
	72 - Transferable deposits (cash equivalents)	NO
	73 - Other deposits short term (less than or equal to one year)	NO
	74 - Other deposits with term longer than one year	NO
	75 - Deposits to cedants	NO
	79 - Other	NO
8 - Mortgages and loans	81 - Uncollateralized loans made	YES
	82 - Loans made collateralized with securities	YES
	84 - Mortgages	YES
	85 - Other collateralized loans made	YES
	86 - Loans on policies	YES
	89 - Other	YES
9 - Property	91 - Property (office and commercial)	NO
	92 - Property (residential)	NO
	93 - Property (for own use)	NO
	94 - Property (under construction)	NO
	95 - Plant and equipment (for own use)	NO
	99 - Other	NO
0 - Other investments		NO

\* The CIC codes 13 and 14 were used to identify bonds issued by Regional government and local authorities (RGLA). RGLA should be allocated to government portfolio if they are listed in the Commission Implementing Regulation (EU) 2015/2011 ([https://eur-lex.europa.eu/eli/reg\\_impl/2015/2011/oj](https://eur-lex.europa.eu/eli/reg_impl/2015/2011/oj)) and otherwise to non-financial corporate portfolio according to their credit quality step.

- (1) For investment funds look through should be performed and eligible assets within should be identified. When no look through is possible, the whole investment fund should be considered as NOT eligible, except for CIC 42, where in case no look-through is possible should be allocated in total to other corporate investments.
- (2) Only debt infrastructure instruments would be eligible.

### **Treatment of unrated bonds**

A.92 For bonds and loans for which a credit assessment by a nominated ECAI is not available,

2. *Alternative a)* the same approach as referred to in the revised Delegated regulation for the purposes of SCR calculation according to the standard formula should be followed i.e. assignment to credit quality steps 2 or 3 of on the basis of the insurance or reinsurance undertaking's own internal credit assessment.

3. *Alternative b)* are assigned to credit quality step 0, typically the least attractive category. For the SCR calculations, the current approach as referred to in the revised Delegated regulation for the purposes of SCR calculation according to the standard formula remains to be followed i.e. assignment to credit quality steps 2 or 3 of on the basis of the insurance or reinsurance undertaking's own internal credit assessment.

4. *Alternative c)* are excluded from the allocation to credit quality steps (CQS) by distributing the respective share across the seven CQS of both the "financial" and "nonfinancial" asset category<sup>344</sup>

### **Treatment of special types of bonds**

A.93 Perpetual bonds are capped to the maximum maturity bucket for its currency and rating. Callable bonds, are considered eligible for the maturity according to the definitions for inclusions of the Markit and Bloomberg indices used.

### **Allowance for currency hedges**

A.94 In principle, it would be possible to also allow investments denominated in a different currency, in case the currency risk is fully hedged. This would however require that the hedge applies to the full life-time of the investment, and further specifications on the type of hedges admissible for this purpose would need to be set. This would however require undertakings to assign specific investments of another currency to match the liabilities of a specific currency. The currency hedge should also match the whole term of the respective bond. This is considered to be too complex.

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<sup>344</sup> For the Danish krone (DKK) representative portfolio, unrated assets were distributed to CQS0-6 within the financial/non-financial category they are reported to belong to. The distribution is in accordance with the weights of assigned assets found for each CQS within that category.

## Annex 2.9 - Calibration of the risk correction for corporate bonds under Option 1

A.95 In order to calibrate the risk corrections (RC) differentiated by CQS for option 1, EIOPA considers that the average VA resulting from this option should be the same as the VA resulting from a fixed RC applied across all credit quality classes as envisaged in option 6.

A.96 For this purpose, we assume an undertaking which is fully invested in a corporate bond portfolio with weights and durations as in the representative portfolio for the euro currency. Moreover, a fixed RC equal to 50% is assumed (as proposed in Option 6). We use the current EIOPA representative portfolio for Euro (March 2019) and spreads computed on the basis of iBoxx indices as of 31 December 2018.

A.97 With these assumptions, the portfolio used for the calibration has the following weights and durations:

**Table 1: portfolio used for calibration**

	<b>Fin 0</b>	<b>Fin 1</b>	<b>Fin 2</b>	<b>Fin 3</b>	<b>Fin 4</b>	<b>Nonf in0</b>	<b>Nonf in1</b>	<b>Nonf in2</b>	<b>Nonf in3</b>	<b>Nonf in4</b>
Weight	18%	12%	22%	12%	1%	4%	7%	10%	13%	1%
Duratio n	7,2	7,0	5,2	5,3	3,6	8,5	8,0	6,3	5,2	3,9

A.98 It is further assumed that there is a difference of 10% between the risk corrections of any two ascending credit quality classes. Under these assumptions, for any given fixed RC  $\alpha$  there is a unique choice of risk corrections  $\alpha_i$  (where  $0 \leq i \leq 3$ ) such that an application of the risk corrections  $\alpha_i$  yield a VA equal to the case in which the fixed RC  $\alpha$  is used. For  $\alpha = 50\%$ , these percentages are **28.06%** for CQS 0, **38.06%** for CQS 1, **48.06%** for CQS 2 and **58.06%** for CQS 3. These percentages would yield a VA equal to 52 bps, as in the case of a 50% fixed RC.<sup>345</sup>

A.99 On this basis, the following calibration is proposed:

<b>CQS 0</b>	<b>30,00%</b>
<b>CQS 1</b>	<b>40,00%</b>
<b>CQS 2</b>	<b>50,00%</b>
<b>CQS 3</b>	<b>60,00%</b>

A.100 This calibration would yield a VA of 50 bps, just 2 bps lower than the VA that would result assuming a 50% fixed RC, as it is shown in the table below.

Table 2: VA resulting in the two settings

<sup>345</sup> Note that, according to the description of option 1, for investments in sub-investment grade bonds a spread equal to CQS 3 bonds has been applied.

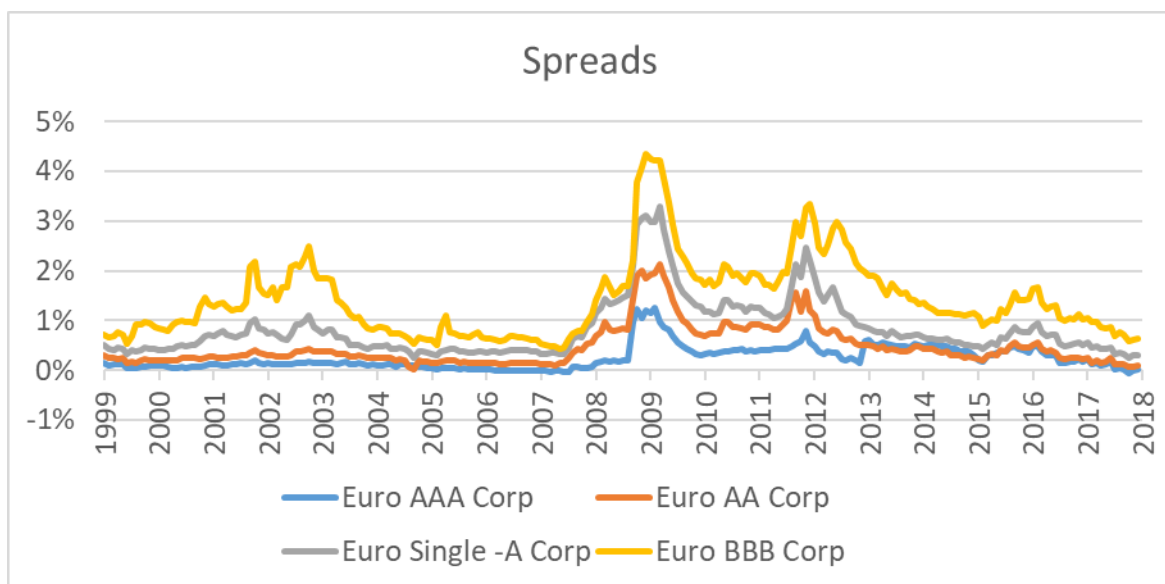


	Fin 0	Fin 1	Fin 2	Fin 3	Fin 4	Nonf in0	Nonf in1	Nonf in2	Nonf in3	Nonf in4	VA
Weight	18%	12%	22%	12%	1%	4%	7%	10%	13%	1%	
Duration	7,2	7,0	5,2	5,3	3,6	8,5	8,0	6,3	5,2	3,9	
Spread	0,49 %	0,51 %	1,11 %	2,43 %	1,91 %	0,45 %	0,53 %	0,82 %	1,46 %	1,27 %	
Fixed 50% RC spread	0,24 %	0,26 %	0,56 %	1,22 %	0,95 %	0,23 %	0,27 %	0,41 %	0,73 %	0,64 %	<b>52</b>
CQS-dependent RC spread	0,34 %	0,31 %	0,56 %	0,97 %	0,76 %	0,32 %	0,32 %	0,41 %	0,58 %	0,51 %	<b>50</b>

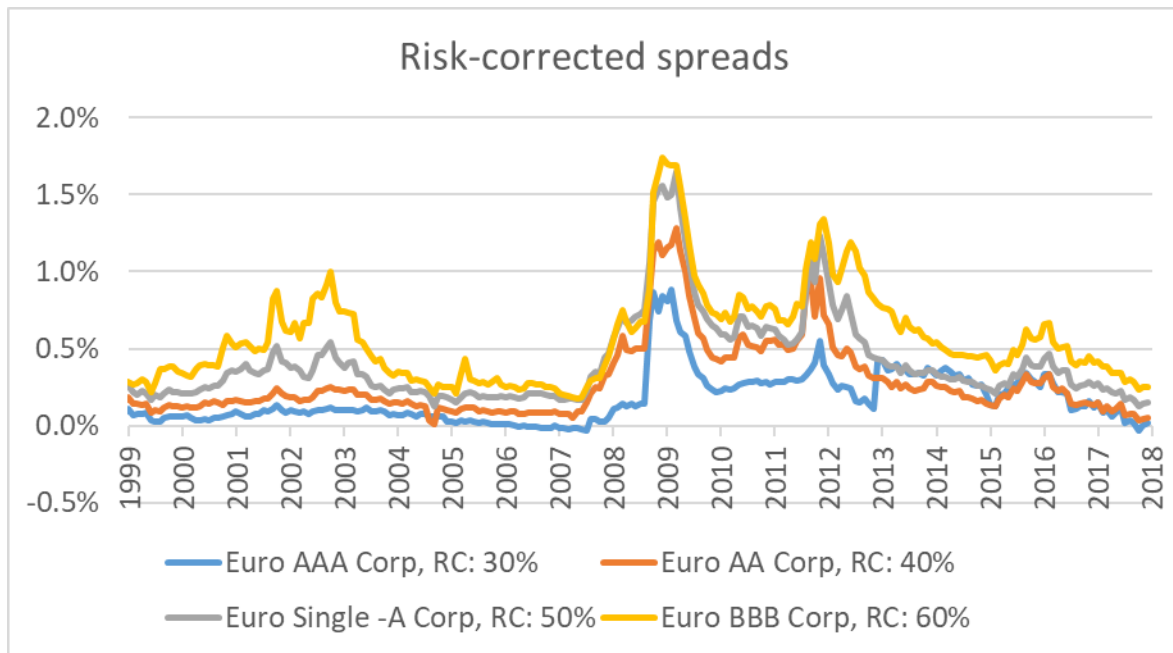
A.101 EIOPA has assessed the sensitivity of this calibration for different reference dates in the period 2016-18. Moreover, a number of sensitivities with respect to spreads have been performed. The results of these analysis confirm that the proposed calibration is sufficiently robust.

A.102 In the following figures a comparison between spreads and risk corrected spreads (according to the proposed calibration) on investment-grade corporate bonds is shown.

**Figure 1:** Spreads of investment-grade bonds in the period 1999-2018



**Figure 2:** RC Spreads of investment-grade bonds in the period 1999-2018 computed with the proposed calibration



A.103 The figures on RC spreads shows that, although a higher risk correction is applied for BBB-rated bonds, RC spreads are still higher than those of higher rated bonds, so that the “ordering” of bonds among the different rating classes is maintained. This feature is desirable, because the objective of the VA is to mitigate the impact of exaggerations of bond spreads on own funds, and as BBB bonds are the most volatile (among investment-grade bonds), a risk correction which is too high for these bonds would insufficiently address spread exaggerations.

## Annex 2.10 - Frequency of activation and value of the adjustment of the proposed approach compared to the current framework<sup>346</sup>

Current framework (100 bps threshold)							Proposed Approach						
Date	ES	GR	IT	PT	SI	SK	Date	ES	GR	IT	PT	SI	SK
2009-06-30	-	-	-	-	-	-	2009-06-30	-	-	-	-	-	5
2009-07-31	-	-	-	-	-	-	2009-07-31	-	-	-	-	-	17
2009-08-31	-	-	-	-	-	-	2009-08-31	-	-	-	-	-	13
2009-09-30	-	-	-	-	-	-	2009-09-30	-	-	-	-	-	5
2010-01-29	-	-	-	-	-	-	2010-01-29	-	6	-	-	-	-
2010-02-26	-	-	-	-	-	-	2010-02-26	-	2	-	-	-	-
2010-03-31	-	-	-	-	-	-	2010-03-31	-	7	-	-	-	-
2010-04-30	-	35	-	-	-	-	2010-04-30	-	70	-	1	-	-
2010-05-31	-	-	-	-	-	-	2010-05-31	6	30	-	-	-	-
2010-06-30	-	8	-	-	-	-	2010-06-30	11	60	-	-	-	-
2010-07-30	-	24	-	-	-	-	2010-07-30	4	66	-	-	-	-
2010-08-31	-	34	-	-	-	-	2010-08-31	9	81	-	3	-	-
2010-09-30	-	24	-	-	-	-	2010-09-30	9	66	-	25	-	-
2010-10-29	-	41	-	-	-	-	2010-10-29	9	78	-	14	-	-
2010-11-30	-	29	-	-	-	-	2010-11-30	30	79	-	34	-	-
2010-12-31	-	51	-	-	-	-	2010-12-31	27	95	3	31	-	-
2011-01-31	-	41	-	-	-	-	2011-01-31	18	82	-	36	-	-
2011-02-28	-	56	-	14	-	-	2011-02-28	20	96	-	53	-	-
2011-03-31	-	67	-	53	-	-	2011-03-31	12	105	-	91	-	-
2011-04-29	-	85	-	81	-	-	2011-04-29	12	124	-	119	-	-
2011-05-31	-	75	-	77	-	-	2011-05-31	19	115	-	118	-	-
2011-06-30	-	82	-	105	-	-	2011-06-30	16	126	-	149	-	-
2011-07-29	-	38	-	134	-	-	2011-07-29	37	90	27	186	-	-
2011-08-31	-	40	-	57	-	-	2011-08-31	9	103	-	120	-	-
2011-09-30	-	24	-	62	-	-	2011-09-30	5	107	10	145	-	-
2011-10-31	-	43	-	85	-	-	2011-10-31	13	122	29	164	-	-
2011-11-30	-	67	-	109	-	-	2011-11-30	10	168	42	209	-	-
2011-12-30	-	112	-	104	-	-	2011-12-30	2	203	39	194	-	-
2012-01-31	-	125	-	226	-	-	2012-01-31	10	200	27	302	-	-
2012-02-29	-	154	-	164	-	-	2012-02-29	23	219	12	229	-	-
2012-03-30	-	107	-	126	-	-	2012-03-30	39	167	19	187	-	-
2012-04-30	-	93	-	90	-	-	2012-04-30	53	158	33	155	-	-
2012-05-31	1	74	-	120	-	-	2012-05-31	77	149	51	195	-	-
2012-06-29	-	130	-	55	-	-	2012-06-29	63	203	37	127	-	-
2012-07-31	24	145	-	83	-	-	2012-07-31	89	210	62	148	-	-
2012-08-31	38	58	-	31	-	-	2012-08-31	100	120	52	93	-	-
2012-09-28	21	41	-	26	-	-	2012-09-28	76	96	35	81	-	-
2012-10-31	27	107	-	28	-	-	2012-10-31	73	154	36	74	-	-
2012-11-30	25	48	-	33	-	-	2012-11-30	68	91	30	76	-	-
2012-12-31	28	5	-	14	-	-	2012-12-31	70	46	33	56	-	-
2013-01-31	21	37	-	5	-	-	2013-01-31	57	73	21	41	-	-
2013-02-28	21	42	-	6	-	-	2013-02-28	58	79	35	44	-	-
2013-03-29	20	56	-	7	-	-	2013-03-29	58	94	35	45	5	-
2013-04-30	9	52	-	4	-	-	2013-04-30	41	83	23	35	3	-
2013-05-31	15	4	-	2	-	-	2013-05-31	44	33	28	31	5	-
2013-06-28	10	47	-	16	-	-	2013-06-28	42	79	30	48	7	-
2013-07-31	9	35	-	22	-	-	2013-07-31	40	67	26	53	5	-
2013-08-30	19	53	5	42	-	-	2013-08-30	43	77	29	66	16	-
2013-09-30	14	40	8	36	-	-	2013-09-30	39	66	33	61	18	-
2013-10-31	14	31	5	26	-	-	2013-10-31	36	53	27	48	14	-
2013-11-29	14	38	-	14	-	-	2013-11-29	37	62	21	38	8	-

<sup>346</sup> Please note that, for the purposes of this analysis, simplified assumptions were made (same fixed reference portfolio throughout time period January 2007 to February 2019). As a consequence, the identified cases of triggering of the VA during the time period January 2016 to February 2019 are not fully consistent with the actual EIOPA data on the VA during that period. Note also that in the analysis the VA was computed at a monthly (not quarterly) basis.

**Current framework (100 bps threshold)**

Date	ES	GR	IT	PT	SI	SK
2013-12-31	9	31	-	11	-	-
2014-01-31	7	40	-	-	-	-
2014-02-28	-	19	-	-	-	-
2014-03-31	-	13	-	-	-	-
2014-04-30	-	-	-	-	-	-
2014-05-30	-	-	-	-	-	-
2014-06-30	-	-	-	-	-	-
2014-07-31	-	-	-	-	-	-
2014-09-30	-	-	-	-	-	-
2014-10-31	-	45	-	-	-	-
2014-11-28	-	49	-	-	-	-
2014-12-31	-	95	-	-	-	-
2015-01-30	-	134	-	-	-	-
2015-02-27	-	116	-	-	-	-
2015-03-31	-	147	-	-	-	-
2015-04-30	-	115	-	-	-	-
2015-05-29	-	131	-	-	-	-
2015-06-30	-	176	-	-	-	-
2015-07-31	-	135	-	-	-	-
2015-08-31	-	76	-	-	-	-
2015-09-30	-	50	-	-	-	-
2015-10-30	-	46	-	-	-	-
2015-11-30	-	45	-	-	-	-
2015-12-31	-	46	-	-	-	-
2016-01-29	-	80	-	-	-	-
2016-02-29	-	91	-	-	-	-
2016-03-31	-	66	-	-	-	-
2016-04-29	-	66	-	-	-	-
2016-05-31	-	46	-	-	-	-
2016-06-30	-	70	-	-	-	-
2016-07-29	-	75	-	-	-	-
2016-08-31	-	67	-	-	-	-
2016-09-30	-	68	-	-	-	-
2016-10-31	-	64	-	-	-	-
2016-11-30	-	34	-	-	-	-
2016-12-30	-	46	-	-	-	-
2017-01-31	-	50	-	-	-	-
2017-02-28	-	46	-	-	-	-
2017-03-31	-	43	-	-	-	-
2017-04-28	-	-	-	-	-	-
2017-05-31	-	-	-	-	-	-
2018-05-31	-	-	-	-	-	-
2018-06-30	-	-	-	-	-	-
2018-07-31	-	-	-	-	-	-
2018-08-31	-	-	45	-	-	-
2018-09-30	-	-	-	-	-	-
2018-10-31	-	-	44	-	-	-
2018-11-30	-	-	32	-	-	-
2018-12-31	-	-	-	-	-	-
2019-01-31	-	-	-	-	-	-
2019-02-28	-	-	-	-	-	-

**Proposed Approach**

Date	ES	GR	IT	PT	SI	SK
2013-12-31	32	54	17	34	1	-
2014-01-31	28	61	17	8	1	-
2014-02-28	22	39	6	1	-	-
2014-03-31	10	32	2	-	-	-
2014-04-30	4	3	-	-	-	-
2014-05-30	5	5	2	-	-	-
2014-06-30	3	-	-	-	-	-
2014-07-31	1	-	-	-	-	-
2014-09-30	-	16	-	-	-	-
2014-10-31	-	58	-	-	-	-
2014-11-28	-	61	-	-	-	-
2014-12-31	-	105	-	-	-	-
2015-01-30	-	142	-	-	-	-
2015-02-27	-	121	-	-	-	-
2015-03-31	-	154	-	-	-	-
2015-04-30	-	124	-	-	-	-
2015-05-29	-	141	-	-	-	-
2015-06-30	3	192	-	-	-	-
2015-07-31	-	147	-	-	-	-
2015-08-31	-	91	-	-	-	-
2015-09-30	1	69	-	-	-	-
2015-10-30	-	61	-	-	-	-
2015-11-30	-	58	-	-	-	-
2015-12-31	-	61	-	-	-	-
2016-01-29	-	98	-	-	-	-
2016-02-29	4	112	-	11	-	-
2016-03-31	-	80	-	-	-	-
2016-04-29	-	79	-	-	-	-
2016-05-31	-	60	-	-	-	-
2016-06-30	-	81	-	-	-	-
2016-07-29	-	83	-	-	-	-
2016-08-31	-	74	-	-	-	-
2016-09-30	-	75	-	-	-	-
2016-10-31	-	72	-	-	-	-
2016-11-30	-	46	-	8	-	-
2016-12-30	-	55	-	-	-	-
2017-01-31	-	62	-	-	-	-
2017-02-28	-	56	-	-	-	-
2017-03-31	-	53	-	-	-	-
2017-04-28	-	45	-	-	-	-
2017-05-31	-	33	-	-	-	-
2018-05-31	-	-	30	-	-	-
2018-06-30	-	-	29	-	-	-
2018-07-31	-	-	26	-	-	-
2018-08-31	-	-	55	-	-	-
2018-09-30	-	-	46	-	-	-
2018-10-31	-	-	55	-	-	-
2018-11-30	-	-	47	-	-	-
2018-12-31	-	-	33	-	-	-
2019-01-31	-	-	32	-	-	-
2019-02-28	-	-	38	-	-	-

## Annex 2.11 - Background information on the motivation for the choice of $PVBP(MV(FI_{i,c}))$ and $PVBP(BEL_{i,c})$

A.104 The idea behind introducing a ratio

$$\frac{PVBP(MV_{i,c}^{FI})}{PVBP(BEL_{i,c})}$$

in the calibration of the VA under option 4 and the combinations including this option is to achieve in a linear approximation, that the application of the VA to the best estimate liability compensates the loss in the market value of spread sensitive assets caused by the change in credit spreads (CS) that lead to the VA observed. In a simplified notation:

$$PVBP^{CS}(assets) = (assets(CS + VA) - assets(CS)) / VA$$

$$PVBP^{VA}(liabilities) = (liabilities(RFR + VA) - liabilities(RFR)) / VA$$

A.105 Where  $assets(CS)$  amounts to the value of the assets under the given market spreads ( $CS$ ) and  $assets(CS+VA)$  amounts to the value of these assets if the spreads would be increased by the amount of the VA value.  $liabilities(RFR+VA)$  amounts to the value of the liabilities valued with the risk free rates (RFR) including VA.

A.106 Under the assumption that a linear approximation would be appropriate for the valuation of assets and of liabilities the following would hold true:<sup>347</sup>

$$\begin{aligned} \text{impact on assets} &= \frac{\text{asset impact (VA as uniform CS shock)}}{\text{liability impact(VA)}} \cdot \text{liability impact(VA)} \\ &= \frac{PVBP^{CS}(assets) \cdot VA}{PVBP^{VA}(liabilities) \cdot VA} \cdot PVBP^{VA}(liabilities) \cdot VA \\ &= PVBP^{VA}(liabilities) \cdot \left( \frac{PVBP^{CS}(assets)}{PVBP^{VA}(liabilities)} \cdot VA \right) \\ &= \text{liability impact} \left( \frac{PVBP^{CS}(assets)}{PVBP^{VA}(liabilities)} \cdot VA \right) \end{aligned}$$

A.107 Under this approach for the assets the VA is considered as uniform adjustment to the credit spreads (i.e. irrespective of sector, CQS and maturity) which reflects in average the portion of the observed spreads that is intended to be mitigated by the VA. For the liabilities, the VA as usual is applied as VA-adjustment to the RFR, which especially implies that it is calculated under the given CS level at the relevant valuation date, only the RFR is adjusted by the VA.

A.108 Key assumptions under this approach are:

- VA applied as uniform CS adjustment exactly compensates exaggerated CS on the VA reference portfolio
- Undertakings portfolio is (sufficiently) near to the reference portfolio

<sup>347</sup> Note that with "impact on assets" it is intended to capture the impact of the part of the spread associated to the VA on the market value of the assets

- Linear approximation works sufficiently well

A.109 To best capture VA effects in the base case at the valuation date, the PVBPs would be calculated under conditions of the valuation date, e.g. as sensitivity under the given BasisVA before adjustment by undertaking specific factors, which in the notation of option 4 is  $RC_{S_{i,c}}$ :

$$PVBP^{CS}(assets) = (assets(\mathbf{CS} + \text{BasisVA}) - assets(\mathbf{CS})) / \text{BasisVA}$$

$$PVBP^{VA}(liabilities) = (liabilities(\mathbf{RFR} + \text{BasisVA}) - liabilities(\mathbf{RFR})) / \text{BasisVA}$$

A.110 Potential shortcomings:

- Potential algorithmic mismatch: VA currently is calculated as weighted average of spreads with the market values as weights, but this does not necessarily imply that the VA would be an 'implied uniform spread'. The latter would be defined as the uniform adjustment of all spreads which would lead to the same impact on the reference portfolio as if all spreads would be 'corrected' exactly (within their buckets).
  - Potential allocation mismatch: The undertaking's portfolio is different from the VA reference portfolio, i.e. even if the VA would fit for the reference portfolio, this maybe would not hold true for each undertaking.
  - Potential material convexity effects: The valuation of assets and liabilities could show not to be linear in the factor derived. This could be more relevant in cases of high spreads and high VA values.
  - Potential asymmetry:  $PVBP^{CS}(assets)$  is calculated under an increase of spreads by  $\text{BasisVA}$  to have the same signs in numerator and denominator. Alternatively one could calculate
5.  $PVBP^{CS}(assets) = (assets(\mathbf{CS} - \text{BasisVA}) - assets(\mathbf{CS})) / \text{BasisVA}$  and apply a negative sign to the ratio. This would potentially better reflect the interpretation of  $\text{BasisVA}$  as reduction of the current CS level and also take care of asymmetries in asset sensitivity to CS.

## **Annex 2.12 - Description of simulation of historic VA values**

A.111 For the calculation of historic VA values, EIOPA used data on yields and spreads in the time period January 2007 to February 2019, with a focus on the Euro currency. For the computation of the VA over this time period, reference portfolios as at April 2018 was used. For the purposes of this analysis, it was assumed that the reference portfolios remained fixed.

A.112 Specifically, the following input data was used:

- Weights and durations in the representative portfolios
- For each month in the time period 01/2007 to 02/2019, information on the yield, the risk-corrected yield, the risk-free rate and the fundamental spread in the individual investment buckets which constitute the representative portfolio

A.113 The analysis resulted in a computation of the following variables:

- The aggregated yield, risk-corrected yield, risk-free rate and fundamental spread at the government bond and corporate bond portfolio level
- The average risk-corrected spread at the government bond and corporate bond portfolio level
- The currency VA for the Euro, as well as of the national VA for each country in the Euro zone

A.114 In addition, variants of these output variables were calculated corresponding to the alternative aggregation methods that were considered in the analysis of the deficiencies.

A.115 All output variables were calculated at the same time intervals as the input data and for all representative portfolios included in the assessment.

## Annex 2.13 - Description of approximate impact analysis conducted by EIOPA

A.116 For each of the options 1, 4, 5 and 6 as well as their combinations the undertaking specific  $VA_i$  is determined. Based on the impact of the current VA per year-end 2018 that undertakings have reported in their annual QRTs in template S22, the impact of the different options is approximated.

A.117 A change in the gross best estimate liabilities due to a change in the VA does not result in the same change in the excess of assets over liabilities for at least the following two reasons.

- A change in the VA also affects the valuation of the reinsurance recoverables, but the change in the net best estimate, i.e. the gross best estimate minus the reinsurance recoverables, also does not equal the change in the excess of assets over liabilities.
- A change in the VA also results in changes in the deferred taxes on the Solvency II balance sheet.

A.118 As an approximation the impact of the VA on the excess of assets over liabilities (EoAoL) from the annual QRTs in template S22 is used. This is denoted as  $\Delta EoAoL_{i,S22}$  which equals the change in the excess of assets over liabilities for undertaking  $i$ .

A.119 The change in the excess of assets over liabilities of option  $j$  for undertaking  $i$  due to a change in the VA is approximated using a linear approximation as follows:

$$\Delta EoAoL_{i,S22}^j = \Delta EoAoL_{i,S22} \times \frac{VA_i^j}{VA_i^{current}}$$

where

- $VA_i^j$  is the VA for undertaking  $i$  under option  $j$
- $VA_i^{current}$  is the current VA for undertaking  $i$

A.120 All the options differentiate between the different currencies of the liabilities; i.e. an undertaking should apply a VA specific for the currency to all its liabilities in that currency. Both the data in the annual QRTs in template S22 and the data in the VA overshooting information request do not differentiate between the different currencies of the liabilities of the undertakings. Therefore, the impact assessment is based on aggregated data over all the different currencies per undertaking, implicitly assuming that all liabilities are in a single currency, the reporting currency.

A.121 Whether the impact of a change in the VA is material or not also depends on the SCR of an undertaking. Therefore, to compare the impact between undertakings and jurisdictions the change in the excess of assets over liabilities is compared to the SCR of the undertaking or jurisdiction. Note that the comparison between jurisdictions does not necessarily indicate the



expected impact for the corresponding jurisdiction, as the availability of data varies significantly across jurisdictions for this assessment.

A.122 Please mind that dividing the excess of assets over liabilities by the SCR does not necessarily approximate the impact on the SCR ratio. This is not only because of potential eligibility of own fund restrictions, but also because impacts on options and guarantees due to spread changes are not taken into account and a change in the VA method may imply a different dynamic modelling of the VA which would also affect the VA. The impact of a change in the VA on the SCR for standard formula users is considered to be relatively small as the impact of the shocks and factor based capital requirements are scaled by the same percentage as the impact of the VA on the net best estimate liabilities.

A.123 In the following sections a table with the impact of changing the VA according to the different options per jurisdiction is provided. Jurisdictions with fewer than 4 undertakings in the VA overshooting information request are grouped together and the UK has been excluded from the sample. For all options and combination of options, the general application ratio (*GAR*) remains equal to 65%.

A.124 The table below shows the impact of the application of the current VA on the undertakings with eligible data from the VA overshooting information request, eligible undertaking specific data from the EIOPA reference portfolio and the annual QRTs in template S22. The impact of the 120 undertakings in this sample equals 18.6 billion euros. The sample covers 2,900 billion euros net technical provisions, approximately 41% of the total technical provision for the whole EEA market of the undertakings that fill out the annual QRT template S22. The total impact of the current VA equals 18.4 billion euros; this is approximately 53 percent of the total VA impact reported in QRT template S22. This impact of the VA makes up approximately 5 percent of the eligible own funds of 360 billion euros for the undertakings in the sample; only in NL the VA makes up a significant larger percentage of the eligible own funds: 17 percent.

A.125 To be able to show the impacts on the SCR ratio, a subsample of undertakings is shown which only use Standard Formula (SF) models without an internal model for credit spread risk. This subsample is chosen as the expected impact of the VA on the SCR is not included in this assessment and expected to be limited for the SF undertakings. The table below shows that the sample decreases to 94 undertakings. The sample covers with a technical provision of 6.608 billion euros approximately 27% of the total reported technical provisions in the S22 QRT template.

## Characteristics and impact of current VA of sample

	#	SPREAD ASSETS	NET TP	EOF SCR	SCR	RATIO	IMPACT CURRENT VA	CURRENT APPLICABLE VA	#SF	SF EOF SCR	SF SCR	SF RATIO
<b>TOTAL</b>	120	2,912,471	2,737,082	360,236	148,320	243%	18,400	0.24%	94	175,310	78,007	225%
<b>OTH</b>	4	39,219	38,816	7,996	3,323	241%	401	0.24%	4	7,996	3,323	241%
<b>FR</b>	24	1,130,573	1,130,394	97,034	46,749	208%	5,268	0.24%	22	85,767	40,752	210%
<b>IT</b>	14	330,599	318,049	84,937	37,304	228%	2,367	0.24%	8	11,267	6,135	184%
<b>DE</b>	21	710,645	543,750	94,405	24,794	381%	2,352	0.24%	9	20,908	4,071	514%
<b>NL</b>	16	319,625	328,687	36,866	18,221	202%	6,262	0.24%	11	13,926	7,529	185%
<b>ES</b>	20	120,765	133,503	15,433	6,571	235%	457	0.24%	20	15,433	6,571	235%
<b>BE</b>	5	153,318	147,142	15,283	6,819	224%	942	0.24%	4	11,731	5,087	231%
<b>FI</b>	4	45,633	43,210	5,018	2,724	184%	216	0.24%	4	5,018	2,724	184%
<b>LU</b>	6	55,193	47,160	1,882	1,089	173%	56	0.24%	6	1,882	1,089	173%
<b>GR</b>	6	6,902	6,371	1,382	726	190%	79	0.24%	94	1,382	726	190%

*The number of undertakings, their total spread assets, net technical provisions, eligible own funds for the SCR, the SCR itself, the SCR ratio, the impact of the VA, the current VA, the number of undertakings with Standard Formula (SF), their eligible own funds for the SCR, the SCR itself for SF undertakings and the SCR ratio for SF undertakings for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros.*

A.126 The table below shows the coverage of the technical provision and current adjusted VA of the sample compared to the total reported technical provisions and VA impacts in the QRT data S22 per jurisdiction for the full sample and the subsample of SF undertakings. In the full sample for NL the coverage in technical provisions and VA is relatively high compared to other jurisdictions followed by FI.

A.127 In the subsample of SF undertakings the coverage in technical provisions and VA decreases significantly for NL from 96% to 28%. FI has relatively the highest coverage in terms of technical provisions, followed by ES.

A.128 Overall these distributions indicate that estimated impacts per jurisdiction are not necessarily representative of the actual expected impact per jurisdiction.

## Coverage of current sample versus S22

	#	# SF	GROSS TP S22	IMPACT CURRENT VA S22	COVERAGE SAMPLE NET TP VERSUS S22	COVERAGE SF SAMPLE NET TP VERSUS S22	COVERAGE SAMPLE IMPACT CURRENT VA VERSUS S22	COVERAGE SF SAMPLE IMPACT CURRENT VA VERSUS S22
<b>TOTAL</b>	120	94	6,607,827	34,946	41%	27%	53%	27%
<b>OTH</b>	4	4	488,325	2,174	8%	8%	18%	18%
<b>FR</b>	24	22	2,018,656	10,664	56%	49%	49%	43%
<b>IT</b>	14	8	719,894	4,876	44%	20%	49%	18%
<b>DE</b>	21	9	1,051,149	4,197	52%	15%	56%	12%
<b>NL</b>	16	11	354,560	6,527	93%	28%	96%	28%
<b>ES</b>	20	20	196,259	1,012	68%	68%	45%	45%
<b>BE</b>	5	4	244,672	2,784	60%	45%	34%	17%
<b>FI</b>	4	4	50,076	284	86%	86%	76%	76%
<b>LU</b>	6	6	159,705	137	30%	30%	41%	41%
<b>GR</b>	6	6	10,873	99	59%	59%	80%	80%

The number of undertakings, the number of undertakings with SF, the total gross technical provisions from S22 data, the total VA impact from S22 data, the coverage of the technical provisions of the current sample versus the total technical provisions from the S22 data, the coverage of the technical provisions of the current SF sample versus the total technical provisions from the S22 data, the coverage of the adjusted current VA impact of the current sample versus the total VA impact from the S22 data and the coverage of the adjusted current VA impact of the current SF sample versus the total VA impact from the S22 data for the different (grouped) jurisdictions per 31 December 2018; numerical amounts are in millions of euros.

## Annex 2.14 - Illustration of recommended changes to the SFCR template on the impact of the LTG measures

A.129 Current template S.22.01.01.21/22 (here only labels of the rows, no columns):

Technical provisions	R0010
Basic own funds	R0020
Eligible own funds to meet Solvency Capital Requirement	R0050
Solvency Capital Requirement	R0090
Eligible own funds to meet Minimum Capital Requirement	R0100
Minimum Capital Requirement	R0110

Proposed additions:

Solvency Capital Requirement ratio	$= (R50/R90) * 100$ (in%)
Minimum Capital Requirement ratio	$= (R100/R110) * 100$ (in%)

## Annex 2.15 – Composition of the current EIOPA equity index

Equity indices (Price indices)	Weights
AEX	0,14
CAC 40	0,14
DAX	0,14
FTSE All-Share Index	0,14
FTSE MIB Index	0,08
IBEX 35	0,08
Nikkei 225	0,02
OMX Stockholm 30 Index	0,08
S&P 500	0,08
SMI	0,02
WIG30	0,08

## Annex 2.16 - Comparison between the weights of each country in the reference portfolio and EIOPA equity index

A.130 Two perspectives are shown:

- Based on “absolute amounts”, i.e. the distribution for the EEA insurers as a whole
- Based on “relative weights”, i.e. for each issuing country a percentage share of the overall equity investments is derived separately for insurers from each national market of the EEA and then a European percentage for the issuing country is derived as a simple average of the percentage for all national markets

country	EIOPA equity index	absolute amounts	relative weights
NL	14%	2,31%	2,85%
FR	14%	33,43%	5,88%
DE	14%	19,80%	8,32%
GB	14%	5,83%	4,80%
IT	8%	1,16%	1,34%
ES	8%	0,77%	2,58%
SE	8%	5,33%	1,81%
US	8%	4,86%	7,24%
PL	8%	0,53%	3,04%
JP	2%	0,35%	0,23%
CH	2%	0,64%	0,90%

DK		6,51%	2,59%
LU		5,97%	6,29%
NO		3,35%	2,10%
IE		2,59%	5,18%
BE		0,75%	1,54%
AT		0,69%	3,48%
FI		0,66%	1,94%
SI		0,12%	2,83%
CZ		0,11%	2,30%
IS		0,07%	3,05%
GR		0,06%	2,09%
HU		0,05%	2,43%
MT		0,05%	0,86%
HR		0,04%	2,02%
CY		0,03%	1,31%
BG		0,03%	2,24%
SK		0,03%	2,36%
PT		0,03%	0,74%
RO		0,02%	2,61%
LV		0,02%	2,45%
LT		0,01%	1,03%
LI		0,01%	0,23%
EE		0,00%	0,85%
other non EEA countries		3,77%	8,47%

**Annex 2.17 - Calculation of the weights (extract from “Final report on public consultation No. 14/058 on the implementing technical standards on the equity index for the symmetric adjustment of the equity capital charge”)**

**Option 4.1 (Absolute economic amount approach):**

A.131 The weights correspond to the relative shares of each national stock market (or national stock markets of a group of countries) in the aggregated equity portfolio of EU insurance and reinsurance undertakings, based on a survey EIOPA performed in the first quarter of 2013.

A.132 Each national stock market selected has been assigned to a representative national equity index.

A.133 The weight  $W_j$  of country (or group of countries)  $j$  is calculated as:

$$W_j = \frac{\sum_{i=1}^n AE_i^j}{\sum_{j=1}^m \sum_{i=1}^n AE_i^j}$$

}

}

}

Total amount of equities from country  $j$  in the aggregated EU equity portfolio of insurance and reinsurance undertakings

Total amount of equities in the aggregated equity portfolio of EU insurance and reinsurance undertakings

with “equities from country  $j$ ” being the equities whose main stock exchange is located in country  $j$ ,  $m$  the number of Member States taken into account in the equity index (i.e. the number of indices used in the calculation),  $n$  the number of Member States for which equity holdings were available and  $AE_{ij}$  the amount of equities from country  $j$  held in total by (re)insurance undertakings in country  $i$ .

**Option 4.2 (Average of national percentages approach):**

A.134 The weight of one national stock market corresponds to the average of the relative shares of this stock market in the equity portfolios of the insurance and reinsurance undertakings of each Member State, based on a survey EIOPA performed in the first quarter of 2013.

A.135 Each national stock market selected has been assigned to a representative national equity index.

A.136 The weight  $W_j$  of country  $j$  is calculated as:

$$W_j = \frac{1}{n} \sum_{i=1}^n \frac{AE_i^j}{\underbrace{\sum_{k=0}^z AE_i^k}}$$

Share of equities from country  $j$  in the aggregated equity portfolio of country  $i$ 's insurance and reinsurance undertakings

A.137 with  $n$  the number of Member States taken into account in the equity index (i.e. the number of indices used in the calculation),  $z$  the number of countries that have stock exchanges in which some equities of the EU aggregated equity portfolio are mainly traded and  $AE_{ij}$  the amount of country  $j$  equities in the aggregated equity portfolio of country  $i$  (re)insurance undertakings.

#### **Option 4.3 (Combined approach):**

A.138 This approach combines the weights that result from the two approaches described above.

A.139 Some equity markets are important both in terms of the relative share of each national stock market in the aggregated equity portfolio of European insurers and in terms of the average of national percentages (e.g. France and the United Kingdom). For other equity markets, there are marked differences. The Swedish and Polish equity markets are for example much more important when looking at averages of national percentages.

A.140 The combined approach chooses equity indices with a high weight based on one or both measures. It also takes into account that all geographic parts of Europe should be represented. An index might also be included where it can be seen as a good representative for other equity markets (e.g. Japan as proxy for the Asian markets).

A.141 The starting point is the relative shares of the equity markets in the aggregated equity portfolios of European insurers. But the weights of smaller markets are adjusted upwards if insurers from many European countries have a meaningful allocation to this market or the market can be seen as a proxy for other non-included equity markets.

A.142 The selected indices are allocated to three categories. Each member of a category has the same weight (14%, 8% or 2%). The weights for the equity markets of Poland, Sweden and Japan reflect also the fact that they can be seen as proxies for the Eastern European, Scandinavian and Asian markets.

## **Annex 3.1 – Best Estimate**

### **1. Homogeneous risk groups (HRG)**

#### **Relevant legal provisions**

- A.143 Recital 24 of the Delegated Regulation establishes what segmentation should reflect.
- A.144 Article 34 paragraph 3 of the Delegated Regulation defines how to perform BE calculation using grouped policy data.
- A.145 Article 35 of the Delegated Regulation establishes the rules to determine the Homogeneous risk groups of Life insurance obligations.
- A.146 Article 260 paragraph 3 of the Delegated Regulation defines the level of granularity that should be used performing Expected Profits in Future Premiums calculation for reporting purposes.

#### **Other regulatory background**

- A.147 Other regulatory background considered to issue the advice:
- i. EIOPA Guidelines on Technical Provisions: Guidelines 19 to 23.

#### **Identification of the divergent practices**

- A.148 EIOPA has identified some divergent practices among Members. Most of these discrepancies are due to different interpretations of the current regulatory framework. In particular the main differences identified belongs to the level of granularity for calculation purposes in life business.

#### **Analysis**

- A.149 Article 80 of Solvency II Directive requires undertakings to identify homogenous risk groups (HRG) to make sure that the methods applied to calculate the technical provisions and capital requirements are appropriate for the specificities of each group of products. In this respect, a homogenous risk group (HRG) is a set of insurance obligations which have similar risk characteristics in terms of, for example, underwriting policy, claims settlement patterns, risk profile of policyholders, likely policyholder behaviour, product features (in particular guarantees), future management actions and expense structure.
- A.150 As reported in the “Guidelines on technical provisions” (guideline 19 - 1.49), “insurance and reinsurance undertakings should calculate technical provisions using homogeneous risk groups in order to derive assumptions”. The same guideline (i.e. guideline 19 - 1.50) further specifies that it is necessary to ensure that the risks in each group are sufficiently similar and



the group sufficiently large that a meaningful statistical analysis of the risks can be done: “in selecting a homogeneous risk group, undertakings should achieve an appropriate balance between the credibility of data available, to enable reliable statistical analyses to be performed, and the homogeneity of risk characteristics within the group”. In addition, the guideline clarifies that the classification is company specific and is expected to be relatively stable over time: “Undertakings should define homogeneous risk groups in such a manner that those are expected to be reasonably stable over time”.

A.151 Therefore, the regulatory definition of homogeneous risk groups creates a strong link with the way the assumptions are derived when calculating best estimate (i.e. the way the various tariffs are grouped together when analysing the past experience).

A.152 Therefore, homogeneous risk groups should be chosen so they guarantee that:

- all products are modelled precisely (preserving all their main features, and hence ensuring that the projection captures all the risks they are exposed to);
- for each risk, the assumptions are derived grouping together products which have the same kind of exposure to that risk;

A.153 However, EIOPA considers that a common understanding on the nature and granularity of homogeneous risk groups could be beneficial to ensure the level playing field. Therefore, EIOPA wants to ask the following questions:



### **Questions to stakeholders**

**Q3.6:** Do you consider a unique definition of homogenous risk groups for calculation purposes? (e.g. cash flows projections, technical hypothesis calibration etc.)

**Q3.7:** Considering Life business: Do you consider homogeneous risk groups to be the model points used to reduce run-time of stochastic modelling? If the answer is “No”, please elaborate it.

**Q3.8:** Do you consider for reporting purposes the same homogeneous risk groups used for best estimate valuation? And for EPIFP calculation? If the answer is “No”, please elaborate it.

## **2. Economic Scenario Generator (ESG)**

### **Relevant legal provisions**

A.154 Recital 15 of the Delegated Regulation clarifies the principle of the use of simulation for the valuation of options and guarantees.

A.155 Article 22(3) of the Delegated Regulation establishes three requirements that undertaking should meet when using simulation methods for the valuation of their technical provisions in Solvency II.

## **Other regulatory background**

A.156 Other regulatory background considered to issue the advice:

- ii. EIOPA Guidelines on Technical Provisions: Guidelines 55 to 60.

## **Identification of the issue**

### Divergent practice 1: Calibration of ESG

A.157 Article 22 of the Delegated Regulation establishes three general requirements for the use of ESG, which accordingly shall be market-consistent instead of real-world. However, even with these requirements, the complexity of ESG calibration leaves room for different choices and simplifications. EIOPA has identified several divergent practices in the calibration of ESG that can be grouped in two main categories:

- i. Different technical decisions in the calibration of the ESG. The most relevant examples identified are:
  - Simplifications. For example, not modelling a risk factor (e.g. credit risk) or not modelling negative interest rates.
  - Appropriate choice of assets taking into consideration undertakings assets and liabilities, for example, its maturity.
  - Replication of option prices or implied volatilities. Since the ESG has to be calibrated according to the EIOPA risk free rate, it is not possible to replicate both option prices and implied volatilities at the same time.
- ii. Calibration of the ESG by the provider of the ESG itself vs calibration of the ESG by the undertaking. In some cases the calibration is performed by the service provider because the undertaking does not have the knowledge to do it. Although this could be seen as a proportionality measure, some Members have identified that this practice is currently leading in some cases to inappropriate calibrations. Therefore, a balance between proportionality and the capability to ensure a proper outcome is needed.

## **Analysis**

## Divergent Practice 1: Calibration of ESG

- A.158 Any modelling of future scenarios implies a simplification of the economic reality so it can be modelled based on a limited number of parameters. However, the choice of the model and the simplifications embedded should be analysed considering the use of the ESG and the business of the undertaking.
- A.159 Another consequence is that an ESG cannot be expected to fit all the prices that can be observed in the market. Therefore, the calibration of ESG is usually quite dependant on the assets chosen and it should take into consideration the assets and liabilities of the undertakings, for example choosing assets with similar maturities and/or tenors. One way to assess the choices made is performing sensitivity analysis to the choice of financial instruments.
- A.160 The third highlighted point, however, is a bit different from the previous ones. The choice to be made in this case does not come from pure modelling, but it is a consequence of Article 22(3)(c) of the Delegated Regulation. EIOPA risk free rate deviates from market data, partly due to some adjustments like the credit risk adjustment, the volatility adjustment or the matching adjustment. As a consequence, ESGs cannot replicate both, option prices and implied volatilities at the same time. Article 22(3)(a) of the delegated regulation states that market prices shall be met. However, volatility plays an important role when determining the value of an option. Therefore, in some cases it has been interpreted that replication of implied volatilities could lead to a more consistent generation of asset prices than the replication of option prices.
- A.161 All these different practices in ESG calibration may indeed be justified by differences in modelling and the nature of the business of each undertaking, which may be even more relevant among different jurisdictions. However, the assessment and analysis required may not be currently sufficiently harmonized. This is particularly relevant for the case of undertaking with less resources where the calibration is performed by the service provider. For these cases, a common understanding on what should be expected by a supervisor taking into consideration the proportionality principle should be achieved.
- A.162 This limited convergence may be explained by different penetration of ESG across different jurisdictions, being quite common in some jurisdictions and remaining almost unused in others. This issue will be further analysed in the section dedicated to valuation of options and guarantees.
- A.163 Therefore, EIOPA considers that the current regulatory framework provides enough principles and requirements to have a consistent use of ESGs across Member States. Differences in calibration of ESGs are unavoidable since it has to be adapted to the business where they will be applied. However, the assessment of the choices made and the level of

knowledge needed to comply with outsourcing requirements could be further harmonized through additional guidance at EIOPA level.

### **3. Contract boundaries**

#### **Identification of the divergent practices**

##### **Divergent practice 1. Static vs dynamic contract boundaries**

A.164 Article 18 of the Delegated Regulation allows different interpretations on the frequency of the assessment of the contract boundaries. The two main options are: the assessment of contract boundaries only at the recognition date or the assessment at each valuation date. The Guideline 5 on contract boundaries already addressed the issue stating that unbundling should be reassessed at each valuation date.

A.165 However, the Guideline 6 on contract boundaries that addresses the identification of a discernible effect on the economics of the contract does not state anything about the frequency of the calculation. This has been usually interpreted in line with the EIOPA Consultation Paper 14-0029 on the Impact Assessment on the EIOPA Solvency II Guidelines, i.e. as the assessment of the discernible effect is to be performed only at the recognition date. Nevertheless, in some Member States it has been interpreted that contract boundaries may change due to a reassessment on whether a cover, guarantee, limitation or restriction has a discernible effect on the economics of the contract after a significant change in the economic conditions, including changes in the interest rate environment.

##### **Divergent practice 2. Horizon of projection**

A.166 Contract boundaries define the limits to the obligations for best estimate valuation. However, contract boundaries are not supposed to limit the projection horizon but the future premiums and the related obligations to be included in these projections. However, in some cases, Article 18 of the Delegated Regulation has been used to justify shortening projection horizon. Two examples of this interpretation are:

- i. Unit-linked products, where in some cases it is assumed that the whole policyholder's balance account is to be paid on the first year of projection.
- ii. Some savings products with a guaranteed rate that can be revised on a certain date, where the projection horizon is limited to the revision date.

### **Divergent practice 3. Unbundling**

A.167 Article 18(4) and (6) of the Delegated Regulation establish the obligation to apply the provisions of paragraphs (3) and (5) respectively to each part of a contract when determining contract boundaries. However, there are different interpretations on what shall be considered as a different “part” of a contract and when they shall be considered separately. EIOPA has identified two additional divergent practices relating to unbundling parts of a contract:

1. Quite related to the previous issues, EIOPA has identified several interpretations on when a contract can be unbundled:
  - i. In some cases, it has been interpreted that a contract can be unbundled when there is no inter-dependencies among the parts of the contract.
  - ii. In some cases, it has been considered that a contract cannot be unbundled if the pricing of one part depends on the pricing of another part, even if both parts can lapse at different points in time. For example, a minimum death benefit in a saving product.
  - iii. In some cases, it has been considered that a contract cannot be unbundled when each part cannot be legally sold independently.
  - iv. In some cases, it has been considered that a contract can be unbundled if both parts can lapse at different points in time.
  - v. In some cases, it has been considered that a contract can be unbundled when a separate price can be determined for each part.
2. Finally, EIOPA has identified divergent interpretation on the dependencies between different parts of a contract. For example, in case of a contract with a savings part and a risk cover (e.g. mortality cover):
  - i. In some cases, the charges made to the policyholders account (savings part) to cover the risk of the mortality cover are considered to be premiums. This means that Article 18(3)(b) and (c) are relevant for contract boundaries assessment.
  - ii. In some cases, the charges made to the policyholders account (savings part) to cover the risk of the rider are not considered to be premiums. This means that Article 18(3)(b) and (c) are not relevant for contract boundaries assessment.

### **Divergent practice 4. Discernible effect**

A.168 Covers, guarantees, limitations and restrictions that do not have a discernible effect on the economics of the contract shall not be considered for the assessment of the contract boundaries. EIOPA has provided some guidance on the assessment of the discernible effect in the Guidelines on contract boundaries. However, there are still different interpretations for

some features of a contract. For example, a financial guarantee of 0% or a capital guarantee in some cases are considered to have a discernible effect on the economics of the contract, while in other cases they are not:

- i. In some cases, the assessment is made from the undertaking's point of view, in others taking into consideration the policyholder's point of view and in other cases both points of view are considered.
- ii. In some cases, the assessment was based on a quantitative valuation of the cover or guarantee. In other cases, the assessment was qualitative, e.g. whether there are other products offering the same covers or guarantees.

### **Divergent practice 5. Individual risk assessment**

A.169 In addition to the issues on the exception of the third paragraph of Article 18(3), there are also divergent criteria on what shall be considered to be an "individual risk assessment", with a range of possibilities from one single question to a full health questionnaire.

## **Analysis**

### **Divergent practice 1: Static vs dynamic contract boundaries**

A.170 As background information, according to paragraph B64 of IFRS 17, undertakings shall reassess the boundary of an insurance contract to include the effect of changes in circumstances on the entity's substantive rights and obligations.

A.171 Not reassessing whether a cover, guarantee, limitation or restriction has a discernible effect on the economics of the contract allows more stable technical provisions and enhances comparability along time. On the other side, reassessing it at each valuation date leads to a more accurate valuation according to current market conditions.

A.172 According to Article 75(1)(b) of the Solvency II Directive, liabilities shall be valued at the amount for which they could be transferred. Therefore, EIOPA considers that undertakings should reassess the discernible effect in the economics of the contract at each valuation date to ensure that current market conditions are fully taken into account. However, consistency along time is needed both from a business management perspective and also from a supervisory point of view. Therefore, the reassessment of the contract boundaries should be limited to changes that have a significant impact on the assessment of discernible effect of covers, guarantees, limitations or restrictions.

A.173 In any case, the reassessment of the discernible effect should be limited to the assessment of contract boundaries at each valuation date.

A.174 In view of the description above, EIOPA considers that it is necessary to clarify the frequency of the reassessment of the discernible effect in the economics of the contract. Frequency of reassessment is currently reflected in the Guidelines on contract boundaries. So, EIOPA considers that the Guidelines would still be the right framework to introduce the clarification.

## **Divergent practice 2: Horizon of projection**

A.175 According to recital (9) of the Delegated regulation, the valuation of insurance and reinsurance obligations should include obligations relating to existing insurance and reinsurance business while obligations relating to future business should not be included. Contract boundaries are therefore defined to determine whether the business arising from options to establish, renew, extend, increase or resume insurance cover are to be considered as existing business or as future business.

A.176 Therefore, EIOPA considers that contract boundaries should not limit in any case the horizon of projection of existing business, since the objective of contract boundaries is to distinguish between existing and future business. Going back to the examples described in the "Identification of the divergent practice" section, future cash flows should be projected according to the estimations of the undertakings, but without limiting such projections to contract boundaries.

A.177 This issue is closely linked to policy issue number 1 on contract boundaries, projection of cash flows of paid-in premiums (see section 3.1.5.4.1 for more information), and the amendment proposed for that issue may also help to properly interpret contract boundaries. Except for that amendment, EIOPA considers that horizon of projection issue is currently sufficiently described in the Delegated Regulation. However, it could be beneficial that EIOPA provides additional guidance on specific cases like those previously described to ensure a consistent interpretation across Member States.

## **Divergent practice 3. Unbundling**

### **Divergent practices 3.1. A contract can be unbundled**

A.178 Following the rationale reflected in the policy issue 2 of Section 3.1.5, in contract boundaries assessment unbundling is only relevant for the purposes of Article 18(5). This may automatically discard some interpretations of when a contract can be unbundled, but there are still several interpretation that could be relevant. However, any additional criteria to identify when a contract can be unbundled should take into consideration the purpose of Article 18(5).

A.179 As background information, IFRS 17 requires an investment component to be separated when it is “distinct”. It is considered to be “distinct” when:

1. The investment component and the insurance component are not highly interrelated. Insurance and investment components are highly interrelated if, and only if:
  - a. The entity is unable to measure one component without considering the other; or
  - b. The policyholder is unable to benefit from one component unless the other is present. For example, if the maturity of one part of the contract makes the other lapse.
2. A contract with equivalent terms is sold or could be sold separately, either by insurances undertakings or other parties.

A.180 Under the assumptions discussed in section 3.1.5.4.2, unbundling is only affecting Article 18(5) and Article 55. Both articles are creating the obligation to separate different parts of a contract that have a different nature: Article 55 segregates different insurance risks by lines of business, while for Article 18(5) is relevant to identify whether there is insurance risk, financial risk or no risk at all in each part of the contract. If there is a mutual dependency between two parts of a contract, it would be artificial to separate them into two different lines of business. Likewise, where two parts of a contract have mutual dependency it would be hard to argue that one of these parts does not bear any risk, so both of them should be considered together in article 18(5). Therefore, a contract should be unbundled where there is no inter-dependency among those risks.

A.181 Therefore, EIOPA considers that under the assumptions discussed in section 3.1.5.4.4.1, unbundling assessment shall be based on the inter-dependency existing between the different parts of the contract. Current wording of Article 18 of the Delegated Regulation is sufficiently clear since unbundling is only mentioned in paragraph (6), thus indicating that unbundling should be understood in the context of paragraph (5). However, further guidance may be helpful to ensure a common understanding of the unbundling principle for contract boundaries assessment.

### **Divergent practice 3.2. Dependencies between cash flows of different parts of a contract**

A.182 To have a full understanding of this policy issue, it is recommended to read it together with policy issue 2 in section 3.1.5.4.2.

A.183 Where a contract includes different parts, each part may be interrelated with the others in different ways, for example if the valuation of one part depends on the other or when the cash flows of one part may have an impact



on the other. In this second case, where cash flows of one part may be affected by other parts, it is important to have a common understanding on how they should be considered.

A.184 To analyse with the interrelation of cash flows between two parts of a contract, two main interpretations have been identified:

1. Strict interpretation of the cash flows among parts of the contract.
2. Wide interpretation of the cash flows among parts of the contract.

A.185 To illustrate the issue, two examples will be used:

Example 1. A long term insurance contract has a savings part (policyholder's account) with 1% guaranteed rate and a risk cover (e.g. mortality cover). The contract has a single premium paid at inception and the risk of the mortality cover is financed making periodic charges to the policyholder's account. The undertaking has the unilateral right to modify these charges so they fully cover the mortality risk.

A.186 Contract boundaries for the savings part will be in any case long, i.e. the whole life of the contract. However, for the mortality cover two interpretations could be made:

A.187 In the previous example there is only one premium paid at inception, so the undertaking cannot amend it. Besides, the undertaking neither can amend the benefits of the mortality cover so, following the first interpretation, the mortality cover would have also long contract boundaries.

A.188 However, considering that the contract has two parts, under the second interpretation, the charges made to the savings part could be considered economically equivalent to a premium since the policyholder account actually belongs to the policyholder. This would lead to one year contract boundary for the mortality cover.

A.189 It could be interesting to analyse what would happen if the two parts were indeed two separate contracts with exactly the same characteristics described above. If the savings part were an independent product contracted for example at bank and the insurance undertaking were charging yearly premiums to the savings product to cover the risk, then contract boundaries for the mortality cover would be one year. Therefore, considering that both situations (one contract with two parts vs two contracts) are economically equivalent, it seems reasonable to expect the same treatment in both cases.

A.190 The treatment described under the second interpretation for this example would only affect charges used to finance other parts of the contract covering a risk, but not to other charges, like for example charges to cover expenses of the savings part, which indeed belong to the same part of the contract.

A.191 Example 2. A long term insurance contract has a savings part (policyholder's account) with 1% guaranteed rate and a risk cover (e.g. mortality cover). The contract has annual premiums that cannot be

amended. However, the undertaking can change every year which part of the premium will be allocated to the savings part and which part of the premium will be used to cover the mortality cover so it fully reflects the risk assumed.

A.192 Following the first interpretation, the premium and the benefits of the mortality cover cannot be modified. This would lead again to long contract boundaries, even if the undertaking is able to fully finance the risk every year amending the amount allocated to each part of the contract.

A.193 Following the second interpretation, from an economic point of view it could be considered that there are two different premiums for each part of the contract. Under this assumption, the undertaking would have the right to amend the premium for the mortality cover so it fully reflects the risk. Therefore, contract boundaries for the mortality cover would be 1 year in this case<sup>348</sup>.

A.194 The second interpretation, wide interpretation of the cash flows among parts of the contract, avoids different treatments for economically equivalent situations and, considering all the previous analysis, EIOPA prefers it over the first interpretation. However, following the rationale of the policy issue 4.1 on contract boundaries, EIOPA considers that the principles and provisions established in the Solvency II Directive and the Delegated Regulation are sufficiently clear and further Guidance at EIOPA level would be enough to clarify the right interpretation, for example through specific examples like the Examples 1 and 2 above.

#### **Divergent practice 4. Discernible effect**

A.195 Assessing whether a cover, guarantee, limitation or restriction has a discernible effect on the economics of the contract is a process that strongly depends on the cover, guarantee, limitation or restriction, but sometimes also on the economic situation (for more details, please see divergent practice 1 on this section of the Annex 3.1). Therefore, it does not seem possible to have a closed criteria for all cases.

A.196 Discernible effect has been seen interpreted from different perspectives. It can be assessed from an economic point of view as the cost or value of a cover, guarantee, limitation or restriction. However, it can also be seen as the perceived value from the policyholder's point of view. Some covers or guarantees may be significantly attractive or relevant for policyholders (e.g. because other undertakings do not provide it), but still do not have a significant cost or value from an economic point of view.

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<sup>348</sup> If the undertaking cannot amend the whole premium, there is indeed a cap to the maximum ability to amend the premium of the mortality cover. Therefore, to properly assess the contract boundaries, the undertaking should analyse whether this limitation has a discernible effect on the economics of the contract.

- A.197 From a legal point of view, the Delegated Regulation uses the term “discernible effect on the economics of the contract”. Using the word “economics” indeed seems to indicate that the assessment of the discernible effect should be based on its value or cost.
- A.198 From a technical point of view, excluding covers, guarantees, limitations and restrictions that do not have a discernible effect on the economics of the contracts from contract boundaries assessment prevents that the valuation of the best estimate is driven by features with non-significant impact on the valuation of the contract. Additionally, it also disincentives the inclusion of such features with the only purpose of modifying contract boundaries. Taking into consideration this context, valuation is the relevant dimension of the assessment. Therefore, a relevant assessment of the discernible effect of a cover, guarantee, limitation or restriction should be based on its cost or value.
- A.199 Both, the undertaking and the policyholder are parties of the insurance or reinsurance contract. So, on best estimate basis, both should be affected in a similar way by any feature of a contract. Therefore, both points of view could lead to a valid assessment of the discernible effect.
- A.200 This does not imply that a quantitative assessment of the value of the cover, guarantee, limitation or restriction is to be performed in all cases. However, qualitative assessment should be focused on the economic impact of such a feature instead of in other kind of criteria.
- A.201 Therefore, EIOPA considers that the Delegated Regulation already provides the relevant principles for the assessment of the discernible effect of a cover, guarantee, limitation or restriction. Besides, currently Guideline 6 on Contract Boundaries addresses discernible effect assessment already clarifying some (most) of the above notions. However, due to the significant amount of divergent interpretations, additional guidance on the process and criteria to assess the discernible effect could enhance a convergent application of contract boundaries.
- A.202 However, one feature has been identified as particularly significant across Member States, especially due to the low yield environment. Savings products with a 0% minimum guaranteed interest rate or a capital guarantee are widespread and in some cases they have been considered to have a discernible effect while in others not. Therefore, due to the relevance of this specific case, EIOPA considers it may be beneficial to specifically address this guarantee.



### Questions to stakeholders

**Q3.9:** Do you consider that a 0% minimum guaranteed interest rate or a partial/full capital guarantee have a discernible effect on the economics of

the contract (Yes - No - Depends on the contract, economic situation and/or other products available to policyholders)? In any case, please elaborate the answer.

### **Divergent practice 5. Individual risk assessment**

A.203 Despite the clarifications proposed in policy issues on the third paragraph of the Article 18(3), there is still room for divergent application of the exception based on the interpretation of what is an individual risk assessment. Taking into consideration the context where the term is used, it would be reasonable to consider as an individual risk assessment any kind of questionnaire that the undertaking uses for valuation purposes which may have a significant impact on best estimate. Since in the context of the exception the assessment is only performed at inception, this would mean that the risk assessment has a significant impact on pricing.

A.204 In any case, EIOPA considers that, apart from policy issue 3 in section 3.1.5.4.3, the Delegated Regulation is sufficiently clear on the criteria to apply the exception of the third paragraph of Article 18(3). However, providing additional guidance on the right interpretation of the term “individual risk assessment” would help to address the divergent practices for contracts where the exception is being applied.

## **4. Future Management Actions (FMA)**

### **Identification of the divergent practice**

#### **Divergent practice 1. Comprehensive future management action plan**

A.205 Article 23(3) of the Delegated Regulation lays down the requirements for the comprehensive future management actions plan that needs to be approved by the administrative, management or supervisory body. However, it does not specifically require the future management actions plan to be a single document and in some cases the approval by the administrative, management or supervisory body has been granted through different procedures for several independent documents.

#### **Divergent practice 2. Consideration of new business in setting future management actions**

- A.206 Point 23(1)(b) of the Delegated Regulation requires that expected future management actions are consistent with the insurance or reinsurance undertaking's current business practice and business strategy. However, undertakings or supervisors can interpret such principle in different manners when setting up the assumptions of future management actions for similar situations. This is particularly relevant for assumptions related to new business due to an extensive interpretation the going-concern principle due to current wording of Article 31(4) of the Delegated Regulation. For more details on that issue, please see policy issue 1 of section 3.1.7 "Expenses".
- A.207 Some divergent practices that have been identified when projecting of cash-flows to calculate the technical provisions:
- A.208 Undertakings have to choose bonds on which they can reinvest when needed so they can manage bond duration. In some cases the duration of the liabilities may be decreasing, for example due to a reduction of expected new business or due to constraints on contract boundaries. When the duration of the liabilities is decreasing, in some cases undertakings assume bonds duration and reinvestment to be constant, but in other cases they adapt bonds duration and reinvestment to the liabilities duration. Currently, some supervisors support the constant duration while some others support a modification of the asset duration.
- A.209 Undertakings have to define their asset allocation. Again, when the duration of the liabilities is decreasing, for equity and property investments there are two options: a constant allocation over the projection period or decreasing according to liabilities duration.
- A.210 Usually undertakings have to fulfil legal and contractual requirements at each point in time and for each scenario. However, the fulfilment of these requirements can be evaluated considering that new business will be underwritten or make an evaluation of these requirements considering only current business. For example, calculation of profit sharing considering only current assets or also assets acquired with the premiums from new business.

## **Analysis**

### **Divergent practice 1: Comprehensive future management actions plan**

- A.211 Article 23 of the Delegated Regulation requires the approval of the comprehensive future management actions plan by the administrative, management or supervisory body (AMSB). Among others, this requirements intends to guarantee that the AMSB is duly informed about the future management actions plan. However, the approval of several independent documents makes more difficult for the AMSB to have a complete view of all future management actions considered in the undertaking.

A.212 Therefore, EIOPA considers that the comprehensive future management actions plan should be approved in a single document and, if additional future management actions are to be included, the full comprehensive plan should be reviewed. Delegated Regulation currently requires the future management actions plan to be comprehensive, thus, EIOPA believes that the main principles affecting this plan are sufficiently described in the Delegated Regulation. However, by providing additional guidance, EIOPA could further clarify the criteria to ensure that any set of documents is comprehensive and that the AMSB is aware of, and has agreed to, all of them.

### **Divergent practice 2: Consideration of new business in setting future management actions**

A.213 The treatment of new business is already discussed in policy issue 1 of the Section 3.1.7 "Expenses". Following that rationale, as a general approach the undertaking should follow realistic assumptions that take into account expected future business. This means that asset allocation and duration should be based on the business plan of the undertaking. Therefore, if the undertaking expects a decrease of its business, this may impact the target allocation or the average duration of its portfolio.

A.214 EIOPA considers that, following the amendments proposed in policy issue 1 of the Section 3.1.7 "Expenses", the main principles regarding the consideration of new business in setting future management actions are sufficiently described in the Delegated Regulation. However, providing additional guidance EIOPA could explain how specific assumptions shall take into account the new business in line with the principles set out in Article 23 of the delegated regulation.

## **5. Expenses**

### **Identification of the divergent practice**

#### **Divergent practice 1: Allocation of expenses**

A.215 EIOPA has identified several different practices regarding allocation of expenses. Different approaches have been observed for the consideration of expenses for future years compared to past expenses, the allocation of different acquisition costs, allocation of overhead expenses, kick-backs or allocation of extraordinary expenses. However, investment management expenses is one of the topics with the most significant differences in expense projection. The following practices have been identified regarding projected investment management expenses:

- Expenses of all assets.

- Expenses covering Technical Provisions + SCR
- Expenses covering Technical Provisions
- Expenses covering Best Estimate
- Expenses covering local GAAP technical provisions

### **Divergent practice 3: Inflation assumptions**

A.216 Inflation assumptions are significantly different across Member States, which may be reasonable in some cases, but also within the same jurisdiction there are significant discrepancies. Assumptions on inflations for life and non-life business are significantly different, since some non-life modelling options already implicitly embed inflation.

A.217 In some cases inflation has been modelled following general indexes, while in other cases these indexes have been adjusted to better represent inflation for insurance business (e.g. inflation on expenses), in some cases even considering different inflation rates for different cash flows (e.g. wages and claims).

## **Analysis**

### **Divergent practice 1: Allocation of expenses**

#### **Policy issue 1.1. General criteria**

A.218 Different practices in the allocation of expenses are to some extent a consequence of different business models, different organizations and structures or different products being sold. In some other cases this differences may be just due to different categorization or naming of the same expenses, which may therefore create the illusion of differences in the allocation of expenses.

A.219 Even if all these are valid reasons, in some cases the different allocation of expenses is due only to different criteria. Apart from the amendments proposed for the policy issue 1 of section 3.1.7 "Expenses", EIOPA considers that the Delegated Regulation is sufficiently clear on the principles that guide expense allocation, although further guidance from EIOPA could help to further harmonize the application of these principles.

#### **Divergent practice 1.2. Investment management expenses**

A.220 However, the criteria to allocate investment management expenses has been identified as a relevant source of divergent practices among undertakings, where several practices exist, although four of them gather most of the cases. The guiding principle is Article 78(1) of the Solvency II Directive, which states that "all expenses that will be incurred in servicing

insurance and reinsurance obligations" shall be considered for best estimate valuation.

- A.221 Projection of technical provisions covering only best estimate or best estimate plus the risk margin may seem a reasonable approach. However, Solvency II technical provisions are the market valuation of insurance obligations and therefore do not always reflect the real reserves or funds the undertaking has to provide their service. As a matter of example, where an undertaking has a contract with negative technical provisions still will invest the premiums in some assets. Another difficulty for this approach is the identification of the assets. In Solvency II there is no longer any requirement to "cover" technical provisions with assets, so it may not be possible to identify the relevant assets.
- A.222 Another option that may solve at least some of these problems is the allocation following local GAAP technical provisions. Following this driver we solve the problem of market valuation and negative technical provisions. However, this option does not comply with one of the overarching principles of Solvency II, the transfer value. Local GAAP are different across Member States, therefore using them as a driver would impact the level playing field and depart from transfer value valuation.
- A.223 Another alternative to solve some of the problems of considering only management expenses from assets linked to technical provisions would be to include also assets covering the SCR. Article 78 of the Solvency II Directive requires to include all expenses incurred in servicing insurance and reinsurance obligations. Since SCR coverage is required to pursue insurance business in the European Union, it could be considered that investment management expenses covering SCR are also needed to provide the service. Besides, including these additional assets could mitigate the impact of market valuation of technical provisions, although it still could not be seen as a fully accurate criteria. However, this criteria still face the problem of the identification of assets not only covering technical provisions, but also assets covering the SCR.
- A.224 The last alternative, management expenses from all assets, could be seen from two points of view. First of all, as an approximation of the approach including technical provisions plus SCR to avoid the issue on the identification of specific assets covering technical provisions and SCR. Secondly, as an interpretation of Article 78 of the Solvency II Directive from a practical point of view: and undertaking that only has assets to cover technical provisions and the SCR would not be possible in the real world. Therefore, from this point of view a good estimate of the assets really needed to provide the insurance service may be the real assets that the undertaking has in its balance sheet.
- A.225 Therefore, four main interpretations have been considered:



6. Interpretation 1: Consider investment expenses of assets covering technical provisions.
7. Interpretation 2: Consider investment expenses covering technical provisions plus the SCR.
8. Interpretation 3: Consider all investment expenses.
9. Interpretation 4: Consider investment expenses covering local GAAP technical provisions.

A.226 For all the reasons mentioned above, EIOPA prefers the second or the third interpretations, consider investment expenses covering technical provisions plus the SCR or all investment expenses. Following the previous rationale, the principles on the expenses to be considered are sufficiently clear in the Solvency II Directive, although additional guidance from EIOPA could help to clarify the interpretation of such principles and harmonize the projection of investment management expenses.

### **Divergent practice 2: Inflation assumptions**

A.227 Inflation assumptions may have a significant impact on technical provisions. Indeed, EIOPA has identified inflation rates within a very wide range across Member States (i.e. at least from -0.1% to 7%). Inflation depends on several factors, mainly the nature of the cash flow and the country. Therefore, some differences are expected and convergence should not focus on the inflation rates themselves, but in the process to determine the relevant rates and the granularity of such assessment.

A.228 General inflation rates are derived from several prices and services which may have significant variability among its components. Therefore, EIOPA considers that the process to assess the relevant inflation rate should be granular enough to capture the relevant expected rate taking into consideration the nature of the cash flows. The principles contained in the Delegated Regulation are sufficiently clear on this aspect, although further guidance from EIOPA on the process to determine the relevant inflation rates would be beneficial to improve convergence on this topic.

## **6. Valuation of Options and Guarantees**

### **Identification of the divergent practice**

#### **Divergent practice 1: Use of stochastic modelling**

A.229 Article 34(5) requires that undertaking use calculation methods that reflect the dependencies of future cash flows on future events and developments in different scenarios. Where options and guarantees exist, this usually require

stochastic valuation techniques to ensure a proper valuation of the obligations.

A.230 However, EIOPA has identified that the use economic scenario generators is highly dependent on the jurisdiction. In some Member States stochastic valuation is the default approach when options and guarantees exist, while in other Member States calculation is almost always deterministic.

### **Divergent practice 2. Bidirectional assumptions**

A.231 Among those cases where dynamic policyholder has been modelled, one of the main differences identified is the direction of the dynamic adjustment to the static baseline. Dynamic policyholder behaviour is usually modelled as an adjustment over the baseline or static component (for more details, please see policy issue 1 of Section 3.1.8). However, this adjustment in some cases is considered to be unidirectional, i.e. only increasing the baseline, while in other cases is considered to be bidirectional, i.e. increasing or decreasing the baseline depending on the external circumstances.

### **Divergent practice 3. Options to pay additional premiums**

A.232 Most of the options are usually modelled at least using a static approach. However, EIOPA has identified that the option to pay additional premiums in some cases is not being modelled, while it is a relevant option where new premiums have a guarantee to the policyholder. In this case the differences among Member States are not so clear, i.e. there are undertakings not modelling them in most of jurisdictions.

## **Analysis**

### **Divergent practice 1. Use of stochastic modelling**

A.233 The use of stochastic modelling deeply varies across Member States, although this can be justified to some extent by the proportionality principle or by differences among products in different jurisdictions. In some cases valuation follows a deterministic approach because the impact of the guarantees is not considered to be material. In some Member States small undertakings usually apply deterministic valuation while big undertakings use stochastic modelling. In other cases stochastic modelling is applied only to the part of the portfolio that is most affected.

A.234 However, this justification may not be enough. In several jurisdictions stochastic modelling is used in almost all cases for the valuation of options and guarantees, regardless of the size of the undertaking or the complexity of the risks. Meanwhile, in other jurisdictions stochastic valuation is barely used. Nevertheless, EIOPA considers that the requirements established in the

Delegated Regulation are sufficiently clear, although additional guidance on stochastic valuation from EIOPA could help to harmonize the supervisory criteria of the stochastic valuation.

### **Divergent practice 2. Bidirectional assumptions**

- A.235 The modelling of dynamic policyholder behaviour depends on a certain trigger event. This is typically defined in relation to the financial gain/loss that the policyholder faces in electing the particular option compared to the market. This gain/loss could be higher or lower compared to the market, therefore it seems logical that the effect could be bidirectional.
- A.236 On more general terms, most of the circumstances affecting policyholder behaviour may have a positive or negative impact depending on its nature and its intensity. An additional amount of something positive (e.g. benefits) is expected to increase satisfaction of policyholders, while a reduction is expected to have the opposite effect. An additional amount of something negative (e.g. expense charges or penalties) is expected to decrease satisfaction of policyholders, while a reduction is expected to have the opposite effect.
- A.237 Therefore, EIOPA considers that assumptions should be bidirectional unless it can be proved otherwise. The current principles of the Delegate Regulation are sufficiently clear since they require to take the impact of external circumstances without showing any preference for a subset of scenarios. However, EIOPA could provide further guidance on this issue to ensure a harmonized application of current principles.

### **Divergent practice 3. Options to pay additional premiums**

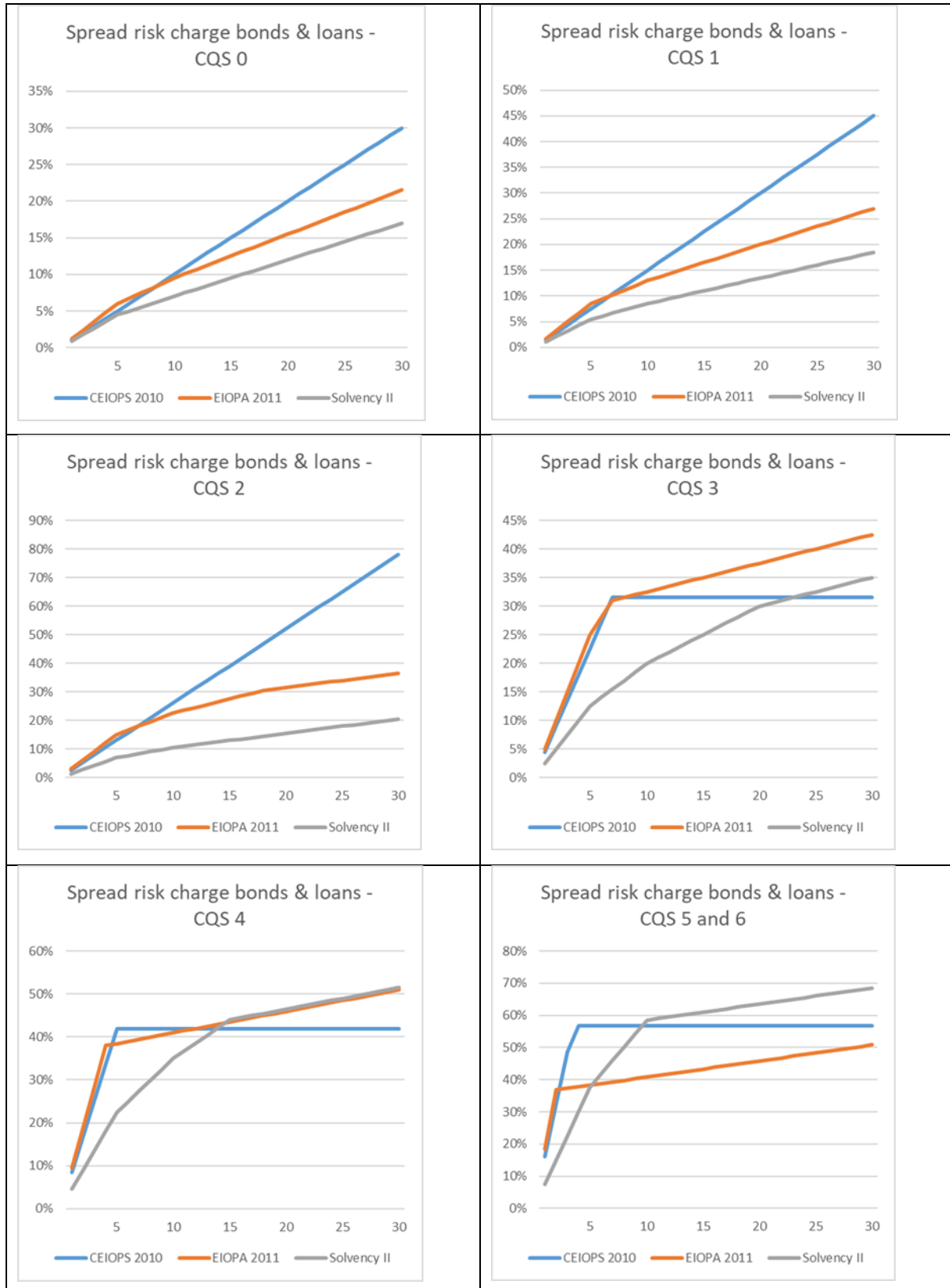
- A.238 Where a contract allows the payment of additional premiums on a voluntary bases, to properly value the best estimate it is necessary to estimate the amount of future premiums expected to be received. This option may have a significant impact on best estimate valuation, more precisely in EPIFP, especially for old products with high levels of guarantees.
- A.239 EIOPA considers that current principles on options and guarantees valuation in the Delegated Regulation are sufficiently clear on the need to consider all relevant options for best estimate valuation. However, identifying the right assumptions to project additional voluntary premiums may be technically challenging, especially considering the impact it may have on the own funds of the undertaking in some cases. Therefore, EIOPA could provide additional guidance on this issue to ensure a harmonized interpretation of current principles.

## Annex 5.1 – High-level overview of SCR spread risk sub-module

<b><u>Element of spread risk sub-module</u></b>	<b><u>Article SII delegated regulation</u></b>	<b><u>Comment</u></b>
<b>Spread risk on bonds and loans</b>	<b>Art 176</b>	
- bonds and loans with credit assessment of ECAI	Art 176(3)	
- bonds and loans without credit assessment of ECAI and no collateral	Art 176(4)	
- bonds and loans without credit assessment of ECAI and no collateral with credit quality steps based on internal assessment or approved internal model	Art 176(4a)	
- bonds and loans without credit assessment of ECAI and with collateral	Art 176(5)	
- mortgage loans meeting the requirements in Article 191	Art 176(1)	included in counterpart y default risk module
<b>Spread risk on securitisation positions</b>	<b>Art 177, 178</b>	
- type 1 securitisation positions with credit assessment of ECAI	Art 177(1), 177(2), 178(1)	
- type 2 securitisation positions with credit assessment of ECAI	Art 177(1), 177(3), 178(2)	
- resecuritisation positions with credit assessment of ECAI	Art 177(1), 178(3)	
- securitisation positions without credit assessment of ECAI	Art 178(5)	
<b>Spread risk on credit derivatives</b>	<b>Art 179</b>	
<b>Specific exposures</b>	<b>Art 180</b>	
- covered bonds	Art 180(1)	
- exposures in the form of bonds and loans to ECB, MS central banks and governments, incl. recognised regional governments and local authorities, international organisations	Art 180(2), 180(9)	no risk charge
- exposures in the form of bonds and loans to non-MS governments/central banks	Art 180(3)	

- exposures in the form of bonds and loans to MS regional governments and local authorities which are not recognised	Art 180(3a)	
- exposures in the form of bonds and loans guaranteed by MS regional governments and local authorities which are not recognised	Art 180(3b)	
- exposures in the form of bonds and loans to (re)insurers without credit assessment of ECAI and meeting the MCR	Art 180(4)	
- exposures in the form of bonds and loans to (re)insurers not meeting the MCR	Art 180(5)	
- exposures in the form of bonds and loans to third country (re)insurers without credit assessment of ECAI with solvency regime deemed equivalent and meeting the solvency requirements	Art 180(7)	
- exposures in the form of bonds and loans to credit and financial institutions without credit assessment of ECAI and meeting the solvency requirements	Art 180(8)	
- type 1 securitisation positions guaranteed by the European Investment Fund or the European Investment Bank	Art 180(10)	no risk charge
- exposures in the form of bonds and loans relating to qualifying infrastructure investments with credit assessment of ECAI	Art 180(11), 180(12)	
- exposures in the form of bonds and loans relating to qualifying infrastructure investments without credit assessment of ECAI	Art 180(13)	
- exposures in the form of bonds and loans relating to qualifying infrastructure corporate investments with credit assessment of ECAI	Art 180(14), 180(15)	
- exposures in the form of bonds and loans relating to qualifying infrastructure corporate investments without credit assessment of ECAI	Art 180(16)	
<b>Application of the spread risk scenarios to matching adjustment portfolios</b>	<b>Art 181</b>	
<b>Simplified calculation for spread risk on bonds and loans</b>	<b>Art 104</b>	

**Annex 5.2 – Solvency II calibration of spread risk charge for bonds and loans by credit quality step (CQS) and duration compared to CEIOPS advice of April 2010 and EIOPA proposal of June 2011**



## Annex 7.1 – RSR content proposal

A.240 Please note that this Annex focus on the current content and does not yet reflect the streamlining of the structure proposed (merging of Risk profile section with Capital management section) under this document.

A.241 When reference is done to “Static information – focus on material changes” it should be noted that EIOPA will discuss a proposal on the minimum frequency for the submission of the full information in case material changes have been reported for a number of reporting periods. Views from stakeholders on how to implement this requirement are welcomed.

Art. of DR	Current text	Proposal	Explanation
<b>Art. 307</b>	<b>Business and performance</b>		
1.	The regular supervisory report shall include all of the following information regarding the business of the insurance or reinsurance undertaking:		
(a)	the main trends and factors that contribute to the development, performance and position of the undertaking over its business planning time period including the undertaking’s competitive position and any significant legal or regulatory issues;	Examples on concrete minimum areas to be included to be considered to be reflected in DR or EIOPA GL, e.g. undertaking’s competitive position and how the trends, factors and issues did or may contribute to the development, performance and position of the undertaking, material claims, natural catastrophes, new products, significant new business partners or intermediaries or outsourcing, process innovations, impact of economy development,	Undertakings do not provide comprehensive information

		legislation changes.	
(b)	a description of the business objectives of the undertaking, including the relevant strategies and time frames;	Examples on concrete minimum areas to be included to be considered to be reflected in DR or EIOPA GL, e.g. reference to specific quantitative goals; description of the business objectives of the undertaking over its business planning time period.	Usually information included is too general and needs to be more specific (e.g. volume of GWP, combined ratio, profitability, market share, number of clients, ROE, ROA, SCR ratio etc.)
2.	The regular supervisory report shall include all of the following qualitative and quantitative information regarding the underwriting performance of the insurance or reinsurance undertaking, as shown in the undertaking's financial statements		
(a)	information on the undertaking's underwriting income and expenses by material line of business and material geographical areas where it writes business during the reporting period, a comparison of the information with that reported on the previous reporting period and the reasons for any material changes	Duplication with SFCR and requirement Art. 293, par. 2. As a solution see our proposal in the following paragraph Art. 307, par. 2 (b)	We expect here more detailed qualitative information than in SFCR which is the supporting argument for our recommendation mentioned in the following paragraph Art. 307, par. 2 (b)
(b)	an analysis of the undertaking's overall underwriting performance during the reporting period	Proposal to incorporate this paragraph in previous one and not mention the word "overall". For Life LoB a higher granularity than the LoB to be considered.	Requirement of Art. 307, par. 2 (a) mentions qualitative information. We understand that this qualitative information should be in form of analysis, therefore there is duplication with par. 2 (b)



(c)	information on the undertaking's underwriting performance by line of business during the reporting period against projections, and significant factors affecting deviations from these projections	Proposal to refer to material lines of business and clarify that full paragraph apply to this level of granularity. In addition include specific reference to projections of underwriting performance by material line of business, or more granular if needed, during the reporting period and a comparison of the actual performance during that timeframe with and analysis.	More precise requirements are needed.
(d)	projections of the undertaking's underwriting performance, with information on significant factors that might affect such underwriting performance, over its business planning time period	Proposal to refer to material lines of business and clarify that full paragraph apply to this level of granularity and include information on the assumptions underlying the projections.	More precise requirements are needed.
(e)	information on any material risk mitigation techniques purchased or entered into during the reporting period	Proposal to be deleted	Covered by article 309 (5)(a)
3.	The regular supervisory report shall include all of the following qualitative and quantitative information regarding the performance of the investments of the insurance or reinsurance undertaking, as shown in the undertaking's financial statements:		

(a)	information on income and expenses with respect to investment activities during the last reporting period, a comparison of the information with that reported on the previous reporting period and reasons for any material changes;	Proposal to clarify that unit linked assets should be separate.  Duplication with SFCR and requirement Art. 293, par. 3 (a). As a solution see our proposal in the following paragraph Art. 307, par. 3 (b)	More precise requirements are needed.  We expect here more detailed qualitative information than in SFCR which is the supporting argument for our recommendation mentioned in the following paragraph Art. 307, par. 3 (b)
(b)	an analysis of the undertaking's overall investment performance during the reporting period and also by relevant asset class;	Proposal to incorporate this paragraph in previous one and not mention the word "overall	Requirement of Art. 307, par. 3 mentions qualitative information. We understand that this qualitative information should be in form of analysis, therefore there is duplication with par. 3 (a)
(c)	projections of the undertaking's expected investment performance, with information on significant factors that might affect such investment performance, over its business planning time period.		
(d)	the key assumptions which the undertaking makes in its investment decisions with respect to the movement of interest rates, exchange rates, and other relevant market parameters, over its business planning time period	Partial duplication with the previous requirement Art. 307, par. 3 (c), so proposal to combine these requirements to just one requirement	In 307, par. 3 (c) " <i>significant factors that might affect such investment performance</i> " should be mentioned. From our point of view " <i>movement of interest rates, exchange rates, and other relevant market parameters</i> " are these factors which affect the investment performance. Therefore the information should

			be comprehensive and in one requirement.
(e)	information about any investments in securitisation, and the undertaking's risk management procedures in respect of such securities or instruments		
4.	The regular supervisory report shall include information of any material income and expenses, other than underwriting or investment income and expenses, over the undertaking's business planning time period.		
5.	The regular supervisory report shall include any other material information regarding their business and performance.		
<b>Art. 308 System of governance</b>			
1.	The regular supervisory report shall include all of the following information regarding the insurance or reinsurance undertaking's system of governance:		
	the structure of the undertaking's administrative, management or supervisory body, providing a+ description of its main roles and responsibilities and a brief description of the segregation of responsibilities within these bodies, in particular whether relevant committees exist within them, as well as a description of the main roles and responsibilities of key functions;	Proposed to be removed from SFCR and included in RSR. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes.
	any material changes in the system of governance that have taken place over the reporting period;	Proposed to be removed from SFCR and included in RSR. However considering new approach of RSR	

		on static information should be covered by previous paragraphs.	
(a)	information allowing the supervisory authorities to gain a good understanding of the system of governance within the undertaking, and to assess its appropriateness to the undertaking's business strategy and operations;	<p>Repetition with new ones from SFCR, Merge with previous ones. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).</p> <p>Examples on concrete minimum areas to be included to be considered to be reflected in DR or EIOPA GL, e.g. description how undertaking performs its own assessment of appropriateness of governance system and what is the result; the rationale behind the design of the system of governance; description of organisational structure including a detailed organisational structure chart from which the responsibilities of AMSB will be seen and also reporting links in the company will be</p>	<p>Static information – focus on material changes</p> <p>The undertaking cannot describe its system of governance in such a detail to allow us assess its appropriateness to the undertaking's business strategy and operations. Thus, in practice the companies describe its governance just in general and the information is not useful for supervisory entity.</p>

		<p>seen; information about committees, its members, what are their responsibilities and powers and how often they occur; information about key function holders, where are they in organisation structure, to who they report and under who responsibility they are, information about their independency and about their escalation mechanisms in the undertaking; description how the undertaking eliminate or mitigate conflict of interest especially for AMSB including key function holders and assessment of current potential or existing conflict of interest</p>	
(b)	<p>information relating to the undertaking's delegation of responsibilities, reporting lines and allocation of functions;</p>	<p>Should be a part of the previous requirement. Merge with the relevant paragraph covering the previous requirement. Text in DR should refer to material changes with a requirement on full reporting (see question to</p>	<p>Static information – focus on material changes</p>

		stakeholders on the top of this Annex).	
(c)	the remuneration entitlements of the members of the administrative, management or supervisory body, over the reporting period and a comparison of the information with that reported on the previous reporting period and the reasons for any material changes.	Examples on concrete minimum areas to be included to be considered to be reflected in DR or EIOPA GL, e.g. reference to individual members, remuneration entitlements for each AMSB member including each key function holders; portion of variable remuneration, how it is reassessed, based on which financial and non-financial criteria, information about its deferred part, information about downwards adjustment.	In practice the companies describe its remuneration just in general and the information is not useful for supervisory entity. Therefore further clarifications are needed.
2.	The regular supervisory report shall include all of the following information regarding the compliance of the insurance or reinsurance undertaking with fit and proper requirements:		
	a description of the undertaking's specific requirements concerning skills, knowledge and expertise applicable to the persons who effectively run the undertaking or have other key functions	Proposed to be removed from SFCR and included in RSR. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes

	a description of the undertaking's process for assessing the fitness and the propriety of the persons who effectively run the undertaking or have other key functions.	Proposed to be removed from SFCR and included in RSR. Should also be clarified that assessment is both initial and on-going. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes
(a)	in accordance with the requirements set out in Article 42 of Directive 2009/138/EC, a list of the persons in the undertaking that are responsible for key functions	Potential duplication with article 308 (1)(a), depending on final draft. If that is the case duplication to be eliminated.	Potential duplication
(b)	information on the policies and processes established by the undertaking to ensure that those persons are fit and proper.	Duplicate with new from SFCR. To be merged with the second paragraph from SFCR above. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes
3.	The regular supervisory report shall include all of the following information regarding the risk management system of the insurance or reinsurance undertaking:		
	a description of the undertaking's risk management system	Proposed to be removed from	Static information – focus on material changes

	comprising strategies, processes and reporting procedures, and how it is able to effectively identify, measure, monitor, manage and report, on a continuous basis, the risks on an individual and aggregated level, to which the undertaking is or could be exposed;	SFCR and included in RSR. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	
	a description of how the risk management system including the risk management function are implemented and integrated into the organisational structure and decision-making processes of the undertaking.	Proposed to be removed from SFCR and included in RSR. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes
(a)	a information on the undertaking's risk management strategies, objectives, processes and reporting procedures for each category of risk;	Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex). Examples on concrete minimum areas to be included to be considered to be reflected in DR or EIOPA GL, e.g. information on documentation, monitoring and enforcement; the relationship between key financial goals and the risk strategy (link of RM to strategic management process and	Static information – focus on material changes  In practice the companies describe its risk management just in general (on the level of whole company, not for each category of risk, just generally described that there is process of risk identification, measurement, analysis, decision and monitoring) and the information is not useful for supervisory entity. Therefore clarifications in the requirement need to be done.



		business planning); information how key function of risk management is involved in continuous monitoring and evaluation of the fulfilment of the risk management principles and goals for each category of risk; quantitative and qualitative information about risk appetite and risk tolerance; quantitative and qualitative information about key risk limits for each category of risk and how these limits are connected to overall risk appetite and risk tolerance; specific outputs from individual phases of risk management process.	
(b)	a information on significant risks that the undertaking is exposed to over the life-time of its insurance and reinsurance obligations, and how these have been captured in its overall solvency needs	Proposal to delete	Duplication with Chapter "Risk profile" where all material risks should be mentioned
(c)	information on any material risks that the undertaking has identified and that are not fully included in the calculation of the Solvency Capital Requirement as set out in Article 101(4) of Directive 2009/138/EC;	Proposal to delete this requirement and transfer it to chapter "Risk profile" to mention it specifically but consider as well duplication with the ORSA part	Duplication with Chapter "Risk profile" and ORSA Report where all material risks and related quantitative and qualitative information should be mentioned.

		under the section "Risk profile" and the ORSA report itself.	
(d)	information on how the undertaking fulfils its obligation to invest all its assets in accordance with the 'prudent person principle' set out in Article 132 of Directive 2009/138/EC	Proposal to combine this requirement with Article 309, par. 1e) and keep it just in chapter "Risk profile"	Duplication with "Risk profile"
(e)	information on how the undertaking verifies the appropriateness of credit assessments from external credit assessments institutions including how and the extent to which credit assessments from external credit assessments institutions are used		
(f)	results of the assessments regarding the extrapolation of the risk-free rate, the matching adjustment and the volatility adjustment, as referred to in Article 44(2a) of Directive 2009/138/EC	Examples on concrete minimum areas to be included to be considered to be reflected in DR or EIOPA GL, e.g. information on effects on TP and eligible OF and of – for the MA and the VA - a forced sale of assets as well as an explanation of the identified assumptions.	Need to clarify the requirement.
4.	The regular supervisory report shall include all of the following information regarding the own risk and solvency assessments which were performed over the reporting period by the insurance or reinsurance undertaking:		
	a description of the process undertaken by the undertaking to fulfil its obligation to	Proposed to be removed from SFCR and	Static information – focus on material changes and

	conduct an own risk and solvency assessment as part of its risk management system including how the own risk and solvency assessment is integrated into the organisational structure and decision making processes of the undertaking;	included in RSR, but this information might be received in the ORSA report. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Information due only if not covered by the ORSA Report or if the ORSA report was submitted more than 6 months before and a new Report is not due in the 3 months after the RSR submission date (as ORSA report content and due date is flexible).
	a statement detailing how often the own risk and solvency assessment is reviewed and approved by the undertaking's administrative, management or supervisory body;	Proposed to be removed from SFCR and included in RSR, but this information might be received in the ORSA report. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes and Information due only if not covered by the ORSA Report or if the ORSA report was submitted more than 6 months before and a new Report is not due in the 3 months after the RSR submission date (as ORSA report content and due date is flexible).
(a)	a description of how the own risk and solvency assessment is performed, internally documented and reviewed;	Information might be received in the ORSA report. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes and Information due only if not covered by the ORSA Report or if the ORSA report was submitted more than 6 months before and a new Report is not due in the 3 months after the RSR submission date (as ORSA report content and due date is flexible).
(b)	a description of how the own risk and solvency assessment is integrated into the management process and into	Information might be received in the ORSA report. Text in DR should refer to material	Static information – focus on material changes and Information due only if not covered by the

	the decision-making process of the undertaking;	changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	ORSA Report or if the ORSA report was submitted more than 6 months before and a new Report is not due in the 3 months after the RSR submission date (as ORSA report content and due date is flexible).
5.	The regular supervisory report shall include all of the following information regarding the internal control system of the insurance or reinsurance undertaking:		
	a description of the undertaking's internal control system;	Proposed to be removed from SFCR and included in RSR. However duplication with Article 308(1)(a) and (5)(a) should be considered, i.e. should not be added as new requirement but integrated in the existing ones. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes
	a description of how the compliance function is implemented.	Proposed to be removed from SFCR and included in RSR. Examples on concrete minimum areas to be included to be considered to be reflected in DR or EIOPA GL, e.g. how it is	Static information – focus on material changes

		implemented, summary of finding identified by compliance during the year, details from compliance plan (specific activities performed by compliance. Also consider merging this paragraph with Article 308(5)(b). Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	
(a)	information on the key procedures that the internal control system includes;	Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes
(b)	information on the activities performed in accordance with Article 46(2) of Directive 2009/138/EC during the reporting period.	Consider merging this paragraph with Article 308(5) new proposal above.	
(c)	information on the undertaking's compliance policy prepared pursuant to Article 270 of this Regulation, the process for reviewing that policy, the frequency of review and any significant changes to that policy during the reporting period		
6.	The regular supervisory report shall include all of the following information regarding the internal audit		

	function of the insurance or reinsurance undertaking:		
	a description of how the undertaking's internal audit function is implemented	Proposed to be removed from SFCR and included in RSR. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes
	a description of how the undertaking's internal audit function maintains its independence and objectivity from the activities it reviews	Proposed to be removed from SFCR and included in RSR. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes
(a)	a description of internal audits performed during the reporting period, with a summary of the material findings and recommendations reported to the undertaking's administrative, management or supervisory body, and any action taken with respect to these findings and recommendations;		
(b)	a description of the undertaking's internal audit policy, the process for reviewing that policy, the frequency of review and any significant changes to that policy during the reporting period.	Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes
(c)	a description of the undertaking's audit plan, including future internal audits		

	and the rationale for these future audits		
(d)	where the persons carrying out the internal audit function assume other key functions in accordance with Article 271(2), an assessment, in qualitative and quantitative terms, of the criteria set out in points (a) and (b) of Article 271(2).		
7.	With regard to the actuarial function the regular supervisory report shall include an overview of the activities undertaken by the actuarial function in each of its areas of responsibility during the reporting period, describing how the actuarial function contributes to the effective implementation of the undertaking's risk management system.	Proposed to be removed from SFCR and included in RSR the following to be added: <b>a description of how the actuarial function of the insurance or reinsurance undertaking is implemented.</b>  Proposal to include also the main findings of actuarial function.	Actuarial function report is not obligatory sent to NCAs so it would be beneficial to see main findings from it in RSR. If the company sends actuarial report to NCA this requirement would not be applicable.
8.	The regular supervisory report shall include all of the following information regarding outsourcing:		
	<b>a description of the outsourcing policy of the insurance or reinsurance undertaking, that undertaking's outsourcing of any critical or important operational functions or activities and the jurisdiction in which the service providers of such functions or activities are located.</b>	From the SFCR. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes
(a)	where the undertaking outsources any critical or important operational functions or activities, the rationale for the outsourcing and evidence that appropriate	Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on	Static information – focus on material changes

	oversight and safeguards are in place	the top of this Annex).	
(b)	information on the service providers to whom any critical or important operational functions or activities have been outsourced and on how the undertaking ensures that the service providers comply with Article 274(3)(a).		
(c)	a list of the persons responsible for the outsourced key functions in the service provider		
9.	The regular supervisory report shall include any other material information regarding the system of governance of the insurance or reinsurance undertaking.		
	an assessment of the adequacy of the system of governance of the insurance or reinsurance undertaking to the nature, scale and complexity of the risks inherent in its business.	Proposed to be removed from SFCR and included in RSR – only needed in case proportionality principle is applied. However duplication with Article 308(1)(a) should be considered, i.e. should not be added as new requirement but integrated in the existing ones. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes
<b>Art. 309</b>	<b>Risk profile</b>		
1.	The regular supervisory report shall include qualitative and		



	quantitative information regarding the risk profile of the insurance and reinsurance undertaking, in accordance with paragraphs 2 to 9, separately for all of the following categories of risk:		
(a)	underwriting risk;		
(b)	market risk;		
(c)	credit risk;		
(d)	liquidity risk;		
(e)	operational risk;		
(f)	other material risks.		
2.	The regular supervisory report shall include all of the following information regarding the risk exposure of the insurance or reinsurance undertaking, including the exposure arising from off-balance sheet positions and the transfer of risk to special purpose vehicles:		
(a)	an overview of any material risk exposures anticipated over the business planning time period given the undertaking's business strategy, and how these risk exposures will be managed;	When merging with capital management combine with Article 311, par. 2b)	
(b)	where the undertaking sells or re-pledges collateral, within the meaning of Article 214 of this Regulation, the amount of that collateral, valued in accordance with Article 75 of Directive 2009/138/EC;		
(c)	where the undertaking has provided collateral, within the meaning of Article 214, the nature of the collateral, the nature and value of assets provided as collateral and the corresponding actual and contingent liabilities created by that collateral arrangement.		
(d)	information on the material terms and conditions associated with the collateral arrangement		

(e)	a complete list of assets and how those assets have been invested in accordance with the 'prudent person principle' set out in Article 132 of Directive 2009/138/EC;	List of assets: proposal to delete. "how those assets have been invested in accordance..." location of the requirement to be considered due to overlap with article 308.	Covered by the QRTs (S.06.02) and by article 308 (3) (d).
(f)	where the undertaking has entered into securities lending or borrowing transactions, repurchase or reverse repurchase agreements as referred to in Article 4(1)(82) of Regulation (EU) N° 575/2013, including liquidity swaps, information on their characteristics and volume	Proposal to delete.	Covered by QRTs (S.10.01)
(g)	where the undertaking sells variable annuities, information on guarantee riders and hedging of the guarantees.		
3.	The regular supervisory report shall include information regarding the volume and nature of the loan portfolio of the insurance or reinsurance undertaking.		
4.	With respect to risk concentration the regular supervisory report shall include information on the material risk concentrations to which the undertaking is exposed to and an overview of any future risk concentrations anticipated over the business planning time period given that undertaking's business strategy, and how these risk concentrations will be managed.		
5.	The regular supervisory report shall include all the following information regarding the risk-mitigation techniques of the		

	insurance or reinsurance undertaking		
(a)	information on the techniques currently used to mitigate risks, and a description of any material risk-mitigation techniques that the undertaking is considering purchasing or entering into over the business planning time period given the undertaking's business strategy, and the rationale for and effect of such risk mitigation techniques		
(b)	where the insurance or reinsurance undertaking holds collateral, within the meaning of Article 214 of this Regulation: (i) the value of the collateral in accordance with Article 75 of Directive 2009/138/EC; (ii) information on the material terms and conditions associated with the collateral arrangement	Proposal to delete sub-paragraph i)	Covered by QRTs (s.11.01)
6.	With respect to the liquidity risk, the regular supervisory report shall include in particular information of the insurance or reinsurance undertaking regarding the expected profit included in future premiums as calculated in accordance with Article 260(2) of this Regulation for each line of business, the result of the qualitative assessment referred to in Article 260(1)(d)(ii) and a description of the methods and main assumptions used to calculate the expected profit included in future premiums.	Proposal to clarify that is to be reported - Net of "taxation payments which are, or are expected to be, charged to policy holders or are required to settle the insurance or reinsurance obligations." <input type="checkbox"/> - Gross of taxation payments of the insurance undertaking <input type="checkbox"/> - Gross of reinsurance.	
7.	The regular supervisory report shall include all of the following information regarding the risk sensitivity of		

	the insurance or reinsurance undertaking.		
(a)	a description of the relevant stress tests and scenario analysis referred to in Article 259(3), carried out by the undertaking including their outcome	This information might be received in the ORSA report as part of the on-going compliance with MCR and SCR.	Information due only if not covered by the ORSA Report or if the ORSA report was submitted more than 6 months before and a new Report is not due in the 3 months after the RSR submission date (as ORSA report content and due date is flexible)
(b)	A description of the methods used and the main assumptions underlying those stress tests and scenario analysis	This information might be received in the ORSA report as part of the on-going compliance with MCR and SCR.	Information due only if not covered by the ORSA Report or if the ORSA report was submitted more than 6 months before and a new Report is not due in the 3 months after the RSR submission date (as ORSA report content and due date is flexible)
8.	The regular supervisory report shall include information regarding quantitative data which is necessary for determining dependencies between the risks covered by the risk modules or sub-modules and of the Basic Solvency Capital Requirement		
9.	The regular supervisory report shall include any other material information regarding their risk profile of the insurance or reinsurance undertaking		
<b>Art. 310</b>	<b>Valuation for solvency purposes</b>		
1.	The regular supervisory report shall include any important information, other than that already disclosed in the solvency and financial	Examples on concrete minimum areas to be included to be considered to be	Need to clarify the requirement.

	condition report of the insurance or reinsurance undertaking, regarding the valuation of its assets, technical provisions and other liabilities for solvency purposes.	reflected in DR or EIOPA GL, e.g. more information on material deferred tax assets, the use of simplifications, contract boundaries, key options and guarantees, homogenous risk groups, material changes, unbundling, ESGs, significant data deficiencies and adjustments, the approach to the calculation of material reinsurance recoverables and a description of material off-balance sheet items.	
2.	The regular supervisory report shall include a description of:		
		New paragraph with the following information: detailed information on the most relevant assumptions used in the calculation of the Best Estimate, its sensitivity to changes and results of back testing	Information missing for supervisory purposes
(a)	the relevant assumptions about future management actions;	Would be covered by the new paragraph	Delete if new is added
(b)	the relevant assumptions about policyholder behaviour;	Would be covered by the new paragraph	Delete if new is added
3.	The regular supervisory report shall include information on		

	the areas set out in Article 263 of this Regulation in complying with the reporting requirements of the insurance or reinsurance undertaking in relation to valuation for solvency purposes		
4.	Where insurance or reinsurance undertakings value assets or liabilities based on the valuation methods they use to prepare their financial statements in accordance with Article 9(4) of this Regulation, they shall report an assessment, in qualitative and quantitative terms, of the criterion set out in Article 9(4)(d)		
<b>Art. 311</b>	<b>Capital management</b>		
1.	The regular supervisory report shall include all of the following information regarding the own funds of the insurance or reinsurance undertaking:		
	information on the policies and processes employed by the undertaking for managing its own funds	Proposed to be removed from SFCR and included in RSR. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes
(a)	information on the material terms and conditions of the main items of own funds held by the undertaking;		
(b)	the expected developments of the undertaking's own funds over its business planning time period given the undertaking's business strategy, and appropriately stressed capital plans and whether there is any		

	intention to repay or redeem any own-fund item or plans to raise additional own funds;		
(c)	the undertaking's plans on how to replace basic own-fund items that are subject to the transitional arrangements referred to in Article 308b(9) and (10) of Directive 2009/138/EC over the timeframe referred to in that Article;		
2.	The regular supervisory report shall include all of the following information regarding the Solvency Capital Requirement and the Minimum Capital Requirement of the insurance or reinsurance undertaking		
(a)	quantitative information on the undertaking's Solvency Capital Requirement split by risk modules where the undertaking applies the standard formula, and by risk categories where the undertaking applies an internal model;	Proposal to delete paragraph	This information is received in the QRTs (S.25s, S.26s and S.27), should not be included in the RSR
(b)	the expected developments of the undertaking's anticipated Solvency Capital Requirement and Minimum Capital Requirement over its business planning time period given the undertaking's business strategy;	This information might be received in the ORSA report as part of the on-going compliance with MCR and SCR.	Information due only if not covered by the ORSA Report or if the ORSA report was submitted more than 6 months before and a new Report is not due in the 3 months after the RSR submission date (as ORSA report content and due date is flexible)
(c)	an estimate of the undertaking's Solvency Capital Requirement determined in accordance with the standard formula, where the supervisory authority requires the undertaking to provide that estimate pursuant to		Only if the QRTs are not requested by NSA

	Article 112(7) of Directive 2009/138/EC;		
3.	Where an internal model is used to calculate the Solvency Capital Requirement, the regular supervisory report shall also include all of the following information:		
(a)	the results of the review of the causes and sources of profits and losses, required by Article 123 of Directive 2009/138/EC, for each major business unit and how the categorisation of risk chosen in the internal model explains those causes and sources of profits and losses;		
(b)	information on whether, and if so to what extent, the risk profile of the undertaking deviates from the assumptions underlying the undertaking's internal model	This information might be received in the ORSA report.	Information due only if not covered by the ORSA Report or if the ORSA report was submitted more than 6 months before and a new Report is not due in the 3 months after the RSR submission date (as ORSA report content and due date is flexible)
	information about future management actions used in the calculation of the Solvency Capital Requirement		
4.	Where undertaking-specific parameters are used to calculate the Solvency Capital Requirement, or a matching adjustment is applied to the relevant risk-free interest term structure, the regular supervisory report shall include information regarding whether there have been changes to the information included in the application for approval of the undertaking-specific parameters or matching adjustment that are relevant for the supervisory		



	assessment of the application.		
5.	The regular supervisory report shall include information on any reasonably foreseeable risk of non-compliance with the undertaking's Minimum Capital Requirement or Solvency Capital Requirement, and the undertaking's plans for ensuring that compliance with each is maintained.	This information might be received in the ORSA report as part of the on-going compliance with MCR and SCR.	Information due not covered by the ORSA Report or if only if the ORSA report was submitted more than 6 months before and a new Report is not due in the 3 months after the RSR submission date (as ORSA report content and due date is flexible)
6.	The regular supervisory report shall include any other material information regarding the capital management of the insurance or reinsurance undertaking.		
<b>Art. 372</b>	<b>Elements and contents</b>		
	Articles 304 to 311 of this Regulation shall apply to the information which participating insurance and reinsurance undertakings, insurance holding companies or mixed financial holding companies shall be required to submit to the group supervisor. Where all insurance and reinsurance undertakings in the group are exempted from quarterly reporting obligations in accordance with Article 35(6) of Directive 2009/138/EC, the group regular supervisory report shall include annual quantitative templates only. Annual reporting obligations shall not include reporting on an item-by-item basis where all undertakings in the group are exempted from it according to Article 35(7) of that Directive		
	The group regular supervisory report shall include all of the following additional information		

(a)	regarding the group's business and performance:		
(I)	a list of all subsidiaries, related undertakings and branches;		
(ii)	A description of activities and sources of profits or losses for each material related undertaking within the meaning of Article 256a of Directive 2009/138/EC and for each significant branch within the meaning of Article 354(1) of this Regulation		
(iii)	a description of the contribution of each subsidiary to the achievement of the group strategy		
(iv)	qualitative and quantitative information on significant intra-group transactions by insurance and reinsurance undertakings with the group and the amount of the transactions over the reporting period and their outstanding balances at the end of the reporting period	Proposal to request only qualitative information	Covered by IGT quantitative reporting
(b)	regarding the group's system of governance:		
	a description of how the risk management and internal control systems and reporting procedures are implemented consistently in all the undertakings within the scope of group supervision, as required by Article 246 of Directive 2009/138/EC;	Proposed to be removed from SFCR and included in RSR. Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes
(i)	a description of how the group internal control mechanism comply with the requirements set out in Article 246(2) of Directive 2009/138/EC;	Text in DR should refer to material changes with a requirement on full reporting (see question to stakeholders on the top of this Annex).	Static information – focus on material changes

(ii)	where applicable, information on the subsidiaries included in the own risk and solvency assessment as referred to in the third subparagraph of Article 246(4) of Directive 2009/138/EC;	This information might be received in the ORSA report.	Information due not covered by the ORSA Report or if only if the ORSA report was submitted more than 6 months before and a new Report is not due in the 3 months after the RSR submission date (as ORSA report content and due date is flexible)
(iii)	qualitative and quantitative information on material specific risks at group level		
	information on any material intra-group outsourcing arrangements;	Proposed to be removed from SFCR and included in RSR	
(e)	regarding the group's capital management:		
(i)	qualitative and quantitative information on the Solvency Capital Requirement and own funds for each insurance and reinsurance undertaking within the group, in so far as it is included in the calculation of the group solvency;	Proposal to request only qualitative information	Covered by S.35.01 reporting at group level
(ii)	qualitative and quantitative information on the Solvency Capital Requirement and own funds for each intermediate insurance holding company, insurance holding company, intermediate mixed financial holding company, mixed financial holding company and ancillary services undertaking within the group, in so far as it is included in the calculation of the group solvency;		
(iii)	qualitative and quantitative information on the solvency requirements and own funds for each related undertaking which is a credit institution, investment firm, financial		

	institution, UCITS management company, alternative investment fund manager or institutions for occupational retirement provisions in so far as it is included in the calculation of the group solvency		
(iv)	qualitative and quantitative information on the notional solvency requirement and own funds for each related undertaking which is a non-regulated undertaking carrying out financial activities, in so far as it is included in the calculation of the group solvency		
(v)	qualitative and quantitative information on the solvency requirement and own funds for each related third country insurance or reinsurance undertaking, in so far as it is included in the calculation of the group solvency; when method 2 within the meaning of Article 233 of Directive 2009/138/EC is used in the case of a related third country insurance or reinsurance undertaking that has its head office in a third country whose solvency regime is deemed to be equivalent pursuant to Article 227 of that Directive, the Solvency Capital Requirement and the own funds eligible to satisfy that requirement as laid down by the third country concerned shall be separately identified		
(vi)	qualitative and quantitative information on the solvency requirement and own funds for any other related undertaking, in so far as it is included in the calculation of the group solvency;		
(vii)	a description of special purpose vehicles within the		

	group which comply with the requirements set out in Article 211 of Directive 2009/138/EC;		
(viii)	a description of special purpose vehicles within the group, which are regulated by a third country supervisory authority and comply with requirements equivalent to those set out in Article 211(2) of Directive 2009/138/EC, for the purposes of including a description of the verification carried out by the participating insurance and reinsurance undertaking, insurance holding company or mixed financial holding company whether the requirements to which these special purpose vehicles are subject to in the third country are equivalent to those set out in Article 211(2) of Directive 2009/138/EC		
(ix)	a description of each special purpose entity within the group other than those referred to in points (vii) and (viii) together with qualitative and quantitative information on the solvency requirement and own funds of these entities, in so far as they are included in the calculation of the group solvency		
(x)	where relevant, for all related insurance and reinsurance undertakings which are included in the calculation of the group solvency, qualitative and quantitative information on how the undertaking complies with Article 222(2) to (5) of Directive 2009/138/EC		
(xi)	where relevant, qualitative and quantitative information on the own fund items referred to in Article 222(3) of Directive 2009/138/EC that cannot effectively be made available		

	to cover the Solvency Capital Requirement of the participating insurance or reinsurance undertaking, insurance holding company or mixed financial holding company for which the group solvency is calculated, including a description of how the adjustment to group own funds has been made;		
(xii)	where relevant, qualitative and quantitative information on the own fund items referred to in Article 222(3) of Directive 2009/138/EC that cannot effectively be made available to cover the Solvency Capital Requirement of the participating insurance or reinsurance undertaking, insurance holding company or mixed financial holding company for which the group solvency is calculated, including a description of how the adjustment to group own funds has been made.		

## Annex 8.1– Number of undertakings excluded under the options on thresholds for Article 4 of the Solvency II Directive

**Option 2.2: Raise all thresholds to align Solvency II with the European Commission’s definition of small-sized companies by doubling all quantitative thresholds. (10 Million GWP, 50 Million TP)**

<b>NSA</b>	<b>TOTAL NUMBER OF SII REPORTING UNDERTAKINGS</b>	<b>TOTAL NUMBER OF UNDERTAKINGS EXCLUDED<sup>349</sup></b>	<b>UNDERTAKINGS EXCLUDED %</b>
AT	35	0	0,00%
BE	66	3	4,55%
BG	32	7	21,88%
CY	31	1	3,23%
CZ	27	1	3,70%
DE	338	15	4,44%
DK	72	5	6,94%
EE	10	0	0,00%
EL	36	2	5,56%
ES	152	10	6,58%
FI	46	2	4,35%
FR	462	52	11,26%
GI	11	1	9,09%
HR	18	3	16,67%
HU	23	2	8,70%
IE	187	19	10,16%
IS	8	1	12,50%
IT	96	0	0,00%
LI	35	3	8,57%
LT	9	1	11,11%
LU	268	37	13,81%
LV	6	0	0,00%
MT	65	16	24,62%
NL	132	10	7,58%
NO	70	19	27,14%
PL	60	5	8,47%
PT	40	1	2,50%
RO	27	1	3,70%
SE	135	13	9,63%
SI	15	0	0,00%
SK	14	0	0,00%
UK	271	45	16,61%
<b>Total</b>	<b>2.796</b>	<b>275</b>	<b>9,84%</b>

<sup>349</sup> Numbers included reflect the number of undertakings whose technical provisions are below 50 million euro and whose annual gross written premium are below 10 million euro at year end 2018 and could be excluded from the scope of Solvency II under this option

**Option 2.3: Same as option 2 but with Member States discretion to decide on the premiums threshold as long as the technical provisions threshold is not breached.**

<b>NSA</b>	<b>TOTAL NUMBER OF SOLVENCY II REPORTING UNDERTAKINGS</b>	<b>TOTAL NUMBER OF UNDERTAKINGS EXCLUDED<sup>350</sup></b>	<b>UNDERTAKINGS EXCLUDED %</b>
AT	35	0	0,00%
BE	66	5	7,58%
BG	32	7	21,88%
CY	31	2	6,45%
CZ	27	1	3,70%
DE	338	17	5,03%
DK	72	5	6,94%
EE	10	0	0,00%
EL	36	2	5,56%
ES	152	14	9,21%
FI	46	2	4,35%
FR	462	74	16,02%
GI	11	2	18,18%
HR	18	3	16,67%
HU	23	2	8,70%
IE	187	19	10,16%
IS	8	4	50,00%
IT	96	1	1,04%
LI	35	3	8,57%
LT	9	1	11,11%
LU	268	38	14,18%
LV	6	1	16,67%
MT	65	16	24,62%
NL	132	13	9,85%
NO	70	19	27,14%
PL	59	6	10,17%
PT	40	1	2,50%
RO	27	1	3,70%
SE	135	15	11,11%
SI	15	0	0,00%
SK	14	0	0,00%
UK	271	46	16,97%
<b>Total</b>	<b>2.796</b>	<b>320</b>	<b>11,44%</b>

<sup>350</sup> Numbers included reflect the number of undertakings whose technical provisions are below 50 million euro and whose annual gross written premium are below 25 million euro at year end 2018 and could be excluded from the scope of Solvency II under this option



**Option 2.5: Changing Article 4 thresholds methodology to apply the premium related threshold to non-life business and the technical provision threshold to life insurance undertakings (new amounts tested)**

**Non-Life with 10 Million € GWP no TP-threshold**

<b>NSA</b>	<b>TOTAL NUMBER OF SII REPORTING UNDERTAKINGS</b>	<b>TOTAL NUMBER OF UNDERTAKINGS EXCLUDED<sup>351</sup></b>	<b>UNDERTAKINGS EXCLUDED %</b>
AT	12	0	0,00%
BE	33	3	9,09%
BG	20	1	5,00%
CY	19	0	0,00%
CZ	11	1	9,09%
DE	227	13	5,73%
DK	47	7	14,89%
EE	7	0	0,00%
EL	17	1	5,88%
ES	81	5	6,17%
FI	36	2	5,56%
FR	239	43	17,99%
GI	11	2	18,18%
HR	6	0	0,00%
HU	9	1	11,11%
IE	91	17	18,68%
IS	4	0	0,00%
IT	51	0	0,00%
LI	16	3	18,75%
LT	4	0	0,00%
LU	35	7	20,00%
LV	4	0	0,00%
MT	50	17	34,00%
NL	98	7	7,14%
NO	58	22	37,93%
PL	35	1	2,86%
PT	24	1	4,17%
RO	14	0	0,00%
SE	104	13	12,50%
SI	4	0	0,00%
UK	170	42	24,71%
<b>Total</b>	<b>1.537</b>	<b>209</b>	<b>13,60%</b>

<sup>351</sup> Numbers included reflect the maximum impact of the changes

## Life EUR 50 mln TP-threshold no GWP thresholds

NSA	TOTAL NUMBER OF SOLVENCY II REPORTING UNDERTAKINGS	TOTAL NUMBER OF UNDERTAKINGS EXCLUDED <sup>352</sup>	UNDERTAKINGS EXCLUDED %
AT	6	0	0.00%
BE	12	1	8.33%
BG	3	2	66.67%
CY	3	1	33.33%
CZ	1	1	100.00%
DE	88	5	5.68%
DK	47	7	14,89%
EE	20	0	0.00%
EL	1	0	0.00%
ES	2	0	0.00%
FI	28	7	25.00%
FR	8	0	0.00%
HR	3	3	100.00%
HU	4	1	25.00%
IE	41	2	4.88%
IS	4	4	100.00%
IT	27	1	3.70%
LI	17	1	5.88%
LT	3	2	66.67%
LU	37	2	5.41%
MT	7	4	57.14%
NL	28	4	14.29%
NO	6	1	16.67%
PL	24	8	33.33%
PT	12	1	8.33%
RO	7	5	71.43%
SE	17	6	35.29%
SK	2	2	100.00%
UK	81	18	22.22%
<b>Total</b>	<b>558</b>	<b>92</b>	<b>16,49%</b>

<sup>352</sup> Numbers included reflect the maximum impact of the changes

## **Annex 10.1 – New provisions on notification and cooperation platforms resulting from the ESAS review**

### Article 152a

#### **Notification**

- (1) Where the supervisory authority of the home Member State intends to authorise an insurance or reinsurance undertaking whose scheme of operations indicates that a part of its activities will be based on the freedom to provide services or the freedom of establishment in another Member State and where the scheme of operations also indicates that these activities are likely to be of relevance with respect to the host Member State's market, the supervisory authority of the home Member State shall notify EIOPA and the supervisory Authority of the relevant host Member State.
- (2) The supervisory authority of the home Member State shall also notify EIOPA and the supervisory authority of the relevant host Member State where it identifies deteriorating financial conditions or other emerging risks posed by an insurance or reinsurance undertaking carrying out activities based on the freedom to provide services or the freedom of establishment that may have a cross-border effect. The supervisory authority of the host Member State may also notify the supervisory authority of the relevant home Member State where it has serious and reasoned concerns with regard to consumer protection. The supervisory authorities may refer the matter to EIOPA and request its assistance in case no bilateral solution could be found.
- (3) These notifications shall be sufficiently detailed to allow for a proper assessment.
- (4) The notifications pursuant to paragraphs 1 and 2 are without prejudice to the supervisory mandate attributed to the national competent authorities of the home and host Member States in Directive 2009/138/EC.

### Article 152b

#### **Collaboration platforms**

- (1) Where an insurance or reinsurance undertaking carries out or intends to carry out activities which are based on the freedom to provide services or the freedom of establishment and which are
  - (i) of relevance with respect to the market of a host Member State, or
  - (ii) where a notification by the home Member State has been made under Article 152a(2) of deteriorating financial conditions on other emerging risks, or
  - (iii) where the matter has been referred to EIOPA under Article 152a(2),the Authority may, in case of justified concerns about negative effects on policyholders, on its own initiative or at the request of one or more of the

relevant supervisory authorities, set up and coordinate a collaboration platform to strengthen the exchange of information and an enhanced collaboration between the relevant supervisory authorities.

- (2) The requirement of paragraph 1 does not prejudice the right of the relevant supervisory authorities to set up a collaboration platform where they all agree on its establishment.
- (3) The establishment of a collaboration platform under paragraphs 1 and 2 is without prejudice to the supervisory mandate attributed to the national competent authorities of the home and host Member States in Directive 2009/138/EC.
- (4) Without prejudice to Article 35 of Regulation (EU) No. 1094/2010, at the request of the Authority the relevant supervisory authorities shall provide all the necessary information in a timely manner to allow for a proper functioning of the collaboration platform.

## **Annex 10.2 – Changes to Article 16 of the EIOPA regulation resulting from the ESAs review**

### Article 16

#### **Guidelines and recommendations**

1. The Authority shall, with a view to establishing consistent, efficient and effective supervisory practices within the ESFS, and to ensuring the common, uniform and consistent application of Union law, issue guidelines addressed to all competent authorities or all financial institutions and issue recommendations to one or more competent authorities or to one or more financial institutions.  
  
Guidelines and recommendations shall be in accordance with the empowerments conferred in the legislative acts referred to in Article 1(2) or in this Article.
2. The Authority shall, where appropriate, conduct open public consultations regarding the guidelines and recommendations which it issues and analyse the related potential costs and benefits of issuing such guidelines and recommendations. Those consultations and analyses shall be proportionate in relation to the scope, nature and impact of the guidelines or recommendations. The Authority shall, where appropriate, also request advice from the Banking Stakeholder Group referred to in Article 37. Where the Authority does not conduct open public consultations or does not request advice from the Banking Stakeholder Group, the Authority shall provide reasons.
- 2c. Guidelines and recommendations shall not merely refer to, or reproduce, elements of legislative acts. Before issuing a new guideline or recommendation, the Authority shall first review existing guidelines and recommendations, in order to avoid any duplication.
3. The competent authorities and financial institutions shall make every effort to comply with those guidelines and recommendations.

Within 2 months of the issuance of a guideline or recommendation, each competent authority shall confirm whether it complies or intends to comply with that guideline or recommendation. In the event that a competent authority does not comply or does not intend to comply, it shall inform the Authority, stating its reasons.

The Authority shall publish the fact that a competent authority does not comply or does not intend to comply with that guideline or recommendation. The Authority may also decide, on a case-by-case basis, to publish the reasons provided by the competent authority for not complying with that guideline or recommendation. The competent authority shall receive advanced notice of such publication.

If required by that guideline or recommendation, financial institutions shall report, in a clear and detailed way, whether they comply with that guideline or recommendation.

4. In the report referred to in Article 43(5) the Authority shall inform the European Parliament, the Council and the Commission of the guidelines and recommendations that have been issued

### **Annex 10.3 – Changes to Article 16 of the EIOPA regulation resulting from the ESAs review**

#### Article 19

##### **Settlement of disagreements between competent Authorities in cross-border situations**

1. In cases specified in the Union acts referred to in Article 1(2) and without prejudice to the powers laid down in Article 17, the Authority may assist the competent authorities in reaching an agreement in accordance with the procedure set out in paragraphs 2 to 4 in either of the following circumstances:
  - (a) at the request of one or more of the competent authorities concerned where a competent authority disagrees with the procedure or content of an action, proposed action, or inactivity of another competent authority;
  - (b) in cases where the acts referred to in Article 1(2) provide that the Authority may assist on its own initiative where on the basis of objective reasons, disagreement can be determined between competent authorities.

In cases where the acts referred to in Article 1(2) require a joint decision to be taken by competent authorities and where in accordance with those acts the Authority may assist on its own initiative in reaching an agreement in accordance with the procedure set out in paragraph 2 to 4, the competent authorities concerned, a disagreement shall be presumed in the absence of a joint decision being taken by those authorities within the time limits set out in those acts.

- 1a. The competent authorities concerned shall in the following cases notify the Authority without delay that an agreement has not been reached:

(a) where a time limit for reaching an agreement between competent authorities has been provided for in the Union acts, referred to in Article 1(2), and the earlier of the following occurs:

(i) the time limit has expired; or

(ii) at least two competent authorities concerned conclude that a disagreement exists, on the basis of objective reasons;

(b) where no time limit for reaching an agreement between competent authorities has been provided in the Union acts referred to in Article 1(2), and the earlier of the following occurs:

(i) at least two competent authorities concerned conclude that a disagreement exists on the basis of objective reasons; or

(ii) two months have elapsed from the date of receipt by a competent authority of a request from another competent authority to take certain action in order to comply with those Union acts and the requested authority has not yet adopted a decision that satisfies the request.

- 1b. The Chairperson shall assess whether the Authority should act in accordance with paragraph 1. Where the intervention is at the Authority's own initiative, the Authority shall notify the competent authorities concerned of its decision regarding the intervention.

Pending the Authority's decision in accordance with the procedure set out in Article 47(3a), in cases where the acts referred to in Article 1(2) require a joint decision to be taken, all competent authorities involved in the joint decision shall defer their individual decisions. Where the Authority decides to act, all the competent authorities involved in the joint decision shall defer their decisions until the procedure set out in paragraphs 2 and 3 is concluded.

2. The Authority shall set a time limit for conciliation between the competent authorities taking into account any relevant time periods specified in the acts referred to in Article 1(2) and the complexity and urgency of the matter. At that stage the Authority shall act as a mediator.
3. Where the competent authorities concerned fail to reach an agreement within the conciliation phase referred to in paragraph 2, the Authority may take a decision requiring those authorities to take specific action or to refrain from certain action in order to settle the matter, in order to ensure compliance with Union law. The decision of the Authority shall be binding on the competent authorities concerned. The Authority's decision may require competent authorities to revoke or amend a decision that they have adopted or to make use of the powers which they have under the relevant Union law.
- 3a. The Authority shall notify the competent authorities concerned of the conclusion of the procedures under paragraphs 2 and 3 together with, where applicable its decision taken under paragraph 3.
4. Without prejudice to the powers of the Commission pursuant to Article 258 TFEU, where a competent authority does not comply with the decision of the Authority, and thereby fails to ensure that a financial institution or, in the context of matters relating to the prevention and countering of money laundering and terrorist financing, a financial sector operator complies with requirements directly applicable to it by virtue of the acts referred to in Article 1(2), the Authority may adopt an individual decision addressed to that

financial institution or financial sector operator requiring it to take all necessary action to comply with its obligations under Union law, including the cessation of any practice.

5. Decisions adopted under paragraph 4 shall prevail over any previous decision adopted by the competent authorities on the same matter. Any action by the competent authorities in relation to facts which are subject to a decision pursuant to paragraph 3 or 4 shall be compatible with those decisions.
6. In the report referred to in Article 50(2), the Chairperson of the Authority shall set out the nature and type of disagreements between competent authorities, the agreements reached and the decisions taken to settle such disagreements.

## Annex 11.1 - Triggers, risk profile, systemic risk drivers and transmission channels

Triggering events (Examples)	Risk profile of the company	Potential systemic risk drivers	Main transmission channels		
<ul style="list-style-type: none"> <li>• <b>Macroeconomic factors</b> <ul style="list-style-type: none"> <li>○ Unemployment</li> <li>○ Inflation</li> <li>○ Bubbles (e.g. housing)</li> <li>○ Others</li> </ul> </li> <li>• <b>Financial factors</b> <ul style="list-style-type: none"> <li>○ Yield movements</li> <li>○ Market prices (equity, fixed income, etc.)</li> <li>○ State of the banking system</li> <li>○ Financial innovation</li> <li>○ Others</li> </ul> </li> <li>• <b>Non-financial factors</b> <ul style="list-style-type: none"> <li>○ Demographic changes (mortality/longevity)</li> <li>○ Natural catastrophes</li> <li>○ Legislative changes</li> <li>○ Political changes</li> <li>○ Technological changes</li> <li>○ Consumer/policyholder behaviour (e.g. mass lapses, etc.)</li> <li>○ Cyber attack</li> <li>○ Others</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Market risks</b> <ul style="list-style-type: none"> <li>○ Interest rate</li> <li>○ Equity</li> <li>○ Property</li> <li>○ Etc.</li> </ul> </li> <li>• <b>Health risks</b> <ul style="list-style-type: none"> <li>○ Mortality</li> <li>○ Longevity</li> <li>○ Lapse</li> <li>○ Etc.</li> </ul> </li> <li>• <b>Default risks</b></li> <li>• <b>Life risks</b> <ul style="list-style-type: none"> <li>○ Technical provision</li> <li>○ Mortality</li> <li>○ Longevity</li> <li>○ Lapse</li> <li>○ CAT</li> <li>○ Etc.</li> </ul> </li> <li>• <b>Non-life risks</b> <ul style="list-style-type: none"> <li>○ Premium reserve</li> <li>○ Lapse</li> <li>○ CAT</li> </ul> </li> <li>• <b>Operational risk</b> (incl. fraud)</li> <li>• <b>Model risk</b></li> </ul>	<p style="text-align: center;"><b>Entity-based related sources – Direct sources</b></p> <ul style="list-style-type: none"> <li>➤ Deterioration of the solvency position leading to:               <ul style="list-style-type: none"> <li>a) Failure of a G-SII, D-SII</li> <li>b) Collective failures of non-systemically important institutions as a result of exposures to common shocks</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Exposure channel</li> <li>• Lack of supply of certain products</li> <li>• Expectations and information asymmetries</li> <li>• Asset liquidation</li> </ul>		
		<ul style="list-style-type: none"> <li>• Size</li> <li>• Global activities</li> <li>• Interconnectedness               <ul style="list-style-type: none"> <li>○ Counterparty exposure</li> <li>○ Macroeconomic exposure</li> </ul> </li> <li>• Substitutability (incl. market niches)</li> </ul>			
				<p style="text-align: center;"><b>Activity-based related sources – Indirect sources (i)</b></p> <ul style="list-style-type: none"> <li>➤ Involvement in certain activities or products with greater potential to pose systemic risk</li> <li>➤ Potentially dangerous interconnections</li> </ul>	<ul style="list-style-type: none"> <li>• Exposure channel</li> <li>• Asset liquidation channel</li> <li>• Bank-like activities channel (maturity transformation and leverage)</li> </ul>
				<ul style="list-style-type: none"> <li>• Derivative trading (non-hedging)</li> <li>• Financial guarantees (incl. monolines)</li> <li>• Asset lending (e.g. securities lending) and management activities</li> <li>• Direct lending</li> <li>• Lapsable products and products that entail maturity transformation</li> <li>• Guaranteed products</li> <li>• Variable annuities</li> </ul>	
				<p style="text-align: center;"><b>Behaviour-based related sources – Indirect sources (ii)</b></p> <ul style="list-style-type: none"> <li>➤ Collective behaviour by insurers that may exacerbate market price movements (e.g. fire-sales or herding behaviour)</li> <li>➤ Excessive risk-taking by insurance companies</li> <li>➤ Excessive concentrations</li> <li>➤ Inappropriate provisioning (e.g. under-pricing as a result of competitive dynamics)</li> </ul>	<ul style="list-style-type: none"> <li>• Exposure channel</li> <li>• Asset liquidation channel</li> </ul>
		<ul style="list-style-type: none"> <li>• Concentrations in certain asset classes and common exposures on the asset side</li> <li>• Excessive risk taking               <ul style="list-style-type: none"> <li>○ 'Search for yield'</li> <li>○ Too-big-to-fail/moral hazard problems</li> </ul> </li> <li>• Heightened competition potentially leading to insufficient technical provisions or premiums</li> </ul>			



## Annex 14.1 -Application of the transitional on own funds

A.242 The tables and diagrams of this annex provide information on the application of the transitional of own funds (Article 308b(9) and (10) of the Solvency II Directive).

<b>Total amount of transitional own funds for all undertakings and comparison with all own funds</b>				
	<b>Tier 1</b>	<b>Tier 2</b>	<b>Tier 3</b>	<b>All Tiers</b> (before applying limits)
<b>All own funds</b> [EUR bn]	1,510	104	11	1,625
<b>Transitional own funds</b> [EUR bn]	25	23	-	49
<b>Share of transitional own funds</b>	1.7%	22.4%	0%	3.0%

<b>Relevance of transitional own funds for individual undertakings</b>	
<b>Share of transitional own funds</b> In percentage of all own funds before applying limits	<b>Number of undertakings</b>
]0%, 5%]	32
]5%, 10%]	43
]10%, 15%]	19
]15%, 20%]	17
]20%, 25%]	6
]25%, 30%]	6
]30%, 35%]	8
]35%, 40%]	-
]40%, 45%]	-
]45%, 50%]	1
]50%, 55%]	2
]55%, 60%]	1
<b>]0%, 100%]</b>	<b>135</b>

