

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
Name of Company:	Institut des actuaires français (French institute of actuaries)	
Disclosure comments:	of Please indicate if your comments should be treated as confidential: Public	Public
<p>Please follow the following instructions for filling in the template:</p> <ul style="list-style-type: none"> ⇒ <u>Do not change the numbering</u> in the column “reference”; if you change numbering, your comment cannot be processed by our IT tool ⇒ Leave the last column <u>empty</u>. ⇒ Please fill in your comment in the relevant row. If you have <u>no comment</u> on a paragraph or a cell, keep the row <u>empty</u>. ⇒ Our IT tool does not allow processing of comments which do not refer to the specific numbers below. <p>Please send the completed template, in Word Format, to CP-16-008@eiopa.europa.eu</p> <p>Our IT tool does not allow processing of any other formats.</p> <p>The numbering of the questions refers to the discussion paper on the review of specific items in the Solvency II Delegated Regulation.</p>		
Reference	Comment	
General Comment	<p>Thank you for giving us the opportunity to participate to this consultation. We consider that the topics under review are extremely important and that they deserve to be analysed in detail with impact assessments and quantitative studies in order to ensure that any proposed change would have the desired consequences and meet the intended objectives.</p> <p>This consultation covers a wide range of topics and we consider an enhanced involvement of all participants would be needed to enable all the topics in the scope to be adequately dealt with.</p>	

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

	<p>We hope that sufficient time will be allocated to the most material topics of the upcoming consultation.</p> <p>We consider that the three priority topics to focused on are, by order of priority :</p> <ul style="list-style-type: none"> • Point 5 : Volume measure for premium risk • Point 17 : Interest rate risk sub-module • Point 19 : Risk- margin <p>PS - Please note that “Idem AAE” in the document means the Institut des Actuaire français gives the same answer then Actuarial Association of Europe.</p>	
Q1.1		
Q1.2		
Q1.3		
Q1.4	Idem AAE	
Q1.5	Idem AAE	
Q1.6	Idem AAE	
Q1.7		
Q1.8		
Q1.9		
Q1.10		
Q1.11		

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
Q1.12		
Q1.13		
Q1.14		
Q1.15		
Q1.16		
Q1.17		
Q1.18		
Q1.19		
Q1.20		
Q1.21		
Q1.22		
Q1.23		
Q1.24	In order to better reflect economic reality, we ask EIOPA to modify the standard formula such that the loss-absorbing capacity of technical provisions and deferred taxes can also be applied to the operational risk.	
	A different approach should also be allowed for long-tail business. Indeed, the claims technical reserves to premiums ratio, is for the French market 1,918 as at 31/12/2015 (estimated from the French insurance federation figures) and could be more than 10 for mono-liner specialized in long-tail business. For example, the ratio is 15.02 for one specific company at 31/12/2015. Thus, for every long-tail insurers, the operational risk formula is extremely discriminating and disadvantageous, because it induces an excess of capital by increasing by a factor at least 5 the SCR operational (10 for the company mentioned above). Our proposition would be, instead of using a fixed parameter of 0.3 for the reserve, to use a parameter depending on the global duration of technical reserves.	
Q1.25	Additionally, the risk mitigation should be taken into account.	
Q1.26		
Q2.1		
Q2.2		
Q2.3		

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
Q2.4	Idem AAE	
Q2.5	Idem AAE	
Q2.6	Idem AAE	
Q2.7	Idem AAE	
Q2.8		
Q2.9		
Q2.10		
Q3.1	Differences between insurance and banking frameworks must be removed when possible. Risk comes from the assets intrinsic characteristics, not from the asset holder. Business model differences affect risk weight mechanisms within capital calculation methodology. Wweights principles must be convergent to provide same incentive for investments accross financial industry.	
Q3.2	Idem AAE	
Q3.3	Partial guarantee for bonds is not an issue. Partial guarantee for unlisted assets s.a. real estate is more common but with limited SCR impact due to fixed-rate treatment for this asset class.	
Q3.4	Idem AAE	
Q3.5	Idem AAE	
Q3.6		
Q3.7		
Q3.8		
Q3.9		
Q3.10		
Q3.11	Idem AAE.	
Q3.12		
Q4.1	Idem AAE	
Q4.2	Idem AAE	
Q5.1	The position of the French institute of actuaries “l’Institut des Actuairees” developed thereafter is fully in line with the position of the Actuarial Association of Europe. The answer proposed therein nevertheless gets in deeper details and may help as a starting point for	

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

further discussions.

Executive summary:

We agree on the fact that the current definition leads to a gap in the premium volume perimeter whose necessity could be questioned from a risk point of view, but we do not agree on the proposed modification.

- First of all, we point on some issues that remain ambiguous in the proposed definition, and may lead to market distortions, depending on local interpretations.
- Then we show that the proposed definition globally includes a perimeter that goes beyond the perimeter at risk and produces major undesirable side-effects:
 - On the most common non life policy contracts (annual policies with tacit reconduction), the proposed volume definition would increase premium risk capital charge by 71%.
 - This 71% increase could be offset by a two month delay of the yearly renewal date, without any impact on the underlying underwriting risk. This definition could then lead either to artificial regulatory driven changes that may generate operational risk without reducing the underwriting risk, or to a strong market distortion.
 - On these policies, the capital charge produces an artificial volatility throughout the year.
- Finally, we point on inconsistencies generated by the proposed formula:
 - Inconsistency between Solvency 2 principle and the proposed calculation formula.
 - Inconsistency between the balance sheet estimate and the risk estimate.
 - Inconsistency between the Life (and similar to Life) techniques and the Non-Life (and similar to Non-Life) techniques.
 - Inconsistency between capital charge and sound risk management.

Complete answer:

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

We agree on the fact that the current definition leads to a gap in the premium volume perimeter whose necessity could be questioned from a risk point of view. Nevertheless, it is not obvious the proposed definition would be the one that should be retained.

=====

First of all, some notions should be clarified to be consistently applied by all undertakings, throughout all countries. This point is of major importance, because depending on the local interpretation, the capital charge assessment would be much different. In following paragraphs, we identify the notions that raise issues and show the impact of the ambiguity on one of them. Then, based on the French Supervisor interpretation, we show the impact of the definition proposed in the Discussion Paper on the major products of the French Non-Life and Health market.

First of all, the definitions of “Existing contracts” referred to in the definition of $FP_{existing}$ and “initial” referred to in the definition of FP_{future} should also be defined more precisely. In fact,

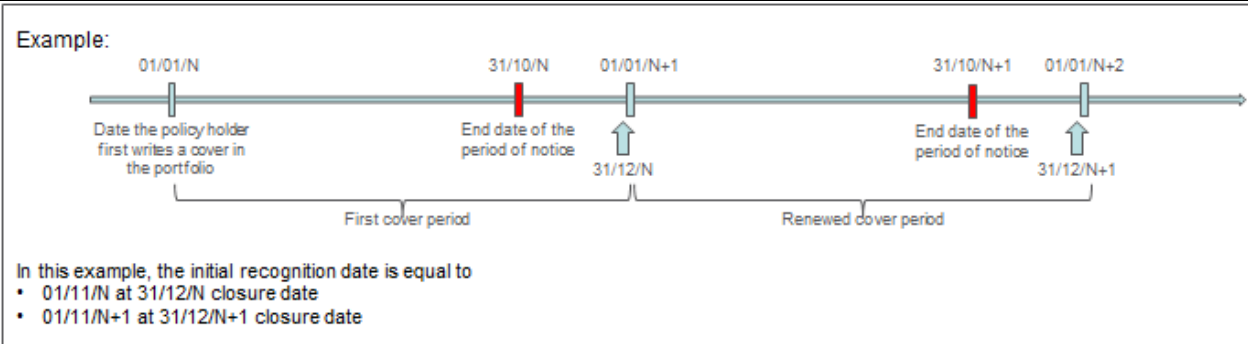
- depending on the type of contract, “existing contracts” referred to in the definition of $FP_{existing}$ could mean either contracts existing at closure date (definition of existing contracts used for the BEL estimation, i.e. whose “initial recognition date” is previous to the closure date) or contracts existing after the following 12 months (i.e. whose “initial recognition date” falls within the following 12 months ; this definition is not consistent with the one used to estimate the BEL),
- for annually renewable contracts, the notion of “initial” referred to in the definition of FP_{future} could lead to different interpretations on the definition of “initial recognition date” which could refer either to the first date of the “initial” cover underwritten by the policyholder (in the example described below, it would be 01/01/N as long as the policyholder maintains and renews its policy) or, in a prospective view, the “initial” date of commitment of the more recent commitment (in the same example, it would be 01/11/N at 31/12/N closure date, and 01/11/N+1 at 31/12/N+1 closure date)

Then, the notion of “recognition date” has been interpreted in different ways among the European market, it should then be clarified to be consistently applied by all undertakings, throughout all countries:

1. Some undertakings consider it refers to the date where the contract is certain, i.e. the beginning of the contract boundary (In case of tacit renewal on the 1st of January, it means that FP_{future} should integrate contracts that could be renewed during the period of notice preceding the 1st of January)

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**



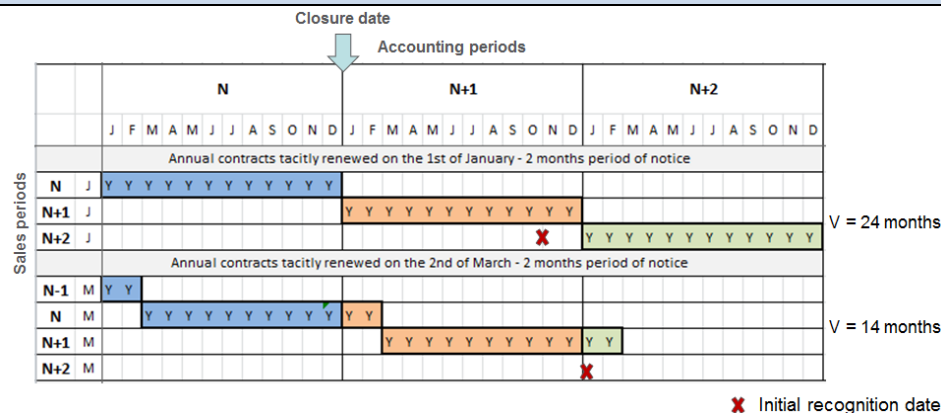
2. Others consider it refers to the beginning of the cover period (then in the case described above, FP_{future} should be null)

The difference between the two interpretations can be highly material. In case of a portfolio where all annual contracts are tacitly renewed on the 1st of January (same renewal date for the entire portfolio), which is a usual case on the market, taking the first option means that FP_{future} equals a whole year of premiums. The volume of premium then includes two years of premiums (premiums on year N+1 plus premiums on year N+2). Then, the first interpretation doubles the Premium Risk capital charge, compared to the second interpretation, where the volume of premium only includes the premiums on year N+1.

Furthermore, in case the first interpretation would be ascertained, it could induce a **strong market distortion** between undertakings that would go on performing their business as usual by renewing all their annual contracts on January the 1st and undertakings that would turn their contracts to be renewed on March the 2nd. As shown on the following graph, **the first ones would have some 70% extra capital charge compared to the second ones, without any underlying risk difference.**

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**



Our first conclusion is that the proposed definition of the premium volume, by attempting to be practical, creates complexity and **market distortion**.

Furthermore, let's consider a company that runs a stable portfolio that earns 100 of premium each year and that is made up with annual contracts that are all tacitly renewed on the 1st of January (same renewal date for the entire portfolio). This case is a usual one on the French market. The company would report an **volume measure that would cyclically vary throughout the year** :

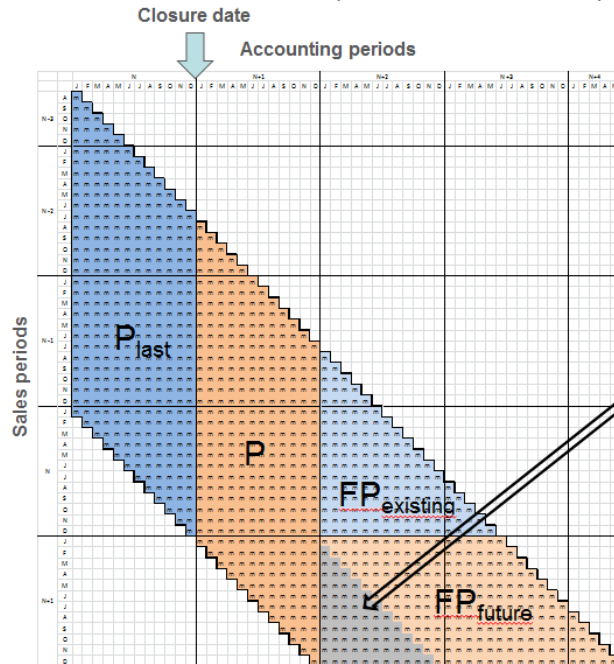
- At end of Q4, Volume measure would be 200 for some countries and 100 for others, depending on current interpretation of the texts by National Supervisory Authorities
- At end of Q1, Volume measure would be 175,
- At end of Q2, Volume measure would be 150,
- At end of Q3, Volume measure would be 125.

This cyclicity seems not to be a desirable situation.

=====

Under the interpretation of the French supervisor, let's now consider the three main types of contracts currently proposed on the French market and figure the impact of current definition as well as the one proposed in the discussion paper :

Case 1: Non renewable fixed pluri-annual duration policies (example provided with a 2.5 years policy duration)



Current rule :

For contracts which initial recognition date falls in N+1, premiums to be earned both after N+1 and during the 12 months after the initial recognition date are excluded.

Reviewed rule :

This perimeter is no more excluded

Comment :

The initial exclusion made no sense in terms of risk

Impact :

up to* 10% increase in capital charge

* no lapse rate hypothesis

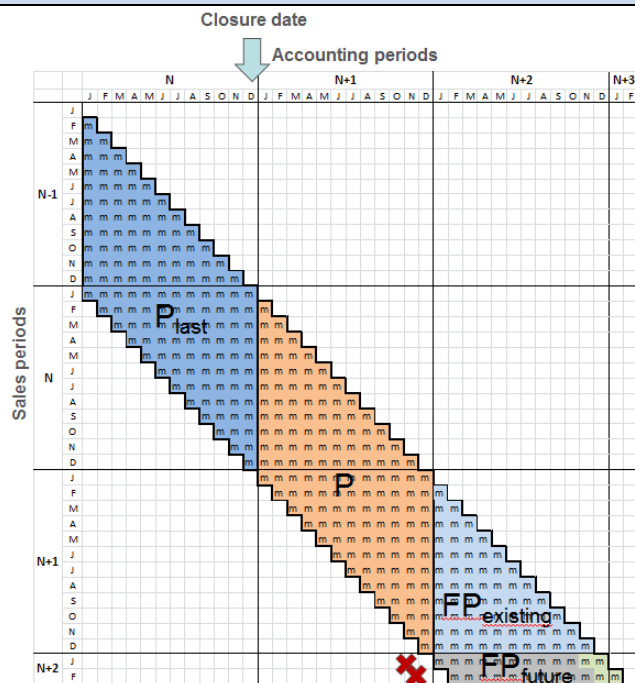
Further risk assessment:

In case of adverse evolution of the underlying risk, contracts being not renewable, the undertaking is able to stop or reprice any future production. Then, the volume at risk, at closure date, as well as at any date during the 12 following months, is limited to the volume of Unearned Premium Reserve.

Case 2: Annual policies with tacit renewal at the policy anniversary date, 2 to 3 months period of notice. (Example provided with a 2 months period of notice)

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**



FP_{existing} : UPR on policies existing at the end of year N+1.

FP_{future} : Premiums to be earned on policies which renewal in N+2 is unavoidable in case no action is taken before 31/12/N+1 (In case of a 60 days period of notice, unavoidable renewals of year N+1 are restricted to contracts which renewal date falls in the two last months of the year), excluding the 10 first months of acquisition.

Current rule :
For contracts which initial recognition date falls in N+1, premiums to be earned both after N+1 and during the 12 months after the initial recognition date are excluded.

Reviewed rule :
This perimeter is no more excluded

Comment :
The initial exclusion made no sense in terms of risk

Impact : up to* 10% increase in capital charge

✘ Initial recognition date

* no lapse rate hypothesis

Further risk assessment:

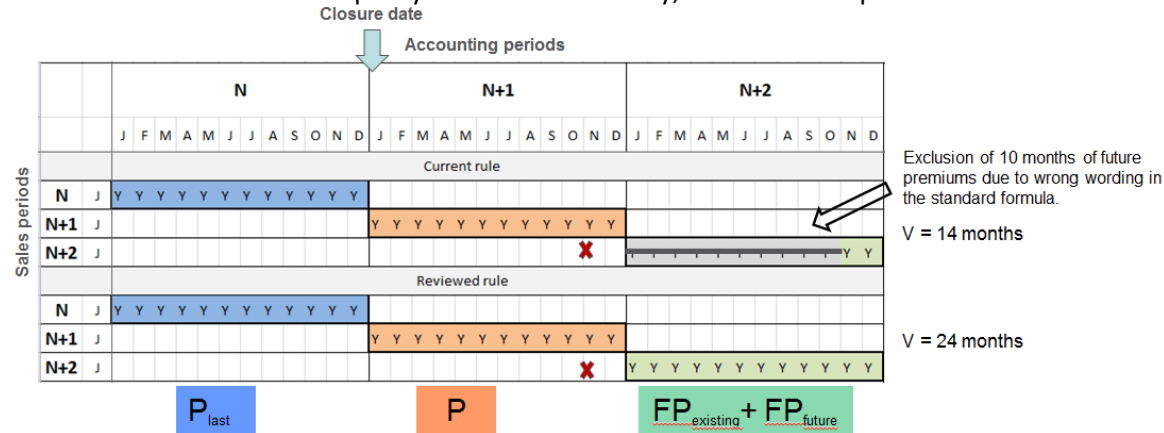
In case of adverse evolution of the underlying risk at closure date, contracts being tacitly renewable, contracts that have not been explicitly cancelled by the undertaking during before the period of notice remain within the commitments of the undertaking. Then, on top of the volume of Unearned Premium Reserve (UPR) at closure date, the undertaking is at risk on all policies which period of notice ends before closure date.

This assessment remains the same at any date within the 12 following months. Then the maximum volume at risk, in case of adverse evolution of the underlying risk at any date within the 12 following months is equal to the volume at risk at closure date. It is equal to the volume of UPR at closure date, plus the maximum volume of policies that could be renewed during the period of notice.

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

Case 3: Annual policies with tacit renewal at the policy on the 1st of January, 2 to 3 months period of notice.



Comment :

The initial exclusion made no sense in terms of risk, but provided a sustainable result

Impact : up to* 70% increase in capital charge

X Initial recognition date

Further risk assessment:

In case of adverse evolution of the underlying risk at closure date, all contracts being renewed on the 1st of January, the undertaking is at risk on the full yearly cover. The event having occurred before the end of the period of notice, the undertaking is able to cancel or reprice policies to be written on following years. The volume at risk is then limited to the volume of premium of the 12 months following the closure date

Because all policies are renewed at the same date (1st of January), the volume at risk is highly dependent on the timing of the unexpected event that may induce a shock on claim. As shown on following graph, it varies

- from 25% of the premiums of year N+1
 - hypothesis of a shock incurring at the 01/10/N+1)
- To 117% of the premium of year N+1 (17% of the premiums of year N+1 plus 100% of the premiums renewed on N+2)
 - hypothesis of a shock incurring at the 01/11/N+1, i.e. at the date of the initial recognition date of future premiums,
 - combined with the very conservative hypothesis of a full renewal of the portfolio

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation

Deadline
3 March 2017
23:59 CET

		N+1												N+2												Total at risk
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
1st of January																										
N+1	J	100																								100
N+2	M													100												
1st of February																										
N+1	J	8	92																							92
N+2	M													100												
1st of March																										
N+1	J	17	83																							83
N+2	M													100												
1st of April																										
N+1	J	25	75																							75
N+2	M													100												
1st of May																										
N+1	J	33	67																							67
N+2	M													100												
1st of June																										
N+1	J	42	58																							58
N+2	M													100												
1st of July																										
N+1	J	30	70																							70
N+2	M													100												
1st of August																										
N+1	J	38	62																							62
N+2	M													100												
1st of September																										
N+1	J	67	33																							33
N+2	M													100												
1st of October																										
N+1	J	75	25																							25
N+2	M													100												
1st of November																										
N+1	J	83	17											100												117
N+2	M													100												
1st of December																										
N+1	J	92	8											100												108
N+2	M													100												
31st of December																										
N+1	J	100																								100
N+2	M													100												

✖ Initial recognition date
 ■ Volume impacted by the shock

Based on these examples, that are representative of the French market, it seems that the proposed change in the definition of FP_{future}

- points on an error that should be corrected,
- implies a 10% increase in premium perimeter on Case 1 and Case 2 contracts, even though the premium perimeter calculated under current rules already exceeds the perimeter at risk,
- implies a 70% increase in premium risk capital charge on Case 3, that is both not sustainable for this kind of portfolio and in excess of the perimeter at risk,

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

- may imply, on a major part of the market, either a market distortion, or a change in products features, for the sole purpose of reducing the SCR, without any underlying risk management purpose,
- is neither consistent with the perimeter at risk at closure date, nor with the maximum perimeter at risk at any date during the 12 months following the closure date.

		Fixed duration contract (2,5 years)		Annual contract with tacit renewal at ...	
				Policy start date anniversary	01/01
		Case 1	Case 2	Case 3	
$V = \text{Max}(P_{\text{last}}, P) + \text{FPex} + \text{FPfut}$	P last	100			
	P	100			
	FP existing	43	46	0	
	FP future (currently excluded)	18	14	83	
	FP future (currently included)	60	3	17	
	Current formula	203	149	117	
	Review proposed by EIOPA	221	163	200	
	Increase in capital charge	9%	9%	71%	

Therefore, even though we agree on the fact that the current definition is misleading, we do not agree on the proposed definition.

=====
Consistency issues
=====

➤ **Principle 1 : Consistency with the VaR(99.5%) calibration**

Since the calibrated shock aims at reflecting a 1/200 years event, it should not be applied on several consecutive years of claim occurrence, whatever the duration of policies and perimeter at risk. Hence in case risk perimeter would integrate premiums beyond one year, these extra premiums should be applied a much lower risk parameter.

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
	<p>➤ Principle 2 : Consistency with the balance sheet estimate :</p> <p>One of the underlying concepts of Solvency 2 is that the solvency requirements assessment is based on the economic loss in own funds that derives from worst scenarios occurring no more often than once in every 200 cases. Therefore the SCR assessment should be based on a volume at risk that is consistent with the one used to assess the economic commitments. In the economic balance sheet, the liabilities are assessed on the basis of contract boundaries defined in Art. 18 of the delegated acts.</p> <p>Any gap between the perimeter of premiums underlying the assessment of the SCR and the perimeter of premiums underlying the assessment of the Best Estimate of Liabilities creates a mismatch between the assessed risks and the ability of the balance sheet to cover these risks by expected future profits. These gaps should then be eliminated, or at least strictly limited.</p> <p>➤ Principle 3 : Consistency between Life and Non-Life risk assessment :</p> <p>Moreover, the risk assessment performed on Life risks is based on an instantaneous shock on liabilities existing at closure date, taking no account of future contracts. There is no theoretical reason why Non Life modules assessment method would not be aligned with Life ones. To enable full consistency between Life and Non-Life modules, future premiums to be included in the Non-Life capital charge assessment should be limited to the ones that are included to assess the BEL at closure date.</p> <p>➤ Principle 4 : Consistency with sound risk management</p> <p>Moreover, most of the reinsurance arrangements being yearly renewable contracts covering the full calendar year to come, using reference to previous year data indicator in the premium risk volume indicator prevents undertakings from taking full allowance of risk mitigating schemes set at closure date to manage risk on the year to come.</p>	
Q5.2	<p>The position of the French institute of actuaries “l’Institut des Actuaire” developed thereafter is in line with the position of the Actuarial Association of Europe. The answer proposed therein nevertheless makes further proposals that may help as a starting point for further discussions.</p> <div style="border: 1px solid black; background-color: #e6f2ff; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">Executive summary:</p> <p>We make two alternative proposals that aim at being consistent with Solvency 2 underlying principles cited above.</p> </div>	

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

- The first proposal aims at maintaining the consistency between the balance sheet assessment and the capital charge assessment. To achieve this consistency, one should only stress premiums that are recognised in the best estimate calculation. This would lead to base the SCR on the premiums within the contracts boundaries at the closure date.

This seems to us as the favoured option, since it allows full consistency with Solvency 2 underlying principles.
- An alternative proposal is based on the assessment of the impact of a worst case scenario on the year to come. In this latter proposal, even though the balance sheet assessment is not fully consistent with the capital charge assessment, the gap is reduced in comparison to current definition and remains acceptable.

Complete answer:

Preferred proposal : Full consistency between balance sheet and capital charge definition

Premium volume perimeter definition:

The premium volume used to estimate the premium risk capital charge is calculated on the same perimeter as the premium volume used to estimate the BEL at closure date. i.e. it is limited by the contract boundaries set at closure date, as defined in art. 18 of the delegated regulation.

Considering portfolios of policies that generate 100 units of earned premium volume per year, the volume at risk to be used for the premium risk estimate would be:

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

		Fixed duration contract (2,5 years)	Annual contract with tacit renewal at ...	
			Policy start date anniversary	01/01
		Case 1	Case 2	Case 3
V = V1 + V2	V1= UPR perimeter at closure date	121	46	100
	V2= Unavoidable future premiums perimeter at closure date	0	17	0
	Proposal 1 - Full consistency with the Balance Sheet	121	63	100

We consider this solution is the one that is both the most simple (same perimeter definition as the one defined for the BEL estimate) and the most consistent with Solvency 2 underlying principles.

=====

Alternative proposal : Estimate based on maximum possible exposure throughout the year

The « Premium risk » capital charge aims at covering unexpected losses that may occur during the following 12 months and affect the business existing at the date of the shock, including new business that the undertaking could not prevent to be written at that date. Hence, the volume at risk should not exceed the maximum volume that could be exposed to a shock occurring at any date during the 12 following months.

The assessment of this maximum volume at risk has been performed in the answer to question Q5.1.

- On Case 1 and Case 2, this maximum exposure corresponds to the exposure at closure date.
- On Case 3, the maximum exposure would be reached under the hypothesis of a shock accuring at the end of the period of notice, i.e. at the initial recognition date of future premiums to be written in N+2, under the very conservative assumption of a full renewal of the portfolio. It would correspond to 117% of the premium of year N+1 (17% of the premiums of year N+1 plus 100% of the premiums renewed on N+2). Hence, **the maximum exposure is equal to 14 months of premiums, and corresponds to the sum of the perimeter of the policy duration and of the period of notice.**

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

Premium volume perimeter definition:

The premium volume used to estimate the premium risk capital corresponds to a worst case scenario of commitments throughout the calendar year following the closure date.

Considering portfolios of policies that generate 100 units of earned premium volume per year, the volume at risk to be used for the premium risk estimate would be:

		Fixed duration contract (2,5 years)	Annual contract with tacit renewal at ...	
			Policy start date anniversary	01/01
		Case 1	Case 2	Case 3
V = V1 + V2	V1= UPR at worst case date	121	46	17
	V2= Unavoidable future premiums perimeter at worst case date	0	17	100
	Proposal 2 - Volume at risk at worst case date	121	63	117

We consider this proposal is a bit more complex than the previous one, as it requires the undertaking to determine its worst case scenario. But in most cases, this worst case scenario is identified in the risk management procedures of the undertaking. The SCR calculation would then be in line with the internal risk assessment of the undertaking and promote a sound risk management. This proposal does not enable full consistency with the balance sheet estimate, but it reduces the existing gap and results should become sustainable for the whole market.

=====

In any cases, since the calibrated shock aims at reflecting a 1/200 years event, any shock to be applied to periods posterior to the next 12 months should be much lower than the one applied on the next 12 months. Otherwise, the obtained quantile would be much higher than 99.5%.

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

The impact of proposed changes on the Premium Risk capital charge is proportional to the changes on premium volume.

		Fixed duration contract (2,5 years)	Annual contract with tacit renewal at ...	
			Policy start date anniversary	01/01
		Case 1	Case 2	Case 3
$V = \text{Max}(P_{\text{last}}, P) + \text{FPex} + \text{FPfut}$	P last	100		
	P	100		
	FP existing	43	46	0
	FP future (currently excluded)	18	14	83
	FP future (currently included)	60	3	17
	Current formula	203	149	117
	Review proposed by EIOPA	221	163	200
	Increase in capital charge	9%	9%	71%
$V = V1 + V2$	V1= UPR perimeter at closure date	121	46	100
	V2= Unavoidable future premiums perimeter at closure date	0	17	0
	Proposal 1 - Full consistency with the Balance Sheet	121	63	100
	V1= UPR at worst case date	121	46	17
	V2= Unavoidable future premiums perimeter at worst case date	0	17	100
	Proposal 2 - Volume at risk at worst case date	121	63	117

The impact on the overall SCR highly depends on the level of diversification of the undertaking.

Q5.3

The position of the French institute of actuaries “l’Institut des Actuaire” developed thereafter is in line with the position of the Actuarial Association of Europe.

We agree

- on the relevancy of a review of the volume measure underlying the premium risk,
- on the fact that the estimate should be reviewed with a view to decrease the dependency of the premium risk on pricing strategy and promote a sound risk management,
- on the fact that an increased prudency margin should not increase the capital charge due to premium risk.

Q5.4

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
	<p>The prudency margin should then be withdrawn from the volume measure underlying the estimate of the premium risk capital charge. But we consider the removal of the prudency margin from the volume measure is not the only adaptation to be foreseen. Please refer to following question for further elements.</p>	
<p>Q5.5</p>	<p>The position of the French institute of actuaries “Institut des Actuaire’s” developed thereafter is fully in line with the position of the Actuarial Association of Europe. The answer proposed therein nevertheless gets in deeper details and may help as a starting point for further discussions.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"><u>Executive summary:</u></p> <p>The earned premium is made up of several items. Of these, only the pure premium and claim management loadings aim at compensating for charges that are expected to increase in case of adverse claim deviation.</p> <ul style="list-style-type: none"> - Therefore, as a first estimate, premium risk volume measure should be equal to the expected present value of future claim payments plus related claim management overheads under central scenario. - Risk mitigating schemes beyond the mere reinsurance shemes should be promoted. Therefore, companies who have set up such schemes should be authorized to take their risk mitigating effects into account as far as they consider it is material. Acquisition fees are more and more commonly based upon the performance of the underwritten portfolio. For a more accurate estimate, we propose a calculation method that could easily be integrated in the standard formula. </div> <p style="text-align: center;"><u>Complete answer:</u></p> <p>The earned premium is made up with following building blocks:</p> <ul style="list-style-type: none"> ➤ the pure premium The pure premium is estimated as the expected present value of future claim charge. Under a shock scenario, the present value of future claim charge would be higher than the pure premium. This increase must be included in the premium risk capital charge. ➤ the technical margin 	

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

The technical margin is a fixed margin that aims at maintaining a positive technical result in scenarios where the claim experience is higher than expected. The technical margin is independent from the observed claim result, then it should not participate to the premium risk capital charge.

➤ **the acquisition loadings**

Acquisition loadings are charged in the premium to compensate for distribution expenses. Distribution expenses can

- either correspond to prepaid expenses (internal costs due internal distribution network management, or fees paid to a distributing partner at policy sale date as a fixed amount per policy or as a fixed percentage of the sold premiums),
- or correspond to delayed expenses or bonuses (fees paid at the end of the calendar year to a distributing network as a predetermined percentage of the positive result of the portfolio under predefined performance conditions). This fee structure aims at promoting a better alignment of interests between the undertaking and its distributing network by urging the distributing network to focus its sales on the population targeted by the product. But this fee structure being effective whatever the cause of the claim deviation, it is more generally a risk mitigating tool for the undertaking.

Prepaid acquisition expenses are independent from the observed claims. Thus they should not participate to the premium risk capital charge. Delayed acquisition expenses mechanically decrease in case of adverse evolution of the claim charge, this mechanism should then be allowed to reduce the premium risk capital charge. Moreover, the use of delayed acquisition expenses schemes participates to sound risk management and should be promoted.

➤ **the policy management loadings**

Policy management loadings are charged in the premium to compensate for policy management expenses. Policy management expenses are not directly linked to the observed claim. In most cases, they are independent from claim deviation. Under extreme claim deviation (which is the scenario under which the SCR is estimated) , one should nevertheless expect undetakings to expect their teams to gain in efficiency (ie : slash costs). Policy management costs should then be reduced. Still this reduction appears complex to objectively quantify, therefore we think its impact on the premium risk capital charge should not be taken into account in the estimation of the premium risk capital charge.

➤ **the claim management loadings**

Claim management loadings are charged in the premium to compensate for claim management expenses.

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

Under a scenario where claim charge would increase, the claim management expenses would also clearly increase.

- In case of an increase in claim charge linked to an increase in claim frequency, the claim management costs would probably increase approximately in proportion.

In case of an increase in claim charge linked to an increase in claim severity, the management expenses would probably also increase. Indeed, experience shows that the higher the amount of an individual claim, the more complex its management. Nevertheless, experience shows that this increase in expenses is less than proportional to the increase in claim charge. For simplicity reasons, we think that a proportional increase could be an acceptable approximation.

All in all, claim management loadings should be included on the premium risk capital charge. As a prudent simplification, they could be shocked using the same factor as the pure premium.

Earned Premium Items	Aim of the item	Sensitivity to claim deviation
Pure premium	Expected present value of future claim charge	Increase in claim charge
Technical margin	Fixed prudency margin that aims at maintaining the portfolio sustainability in case of medium claim deviance	Neutral
Loadings	Expected acquisition costs	Neutral for the fixed part of the distribution fees. Decrease in the variable part of the distribution fees
	Expected policy management costs	Neutral in case of medium claim deviance Decrease in policy management costs would probably be organized by the executive management in case of an extreme shock
	Expected claim management costs	Increase in claim management costs in proportion of the increase in claim intrance rate. Any increase in claim amounts would probably increase the claim management costs, but the increase should be less than proportionnal

Hence, **as a first estimate**, we consider the volume measure to be used to assess the premium risk capital charge should integrate the

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

mere following items:

- the earned pure premium
- the earned claim management loadings

On the perimeter at risk (see questions Q5.1 to Q5.3), the premium volume should then be equal to the expected present value of future claim payments plus related claim management overheads under central scenario.

For a **more accurate estimate**, we consider the impact of existing risk mitigating schemes, beyond the mere reinsurance schemes, should be integrated to reduce the overall premium risk capital charge.

The following calculation process could be used :

- Let V' be, as defined above, the expected present value of future claim payments plus related claim management overheads under central scenario on relevant perimeter.
- The overall premium risk capital charge K is equal to the impact on the insurer result of a loss of $3 \cdot \sigma \cdot V'$.
- Volume V is set equal to $(K) / (3 \cdot \sigma)$

For instance, let consider a Home Insurance portfolio (see table presented in answer to question 5.6) where, for 100 units of earned premium net of reinsurance, the expected claim payments are equal to 60, and the related claim management overheads are equal to 5, i.e. $V' = 60 + 5 = 65$

Let's consider two companies :

- Company 1 proposes to its distributing network a prepaid acquisition fee only of 20.
- Company 2 proposes to its distributing network a scheme with a prepaid acquisition fee of 16, and a delayed acquisition fee that is equal to 40% of the positive result of the portfolio

In the central scenario, The insurer result is equal to 6 in both cases.

These portfolio belong to LoB 4, then $\sigma = 8\%$, hence $3 \cdot \sigma \cdot V' = 3 \times 8\% \times 65 = 16$. It means that under a shock scenario, the portfolio experiences 16 units of extra losses, and the total claim charge (including claim management fees) reaches 81.

Under a shock scenario corresponding to the shock of the standard formula,

- Company 1 will support the whole loss of 16 units
- Company 2 will avoid distributing bonuses to its distributing network and only support a loss of 12 units.

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

The volume measure should then be reduced in proportion to the decrease in capital charge.

	Only prepaid acquisition fee scheme		Delayed acquisition fee scheme	
	Central scenario	Shock scenario	Central scenario	Shock scenario
Net Earned Premium	100	100	100	100
Policy management costs	9	9	9	9
(V') = Claims + claim mg ^t costs	65	81	65	81
Prepaid acquisition costs	20	20	16	16
Technical result	6	-10	10	-6
Delayed acquisition costs			4	0
Insurer Result	6	-10	6	-6
(K) = Capital charge	16		12	
➤ (V) = (K) / (3 x σ)	65		49	

This calculation may seem a bit complex, therefore it should not be obligatory, and the sole “first estimate” should be required. Nevertheless, this kind of bonus scheme promotes a sound risk management, therefore it should be promoted and undertakings should be authorized to take account of their risk mitigating effect on their capital charge as far as they consider it is material.

Q5.6

Based on 2014 consolidated data on the French market, using the proposed “first estimate” would **reduce by some 24%** the premium risk capital charge. But this decrease is not homogeneous on the market. Depending on the insurance bucket (to be linked to Solvency 2 Lines of Business -LoB), the change could spread from an **increase by 6%** (10-year inherent defects guaranty) to a **decrease by 45%** (Miscellaneous Non Life).

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

Bucket	Motor	Property - retail	Property - corporate	French law natural catastrophes	General third party liability	Marine/aviation /transport	Construction - ten years guarantees	Others	French non life market - 2014 figures
Main Solvency 2 line of business	Motor TPL Motor Other	Fire	Fire	Fire	TPL	MAT	TPL Fire	Legal expenses Assistance Misc	
Premiums (G€)	20,1	9,7	7,4	1,6	3,6	1,0	2,2	5,7	51,2
Pure premium	76%	62%	60%	69%	63%	58%	98%	47%	67%
Technical margin	-4%	1%	6%	2%	7%	2%	-24%	10%	0%
Acquisition costs	12%	17%	20%	16%	15%	21%	12%	27%	16%
Policy management costs	7%	8%	9%	8%	8%	12%	7%	8%	8%
Claim management costs	9%	11%	5%	6%	7%	7%	8%	9%	8%
Total at risk	84%	74%	65%	75%	70%	65%	106%	55%	76%

Precise data on the use of bonus systems being not consolidated on the whole French market, its impact cannot be estimated at the country level.

Q6.1		
Q7.1	The specifications should not be simplified but maybe more precise on different topics (see below)	
Q7.2	Idem AAE	
Q7.3	Idem AAE	
Q7.4		
Q7.5		
Q7.6	Idem AAE	
Q7.7		
Q7.8	Idem AAE	

**Comments Template on
Discussion Paper on the review of specific items in the Solvency II Delegated Regulation**

**Deadline
3 March 2017
23:59 CET**

Q7.9	Idem AAE	
Q7.10	Idem AAE	
Q7.11	Idem AAE	
Q7.12	Idem AAE	
Q7.13	Idem AAE	
Q8.1	Idem AAE	
Q8.2		
Q8.3		
Q8.4	Idem AAE	
Q8.5	Idem AAE	
Q8.6	Idem AAE	
Q8.7	Idem AAE	
Q8.8	Idem AAE	
Q8.9		
Q8.10	Idem AAE.	
Q8.11	Idem AAE	
Q8.12	Idem AAE	

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
Q9.1		
Q9.2		
Q9.3	Idem AAE	
Q9.4		
Q9.5		
Q10.1	<ul style="list-style-type: none"> - The model described is an amelioration of the Lee-Carter model since it is assumed that the observed number of deaths (given the exposures) follows a Poisson distribution. - The main drawback we see in this model is the fact that it does not take explicitly into account the cohort effect (generational effect) since the main parameters are age and calendar year. One way of integrating this dimension (cohort) is to use instead a Cairns-Blake-Dowd model (CBD model) in which this cohort effect is taken into account. 	
Q10.2	<ul style="list-style-type: none"> - Taking into account parameter uncertainty -> A bootstrap approach allows obtaining distributions for the different parameters of the model and to estimate their volatility (for example). - Taking into account model risk -> Three approaches permit taking into account model risk (Bayesian approach, approach by “Reference model”, approach “Worst case”) <p>In this case, the approaches “Reference model” and “Worst case” can be more adapted, for example when using the model presented in the Consultation Paper or when using a CBD model (or any other one). In this situation it might be better to use the TVaR as risk measure (instead of the VaR).</p> <p>It is worth noticing that the measure of model risk is another element that should be taken into account when choosing the final model. Furthermore, it seems to us that it is important not to decorrelate the choice of the model from the data available to calibrate both models and shocks.</p>	

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
Q10.3	<p>Yes, but in a framework of calibration of ORSA shocks, where it is possible to:</p> <ul style="list-style-type: none"> - Perform sensitivity tests about the future evolution of the trend - Take into account expert opinions - Use methods of detection of trend breaks (high level approach) 	
Q10.4	<p>Be careful with the HMD data (Human Mortality Database) which might be incomplete according to some researchers. The important point here is to conduct actions among the EU Members to make the data collected by state agencies available (for example INSEE in France could give access to mortality data).</p>	
Q10.5	<p>Two approaches seem possible :</p> <ul style="list-style-type: none"> - The first one consists in positioning (with parametric or non-parametric methods) the insured mortality with respect to a national table (calibrated with the model chosen) - The second one uses a credibility approach after calibrating the national table with the model chosen 	
Q10.6	<p>An approach with a non-uniform shock seems to us more appropriate but too complex to implement. We propose an approach according to which the uniform shock would be reviewed for example with regard to the average age of insured portfolios</p>	
Q10.7		
Q10.8		
Q10.9		
Q10.10		
Q11.1	Idem AAE	

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
Q11.2	The other standard parameters that could be replaced concern the disability / morbidity risk, lapse risk (up and down only) and non-life CAT risk.	
Q11.3	For the disability / morbidity risk, considering the nature of the risk, a similar approach to the one retained for the mortality and longevity risks could be applied. For the lapse risk, one could calculate the undertaking's historical lapse rates and its volatility. A simplified method could be: by considering for example that the lapse rates follow a normal distribution, one could then estimate its mean and variance and deduce the appropriate quantile. For this particular risk, one can consider that the 99.5 th percentile lapse rate levels are in general suited to calculate the 99.5 th percentile of the distribution of the respective liabilities.	
Q11.4	In the specific case of the premium risk, the data criteria could be improved by integrating the trends for the calculation of the USP factors to avoid the impact of long term trends over the volatility of the premium risk factor.	
Q11.5		
Q11.6		
Q11.7	Idem AAE	
Q11.8	Idem AAE	
Q11.9		
Q12.1		
Q12.2		
Q12.3	Idem AAE	
Q12.4	<ul style="list-style-type: none"> - Article 197 considering Risk-adjusted value of collateral: too complex for standard cases as reinsurance exposures or derivatives. - Article 192: reference to 60 % or more of the counterparty's assets subject to collateral arrangements requires additional informations and regular assessment not easy to get. - Cash at bank exposures : within transpatisation process, the final counterparty is not necessarily known. Additional processes costs should be spent to get information, getting poor information for SCR calculation. 	
Q12.5	Idem AAE	
Q12.6	Idem AAE	

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
Q12.7	Idem AAE	
Q13.1		
Q13.2		
Q13.3		
Q13.4		
Q13.5		
Q13.6		
Q14.1	Idem AAE	
Q14.2	Idem AAE	
Q14.3		
Q14.4	Idem AAE	
Q14.5		
Q14.6		
Q14.7		
Q14.8		
Q14.9	No	
Q14.10		
Q14.11		
Q14.12		
Q15.1	No	
Q15.2	No	
Q15.3	If t is a component of the SCR which can lead to an over-assessment of the SCR as mentioned in Q15.1 it should not impact the assessment of the fungible own funds	
Q15.4	Moreover, the solo currency SCR is also overestimated because : <ul style="list-style-type: none"> - it is assessed without considering any diversification effect between the different currencies - The calibration of the currency risk realised by CEIOPS for the standard formula derives from a calculation of Value-At-Risk (VaR) for each currency of the market global currency exposure benchmark. The currency standard formula stress coefficient results 	

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
	from the weighted average of these VaR instead of a unique VaR calculated from a composite index representing the market currency benchmark.	
Q16.1		
Q16.2		
Q16.3	Costs: The detailed look-through information is not always available or would need an additional cost and/or additional time to process the look-through data Benefits: In some cases, depending on the related undertaking type of investment, the look-through approach could result in a lower SCR and an improved Solvency ratio. It also helps having a more precise view of all the market underlying risks.	
Q16.4	The extended application of the look-through approach to investment related undertakings can impact the SCR amount by reducing or increasing it, depending on the type of underlying assets (debt or equity investment)	
Q16.5	It should be applied when the value of the assets invested is considered as material, by defining a relation with the overall asset value concerned by market risk. For example, when the investment related undertaking represents more than 10% of the total asset value.	
Q16.6	It could be interesting to add another threshold condition relative to the overall assets value, to avoid additional costs for small insurance companies.	
Q16.7	This threshold seems too low for investments which are backing unit-linked products. As far as the risk is supported by the policy holders, the investments related to unit-linked products could be entirely allowed for a simplification approach like a data grouping approach. We believe that cost-benefit and materiality considerations should be allowed for on lookthrough topics, more flexibility should be possible in line with principle of proportionality, and some of the simplifications previously allowed under QIS.	
Q16.8		
Q16.9		
Q17.1	Idem AAE	
Q17.2	Idem AAE	
Q17.3	Idem AAE	
Q17.4	Idem AAE	

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
Q17.5	Idem AAE	
Q17.6	Idem AAE	
Q17.7	Idem AAE	
Q17.8	Idem AAE	
Q17.9	Idem AAE	
Q17.10	It is difficult to obtain a deep historical data set composed with annual interest rate curves. So an alternative approach could consist on using a shorter time-window. We propose the use of quarterly data to avoid for excessive auto-correlations which give rise to a potential misfitting of the interest rate risk. EIOPA should also as mentioned in 17.1 work on building a deeper data set. Longer time windows should be used: ann.,qrt,mo. Scaling of shorter time volatility into annual shock could be problematic. Would not expect basic sqrt(T) scaling to work well in all circumstances.	
Q17.11	Idem AAE	
Q17.12	Idem AAE	
Q17.13	Idem AAE	
Q17.14		
Q17.15	See also 17.3 Instead of absolute or relative stress term as a parameter should be introduced to the calibration concept. One option could be to calibrate shocks dependent upon term. Here, stress could diminish in the long term structure of the curve since eventually the curve depends on the UFR rather than real observed prices / values. So stresses in the extrapolation zone of the curve should tend to impact the curve much less since the UFR reflects a final ultimate rate that could – as currently suggested – change its value due to changes in the components that make up the UFR value itself. The method deriving the UFR limits yearly impact to a number of BP. Stress calibration needs to be in line with this concept and should therefore not stress the extrapolated portion more than the concept of UFR-derivation suggests.	
Q17.16	Idem AAE	
Q18.1	No	
Q18.2	We think that returns to be taken into account in the recoverability of the IDAs or the absorptive capacity should solely take into account the financial returns of new business	

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
Q18.3	Idem AAE	
Q18.4	<p>A projection of both economic (Solvency II for economic aspect) and fiscal profits and losses (to take into account tax restatements) should be required.</p> <p>Fiscal and economic profits can differ depending on the fiscal rules of the territory. For example in France, some tax will be assessed based on realised returns on equities, not on market returns.</p> <p>Therefore, when it comes to assessing the LAC it is important to assess future tax profits or losses.</p>	
Q18.5	<p>From an operational point of view, one approach would be to define an equivalent scenario in order to identify the origin of the losses to which the SCR corresponds (without diversification) and thus to assess the potential impacts on New Business.</p> <p>Ideally new business should reflect both policyholder and management actions and could be scenario dependent if this is appropriate, feasible and material. It should be consistent with ORSA scenarios.</p>	
Q18.6	<ul style="list-style-type: none"> - the régulation should allow at minimum, the horizon chosen for the ORSA. - Tax rules, such as the time limit for the use of deficits, should also be taken into account. 	
Q18.7	A link between the recovery period in the ORSA and in the LAC DT could be envisaged to offset differences between jurisdictions.	
Q18.8	<p>New business could be included over an horizon consistent with the business plan and ORSA.</p> <p>Resulting returns on assets and liabilities could be considered over the life of the contract.</p>	
Q18.9	Although this approach would be a sensible reduction in the subjectivity of the calculation, this would not reflect the economic value of the DT adequately and may lead to material flaws the LAC estimation	
Q18.10		
Q18.11	Idem AAE	
Q18.12		
Q18.13		
Q18.14		
Q18.15		
Q18.16		
Q19.1	Risk margin valuation had been defined for several years in a different economic environment: negative interest rates weren't expected	

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
	<p>by the markets. Since four years, the market yields (swap, govies ...) have fallen and remains at a very low level including negative yields in some market at some maturity. In these conditions, it can be more difficult to justify the level of 6 % for the cost of capital. This level would also be coherent with the possible revision of the ultimate forward rate to a lower value. Therefore in comparison with the weighted average cost of capital (gearing methods or WACC approach) used in some valuation methodologies, using 6% for all market, all currencies is none of the least a simplistic approach but incoherent with the reality of the cost of capital nowadays. Methods deriving risk margin CoC percentage should be in line with derivation of UFR. Long-term averages and data should be available for the assumption of spread over risk free rate accordingly. Thus, a direct link to capital market movements will be given and would reflect in a similar manner ideas that have been taken into account following UFR discussion.</p>	
Q19.2	<p>We agree to avoid artificial volatility with the pro-cyclical use of a “market” cost of capital. We prefer to use a new calibration to reflect the fall of the yield but in a long term perspective. So we would be a favor of a stability of the new cost of capital with an appropriate justification or calibration (for example 4% instead of 6%) in consistency with the long term economical approaches. Due to long-term usage of risk margin approach, the cost of capital percentage value should be based upon long-term, average rate since calculations do take a very long time span into account.</p>	
Q19.3	<p>The risk margin is significant in the economic balance sheet since the introduction of Solvency II. The LoBs with long term maturities are logically more impacted by the RM valuation. The contracts boundaries is therefore an issue in particular for liabilities with future projected premiums. Avoiding too much complexity in RM calculation facilitates its analysis. Therefore, the possibility to use simple methodologies is important. The methods of calculation differ a lot between insurers and can be very complex without economic consideration (stochastic on stochastics calculations in a risk neutral world for example).</p>	
Q19.4	<p>The current formula causes technical issues for the valuation of the RM due to the complexity for actuarial models to project the SCR. Also, the selected simplification between those proposed by the regulator has significant impact on the amount of the RM. The projection of a simple metric would facilitate the RM calculation. Moreover, the undertaking absorbing the insurance liabilities with benefits from other additional diversification effects, due to its own initial insurance liabilities. Its SCR could thus be lower. For these reasons, another metric, such as the linear MCR, could be considered for the calculation of RM.</p>	
Q20.1		

Comments Template on Discussion Paper on the review of specific items in the Solvency II Delegated Regulation		Deadline 3 March 2017 23:59 CET
Q20.2		
Q20.3		
Q20.4		
Q20.5		
Q20.6		
Q20.7		
Q20.8		
Q20.9		
Q21.1		
Q21.2		
Q21.3		
Q21.4		
Q21.5		
Q21.6		
Q21.7		