

**CEIOPS' Advice for
Level 2 Implementing Measures on Solvency II:
Capital Add-On**

(former Consultation Paper 57)

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1. Introduction

- 1.1. In its letter of 19 July 2007, the European Commission requested CEIOPS to provide final, fully consulted, advice on Level 2 implementing measures by October 2009 and recommended CEIOPS to develop Level 3 guidance on certain areas to foster supervisory convergence. On 12 June 2009 the European Commission sent a letter with further guidance regarding the Solvency II project, including the list of implementing measures and timetable until implementation.¹
- 1.2. This Paper aims at providing advice for Level 2 measures with regard to the power to set a capital add-on as provided for in Article 37 of the Solvency II Level 1 text² ("Level 1 text"). According to Article 37(6) of the Level 1 text the European Commission shall adopt implementing measures laying down further specifications for the circumstances under which a capital add-on may be imposed and the methodologies for the calculation thereof.
- 1.3. The Advice also develops the requirements for setting a capital add-on in a group context, further to Article 234 of the Level 1 text. In developing this advice CEIOPS has considered feedback to CEIOPS' Consultation Paper on Draft Level 2 Advice on Capital Add-on³, and has published responses to the feedback on its website.
- 1.4. In order to show what CEIOPS considers appropriate for Level 2 implementing measures, the relevant passages have been clearly identified by highlighting them within the text ("blue boxes"). All other comments are either views on the Level 1 text, explanatory text to the advice on Level 2 implementing measures or possible areas which future Level 3 guidance might cover.
- 1.5. In presenting the proposals for Level 2, there are a number of separate aspects that will be subject to an impact assessment. These include the assessment of a significant deviation of the risk profile, the definition of an appropriate timeframe and the methodology to calculate a capital-add-on. On these areas CEIOPS has considered alternative proposals. More details on the rationale for the preferred option are included in Annex 2 and 3.
- 1.6. CEIOPS has also highlighted some general principles that are to be considered while dealing with the issue of setting a capital add-on. However, these are aimed at representing only the general thinking of CEIOPS regarding the issue of the setting of a capital add-on and have therefore not been proposed for advice in Level 2 implementing measures.
- 1.7. CEIOPS would like to underline the fact that although the Level 1 text requires circumstances and methodologies to be "further specified", thereby not explicitly calling for a high level of harmonisation, the Advice also attempts to contribute to the promotion of a high degree of supervisory convergence to be applied in the use of a capital add-on.

¹ <http://www.ceiops.eu/media/files/requestsforadvice/EC-June-09-CfA/Letter-of-EC.pdf>

² <http://register.consilium.europa.eu/pdf/en/09/st03/st03643-re01.en09.pdf>.

³ <http://www.ceiops.eu/content/view/608/18/>

1.8. The Advice is separated into three main parts:

- a) Explanatory text and advice for the setting of a capital add-on on the "solo" level;
- b) Explanatory text and advice for the setting of a capital add-on at the level of the group;
- c) CEIOPS' thinking on what could be done in order to enhance supervisory convergence.

2. Extract from Level 1 text

RECITALS 26 TO 28 OF THE LEVEL 1 TEXT

- (26) *The starting point for the adequacy of the quantitative requirements in the insurance sector is the Solvency Capital Requirement. Supervisory authorities should therefore have the power to impose a capital add-on to the Solvency Capital Requirement only under exceptional circumstances, in the cases listed in this Directive, following the supervisory review process. The Solvency Capital Requirement standard formula is intended to reflect the risk profile of most insurance and reinsurance undertakings. However, there may be some cases where the standardised approach does not adequately reflect the very specific risk profile of an undertaking.*
- (27) *The imposition of a capital add-on is exceptional in the sense that it should be used only as a measure of last resort, when other supervisory measures are ineffective or inappropriate. Furthermore, the term exceptional should be understood in the context of the specific situation of each undertaking rather than in relation to the number of capital add-ons imposed in a specific market.*
- (28) *The capital add-on should be retained for as long as the circumstances under which it was imposed are not remedied. In the event of significant deficiencies in the full or partial internal model or significant governance failures the supervisory authorities should ensure that the undertaking concerned makes every effort to remedy the deficiencies that led to the imposition of the capital add-on. However, where the standardised approach does not adequately reflect the very specific risk profile of an undertaking the capital add-on may remain over consecutive years.*

RECITAL 41 OF THE LEVEL 1 TEXT

- (41) *The objective of the information and report to be presented in relation to capital add-ons by CEIOPS is not to inhibit their use as permitted under this Directive but to contribute to an ever higher degree of supervisory convergence in the use of capital add-ons between supervisory authorities in the different Member States.*

ARTICLE 37 OF THE LEVEL 1 TEXT

Capital add-on

1. *Following the supervisory review process supervisory authorities may in exceptional circumstances set a capital add-on for an insurance or reinsurance undertaking by a decision stating the reasons. That possibility shall exist only in the following cases:*
 - (a) *the supervisory authority concludes that the risk profile of the insurance or reinsurance undertaking deviates significantly from the assumptions underlying the Solvency Capital Requirement, as calculated using the standard formula in accordance with Chapter VI, Section 4, Subsection 2 and:*

- (i) *the requirement to use an internal model under Article 119 is inappropriate or has been ineffective; or*
 - (ii) *while a partial or full internal model is being developed in accordance with Article 119;*
 - (b) *the supervisory authority concludes that the risk profile of the insurance or reinsurance undertaking deviates significantly from the assumptions underlying the Solvency Capital Requirement, as calculated using an internal model or partial internal model in accordance with Chapter VI, Section 4, Subsection 3, because certain quantifiable risks are captured insufficiently and the adaptation of the model to better reflect the given risk profile has failed within an appropriate timeframe; or*
 - (c) *the supervisory authority concludes that the system of governance of an insurance or reinsurance undertaking deviates significantly from the standards laid down in Chapter IV, Section 2, that those deviations prevent it from being able to properly identify, measure, monitor, manage and report the risks that it is or could be exposed to and that the application of other measures is in itself unlikely to improve the deficiencies sufficiently within an appropriate timeframe.*
2. *In the circumstances set out in points (a) and (b) of paragraph 1 the capital add-on shall be calculated in such a way as to ensure that the undertaking complies with Article 101(3).*

In the circumstances set out in point (c) of paragraph 1 the capital add-on shall be proportionate to the material risks arising from the deficiencies which gave rise to the decision of the supervisory authority to set the add-on.

3. *In the cases set out in points (b) and (c) of paragraph 1 the supervisory authority shall ensure that the insurance or reinsurance undertaking makes every effort to remedy the deficiencies that led to the imposition of the capital add-on.*
4. *The capital add-on referred to in paragraph 1 shall be reviewed at least once a year by the supervisory authority and be removed when the undertaking has remedied the deficiencies which led to its imposition.*
5. *The Solvency Capital Requirement including the capital add-on imposed shall replace the inadequate Solvency Capital Requirement.*

Notwithstanding subparagraph 1 the Solvency Capital Requirement shall not include the capital add-on imposed in accordance with point (c) of paragraph 1 for the purposes of the calculation of the risk margin referred to in Article 77(5).

6. *The Commission shall adopt implementing measures laying down further specifications for the circumstances under which a capital add-on may be imposed and the methodologies for the calculation thereof.*

Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 301(3).

ARTICLE 51 OF THE LEVEL 1 TEXT

Report on solvency and financial condition: contents

2. ...

The disclosure of the Solvency Capital Requirement referred to in point (e)(ii) of paragraph 1 shall show separately the amount calculated in accordance with Chapter VI, Section 4, Subsections 2 and 3 and any capital add-on imposed in accordance with Article 37 or the impact of the specific parameters the insurance or reinsurance undertaking is required to use in accordance with Article 110, together with concise information on its justification by the supervisory authority concerned.

However, and without prejudice to any disclosure that is mandatory under any other legal or regulatory requirements, Member States may provide that, although the total Solvency Capital Requirement referred to in point (e)(ii) of paragraph 1 is disclosed, the capital add-on or the impact of the specific parameters the insurance or reinsurance undertaking is required to use in accordance with Article 110 need not be separately disclosed during a transitional period ending no later than 31 October 2017.

...

ARTICLE 52 OF THE LEVEL 1 TEXT

Information for and reports by CEIOPS

1. *Member States shall require the supervisory authorities to provide the following information to CEIOPS on an annual basis:*

(a) the average capital add-on per undertaking and the distribution of capital add-ons imposed by the supervisory authority during the previous year, measured as a percentage of the Solvency Capital Requirement, shown separately as follows:

(i) for all insurance and reinsurance undertakings;

(ii) for life insurance undertakings;

(iii) for non-life insurance undertakings;

(iv) for insurance undertakings pursuing both life and non-life activities;

(v) for reinsurance undertakings;

(b) for each of the disclosures set out in point (a), the proportion of capital add-ons imposed under points (a), (b) and (c) of Article 37(1) respectively.

2. *CEIOPS shall publicly disclose, on an annual basis, the following information:*

(a) for all Member States together, the total distribution of capital add-ons, measured as a percentage of the Solvency Capital Requirement, for each of the following:

(i) all insurance and reinsurance undertakings;

(ii) life insurance undertakings;

- (iii) *non-life insurance undertakings;*
 - (iv) *insurance undertakings pursuing both life and non-life activities;*
 - (v) *reinsurance undertakings;*
 - (b) *for each Member State separately, the distribution of capital add-ons, measured as a percentage of the Solvency Capital Requirement, covering all insurance and reinsurance undertakings in that Member State;*
 - (c) *for each of the disclosures referred to in points (a) and (b), the proportion of capital add-ons imposed under points (a), (b) and (c) of Article 37(1) respectively.*
- 3. *CEIOPS shall provide the information referred to in paragraph 2 to the European Parliament, the Council and the Commission, together with a report outlining the degree of supervisory convergence in the use of capital add-ons between supervisory authorities in the different Member States.*

ARTICLE 119 OF THE LEVEL 1 TEXT

Significant deviations from the assumptions underlying the standard formula calculation

Where it is inappropriate to calculate the Solvency Capital Requirement in accordance with the standard formula, as set out in Subsection 2, because the risk profile of the insurance or reinsurance undertaking concerned deviates significantly from the assumptions underlying the standard formula calculation, the supervisory authorities may, by means of a decision stating the reasons, require the undertaking concerned to use an internal model to calculate the Solvency Capital Requirement, or the relevant risk modules thereof.

ARTICLE 231(7) OF THE LEVEL 1 TEXT

Group internal model

- (7) *Where any of the supervisory authorities concerned considers that the risk profile of an insurance or reinsurance undertaking under its supervision deviates significantly from the assumptions underlying the internal model approved at group level, and as long as that undertaking has not properly addressed the concerns of the supervisory authority, that authority may, in accordance with Article 37, impose a capital add-on to the Solvency Capital Requirement of that insurance or reinsurance undertaking resulting from the application of such internal model.*

In exceptional circumstances, where such capital add-on would not be appropriate, the supervisory authority may require the undertaking concerned to calculate its Solvency Capital Requirement on the basis of the standard formula referred to in Title I, Chapter VI, Section 4, Subsections 1 and 2. In accordance with points (a) and (c) of Article 37(1), the supervisory authority may impose a capital add-on to the Solvency Capital Requirement of that insurance or reinsurance undertaking resulting from the application of the standard formula.

The supervisory authority shall explain any decision referred to in the first and second subparagraphs to both the insurance or reinsurance undertaking and the group supervisor.

ARTICLE 232 OF THE LEVEL 1 TEXT

Group capital add-on

In determining whether the consolidated group Solvency Capital Requirement appropriately reflects the risk profile of the group, the group supervisor shall pay particular attention to any case where the circumstances referred to in points (a) to (c) of Article 37(1) may arise at group level, in particular where:

- (a) a specific risk existing at group level would not be sufficiently covered by the standard formula or the internal model used, because it is difficult to quantify;*
- (b) a capital add-on to the Solvency Capital Requirement of the related insurance or reinsurance undertakings is imposed by the supervisory authorities concerned, in accordance with Articles 37 and 231(7).*

Where the risk profile of the group is not adequately reflected, a capital add-on to the consolidated group Solvency Capital Requirement may be imposed.

Article 37(1) to (5), together with implementing measures taken in accordance with Article 37(6), shall apply mutatis mutandis.

3. Advice on ‘solo’ capital add-on

3.1. Objectives for CEIOPS proposals

- 3.1. In considering the requirements arising under Article 37, the objectives set out for Solvency II by the European Commission⁴ are:
- a) Introduce risk-sensitive harmonised solvency standards (objective 3.3.3);
 - b) Introduce proportionate requirements for small undertakings (objective 3.3.4); and
 - c) Harmonise supervisory powers, methods and tools (objective 3.3.5).

3.2. Objective of a capital add-on

Principle 1

Setting a capital add-on is a supervisory power aimed at ensuring an adequate level of Solvency Capital Requirement (SCR), thereby protecting policyholders’ interests and preserving a level playing field.

- 3.2. For the purposes of this Advice, CEIOPS has classified a capital add-on into two types:
- a) Capital add-on triggered by a significant deviation from the risk profile embedded in the Solvency Capital Requirement (SCR) calculation, either calculated by the standard formula or by an internal model (Article 37(1)(a) and (b)), referred to in this Advice as a “Risk Profile Capital Add-On”; and
 - b) Capital add-on triggered by a significant governance deficiency (Article 37(1)(c)), which will be referred to as a “Governance Capital Add-On”.
- 3.3. A **Risk Profile Capital Add-On** aims to ensure that the SCR corresponds to the level defined in the Level 1 text, i.e. a confidence level of 99.5% over a one-year period. Nevertheless, setting such a capital add-on is not a substitute for either the development of an adequate (partial) internal model, the improvement of an inadequate (partial) internal model or any other measure such as using undertaking specific parameters.
- 3.4. A **Governance Capital Add-On** aims to protect policyholders’ interests in situations where a significant flaw in an undertaking’s system of governance prevents it from being able to properly identify, measure, monitor, manage or report its risks and where this cannot be remedied within an appropriate timeframe. Setting a Governance Capital Add-On is a measure taken to ensure that the SCR is high enough to cover the increased risks arising from the significant governance deficiency. The capital add-on does however not absolve the undertaking from complying

⁴ See Chapter 3 of the EC Impact Assessment Report at http://ec.europa.eu/internal_market/insurance/docs/solvency/impactassess/final-report_en.pdf. References after the objectives refer to this document.

with governance requirements as specified in the Level 1 text. The undertaking still has to remedy the deficiencies identified.

- 3.5. Supervisory authorities have the power to set a capital add-on. This power shall be used as a corrective and not as a punitive measure. This means that a capital add-on cannot be used to punish an undertaking for not complying with requirements, but only to increase the SCR appropriately to adequately protect policyholders.
- 3.6. Setting a capital add-on is a supervisory measure only to be used in “exceptional circumstances”. On the one hand, setting a capital add-on is an exceptional measure since the circumstances under which it can be applied are very specific and comprehensively listed in Article 37. On the other hand, as clarified in Recital 27 of the Level 1 text, the “expression exceptional should be understood in the context of the specific situation of each undertaking rather than in relation to the number of capital add-ons imposed in a specific market”.
- 3.7. The expression “last resort measure” in Recital 27 means that other supervisory measures are considered to be ineffective or inappropriate, i.e. other potential management actions of the undertaking and/or alternative measures applied by the supervisory authority to remedy the deviation have failed, are unlikely to succeed or are not feasible. This should be considered in the context of a going concern.
- 3.8. A capital add-on should, as far as possible, be transitory, pending, for example, the implementation or adaptation of an internal model, either full or partial, or the correction of a deficiency of the undertaking’s system of governance.

3.3. Due process for setting a capital add-on

Principle 2

The setting of a capital add-on should follow a due process. The supervisory authority should give proper consideration to whether a capital add-on is an adequate supervisory measure, taking into account the position of the undertaking concerned.

- 3.9. As stated before, CEIOPS believes that it is important to contribute to the promotion of a high degree of supervisory convergence to be applied in the setting of a capital add-on. The establishment of harmonised principles on due process is one of the tools envisaged by CEIOPS to achieve this.
- 3.10. The Level 1 text states that a capital add-on could be set following the supervisory review process (SRP) and only after other measures have been duly considered. According to CEIOPS’ view, explained in its “Issues Paper on Supervisory Review Process and Reporting Requirements”⁵, the SRP is a continuous process.
- 3.11. As the SRP is continuous, there is no “after the SRP”. In CEIOPS’ view the expression “following the supervisory review process” is to be read as

⁵ http://www.ceiops.eu/media/docman/public_files/consultations/CEIOPS-IGSRR-18-08%20Issues%20Paper%20on%20SRP%20and%20Reporting-final.pdf

“following any conclusions or findings of a supervisory review” and may cover any review focused on a specific issue or risk area, but does not necessarily imply that a full review of the undertaking is required. A full review may take a long time, so being able to set a capital add-on after a targeted supervisory review is a way to protect policyholders’ interest on a timely basis.

- 3.12. Supervisory authorities should perform their duties in a transparent, accountable and proportionate way. These principles apply to all supervisory measures, including the SRP, and consequently also apply to the process of setting a capital add-on, i.e. the process of identifying and assessing the possible need for a capital add-on and the subsequent calculation.
- 3.13. According to Article 28 of the Level 1 text, supervisory authorities should consider the effect of pro-cyclicality, especially under market stress situations. In the context of setting a capital add-on, CEIOPS believes that the provisions introduced in Article 138(4) of the Level 1 text in relation to the flexibility given to the supervisory authority when dealing with situations of non-compliance with the SCR during exceptional fall in financial markets are sufficient to tackle the issue of pro-cyclicality. In order to ensure a level playing field between undertakings regarding the level of the SCR and not to present to the public an incorrect picture of the capital needs of undertakings, pro-cyclicality considerations should not prevent the supervisory authority from setting a capital add-on where this is necessary to reflect the true risk profile of undertakings. If, as a consequence of the setting of a capital add-on, a number of undertakings breach the SCR, the supervisory authority should exercise its powers with due regard to pro-cyclical effects.
- 3.14. CEIOPS believes that the process of setting a capital add-on should be harmonised as far as possible. As a consequence of this, there should be a convergence in the circumstances under which a capital add-on is being set.
- 3.15. When assessing whether a capital add-on is an appropriate supervisory measure to apply, the supervisory authority should give proper consideration to all relevant circumstances, taking into account the position of the undertaking concerned.
- 3.16. A due process for setting a capital add-on implies at least⁶:
 - a) That all the relevant steps (such as the identification of an issue, the assessment of the issue and then the calculation of an add-on if appropriate) have been followed;
 - b) That the results from the steps have been properly documented; and
 - c) That any relevant conclusion reached or measure taken by the supervisory authority has been shared with the undertaking concerned, and that the undertaking has been given the opportunity to present its views on these conclusions or measures including

⁶ These requirements regarding the due process of setting a capital add-on are additional to any particular requirements that supervisory authorities have to follow under their national legislation, e.g. requirements linked to constitutional rights or appeal processes, where these do not conflict with the EU legislation.

providing additional information within an appropriate timeframe. What is to be considered “appropriate” in this context is not only influenced by what is fair to the undertaking but also by how urgent the situation is from the point of view of policyholders’ protection.

- 3.17. Since setting a capital add-on is only one of a number of powers available to the supervisory authority, CEIOPS believes that the appeal process applicable to the setting of a capital add-on should not be different from that applicable to other supervisory measures, i.e. the steps undertakings could take against the decision to set a capital add-on are determined by national law.
- 3.18. CEIOPS expects undertakings to fully co-operate in the due process by providing the supervisory authority with all relevant information in a timely manner.
- 3.19. CEIOPS believes that the harmonisation of the process will be an ongoing task for which several tools can be used. More details of how CEIOPS envisages reaching an appropriate level of harmonisation are explained under Chapter 5 (Supervisory convergence) of this Advice.

3.3.1. Identification

Principle 3

Any deviation by an undertaking from the requirements set out in the Level 1 text and further specified in Level 2 implementing measures should be addressed by the undertaking taking into account the principle of proportionality. Only significant risk profile or governance deviations are relevant for the purpose of setting a capital add-on.

- 3.20. CEIOPS has no doubt that supervisory authorities will use Level 3 guidance appropriately when assessing compliance with Level 1 and 2 requirements. However, CEIOPS believes that the role of Level 3 guidance is to support Level 1 and Level 2 requirements and therefore it is not possible to base a capital add-on on non-compliance with Level 3 guidance as such.
- 3.21. The process of identifying a deviation will normally start when a particular situation identified during the SRP gives the supervisory authority an indication of:
 - a) A deviation from the risk profile of the undertaking in relation to assumptions underlying the standard formula/approved (partial) internal model; or
 - b) A non-compliance with the governance requirements as defined in the Level 1 text and Level 2 implementing measures.Furthermore, CEIOPS envisages situations where, based on valid evidence, either qualitative or quantitative, the supervisory authority undertakes a review to assess the situation more thoroughly and may identify deviations.
- 3.22. A risk profile deviation could be identified, for example, *via* the analysis of ratios, *via* stress tests or *via* supervisory enquiries. The main source is

likely to be the quantitative information received periodically from undertakings.

- 3.23. According to Article 101(3), all quantifiable risks should be captured in the Solvency Capital Requirement and it should be calibrated to a VaR of 99.5% over a 1 year time horizon. Consequently, a risk profile deviation may arise from any quantifiable risk, whether or not those risks are explicitly covered in the standard formula, since there are risks that, although not quantifiable in a standardised approach, may be quantifiable in relation to a specific undertaking.
- 3.24. Non-quantifiable risks would not result in a Risk Profile Capital Add-On but would instead require adequate qualitative measures to be taken to ensure that these additional risks are dealt with appropriately. Only if such risk management measures were not introduced by the undertaking or failed to sufficiently address the risks could a capital charge be placed on the undertaking in the form of a Governance Capital Add-On.
- 3.25. Consequently, CEIOPS recognises that it is important that there is a common view regarding which risks are quantifiable and which risks are not and therefore will work in future, based on experience, on Level 3 guidance regarding this issue. CEIOPS considers that from a practical point of view it is not advisable to have any kind of list of quantifiable risks at Level 2 since this will depend on the data available regarding each risk and also because the risk environment is dynamic.
- 3.26. A governance deficiency could be identified *via* on-site inspections, either periodic or triggered by an off-site analysis (e.g. deficient reporting, late reporting, changes in key functions⁷ or members of administrative, management or supervisory body, etc.) *via* supervisory enquiries or *via* the supervisory authority's knowledge of any other relevant information (e.g. auditor's report).
- 3.27. After first identifying the problem the supervisory authority should assess whether the identified deviation is significant and, if affirmative, discuss the situation with the undertaking, to decide what kind of measures could be taken, both upon the own initiative of the undertaking or following the application of other supervisory measures upon it.

3.3.1.1. Risk profile deviation for undertakings using the standard formula

- 3.28. Where an undertaking using the standard formula has a risk profile deviation that the supervisory authority concludes is not significant, the undertaking should, in any event, reinforce the risk management and the internal control systems to ensure that the risk not adequately covered by the standard formula is properly identified, measured, managed, monitored and reported. Thus the deviation is addressed in a qualitative way.

⁷ Recital 31 of the Level 1 text explains that "a function is an administrative capacity to undertake particular governance tasks.

- 3.29. Where the deviation is considered to be significant, supervisory authorities should first consider other possible and adequate tools before setting a capital add-on, i.e. use of entity-specific parameters, change of risk profile or development of a partial or full internal model⁸.
- 3.30. According to Article 110 of the Level 1 text, when the deviation is caused by underwriting risk, an alternative solution could be to require that a subset of the parameters used in the standard formula calculations be replaced by parameters specific to the undertaking for the underwriting risk module. As it is the less onerous measure, it may, subject to the principle of proportionality, be considered first, before any requirement to use a (partial) internal model. If such a measure is not feasible or appropriate (for instance, because the deviation concerns risks for which the use of undertaking-specific parameters is not available), the development of a partial or full internal model should be considered.
- 3.31. If the use of an internal model is deemed "inappropriate" or "ineffective" a capital add-on may be set.
- 3.32. CEIOPS foresees that the main situation where developing a (partial) internal model could appear "inappropriate" may occur when the resources required to develop a (partial) internal model are disproportionate when compared to the nature, scale and complexity of the risks that are inadequately captured.
- 3.33. If the development of a (partial) internal model is considered to be the most appropriate solution, the undertaking should immediately instigate the process and the supervisory authority should assess whether a capital add-on is needed during this development period.
- 3.34. The "ineffectiveness" would be assessed after the development of an internal model as required in application of Article 119. The wording of the Level 1 text "has been ineffective" presupposes a required and unsuccessful attempt to model all the material risks through a full internal model (or a specific risk for a partial internal model).
- 3.35. The evaluation of the conditions under which the requirement to use an internal model under Article 119 has been ineffective refers directly to the general approval process of (partial) internal models, namely to the circumstances that may lead to the rejection of a model. Consequently, the criteria to assess whether the requirement to use an internal model under Article 119 has been ineffective should be the same as the criteria for approval of internal models in general.

3.3.1.2. Risk profile deviation for undertakings using an internal model

- 3.36. When the risk profile of the undertaking deviates significantly from the assumptions underlying the SCR as calculated using a (partial) internal model, under the provisions of Article 118 of the Level 1 text the

⁸ In CEIOPS' view, after the identification of the deviation and if the use of entity-specific parameters cannot resolve the deviation, the undertaking should decide whether it is able and willing to change its risk profile before other measures are considered. The requirement to change the risk profile, as a supervisory measure, could only be considered where an undertaking is in breach of the SCR and where the undertaking cannot otherwise remedy this situation in the timeframe provided by the Level 1 text.

undertaking shall present to the supervisory authority a plan to restore compliance within a reasonable period of time. Significant deviations in the risk profile are a special case of non-compliance with standards expressed in Articles 121 to 123.

- 3.37. Compliance can be restored through several measures, including, among others:
- a) Changing the model regarding risks already covered by the approved internal model, as in Article 113 of the Level 1 text and the related Level 2 implementing measures⁹;
 - b) Require a model scope extension to risks not yet covered by the approved internal model, if applicable; and
 - c) Changing the risk profile.
- 3.38. If the undertaking fails to implement the compliance restoration plan within a reasonable period of time, the supervisory authority will be faced with options, depending on the circumstances, to:
- a) Extend the time period to implement the compliance restoration plan as it is;
 - b) Extend the time period to implement the compliance restoration plan, but require amendments to this;
 - c) Require the undertaking to fully revert to the standard formula; and/or
 - d) Require the undertaking to revert to the standard formula, but allow the use of a partial internal model.
- 3.39. A capital add-on may be set if the actions listed above cannot be implemented during an appropriate timeframe, have failed or are unlikely to derive a fully satisfactory SCR or if a combination of any of these events occurs.

3.3.1.3. Governance deviations

- 3.40. CEIOPS expects that a capital add-on related to a deficiency in the governance requirements is unlikely to be common and believes that simply requiring more capital would not compensate for poor governance. Other corrective measures should aim for the resolution of the problem and should be in line with the particular deficiency at stake. However, this does not mean that a capital add-on cannot be set while other measures are being implemented, as some measures may need some time to implement.
- 3.41. There are a number of situations that could draw the supervisory authority's attention to a potential governance deficiency arising from the SRP (based on off-site reviews and/or on-site inspections) and that would require further assessment. These could include:

⁹ Refer to CEIOPS' Level 2 Advice on the Procedure to be followed for the approval of an Internal Model", CEIOPS-DOC-28/09, <http://www.ceiops.eu/index.php?option=content&task=view&id=635>

- a) The background, own history and external environment of the undertaking;
- b) Regulatory changes that have implications on the system of governance;
- c) Non-compliance with other regulatory requirements that could indicate problems in the internal control or compliance functions;
- d) A large number of complaints from policyholders and other beneficiaries;
- e) Relatively high turnover of key personnel;
- f) Inadequate quality of "Solvency and Financial Condition Report" and "Report To Supervisors"¹⁰; and
- g) Frequent material changes regarding the system of governance.

3.42. Internal models have additional situations that may fall under scope of Article 37(1)(c) and can lead to the setting of a Governance Capital Add-On and those refer to a significant non-compliance with the standards as laid down in Articles 120, 124 and 125.

3.3.2.Assessment

3.43. Article 37 of the Level 1 text stipulates that a capital add-on can only be set where significant deviations have been identified. In the case of a Risk Profile Capital Add-On this implies a significant deviation of the risk profile of the undertaking from the assumptions underlying the SCR, calculated according to the standard formula or according to a partial or full internal model. A Governance Capital Add-On refers to the situation where the undertaking's system of governance deviates significantly from the governance standards required by the Level 1 text and Level 2 implementing measures, and prevents it from being able to properly identify, measure, monitor, manage and report risks that it is or could be exposed to.

3.44. The nature of "a standard formula" for the calculation of the SCR implies that it cannot perfectly capture the risks of every single undertaking. One size cannot possibly fit all. To some extent this is implicitly accepted when a standardised calculation of the SCR is introduced. Small deviations are irrelevant but if there is a significant underestimation of an undertaking's risks by the formula, the SCR will not serve its purpose of providing the preset confidence level of the SCR requirement. In these cases a correction of the SCR to the required level is appropriate.

3.45. When an internal model is used, the Level 1 text states that the model should be appropriate to cover the risk profile of the undertaking and is adjusted as necessary to continue to be in line with this risk profile. Having in place an approved policy for changing the internal model will facilitate this (Article 113).

¹⁰ For a definition of Solvency and Financial Condition Report and Report To Supervisors see CEIOPS' Level2 Advice on Supervisory Reporting and Public Disclosure Requirements, CEIOPS-DOC-50/09, <http://www.ceiops.eu/index.php?option=content&task=view&id=609>.

- 3.46. Even though a policy for adjusting the model is in place and effectively implemented, there may be cases where the internal model does not evolve at the same time as the changes to the undertaking's risk profile, and a short term deviation between the risk profile and the internal model is to be expected.
- 3.47. With regard to the governance requirements, all deviations – having regard to the application of the proportionality principle – are unacceptable and need to be remedied in order to re-establish compliance with the Level 1 text and Level 2 implementing measures. However, not all deviations call for a capital add-on while the governance system is being improved. Only if the deviation is significant and prevents the undertaking from being able to properly identify, measure, monitor, manage and report risks that it is or could be exposed to, it will be justifiable to increase the SCR.
- 3.48. As a consequence, having identified a deviation, the supervisory authority has to assess its degree. This assessment will differ depending on whether it is in relation to the risk profile or to governance requirements.
- 3.49. The following subsections go into further detail as to CEIOPS' thinking with regard to the assessment of "significant deviation" and "appropriate timeframe".

3.3.2.1. Risk Profile Capital Add-On for undertakings using the standard formula

- 3.50. CEIOPS considers that the assessment of the significance of a deviation should include both qualitative and quantitative elements.
- 3.51. The assessment of a significant deviation of the risk profile should be based on the identification of the risks underestimated by the SCR calculation. CEIOPS has considered two major issues when assessing the significance of the deviation: the reference to be used to define "significant" and the risks to be taken into account in the assessment.

Significant deviation

- 3.52. The significance of the deviation should be assessed in view of the effect of the recalculation on the overall SCR of the undertaking. Alternative approaches, for instance to judge the significance of a deviation in relation to the calculation of capital requirements for sub-risks, may not be in line with the principle of proportionality as the effect of a recalculation could be considerable for the sub-risk but very small for the overall SCR if the impact of the sub-risk on the SCR as a whole is marginal¹¹.
- 3.53. Although the deviation may not be sufficiently significant to justify a capital add-on, appropriate risk management and internal control

¹¹ Note that if the SCR is to be reported module by module then this could lead to a misunderstanding of the undertaking's risk profile if there was a material difference between the capital derived from the specific module of the SCR and what this capital level should be at a 99.5% level for a one-year time horizon given the risk profile of the undertaking.

processes should be in place. The undertaking should be able to monitor the deviation and assess its amount.

- 3.54. When discussing the possible ways of quantitatively assessing a significant deviation of the risk profile, several options were considered. The importance of this issue justified the performance of an impact assessment, in accordance with the European Commission's Call for Advice from CEIOPS. In this context, CEIOPS considered three options regarding how the quantitative significance could be assessed in cases where the SCR is calculated using the standard formula:
- **Option 1:** Supervisory authorities would take the decision on whether or not to apply a capital add-on on the basis of harmonised criteria established at Level 2;
 - **Option 2:** Supervisory authorities would take the decision on whether or not to apply a capital add-on on the basis of harmonised criteria established at Level 2. A harmonised reference value of [5%-15%] of the overall SCR is established at Level 2. This reference value serves as a presumption that the deviation is significant. Supervisory authorities would only consider deviations that exceed the quantitative threshold;
 - **Option 3:** A harmonised reference value of [5%-15%] of the overall SCR is established at Level 2. This reference value serves as a rebuttable presumption that the deviation is significant. Supervisory authorities may decide to depart from it (in both ways) based on the application of harmonised criteria established at Level 2.
- 3.55. These options were discussed taking into consideration the relevant specific and operational objectives identified and the impact on different stakeholders (undertakings, supervisory authorities and policyholders). Details of this exercise can be found in the Annex 2 and 3.
- 3.56. A principles-based approach, applying supervisory judgement based on the application of generally applied, harmonised criteria established at Level 2, as proposed under Option 1, would give supervisory authorities and undertakings a higher degree of flexibility and therefore would allow for a fully risk-based approach. This flexibility would however not mean that supervisory authorities hold vastly divergent views on what constitutes a significant deviation.
- 3.57. To ensure consistency and a level playing field, some general criteria could be envisaged and supervisory authorities could find a common understanding on Level 3 guidance as to the harmonisation of the process of assessing whether a significant deviation exists.
- 3.58. If Option 1 was chosen, criteria would be used in the analysis of how the risk profile of the undertaking differs from the assumptions underlying the SCR as calculated by the standard formula. Elements which might be taken into account, if relevant, could include:
- a) The extent to which the specific characteristics of the business of the undertaking are covered by the assumptions underlying the SCR standard formula;

- b) How the risks in the undertaking evolve compared to the assumptions underlying the standard formula;
 - c) The nature, scale and complexity of the risks inherent in the business of the undertaking;
 - d) Whether an undertaking's business focuses on specific market niches;
 - e) Whether the undertaking is writing unit-linked business, where surrender values might exceed the sum of technical provisions plus SCR; and
 - f) Whether the undertaking holds investments different from the indexes used to calibrate the market risk module within the standard formula.
- 3.59. Even if this option would be the best solution from a risk-based point of view, it is likely that the other options will produce a higher degree of harmonisation.
- 3.60. A threshold, as proposed under Option 2, where supervisory authorities would only consider deviations that exceed a fixed percentage of the overall SCR, would provide evidence of the significance of the deviation in a clear and indisputable manner. This would allow for a high degree of harmonisation. However from a risk-based point of view this solution would be rather inadequate.
- 3.61. A simple comparison of corrected and uncorrected SCR does not capture all the relevant information that makes up a significant deviation. A fixed threshold will open up for disputes on decimals and complicate the dialogue between undertakings and the supervisory authority.
- 3.62. As CEIOPS believes that the calculation of the amount should involve scope for judgement, it would be difficult to recommend a solution where a pure mathematical calculation is the sole basis for setting a capital add-on.
- 3.63. Hence, a rebuttable reference value, as proposed under Option 3, could be implemented. This option proposes that supervisory authorities use as a reference value a fixed percentage of the overall SCR, but could decide to depart from it (both ways) based on the application of general criteria established at Level 2 and using appropriate supervisory judgement. Actually, Option 3 captures the advantages of both Options 1 and 2 without entailing the disadvantages. The establishment of a reference value would allow for a certain level of harmonisation as a default, while allowing an adequate degree of flexibility for supervisory authorities to analyse each case. This would guarantee a proper risk-based approach and the application of tailored decisions to each undertaking's specific situation.
- 3.64. When assessing the specific situations, supervisory authorities may increase or decrease the reference value established in Option 2. The general criteria to be applied by supervisory authorities when departing from the reference value would be the same as the ones developed for Option 1 (see paragraph 3.58).
- 3.65. Based on the above rationale the majority of CEIOPS Members support the implementation of Option 3 under Level 2 measures.

- 3.66. However, some CEIOPS Members have the view that the reference value could be determined at Level 3, without undermining the harmonisation objective. They think it is premature to set the reference value at this stage as there is no experience with this new regime. Given the reference value is based on a "best guess" at the moment it should be possible to easily amend it if it is found to be inappropriate. If this value was set at Level 2 and the value was found, in the light of experience, to be wrong, then the reference value will become either disproportionate or useless and ignored.
- 3.67. Others CEIOPS Members believe that Option 1 would in fact be better because the practical effect of Option 3 seems similar to Option 1, having the advantage of being less bureaucratic and less burdensome for supervisory authorities.
- 3.68. Taking all these arguments into consideration and also the arguments put forward by stakeholders, CEIOPS supports a slightly amended Option 3 for Level 2. Thus, the reference value to determine a significant deviation should be set at 10% of the overall SCR. This reference value serves as a rebuttable presumption that the deviation is significant but supervisory authorities may decide to depart from it either way based on the harmonised criteria established at Level 2. However, CEIOPS would always view deviations greater than 15% as significant.
- 3.69. To address the concerns of some Member States that the reference value is not chosen based on experience of the new regime, CEIOPS favours a review of the reference value and the limit of 15% within five years of the implementation of Solvency II.
- 3.70. The general criteria to be applied by supervisory authorities when departing from the reference value would include the same as the ones proposed for Option 1.
- 3.71. CEIOPS will develop Level 3 guidance on the application of the criteria by supervisory authorities when assessing the significance of a deviation. When developing this guidance, CEIOPS will take into consideration the fact that policyholders' protection is a priority. Harmonisation among supervisory authorities is also an objective that CEIOPS recognises as assisting the process, but it should be considered secondary when compared to the protection of policyholders. Flexibility should be maintained in the interest of protecting policyholders and providing an appropriate outcome for both supervisory authorities and undertakings.
- 3.72. CEIOPS believes that the harmonisation of the process will be an ongoing task. More details on how CEIOPS envisages reaching an appropriate level of harmonisation are provided under Chapter 5 (Supervisory convergence) of this Paper.
- 3.73. CEIOPS will further analyse the situations that may lead supervisory authorities to alter the reference value. A first assessment of these situations could be:
- a) Uncertainty regarding the amount of the deviation due to high sensitivity of the assumptions. In cases where a small change in the assumption of the assessment leads to large variations of the final value, lower percentages may be used;

- b) Whether the underestimated risk is static or dynamic. If the deviation is identified in a risk that is static, a small deviation could mean a more serious problem since the deviation would be constant. If on the contrary the risk is very volatile the deviation is not constant;
 - c) The timeframe established to change the risk profile or develop an internal model, if applicable. CEIOPS believes that the assessment of the need to deviate from the reference value should not ignore the timeframe defined to solve the situation. If the timeframe is only slightly wider than the timeframe reference value (see section on "appropriate timeframe"), a higher reference value could be considered. If, on the other hand, the timeframe to overcome the situation is very long, a lower reference value could be used;
 - d) Whether an internal model is being developed or not, either as a requirement from the supervisory authority or by an undertaking's own initiative.
- 3.74. When assessing the significance of the deviation the supervisory authority has two alternative approaches available:
- a) Consider only the underestimated risk that gave rise to the process;
or
 - b) Consider the effect on the overall SCR taking into account both the risks that are underestimated and the risks that may be overestimated.
- 3.75. The second approach consists of considering specific risks that are underestimated by the standard formula as well as risks that are overestimated, if any. The deviations from the standard formula in both directions would be offset against each other and only if, resulting from this, a significant underestimation remains, would a capital add-on be permissible. This would require a quantitative approach and the recalculation of the capital charges for the (sub)risk modules.
- 3.76. The majority of CEIOPS Members consider that this second approach is not in line with the (spirit of the) Level 1 text and prefer instead the first approach, since the second approach would allow undertakings to have lower capital requirements for specific risks without the development of an internal model. This would lead to unfair situations and could endanger the level playing field. Article 37 of the Level 1 text only allows for a correction of the level of the SCR where risks are underestimated, but there is no allowance for capital reductions if the SCR is significantly too high for the risk profile of an undertaking. If such an overestimation occurred and an undertaking wished to avoid it, it would have the opportunity to develop a full or partial internal model or personalise factors within the SCR where possible.
- 3.77. The objective of the standard formula should not only be to quantify the overall risk, but also to reflect the risk profile of the undertaking, comprising all sub-risks and their interdependencies. If a relevant wrong assumption in one area of the risk profile has been detected and it has been concluded that this implies a significant deviation, then it should be corrected in order to improve the reflection of the real risk profile of the

standard formula, irrespective of any other wrong quantification in another area of the profile.

- 3.78. On the other hand, according to a minority of CEIOPS Members the second approach of considering the net effect of the specific risks that are underestimated by the standard formula as well as of the risks that are overestimated in the calculation of the capital add-on would best ensure consistency with Article 101(3) and thus achievement of a level playing field at the level of the SCR, i.e. by guaranteeing that the level of the SCR is not higher or lower than the Value-at-Risk (VaR) at a 99.5% confidence level for a one-year time horizon.
- 3.79. These Members argue that the objective of the Risk Profile Capital Add-on is of a quantitative nature, and its primary aim is to correct the SCR measure from an overall perspective and bring it as close as possible to the amount of the VaR at a 99.5% confidence level for a one-year time horizon. If the calculation of a capital add-on only takes into account the correction of the underestimated risks and fully ignores risks which are demonstrably overestimated, the end result will be a 'corrected' SCR that will be higher than the target set in Article 101(3), thus arguably being inconsistent with Article 37(2) and endangering the level playing field.
- 3.80. Supporters of this view argue that not imposing a capital add-on should not be understood as meaning that the supervisory authorities are allowing undertakings to continue operating with badly estimated risks. In fact, when underestimations of risks are identified, the supervisory authorities should take corrective measures to ensure that the undertakings correct such underestimations as soon as possible. Not imposing a capital add-on does not go against taking other corrective measures. This would be also in line with the exceptional nature of a capital add-on.
- 3.81. However, from CEIOPS' point of view there are strong reservations about the practicability of considering both over- and underestimated risks:
- a) It would require a complete SRP of the undertaking in question, which may take a long time;
 - b) The result would be an SCR based on wrong assumptions, where the compliance with the VaR at 99.5% would be a "pure coincidence", it would be very difficult to assess and it would not be the result of a proper risk-based evaluation;
 - c) The standard formula is a complex construction that is based on a multitude of explicit and implicit assumptions. This approach requires the review of all the assumptions and the quantification of any deviation irrespective of its significance. Such an evaluation is usually not feasible and its complexity is comparable to the construction of a full internal model;
 - d) The relationship between risks tends to be non-linear, so over time the relationship between an overestimation and an underestimation may not be stable; and
 - e) If an undertaking is required to report the SCR by module, allowing underestimations to persist, this may not give stakeholders a true picture of its risk profile.

- 3.82. According to the first approach, any significant underestimation of the risks by the standard formula could result in a capital add-on being set. Risks that are possibly overestimated by the SCR formula would be disregarded.
- 3.83. As mentioned above, a minority of CEIOPS Members has concerns that if specific risks are demonstrably overestimated and the amount of overestimation can be quantified, the first approach could lead to a final 'corrected' SCR (i.e. calculated SCR plus Risk Profile Capital Add-On) that demonstrably fails to meet Article 37(2) and the standards of Article 101(3). Additionally, the following concerns were raised with the first approach:
- a) The level of granularity which the analysis is made with (level of sub-risks, sub-modules or modules) could have a significant impact on the final outcome;
 - b) The first approach does not provide an answer for cases when the significant deviation is demonstrably due to inadequacy of the aggregation mechanism; and
 - c) It is not feasible to follow an analogous approach for the case of internal models, as these need not be constructed on a modular basis, and can consider different levels and risk categorisations. In fact, an analogous approach to internal models could lead to different treatments for different types of model structures, leading to unfair situations. Also, in internal models, the target quantitative measure for the assessment at a less granular level may be unknown and impossible to derive.
- 3.84. CEIOPS believes the solution is for the assessment of the significance of the deviation to consider the effects on the overall SCR taking into account both the risks that are underestimated and the risks that are overestimated. However, it is the responsibility of the undertaking to present sufficiently strong arguments and evidence, in relation to the overestimated risks, to allow the supervisory authority to be satisfied that the overall SCR is in line with the VaR 99.5% for a one-year period.
- 3.85. CEIOPS has also considered whether the level of own funds should be taken into account when assessing the need for a capital add-on and concluded that it should not, for the following reasons:
- 3.86. A high solvency ratio, i.e. a considerable excess of own funds over the SCR, would seem to compensate the underestimation of certain risks by the standard formula, since there would be a capital buffer in place to absorb potential losses from the risks not covered by the standard formula. However, an unchanged SCR would give the impression that no additional capital is necessary and the undertaking would show a higher solvency ratio than is actually justified compared to other undertakings in view of the risks not properly reflected in the SCR. As a capital add-on has to be disclosed¹², not setting a capital add-on, in spite of the underestimation of risks by the standard formula, would thus be misleading for policyholders and other stakeholders and distort

¹² Except during the transitional period allowed for in Article 51(2) of the Level 1 text, which allows for supervisory discretion for non-disclosure

competition. Also, if the SCR was not increased a subsequent loss of own funds lowering their level below the real SCR as it would stand with the add-on could not be acted upon as a breach of the SCR which “officially” would still be the SCR as calculated by the standard formula.

3.3.2.2. Risk Profile Capital Add-On for undertakings using an internal model

- 3.87. As laid out in paragraph 3.36 the situations under Article 37(1)(b) of the Level 1 text correspond to a material non-compliance with Articles 121 to 123¹³, that may lead to the withdrawal of an approved model (*cf.* Article 118 commented above). Consequently, setting a capital add-on over an internal model implies that this model still reflects the risk profile better than the standard formula, but that the undertaking has failed to implement the plan to restore compliance within an appropriate timeframe.
- 3.88. In cases where a Risk Profile Capital Add-On is appropriate it will come into play only after the initial approval of an internal model. The conditions under which certain quantifiable risks are captured insufficiently encompass two different cases:
- a) New material (quantifiable) risks have emerged and are not yet covered by the internal model; and
 - b) Quantifiable risks already modelled by the internal model are the cause of the significant deviation. Article 37(1)(b) of the Level 1 text can be interpreted narrowly or widely:
 - i. A definition of the specific conditions under which certain quantifiable risks are captured insufficiently would cover e.g. mismodelling of risks, mismodelling of dependencies, or risk mitigation techniques not taken into account in an appropriate manner; or
 - ii. A broader definition would cover failures of statistical quality standards, calibration standards, and profit and loss attribution.
- 3.89. CEIOPS tends to favour the broader approach, as this is less prescriptive with regard to relevant situations and covers further conditions under which a possible capital add-on seems appropriate and avoids a prescriptive list of situations which may easily become outdated and incomplete. Additionally, this approach ensures consistency with the Level 2 implementing measures regarding the standards set out in Articles 121 to 123¹⁴.

¹³ This means that material non-compliance with the statistical quality standards, calibration standards and profit and loss attribution are considered eligible for a risk-profile add-on. Any other material non-compliance relating to other standards of the internal model, such as the use test, would only be eligible for a governance add-on.

¹⁴ See CEIOPS’ Level 2 Advice on Tests and Standards for Internal Model Approval, CEIOPS-DOC-48/09, <http://www.ceiops.eu/index.php?option=content&task=view&id=607>.

Significant deviation

- 3.90. The assessment of a significant deviation of the risk profile should be made against the overall risk of the undertaking. Two major issues that should be discussed when assessing the significance of the deviation are the reference to be used to define "significant" and the risks that are not sufficiently covered.
- 3.91. In general, CEIOPS believes that the assessment of the extent of any deviation between the risk profile and the assumptions underlying an undertaking's internal model should not only be quantitative, but also qualitative insofar as this is reasonably possible.
- 3.92. Initially CEIOPS identified several approaches to be considered regarding a qualitative assessment of the significance of non-compliance: a detailed list of deviations, a principles-based assessment and a case-by-case analysis.
- 3.93. Under the first approach, CEIOPS would have to list all possible significant deviations. However, a complete set of deviations would have to be identified along with the risks arising from them, and for each deviation a criterion would have to be established, as well as a metric to measure whether a deviation should be considered significant. On the one hand, this solution would be objective and would ensure harmonisation across supervisory authorities' decisions. On the other hand, a detailed list of deviations, even at a very general level, and the respective criteria are virtually impossible to construct for internal models. Therefore CEIOPS does not consider this option to be viable.
- 3.94. A case-by-case analysis would provide a high degree of flexibility. On the downside, it would be very difficult to ensure an adequate level of harmonisation in the qualitative assessment.
- 3.95. Therefore CEIOPS tends to prefer a principles-based qualitative assessment. This approach will require a high degree of communication between supervisory authorities in the first period of application, but as time evolves and experience is gathered and shared between supervisory authorities, the degree of harmonisation will be higher, leading to a more effective and suitable consistency between supervisory actions than an *a priori* fixed rule.
- 3.96. Possible elements to take into account when assessing significance in this context include:
- a) Nature, type, materiality degree of non compliance;
 - b) The impact on the assessment of the risk profile of the undertaking;
 - c) The nature, scale and complexity of the risks inherent in the business of the undertaking;
 - d) The dependencies between risks;
 - e) The likelihood and severity of an impact on policyholders;
 - f) The analysis of specific stress scenarios;
 - g) Uncertainty regarding the amount of the deviation due to high sensitivity of the assumptions. In cases where a small change in the

assumption of the assessment leads to large variations of the final value, lower percentages may be used; and

- h) Whether the underestimated risk is static or dynamic. If the deviation is identified in a risk that is static, a small deviation could mean a more serious problem since the deviation would be constant. If on the contrary the risk is very volatile the deviation is not constant (this does not prevent an add-on being set for volatile risks).

3.97. When discussing the possible ways of quantitatively assessing a significant deviation of the risk profile, in undertakings using an internal model to calculate the SCR, the same options as the ones used in relation to undertakings using the standard formula were considered. The importance of this issue justified the performance of an impact assessment, in accordance with the European Commission's Call for Advice from CEIOPS. In this context, CEIOPS considered three options regarding how the quantitative significance could be assessed in cases where the SCR is calculated using an internal model:

- **Option 1:** Supervisory authorities would take the decision on whether or not to apply a capital add-on on the basis of harmonised criteria established at Level 2;
- **Option 2:** Supervisory authorities would take the decision on whether or not to apply a capital add-on on the basis of harmonised criteria established at Level 2. A harmonised reference value of [5%-15%] of the overall SCR is established at Level 2. This reference value serves as a presumption that the deviation is significant. Supervisory authorities would only consider deviations that exceed the quantitative threshold; and
- **Option 3:** A harmonised reference value of [5%-15%] of the overall SCR is established at Level 2. This reference value serves as a rebuttable presumption that the deviation is significant. Supervisory authorities may decide to depart from it (in both ways) based on the application of harmonised criteria established at Level 2.

3.98. These options were discussed having taken into consideration the relevant specific and operational objectives identified and the impact on different stakeholders (undertakings, supervisory authorities and policyholders). Details of this exercise can be found in the Annex 2 and 3.

3.99. CEIOPS does not recommend establishing a threshold as a percentage of the SCR, as it is not fully risk sensitive and this relation may be unstable over time. The specification and estimation of an internal model include a large number of steps where subjective modelling decisions have to be made. These subjective modelling decisions have to be evaluated in a harmonised way by supervisory authorities with the help of common criteria to assess the materiality of deviations. The key areas to account for when quantifying the specific components of the risk profile include the choice of the data, mathematical models and their estimation methods. Also the aggregation method and assumptions are important when assessing the overall risk profile. Both the SCR standard formula assumptions and the best practice models should provide useful input for the assessment. Based on the above rationale a majority of CEIOPS

Members supports the implementation of Option 3 under Level 2 measures.

- 3.100. However, some Members have the view that the reference value could be determined at Level 3, without undermining the harmonisation objective. They think it is premature to set the reference value at this stage as there is no experience with this new regime. Given the reference value is based on a "best guess" at the moment it should be possible to easily amend it if it is found to be inappropriate. If this value was set up at Level 2 and the value was found, in the light of experience, to be wrong, then the reference value would become either disproportionate or useless and ignored.
- 3.101. Other Members believe that Option 1 would in fact be preferable as the practical effect of Option 3 seems similar to Option 1, having the advantage of being less bureaucratic and less burdensome for supervisory authorities.
- 3.102. Taking all these arguments into consideration and also the arguments put forward by stakeholders, CEIOPS supports a slightly amended Option 3 for Level 2. Thus, the reference value to determine a significant deviation should be set at 10% of the overall SCR. This reference value serves as a rebuttable presumption that the deviation is significant but supervisory authorities may decide to depart from it either way based on the harmonised criteria established at Level 2. However, CEIOPS would always view deviations greater than 15% as significant.
- 3.103. To address the concerns of some Member States that the reference value is not chosen based on experience of the new regime, CEIOPS favours a review of the reference value and the limit of 15% within five years of the implementation of Solvency II.
- 3.104. The general criteria to be applied by supervisory authorities when departing from the reference value would include the same as the ones used for the qualitative assessment.
- 3.105. CEIOPS will develop Level 3 guidance on the application of the criteria by supervisory authorities when assessing the significance of a deviation. When developing this guidance, CEIOPS will take into consideration the fact that policyholders' protection is a priority. Harmonisation among supervisory authorities is also an objective that CEIOPS recognises as assisting the process. Flexibility should be maintained in the interest of protecting policyholders and providing an appropriate outcome, for both supervisory authorities and undertakings.
- 3.106. CEIOPS believes that the harmonisation of the process will be an ongoing task. More details on how CEIOPS envisages reaching an appropriate level of harmonisation are provided under Chapter 5 (Supervisory convergence) of this Paper.
- 3.107. As stated in paragraph 3.74, there are two alternative approaches regarding the quantitative assessment of the deviation between the assumptions underlying an internal model and the actual risk profile of an undertaking: to consider both the risks that are underestimated by the SCR formula and the risks that may be overestimated, or to consider only the risks that gave rise to the process.

- 3.108. Considering both under- and overestimated risks could be seen as a way to ensure the achievement of a level playing field, but it would also put at the same level undertakings with adequate and with inadequate risk estimation. It should be kept in mind that internal models should meet several standards. Considering that all risks are supposed to be tailored to the risk profile and the risk identification of an undertaking, CEIOPS expects situations where some risks are overestimated to be relatively uncommon and of a temporary nature, as an undertaking is expected to correct these deviations by itself (taking into account the policy for changing the internal model). The fact that an undertaking overestimates one risk and underestimates another in its internal model may be a sign of inadequate internal model management.
- 3.109. The evaluation of these approaches has some important specificities in internal models as compared to the standard formula, especially in full internal models:
- a) The structure of internal models does not necessarily have to follow the same modular approach as the standard formula;
 - b) Ultimately, internal models do not even have to follow a modular approach at all (e.g. a holistic modelling approach);
 - c) The modelling of dependencies may vary considerably, in form (linear/non-linear) or in monotonicity (comonotonic/independence/countercomonotonic), among other factors; and
 - d) Different time period or risk measure other than the VaR at 99.5% confidence level for the one-year time horizon can be used as long as the output of the internal model provides policyholders with a level of protection equivalent to that set out in Article 101(3) of the Level 1 text.
- 3.110. In the assessment of the significance of the deviation in accordance with Article 37(1)(a) and (b), the effects on the overall SCR taking into account both the risks that are underestimated and the risks that are overestimated shall be considered. However, it is the responsibility of the undertaking to present sufficiently strong arguments and evidence, in relation to the overestimated risks, to allow the supervisory authority to be satisfied that the overall SCR is in line with the VaR 99.5% for a one-year period.
- 3.111. The assessment of capital add-ons in the case of undertakings using partial internal models for SCR calculation shall be performed applying *mutatis mutandis* the process for capital add-on assessment for standard formula and/or internal models as appropriate.

Appropriate timeframe

- 3.112. The criteria to establish an appropriate timeframe should be closely linked to the criteria to assess the materiality effect of non-compliance and should take into account the proportionality principle.

- 3.113. During this timeframe it might be necessary to use other supervisory powers in order to prevent the undertaking from increasing the deviation by taking further risks.
- 3.114. CEIOPS believes that the appropriate timeframe for the adaptation of an internal model will depend mainly on the possible negative impact that the identified deviations could have on proper risk management and ultimately on policyholders' interests. Usually, remedying non-compliance situations should be possible within a timeframe decided by the supervisory authority as appropriate, after discussion with the undertaking. This timeframe is a flexible temporary tolerance for the undertaking to restore compliance and thus to remove any need of a capital add-on imposition and/or a reversion to the standard formula.
- 3.115. The timeframe to be defined will depend on the situation of each undertaking. Nevertheless, a number of variables could influence this decision:
- a) Nature, type and significance of the non-compliance;
 - b) Likelihood and severity of a possible impact on policyholders' interests;
 - c) Significance and impact on the assessment of the risk profile of the undertaking;
 - d) Nature, scale and complexity of the risks inherent in the business of the undertaking;
 - e) Impact on the level playing field between undertakings;
 - f) Dependencies between risks;
 - g) Consistency between supervisory authorities' decisions;
 - h) Analysis of specific stress scenarios;
 - i) Internal model approval statement and roll plan in the case where the internal model is approved with terms and conditions; and
 - j) Transitional plans to be fulfilled in case of partial internal models.
- 3.116. The appropriateness of the timeframe will to some extent depend on how serious the deviation of the deficiency is; its duration is limited by the need to protect policyholders' interests and to maintain the probability of ruin over a one-year period under 0.5%.

3.3.2.3. Governance Capital Add-On

- 3.117. Significant deviations from required governance standards according to the Level 1 text and Level 2 implementing measures can only result in a capital add-on if the identified deficiencies impair the identification, measuring, monitoring, managing and reporting of risks and other remedial measures are unlikely to produce sufficient improvements within an appropriate timeframe.
- 3.118. In accordance with Article 37(1)(c) of the Level 1 text, a Governance Capital Add-On is only possible if three conditions are met concurrently:

- a) The deviation from the standards laid down in the Level 1 text and further specified in Level 2 implementing measures is significant;
 - b) This deficiency impairs the identification, assessment, monitoring, managing and reporting of the risks; and
 - c) The identified problem cannot be sufficiently remedied with other measures within an appropriate timeframe.
- 3.119. The supervisory authority has to assess whether the significance of the deviation from the required standards of governance prevents the undertaking from properly identifying, measuring, monitoring, managing or reporting the risks it is or could be exposed to.
- 3.120. For governance deficiencies, CEIOPS considers it appropriate that the extent of this deviation and the material risks arising from it are assessed qualitatively.
- 3.121. The benchmark for the deviation should not be a best practice standard, a minimum or an "average" standard, but the standard to be expected of the individual undertaking, taking into account the principle of proportionality, i.e. the supervisory assessment requires an entity-specific analysis.
- 3.122. A governance standard is not an isolated element that remains uninfluenced by other governance standards. Governance is to be viewed holistically. The different elements have to mesh, to support each other and not to be in conflict in order for the system of governance to be effective. The existing interrelations should be taken into account.
- 3.123. How material an identified deficiency could potentially prove for the undertaking is also influenced by how it deals with the problem, e.g. whether the undertaking denies or plays down the deficiency or is reluctant for other reasons to address it in an effective manner. Hence, the supervisory authority could take into account the conduct of the undertaking when the problem was discovered, and the measures taken by the undertaking to identify the root of the problem.
- 3.124. In order to take into account such a high number of factors, a case-by-case analysis will play a fundamental role in the assessment of the significance of the deviation regarding the system of governance.
- 3.125. If the supervisory review detects failures in the system of governance, even where they are not significant, the supervisory authority should require appropriate actions to be taken, irrespective of setting a capital add-on.

Significant deviation

- 3.126. A significant deviation has necessarily to be related to non-compliance with a Level 1 or Level 2 requirement. However, it is recognised that:
- a) The requirements should be implemented in accordance with the principle of proportionality; and
 - b) There are different ways of organising a proper system of governance.

- 3.127. This would mean that supervisory authorities will necessarily apply their own judgement when assessing whether the system of governance implemented is adequate for the risk profile of each undertaking, taking into account that the system of governance should be proportionate to the nature, scale and complexity of the risks inherent to the business of the undertaking.
- 3.128. In order to present its final view on this issue, CEIOPS has informally consulted the industry regarding some specific topics, one of them being the identification and assessment of a significant deviation in the case of a Governance Capital Add-On.
- 3.129. In particular, a non-exhaustive list of situations was proposed that could prompt the supervisory authority to identify and assess a significant governance deviation and consider the use of the supervisory tools at its disposal. A capital add-on would be applied ultimately, if none of the tools to address the identified deviation proved effective within an appropriate timeframe.
- 3.130. The following different approaches were proposed:
- a) Indication that governance requirements are breached, according to a "traffic light system", where the supervisory authority would have to consider for each governance requirement the number of "greens", "ambers" and "reds" it has in order to identify whether the deviation is significant or not;
 - b) Assessment of the undertaking's risk profile/complexity;
 - c) Assessment of the undertaking's financial strength and previous supervisory relationship; and
 - d) Assessment of the history of the undertaking.
- 3.131. As for the "traffic light system", an industry proposal was to rank possible governance deficiencies according to the level at which they were set, i.e. non-compliance with a Level 1 text provision would be more serious than non-compliance with a requirement set at Level 2.
- 3.132. However, the majority of CEIOPS Members do not support this approach, as both Level 1 and 2 requirements should be equally considered by undertakings.
- 3.133. CEIOPS also considers the definition of a list of triggers, i.e. a list of governance deficiencies, as an impossible task to perform since, as mentioned in paragraph 3.126, the governance requirements should be implemented in accordance with the principle of proportionality and there are different ways of organising a proper system of governance.
- 3.134. Even categorising different types of deviations from standards could prove difficult. Every deficiency in some aspect of the system of governance can be caused by different problems and the assessment of whether the deviation in standards is significant will be influenced by what exactly the problem is. To use the example presented in Annex 1 to illustrate the difficulty, a deficiency in internal reporting cannot be generally termed "significant" or "not significant". If the problem is that the internal reporting system is not producing all the information necessary this would be considered more serious than available information not being reliably

transmitted to all relevant staff. In the first case the deficiency would surely be considered significant, while in the second case the assessment of the deviation as significant could depend on what type of information fails to reach which persons. This would call for a categorisation of considerable granularity which might not be comprehensive.

3.135. In some cases deviations can easily be assessed as significant. The following deviations from requirements in the Level 1 text are examples of situations that, due to the objective to be achieved by the requirements, are most likely to be considered as potential significant deviations and have the potential to be regarded as preventing the undertaking from properly identifying, measuring, monitoring, managing and reporting the risks it is or could be exposed to:

- a) The system of governance of the undertaking lacks one of the key functions identified;
- b) The undertaking does not have procedures in place to ensure that persons who effectively run the undertaking or have other key functions are fit and proper;
- c) The risk management function has not implemented proper processes and procedures or no adequate own risk and solvency assessment is performed as part of the risk management system;
- d) The internal audit function is not independent from operational functions;
- e) The actuarial function's duties are not performed in accordance with applicable standards; and
- f) The undertaking outsources key functions and has not implemented procedures ensuring their control.

3.136. The implementation of a remuneration policy that implicitly fosters risk-taking is not in itself a deficiency in the system of governance. However, such a policy would require stronger governance policies since the employees/personnel may then have incentives to actually take an excessive amount of risk. If such a situation is not detected by the internal control and/or risk management system, the undertaking could be considered to have a governance deficiency.

3.137. Each case is particular and the consequences of non-compliance should be tailored to each specific situation. It may also occur that a supervisory authority views any of the deficiencies listed above as a very serious deficiency that could make it consider whether the undertaking should be allowed to continue operating with such a deficiency or not, and whether a capital add-on would be a sufficient measure. If the situation is very serious the setting of an add-on could be followed/accompanied by other measures.

3.138. Since all aspects included in the list above have a key role in the system of governance, CEIOPS believes that, despite the holistic view that should be taken over the system of governance, even an isolated failure of one of these elements represents a significant deviation from required standards and has the potential to be regarded as preventing the undertaking from properly identifying, measuring, monitoring, managing and reporting the

risks it is or could be exposed to. However, CEIOPS would expect such rather obvious cases of significant deviations to be fairly scarce in practice.

- 3.139. As stated in CEIOPS' Issues Paper on Supervisory Review Process and Undertakings' Reporting Requirement¹⁵, "*supervisory authorities should, where possible, use common criteria to assess and monitor risks, but they will not necessarily have a common way to quantify and categorise those risks. Although the categorisation may be different, the outcome is that supervisory actions and efforts are prioritised according to the risk assessment of undertakings. This process should be carried out by all supervisory authorities. CEIOPS will undertake further work on the convergence of risk categorisation.*"
- 3.140. The work to be undertaken on the convergence of risk categorisation should also be considered in the process of setting a Governance Capital Add-On.
- 3.141. The future work on risk categorisation should aim at harmonising the supervisory review process and the use of corrective measures. This means that the same non-compliance, in this case the same deficiency in the system of governance, should be treated approximately in the same way across Member States.
- 3.142. One possible way of achieving this goal is to establish common criteria under which each undertaking could be categorised in relation to the level of compliance with the requirements, i.e. the quality of its system of governance.

Appropriate timeframe

- 3.143. A capital-add-on will not be imposed if the undertaking is able to address the significant deviation and satisfy the supervisory authority with its plans for remedial action within an appropriate timeframe (i.e. improve its system of governance or take mitigating actions). This timeframe could be viewed as a flexible temporary tolerance.
- 3.144. The identified deficiency should always be solved without any undue delay. The appropriate timeframe under discussion in this section is the timeframe acceptable to the supervisory authority for the undertaking to solve the problem without having a capital add-on set. In the interim period, while the undertaking is fixing the governance deficiency, the supervisory authority may set a capital add-on, depending on the seriousness of the governance deficiency, if it is deemed necessary in view of policyholders' protection.
- 3.145. The determination of what constitutes an appropriate timeframe does not depend on the average time required to implement the necessary improvements, or on the time the undertaking concerned would reasonably be expected to need to remedy the situation completely.
- 3.146. A capital add-on aims to ensure that the undertaking holds capital commensurate to the risks it faces. Setting the capital add-on should not be considered a sanction for not finding a timely solution. Instead, it

¹⁵ See footnote 5.

serves as a safety net for the time during which the undertaking is unable to properly identify, measure, monitor, manage and report the risks that it is or could be exposed to. Hence, the appropriate timeframe depends on the likelihood and severity of a potential negative impact on policyholders' interests caused by the significant deviation. During this timeframe other supervisory measures aiming at preserving policyholders' interests could be used as well.

3.147. When discussing the possible ways of determining the appropriate timeframe, several options were considered. The importance of this issue justified the performance of an impact assessment, in accordance with the European Commission's Call for Advice from CEIOPS. In this context, the work undertaken by CEIOPS so far leads to two options:

- **Option 1:** Supervisory authorities would use a principles-based approach with general criteria established at Level 2, with no absolute maximum;
- **Option 2:** Supervisory authorities would consider a maximum period of 6 months that could be shortened according to general criteria established at Level 2.

3.148. These options were discussed taking into consideration the relevant specific and operational objectives identified and the impact on different stakeholders. The details of this exercise can be found in Annex 2 and 3.

3.149. Option 1 ensures a principles-based approach, with somewhat more flexibility to allow for more time where the threat to policyholders' interests does not call for very swift remedial action. This also reflects the variety of possible situations where a governance deficiency may occur.

3.150. The timeframe used as a reference to the maximum time period in Option 2 is the common timeframe established under the Level 1 text, to recover from a situation of non-compliance with the SCR. CEIOPS considers that if an undertaking can be non-compliant with the SCR for 6 months, as long as a realistic recovery plan has been approved, then it would only be fair to give it the same maximum timeframe to solve a governance deficiency. The timeframe would be shortened if policyholder protection required the deficiency identified to be remedied more quickly as it would expose the undertaking to considerable risks.

3.151. In contrast to the appropriate timeframe to be taken into account when an internal model needs to be adapted, the Level 1 text allows for a Governance Capital Add-On to be set without the supervisory authority giving the undertaking time to take remedial action first. According to the wording of Article 37(1)(c), the capital add-on may be set immediately if the application of other measures is in itself unlikely to improve the deficiencies sufficiently. This situation would be possible both under Option 1 and 2.

3.152. In fact, the more serious the problem, the shorter the timeframe should be. The criterion to be used in this situation is the protection of policyholders and therefore the period should be shortened according to this objective. In practice this will require dialogue between the supervisory authority and the undertaking.

- 3.153. CEIOPS favours Option 2, as it allows for the necessary supervisory discretion for determining the appropriate timeframe under the circumstances while ensuring an adequate level of harmonisation by putting a cap on the timeframe that could be considered appropriate given that the deficiency identified is significant and results in material risk for the undertaking.
- 3.154. Other criteria to be used, besides the protection of policyholders, in order to assess the appropriate time period, within the maximum of 6 months, could include:
- a) A matter of urgency of any kind; for example, if the deficiency could deepen;
 - b) Any information on operational risk events that have already occurred (as well as near misses) that could be linked to the deficiency at stake;
 - c) Probable financial loss the undertaking could incur as a consequence of the deficiency, i.e. impact on policyholders; and
 - d) Whether the deficiency results from a certain requirement (e.g. a function) being inadequately implemented, taking into account the nature, scale and complexity of the risks inherent to the business carried out by the undertaking.

3.3.3. Calculation

- 3.155. For Risk Profile Capital Add-ons the amount of the capital add-on should be such that as a result of adding it to the SCR initially calculated by the undertaking, the new SCR complies with Article 101(3) of the Level 1 text.

The particular case of composites

- 3.156. Article 129(3) of the Level 1 text prescribes a combined approach for calculating the MCR, i.e. a linear formula subject to a cap of 45% and a floor of 25% of the SCR, where the latter includes any capital add-on that has been imposed.
- 3.157. According to Article 74(2) an undertaking authorised to carry on both life and non-life insurance activities (composite) is required to calculate separately:
- a) A notional MCR with respect to its life (re)insurance activity; and
 - b) A notional MCR with respect to its non-life (re)insurance activity.
- 3.158. Considering that the calculation of the MCR is linked to the SCR, this implies that a notional split of the SCR between life and non-life (re)insurance activities is necessary to calculate each of the notional MCRs for composites. Where a capital add-on has been imposed, a notional split of such capital add-on between life and non-life (re)insurance activities is also necessary for that purpose.

- 3.159. With respect to the notional split of the SCR between life and non-life (re)insurance activities, CEIOPS suggests that the overall SCR of the undertaking, not including the capital add-on, is split according to the ratio of the notional life and non-life linear MCR results.
- 3.160. With respect to the notional split of the capital add-on between life and non-life (re)insurance activities, CEIOPS has considered following a similar approach. However, CEIOPS has concluded that in several cases this would not lead to the most appropriate result. Therefore, in order to split the capital add-on between life and non-life (re)insurance activities, CEIOPS suggests the following approach:
- a) For a Risk Profile Capital Add-On, where an objective allocation of those risks identified as causing the significant deviation mentioned in Article 37(1)(b) to life and non-life (re)insurance activities is possible¹⁶, the split would be determined by the supervisory authority imposing the capital add-on in a manner consistent with such allocation of risks;
 - b) For a Governance Capital Add-On, where it is possible to identify and objectively allocate those governance deficiencies causing the significant deviation mentioned in Article 37(1)(c) to life and non-life (re)insurance activities¹⁷, the split would be determined by the supervisory authority imposing the capital add-on in a manner consistent with such allocation of governance deficiencies; and
 - c) For a Risk Profile Capital Add-On and/or a Governance Capital Add-On for which it is not possible to perform a reasonably objective allocation exercise, as described in a) and b)¹⁸, the supervisory authority imposing the capital add-on should allocate the capital add-on according to the ratio of the notional life and non-life linear MCR results.

3.3.3.1. Calculation of a Risk Profile Capital Add-On for undertakings using the standard formula

- 3.161. If the standard formula is used it may be appropriate to use simplified methods to arrive at the capital add-on if the additional risk can be easily quantified. If the information needed to make an accurate estimate of the 99.5 percentile is unavailable, it may also be appropriate to use a simplified method to approximate that confidence level.
- 3.162. CEIOPS believes that the vast majority of significant deviations will likely be detected in the underwriting risk modules. This is because:

¹⁶ For instance, this would be the case when the significant deviation concerns only life (non-life) underwriting risks.

¹⁷ For instance, this would be the case when a governance deficiency is detected only on the life (non-life) insurance management area (note the requirement to separate life and non-life insurance management in Article 74).

¹⁸ For instance, this could be the case of a Risk Profile Capital Add-On due to significant deviation of the operational risk result, or of a Governance Capital Add-On due to governance deficiencies with significant impacts in both life and non-life insurance activities.

- a) Market and credit risks are calibrated using market information, and all undertakings are generally exposed to the same risks in these areas due to globalisation and to the integration of the financial markets; and
- b) Operational risk is, by nature, very difficult to quantify by means of a standard formula, thus the supervisory authority would likely be unable to make a proper identification of significant deviations in mathematical terms. However, this may change in the future, as experience and data builds up.

3.163. In the particular case of underwriting risks, if a Risk Profile Capital Add-On is considered necessary, this means that the provision for undertaking-specific parameters in Article 110 has been considered, but cannot be applied. This would be either because (i) the parameters related to the risk(s) where a significant deviation was detected do not belong to the set of parameters that can be replaced or (ii) the undertaking cannot provide data which satisfies the criteria of completeness, accuracy and appropriateness.

3.164. When the supervisory authority finds evidence that the risk profile of an undertaking deviates significantly from the assumptions underlying the SCR as calculated using the standard formula (Article 37(1)(a) of the Level 1 text), it needs to identify objectively what assumptions are being challenged. More specifically, the supervisory authority will need to identify the sources of the deviation.

3.165. According to Article 37 (1)(a)(ii) and 119 of the Level 1 text, in some cases a deviation of the standard calculation of the SCR in respect of the risk profile of the undertaking, implies that the supervisory authority may require the development of an internal model. It may occur that the development of such internal model requires a sufficiently long period, during which the supervisory authority considers it necessary to impose a capital add-on. In this case the content of this advice applies *mutatis mutandis*.

3.166. As a first step, the supervisory authority will need to identify if the deviations are caused by:

- a) Underestimation of particular sub-risks or risk modules;
- b) Quantifiable risks not covered by the SCR calculation; and/or
- c) The aggregation mechanism (e.g. correlation parameters or assumptions).

The case of underestimation of particular sub-risks or risk modules

3.167. The supervisory authority needs to identify which sub-risks (or risk modules) - if, in practice, the assessment cannot be made at a more granular level) - are considered to be underestimated by the standard formula.

3.168. Ideally, the identification should be targeted at the level of sub-risks. However, if that is not possible in practice (e.g. data constraints, difficulty to split risks) or if an assessment at a less granular level is deemed more

reliable, the identification can relate to the level of the risk modules. Where the assessment is made at the risk module level, it will implicitly include the assessment of the aggregation mechanism between sub-risks at a less granular level.

- 3.169. After identifying the relevant sub-risks (or risk modules), the supervisory authority then needs to consider the cause of the significant deviation. This could be:
- a) Inadequacy of the calibration of parameters in the standard formula for a particular sub-risk (or risk module); or
 - b) Inadequacy of the design assumptions in the standard formula for a particular sub-risk (or risk module) – for instance, assumptions on probability distributions or the underlying methodology. Inadequate design assumptions are those where a better fit of the formula to the risk profile of the undertaking is only possible through structural changes to the formula, i.e. changing the value of the parameters is not sufficient.
- 3.170. In the first case, i.e. when the significant deviation is due to an inadequate calibration of parameters for (a) particular sub-risk(s) (risk module(s)), the calculation of the capital add-on could be based on a “re-run”¹⁹ of the standard formula using new parameters that best reflect the risk profile of the undertaking. Thus, the amount of the capital add-on would be given by the difference between the result of such “re-run” and the amount of the SCR standard formula as calculated by the undertaking.
- 3.171. In such cases, the undertaking would be asked by the supervisory authority to derive the necessary parameters using its own data. Where such data is not available or not sufficiently reliable, the analysis by the supervisory authority could consider, having due regard to confidential issues, data from other undertakings whose risk profile (for the risks under analysis) is deemed comparable.
- 3.172. As for the second case, significant deviations due to evidence of inadequate design of the standard formula for a particular sub-risk (or risk module) can only occur when factor-based approaches are the basis of the calculation (e.g. counterparty default risk, non-life premium & reserve risk, etc).
- 3.173. In such cases, the supervisory authority will ask the undertaking to look for alternative design approaches consistent with Article 104(3) of the Level 1 text and that would better fit the specificities of the risk profile of the undertaking. For instance, this could involve the consideration of different probability distributions or the introduction of additional parameters in the formula. The search for alternatives would need to be kept at a relatively simple level, and would need to be backed by empirical and statistical studies performed using the undertaking’s own data or, if such data is not available or not sufficiently reliable, data from other undertakings whose risk profile (for the risk(s) under analysis) is deemed comparable.

¹⁹ The “re-run” of the SCR, either using the standard formula or an internal model, should be done by the undertaking at the request of the supervisory authority, under the exercise of its powers.

- 3.174. Where such alternative design is found, the amount of the capital add-on would be given by the difference between the result of a "re-run" of the standard formula where the original design of the particular sub-risks (or risk module) are substituted by the alternative design and the amount of the SCR standard formula as calculated by the undertaking.
- 3.175. As experience emerges in practice, Level 3 could be used to harmonise such alternative approaches, allowing the sharing of experience and knowledge between supervisory authorities.
- 3.176. If, in practice, it is not possible to find an alternative design for the particular sub-risk (or risk module), but the supervisory authority has evidence that the significant deviation is caused by inadequate design assumptions of the standard formula, it would need to set the capital add-on on a more 'crude' basis, namely through comparative analysis.
- 3.177. For instance, the amount of the capital charge for the particular sub-risk (or risk module) could be scaled-up to correspond to the same relative amount (relative with respect to the most appropriate measure to the supervisory authority) as the capital charge observed for undertakings whose risk profile with respect to the risk under analysis is deemed comparable.
- 3.178. Where undertakings with relatively comparable risk profiles cannot be found (or where the whole group of 'comparable' undertakings face the same significant deviation problem), the supervisory authority would need to 'scale-up' the capital charge incorporating a more subjective analysis of the perceived increase in the riskiness of the business of the undertaking relative to its peers.
- 3.179. In the latter cases, the amount of the capital add-on would be given by the difference between the result of a "re-run" of the standard formula where the capital charge for the particular sub-risk (or risk module) is substituted by the 'scaled-up' capital charge and the amount of the SCR standard formula as calculated by the undertaking.

The case of quantifiable risks not covered by the SCR calculation

- 3.180. The supervisory authority needs to identify which material risks to which the undertaking are exposed are not covered by the standard formula.
- 3.181. After identifying the relevant risk(s), the supervisory authority then needs to consider, in accordance with each particular risk, the methodologies available to better quantify these risk(s).
- 3.182. The next step would be to aggregate the identified risk(s) with the risks covered by the standard formula.
- 3.183. As experience emerges, Level 3 could be used to identify and harmonise the treatment of such risks, allowing the sharing of experience and knowledge between supervisory authorities.

The case of deviations caused by the aggregation mechanism

- 3.184. The assessment of significant deviations due to inadequacy of the aggregation mechanism is a very challenging area from a technical perspective. In fact, a meaningful empirical and statistical study requires the availability of a significant amount of historical data for the relevant risks. Therefore, this type of assessment is expected to be rare in practice.
- 3.185. However, as experience builds up and new techniques are employed (e.g. relevant technical input from internal models), the practicability of an assessment of the adequacy of the aggregation structure embedded in the standard formula to the risk profile of the undertaking may improve.
- 3.186. When identifying the reasons for the significant deviation, the supervisory authority needs to consider whether:
- a) The problems lies with the inadequacy of one or more specific correlation factors; or
 - b) The assumption of linear correlations between a set of sub-risks is not considered to be appropriate to capture the risk profile of the undertaking. This may be the case, for instance, when there are significant non-linear interdependencies between different sub-risks.
- 3.187. In the former case, the supervisory authority would ask the undertaking to assess the value of 'new' correlation factor(s) that best reflect(s) its risk profile. This would need to be backed by empirical and statistical studies performed using data of the relevant risks which are considered appropriate to describe the risk profile of the undertaking.
- 3.188. Then, the calculation of the capital add-on would be based on a "re-run" of the standard formula using the new correlation factor(s) that best reflect the risk profile of the undertaking. Thus, the amount of the capital add-on would be given by the difference between the result of such "re-run" and the amount of the SCR standard formula as calculated by the undertaking.
- 3.189. In the latter case, i.e. when the assumption of linear correlations is challenged, the calculation of the capital add-on would likely be too complex to implement as it would require that an alternative aggregation mechanism (e.g. copulas) be found such that it is consistent with Article 104(3) of the Level 1 text and best fits the risk profile of the undertaking. For this reason, this case is not considered as feasible for the calculation of the capital add-on.
- 3.190. In such complex cases where the supervisory authority has evidence that a significant deviation exists and believes it is caused by the inadequacy of the linear correlation assumptions, it would need to set the capital add-on on a more 'crude' basis, namely through comparative analysis. For instance, this could be achieved by scaling-up the SCR (total or a relevant part that can be separately identified) of the undertaking under analysis based on the relative comparison with the SCR calculated using approved internal models of undertakings whose risk profile is considered to be comparable.

Relevant sources of information

3.191. In order to quantify the amount of a risk profile capital add-on, the supervisory authority would necessarily need to assess the deviation on a case-by-case basis, making use of all relevant and appropriate information available. In particular, the following may be considered as input for the calculation:

- a) The results of (partial) internal models from other undertakings operating in the same market which are deemed comparable for the risks under analysis;
- b) The results of the application of undertaking-specific parameters from other undertakings operating in the same market which are deemed comparable for the risks under analysis;
- c) Any available empirical and statistical studies made at market level about the behaviour of the risks under analysis which are considered to be appropriate and applicable for that particular undertaking and portfolio; and
- d) Historical data available to the supervisory authority from other undertakings operating in the same market which are deemed comparable for the risks under analysis.

3.192. If the above information is not sufficient to approximate the amount of the relevant capital charge corresponding to the 99.5% VaR for a one-year time horizon, the supervisory authority could ask for additional historical data from the undertaking concerned and from those other undertakings operating in the same market and which are deemed comparable for the risk(s) under analysis.

3.193. The amount of the capital add-on should be determined by the difference between the approximation of the amount of the relevant capital charge corresponding to the 99.5% VaR for a one-year period and the amount of the capital charge as calculated by the undertaking with the standard formula.

3.194. CEIOPS is unconvinced as to whether any further general provisions on the calculation can be set on Level 2, because the calculation may depend on particularities of the deviation.

3.3.3.2. Calculation of a Risk Profile Capital Add-On for undertakings using an internal model

3.195. The methodologies for the calculation of a capital add-on using the internal model results may take into account the methodologies for the calculation of a capital add-on using the standard formula where appropriate. Nevertheless considering the specificities of internal models, amongst those referred to in paragraph 3.109, CEIOPS believes that the methodologies to calculate a capital add-on when an internal model is used should depend on the specific situation of each undertaking.

3.196. When the supervisory authority finds evidence that the risk profile of an undertaking deviates significantly from the assumptions underlying the SCR as calculated using the internal model (Article 37(1)(b) of the Level 1

text), it needs to identify objectively what assumptions are being challenged. More specifically, the supervisory authority will need to identify the sources of the deviation.

- 3.197. Notwithstanding paragraph 3.36, as a first step, the supervisory authority will need to identify if the deviations are caused by:
- a) Underestimation of particular model components (e.g. sub-risks or risk modules or lines of business depending on the structure of the model); and/or
 - b) The aggregation mechanism (e.g. dependency structure parameters or assumptions).

The case of underestimation of model components

- 3.198. The supervisory authority needs to identify which model components are considered to be underestimated by the internal model.
- 3.199. Ideally, the identification should be targeted at the most granular level the model is used. Where the assessment is made at a less granular level, it will implicitly include the assessment of the aggregation mechanism between model components at a less granular level.
- 3.200. After identifying the relevant model component, the supervisory authority then needs to conclude if the significant deviation is due to:
- a) Inadequacy of the calibration of parameters in the internal model (including the adjustment referred to in Article 108 of the Level 1 text and mismodeling of risk mitigation techniques); or
 - b) Inadequacy of the design assumptions in the internal model – for instance, assumptions on probability distributions or the underlying methodology. Inadequate design assumptions are those where a better fit of the model to the risk profile of the undertaking is only possible through structural changes to the internal model, i.e. changing the value of the parameters is not sufficient.
- 3.201. When the significant deviation is due to inadequate calibration of parameters for a particular model component, the calculation of the capital add-on could be based on a “re-run” of the internal model using new parameters that best reflect the risk profile of the undertaking. Thus, the amount of the capital add-on would be given by the difference between the result of such “re-run” and the amount of the SCR as calculated by the undertaking.
- 3.202. In such cases, the undertaking would be asked by the supervisory authority to derive the necessary parameters from an appropriate set of data to reflect its true risk profile. This data may be entity specific. Where such data is not available or not sufficiently reliable, the analysis by the supervisory authority could consider, having due regard to confidential issues, data from other undertakings whose risk profile (for the risks under analysis) is deemed comparable, or other market data.
- 3.203. With significant deviations due inadequate design of the internal model, the supervisory authority will ask the undertaking to look for alternative design approaches consistent with the standards set in Articles 121 to 125

of the Level 1 text that would better fit the specificities of the risk profile of the undertaking. For instance, this could involve the consideration of different probability distributions or the introduction of additional parameters in the model (e.g. if no risks arising from risk mitigations are being considered). The search for alternatives would need to be backed by empirical and statistical studies performed, including expert judgment, using the own data of the undertaking or, if such data is not available or not sufficiently reliable, data from other undertakings whose risk profile (for the risks under analysis) is deemed comparable, or other market data.

- 3.204. Where such alternative design is found, the amount of the capital add-on would be given by the difference between the result of a "re-run" of the internal model where the original design of the particular model component is substituted by the alternative design, and the amount of the SCR as calculated by the undertaking.
- 3.205. As experience emerges in practice, Level 3 guidance may be issued to harmonise such alternative approaches, allowing the sharing of experience and knowledge between supervisory authorities.
- 3.206. If, in practice, it is not possible to find an alternative design for the particular model component, but the supervisory authority has evidence that the significant deviation is caused by inadequate design assumptions of the internal model, it would need to set the capital add-on on a more 'crude' basis, namely through comparative analysis.
- 3.207. For instance, the amount of the capital charge for the particular sub-risks (or risk modules in the case of modular models by risk type) could be scaled-up to correspond to the same relative amount (relative with respect to the most appropriate measure to the supervisory authority) of the capital charge observed for undertakings whose risk profile with respect of the risks under analysis is deemed comparable.
- 3.208. Where undertakings with relatively comparable risk profiles cannot be found (or where the whole group of 'comparable' undertakings face the same significant deviation problem), the supervisory authority would need to 'scale-up' the capital charge incorporating a more subjective analysis of the perceived increase in the riskiness of the business of the undertaking relative to its peers.
- 3.209. In these cases, the amount of the capital add-on would be given by the difference between the result of a "re-run" of the internal model where the capital charge for the particular model component is substituted by the 'scaled-up' capital charge and the amount of the SCR as calculated by the undertaking.

The case of deviations caused by the aggregation mechanism

- 3.210. The assessment of significant deviations due to inadequacy of the aggregation mechanism is a challenging area from a technical perspective. In fact, a meaningful empirical and statistical study requires the availability of a significant amount of historical data for the relevant risks and/or expert judgment.

- 3.211. When identifying the reasons for the significant deviation, the supervisory authority needs to consider if:
- a) The problem is the inadequacy of the parameterisation of the dependency structure; or
 - b) The problem is the inadequacy of the dependency structure itself (e.g. not properly taking into account tail dependencies, non linearity of dependencies, etc.).
- 3.212. In the former case, the supervisory authority would ask the undertaking to assess the value of new parameters for the dependency structures that best reflects its risk profile. This would need to be backed by empirical and statistical studies performed and/or expert judgment, using data which is considered appropriate to describe the risk profile of the undertaking.
- 3.213. Then, the calculation of the capital add-on would be based on a "re-run" of the internal model using the new parameters for the dependency structure's parameters that best reflect the risk profile of the undertaking. Thus, the amount of the capital add-on would be given by the difference between the result of such a "re-run" and the amount of the SCR as calculated by the undertaking.
- 3.214. In the latter case, i.e. when the assumption of the dependency structure itself is challenged, the calculation of the capital add-on would require that an alternative aggregation mechanism is found such that it is consistent with the standards set in Article 121 to 125 and best fits the risk profile of the undertaking. The search for alternatives would need to be backed by empirical and statistical studies performed and/or expert judgment, using the own data of the undertaking or, if such data is not available or not sufficiently reliable, data from other undertakings whose risk profile (for the risks under analysis) is deemed comparable, or other market data.
- 3.215. Where such alternative dependency structure is found, the amount of the capital add-on would be given by the difference between the result of a "re-run" of the internal model where the original design of the dependency structure is substituted by the alternative dependency structure and the amount of the SCR as calculated by the undertaking.
- 3.216. As experience emerges in practice, Level 3 could be used to disclose and harmonise such alternative approaches, allowing the sharing of experience and knowledge between supervisory authorities.
- 3.217. If, in practice, it is not possible to find an alternative dependency structure, but the supervisory authority has evidence that the significant deviation is caused by inadequate dependency structure assumptions of the internal model, it would need to set the capital add-on on a more 'crude' basis, namely through comparative analysis.
- 3.218. For instance, this could be achieved by scaling-up the SCR (total or a relevant part that can be separately identified) of the undertaking under analysis based on the relative comparison with the SCR calculated using approved internal models of undertakings whose risk profile is considered to be comparable.

Relevant sources of information

3.219. In order to quantify the amount of a Risk Profile Capital Add-On, the supervisory authority would necessarily need to assess the deviation on a case-by-case basis, making use of all relevant and appropriate information available. Without limitation, the following, if relevant, may be considered as input for the calculation:

- a) The results of (partial) internal models from other undertakings operating in the same market which are deemed comparable for the risk(s) under analysis;
- b) The results of the application of undertaking-specific parameters from other undertakings operating in the same market which are deemed comparable for the risk(s) under analysis;
- c) Any available empirical and statistical studies, including expert judgment made at market level about the behaviour of the model component/dependency structure under analysis which are considered to be appropriate and applicable for that particular undertaking and portfolio; and
- d) Historical data available to the supervisory authority from other undertakings operating in the same market which are deemed comparable for the risks under analysis.

3.220. If the above information is not sufficient to approximate the amount of the relevant capital charge corresponding to the 99.5% VaR for a one-year time horizon, the supervisory authority should ask for additional historical data from the undertaking concerned and from those other undertakings operating in the same market which are deemed comparable for the risks under analysis.

3.221. The amount of the capital add-on should be determined by the difference between the approximation of the amount of the relevant capital charge corresponding to the 99.5% VaR for a one-year period and the amount of the capital charge as calculated by the undertaking with an internal model.

3.222. At this stage CEIOPS is not convinced about formulating specific methodologies for a capital add-on or general criteria other than those provided in this advice, as the ways to calculate a capital add-on may vary considerably depending on the type of the deviation, among other factors.

3.223. Special attention should be paid in the case of partial internal models. For simplicity and coherency reasons it could be argued that the methodologies to calculate a capital add-on in this case should be the same as used for a capital add-on set over the SCR calculated by the standard formula. However, it is important to stress that several possible options regarding partial internal models integration are being evaluated under the impact assessment process, and that the ultimate degree of freedom allowed may have an impact on the way a capital add-on is calculated. Additionally the number and significance of risks covered by a partial model may differ considerably from one to almost all risks faced. Consequently, at this stage CEIOPS believes the methodologies for the calculation of a capital add-on should depend on the specific situation of each undertaking.

3.3.3.3. Calculation of a Governance Capital Add-On

- 3.224. The general principle established in Article 37(2), second subparagraph of the Level 1 text is that the capital add-on shall be proportionate to the material risks arising from the governance deficiencies. However, these risks will, by their own nature, not be easily quantifiable. There may not be sufficient data available to render a probability distribution possible. When assessing and quantifying the deficiencies, the supervisory authority will need to use an element of judgement. For a Governance Capital Add-On the calculation of the add-on can only be based on an estimation.
- 3.225. Since the capital add-on is not a punitive measure but serves as a buffer for the material risks arising from the serious deficiencies in governance standards, the amount of the add-on is to be determined strictly with a view to what amount is needed to safeguard against the additional risks arising.
- 3.226. When discussing the possible ways of calculating a Governance Capital Add-On several options were considered. The importance of this issue justified the performance of an impact assessment, in accordance with the European Commission's Call for Advice from CEIOPS. In this context, regarding the calculation, CEIOPS considers the three following options:
- **Option 1:** Percentage of the overall SCR established by categories according to a specific grouping of deficiencies;
 - **Option 2:** Predefined scenarios (cause and effect);
 - **Option 3:** Harmonised criteria to be taken into account in determining the amount in addition to cause and effect.
- 3.227. These options were discussed taking into consideration the relevant specific and operational objectives identified and the impact on different stakeholders. The details of this exercise can be found in Annex 1.
- 3.228. For Option 1 CEIOPS would have to list and group the deficiencies into categories and associate, to each of them, a level of significance. The calculation of the capital add-on would be made based on a fixed percentage, or a range of percentages, of the overall SCR.
- 3.229. The main weakness of Option 1 resides in the fact that it is not fully deficiency/risk sensitive. The listing and grouping of the deficiencies into categories would be a virtually impossible task to perform in practice. In fact, no two undertakings use the same system of governance and consequently each governance failure will be different in nature. A standard classification basis for the quantification of capital add-ons relating to governance failures is therefore not practicable. An appropriate level of flexibility in this assessment should be afforded to the supervisory authorities, with the categorisation not being linked to a fixed amount, but a scope to choose from in order to reach a level of capital add-on deemed appropriate for each particular case.
- 3.230. In case of Option 2, the establishment of a scenario-based approach would necessarily imply the pre-determination of a list of deficiencies and the estimation of the associated potential losses, so that the corresponding capital add-on could be set. This could be a feasible approach for some types of deficiencies in the system of governance. However, other

situations could occur where the estimation of the associated potential losses – financial or not – would be a rather difficult or even impossible task.

- 3.231. Option 3 would require some degree of harmonisation of criteria for establishing the amount of the capital add-on in order to limit the potential variability of the result in a qualitative way. This seems to be more in line with the Level 1 text, since the amount of the capital add-on would be linked to the significance of the deficiency.
- 3.232. Additionally, some use could also be made of the scenarios referred to in Option 2, as there would still be some types of deficiencies where this could be considered a sensible approach.
- 3.233. Considering the rationale above, CEIOPS is inclined to favour Option 3: a principles-based approach with general criteria established at Level 2.
- 3.234. CEIOPS considers that despite the need to define a methodology for the calculation of a Governance Capital Add-On, there are other tools that can be used to enhance harmonisation. For example, scenario analysis, combined with an assessment (necessarily approximate) of the likelihood of the scenario, is a valid proposal. The supervisory authority or undertaking could estimate what the potential impact of the governance failure on the undertaking and on the level of policyholder protection is.
- 3.235. Several other elements could be taken into account when assessing the amount of a Governance Capital Add-On, although they may not be relevant for all types of governance deficiencies. These include:
- a) Background, history and environment of the undertaking;
 - b) Analysis of past capital add-ons (market wide) arising from inadequate governance,
 - c) Any information on operational risk events that have occurred and that could be linked to the deficiency at stake;
 - d) Probable financial loss the undertaking could incur as a consequence of the deficiency;
 - e) Level of integration of the system of governance in the day-to-day business;
 - f) Whether the deficiency results from a certain requirement (e.g. a function) being inadequately implemented, taking into account the nature, scale and complexity of the risks inherent to the business carried out by the undertaking, or not being implemented at all;
 - g) Number of the deficiencies or if any evidence indicates that more deficiencies are yet to be discovered; and
 - h) Organisational culture of the undertaking.
- 3.236. As stated before, CEIOPS will undertake further work on the convergence of risk categorisation of undertakings under the SRP on Level 3. This work should be used in the future to further harmonise the calculation of a capital add-on in case of governance deficiencies.

3.4. Follow-up

Principle 4

The setting and the amount of a capital add-on should be reviewed more frequently than annually if there are indications that the situation that led to the setting of the capital add-on has changed based on valid evidence.

- 3.237. Article 37(4) of the Level 1 text requires the capital add-on to be reviewed by the supervisory authority at least once a year. The review should include a reassessment of the circumstances leading to the imposition of the add-on and the amount of the add-on. Based on this review, possible supervisory outcomes may be that the capital add-on is removed, reduced, increased or remains unchanged.
- 3.238. In accordance with Article 37(3) of the Level 1 text if the capital add-on was set on account of necessary improvements to an internal model or the system of governance the supervisory authority will also require the undertaking to adapt the internal model or correct the deviation from the required governance standards respectively.
- 3.239. The undertaking should present to the supervisory authority a plan which includes the actions and measures it will carry out in order to remedy the deficiency(ies) during the agreed timeframe. During this period, a dialogue between the supervisory authority and the undertaking should be kept and a periodic progress report should be presented to the supervisory authority in pre-defined dates agreed upon between both.
- 3.240. Apart from these progress reports, more frequent than annual reviews should take place if it appears that the situation that led to the setting of the capital add-on has changed significantly. Such a situation could include the undertaking informing the supervisory authority that the deficiency has been resolved or that the undertaking's risk profile has changed materially.
- 3.241. In case of a Governance Capital Add-On the supervisory authority will monitor the necessary improvements implemented by the undertaking to remedy the identified deficiencies in its governance standards. This information about the progress of remedial actions enables the supervisory authority to reassess the situation in a timely manner and reduce or remove the capital add-on as necessary.
- 3.242. When an internal model still needs adaptation this may be on the basis of an extended and/or amended compliance restoration plan. This sets a (new) timeframe for the adaptation at the end of which the supervisory authority has to decide whether compliance has been restored and the capital add-on can be lifted. Otherwise the supervisory authority has to assess whether the undertaking should continue to try and adapt the model with the capital add-on in place or whether other measures are appropriate.
- 3.243. If and when the undertaking no longer faces the risks that gave rise to the capital add-on, the supervisory authority should remove it. This could be the result of a management action taken by the undertaking in order to mitigate the risks faced, or a result of changes in the external

environment. In both cases, the need for the capital add-on should be reviewed.

3.244. Such a revision would have to be agreed between the undertaking and the supervisory authority and would only occur if valid evidence is presented that either remedial actions were taken or the circumstances have significantly changed. In any case, the supervisory authority should always be allowed the final decision on the adequacy of such a revision.

3.5. Communication with undertaking and disclosure

3.245. In situations where a capital add-on is set, supervisory authorities should put down their decisions in writing and justify them to the undertaking. Future Level 3 guidance will set out guidance on the information to be transmitted to the undertaking in order to harmonise the process of setting a capital add-on. This information has to be sufficient to enable the undertaking to understand the conclusions drawn by the supervisory authority.

3.246. This communication should at least include the following:

- a) An outline of the deviation the supervisory authority has identified and the reasons why the deviation is considered significant. For governance deficiencies this includes comments on the standards expected of the undertaking and on why the deviation is detrimental to proper risk management;
- b) A description on why other measures would not be sufficient or why the supervisory authority considers that other measures, although sufficient, would not be considered to be in place in a timely manner; and
- c) Particulars as to the proposed amount of the capital add-on, with details on how the amount was determined.

3.247. In general terms, an undertaking should understand what it needs to do in order to have the capital add-on lifted.

Principle 5

The disclosure made by the undertaking on the amount and justification of the capital add-on should be compliant with the supervisory decision.

3.248. In accordance with Article 51 of the Level 1 text, the public disclosure of the SCR incumbent on the undertaking shall provide separately the amount calculated using the standard formula or an internal model and any capital add-on, with concise information on its justification by the supervisory authority concerned (it is subject to Member States' discretion not to require separate disclosure of the add-on during a transitional period not exceeding 5 years).

3.249. The disclosure made by the undertaking should give a true view of the supervisory decision.

CEIOPS' advice

On the circumstances under which a capital add-on may be imposed

- 3.250. A capital add-on can be set at the same time to cover situations under Article 37(1)(a) or (b) and (c) of the Level 1 text.
- 3.251. In the context of Article 37(1)(a)(i), developing an internal model is "inappropriate" when the development of an internal model is disproportionate taking into account the resources required to build an internal model compared to the nature, scale and complexity of the risks that are inadequately captured.
- 3.252. If the development of a (partial) internal model is considered to be the most appropriate solution, according to Article 37(1)(a)(ii), the undertaking should immediately instigate the process of developing the (partial) internal model and the supervisory authority should assess whether a capital add-on is needed during this development period.
- 3.253. In the context of Article 37(1)(a)(i), the "ineffectiveness" of developing an internal model is assessed after the development of an internal model as required in application of Article 119.
- 3.254. The evaluation of the conditions under which the requirement to use an internal model under Article 119 has been ineffective refers directly to the general approval process of (partial) internal models, namely to the circumstances that may lead to the rejection of a model. Consequently, the criteria to assess whether the requirement to use an internal model under Article 119 has been ineffective should be the same as the criteria for approval of internal models in general.

Significant deviation

- 3.255. The reference value to determine a significant deviation in accordance with Article 37(1)(a) and (b) shall be set at 10% of the overall SCR. This reference value serves as a rebuttable presumption that the deviation is significant but supervisory authorities may decide to depart from it either way based on the harmonised criteria established at 3.257 and 3.258 respectively. Deviations greater than 15% shall always be considered significant.
- 3.256. Both the reference value and the limit of 15% shall be reviewed within five years of the implementation of Solvency II to incorporate the experience with the new regime.
- 3.257. When assessing the significance of a deviation in accordance with Article 37(1)(a), supervisory authorities should consider all relevant conditions to deviate from the reference value. These may include:
- a) Uncertainty regarding the amount of the deviation due to high sensitivity of the assumptions. In cases where a small change in the assumption of the assessment leads to large variations of the final value, lower percentages may be used;
 - b) Whether the underestimated risk is static or dynamic;

- c) The timeframe established to change the risk profile or develop an internal model, if applicable. The assessment of the need to deviate from the reference value should not ignore the timeframe defined to solve the situation; and
- d) Whether an internal model is being developed or not, either as a requirement from the supervisory authority or by an undertaking's own initiative.

3.258. When assessing the significance of a deviation in accordance with Article 37(1)(b), supervisory authorities should consider all relevant conditions to deviate from the reference value. These may include:

- a) Nature, type, materiality degree of non compliance;
- b) The impact on the assessment of the risk profile of the undertaking;
- c) The nature, scale and complexity of the risks inherent in the business of the undertaking;
- d) The dependencies between risks;
- e) The likelihood and severity of an impact on policyholders;
- f) The analysis of specific stress scenarios;
- g) Uncertainty regarding the amount of the deviation due to high sensitivity of the assumptions. In cases where a small change in the assumption of the assessment leads to large variations of the final value, lower percentages may be used; and
- h) If the underestimated risk is static or dynamic. If the deviation is identified in a risk that is static, a small deviation could mean a more serious problem since the deviation would be constant. If on the contrary the risk is very volatile the deviation is not constant (this does not prevent an add-on being set for volatile risks).

3.259. In the assessment of the significance of the deviation in accordance with Article 37(1)(a) and (b), the effects on the overall SCR taking into account both the risks that are underestimated and the risks that are overestimated shall be considered. However, it is the responsibility of the undertaking to present sufficiently strong arguments and evidence, in relation to the overestimated risks, to allow the supervisory authority to be satisfied that the overall SCR is in line with the VaR 99.5% for a one-year period.

3.260. When assessing the significance of a deviation in accordance with Article 37(1)(c), the supervisory authority should take into account:

- a) The proportionality principle;
- b) The fact that there are different ways of organising a proper system of governance; and
- c) Any risk categorisation used under the Supervisory Review Process.

Appropriate timeframe

3.261. In the definition of an adequate timeframe for the undertaking to solve

the deficiency without setting a capital add-on according to Article 37(1)(c), the supervisory authority should consider a maximum period of 6 months that could be shortened according to general criteria.

3.262. The criteria to be used, besides the protection of policyholders, in order to assess the appropriate time period, within the maximum of 6 months, could also include:

- a) A matter of urgency of any kind;
- b) Any information on operational risk events that have occurred (including near misses) and that could be linked to the deficiency at stake;
- c) Probable financial loss the undertaking could incur as a consequence of the deficiency, i.e. impact on policy holders; and
- d) Whether the deficiency results from a certain requirement (e.g. a function) being inadequately implemented, taking into account the nature, scale and complexity of the risks inherent to the business carried out by the undertaking.

On the methodologies to be used for the calculation

3.263. A due process for setting capital add-ons implies:

- a) That all the relevant steps (such as the identification of an issue, the assessment of the issue and then the calculation of an add-on if appropriate) have been followed;
- b) That the results from the steps have been properly documented; and
- c) That any relevant conclusion or measure by the supervisory authority have been shared with the undertaking concerned, and that the undertaking has been given the opportunity to present its views, including additional information, on these conclusions or measures within an appropriate timeframe.

3.264. Undertakings shall fully co-operate in this process by providing the supervisory authority with all relevant information in a timely manner.

3.265. For composites, considering that the calculation of the MCR is linked to the SCR, a notional split of the SCR between life and non-life (re)insurance activities is necessary to calculate each notional MCR.

3.266. Where a capital add-on has been imposed, a notional split of such capital add-on between life and non-life (re)insurance activities is also necessary for that purpose.

3.267. With respect to the notional split of the SCR between life and non-life (re)insurance activities, the overall SCR of the undertaking, not including the capital add-on, should be split according to the ratio of the notional life and non-life linear MCR results.

3.268. With respect to the notional split of the capital add-on between life and non-life (re)insurance activities, in order to split the capital add-on between life and non-life (re)insurance activities, the following approach should be taken:

- a) For a Risk Profile Capital Add-On where an objective allocation of those risks identified as causing the significant deviation mentioned in Article 37(1)(b) to life and non-life (re)insurance activities is possible, the split would be determined by the supervisory authority imposing the capital add-on in a manner consistent with such allocation of risks;
- b) For a Governance Capital Add-On where it is possible to identify and objectively allocate those governance deficiencies causing the significant deviation mentioned in Article 37(1)(c) to life and non-life (re)insurance activities, the split would be determined by the supervisory authority imposing the capital add-on in a manner consistent with such allocation of governance deficiencies; and
- c) For a Risk Profile Capital Add-On and/or a Governance Capital Add-On for which it is not possible to perform a reasonably objective allocation exercise, as described in the previous two bullet points, the supervisory authority imposing the capital add-on should allocate the capital add-on according to the ratio of the notional life and non-life linear MCR results.

3.269. When the supervisory authority finds evidence that the risk profile of an undertaking deviates significantly from the assumptions underlying the SCR as calculated using the standard formula (Article 37(1)(a)), it needs to identify objectively what assumptions are being challenged. More specifically, the supervisory authority will need to identify the sources of the deviation.

3.270. As a first step, the supervisory authority will need to identify if the deviations are caused by:

- a) Underestimation of particular sub-risks or risk modules; and/or
- b) Quantifiable risks not covered by the SCR calculation; and/or
- c) The aggregation mechanism (e.g. correlation parameters or assumptions).

The case of underestimation of particular sub-risks or risk modules

3.271. The supervisory authority needs to identify which sub-risk(s) (or risk module(s) if, in practice, the assessment cannot be made at a more granular level), is(are) considered to be underestimated by the standard formula.

3.272. After identifying the relevant sub-risk(s) (risk module(s)), the supervisory authority then needs to consider the cause of the significant deviation, this could be due to:

- a) Inadequacy of the calibration of parameters in the standard formula for that particular sub-risk(s) (risk module(s)); or
- b) Inadequacy of the design assumptions in the standard formula for that particular sub-risk(s) (risk module(s)) – for instance, assumptions on probability distributions or the underlying methodology. Inadequate design assumptions are those where a better fit of the formula to the risk profile of the undertaking is only possible through structural

changes to the formula, i.e. changing the value of the parameters is not sufficient.

- 3.273. In the first case, i.e. when the significant deviation is due to an inadequate calibration of parameters for a particular sub-risk(s) (risk module(s)), the calculation of the capital add-on could be based on a "re-run" of the standard formula using new parameters that best reflect the risk profile of the undertaking. Thus, the amount of the capital add-on would be given by the difference between the result of such "re-run" and the amount of the SCR standard formula as calculated by the undertaking.
- 3.274. As for the second case, significant deviations due to evidence of inadequate design of the standard formula for a particular sub-risk(s) (risk module(s)) can only occur when factor-based approaches are the basis of the calculation (e.g. counterparty default risk, non-life premium & reserve risk, etc.).
- 3.275. In such cases, the supervisory authority will ask the undertaking to look for alternative design approaches consistent with Article 104(3) and that would better fit the specificities of the risk profile of the undertaking.
- 3.276. Where such alternative design is found, the amount of the capital add-on would be given by the difference between the result of a "re-run" of the standard formula where the original design of the particular sub-risk(s) (risk module(s)) is substituted by the alternative design and the amount of the SCR standard formula as calculated by the undertaking.
- 3.277. If, in practice, it is not possible to find an alternative design for the particular sub-risk(s) (risk module(s)), but the supervisory authority has evidence that the significant deviation is caused by inadequate design assumptions of the standard formula, it would need to set the capital add-on on a more 'crude' basis, namely through comparative analysis.

The case of quantifiable risks not covered by the SCR calculation

- 3.278. The supervisory authority needs to identify which material risks to which the undertaking is exposed are not covered by the standard formula.
- 3.279. After identifying the relevant risks, the supervisory authority needs to consider, in accordance with each particular risk, the methodologies available to better quantify it.
- 3.280. The next step would be to aggregate the identified risk with the other risks covered by the standard formula.

The case of deviations caused by the aggregation mechanism

- 3.281. In this particular situation, when identifying the reasons for the significant deviation, the supervisory authority needs to consider whether:
- a) The problems lies with the inadequacy of one or more specific correlation factors; or
 - b) The assumption of linear correlations between a set of sub-risks is not considered to be appropriate to capture the risk profile of the

undertaking.

In the former case, the supervisory authority would ask the undertaking to assess the value of 'new' correlation factor(s) that best reflects its risk profile. This would need to be backed by empirical and statistical studies performed using data of the relevant risks which is considered appropriate to describe the risk profile of the undertaking.

3.282. Then, the calculation of the capital add-on would be based on a "re-run" of the standard formula using the new correlation factor(s) that best reflect the risk profile of the undertaking. Thus, the amount of the capital add-on would be given by the difference between the result of such "re-run" and the amount of the SCR standard formula as calculated by the undertaking.

3.283. In complex cases where the supervisory authority has evidence that a significant deviation exists and believes it is caused by the inadequacy of the linear correlation assumptions, it would need to set the capital add-on on a more 'crude' basis, namely through comparative analysis. This could be achieved by scaling-up the SCR (total or a relevant part that can be separately identified) of the undertaking under analysis based on the relative comparison with the SCR calculated using approved internal models by undertakings whose risk profile is considered to be comparable.

3.284. When the supervisory authority finds evidence that the risk profile of an undertaking deviates significantly from the assumptions underlying the SCR as calculated using the internal model (Article 37(1)(b)), it needs to identify objectively what assumptions are being challenged. More specifically, the supervisory authority will need to identify the sources of the deviation.

3.285. As a first step, the supervisory authority will need to identify if the deviations are caused by:

- a) Underestimation of particular model component(s) (e.g. sub-risks or risk modules or lines of business depending on the structure of the model); and/or
- b) The aggregation mechanism (e.g. dependency structure parameters or assumptions).

The case of underestimation of model component(s)

3.286. The supervisory authority needs to identify which model components are considered to be underestimated by the internal model.

3.287. After identifying the relevant model component, the supervisory authority needs to conclude if the significant deviation is due to:

- a) Inadequacy of the calibration of parameters in the internal model (including the adjustment referred in Article 107 and mismodeling of risk mitigation techniques); or
- b) Inadequacy of the design assumptions in the internal model.

3.288. When the significant deviation is due to inadequate calibration of

parameters for a particular model component, the calculation of the capital add-on could be based on a "re-run" of the internal model using new parameters that best reflect the risk profile of the undertaking. Thus, the amount of the capital add-on would be given by the difference between the result of such "re-run" and the amount of the SCR as calculated by the undertaking.

3.289. Significant deviations due to evidence of inadequate design of the internal model, the supervisory authority will ask the undertaking to look for alternative design approaches consistent with the standards set in Articles 119 to 123 and that would better fit the specificities of the risk profile of the undertaking.

3.290. Where such alternative design is found, the amount of the capital add-on would be given by the difference between the result of a "re-run" of the internal model where the original design of the particular model component is substituted by the alternative design and the amount of the SCR as calculated by the undertaking.

3.291. If, in practice, it is not possible to find an alternative design for the particular model component, but the supervisory authority has evidences that the significant deviation is caused by inadequate design assumptions of the internal model, it would need to set the capital add-on on a more 'crude' basis, namely through comparative analysis.

The case of deviations caused by the aggregation mechanism

3.292. In this particular situation, when identifying the reasons for the significant deviation, the supervisory authority needs to consider if:

- a) The problem lies on the inadequacy of the parameterisation of the dependency structure; or
- b) The problem lies on the inadequacy of the dependency structure itself.

3.293. In the former case, the supervisory authority would ask the undertaking to assess the value of 'new' dependency structure's parameters that best reflects its risk profile. This would need to be backed by empirical and statistical studies performed and/or expert judgment, using data which is considered appropriate to describe the risk profile of the undertaking.

3.294. Then, the calculation of the capital add-on would be based on a "re-run" of the internal model using the new dependency structure's parameters that best reflect the risk profile of the undertaking. Thus, the amount of the capital add-on would be given by the difference between the result of such "re-run" and the amount of the SCR as calculated by the undertaking.

3.295. When the assumption of the dependency structure itself is challenged, the calculation of the capital add-on would require that an alternative aggregation mechanism is found such that is consistent the standards set in Article 119 to 123 and best fits the risk profile of the undertaking. The search of alternatives would need to be backed by empirical and statistical studies performed and/or expert judgment, using the own data of the undertaking or, if such data is not available or is not sufficiently reliable, data from other undertakings whose risk profile (for the risk(s) under

analysis) is deemed comparable could be considered or other market data.

3.296. Where such alternative dependency structure is found, the amount of the capital add-on would be given by the difference between the result of a "re-run" of the internal model where the original design of the dependency structure is substituted by the alternative dependency structure and the amount of the SCR as calculated by the undertaking.

3.297. If, in practice, it is not possible to find an alternative dependency structure, but the supervisory authority has evidence that the significant deviation is caused by inadequate dependency structure assumptions of the internal model, it would need to set the capital add-on on a more 'crude' basis, namely through comparative analysis.

3.298. For the calculation of a capital add-on in accordance to Article 37(1)(c), the supervisory authority should use harmonised criteria, as well as some pre-defined cause and effect scenarios.

3.299. The criteria to be taken into account when defining the amount of a capital add-on as for Article 37(1)(c) could include:

- a) Background, history and environment of the undertaking;
- b) Analysis of past capital add-ons (market wide) arising from inadequate governance;
- c) Any information on operational risk events that have occurred and that could be linked to the deficiency at stake;
- d) Probable financial loss the undertaking could incur as a consequence of the deficiency;
- e) Level of integration of the system of governance in the day-to-day business;
- f) Whether the deficiency results from a certain requirement (e.g. a function) being inadequately implemented, taking into account the nature, scale and complexity of the risks inherent to the business carried out by the undertaking, or not being implemented at all;
- g) Number of the deficiencies or if any evidence indicates that more deficiencies are yet to be discovered; and
- h) Organisational culture of the undertaking.

4. Advice on capital add-ons in a group context

Explanatory text

- 4.1. The purpose of this chapter is to highlight some of the key group-specific issues for Advice on capital add-ons.
- 4.2. Generally, recommendations at solo level shall apply consistently at group level with the necessary adaptations. In addition, the following recommendations shall also apply at group level.
- 4.3. Non EEA entities are not subject to title 1 of the Level 1 text. Nevertheless, risks stemming from those entities will have to be taken into account when assessing the group-SCR. CEIOPS considers that cooperation with third countries will be very important in that respect as mentioned in CP 60 and 62.

4.1. Objective of a group capital add-on

- 4.4. Principle 1 also applies at group level with the necessary adaptations.
- 4.5. The objective of a group capital add-on is the same as at solo capital add-on. That is, it is designed to be used in exceptional circumstances to address deficiencies at group level.
- 4.6. Also at a group level two types of capital add-on should be considered:
 - a) A risk profile capital add-on – aims to ensure that the SCR meets the 99.5% confidence level; and
 - b) A governance capital add-on – aims to protect policyholders where there are significant flaws in an undertakings system of governance.
- 4.7. Therefore, at group level, a risk profile capital add-on relates to a deviation from the risk profile of the group (group SCR). A governance capital add-on relates to the deficiencies of the group's overall system of governance.
- 4.8. The Level 1 text states that the provisions in Article 37(1)-(5) apply at group level. However, Articles 230 and 231 state that a group capital add-on may be applied to the group SCR in two circumstances in particular:
 - a) Where there are specific risks at group level that are not adequately covered by the standard formula or internal model because they are difficult to quantify; or
 - b) Where a capital add-on has been applied to a related undertaking.
- 4.9. There will be no automatic group capital add-on. Inter alia, risk mitigation will be taken into account in the decision making process to set a group capital add-on. The following decision process for group specific risks explained in CP 60 illustrates that.
- 4.10. CEIOPS considers that group-specific risks shall be addressed using the following approach:

- a) First, the group shall be required to calculate the group SCR either with the standard formula or an internal model.
 - b) Second, supervisors shall acquire information on group-specific risks through, among other means, the group supervisory review process, stress tests or other quantitative or qualitative measures;
 - c) Third, if the group uses the standard formula and where there is a significant deviation from the assumptions underlying the standard formula calculation (e.g. due to complex structures, etc.), the group supervisor shall adopt the necessary measures to correct this situation. For this purpose the group supervisor may require :
 - aa) the use of an internal model pursuant to Article 119; or
 - bb) the use of group specific parameters for underwriting modules where the deviation arises from the application of those modules.
- 4.11. Alternatively, if the group uses an internal model, then the requirements of Articles 112 to 126 shall apply meaning that any deficiency due to group specific risks will have to be addressed in the same way as for any other risks.

Group-specific risks

- 4.12. One of the key issues in the Level 2 advice on group solvency is how to capture group-specific risks in the group SCR. The QIS4 study found that unique risks arise at the level of the group (e.g. contagion risk or risks occurring at holding level) and that those risks are generally not adequately captured by the standard formula. This is because the standard formula is principally designed for a solo undertaking. QIS4 found that internal models were used to capture certain types of group-specific risk (e.g. restrictions on the transferability of capital and reputation risk).
- 4.13. The assessment of group-specific risks is inherently complex as it is based on a collection of related legal entities, not just the risk profile of a single legal entity, and the nature of group-specific risks vary from group to group. Therefore, in order to understand the risk profile of the group and the appropriate level of risk-based capital at group level, undertakings need to understand the impact of the interrelationships between different entities and the correlations between different risk types. This may not be possible from the standard formula or the group internal model. Supervisors need to be able to assess whether this process has happened in an appropriate manner.
- 4.14. A description of the treatment of group specific risks is contained in the CEIOPS' Level 2 advice on Group solvency assessment.
- 4.15. The difficulties implicit in reaching the decision of setting a capital add-on means that supervisors will need flexibility in the process for applying a group capital add-on. Most groups will be exposed to some degree of group-specific risks, but not all groups will be exposed to a significant level of such risks that may necessitate a group capital add-on as a last resort measure. This highlights the importance of assessing a group capital add-on on a case-by-case basis. The capital add-on process is part of the Pillar 2 supervisory review process as described in CEIOPS' Level 2 advice

on Group solvency assessment for the process of assessing an add-on at group-level.

- 4.16. While the provisions set out in Article 37(1) to (5) and the implementing measures under Article 37(6) apply *mutatis mutandis* at group level, CEIOPS considers Articles 232 and 233 flexible enough to account for the specific issues relating to the group risk profile.

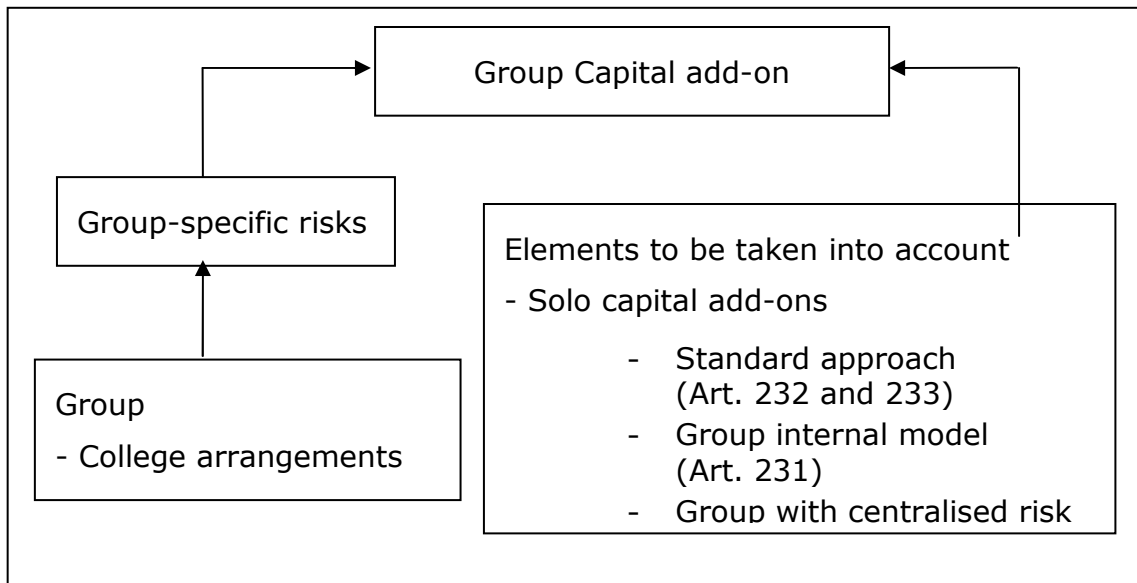
Impact of a solo capital add-on at group level

- 4.17. Article 232 requires supervisors to consider how a capital add-on at solo level should be reflected at group level. However, Article 233 refers only to risks that are difficult to quantify (group-specific risks). This is because where the deduction and aggregation method applies, any capital add-on applied at solo level would flow directly through into the aggregated group SCR.
- 4.18. However, this raises the issue of how a capital add-on applied at solo level will be reflected when applying the accounting-consolidated based method. The group SCR will be calculated based on the consolidated accounts using either the standard formula or an internal model. Then, the group supervisor, in cooperation with the College, will assess whether there is a need for a capital add-on at group level. In doing that, add-ons existing at solo level will have to be considered. It implies that the group supervisor will have to check whether the rationale for the solo capital add-ons remains at group level.
- 4.19. The degree to which a solo capital add-on may be reflected in the group SCR may also depend on the size of the undertaking relative to the rest of the group.

4.2. Process for setting a capital add-on in a group context

- 4.20. Principle 2 also applies at group level with the necessary adaptations.
- 4.21. The principles on the process for applying a group capital add-on should be the same as at solo level (i.e. it should follow the same stages and set of activities). However, in a groups context, the process will need to take account of the use of group internal models, the appropriateness of the standard formula and the regime for supervision of groups with centralised functions such as risk management. The process also needs to take account of the coordination arrangements between supervisors facilitated by the college.

Figure 1: Processes for applying a group capital add-on



- 4.22. Where a group uses the standard formula to calculate its group SCR, the solo supervisor is required to consult the college where it decides to apply a solo capital add-on under Article 250(1)(b). Where a group internal model is used, the process for applying a solo capital add-on is provided for in Article 231(7). Where Chapter II, Section 1, Subsection 6 of the Level 1 text (Supervision of Group Solvency for groups with centralised risk management) applies, the solo supervisor must work through a process for determining a solo capital add-on with the college, which may involve CEIOPS. Therefore, the process for determining a solo capital add-on where the undertaking is part of a group needs to take account of the group supervision framework in place. This highlights the importance of the college arrangements in relation to Articles 232 and 233.
- 4.23. Similarly at group level, the process for determining a group capital add-on will be guided by the college arrangements. The coordination arrangements of the college are concluded by the group supervisor and the other supervisory authorities concerned. Article 248(5)(a) states that the coordination arrangements shall specify the procedures for the decision-making process in reference to Articles 231, 233 and 247. These procedures should also cover Article 233. The key point is that the decision-making process for applying a group capital add-on and the consultation process for applying a solo capital add-on is firmly embedded in the college arrangements.

4.2.1. Identification

- 4.24. Principle 3 also applies at group level with the necessary adaptations.
- 4.25. This principle should apply at group level. Where a group uses the standard formula, supervisors should consider the benefits of modelling to account for significant deviations from the assumptions underlying the

standard formula. Supervisors could also consider the requirement to model group-specific risks through the application of Article 119.²⁰

- 4.26. It is important to identify the sources of information on group-specific risks in the group supervisory review process.
- 4.27. The identification of governance failures in a group will need to take account of Article 246 but the underlying principles are the same as in paragraph 3.41 for solo undertakings. The group governance requirements will be further explained in a forthcoming Consultation Paper on centralised risk management and Level 3 guidance. In a group context, the risk management and internal control systems and reporting procedures must be implemented consistently in all undertakings in the group. Further thinking about the consistent implementation in related undertakings that are not subsidiaries will be included in CEIOPS advice on Article 241. Therefore, a poorly integrated group system of governance could be an example of a governance deficiency and a reason to apply a governance group capital add-on. For example, the head office may have insufficient second-line review and challenge functions. Supervisors will need to take into account what impact poor group governance has on the solo undertaking.

4.2.2. Assessment

- 4.28. The limitation of the standard formula in capturing all risks is likely to be magnified at group level. This highlights the potential benefits of modelling risks, particularly in capturing group-specific risks. The complexity of groups and that they are more likely to change their structure than solo entities (e.g. through selling subsidiaries, M&A activity, etc) will mean that the group internal model may deviate from the group risk profile in the short term.
- 4.29. Regarding the analysis of 'significant deviation' the key issue is understanding how groups identify and monitor significant deviations from their risk profile in their internal processes. CEIOPS is not convinced that the quantitative assessment of significance for the standard formula should be consistent with the solo approach.
- 4.30. In line with the views expressed by some Members (see paragraphs 3.64 and 3.97) CEIOPS believes that at a group level it is even more important to retain some flexibility establishing the reference value because of the inherent uncertainties in the assumptions of the deviation resulting from the difficulties in quantifying group risks. CEIOPS considers that Level 3 guidance would be the most adequate to assist supervisors assessing the significance of a deviation.
- 4.31. It is not clear that establishing a reference value of e.g. 10% is appropriate either for groups using a group internal model under Article 231, or using the standard formula. This is because, particularly to the groups using an internal model, the scope and assumptions for a group

²⁰ This is provided for in Article 230 and the application of the solo rules in Title 1.

internal model will vary for each group and hence any reference value would need to be assessed on a case-by-case basis.

- 4.32. The key group issue with respect to the assessment of a governance failure is the participation of supervisors in the college. The group supervisor will need to rely on the solo supervisor's assessment of the implementation of the group system of governance. Similarly, the group supervisor would be responsible for identifying governance failures within head office. This should form part of the written arrangement of the college.
- 4.33. As a general principle, the timeframes for the imposition of a capital add-on need to be flexible at group level to reflect the complexities of groups.

4.2.3. Calculation

- 4.34. CEIOPS is not convinced about the ability to formulate specific methodologies for calculating capital add-ons as the calculation will depend on the nature of the circumstance that has led to consideration about the capital add-on. CEIOPS considers this applies more so for groups and so requires an even greater degree of flexibility. The calculation of a group governance capital add-on should be assessed on a case-by-case basis to reflect the structure and complexity of the group.

4.3. Follow-up

- 4.35. Principle 4 also applies at group level with the necessary adaptations.
- 4.36. In a group context, this will relate in particular to the assessment of group-specific risks. It is conceivable that the reviews will be undertaken more frequently for groups to account for any dynamic change in group-specific risk (e.g. arising from changes in group structure). This may particularly be the case where the group is in crisis.

4.4. Communication with undertaking and disclosure

- 4.37. Principle 5 also applies at group level with the necessary adaptations.
- 4.38. This should be consistent with the solo approach and included as part of the group Solvency and Financial Condition Report. Article 256 states that Article 51 shall apply *mutatis mutandis*, which in turn refers to disclosure relating to Article 37. Article 37 is to be applied *mutatis mutandis* for groups so the same amount of disclosure should be required for groups and solo undertakings.

CEIOPS' advice

4.39. Generally, the Level 2 advice at solo level shall apply consistently at group level with the necessary adaptations. In addition, the following requirements shall also apply at group level.

On the circumstances under which a capital add-on may be imposed

4.40. Where the deduction and aggregation method applies, any capital add-on applied at solo level would flow directly through into the aggregated group SCR. As the capital add-on will be a component in the SCR and the SCR is then aggregated, it will mathematically flow through when using the deduction and aggregation method.

4.41. When applying the accounting-consolidated based method, the group SCR will be calculated based on the consolidated accounts using either the standard formula or an internal model. Then, the group supervisor, in cooperation with the College, will assess whether there is a need for a capital add-on at group level. CEIOPS considers that in doing that, add-ons existing at solo level will have to be considered. It implies that the group supervisor will have to check whether the rationale for the solo capital add-ons remains at group level.

4.42. CEIOPS considers that the degree to which a solo capital add-on may be reflected in the group SCR may also depend on the size of the undertaking relative to the rest of the group. For participations in which the group has a significant influence without control, the proportion of the add-on flowing automatically from the solo calculation is the same as the percentage of the SCR included in the group calculation.

4.43. In a group context, the risk management and internal control systems and reporting procedures must be implemented consistently in all undertakings in the group. Therefore, a poorly integrated group system of governance could be an example of a governance deficiency and a reason to apply a governance group capital add-on.

4.44. The key group issue with respect to the assessment of a governance failure is the participation of supervisors in the college. The group supervisor will need to rely on the solo supervisor's assessment of the implementation of the group system of governance. Similarly, the group supervisor would be responsible for identifying governance failures within head office. This should form part of the written arrangement of the college.

On the methodologies to be used for the calculation

4.45. As a general principle, the timeframes for the imposition of a capital add-on shall be the same as at solo level.

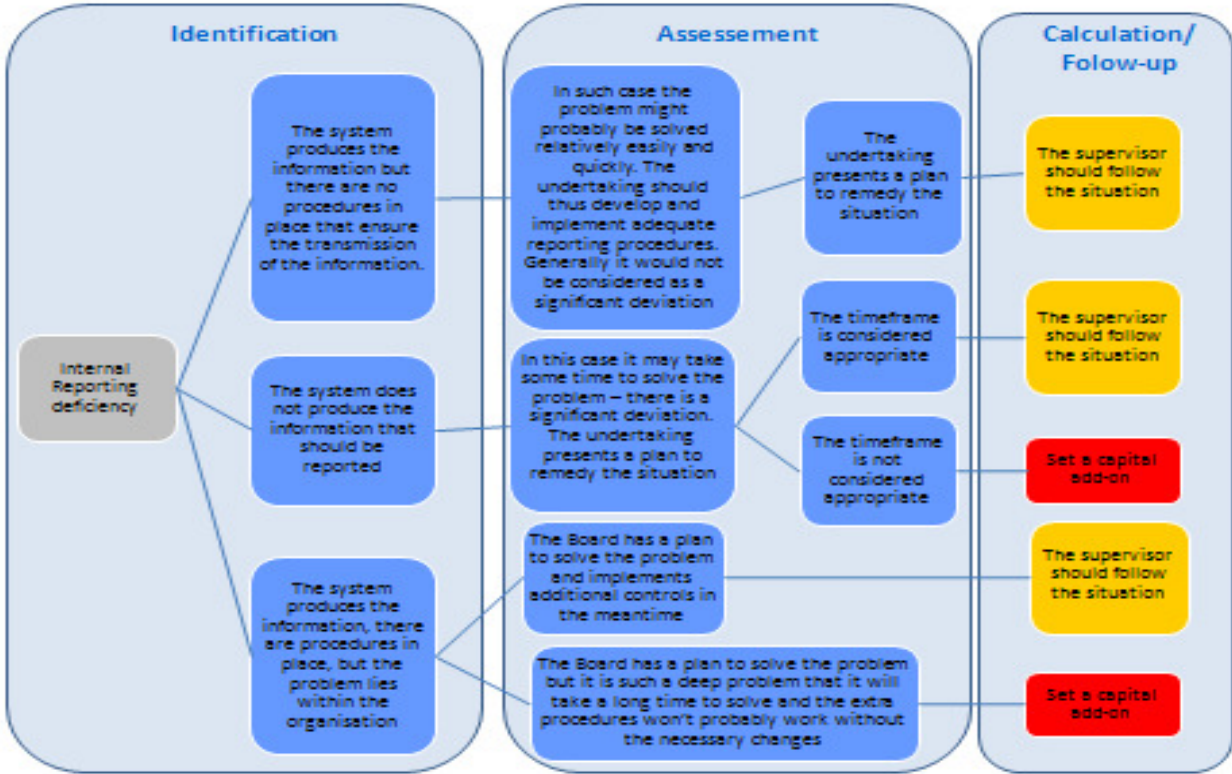
4.46. The calculation of a group governance capital add-on should be assessed on a case-by-case basis to reflect the structure and complexity of the group.

5. Supervisory convergence

- 5.1. Article 52 of the Level 1 text prescribes specific disclosure requirements for capital add-ons set in Member States and CEIOPS reports on the degree of supervisory convergence in the application of add-ons as a measure for fostering a common approach for the use of this supervisory power across Member States.
- 5.2. CEIOPS acknowledges that the convergence of supervisory practices, particularly in the case of capital add-ons, will be crucial to guarantee a level playing field for undertakings across the EU. Therefore CEIOPS seeks to take an active role in helping to improve common practices. In order to ensure an appropriate level of convergence regarding the process of setting a capital add-on and a consistency between supervisory decisions, a number of tools are at the disposal of supervisory authorities:
 - a) Creation of a capital add-ons task force;
 - b) Training for supervisory authorities on capital add-ons;
 - c) A common database;
 - d) Annual reports on the use of the power to set a capital add-on; and
 - e) Peer reviews.
- 5.3. These tools could be used by CEIOPS in the future on a non-exclusive basis. Knowledge can only be developed by experience and in its absence a prescriptive approach could prevent any erroneous approaches. Currently CEIOPS believes that in the first few years after implementation of Solvency II the development of specific training on capital add-ons and the creation of a capital add-ons task force would be the best tools to achieve consistency in the process of setting and calculating capital add-ons by CEIOPS Member Authorities. This task force could share information and experiences and discuss case-studies without interfering directly with supervisory decisions about capital add-ons.
- 5.4. Peer reviews will also be crucial but would be more sensible at a later stage, as CEIOPS Member Authorities will first have to come to an understanding as to what constitutes best practice. This will require some practical experience with capital add-ons.
- 5.5. A database of information regarding the setting of capital add-ons could be created and maintained by CEIOPS, not only for recording the number and the amount of the capital add-ons in addition to the information as requested to be submitted to CEIOPS under Article 52 of the Level 1 text and the rationale for setting the amount, but also to keep information on the assessment of the significant deviation. This would allow supervisory authorities to work at more convergence and to learn from each other as they gain experience with add-ons.

6. Annexes

6.1. Annex 1: Examples of circumstances to be considered when assessing the significance of deviation



6.2. Annex 2: Impact assessment

Background

- 6.2.1. In its Call for Advice of 1 April 2009, the Commission has asked CEIOPS to contribute to the Commission's impact assessment of the Level 2 implementing measures²¹. To this end, a list of issues has been set up by the Commission and CEIOPS, identifying the Level 2 implementing measures that should be accompanied by an impact assessment. On 12 June 2009, the Commission issued an updated list of policy issues and options, to which reference is being made²². This impact assessment covers issue 15 of the list of policy issues and options.
- 6.2.2. Two templates for each Policy sub-issue in this Annex accompany the impact assessment, and are published as Annex 3 of this document.
- 6.2.3. In considering the requirements arising under Article 37, the operational objectives set out for setting a capital add-on under Solvency II by the European Commission²³ are to (references after the objectives refer to the chapter in the EC Impact Assessment Report):
- a) Introduce risk-sensitive harmonised solvency standards (objective 3.3.3);
 - b) Introduce proportionate requirements for small undertakings (objective 3.3.4); and
 - c) Harmonise supervisory powers, methods and tools (objective 3.3.5).

Description of the policy issues

- 6.2.4. Under Article 37, supervisory authorities may, in certain circumstances, set a capital add-on. The impact assessment for capital add-on covers six inter-related issues for which a number of options have been considered by CEIOPS as it developed the policy contained within the main sections of this paper. The issues and options being considered are:

A. Establishment of the significant deviation and methodology for the calculation of capital add-on in accordance with Article 37 (1)(a) (risk profile capital add-on using the standard formula)

Issue A.1. Establishment of the significant deviation

- Option 1. Supervisory authorities would take the decision on whether or not to apply a capital add-on on the basis of harmonised criteria established at Level 2

²¹ <http://www.ceiops.eu/media/files/requestsforadvice/EC-april-09-CfA/EC-call-for-advice-Solvency-II-Level-2.pdf>

²² <http://www.ceiops.eu/media/files/requestsforadvice/EC-June-09-CfA/Updated-List-of-policy-issues-and-options-for-IA.pdf>.

²³ See Chapter 3 of the EC Impact Assessment Report at http://ec.europa.eu/internal_market/insurance/docs/solvency/impactassess/final-report_en.pdf.

- Option 2. Supervisory authorities would take the decision on whether or not to apply a capital add-on on the basis of harmonised criteria established at Level 2. A harmonised reference value of [5%-15%] of the overall SCR is established at Level 2. This reference value serves as a presumption that the deviation is significant. Supervisory authorities would only consider deviations that exceed the quantitative threshold.
- Option 3. A harmonised reference value of [5%-15%] of the overall SCR is established at Level 2. This reference value serves as a rebuttable presumption that the deviation is significant. Supervisory authorities may decide to depart from it (on both ways) based on the application of harmonised criteria established at Level 2.

Issue A.2. Methodology for the calculation of a capital add-on

- Option 1. CEIOPS to consider options for the methodology of the calculation.
- Option 2. CEIOPS to consider options for the methodology of the calculation.

B. Establishment of the significant deviation and calculation of a capital add-on under Article 37(1)(b) (risk profile capital add-on using an internal model)

Issue B.1. Establishment of the significant deviation

- Option 1. Supervisory authorities would take the decision on whether or not to apply a capital add-on on the basis of harmonised criteria established at Level 2
- Option 2. Supervisory authorities would take the decision on whether or not to apply a capital add-on on the basis of harmonised criteria established at Level 2. A harmonised reference value of [5%-15%] of the overall SCR is established at Level 2. This reference value serves as a presumption that the deviation is significant. Supervisory authorities would only consider deviations that exceed the quantitative threshold.
- Option 3. A harmonised reference value of [5%-15%] of the overall SCR is established at Level 2. This reference value serves as a rebuttable presumption that the deviation is significant. Supervisory authorities may decide to depart from it (on both ways) based on the application of harmonised criteria established at Level 2.

Issue B.2. Methodology for the calculation of a capital add-on

- Option 1. CEIOPS to consider options for the methodology of the calculation.
- Option 2. CEIOPS to consider options for the methodology of the calculation.

C. Establishment of the appropriate timeframe and methodology of calculation of a capital add-on under Article 37(c) (governance deficiency capital add-on)

Issue C.1. Establishment of the appropriate timeframe

- Option 1. Supervisory authorities would use a principle-based approach with general criteria established at Level 2, with no absolute maximum.
- Option 2. Supervisory authorities would consider a maximum period of 6 months that could be shortened according to general criteria established at Level 2.

Issue C.2. Methodology for the calculation of a capital add-on

- Option 1. Percentage of the overall SCR established by categories according to a specific grouping of deficiencies.
- Option 2. Predefined scenarios (cause and effect)
- Option 3. Harmonised criteria to be taken into account in determining the amount in addition to cause and effect

Analysis of the issues

Analysis of Issue A.1: Establishment of the significant deviation (risk profile capital add-on using the standard formula)

- Option 1. Supervisory authorities would take the decision on whether or not to apply a capital add-on on the basis of harmonised criteria established at Level 2
- Option 2. Supervisory authorities would take the decision on whether or not to apply a capital add-on on the basis of harmonised criteria established at Level 2. A harmonised reference value of [5%-15%] of the overall SCR is established at Level 2. This reference value serves as a presumption that the deviation is significant. Supervisory authorities would only consider deviations that exceed the quantitative threshold.
- Option 3. A harmonised reference value of [5%-15%] of the overall SCR is established at Level 2. This reference value serves as a rebuttable presumption that the deviation is significant. Supervisory authorities may decide to depart from it (on both ways) based on the application of harmonised criteria established at Level 2.

Impact on industry, policyholders and beneficiaries, and supervisory authorities

– Policyholders and beneficiaries

6.2.5. All of the options here are likely to have an indirect impact on policyholders and beneficiaries. The way in which supervisors assess whether there is a significant deviation of an undertaking's risk profile from the assumptions underlying the standard formula will impact upon policyholders and beneficiaries as some requirements may result in a

longer period for the resolution of the initial situation. So while there will be a positive indirect impact for policyholders once a capital add-on is set (as the undertaking will then have the level of capital appropriate for its risks), there will have been a period of negative impact before that when policyholders interests might be threatened through the undertaking having insufficient capital, potentially jeopardising the financial situation if the risks materialise.

- 6.2.6. Option 1 would provide hard and fast criteria on when a significant deviation has occurred. While this might ensure that supervisors assess consistent factors when assessing the significance of the deviation, it provides supervisory authorities with flexibility when making a conclusion. As such, undertakings may seek to convince supervisory authorities the deviation is not significant, prolonging the discussions before an add-on is set and increasing the indirect impact that has on policyholder protection. On balance however, the fact that the criteria are published may actually result in undertakings addressing potential deviations earlier, to the indirect benefit of policyholders overall. The issue of these criteria at Level 3, as it is envisaged in the future, would however have the same result.
- 6.2.7. Option 2 would provide supervisors with a reference value for what is significant and, if the deviation was greater than that, a capital add-on would be considered. This gives greater certainty that deficiencies will be addressed by a capital add-on when deviations reach a certain level. This implies that one definition of significant (as a % of overall SCR) will always hold true. With no experience of capital add-ons, it is impossible to say whether that will be the case. In this case, the impact is unclear – deviations could continue below the threshold for some time with supervisory authorities unable to use this tool to address the deviation. On balance, this is considered more negative than option 1 on policyholders.
- 6.2.8. Option 3 also provides a reference value for what is significant but it allows for supervisory discretion, both in applying the add-on below the significance threshold, and also in not necessarily applying it immediately above the threshold. Supervisors will be able to take the reference value into account when considering the significance of the deviation, but they will retain flexibility to take the appropriate action taking into account certain criteria. This must be positive for policyholders, in that undertakings will only have add-ons imposed in appropriate circumstances.

– Industry/(re)insurance undertakings

- 6.2.9. All of the options considered would have a direct impact on undertakings in that they alert administrative, management or supervisory body and holders of key functions to the deviation.
- 6.2.10. As criteria in Option 1 will be fixed, undertakings will know what criteria will be assessed when determining whether a deviation is significant. Hopefully that will allow administrative, management or supervisory body and holders of key functions to discuss and decide whether developing an internal model, using personalised factors or de-risking, is appropriate. However, while option 1 is likely to be the most risk-based,

the downside is that the undertaking may be less willing to accept a supervisor's judgement in an individual case that a deviation is significant before a capital add-on can be set.

- 6.2.11. Option 2 meanwhile will have determined significance by one measure alone and is therefore less risk-based. As significance is determined by a fixed percentage, it is likely that undertakings that are close to the threshold will try to maintain that there are mitigating factors that reduce the figure below the threshold rather than accepting the capital add-on or exploring the alternatives. There is also no sensitivity to the type of risk identified, which could mean add-ons being applied when they need not be. On the other hand, it will be clear to the industry when a deviation will normally be regarded as significant, and gives them greater certainty.
- 6.2.12. Option 3 on the other hand does set out a general parameter around which the significance value is derived, while allowing for some flexibility. Thus it is more risk-sensitive and is also more likely to result in undertakings accepting deviations perceived as significant once they have been identified as such. But for the industry, they will have less idea of what is regarded as significant, as it will depend on the specific circumstances. However, they will be aware of certain criteria that supervisors will take into account when deciding to depart from the reference value.
- Supervisory authorities
- 6.2.13. Option 1 is likely to take supervisory authorities the longest time to determine that a deviation that has been identified is significant. This would manifest itself in higher resource requirements. Against that though, the measure used to identify the significance will be more sensitive to the particular risks involved.
- 6.2.14. In contrast, option 2 will make identification of a potentially significant deviation faster in view of the single threshold value (requiring fewer resources to identify undertakings with issues), although further assessment is required to be certain it should indeed be regarded as significant. But there is likely to be a negative impact as it will be less risk sensitive than option 1.
- 6.2.15. Option 3 will still enable identification of what are certainly significant deviations above the threshold, but adds a degree of flexibility in also allowing some deviations below the threshold to be regarded as significant. Thus the identification could take longer than under option 2, but will be more risk sensitive than under that option.

Comparison and ranking of the different options based on the effectiveness and efficiency of each option in reaching the relevant operational objectives

- 6.2.16. As far as introducing risk-harmonised solvency standards is concerned, options 1 and 3 are more effective than option 2, with option 1 the most efficient in meeting the operational objective over either options 2 or 3.
- 6.2.17. In terms of delivering proportionate requirements for small firms, CEIOPS sees no difference between the options in terms of effectiveness,

but considers option 3 the more efficient way of achieving that through the use of supervisory judgement.

- 6.2.18. CEIOPS considers that options 2 and 3 are more effective than option 1 in delivering harmonised supervisory powers, methods and tools, and are also more efficient than option 1 since the criteria that would be established at Level 2 would never be very precise and supervisory judgment would be higher than in Option 2 and 3. On balance, CEIOPS believes option 3 is better overall in meeting the objective because it has a greater degree of flexibility for the particular circumstances of an undertaking.
- 6.2.19. More broadly, in terms of sustainability, option 3 is most likely to be sustainable; with no experience of operating capital add-ons, there should be a degree of adaptability built in, which is less evident in option 1 than option 2. While it might seem perverse, it is considered that options 2 and 3 are more consistent in terms of the main issue of identifying what is significant (with option 2 giving greater consistency because the assessment is subject to less supervisory judgement).
- 6.2.20. As the capital add-on regime is not currently operating and supervisory authorities have no practical experience in determining how frequently capital add-ons might be required, or how many deviations there might be (let alone whether they are significant), CEIOPS believes that it should not at this stage be too prescriptive. Over time and in the light of practical experience with capital add-ons, CEIOPS will aim for more consistency in approach. Thus in terms of the operational objectives set by the Commission, option 3 best meets them, followed by option 2 then option 1.
- 6.2.21. To minimize the fact that supervisory authorities have no practical experience in determining how frequently capital add-ons might be required, or how many deviations there might be (let alone whether they are significant), CEIOPS has included in the Advice, along with Option 3 establishing a reference value of 10%: (i) a maximum limit of 15% and (ii) a review clause for both percentages.

Analysis of Issue A.2: Methodology for the calculation of a capital add-on (risk profile capital add-on using the standard formula)

- Option 1. CEIOPS to consider options for the methodology of the calculation.
- Option 2. CEIOPS to consider options for the methodology of the calculation.

Impact on industry, policyholders and beneficiaries, and supervisory authorities

- 6.2.22. The Commission asked CEIOPS to develop viable options incorporating possible methodologies for this issue. CEIOPS has developed some methodologies in section 3.2.3.1. of the main body and these are all included in the Level 2 advice. However, they are not considered to be optional since no single set of methodologies is preferable to another in all circumstances, i.e. each one would be the most appropriate according

with each particular situation. For that reason, while offering various harmonised and consistent methodologies for the calculation, CEIOPS does not believe, the approach can be fully harmonised or consistent across all undertakings.

– Policyholders and beneficiaries

6.2.23. What is important here for policyholders is that there is a consistent way of calculating the add-on such that the SCR is set at the 'correct' level. However, the consistency cannot apply to assessing and calculating all the add-ons in exactly the same manner for all deviations, no matter how they arise – they have to fit the circumstances. Thus setting a range of methodologies that can be applied should result in the appropriate level of capital add-on being set for the particular circumstances, thereby indirectly ensuring protection of policyholders' interests.

– Industry/(re)insurance undertakings

6.2.24. For the industry, it is important that the capital add-on is calculated in close correlation with the type of cause that led to the deviation of the risk profile, which in turns leads to a higher degree of certainty in the calculation and a high degree of sensitivity to the risks. Thus the impact is direct in the capital add-on being appropriate to the risk deviation identified.

– Supervisory authorities

6.2.25. Clearly, identification of the deviation and having a range of methodologies that can be used in appropriate circumstances will lead to the supervisory authorities being able to set a capital add-on that is more aligned with the risks. This should lead directly to a more efficient use of supervisory resources.

Comparison and ranking of the different options based on the effectiveness and efficiency of each option in reaching the relevant operational objectives

6.2.26. Having the range of methodologies ensures that the objective of delivering risk-harmonised solvency standards is achieved in an effective and efficient manner. As far as delivering proportionate requirements for small undertakings is concerned, this is a relatively effective way of delivering that. In terms of harmonising supervisory powers, methods and tools, this is a relatively effective and efficient way of doing so. It is also sustainable, although with experience it is likely that the methodologies may have to be updated, and delivers a consistent set of tools for supervisory authorities to utilise. However, although the tools used in each situation will lack consistency, they will be appropriate to the circumstances. Any less flexibility around the methodologies could lead to the SCR being set at the wrong level in the particular circumstances, to the detriment of policyholders and the industry.

Analysis of Issue B.1: Establishment of the significant deviation (risk profile capital add-on using an internal model)

- 6.2.27. This issue is separate from that for undertakings on the standard formula (issue A.1) as, although the options may be similar, the arguments in considering the options are slightly different.
- Option 1. Supervisory authorities would take the decision on whether or not to apply a capital add-on on the basis of harmonised criteria established at Level 2
 - Option 2. Supervisory authorities would take the decision on whether or not to apply a capital add-on on the basis of harmonised criteria established at Level 2. A harmonised reference value of [5%-15%] of the overall SCR is established at Level 2. This reference value serves as a presumption that the deviation is significant. Supervisory authorities would only consider deviations that exceed the quantitative threshold.
 - Option 3. A harmonised reference value of [5%-15%] of the overall SCR is established at Level 2. This reference value serves as a rebuttable presumption that the deviation is significant. Supervisory authorities may decide to depart from it (on both ways) based on the application of harmonised criteria established at Level 2.

Impact on industry, policyholders and beneficiaries, and supervisory authorities

– Policyholders and beneficiaries

- 6.2.28. All of the options here are likely only to have an indirect impact on policyholders and beneficiaries. The way in which supervisors assess whether there is a significant deviation of an undertaking's risk profile away from the assumptions underlying the SCR, as calculated using an internal model, will impact upon policyholders and beneficiaries as some requirements may be result in a longer period for the resolution of the initial situation. So while there will be a positive indirect impact for policyholders once a capital add-on is set, with the undertaking then having the capital required for its risks, there will have been a period of negative impact before that when policyholders interests might be threatened through the undertaking having insufficient capital, potentially jeopardising the financial situation if the risks materialise.
- 6.2.29. Option 1 would provide supervisors with a reference value for hard and fast criteria on when a significant deviation has occurred. While this might ensure that supervisors assess consistent factors when assessing the significance of the deviation, it provides supervisory authorities with flexibility when making a conclusion. As such, undertakings may seek to convince supervisory authorities the deviation is not significant, prolonging the discussions before an add-on is set and increasing the indirect impact that has on policyholder protection. On balance however, for undertakings that have an approved internal model, the fact that the criteria are published may actually result in undertakings addressing potential deviations earlier, to the indirect benefit of policyholders overall. This differs from undertakings using the standard formula as an internal model is expected to capture risks more accurately.

- 6.2.30. Option 2 would provide supervisors with a reference value for what is significant and, if the deviation was greater than that, a capital add-on would be considered. This gives greater certainty that deficiencies will be addressed by a capital add-on when deviations reach a certain level. This implies that one definition of significant (as a % of overall SCR) will always hold true. With no experience of capital add-ons, it is impossible to say whether that will be the case. In this case, the impact is unclear – deviations could continue below the threshold for some time with supervisory authorities unable to use this tool to address the deviation. Also, as the threshold would be in the public domain, there is the likelihood that undertakings that have adopted an internal model may try to argue the deficiency is below the threshold, rather than addressing the problem immediately. On balance, this is considered more negative than option 1 on policyholders.
- 6.2.31. Option 3 also provides a reference value for what is significant but it allows for supervisory discretion, both in applying the add-on below the significance threshold, and also in not necessarily applying it immediately above the threshold. Supervisors will be able to take the reference value into account when considering the significance of the deviation, but they will retain flexibility to take the appropriate action taking into account certain criteria. Undertakings on internal models would be less inclined to argue about the absolute size of the deviation and would be more likely to accept the need for a capital add-on until the deficiencies are addressed. This must be positive for policyholders, in that undertakings will only have add-ons imposed in appropriate circumstances.
- Industry/(re)insurance undertakings
- 6.2.32. All of the options considered would have a direct impact on undertakings in that they alert administrative, management or supervisory body and holders of key functions to the deviation, which management can then address.
- 6.2.33. As criteria in Option 1 will be fixed, undertakings will know what criteria will be assessed when determining whether a deviation is significant. Hopefully that will allow administrative, management or supervisory body and holders of key functions to discuss and decide whether further developing the internal model, using personalised factors or de-risking, is appropriate. However, while option 1 is likely to be the most risk-based, the downside is that the undertaking may be less willing to accept a supervisor’s judgement in an individual case that a deviation is significant before a capital add-on can be set.
- 6.2.34. Option 2 meanwhile will have determined significance by one measure alone and is therefore less risk-based. As significance is determined by a fixed percentage, it is likely that undertakings that are close to the threshold will try to maintain that there are mitigating factors that reduce the figure below the threshold rather than accepting the capital add-on or exploring the alternatives. There is also no sensitivity to the type of risk identified, which could mean add-ons being applied when they need not be. On the other hand, it will be clear to the industry when a deviation will normally be regarded as significant, and gives them greater certainty.

6.2.35. Option 3 on the other hand does set out a general parameter around which the significance value is derived, while allowing for some flexibility. Thus it is more risk sensitive and is also more likely to result in undertakings accepting deviations perceived as significant once they have been identified as such. But for the industry, they will have less idea of what is regarded as significant, as it will depend on the specific circumstances. However, they will be aware of certain criteria that supervisors will take into account when deciding to depart from the reference value.

– Supervisory authorities

6.2.36. Option 1 is likely to take supervisory authorities the longest time to determine that a deviation that has been identified is significant. This would manifest itself in higher resource requirements. Against that though, the measure used to identify the significance will be more sensitive to the particular risks involved.

6.2.37. In contrast, option 2 will make identification of a potentially significant deviation faster in view of the single threshold value (requiring fewer resources to identify undertakings with issues), although further assessment is required to be certain it should indeed be regarded as significant. But there is likely to be a negative impact as it will be less risk sensitive than option 1. Resources are also likely to be higher as undertakings will seek to show that their deviation is below the threshold.

6.2.38. Option 3 will still enable identification of what are certainly significant deviations above the threshold, but adds a degree of flexibility in also allowing some deviations below the threshold to be regarded as significant. Thus the identification could take longer than under option 2, but will be more risk sensitive than under that option.

Comparison and ranking of the different options based on the effectiveness and efficiency of each option in reaching the relevant operational objectives

6.2.39. As far as introducing risk-harmonised solvency standards is concerned, options 1 and 3 are more effective than option 2, with option 1 the most efficient in meeting the operational objective over either options 2 or 3.

6.2.40. In terms of delivering proportionate requirements for small firms, CEIOPS sees no difference between the options in terms of effectiveness, but considers option 3 the more efficient way of achieving that through the use of supervisory judgement.

6.2.41. CEIOPS considers that options 2 and 3 are more effective than option 1 in delivering harmonised supervisory powers, methods and tools, and are also more efficient than option 1 since the criteria that would be established at Level 2 would never be very precise and supervisory judgment would be higher than in Option 2 and 3. On balance, CEIOPS believes option 3 is better overall in meeting the objective because it has a greater degree of flexibility for the particular circumstances of an undertaking.

6.2.42. More broadly, in terms of sustainability, option 3 is most likely to be sustainable; with no experience of operating capital add-ons, there should be a degree of adaptability built in, which is less evident in option

1 than option 2. While it might seem perverse, it is considered that options 2 and 3 are more consistent in terms of the main issue of identifying what is significant (with option 2 giving greater consistency because the assessment is subject to less supervisory judgement).

- 6.2.43. As the capital add-on regime is not currently operating and supervisory authorities have no practical experience in determining how frequently capital add-ons might be required, or how many deviations there might be (let alone whether they are significant), CEIOPS believes that it should not at this stage be too prescriptive. Over time and in the light of practical experience with capital add-ons, CEIOPS will aim for more consistency in approach. Thus in terms of the operational objectives set by the Commission, option 3 best meets them, followed by option 2 then option 1.
- 6.2.44. To minimize the fact that supervisory authorities have no practical experience in determining how frequently capital add-ons might be required, or how many deviations there might be (let alone whether they are significant), CEIOPS has included in the Advice, along with Option 3 establishing a reference value of 10%: (i) a maximum limit of 15% and (ii) a review clause for both percentages.

Analysis of **Issue B.2: Methodology for the calculation of a capital add-on (risk profile capital add-on using an internal model)**

- Option 1. CEIOPS to consider options for the methodology of the calculation.
- Option 2. CEIOPS to consider options for the methodology of the calculation.

Impact on industry, policyholders and beneficiaries, and supervisory authorities

- 6.2.45. The Commission asked CEIOPS to develop viable options incorporating possible methodologies for this issue. CEIOPS has developed some methodologies in section 3.2.3.2. of the main body and these are all included in the Level 2 advice. However, they are not considered to be optional since no single set of methodologies is preferable to another in all circumstances, i.e. each one would be the most appropriate according with each particular situation. For that reason, while offering various harmonised and consistent methodologies for the calculation, CEIOPS does not believe the approach can be fully harmonised or consistent across all undertakings.

– Policyholders and beneficiaries

- 6.2.46. What is important here for policyholders is that there is a consistent way of calculating the add-on such that the SCR is set at the 'correct' level. However, the consistency cannot apply to assessing and calculating all the add-ons in exactly the same manner for all deviations, no matter how they arise – they have to fit the circumstances. Thus setting a range of methodologies that can be applied should result in the appropriate level of capital add-on being set for the particular circumstances, thereby indirectly ensuring protection of policyholders' interests.

– Industry/(re)insurance undertakings

6.2.47. For the industry, it is important that the capital add-on is calculated in close correlation with the type of cause that led to the deviation of the risk profile, which in turns leads to a higher degree of certainty in the calculation and a high degree of sensitivity to the risks. Thus the impact is direct in the capital add-on being appropriate to the risk deviation identified.

– Supervisory authorities

6.2.48. Clearly, identification of the deviation and having a range of methodologies that can be used in appropriate circumstances will lead to the supervisory authorities being able to set a capital add-on that is more aligned with the risks. This should lead directly to a more efficient use of supervisory resources.

Comparison and ranking of the different options based on the effectiveness and efficiency of each option in reaching the relevant operational objectives

6.2.49. Having the range of methodologies ensures that the objective of delivering risk-harmonised solvency standards is achieved in an effective and efficient manner. As far as delivering proportionate requirements for small undertakings is concerned, this is a relatively effective way of delivering that. In terms of harmonising supervisory powers, methods and tools, this is a relatively effective and efficient way of doing so. It is also sustainable, although with experience it is likely that the methodologies may have to be updated, and delivers a consistent set of tools for supervisory authorities to utilise. However, although the tools used in each situation will lack consistency, they will be appropriate to the circumstances. Any less flexibility around the methodologies could lead to the SCR being set at the wrong level in the particular circumstances, to the detriment of policyholders and the industry.

Analysis of Issue C.1: Establishment of the appropriate timeframe (governance deficiency capital add-on)

- Option 1. Supervisory authorities would use a principle-based approach with general criteria established at Level 2, with no absolute maximum.
- Option 2. Supervisory authorities would consider a maximum period of 6 months that could be shortened according to general criteria established at Level 2.

Impact on industry, policyholders and beneficiaries, and supervisory authorities

– Policyholders and beneficiaries

6.2.50. Option 1 would set out certain principles but, in leaving the timeframe to the supervisory authorities, there is the likelihood that policyholders would be at risk, indirectly, of undertakings being less able to meet their commitments to policyholders. This would be because it is more likely that undertakings would enter into a dialogue with supervisors, with no clear maximum timeframe within which significant deviations have to be addressed before a capital add-on is applied.

6.2.51. On the other hand, option 2 sets out a maximum period within which a capital add-on should be applied if the undertaking does not take

remedial action. In this case, although policyholders may still be indirectly adversely affected while the discussions with supervisors takes place, this option at least restricts the timeframe in which a significant deficiency can occur without a capital add-on being applied.

– Industry/(re)insurance undertakings

6.2.52. From the industry’s perspective, they are more likely to dispute the conclusions that there is a governance deficiency if there is no time frame for the resolution of the governance deficiency or the imposition of a capital add-on. For them, this option is likely to be considered as having a more positive impact as the timeframe is assessed relative to the significance of the governance deviation and an appropriate timeframe is set without an absolute maximum period that doesn’t take into account the risks in individual cases.

6.2.53. Option 2 however would require that the deficiency is addressed within 6 months or the capital add-on would be imposed. Thus the additional costs to the undertaking of holding additional capital earlier than under option 1 is likely to be regarded as more negative.

– Supervisory authorities

6.2.54. From a supervisory perspective, while a principles-based approach sounds reasonable, the lack of any deadline for applying the capital add-on under option 1 is likely to impose greater costs on the supervisory authorities, especially where there might be some doubt involved about whether the governance deficiency actually exists or how the add-on should be calculated.

6.2.55. Option 2 on the other hand gives a clear indication of the maximum period in which a capital add-on has to be set, giving a clear message to undertakings and reducing the likely costs for supervisory authorities below what they would be under option 1.

Comparison and ranking of the different options based on the effectiveness and efficiency of each option in reaching the relevant operational objectives

6.2.56. In terms of introducing risk-sensitive harmonised solvency standards, while the principles-based approach of option 1 may be more effective in delivering this than option 2, the latter is more efficient as it sets a clear deadline within which the matter has to be resolved.

6.2.57. Turning to introducing proportionate requirements for small undertakings, there is little to choose between the two options as, in both cases, if a significant governance deficiency is identified, a capital add-on will be applied. The difference between the two options is merely a matter of how long that process takes.

6.2.58. Option 1 may appear more effective in terms of defining the principles which would lead to more harmonised powers, methods and tools, but it lacks a timeframe for action. Option 2, while lacking the defined principles, actually will be more effective and efficient in delivering what the Directive expects in a harmonised manner, given the predefined time limit.

6.2.59. In terms of sustainability, option 1 is less likely to be sustainable as there may be divergences between the timeframes adopted by different

supervisory authorities for different circumstances, and there is likely to be greater pressure to harmonise the approach to this new supervisory tool. Thus Option 2 is considered more sustainable, and it is also likely to lead to greater consistency in approach.

6.2.60. Overall, therefore, CEIOPS believes that option 2 better meets the operational objectives set by the Commission, while allowing for a limited degree of supervisory discretion.

Analysis of **Issue C.2: Methodology for the calculation of a capital add-on (governance deficiency capital add-on)**

- Option 1. Percentage of the overall SCR established by categories according to a specific grouping of deficiencies.
- Option 2. Predefined scenarios (cause and effect)
- Option 3. Harmonised criteria to be taken into account in determining the amount in addition to cause and effect

Impact on industry, policyholders and beneficiaries, and supervisory authorities

– Policyholders and beneficiaries

6.2.61. For policyholders, the impact will be indirect – on premiums in due course or on the benefits received. For each of the options, the impact will be the same; the issue is which will result in the most appropriate capital add-on.

6.2.62. Option 1 is very mechanistic and not risk-sensitive at all, assuming the potential deficiencies have all been identified and defined, and that the percentage of overall SCR is appropriate.

6.2.63. With option 2, the scenarios would be predefined, but this would be done before supervisors have any experience in identifying and assessing the types of governance deficiencies that will actually arise. Furthermore, it would imply a “one-size-fits-all” approach to deficiencies that are necessarily different from undertaking to undertaking.

6.2.64. Option 3, is more likely to have a less negative impact on policyholders than options 1 or 2 as it would take into account a greater range of factors in assessing the level of capital add-on, resulting in a more appropriate level of capital add-on.

– Industry/(re)insurance undertakings

6.2.65. Similarly, for industry, the impact of a capital add-on will always be an additional cost for the industry, until such time as the deficiency is corrected or is no longer regarded as significant.

6.2.66. As with the impact on policyholders, option 3 is more likely than both options 1 or 2 to result in the most appropriate capital add-on, and therefore the option that will have the least negative direct impact for industry.

– Supervisory authorities

6.2.67. With these options, the most complex solution would be option 3, which would entail much more assessment and consideration, and therefore have a direct impact on costs for supervisors.

6.2.68. Option 1 would appear to be simpler and therefore less costly for supervisory authorities, working from a predefined range of deficiencies. The same is also true of option 2 with predefined scenarios. In both cases, however, first identifying the appropriate scenario or grouping may be time-consuming.

Comparison and ranking of the different options based on the effectiveness and efficiency of each option in reaching the relevant operational objectives

6.2.69. In terms of introducing risk-sensitive harmonised solvency standards, option 2 is most likely to deliver this, followed by options 3 and 1 in that order; this is the case both for effectiveness and efficiency.

6.2.70. Option 3 is considered the most effective in delivering proportionate requirements for small undertakings, because it is sufficiently flexible to address the particularities of each set of circumstances, although option 2 may be more efficient. Option 1 is least likely to satisfy this objective.

6.2.71. In terms of harmonising supervisory powers, methods and tools, options 1 and 2 aim to predefine groupings and scenarios respectively to achieve harmonisation. But these may actually not be appropriate in the specific circumstances of each undertaking, especially when supervisory authorities have no experience on which to base options 1 and 2. Thus option 3 is expected to be the most effective and efficient in meeting this objective, in terms of delivering a harmonised approach to governance capital add-ons.

6.2.72. When considering sustainability, option 3 is likely to be the most sustainable given it has a degree of flexibility built in. Both options 1 and 2 would need some fine-tuning in the light of practical experience of governance deficiencies.

6.2.73. In terms of consistency, options 1 and 2 are more likely to deliver consistent responses to a governance deficiency, because they use predefined groupings and scenarios, with option 3 being the least consistent, but most appropriate for the different circumstances of each case. However, Options 1 and 2 would also have the disadvantage of not containing all possible scenarios of deficiencies and combinations thereof.

6.2.74. However, in overall terms and given the lack of experience with governance capital add-ons, CEIOPS considers that option 3 best delivers the operational objectives set by the Commission and the flexibility to address such deficiencies when they arise.

6.3. Annex 3: Impact assessment templates

see Excel sheet.