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CEIOPS' Advice for Level 2 Implementing Measures on Solvency II: SCR standard formula - Allowance of Financial Risk Mitigation Techniques

(former CP31)

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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 with regard to the allowance of financial risk mitigation techniques in the calculation of the SCR with the standard formula as requested in Article 111(f) of the Solvency II Level 1 text.[2].

1.3. This advice covers financial risk mitigation techniques mentioned in article 111 (1) (f), including in its scope instruments such as financial derivatives (i.e. futures, options, credit derivatives).

1.4. The use of securitization as a mitigation technique of non-financial risks and the framework to consider the effect of reinsurance in the calculation of the SCR are covered in other respective advices. At this respect CEIOPS highlights that although financial risk mitigation techniques and reinsurance have some common features, the markets they refer to and their respective specific characteristics are sufficiently different to require separate consideration. Therefore CEIOPS considers that the content of this advice and the advice regarding reinsurance should be aligned at a high level, but notes that this level of alignment is not always possible in more detailed Level 2 and 3 measures.

1.5. The definition of financial risk mitigation techniques does not include the risk mitigating effect provided by discretionary profit sharing, which is covered in a separate CEIOPS advice (see CEIOPS' Advice on the loss-absorbing capacity of technical provisions)[3].

1.6. This advice develops the qualitative Level 2 implementing measures envisaged in the number 1, letter f), of article 111, and should be read in conjunction with those SCR provisions regarding the quantitative treatment of the mitigation techniques, part of Article 111 (1) (e) of the Level 1 text. CEIOPS provides more detailed advice on the quantitative treatment of mitigation techniques in other advice.

1.7. References in this advice to '*undertakings*' embrace both insurance and reinsurance undertakings, unless otherwise explicitly mentioned. In the

[1] See http://www.ceiops.eu/content/view/5/5/
[2] Latest version from 19 October 2009 available at http://register.consilium.europa.eu/pdf/en/09/st03/st03643-re01.en09.pdf
[3] CEIOPS DOC-46-09, see http://www.ceiops.eu//content/view/17/21/ (former CP54)

same manner, '*mitigation techniques*' or '*financial mitigation techniques*' refer to '*financial risk mitigation techniques*'

2. Extract from Level 1 Text

2.1. According to the guiding principles referred to in the Commission's letter, the legal basis for the advice presented in this paper is primarily found in Article 111 (1) (f) of the Level 1 text, which states:

Article 111 – Implementing measures

1. In order to ensure that the same treatment is applied to all insurance and reinsurance undertakings calculating the Solvency Capital Requirement on the basis of the standard formula, or to take account of market developments, the Commission shall adopt implementing measures providing for the following: [..]

f) the qualitative criteria that the risk mitigation techniques referred to in point (e) must fulfil in order to ensure that the risk has been effectively transferred to a third party;

2.2. Furthermore, Article 101(5) of the Level 1 text states:

Article 101 – Calculation of the Solvency Capital Requirement

5. When calculating the Solvency Capital Requirement, insurance and reinsurance undertakings shall take account of the effect of risk mitigation techniques, provided that credit risks and other risks arising from the use of such techniques are properly reflected in the Solvency Capital Requirement.

3. Advice

3.1 Explanatory text

3.1.1. Previous advice

3.1. Both **QIS3 and QIS4 technical specifications**[4] included similar sets of principles and rules regarding the financial risk mitigation techniques whose effects could be considered as part of the assessment of the SCR. In QIS4 the principles and rules were reflected in item TS.VII.

[4] http://www.ceiops.eu/content/view/118/124/

3.2. Both QIS3 and QIS4 tested the principles in order to find out whether their application would raise controversial issues or restrict inappropriately current practices regarding financial risk mitigation techniques.

3.1.2. QIS4 response from the industry

3.3. With regard to financial risk mitigation techniques, the QIS4 executive summary reported (paragraph 1.10.7):

3.4. *"Participants support the approach taken in QIS4 which should allow for adequate recognition of risk mitigation techniques in reducing the relevant risk capital charges. However, the concrete application of the principles outlining this approach needs to be further fleshed out: it is not yet clear what risk mitigation techniques in practice are allowed and how the reduction would apply in practice."*

3.5. The explanatory text of the QIS4 report offers a more detailed explanation of the feedback received. In the following paragraphs, comments regarding reinsurance, non-financial risk mitigation techniques and quantitative issues have not been considered, since these areas are out of the scope of this advice.

3.6. *"It was appreciated that QIS4 endorses an economic approach towards risk mitigation by laying down certain minimum requirements to the extent that risk mitigation techniques can be incorporated to the standard SCR calculation."*

3.7. *"In one undertaking's view [...] all types of risk mitigation (financial risk mitigation, reinsurance, insurance) should be subject to the same general principles both under the SCR standard formula and under internal models.'* This comment will be addressed in separate CEIOPS advice regarding internal models.

3.8. *"It was not clear how some sophisticated risk mitigation techniques would work in the context of these principles."* This comment is being partially addressed in the paper through provisions clarifying the link between the use of financial risk mitigation techniques and the overall risk management of the undertaking. Nevertheless, more level of detail on specific mitigation techniques or rather complex and also evolving instruments, would need to be covered as part of Level 3 guidance, rather than in the context of Level 2 implementing measures.

3.9. *"In some undertakings' view, compliance with principles in respect of specific risk mitigation initiatives should be a matter for the undertaking. It should not require pre-approval by the supervisor..."* Neither QIS3, nor QIS4 required any type of pre-approval. Nevertheless, and to avoid any misunderstanding, this comment has been addressed by stating clearly that undertakings have the primarily responsibility of the compliance of the financial risk mitigation techniques they use with the provisions regarding their allowance for SCR purposes.

3.10. *"It was requested by some undertakings that local legacy rules regarding risk mitigation should be discontinued when Solvency II is implemented"*. Existing rules will be superseded by Level 1 and Level 2 measures to the extent of any overlap or inconsistency.

3.11. *"Alternative risk transfer instruments such as catastrophe bonds are not adequately reflected in QIS4"*. CEIOPS analyses the treatment of 'securitization' of non-financial risks, including catastrophe bonds, in a separate advice (see CEIOPS' Advice on reinsurance mitigation techniques).[5]

3.12. Principles regarding *'liquidity'* deserve special attention, since some participants seemed to miss guidance on this issue.

3.13. '*Liquidity*' principles when applied to financial risk mitigation techniques only aim to guarantee that these instruments have a degree of liquidity appropriate to the characteristics of the hedged exposure. In this context, *'liquidity'* refers just to the financial risk mitigation techniques and their hedged exposures, and not to the holistic management of the overall liquidity necessities of the undertaking.

3.14. The aim is to prevent the use for SCR purposes of financial risk mitigation techniques that inappropriately tie the undertaking to an arrangement, i.e. without providing contractual possibilities of cancelling or reducing the mitigation instrument when the original exposure ceases or decrease.

3.15. Finally, it is relevant to highlight that both the industry and supervisors consider that provisions on mitigation techniques should encourage better management practices. This point belongs to the core of this advice on qualitative principles, and hence it has been reflected in various provisions.

3.16. After having considered this feedback, this advice is based on QIS4 technical specifications, appropriately refined and amended to address the topics aforementioned.

3.1.3. Scope of the Advice

3.17. According to the Level 1 text, the effect of financial risk mitigation techniques on the SCR shall only be recognised if the following two conditions are satisfied:

a) Credit risk and other risks arising from the use of such techniques are properly reflected in the SCR (article 101(5));
b) The instrument provides for an effective transfer or risk from the undertaking to a third party (article 111(1)(f)).

[5] CEIOPS DOC-44-09, see http://www.ceiops.eu//content/view/17/21/ (former CP52)

3.18. The following are examples of financial risk mitigation techniques covered by this advice that are allowed for in the standard calculation of the SCR, provided they meet the requirements set out in this advice*:*

- put options bought to cover the risk of falls in assets,

- protection bought through credit derivatives or collaterals, to cover the risk of failure, downgrade in the credit quality,… of certain exposures,

- currency swaps and forwards to cover currency risk in relation to assets or liabilities,

- swaptions acquired to cover variable/fixed risks.

3.19. Discretionary profit sharing shall not be treated as a financial risk mitigation technique. It shall be taken into account in the calculation of best estimates of technical provisions the standard formula of the SCR according to the requirements for management actions. The same holds for other management actions taken into account after the scenario stress.

3.20. This advice applies to the use of securitization as a mitigation technique to transfer out financial risks. Nevertheless the advice does not apply when the financial risks are transferred with underwriting risks and such financial risks have been assumed by the undertaking as part of the liabilities derived from an insurance contract, and furthermore they are not significant.

3.1.4. Desired principles to allow for SCR purposes the recognition of financial risk mitigation techniques

3.21. One of the main objectives of the Solvency 2 project is to encourage undertakings to implement an efficient and reliable risk management, which implies a diversity of coordinated qualitative and quantitative actions on the overall entity.

3.22. Among those actions, the identification, measurement, mitigation and disclosure of risks should be at the core of any work program. One of the incentives to foster these actions derives from the direct link between the assumed/retained risk exposures and the capital requirements the undertaking should meet.

3.23. In order to respect the economic approach of the Solvency 2 framework, capital requirements need to consider in conjunction the risks the undertaking assumes and the mitigating actions adopted to keep such risks into reasonable limits, having in mind both the economic resources (own funds) of the undertaking and its capabilities in respect of both assumed risks and mitigation techniques.

3.24. Hence, the assessment of capital requirements needs to consider an appropriate reduction to reflect the mitigation techniques in place in the undertaking. At the same time, some provisions are necessary to guarantee that mitigation techniques meet adequate conditions consistent with the overall solvency assessment, avoiding weakening the capital requirement system by allowing deductions based on inappropriate mitigation techniques.

3.25. Furthermore, it is generally agreed that while mitigation techniques may reduce some risks, they raise other new risks (such as operational, counterparty, liquidity risks or basis risk in some cases). Therefore, it is necessary to ascertain that these new risks are, on the one hand, proportionate, and, on the other hand, appropriately captured in the capital requirements.

3.26. To provide a verifiable and objective framework, the overall treatment of risk mitigation in the context of the standard formula of the SCR, these two effects are separated:

a) The extent of the risk transfer is recognised in the assessment of the individual risk modules; and

b) Any acquired risks are captured in the standard formula of the SCR (i.e. the counterparty default risk is considered in the SCR derived from the counterparty default risk module).

3.27. The standard calculation of the SCR shall not allow as admissible those financial mitigation techniques that generate material risks not explicitly or sufficiently captured in the standard calculation of the SCR.

This is the case of 'financial risk mitigation techniques' involving material basis risks, referred to below.

It is also the case of financial risk mitigation techniques involving complex features such that there is a significant degree of additional operational risks introduced by the instrument.

3.28. The following 'financial risk mitigation techniques' shall be considered involving material basis:

- equity derivatives whose underlying equities or indexes have not a correlation nearby 1 with the hedged asset or liability, especially in case of stressed situations.

- CDS referred to names different than the hedged name, or with a correlation not nearby 1, with a different tenor or a different nominal.

3.29. A mitigation technique covering just a part of the next twelve months should only be allowed with the average protection level over the next year. A pro rata temporis calculation provides an appropriate balance among accuracy and simplicity:

- For example, where an equity option provides protection for the next six months, undertakings should assume that the option only provides half of the risk mitigating effect that it does if the shock takes place immediately.

- Where the exposure to the risk that is being hedged will cease before the end of the next year with objective certainty, the same principle should be applied but in relation to the full term of the exposure.

3.30. The advice contained below is based on four general principles:

a) It is the responsibility of each undertaking to assess which types of financial risk mitigation techniques are appropriate according to the nature of risks assumed and capabilities to manage and control the mitigation technique.

b) The advice has been developed taking into account as much as possible the existing provisions in other financial sectors, to minimize the possibility of regulatory arbitrage. This means that sectoral divergences have been limited to those features where the nature or the manner in which each financial business runs is substantially different.

c) The principle of substance over form is a key element, as it is the prevention of '*cherry picking*' or the prevention of mitigation actions adopted with the only aim to reduce capital requirements and without sufficient link with the actual risk management environment of the undertaking, the latter from a qualitative perspective rather than from a quantitative perspective. Therefore this advice should be read in conjunction with the advice provided at this respect on Pillar 2 measures.

d) Article 101(5) of the Level 1 text allows (re)insurance undertakings to take account of the effect of financial risk mitigation techniques in the standard calculation of the SCR only if all the risks arising from the use of such techniques are properly reflected in the SCR, guaranteeing a 99.5 per cent confidence level in a 1-year time horizon.

3.31. The crisis has evidenced that the elimination of '*regulatory arbitrage*' among financial sectors is highly desirable in order to promote a stable behaviour of all financial participants and to avoid artificial movements of funds and risks from one financial sector to other. This artificial arbitrage is one of the triggers of financial stress and endangers the application of sound regulations and effective supervision on holistic basis.

3.32. One of the main consequences of this essential goal is the rejection as admissible mitigation techniques of those failing a set of appropriate requirements, which are to a very large extent cross-sector consistent. This approach has been widely applied in other financial sectors and its beneficial effects have been repeatedly tested.

3.33. The allowance for financial risk mitigating effects in the SCR standard formula is restricted to instruments and excludes processes and controls the undertaking has in place to manage the investment risk.

3.34. In the context of the standard formula of the SCR, CEIOPS has carefully analyzed how to treat processes (such as dynamic hedging strategies). CEIOPS has concluded processes should not be considered to reduce the standard SCR on the following grounds:

a) The standard SCR is designed and calibrated according the risk profile of the average or standard segment of insurance markets.

b) A standard undertaking should assess its SCR under the assumption that it will perform as the average of the market, even in a situation of stressed markets. It is not consistent with the Level 1 text for undertakings using the standard formula to calculate their SCR on the assumption that, in the case of a crisis, they will be able to jump-before-the-crash.

c) In fact, a generalized application of a 'jump-before-the-crash' assumption on standard basis, would simply mean that all standard undertakings would be affected by none crisis or by a reduced crisis, which is both against evidence and against the prudence that should underlay a solvency assessment according the level 1 text (i.e. a 99.5 per cent confidence level does not seem compatible with the aforementioned assumption).

3.35. Summing up, CEIOPS considers that the adequacy of the scenarios and calibration of the standard formula would be undermined if processes were allowed before the shocks. In other words, shocks should be considered as '*unavoidable*', something that makes a lot of sense at the light of the experience of the crisis, when markets were completely closed and illiquid and, as a consequence, no participant, standard undertakings included, was able to put into practice any mitigating process with actual protective effects in respect of the situation before the crash.

3.36. Therefore, an undertaking should calculate the capital charge assuming that it continues to hold its current assets during the change in financial conditions.

3.37. CEIOPS also points out that, if the effect of risk management processes were to be taken into account in the standard calculation of the SCR before the shock, different shocks might be applied for different undertakings and might be considered changes in the current composition of assets and liabilities due future actions adopted before the shock. In CEIOPS view, this would introduce an unacceptable degree of judgment in the standard formula calculation which may undermine the adequacy of the solvency assessment as well as endangering the level paying field.

3.38. Finally, although rather undefined in their scope, most of dynamic hedging strategies involve complex risks (i.e. operational or liquidity risks, among others), whose management and assessment does not seem appropriate in the field of the standard SCR. At this respect, article 101(5) of the Level

1 text sets out that mitigation techniques shall be considered only if '*...credit risk and other risks (*as those mentioned above*) arising from the use of such techniques are properly reflected in the Solvency Capital Requirement*'.

3.39. This approach does not preclude the allowance for future management actions in the calculation of technical provisions following the change in financial conditions, as contained in CEIOPS advice on future management actions.

3.40. More specific principles were further defined for the assessment of the effective risk transfer and the requirements to be met by undertakings that use financial risk mitigation techniques:

a) Economic effect over legal form.

b) Legal certainty, effectiveness and enforceability

c) Liquidity and ascertainability of value

d) Credit quality of the provider of the financial risk mitigation technique

e) Direct, explicit, irrevocable and unconditional features

3.41. This advice contains specific principles regarding credit derivatives, whose functioning has some substantially different features compared to other instruments. References to credit events are being developed in line with the banking sector in order to ensure cross-sectoral consistency and to prevent regulatory arbitrage.

3.42. The use of collaterals deserves some specific reference as well. The proposed definition and rules are in line with general banking rules.

3.43. Since segregation of assets by a protection provider is considered as a mitigation technique with similar effects to collaterals (mainly in the counterparty default risk module), an appropriate set of requirements is included in order to set out equivalent requirements to both types of techniques, and to ascertain that segregation is allowed in the standard calculation of the SCR when it does not endanger the level of protection of the undertaking and its policyholders.

3.1.5. Governance requirements to be met by undertakings using financial risk mitigation techniques

3.44. An undertaking applying financial risk mitigation should satisfy the following requirements:

- The relevant staff should be considered as involved in the development of key functions of the risk management, and therefore the 'fit and proper' requirements set out in the article 42 of the level 1 text apply;

- The undertaking should develop a written complete analysis of functioning and inherent risks of the financial risk mitigation technique. In particular, it shall document the legal, liquidity/termination or other risks that can derive from the financial risk mitigation technique, the actions adopted to face such risks and the potential consequences of the risks (i.e. in a worst-case scenario). Examples of risks to be considered for this purpose are legal risk, counterparty default risk, basis risk and operational risks specific to the technique;

  The extent of this documentation will depend on the complexity and on the actual, or potential, impact of the financial risk mitigation technique.

  In any case, the aforementioned areas, and any other significant feature of the technique and its management, should be reflected with the appropriate and proportionate level of detail in the relevant documentation.

  Furthermore, the documentation shall be reviewed and updated on regular basis, and at least in each mandatory calculation of the SCR

  Undocumented or deficiently documented financial risk mitigation techniques should not be considered, not even on a partial basis, for SCR purposes. Nevertheless, supervisors may admit those financial risk mitigation techniques whose documentation is incomplete or deficient, provided the undertaking solves this in an appropriate and timely manner and there is sufficient evidence that the documentation will be kept updated on regular basis.

- The undertaking has procedures in place to capture in its capital requirements the impact of the risks derived from the financial risk mitigation technique;

- There are internal procedures to provide high evidence that the functioning and risks of the financial risk mitigation technique are managed and controlled with the appropriate intensity and frequency. This shall include appropriate mechanisms to ensure that the mitigation technique can counted upon in time of stress.

3.45. The administrative and management bodies shall have the responsibility to understand and approve the policy to use any financial risk mitigation techniques, and to set mechanisms to guarantee the stable fulfilment of these provisions. In particular, the aforementioned bodies shall ascertain that the knowledge, expertise and application of the procedures are carried out by an appropriate number of sufficiently qualified staff, in order to make possible cross-controls and avoid undesirable dependences.

3.46. Knowledge and expertise shall be tested according the academic background and professional experience regarding the concrete techniques to apply. This test shall refer to the staff responsible of making day-to-day decisions, operating and monitoring the techniques. The aim of this test of knowledge and expertise is to guarantee that such staff is aware

a. of the functioning of the technique both from a theoretical and practical point of view, including under different scenarios (in particular, in adverse yet plausible ones),

b. of the operational procedures, processes, conventions and practices of the financial markets used for this purpose,

c. of the management, control and reporting procedures the undertaking has decided to apply to the technique.

3.47. Supervisors shall be empowered to verify that any financial risk mitigation technique complies with these provisions, and when appropriate supervisors shall require corrective measures. Should an undertaking not achieve the compliance of these principles, the supervisor shall have the power to exclude the mitigation techniques in the assessment of the SCR.

3.2 CEIOPS' advice. Qualitative criteria required to allow financial risk mitigation techniques in the calculation of the SCR with the standard formula

A. Scope of this advice

3.48. According to the Level 1 text, the effect of financial risk mitigation techniques on the SCR shall only be recognised if the following two conditions are satisfied:

- Credit risk and other risks arising from the use of such techniques are properly reflected in the SCR (article 101(5);
- The instrument provides for an effective transfer or risk from the undertaking to a third party (article 111(1)(f)).

3.49. This advice contains the qualitative criteria required to allow financial risk mitigation techniques in the calculation of the SCR with the standard formula, according the provisions of the Level 1 text

3.50. Discretionary profit sharing shall not be treated as a financial risk mitigation technique. It shall be taken into account in the calculation of best estimates of technical provisions the standard formula of the SCR according to the requirements for management actions. The same holds for other management actions taken into account after the scenario stress.

3.51. This advice applies to the use of securitization as a mitigation technique to transfer out financial risks. Nevertheless the advice does not apply when the financial risks are transferred with underwriting risks and such financial risks have been assumed by the undertaking as part of the liabilities derived from an insurance contract, and furthermore they are not significant.

B. Definitions

3.52. For the sole purpose of this advice, a '*financial risk mitigation technique'* is a financial contract whose future value or future cash flows vary in opposite direction and equivalent, or sufficiently similar, amount to the variations of the future value or future cash flows of the assets or liabilities considered by the undertaking in its solvency assessment.

3.53. 'Financial risk mitigation techniques' are admissible for the purposes of the calculation of the SCR with the standard formula to the extent they represent legally enforceable rights for the undertaking at the date of reference of the solvency assessment, and they meet the requirements set out in this advice.

3.54. As set out below, a 'financial risk mitigation technique' should be based on an intended decision of the undertaking to mitigate its risk profile according the targeted overall risk management policy.

3.55. According the principles set out in this advice, the allowance for financial risk mitigation techniques in the calculation of the SCR with the standard formula is restricted to instruments and excludes processes and controls the undertaking has in place to manage the investment risk.

3.56. The previous paragraph does not preclude the allowance for future management actions in the calculation of technical provisions under the scope and requirements contained in CEIOPS advice on future management actions.

3.57. 'Financial risk mitigation techniques' failing the requirements set out in this advice shall be considered in the standard calculation of the SCR according the following:

a. Credit risks and other risks arising from the use of the technique shall be reflected in the SCR in accordance with article 101(5) notwithstanding that the technique is inadmissible as a financial risk mitigation technique;

b. The financial risk mitigation technique shall not, to any extent, reduce the risk charges in respect of the risks being hedged by that technique. However, where the risk charge is assessed using scenarios of different directions, the change in the value of the financial risk mitigation technique shall be considered in those scenarios where its value decreases i.e. where it leads to an increase in the risk charge.

C. Interpretation

3.58. The application of this advice to concrete cases or situations not explicitly reflected shall be developed considering that the design and calibration of the standard calculation of the SCR provide a 99.5 confidence level in a 1-year time horizon according to the following features:

c. Undertakings cannot anticipate the shocks considered in the SCR calculation and all undertakings are affected by the shocks in the same way. The shocks considered in that calculation are unavoidable.

d. The calculation shall be made on the basis of assets and liabilities existing at the date of reference of the solvency assessment, considering they cannot be changed before or during the calibrated shock.

e. The standard calculation of the SCR shall not allow as admissible those financial mitigation techniques that generate material risks not explicitly or sufficiently captured in the standard calculation of the SCR.

This is the case of 'financial risk mitigation techniques' involving material basis risks, referred to below.

Financial risk mitigation techniques having particularly complex features may also be inadmissible if they generate significant levels of operational risk that cannot be reflected in the SCR.

f. Innovative financial risk mitigation techniques shall be allowed in the context of the calculation of the SRC with the standard formula, only if there is clear evidence it is satisfied the requirement set out in article 101(5) of the Level 1 text.

3.59. The interpretation of this advice in the light of market developments shall be made with focus on the goals and targets of the solvency assessment of the undertaking and the protection of policyholders' rights.

3.60. In order to promote a stable behaviour of all financial participants, independently of the sector they belong to, and also aiming to avoid to the extent possible the possibility of any regulatory arbitrage, the treatment of techniques or cases not specifically addressed in these measures, shall be assessed according the principles reflected in this advice and, by analogy, the regulations applicable for the same techniques or cases in other financial sectors.

3.61. This advice shall be applicable to any technique satisfying the definition of '*financial risk mitigation techniques*' as defined in this advice and which have the same or similar economic effects.

D. Financial risk mitigation techniques and overall risk management.

3.62. The use of financial risk mitigation techniques shall be the consequence of an overall risk management policy, where both qualitative and quantitative features shall be appropriately considered.

3.63. As a consequence, undertakings should not make their decisions regarding financial risk mitigation techniques taking their effect in the solvency capital requirements as the single or the main element to decide, but mainly according its desired risk profiles, assumed and retained, both in the current situation and in stressed situations.

3.64. It shall not be considered appropriate the assumption of exposures exceeding the qualitative management abilities or the quantitative financial capacities of the undertaking, based on the expectancy of adopting afterwards a mitigation technique, not firmly committed at the date of the assumption of the original exposure.

3.65. It is the responsibility of each undertaking to assess which type of financial risk mitigation technique is appropriate according to the nature of the risks assumed and the capabilities of the undertaking to manage and control the financial risk mitigation technique. The undertaking must be able to demonstrate the effect of the risk mitigation achieved and its impact on the SCR.

3.66. An undertaking applying financial risk mitigation should satisfy the following requirements:

- The relevant staff should be considered as involved in the development of key functions of the risk management, and therefore the 'fit and proper' requirements set out in the article 42 of the Level 1 text apply;

- The undertaking should develop a written complete analysis of functioning and inherent risks of the financial risk mitigation technique. In particular, it shall document the legal, liquidity/termination or other risks that can derive from the financial risk mitigation technique, the actions adopted to face such risks and the potential consequences of the risks (i.e. in a worst-case scenario).

  The extent of this documentation will depend on the complexity and on the actual, or potential, impact of the financial risk mitigation technique.

  In any case, the above areas, and any other significant feature of the technique and its management, should be reflected with the appropriate and proportionate level of detail in the relevant documentation.

  Furthermore, the documentation shall be reviewed and updated on regular basis, and at least in each mandatory calculation of the SCR.

  Undocumented or deficiently documented financial risk mitigation techniques should not be considered, not even on a partial basis, for SCR purposes. Nevertheless, supervisors may admit those financial risk mitigation techniques whose documentation is incomplete or deficient, provided the undertaking solves this in an appropriate and timely manner and there is sufficient evidence that the documentation will be kept updated on regular basis.

- The undertaking has procedures in place to capture in its capital requirements the impact of the risks derived from the financial risk mitigation technique;

- There are internal procedures to provide satisfactory evidence that the functioning and risks of the financial risk mitigation technique are managed and controlled with the appropriate intensity and frequency. This shall include appropriate mechanisms to ensure that the mitigation technique can counted upon in time of stress.

3.67. The administrative and management bodies shall have the responsibility to understand and approve the policy to use any financial risk mitigation techniques, and to set mechanisms which guarantee the fulfilment of these provisions. In particular, the aforementioned bodies shall ascertain that the knowledge, expertise and application of the procedures are carried out by an appropriate number of sufficiently qualified staff, in order to make possible appropriate cross-controls and avoid undesirable dependences.

3.68. Supervisors shall be empowered to verify that any financial risk mitigation technique complies with these provisions, and when appropriate supervisors shall require corrective measures. Should an undertaking not achieve the compliance of these principles, the supervisor shall have the power to exclude the mitigation techniques in the assessment of the SCR.

E. General approach to financial risk mitigation techniques

3.69. The calculation of the SCR using the standard formula should allow for the effects of financial risk mitigation techniques through, on the one hand, a reduction in requirements commensurate with the extent of risk mitigation and, on the other hand, an appropriate treatment of any corresponding risks that are acquired in the process.

3.70. To provide a verifiable and objective framework to the overall treatment of financial risk mitigation techniques in the context of the calculation of the SCR with the standard formula, it is advisable to separate these two effects.

Principle 1: Economic effect over legal form

3.71. Financial risk mitigation techniques that have a material impact on an undertaking's risk profile, should be recognised and treated equally, regardless of their legal form, provided that their economic or legal features do not oppose to the requirements for such recognition.

3.72. Where financial risk mitigation techniques are recognised in the SCR calculation, any material new risks shall be identified and the capital required at the 99.5th confidence level quantified and included within the SCR. Where the financial risk mitigation techniques actually increase risk, then the SCR should be increased.

3.73. The calculation of the SCR with the standard formula should recognise financial risk mitigation techniques in such a way that there is no double counting of mitigation effects.

Principle 2: Legal certainty, effectiveness and enforceability

3.74. The financial risk mitigation instruments used to provide the risk mitigation together with the action and steps taken and procedures and policies implemented by the undertaking shall be such as to result in risk mitigation arrangements which are legally effective and enforceable in all jurisdictions relevant to the arrangement and, where appropriate, relevant to the hedged asset or liability.

3.75. The undertaking shall take all appropriate steps, for example a sufficient legal review, to ensure and confirm the effectiveness and ongoing enforceability of the financial risk mitigation arrangement and to address related risks.

3.76. In case where the full effectiveness or ongoing enforceability cannot be verified, the financial risk mitigation technique shall not be recognised in the SCR calculation. 'Ongoing enforceability' refers to any legal or practical constraint that may impede the undertaking from receiving the expected protection. The allowance in the SCR of the 'counterparty default risk' derived from the *'financial risk mitigation technique*' does not preclude the necessity of satisfying the *'ongoing enforceability'*.

3.77. Shared financial risk mitigation techniques. According this principle and principle 5, shared financial risk mitigation techniques which provide simultaneous protection to various parties and where the activation of one of them means the loss of protection (totally or partially) for the rest of parties, are not allowed to reduce the calculation of the SCR with the standard formula.

3.78. Procedures and processes. According this principle and principles 3 and 5, procedures and processes not materialized in already existing financial contracts providing protection at the date of reference of the solvency assessment, shall not be allowed to reduce the calculation of the SCR with the standard formula. This is the case for financial stop-loss processes, whose consideration is not appropriate in the standard calculation of the SCR according the framework of this advice.

3.79. Future contracts. Undertakings should not allow for additional hedging instruments (for example, as part of a rolling hedging programme) beyond those in force at the balance sheet date within the standard formula SCR, unless the conditions under which the undertaking has the right to renew the hedge, are fully committed at the date of the solvency assessment and all costs for the renewal are taken into account in the SCR calculation.

3.80. Basis risk. Since the design of the standard formula of the SCR does not take into account basis risk, according principles 1 and 2, when the underlying assets or references of the financial mitigation instrument do not match perfectly the exposures of the undertaking, the financial risk mitigation technique shall be allowed in the calculation of the SCR with the standard formula only if the undertaking can demonstrate that the basis risk is not material compared to the mitigation effect and, furthermore, the allowance of the financial risk mitigation technique is in line with the 99.5% confidence level of the SCR.

3.81. Undertakings whose overall risk management policy envisages the use of financial mitigation techniques with a material basis risk in respect of the hedged exposures, it is expected before using such techniques, that the undertaking will develop appropriate internal models to capture the risks associated with such basis risk with the confidence level and time horizon set out in the Level 1 text.

Principle 3: Liquidity and ascertainability of value

3.82. To be eligible for recognition, the financial risk mitigation technique relied upon shall be valued consistently in line with the principles laid down for Valuation of assets and liabilities, other than technical provisions (see CEIOPS DOC 31/09, former CP35). Furthermore, this value shall be over time sufficiently reliable and appropriate to provide certainty as to the financial risk mitigation achieved.

3.83. Regarding the liquidity of the financial risk mitigation technique, the following three general statements shall apply:

- The undertaking should have written internal policy regarding liquidity requirements that financial risk mitigation techniques should meet, according to the objectives of the undertaking's risk management policy;

- Financial risk mitigation techniques considered to reduce the SCR have to meet the liquidity requirements established by the undertaking.
- The liquidity requirements shall guarantee an appropriate coordination of the liquidity features of the hedged assets or liabilities, the liquidity of the financial risk mitigation technique, and the overall policy of the undertaking regarding liquidity risk management.

3.84. A mitigation technique covering just a part of the next twelve months should only be allowed with the average protection level over the next year. A pro rata temporis calculation provides an appropriate balance among accuracy and simplicity.

Principle 4: Credit quality of the provider of the financial risk mitigation technique.

3.85. Providers of financial risk mitigation instruments should have an adequate credit quality to guarantee with appropriate certainty that the undertaking will receive the protection in the cases specified by the contracting parties. Credit quality should be assessed using objective techniques according to generally accepted practices.

3.86. As a general rule, when the undertaking applies the standard calculation for a certain risk module, only financial protection provided by entities rated BBB (stable) or better shall be allowed in the assessment of SCR. For unrated counterparties, the undertaking shall be able to demonstrate that they meet at least the standard of a BBB rating company. In the event of default, insolvency or bankruptcy of the provider of the financial risk mitigation instrument – or other credit events set out in the transaction document – the financial risk mitigation instrument should be capable of liquidation in a timely manner or retention.

3.87. The assessment of the credit quality of the provider of protection shall be based on a joint and overall assessment of all the features or contracts directly and explicitly linked to the financial risk mitigation technique. This assessment shall be carried out in a prudent manner, in order to avoid any overstatement of the credit quality.

3.88. As an example, should the financial risk mitigation technique be collateralized (adding extra quality to the promise-to-protect of the direct provider), the assessment of the credit quality of the protection shall consider the collateral if

- it meets the requirements set out below regarding collaterals and,
- according article 101(5) of the level 1 text, the risks arising from the collateral are appropriately captured in the standard calculation of the SCR (i.e. the counterparty default risk module).

3.89. Where a provider of protection downgrades below BBB (stable) or becomes unrated and it is expected with a high confidence that this rating will be recovered in a short term, the financial mitigation technique may be considered admissible under the condition of meeting the provision set out in paragraph 3.89 within the next three months.

3.90. The correlation between the values of the instruments relied upon for risk mitigation and the credit quality of their provider shall not be unduly adverse, i.e. it should not be materially positive (known in the banking sector as 'wrong way risk'). As an example, exposures in a company belonging to a group should not be mitigated with CDS provided by entities of the same group, since it is very likely that a failure of the group will lead to falls in the value of the exposure and simultaneous downgrade or failure of the provider of protection. This requirement does not refer to the systemic correlation existing between all financial markets as a whole in times of crisis.

Principle 5: Direct, explicit, irrevocable and unconditional features.

3.91. Financial risk mitigating techniques can only reduce the capital requirements if:

- They provide the undertaking with a direct claim on the protection provider (direct feature); and
- They contain an explicit reference to specific exposures or a pool of exposures, so that the extent of the cover is clearly defined and incontrovertible (explicit feature); and
- They are not subject to any clause, the fulfilment of which is outside the direct control of the undertaking, that would allow the protection provider to unilaterally cancel the cover or that would increase the effective cost of protection as a result of certain developments in the hedged exposure (irrevocable feature); and
- They are not subject to any clause outside the direct control of the undertaking that could prevent the protection provider from its obligation to pay out in a timely manner in the event that a loss occurs on the underlying exposure (unconditional feature).

Special features regarding credit derivatives

3.92. The reduction of the standard SCR based on the mitigation of credit exposures by using credit derivatives shall only be allowed when the undertaking has in force generally applied procedures for this purposes and considers generally admitted criteria. Requirements set out in other financial sectors for the same mitigation techniques may be considered as generally applied procedures and admitted criteria.

3.93. In order for a credit derivative contract to be recognised, the credit events specified by the contracting parties must at least cover:

- failure to pay the amounts due under the terms of the underlying obligation that are in effect at the time of such failure (with a grace period that is closely in line with the grace period in the underlying obligation); and

- bankruptcy, insolvency or inability of the obligor to pay its debts, or its failure or admission in writing of its inability generally to pay its debts as they fall due, and analogous events; and
- restructuring of the underlying obligation, involving forgiveness or postponement of principal, interest or fees that results in a credit loss event. Definition of 'restructuring' will be considered according to generally standardised clauses and the own undertaking's guidance, according to its risk management policy.

3.94. Since the definition of credit events is an evolving topic, (i.e. definition of restructuring) the regulation set out in the previous paragraph should be regularly reviewed, and amended if necessary as part of level 3 guidance, to take into account market developments and future standardized conventions.

Collateral

3.95. A collateralized transaction is a transaction in which an undertaking has a credit exposure or potential credit exposure which is hedged in whole or in part by collateral posted by a counterparty or by a third party on behalf of the counterparty.

3.96. In addition to the general requirements set out in this advice and for legal certainty, effectiveness and enforceability, the legal mechanism by which collateral is pledged or transferred must ensure that the undertaking has the right to liquidate or take legal possession of it, in a timely manner, in case of any event related to the counterparty set out in the transaction documentation (and, where applicable, of the custodian holding the collateral).

3.97. Undertakings must have clear and robust procedures for the timely liquidation of collateral to ensure that any legal conditions required for declaring the default of the counterparty and liquidating the collateral promptly are observed. This assessment shall be appropriately coordinated with the assessment and policies applied in compliance of the liquidity principle.

3.98. Unless it becomes impossible according to market conditions, admissible collateral in the calculation of the SCR with the standard formula must protect the undertaking against the same events listed in this paper for credit derivatives.

Segregation of assets

3.99. Where, and to the extent that, the liabilities of the counterparty are covered by strictly segregated assets under arrangements that ensure the same degree of protection as a collateral that meets the above mentioned requirements, then the segregated assets shall be treated as if were a collateral with an independent custodian. In order to ensure the same degree of protection, the arrangements must meet in particular the requirements stated below.

3.100.The strictly segregated assets shall be individually identified, their deposit-taking institutions, the jurisdictions of localization of the assets, and the situations where the transfer of the assets to the creditor takes place. These situations should cover at least the cases required for collaterals and the one mentioned in later.

3.101.The legal certainty and enforceability shall require the following:

- The undertaking has a right in rem on the strictly segregated assets and they cannot be used to reimburse other creditors in the event of default of the counterparty according the legal regulations of all the jurisdictions of localization of the assets, as the jurisdiction of the counterparty. In case of default of the counterparty, the undertaking should have the right directly obtain the ownership of the assets without any restriction, delay or legal impediment,

- The counterparty should identify the strictly segregated assets and explicitly recognize the legal rights of the undertaking to trigger the guarantee, and their correlative obligations to transfer immediately the ownership of the assets to the undertaking,

- The arrangement should describe in an explicit and detailed manner, the legal procedures providing the undertaking the legal right to obtain the ownership of the segregated assets, once occurred the events triggering the guarantee.

3.102.The assessment of the legal enforceability should include a careful consideration of any risks connected to the localization of the assets outside of the jurisdiction of the undertaking. The arrangement should ensure that the country where the assets are located will not restrict the undertaking's rights in relation to the asset, even in times of economic or political crisis.

3.103.The principle regarding 'credit quality' shall require the following:

- The deposit-taking institutions are BBB(stable) rated or better and subject to supervisory action. Unrated or non-supervised deposit-taking institutions are not acceptable.

- The counterparty shall have processes to promptly refill the guarantee where market prices of the strictly segregated asset require such action. Lack of prompt refill shall be considered as triggering the guarantee.

3.104.The principle regarding direct, explicit, irrevocable and unconditional features shall require:

- The counterparty shall recognize that the strictly segregated assets shall not be transferable or changeable by other assets, without permission of the undertaking,

- Localizations of strictly segregated assets could be freely changed without existing legal or practical restrictions or impediments, other than the necessary permission of the undertaking,

- Once triggered the guarantee, there will be no legal or practical restrictions or impediments to localize the strictly segregated assets in the jurisdiction designed by the undertaking,
- Local regulations applicable to the strictly segregated assets and its deposit, shall explicitly guarantee that the strictly segregated assets are completely immune to any other responsibility or liability of the counterparty, both in ongoing concern basis and in case of its winding up.
- The segregation of assets shall not be revocable without permission of the undertaking