Chief Risk Officer Forum

23 January 2007

Henrik Bjerre-Nielsen
Chairman
Committee of European Insurance and Occupational Pension Supervisors

Dear Mr Chairman,

CRO Forum comments on Consultation Paper no. 20 "Pillar I issues – further advice"

We welcome the opportunity to comment on this draft advice.

The CRO Forum believes that the issues covered by this Consultations paper are key for the future solvency regulation. In this regard, the CRO Forum welcomes this Consultation paper, which develops further some of the points already discussed in the previous calls for advice. Since then, we believe that the QIS II exercise provided with a lot of useful information and feedback from the industry, and also that the political guidelines from the European Commission have been specified on a number of issues.

In general, the CRO Forum supports the position expressed by the CEA. As a complement, we would like to stress the following points:

Regarding valuation principles, we welcome the reference of CEIOPS to market consistent valuations of liabilities, including a market value margin based on a cost of capital method. However, we believe there is a need to clarify this further (as discussed in more detail in the Annex). We believe this should not necessarily be included in the framework directive, but rather be considered as an implementation issue to be resolved in line with what the IASB will come up with. In addition, better clarification should be made on the requirement which CEIOPS describes and justifies in CP20 by the adjectives "conservative" and "prudent". The CRO Forum would expect the use of the modern actuarial and risk management approach to create transparency by explicitly requiring "prudence margins" as extra risk capital, which would be part of SCR in Solvency II. We suggest replacing "conservative" with "adequate" and "appropriate". We also believe swap rates should be used as a preference to discount cash-flows.

Regarding eligible capital, improved recognition of hybrid capital is a welcome decision, but applying limits on the different layers of capital should be justified by the underlying economics. Moreover, in the case of group, CEIOPS recommendation of consideration of group capital support does not recognise the economics of a group structure. The CRO Forum considers that group supervision should be streamlined by focusing on SCR assessment at group level, and centrally ensuring group support in case of need.

More generally, group perspective is clearly overlooked by the current CP paper. In this regard, the CRO Forum has expressed his support to the approach for group supervision outlined in the joint document of HMT and FSA UK, which seems to be considered seriously by the Commission. This approach, which is not discussed in the CP 20, deserves further work by the CEIOPS.

Regarding the use of internal model, we consider a harmonized model approval process to be of utmost importance to ensure a level playing field in Europe. As for the approval criteria, we consider the requirements on back-testing and quantitative model validation to be too onerous, and hardly practical, especially with regard to underwriting risks. But also for other risk types available historical data is usually used to calibrate the model and therefore can not be used to validate it properly as a test-sample. More generally, a future solvency framework has to ensure that both standard models and internal models follow the same paradigm in terms of risk and ruin definition. Otherwise a comparability and desired incentive seems to be unrealistic.

Regarding calibration issues, the industry would welcome more transparency and explanation in the development of the calibrations underlying QIS 3 and all future Solvency II calibrations, importantly the processes around determining the correlations. This includes transparency in terms of CEIOPS sharing with the industry the processes followed to get to the calibration factors and engaging with the industry in terms of discussing the bases and assumptions proposed. This would enable a clearer audit trail and justification for the correlation factors used by the supervisors.

We note that the CP 20 does not address the concerns expressed by the CRO Forum in its feedback on key issues arising from the QIS II consultation, in particular

- Where economically warranted and documented, should the MVL recognize renewals, the renewal rate of the contract should be taken into account in the duration of non-life liabilities with regards to market risk
- The factors for insurance risks are too high, and should allow for company specific experience, both for premium risks and reserve risks.
- There seems to be a fundamental flaw in the methodology used for correlation, illustrated by the Equity /bond correlation. This was fixed by the CEIOPS at a 99,5% of the distributions of the 12 month correlations between bonds and shares, which does not seems to be the right approach. As a result, the 75% correlation seems quite high, and the 100% property/equity correlation is clearly not in line with experience.

Regarding the MCR, in its supplementary advice, CEIOPS supports the 'modular approach'. QIS 2 indicated substantial concerns on the modular approach and as a result, the industry has favoured a 'compact approach', where the MCR is set as a straight percentage of the last approved SCR, whether calculated by standard model or internal model. In addition, there needs to be a sufficient difference between the MCR and the SCR so as not to erode away diversification benefits and/or tamper with the effectiveness of the supervisory "ladder of intervention". The proper calibration of the percentage is something the CRO Forum is prepared to work on with CEIOPS.

Finally, regarding asset rules, there is a potential to double count capital requirements by requiring both capital requirements and restrictions on asset eligibility. Under a risk based economic approach, there should be no need for supplementary asset limitations provided that the risks should be adequately captured in Pillar 1 or as an add-on in Pillar 2. Leaving to each supervisor the possibility to fix specific rules, even for a transitory period, as envisaged by the CEIOPS, would be the worst approach, leading to potentially large differences in the implementation of European rules.

Furthermore, in addition to the subjects dealt with in CP 20, we would like to request the CEIOPS to clarify the fact that asset rules should not be prescriptive in the way a company replicates a portfolio. For instance, for a unit-linked contract with guarantee of performance, if this guarantee is hedged by holding a short position of the underlying funds, only the net position of fund and its short hedging position should be required to be held in the balance sheet.

We have included specific responses to the draft advice on some of these issues in the attached annexes 1 to 4.

We appreciate that further work is needed on these issues, in particular for the preparation of the QIS III exercise and the CRO Forum will be happy to assist the Commission and CEIOPS in this work.

Yours sincerely

Thomas C. Wilson
Chairman, CRO Forum
Chief Insurance Risk Officer
ING Group

Annex 1: Detailed comments to CEIOPS Consultation Paper no. 20, paragraphs 2.6 to 2.27 and Section 3

These detailed comments only refer to "Valuation standards".

<table>
<tr><th>CP 20 paragraph</th><th>CRO Forum comments</th></tr>
<tr><td colspan="2">Role of technical provisions and capital requirements (3.114-3.116)</td></tr>
<tr><td>3.114
3.115
3.116</td><td>The CRO Forum agrees with CEIOPS' goal that "[b]oth technical provisions and capital requirements are part of a consistent overall framework" (3.115). The CRO Forum has supported early and unanimously the aim of the Solvency II project to create a modern solvency framework for (re)insurers in Europe.

For creating transparent solvency balance sheets the assumption of the CRO Forum always was that the valuation framework has to follow principles which are economics based and realistic. The value of a balance sheet item should therefore be determined as the best possible estimate that professionals can provide. Uncertainty and risk, generally and also in the determination of technical provisions, and required additional prudence therefore should be reflected in the required risk capital, the SCR. All in all, CEIOPS expresses mostly agreement with these principles, but 3.14 casts some doubt as to CEIOPS' adherence to these principles as explained below.

The current proposed definition of technical provisions unfortunately lacks some clarity in areas where it would be important for a practitioner to have unambiguity. We would therefore like to comment on some of these issues in the sequel.</td></tr>
<tr><td>3.114 + 2.6
3.115</td><td>The CRO Forum notes that in the draft advice technical provisions seem to be defined aiming to achieve two objectives:
In 3.114, the risk margin should allow "[t]o transfer the liabilities portfolio to an able, rational and willing third-party", which we understand to be a similar objective as the Commission's requirement, expressed in 2.6, second paragraph: "…The risk margin covers the risks linked to the future liability cash flows over their whole time horizon. It should be determined in a way that enables the (re)insurance obligations to be transferred or put into run-off. …"
In 3.115, discussing an overall consistent framework, the second bullet point states that "[t]echnical provisions represent the amount that is required for an insurer to settle all insurance liabilities to policyholders and other beneficiaries arising over the lifetime of the portfolio". As technical provisions are to be expressed as the sum of a best estimate (of all costs except capital costs) and a risk margin (e.g. 2.12), the CRO Forum's further understanding is that technical provisions contain best estimates of all costs, inclusive "rent for capital", to service insurance liabilities.
The CRO Forum in general agrees with both these statements. The definition given in 3.114 (2.6) is often called "transfer approach", whereas the one in 3.115 "settlement approach".

We note that the definition in 3.114 of the transfer approach needs further specification, whether it should be applied in a going concern situation or in a situation when the (re)insurer is in financial distress. The CRO Forum believes that the impact of distressed circumstances is covered in the solvency capital requirement and as a result such scenarios should not be reflected in the liabilities. We recommend that the</td></tr>
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CP 20 paragraph	CRO Forum comments
	definition in 3.114 includes ‘under normal business considerations’. In determining technical provisions one would have to use cost assumptions specific to an assumed purchaser, if the transfer approach were used, and own company specific cost assumptions with the settlement approach. Both approaches of course use the same assumptions when the information can be derived from financial markets or where scientific knowledge allows the statement of general laws. As a result, we believe there is a need to provide more clarity how to reconcile the seemingly inconsistent approaches as defined in 3.114 and 3.115 as in fact it would be difficult to apply these approaches simultaneously without further guidance. In that respect we refer also to the observations made by the IAIS (in the second bullet and paragraph 21 of the IAIS Second Liabilities Paper) for the need to define a common reference framework for the valuation. Such a framework is also needed to define what level of diversification should be reflected in the valuation of liabilities with the transfer approach. In order for a practitioner to calculate technical provisions with the transfer approach, supervisors would have to describe very carefully the common reference framework, i.e., the potential purchaser and its cost and risk structure. The CRO Forum would welcome clarification from CEIOPS. Ideally this clarification would be available for QIS3 It is to be noted that because technical provisions are defined as the sum of best estimate and risk margin definitions given for one element have an impact on the other two.
Principles for calculating the technical provisions (3.117-3.123)	
3.14	The CRO Forum does not agree with the gist of this paragraph. Current technical provisions are based on a wide variety of practices. As a result, we believe that any comparison with the current level of technical provisions does not provide useful information and as a result we believe it should not be required that any loss of prudence in the technical provisions should be compensated.
Hedgeable and non-hedgeable risk (3.117)	
3.21 to 3.24 and 3.27	We appreciate this draft advice generally reflects the suggestions made by the CRO Forum in its joint submission with CEA[1] on the valuation of insurance liabilities. It remains our belief that the approach as suggested in our joint submission with the CEA is the only appropriate and workable solution to value insurance liabilities applying a market-consistent economic basis. We agree with the proposed separation in the CP between hedgeable and non-hedgeable risks in valuation of the technical provisions. However, the definitions need to be clearly specified for these two classes. On 3.27: the use of the wording “However” at the start of this paragraph seems to indicate that there is a difference with the thought process of the IAIS regarding the valuation of non-hedgeable financial risks. As mentioned in 3.27 the view of CEIOPS is that for non-hedgeable financial risks a “best estimate plus risk margin approach” is needed. The CRO Forum fully supports such an approach for these risks. We understand that the IAIS view aligns with the suggestion made by the CRO Forum and the CEA that for non-hedgeable financial risks appropriate economic methods to “extend market prices” (e.g. discount rates, volatility surfaces) can be used as an option in addition to the “best estimate

[1] Solutions to major issues for Solvency II - Joint submission by the CRO Forum and CEA, 23 December 2005.

CP 20 paragraph	CRO Forum comments
	plus MVM" approach. It should not be forgotten that the uncertainty or risk in determining technical provisions will be reflected in SCR as will any other risk that a (re)insurer is subjected to.
Measurement of the best estimate (3.121)	
3.121 and reference to 3.46 and following	The CRO Forum agrees that it is key that the best estimates are set appropriately and generally agrees with the statements in that respect as provided in this section. We strongly disagree that whenever there is more than one reliable and relevant actuarial method of calculating the best estimate the one with the highest result should automatically be retained as proposed in advice 3.121 (explained in 3.48). Practitioners do not use a mechanic process, but rather assess with professional judgement the reliability of data and the underlying trends to forecast future developments. Until one has analysed the data and made suitable adjustments or corrections no method is likely to give a sensible answer. A systematic selection of the most conservative instead of the most appropriate method may lead to substantial over-reserving and would give an incentive to deliberately pre-select the applicable methods. The selection of the method should rely on the professional advice and best practice of appropriately qualified actuaries and be properly documented. The CRO Forum recommends that Pillar 2 reviews should cover the assessment of the firms' choices of approaches to best estimate.
Approaches to the risk margin (3.122-3.123)	
3.75 to 3.104	The CRO Forum very much appreciates the choice for the cost of capital approach. As known the CRO Forum has been a strong supporter of that approach. Some additional comments: 1. We observe that the risk margin heavily relates to the skewness of the distribution. This would only be captured by a confidence level type approach by using different levels of confidence for different lines of business. Since the skewness of the distribution is reflected in the capital requirements (particularly when internal models are used), the cost of capital approach on the other hand does not need to be adjusted for different lines of business. 2. Comparing with the approach taken in the Swiss Solvency test – the CRO Forum would like to note that the approach as defined in 3.91 was already the approach suggested by the CRO Forum. I.e. the risk margins should only refer to unavoidable risks. That is in line with a market approach as any buyer of the liabilities can always opt to invest in the replicating portfolio. In respect of the discussion in paragraphs 3.94 to 3.98 on stress testing, the CRO Forum suggests to use the cost of capital approach without requiring additional stress testing, because ultimately the comments made here by CEIOPS are really about "best estimates". We believe requiring additional stress testing would imply undue costs to the insurance companies and ultimately policyholders. However, we agree that stress testing may help in defining the appropriate level of cost of capital rates. The CRO Forum is willing to further support the implementation of the cost of capital approach. We would also like to note that more groups (including academics) have interest in this matter and are actually developing papers to discuss this and in particular discussing the level

CP 20 paragraph	CRO Forum comments
	needed. We believe that there will be converging conclusion over the next couple of years regarding the appropriate level of cost of capital rates.
2.17	We agree with criteria provided by the Groupe Consultatif, but we also note that the IAIS in paragraph 59 of its Second Liabilities Paper has included some criteria. We suggest including these as well. Also, we understand that the International Actuarial Association at the request of the IAIS is developing a paper that discusses best estimates and risk margins, with examples on how to apply and compare different approaches to set risk margins. An exposure draft of this paper will be ready early February.
3.123 with reference to 2.12; 3.25 and 3.28	In 2.12 CEIOPS requires a "…conservative market value margin…". As we outlined above we agree with CEIOPS' intention to have a prudent framework, also on relying on conservative assumptions, but we disagree to put conservativism into the elements of technical provisions in an opaque manner. In our opinion, if a conservative approach is deemed necessary then it should be considered in the SCR, possibly additively, but certainly transparently. On 3.25: CEIOPS' suggestion that the valuation should be <u>conservative</u> is not in line with the general gist as provided in 3.15 and 3.16. It is stated there that the valuation should be consistent with information by financial markets; with a strong link to the economic reality of the business and that capital should provide a cushion to absorb risk. We believe the word "conservative" should be replaced by "appropriate". Such wording may also facilitate the move to have a close alignment of the valuation between general purpose accounting and regulatory accounting, which as we understand from a recent paper from CEIOPS to the IASB is also a goal of CEIOPS.[2] On 3.28: to be in line with CEIOPS' stated principles, uncertainties in technical provisions should be reflected in the SCR, where also conservativism if deemed necessary could be expressed, and not directly in the risk margin. The risk margin will indirectly also increase as cost for capital will increase according to the increase in SCR.
Discounting (3.124)	
3.52 **3.124**	In respect of discounting the CRO Forum believes that government bond prices are not always easily observable and in some cases there might not be sufficient trade in government bond rates to assess the rates reliable. As a result, we believe the preference should be to using swap curves – swaps do not contain much credit risk and the market is clearly deeper and more liquid. We understand swap rates were provided for QIS2
Segmentation and diversification (3.125)	
3.32 to 3.45	As highlighted in our White Paper on Diversification[3] diversification is the raison d'être of the insurance industry and diversifying strategies are the basis of sound risk management and can be used to counter concentrations of risk, particularly in times of stress. It is a vital fact that every

[2] November 20, 2006 letter from CEIOPS to the IASB concerning Solvency II and IASB Phase II of insurance contract project
[3] A framework for incorporating diversification in the solvency assessment of insurers, CRO Forum, 10 June 2005

CP 20 paragraph	CRO Forum comments
	insurer uses diversification to manage the portfolio of risks that arise in their business. Empirical studies and scientific research as well as many industry-standard business practices highlight the importance of building balanced portfolios. This does not only relate to intra-portfolio diversification but also to inter-portfolio diversification and does not only apply to solvency requirements, but also to the valuation of technical provisions when determining the risk margin. Not reflecting such effects would in our view be inconsistent with an approach that aims to be realistic (reflecting a market consistent economic approach) and wants to promote best practice risk management. The advice given in 3.42 that non-hedgeable risks should be valued “according to a prescribed supervisory valuation principle” does not guarantee a conservative approach to “ensure[] both full settlement and transfer in stressed situations”, but will rather discourage good risk management practices and lead to the opposite. In that respect we would like to refer to the paper that the Groupe Consultatif has issued on this matter[4]. In promoting the so-called bottom-up approach to calculate diversification benefits, it is not the mere existence of portfolios that makes the case for reflecting diversification benefits, rather the combination of different risks that constitutes the diversification benefit. We fully agree that any diversification benefit should be based on appropriate assessment of the dependencies between risks and portfolios and as such we fully agree with the wording in 3.45 that “[i]f inter-portfolio diversification benefits are to be measured, the correlation measures between lines of business and insurance products should be determined on a sufficiently robust and adequate basis, reflecting the most credible assumptions and taking into account information from the market and from the underlying portfolios. The risk that correlations deviate from expectations should be considered on capital requirements, including the possibility of a general increase of correlations due to stressed situations (e.g. catastrophes).” Predictably, we fully agree with the method proposed by other CEIOPS members in comment 3.44, of separating value and requirement for SCR. Quite generally, one should not change valuations from a true value to some desired value, but reflect concerns, risks or other prudential considerations in requiring transparently additional SCR. However, the CRO Forum has to express strong disagreement with the concept of creating a risk charge in SCR relating to the diversification within technical provisions as this would amount to non-recognition of natural diversification effects. We appreciate the comment in 3.41 that further analysis is needed and the CRO Forum offers support in further move this issue forward, with the final goal to achieve a reliable valuation on an economically sound and market-consistent basis. We also remain concerned that CEIOPS' preferred approach of using “two step” correlation matrices in the suggested modular approach for a standard formula introduces more complexity and scope for errors. We understand CEIOPS are proposing this as they believe it is simpler but in practice we consider a one step approach (at the solo level) is feasible and less prone to error. Whilst in theory this should not make much difference, in practice where audit trail and demonstration of correlation assumption is key, taking such a two stage approach could well lead to ultra prudent dependency assumptions which would significantly curtail diversification benefits.

[4] DIVERSIFICATION - Technical paper, Groupe Consultaif, October 2005

CP 20 paragraph	CRO Forum comments
Inflation (3.126)	
3.53	The CRO Forum would like to point out that it is important to aim at consistency with financial market expectation of future inflation, when claims cost inflation is taken into account in the market consistent and realistic valuation of insurance liabilities. This is in line with the quote in 3.20 to make optimal use of financial market information. The CRO Forum agrees with CEIOPS advice that the extra inflation of claims costs, caused by, say, salary inflation, over consumer price inflation has to be appropriately taken into account.
Modelling and parameter errors (3.130)	
3.105 to 3.110	The CRO Forum appreciates the discussion on modelling and parameter errors. Supervisors however should not have to quality check the reserving methods and the level of technical provisions, but review their appropriateness as noted in the earlier comment in response to paragraph 3.121. We agree that they should be in a position to form an opinion about the level of technical provisions. However, we note that by including a risk margin in the technical provisions the parameter uncertainty is already reflected as a cost factor. Also it should be noted that capital requirements should give due regard to modelling and parameter errors and hence applying a cost of capital approach, the risk margin automatically includes a charge for this uncertainty. For companies using internal models the review of the appropriateness most efficiently should coincide with the approval process of the internal model, the Pillar 2 reviews and the further approval of material changes to the internal model.
Reinsurance (3.131)	
3.55	The CRO Forum feels that the advice to neglect reinsurer's default risk when valuing net technical provisions conflicts with CEIOPS' market-consistent and realistic valuation principles. If possibly transparency was CEIOPS' concern, market-consistent solutions accomplishing the same goal and without double counting risk in technical provisions and SCR can certainly be found.

Annex 2: Detailed comments to CEIOPS Consultation Paper no. 20, Section 5 – SCR Standard formula

These detailed comments only refer to the calibration of the standard formula. They are in line with the "CRO feedback on key issues arising from the QIS II calibration" sent previously to CEIOPS and the European Commission.

CP 20 paragraph	CRO Forum response
General comment on calibration	
5.28 – 5.37	Overall, we would like to stress the need for full transparency in the calibration process and more generally in the establishment of the Standard Formula. In this respect, the CRO Forum supports reviewing the standard model framework in light of the principles developed by the CEA in their suggested framework for the European Standard Approach ; these principles provide a good basis on which to evaluate the results of the standard model applied on QIS 2, and potentially optimize it further. In particular, they emphasize the link between the internal models and a standard formula which essentially tries to be a very simplified internal model - we think that this important principle should be stated explicitly, and will simplify the calibration process.
SCR_{op} operational risk	
5.98 – 5.107	In the framework of the standard approach, the CRO Forum believes that Operational risk capital charge should follow a high level approach. For example, calculating SCR_{op} as a general adjustment of SCR, for instance a fixed percentage, seems to be the more pragmatic approach.
SCR_{mkt} market risk - Correlations	
5.121 and 5.122	The correlation between interest rates and equity-type risks in stress conditions appear highs at 75%, and the equity/property correlation at 100% clearly inadequate, with no relation whatsoever with historical experience over a one year period. In this regard, the CRO Forum does not agree with the approach described in paragraph 5.122 to calculate Equity shares – Bonds correlation. There seems to be a fundamental flaw in the methodology used for correlation, as this was fixed by the CEIOPS at a 99,5% of the distributions of the 12 month correlations between bonds and shares.
SCR_{mkt} market risk - Mkt_{int} interest rate risk	
5.129 – 5.138	As a matter of principle, the CRO Forum believes that solvency capital should be aligned with the risk arising from changes in the market value of assets and liabilities. With regards to P&C liabilities, the CRO Forum has recommended "the inclusion of no more than one year worth of new business" with some exceptions where economically warranted and documented. Should the MVL recognize renewals, then the duration of the P&C liabilities will logically be longer than without the recognition of renewals and this should be recognized in the calibration of the standard formula.

CP 20 paragraph	CRO Forum response
	There is an opportunity to further improve matching the solvency requirement with the underlying economic reality in respect of the market risk for non life liabilities. These liabilities, we believe, should take into account the real economic duration, by using a prudent expectation of the renewal rate of the contracts for the market where this is justified. The duration approach of P&C liabilities proposed by the CEIOPS framework does not currently take into account the renewal rate of the contract, and we would welcome the opportunity to discuss this further. One potential implication of this approach is that the duration of liabilities could be significantly underestimated in jurisdiction experiencing high renewal rates. As a consequence, the ALM conclusions of the model could encourage sub-optimal behavior in terms of risk management, particularly in relation to investment policy for fixed income instruments. Consistent with the principles of Solvency II, it would seem appropriate to allow for the anticipated operating conditions over the projection period, which would clearly include renewal of policies consistent with historical experience.
SCR_{mkt} market risk - Mkt_{eq} equity risk	
5.139 – 5.158	In general, the CRO Forum believes that all calibrations, especially market risk calibrations, should be based on objective and transparent criteria whenever possible. Having said this, the current calibration associated with equity risk, which penalizes heavily equity risk compare to other risks, could lead to significant changes in asset allocation in the European insurance industry. In this regard calibration should be considered, not just from a theoretically perspective, but ultimately the behaviour it will drive.
SCR_{nl} non-life underwriting risk - NL_{pr} premium & reserve risk	
5.294 – 5.364	The factors for non-life risk applied to premiums and reserves appear consistently higher than implied by observed historical loss ratios. This gives rise to resulting capital requirements in excess of 25% of premiums plus 25% of reserves, even for lines of business which do not carry significant risk and assuming the more favourable size factor. This is considerably higher than might first be expected, and does not seem justified by past experience of the non-life sectors to withstand adverse shocks.

Annex 3: Detailed comments to CEIOPS Consultation Paper no. 20, Sections 6 and 7 – SCR full and partial internal models (including comments on S.14 – S.17 in the Supplement to Consultation Paper no. 20)

General comments

We welcome the sections of CP20 dealing with full and partial internal models. The CRO Forum supports the possibility to base SCR calculations for Solvency II on approved internal models. We also agree with the general concept put forward by CEIOPS to distinguish among statistical quality, calibration and use tests in combination with the fact that no particular methodologies are prescribed. We want to stress explicitly our support of the full recognition of diversification benefits, risk mitigation actions and management actions.

It is however crucial that Solvency II provides incentives for advanced risk management techniques. We therefore think that Solvency II should provide an incentive in capital requirements and capital ratios for insurance undertakings to apply internal models. In order to avoid inconsistencies and to provide incentives for advanced risk management techniques CEA and the CRO Forum strongly recommend to derive the MCR as percentage of SCR, irrespective whether SCR is calculated by an approved internal model or by the standard approach. Thus last agreed and approved internal models should be allowed to serve as a basis for deriving MCR.

We are concerned that certain elements of the draft advice are not feasible in practice. This holds especially for the requirements on back-testing. We are also concerned that the far-reaching possibilities for supervisory discretion at solo level (setting of key parameters, decision on model approval) could jeopardize a harmonized application of Solvency II across Europe. Further details and requirements need to be elaborated in this area.

CEIOPS seems to imply that a solo supervisor would have the power to effectively overrule an approved internal model at the group level e.g. by applying a capital add-on at a solo level. We believe that this is clearly not in line with an economic approach on group supervision. We recommend that the lead supervisor should have the ultimate authority to approve (and disapprove) internal models.

Regarding the section on partial use of internal models we want to stress that insurance companies should be allowed to apply partial internal permanently for smaller parts of the business in order to allow for the use of advanced risk management techniques. The 20% limit is arbitrary in this context. The treatment of partial use of internal models in a group context needs further clarification along the same line.

The partial use in the context of Group supervision is not covered by the CP.

We consider it to be appropriate to use an internal model for calculating SCR at the Group level, whereas some insurance companies can remain in the standard model for calculating SCR and MCR.

CP 20 paragraph	CRO Forum comments
6.498	We see the danger that such a clause effectively will undermine a joint model approval process. CEIOPS seems to imply that a solo supervisor would have the power to effectively overrule an approved internal model at the group level e.g. by applying a capital add-on at a solo level. We believe that this is clearly not in line with an economic approach on group supervision. We recommend that the lead supervisor should have the ultimate authority to approve (and disapprove) internal models. We think that an insurance company should approximate for such changes in the business in the internal model better and more accurately than a regulatory Add-On. The suggested treatment must not put internal models at a disadvantage compared to the standard formula.
6.500	We do not consider a full loss distribution to be necessary in all circumstances. Robust point estimates or scenario testing might be appropriate as well (as stated in 6.519). We suggest amending the wording throughout the section- As footnote 146 stipulates the term actuarial model is misleading. We would recommend replacing it by analytical model. The analytical model might capture all risk categories, of which most are usually not maintained by actuaries.
6.504	Agree to the principle. We understand this principle to also allow for diversification between geographies and between legal entities in a Group context.
6.505	We agree to this principle.
6.506	We agree to this principle. Management actions are an important factor especially for Life business and thus need to be considered both for valuation and risk assessment purposes. We expect further details to be elaborated at Level 2 or Level 3. The CRO Forum will be happy to assist further in this work.
6.509 – 6.513	We consider the requirements on back-testing and quantitative model validation to be too onerous and hardly practical especially with regard to underwriting risks. But also for other risk types available historical data is usually used to calibrate the model and therefore cannot be used to validate it properly as a test-sample. Data requirements for robust back-testing will thus not be met in the near future as stated in 6.513. The lack of quantitative back-testing thus should not hinder an internal model to be approved. We recommend that review and validation should be mainly qualitative in nature. The review should consider robustness of parameterization processes, clear responsibilities and methodological peer comparisons by the regulators on a harmonized basis at the EU level.
6.518 - 6.519	Agree that two calibrations of the model might be necessary (one for internal use, one for regulatory use). Using only the internal calibration for management purposes does not contradict the use-test of the model. We want to point out that other differences might exist (e.g. an insurance company might choose to hold risk-based capital in its internal model for risk types which are not covered by Pillar 1 requirements). Approximations might be based on distribution assumptions.

CP 20 paragraph	CRO Forum comments
6.520	The CRO Forum does not agree with this observations as reserve risk should (and will) always be reflected in the capital requirements, even if the pay-outs are far in the future. Long-tail lines of business with considerable reserve risk for pay-outs far in the future require a higher SCR already today.
6.521	We do not think that external data is useful for all risk categories and in all circumstances. Thus their general use should not be prescribed. E.g. For General insurance underwriting risk companies should be allowed to rely on internal loss information if this better reflects the underlying risks.
6.524	Such a requirement will effectively hinder the use-test of the internal model and will usually not improve the quality of the outcome. For some types of models setting the parameters is intrinsic to the model architecture (e.g. NatCat models, Market models based on historic simulations …) and cannot be set arbitrarily from the supervisor. If the supervisor sets key parameters the burden of proof falls onto him, that these parameters are better and reflect the risk profile of the undertaking more appropriately.
6.528	We agree that the sovereign responsibility of model approval cannot be delegated to a rating agency. We consider a harmonized model approval process to be of utmost importance to ensure a level playing field in Europe. Implementing measures on Level 2 and supervisory practice on Level 3 need to be put in place to ensure appropriate harmonization in this area. The model approval process for Groups and all insurance entities in that Group however will be coordinated by the Group supervisor. We recommend that he also has the right to decide if the Group of supervisors cannot reach a conclusion on the model approval within a reasonable timeframe.
6.530	We see the danger that supervisors cannot handle the workload of several applications and some companies are thus forced into the standard model. We therefore would recommend that if an application is not answered (positively or negatively) within six months, an insurance company is allowed to use an internal model until the supervisor decides otherwise.
6.529 and 6.533	We recommend that negative decisions on approval applications need to be reasoned. The CEIOPS text leaves still lots of discretion to the supervisors in the model approval. We consider it important that the model approval process does not a moving target for insurance companies and that internal models are assessed against an agreed set of requirements. If all requirements are fulfilled the supervisor has to approve the internal model.
7.27	As explained in the comment to S 14 – S 17 we do not consider a requirement of having at least 80% of the SCR based on an internal model appropriate. Consequently a distinction in transitional and non-transitional partial models based on a time restriction would not be required.
S.14 – S.17	Clarification: We understand the non-modeled part to be the part not covered by the internal model but by the standard formula. We do not consider such a requirement to provide appropriate incentives to migrate to better risk management. If risk management and risk

CP 20 paragraph	CRO Forum comments
	measurement for SCR are improved by the internal model also for a small part of the business (e.g. non-standard lines of business), this improvement should be acknowledged by the regulator. We agree however that cherry picking needs to be avoided. It’s not clear to us, whether this requirement shall apply both on Group and on legal entity level. The 20% threshold seems arbitrary for us.

Annex 4: Detailed comments to CEIOPS Consultation Paper no. 20, Section 8 - Minimum Capital Requirement (including comments on S.19 – S.24 in the Supplement to Consultation Paper no. 20)

CEIOPS' context for advice	CRO Forum comments
The European Commission has provided guidance that the MCR should be simple, robust, defendable and objective and that it should form an absolute floor for solvency – mandatory regulatory action level. CEIOPS has interpreted simple to be simple in terms of sophistication referring to factor based approaches and no internal models. CEIOPS has not explicitly commented on what it means to be robust. CEOPS has interpreted defendable to mean auditable and objective to be formulation of a specific rule in which its breach trigger action.	The CRO Forum believes that simple should be interpreted as limited additional effort to produce the result on behalf of the industry and the supervisor. Simple does not mean an entirely new approach to measuring capital adequacy such as factors and modules and it does not mean forsaking sophistication and appropriateness – especially in the face of the SCR. The CRO Forum believes that the MCR should be robust in that it is scalable to existing risks, adaptive to new risks and reflects the company's management and mitigation of risk. In short, we think "robust" means "appropriate" in that it should carry the same properties as the SCR. The CRO Forum is concerned that CEIOPS may detach MCR from the focus of what Solvency II is about. The heart of Solvency II is the market consistent value of the insurance company. This is by far the most material component of required financial resources. The SCR is the amount of capital to absorb shocks on this market value. For CEIOPS to be concerned with expressing MCR as a percent of SCR is confusing as MVL is the core of the system. To think that MCR is objective because it is de-linked from SCR may be true but it does not make it appropriate. The CRO Forum believes that supervisory process should be focused on dialogue of the MVL and SCR. Once comfort is reached (a necessary condition), expressing MCR as a percent of SCR should be natural. This time would be better spent then working through another set of independent calculations for MCR and another attachment point on complex distributions. The CRO Forum understands CEIOPS reservation in setting MCR as a percent of SCR for objectivity reasons. However a consideration in addition to the above is the role of capital additions through the Pillar II process. No doubt that these additions would be the result of serious concerns from supervisors. Would these adjustments then not apply in some lesser form to the MCR and if so, how is the pursuit of objectivity maintained in the MCR?

CEIOPS' context for advice	CRO Forum comments
	It is also expected that the supervisory process would be more laddered (more than just SCR/MCR). Expressing MCR as a percent of SCR allows for convenient laddered intervention steps which would also be expressed as a percent of the SCR rather than another separate process. Lastly, we clarify that our reference to SCR throughout Section 8 is the solo SCR – not the group SCR which would reflect group level diversification benefits.
CEIOPS put forward two approaches for the MCR: 1) Modular approach 2) Percent of previous year SCR plus provision for run-off expenses where appropriate. Both methods would be subject to some transition period from current Solvency I requirements. Later in the CEIOPS advice section, we understand that CEIOPS prefers the modular approach.	The CRO Forum prefers a percent of current SCR. As a compromise, we are willing to support a percentage of lagged SCR (last year's SCR). We agree with CEIOPS that in many cases no provision for run-off expenses would be needed if reflected already in the MVL. The CRO Forum does not support the modular approach for the reasons provided in this section of response to CP20. Lastly, the CRO Forum prefers no transition period as we need to keep the MVL, SCR and MCR moving together. Transitioning one and not the other will make no sense. Transitioning all three is effectively a delay in the framework implementation.
CEIOPS' draft advice	
S.19 The MCR is a safety net. The MCR should be an auditable, robust and simple requirement, calculated by means of a factor-based approach.	As mentioned above, the CRO Forum would replace "auditable" with "defendable" and "simple requirement" with "limited additional work for both parties". Lastly we would like to delete "factor-based approach" as we feel this has no place as a mandatory requirement under a sophisticated solvency regime. We believe that by far the better risk management approach is to use internal models and that supervisors would agree and therefore we should not provide this perverse incentive to ever rely on or take shelter behind factor based methods.
S.20 There is a trade-off between simplicity and risk-sensitivity and the MCR is to be optimized for simplicity.	Based on our interpretation of what simplicity means we can have both. We can have all the sophistication and appropriateness of the SCR with the simplicity of no additional work for either the company or supervisor.

CEIOPS' context for advice	CRO Forum comments
S.21 In this context, the MCR should address the main risks that the insurer is exposed to. It should therefore be calculated in a modular approach, which will reflect the main modules of the SCR in a simplified way, so as to ensure auditability and robustness.	The CRO Forum agrees but we are so close to the SCR with this statement we do not understand the need to define another set of requirements especially when the heart of Solvency II is the market consistent value of liabilities which shares the same sophistication and challenges as the SCR.
S.22 Conceptually, it should follow the same one-year time horizon as the SCR, but with a lower level of confidence, e.g. 90%, to reflect the ultimate supervisory intervention in case of its breach. The calibration should be adjusted through further quantitative impact studies taking into account as a benchmark the current Solvency I capital requirement.	Same comment as S.21
S.23 The modular MCR should reflect in a robust manner the risk absorption properties of future non-guaranteed bonuses included in technical provisions as well as any other significant design differences between the MCR and the standard SCR that come to light in QIS testing.	We agree and add that this is self evident under an appropriate SCR.
S.24 The MCR should include an absolute minimum floor.	The CRO Forum defers comment on this statement to smaller insurance companies.