Summary of Comments on CEIOPS-CP-42/09

CEIOPS-SEC-105-09

Consultation Paper on the Draft L2 Advice - Risk Margin

CEIOPS would like to thank AAS BALTA, AB Lietuvos draudimas, AMICE, Amlin plc, Association of British Insurers, ASSOCIATION OF FRIENDLY SOCIETIES, Association of Run-Off Companies, BARRIE & HIBBERT, Belgian Coordination Group Solvency II (Assuralia/, CEA,

ECO-SLV-09-437, Centre Technique des Institutions de Prévoyance (C, CRO Forum, Danish Insurance Association, DIMA (Dublin International Insurance & Management , Dutch Actuarial Society – Actuarieel Genootschap (, European Insurance CFO Forum, European Union member firms of Deloitte Touche To, Federation of European Accountants (FEE), FFSA, German Insurance Association – Gesamtverband der D, GROUPAMA, Groupe Consultatif , Institut des actuaires (France), International Underwriting Association of London, Investment & Life Assurance Group (ILAG), Ireland\39s Solvency 2 Group, excluding representa, Just Retirement Limited, KPMG ELLP, Legal & General Group, Link4 Towarzystwo Ubezpieczeń SA, Lloyd\39s, Lucida plc, Milliman, Munich RE, NORWAY: Codan Forsikring (Branch Norway) (991 502 , Pacific Life Re, Pearl Group Limited, PricewaterhouseCoopers LLP, RBS Insurance, ROAM – Draft V2, RSA Insurance Group PLC, RSA Insurance Ireland Ltd, RSA\32\45\32Sun Insurance Office Ltd., SWEDEN: Trygg-Hansa Försäkrings AB (516401-7799), UNICATT, Uniqa, Unum Limited, Waszink Actuarial Advisory, and XL Capital Ltd

The numbering of the paragraphs refers to Consultation Paper No. 42 (CEIOPS-CP-42/09)

No.	Name	Reference	Comment	Resolution
1.	AAS BALTA	General Comment	We disagree with the assumption that diversification should not be allowed for in assessing the risk margin. We believe this introduces additional prudence into the calculation of Technical Provisions, beyond that indicated within the Directive. We propose an alternative method in paragraph 3.130 below.	Not agreed. This is not the only possible interpretation of the Level 1 text. See explanations in the summary feedback statement of the outcome of the consultation.
2.	AB Lietuvos draudimas	General Comment	We disagree with the assumption that diversification should not be allowed for in assessing the risk margin. We believe this introduces additional prudence into the calculation of Technical Provisions, beyond that indicated within the Directive. We propose an alternative method in paragraph 3.130 below.	See the resolution regarding comment no. 1
3.	ACA – ASSOCIATIO	General Comment	- We believe that risk margins included in technical provisions do not play the role of required capital (be it in the MCR or SCR).	Noted.

	N DES COMPAGNIES D'ASSURANCES DU		Therefore, the risk margin should not be set artificially high. - We stress that modelling should be kept as simple and manageable by small/mid-size entities as possible. In particular the SCR computation per LoB does not seem appropriate. Also, the SCR projection through time will be cumbersome. - We agree with the choice of a reference entity, but we propose a revision of the SCR computation of this reference entity on the aspects of LoB diversification and risk amortizing effects of deferred taxes as we strongly believe that both should be included. - The setting of the Cost of Capital (CoC) plays a crucial role in risk margins (as shown in paragraph A-17). We believe that the argumentation around the 6% CoC in CP 42 is weak. Therefore we ask for a thorough analysis and a strong argumentation of the methodology leading to the CoC level. We are agree with the overall structure of the risk margin calculations. The assumptions are very detailed but not argued at all for the evaluation of the rate (not sufficiently). The cost of capital methodology is very complicated and don't respect the principle of proportionality, the method used in the QIS4 seems more suitable.	Partially agreed. To be covered by the CP on simplifications. See the resolution regarding comment no. 1. Partially agreed. The discussion of this issue is amended in the final version of CP 42. Noted. To be covered by the CP on simplifications.
4.	AMICE	General Comment	These are AMICE´s views at the current stage of the project. As our work develops, these views may evolve depending in particular, on other elements of the framework which are not yet fixed. The comments outlined below constitute AMICE´s primary areas of concern: The concept of unavoidable market risk should be clarified. Indeed, it could lead to very burdensome calculations if the methodology to be followed is not provided. Furthermore, if the entity to which the	Noted. Partially agreed. To be covered by the CP on

			liabilities are transferred, match their cash flows and do not invest in equities, the unavoidable market risk should only be applicable for long term cash flows (risk-free bonds with 50 years maturity are available in the market). In this regard AMICE believes this risk is not material. Proportionality principle should apply instead, and unavoidable market risk should only be limited to liabilities nominated in currencies where there is not a deep market. This risk should be valued at nil for liabilities assessed in Euros. - Since the Level 1 text of the Directive states that the Cost of Capital rate should be the same for all (re)insurance undertakings, we suggest accounting a 6% rate, without allowing for any supplementary burden. - As pointed out in the CEIOPS QIS4 report, the majority, if not all undertakings independently of their size, used simplifications to project the SCR in the risk margin computation. The non-life risk margin template was also extensively used by undertakings. AMICE members therefore believe that such simplification should be considered as the standard method. - There loss absorbing capacity of deferred taxes for (related to) the reference undertaking should be considered.	simplifications. Noted. Noted. To be covered by the CP on simplifications. Not agreed. See paragraph 3.53 of CP 42 and the explanations in the summary feedback statement of the outcome of the consultation.
5.	Association of British Insurers	General Comment	We are concerned with CEIOPS' proposals in CP 42 which, in a number of important areas, imposes overly prudent margins that could result in a risk margin significantly higher than the one required by the Framework Directive. We would remind CEIOPS that Recital 31 requires a market-consistent valuation of technical provisions and this will not be achieved if prudent margins are incorporated into the risk margin. Furthermore, this will be to the detriment of policyholders who will have to bear this cost, which is not in the intention of the Solvency II Framework Directive.	Not Agreed. These comments do not reflect CEIOPS' interpretation of the Level 1 text. See explanations in the summary feedback statement of the outcome of the consultation.

			In particular, we believe diversification effects between lines of business should be recognised. Otherwise this would unfairly penalise any diversified portfolios, in particular well diversified ones. ☐ In practice, insurance liabilities are not transferred to an empty shell. The vast majority of transactions result in the transfer of all the business in a (re)insurance undertaking. Where insurance liabilities are transferred as separate lines of business, synergies are achieved between the portfolio of the acquirer and the lines of business acquired. Therefore, we believe the reference undertaking should equal a mirror of own undertaking and diversification effects should taken into account. This would also provide the right incentives for an insurer to build a well diversified portfolio of business. This incentive would not exist if the empty reference approach is chosen. ☐ This would also be in line with ALM-studies and Investment strategies where the insurer does not assess each line of business separately but in conjunction with each other. ☐ Finally, we would highlight that from a practical point of view, the calculation of risk margin for LoBs would represent a significant calculation burden as this would require a breakdown of the SCR for underwriting, counterparty and operational risk per LoB as well as a projection until run-off of each portion of the SCR. 1. We also refer to data to support this claim which suggests that almost 90% of transactions are carried out at entity level, rather than line-by-line, as shown below: **Summary of M&A type transactions from 01/02/02 to 29/06/09**	Not agreed. This is not the only possible interpretation of the Level 1 text. See explanations in the summary feedback statement of the outcome of the consultation. The detailed comments seem to indicate that the reference undertaking should be (a mirror of) the undertaking itself.

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<table>
<tr><th></th><th>Number of transactions</th><th>Percentage of transactions</th></tr>
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</table>

SOURCE: Towers Perrin analysis of Datamonitor information regarding M&A transactions in the life and non-life insurance industries in Europe.

The underlying data was extracted from published Datamonitor research by a registered user of Datamonitor's Knowledge Centers.
Transactions where one company has acquired a strategic holding of another company have been excluded from the analysis.
Each transaction has been categorised as either the transfer of a company or the transfer of a portfolio of business.
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<td>This table does not reflect the actual number of portfolio transactions.</td>
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<td>We believe further work is needed on the calibration of the cost of capital rate, currently set at 6%, in order to ensure it does not result in excess prudence. To this effect, we would suggest a mechanism for periodic review, perhaps every 5 years to make sure the calibration is appropriate.</td>
<td>Partially agreed.
The discussion of this issue is amended in the final version of CP 42.</td>
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<td>2. There should be no duplication of market risk in the risk margin
We believe that CEIOPS have defined replicatable cahflows far too</td>
<td>Noted.</td>
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			believe that in most cases unavoidable (or unhedgeable) market risk will be a small residual. We also believe that in most cases it would be disproportionally complex to require undertakings to explicitly allow for it in the risk margin in particular when they are not using internal models. For example, for a market consistent valuation of the With Profits fund using an economic scenario generator, some parts of the calibration would be in respect of "hedgeable market risk" and some parts would be in respect of "unavoidable market risk" (e.g. medium to long term implied volatilities calibrated to OTC derivatives). It is impossible to see how this could all be unpicked in practice and so under the CEIOPS approach this might require a risk margin on the whole business. Given that the asset prices already have a risk margin incorporated, then this will end up with a double count of the market risk. The calculation of the risk margin should allow for the loss absorbing nature of deferred taxes Deferred taxes to be incurred on future cashflows are an economic reality and have a loss absorbing capacity (e.g. you make lower future profits then less tax is paid) and therefore should be included within the calculation of the risk margin. If the deferred taxes under the stressed scenario result in an increase in existing deferred tax assets, then an assessment should be made of their recoverability on a going-concern basis. We welcome the clarification that the risk margin should only cover the risks for the existing business.	See the resolutions regarding the comments on CP 41. Not agreed. See paragraph 3.53 of CP 42 and the explanations in the summary feedback statement of the outcome of the consultation. Noted.
6.	ASSOCIATION OF FRIENDLY SOCIETIES	General Comment	The Association of Friendly Societies represents the friendly society sector in the UK. We have 46 friendly society members, who are all member-owned mutual organisations. Typically they offer long term savings and protection policies, with generally low minimum premiums. Friendly societies are typically small, though well-	Noted.

			capitalised, and have a distinctly different business model to shareholder-owned insurers. We would like to thank CEIOPS for the chance to comment on this paper. We believe that unavoidable market risk would be difficult to measure and its addition would create work that is disproportionate to the addition in liabilities that would emerge. We believe that CEIOPS should accept that market risk will be outside the Cost of Capital Risk Margins.	Partially agreed. To be covered by the CP on simplifications.
7.	Association of Run-Off Companies	General Comment	As a general point, we feel that in some circumstances, approximate methods should be permitted in the projection of the SCR for the purpose of the derivation of the risk margin to reflect proportionality, materiality and practical implementation.	Agreed. To be covered by the CP on simplifications
8.			Confidential comment deleted.	
9.	BARRIE & HIBBERT	General Comment	B+H are happy to discuss the attached comments in person or on a call.	Noted.
10.	Belgian Coordination Group Solvency II (Assuralia/	General Comment	Despite the fact that the opinions about the definition of the reference undertaking are the object of many discussions; in any case, if the diversification effects are not taken into account, the segmentation should be adapted in order to include structural diversification (see comment 3.54).	Noted.
11.	CEA, ECO-SLV-09-437	General Comment	The CEA welcomes the opportunity to comment on the Consultation Paper (CP) No. 42 on Risk Margin. It should be noted that the comments in this document should be considered in the context of other publications by the CEA. Also, the comments in this document should be considered as a whole, i.e. they constitute a coherent package and as such, the rejection of elements of our positions may affect the remainder of our comments.	Noted.

			These are CEA's views at the current stage of the project. As our work develops, these views may evolve depending in particular, on other elements of the framework which are not yet fixed. The key requirement of the Solvency II Directive is that technical provisions should represent the value an insurer would have to pay a third party to take over its insurance and reinsurance obligations immediately. The risk margin equals the amount required in addition to the best estimate such that the sum is a good proxy for the transfer price – it should not include excessive prudence. Recital 31 requires a market-consistent valuation, which will not be achieved if additional prudent margins are incorporated into the risk margin. This will be to the detriment of policyholders who will have to bear this cost. In a number of important areas, the assumptions made by Ceiops will result in risk margins which incorporate prudent margins and so will be significantly higher than those required by the Directive. These areas are: ☐ No allowance for diversification ☐ No allowance for the risk absorption of deferred taxes ☐ An analysis of the CoC rate which is consistently based on the most prudent assumption at each stage, in particular the assumption that the capital is backed by 100% equity capital. We discuss each of these areas below.	Not agreed. This is not the only possible interpretation of the Level 1 text. See explanations in the summary feedback statement of the outcome of the consultation.
			We note that if the risk margin includes excessive margins for prudence, the insurance industry will be unfavourably affected. For example: ☐ The EU insurance market may become uncompetitive compared to other insurance markets.	Not agreed. The comments seem to exaggerate the potential consequences of the different

			☐ There will be more incentive for insurers in the EU to reinsure large blocks of non-hedgeable risks (i.e. those risks for which the risk margin is required) outside of the EU where they may not be subject to the same excessive margins for prudence. ☐ Complacency may be encouraged as insurers rely on the prudence incorporated within the technical provisions rather than being more focused on the testing of extreme scenarios. ☐ Insurers will be encouraged to sell products with significant hedgeable risks (for which no market value margin is required), instead of products with significant non-hedgeable risks i.e. encouraging less provision of protection products (e.g. longevity/mortality/disability covers) and more provision of savings products. Diversification should be taken into account - calculations done per line-of-business are not appropriate or feasible. The risk margin represents the amount needed to run the portfolio - it is not appropriate to ignore diversification between lines of business as this would unfairly penalise diversified portfolios, which is not in line with the spirit of the Framework Directive. A market consistent valuation requires the recognition of diversification effects. The assumption of no diversification is based on Ceiops' interpretation of the concept of the reference entity as an empty shell which we do not believe is compliant with how insurance liabilities are transferred in practice. In practice transfers are either by means of transferring whole entities or by separate lines of business. In the former case, which historically has accounted for almost 90% of transfers (see data below), the whole entity is transferred, so the assumption of diversification at least to the level of the current entity would be appropriate. In the latter case, which	approaches regarding the calculation of the risk margin. Not agreed. This is not the only possible interpretation of the Level 1 text. See explanations in the summary feedback statement of the outcome of the consultation. See the resolution to comment no. 5.

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<td>lines of business would invariably be acquired by insurers aiming to achieve synergies between their existing business and the acquired lines. Therefore, the acquiring insurer would not be an empty shell and would expect diversification effects.
The most appropriate assumption would be for the reference undertaking to equal a mirror of the own undertaking.
Summary of M&A type transactions from 01/02/02 to 29/06/09
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<i>SOURCE: Towers Perrin analysis of Datamonitor information regarding M&A transactions in the life and non-life insurance industries in Europe.</i>[1]
Furthermore, from a practical perspective, the calculation of the risk margin per line of business would represent a significant calculation burden and is unlikely to be feasible as well as the fact that it may not be in line with how the insurer manages its business.
The loss absorption of deferred taxes should be recognised.
We strongly disagree with the non-recognition of deferred taxes – deferred taxes should be recognised to the extent that they are recoverable.</td>
<td>See the resolution to comment no. 5.
Not agreed.
See paragraph 3.53 of CP 42 and</td>
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[1] The underlying data was extracted from published Datamonitor research by a registered user of Datamonitor's Knowledge Centers. Transactions where one company has acquired a strategic holding of another company have been excluded from the analysis. Each transaction has been categorised as either the transfer of a company or the transfer of a portfolio of business.

			Ceiops' requirement for no recognition of the loss absorbing capacity of deferred taxes in the risk margin calculation is inconsistent with an economic risk based approach. As we show above, the large majority of transactions of insurance portfolios are carried out at company level. Under company level transactions, deferred tax liabilities, due as a result of unrealised asset gains, would not be crystallised and so their loss absorbency would remain following the transfer. Similarly any unused tax credits/losses could be transferred over to the new company.	feedback statement of the outcome of the consultation.
			The analysis of the CoC rate appears to be based on the most prudent assumption at each stage. We note that the impact assessment states that "a change in the cost of capital rate in the order of ± 1-1.5% …would not lead to significant changes in industry behaviour". However this is not supported by qualitative nor quantitative evidence. We note that even a small increase to the technical provisions without a corresponding change in assets values can have a big effect on the level of capital available and so we believe that even small changes in the cost of capital rate would be likely to lead to changes industry behaviour. For this reason it is important that the calibration should not include excessive prudence and should be subject to periodic review to ensure that this is not the case. Examples of areas of the analysis that have caused particular concern are: ☐ An assumption that the capital base is funded by 100% equity capital – This, in our opinion, is inconsistent with the requirements of the Framework Directive. ☐ The assumption shareholder returns do not need a downward adjustment to remove the part of the return related to new business or to market risk – The cost of capital rate should not	Not agreed. The discussion of this issue is amended in the final version of CP 42.

			be reduced to allow for this. ☐ The setting of a "lower boundary" on the CoC rate (i.e. the requirement for "at least" 6%) - We see no reason for a lower boundary. The requirement to calculate unavoidable market risk in the risk margin could result in excessive complexity. Conceptually, unavoidable market risk should be included in the risk margin to the extent that it is non-hedgeable. However, this will require undertakings to carry out disproportionally complex calculations even though we expect that in most cases unavoidable market risk will be residual. Therefore, we believe that unavoidable market risk should not be explicitly allowed for in Pillar 1, in particular when the insurer is not using an internal model. We welcome the clarification that the risk margin should only cover the risks for the existing business.	Partially agreed. To be covered by the CP on simplifications. Noted.
12.	Centre Technique des Institutions de Prévoyance (C	General Comment	We agree with CEIOPS's approach. However, the methods which were presented in QIS4 as "simplified" should be implemented as standard: For Life LoB: risk margin = CoC * SCR * duration of technical provisions For Non-life LoB: risk margin = x% technical provisions For practical application, considering that in the standard formula, the SCR is derived from fixed parameters (for instance, parameters representing the volatility from premium and reserve risk), in our judgment the risk margins, which are based on the evaluation of future SCR, would not really be better evaluated by more complex	Noted. Partially agreed. To be covered by the CP on simplifications.

			calculations.	
13.			Confidential comment deleted.	
14.	CRO Forum	General Comment	42.A Risk margin should not be arbitrarily high (priority: very high) Arbitrarily high risk margins that do not reflect the market price of risk, whether it be due to: ☐ an arbitrarily high cost of capital rate; or ☐ not taking into account diversification across lines of business, will have an important impact on policyholders and the insurance industry. See our comment below on the concept of the reference entity. Arbitrarily high risk margins will: ☐ Result in higher insurance prices for policyholders, as well as reduce the competitiveness of the insurance market compared to markets outside the Solvency II jurisdiction. ☐ Provide incentives for insurers in Europe to reinsure large blocks of these risks outside of the EU where they will not be subject to the same supervision nor capital requirements. This will harm the principle of transparency which is one of the cornerstones that Solvency II is built upon. ☐ Make life insurers write products with savings features and move away from longevity/mortality/disability covers (i.e. shift to products with hedgeable risks). ☐ Lead to a lack of incentive to improve risk mitigation via diversification or promote complacency for companies whose risk management is not at best practice levels because of presumed “prudence” in the cost of capital rate.	Noted. The comments seem to exaggerate the consequences of different approaches regarding the calculation of the risk margin (i.e. different levels of the risk margin).

			42.B An empty reference entity does not reflect market valuation principles (priority: very high) It is the CRO Forum view that the transfer concept described by the directive sets the right incentive in evaluating technical provisions. We agree that the reference undertaking should be another undertaking, but we believe that assuming the reference undertaking is an empty undertaking does not reflect market valuation principles associated with the transfer of insurance business from one (re)insurer to another. We would like to note that in reality undertakings could use the Risk Margin to attract new capital. 42.C Diversification across lines of business should be recognized (priority: very high) The CRO Forum believes diversification across lines of business within the entire company (group) should be recognized to be consistent with the economic principles underlying the Framework Directive and insurance business. Two arguments for this: 1 Concept of transfer value (as already express above) and 2 The related going concern assumption (vs run-off approach). Not allowing this creates inconsistency between the technical provisions and the SCR in their allowance for diversification, a lack of incentive to (re)insurers for risk mitigation via diversification, and a barrier for highly diversified companies to pass diversification benefits down to consumers in the way of lower prices. 42.D Non-hedgeable market risks should be assessed in the Risk Margin (priority: high) In principle all nonhedgeable risks should be covered by the Risk Margin.	Not agreed. This is not the only possible interpretation of the Level 1 text. See explanations in the summary feedback statement of the outcome of the consultation. Not agreed. This is not the only possible interpretation of the Level 1 text. See explanations in the summary feedback statement of the outcome of the consultation. Noted.

			But, the CRO Forum notes that this may be challenging in practice, given the complexity and immaturity of the techniques required to measure non-hedgeable market risks, the non-availability of the techniques to all (re)insurers, and evidence of some allowance of non-hedgeable market risk in the valuation and capital requirements already. We do however believe this can be an important risk for some (re)insurers and therefore all (re)insurers should be made to assess this risk as part of the ORSA in Pillar 2. For reasons of harmonisation, and to ensure that companies where this risk is significant make more than a qualitative assessment, some guidance should be set in the implementing measures on the methods or tests that can be used to gauge whether the risk is significant. Companies with significant risk should demonstrate how it is being managed. The CRO Forum is available to support CEIOPS in interpreting and determining a way to further deal with the complex matter of non-hedgeable market risks. As measurement approaches and techniques mature it is likely that we find that a significant portion of non-hedgeable market risk is effectively already valued implicitly through choice of market assumptions in the underlying yield curve and scenario models where reliable market prices do not exist.	To be covered by the CP on simplifications.
			42.E Simplifications to risk margin calculations are key (priority: high) As a simplification, we believe that future SCRs should be projected in line with volume/exposure measures that will ideally be set out in the implementing measures or guidance with the option of companies to use their own risk drivers if more suitable internal drivers are identified. These would be discussed with the supervisor under the Pillar II process.	Partially agreed. To be covered by the CP on simplifications.

			42.F Loss absorbing capacity of deferred taxes should be taken into account (priority: high) The loss absorbency of deferred taxes should be taken into account in the risk margin in order to be compliant with Article 107 of the Directive relating to technical provisions, consistent with the economic risk-based approach being used in other parts of the valuation and capital requirements, and in line with industry recommendations in the response to CP35 (with the recognition of unused tax losses based on the principle of recoverability).	Not agreed. See paragraph 3.53 of CP 42 and the explanations in the summary feedback statement of the outcome of the consultation.
15.	Danish Insurance Association	General Comment		
16.	DIMA (Dublin International Insurance & Management	General Comment	DIMA welcomes the opportunity to comment on this paper. The bulk of the commentary on this paper represents the views of DIMA's life reinsurance members; there are, however, comments emanating from other sections of DIMA's membership. Comments on this paper may not necessarily have been made in conjunction with other consultation papers issued by CEIOPS. We strongly support and endorse a proportionate approach to the calculation of risk margins and in particular note that proportionality should not only have regard to the size of the risk margin but also have regard to the size of the risk margin as compared to both the total technical provisions and the SCR. While noting the requirement to have a hard value for the cost of capital for the purpose of the QIS process and to allow a "placeholder" to ensure a consistent cost of capital across all undertakings, we are concerned that there appears to be a de facto or default inclusion of 6% as a final value or minimum value without adequate explanation or elaboration as to future variation.	Noted. Partially agreed. To be covered by the CP on simplifications. Noted. See explanations in the summary feedback statement of the outcome of the consultation.

			We disagree with the assumption that the reference undertaking is an empty undertaking.	Not agreed.
			A diversification benefit should be allowed.	Not agreed.
17.	European Insurance CFO Forum	General Comment	Our general comments highlight key areas where the CFO Forum takes a different stance to the views of CEIOPS:	
			Diversification benefits should not be limited to the line of business level Diversification effects should be allowed between lines of business. Pooling of risks is central to an insurance company's business and thus, diversification benefits should be allowed for at the company or group level. Diversification should be computed on a going concern basis at a level that takes into account risks that are managed together. Transfer values include such diversification effects. See further comments in 3.130.	Not agreed. This is not the only possible interpretation of the Level 1 text. See explanations in the summary feedback statement of the outcome of the consultation.
			Loss absorbing capabilities of deferred taxes should be included within the valuation of the risk margin Deferred taxes accounted for prior to the valuation date do not have any loss absorbing capacity. However, deferred taxes deducted on the estimation of future cash flows should have an absorbing capacity. As such, loss absorbing capacity of deferred taxes should be included for consideration when assessing the risk margin. See further comments in 3.130.	Not agreed. See paragraph 3.53 of CP 42 and the explanations in the summary feedback statement of the outcome of the consultation.
			The CFO Forum supports a cost of capital in the range 2.5%-4.5% rather than "at least 6%". CFO Forum believes that the cost of capital should be lower than 6% as this is higher than the rates currently being considered	Not agreed. The discussion of this issue is amended in the final version of CP 42.

			under the cost of residual non hedgeable risk (CRNHR) methodology by the CFO Forum. See further comments in 3.134. Unavoidable market risk should be excluded from the calculation of risk margin in the technical provisions until more reliable estimation techniques are developed, but should be assessed separately as part of the ORSA. In principle all unavoidable risk should be covered by the Risk Margin. Given the practical difficulties of separately measuring unavoidable market risks, due to the complexity and immaturity of the techniques available, the CFO Forum recommends that unavoidable market risk is excluded from the calculation of the risk margin in the technical provisions. Unavoidable market risk is included in the overall market risk charge in the SCR. Where unavoidable market risk is indentified as a key risk this should be separately identified and assessed in the ORSA and disclosed in the Report to Supervisors. See further comments in 3.130. Excessive prudence is not consistent with the economic basis in the Level 1 Directive. An excessive prudence margin is implicit in the level 2 implementing guidance proposals, due to the combination of various prudent requirements. The combination of a few factors such as the disallowance of diversification between lines of business, the inclusion of unavoidable market risk, the disallowance of deferred taxes and the application of a cost of capital rate of at least 6% are likely to result in an excessively prudent margins that are not be able to be justified using economic theories in accordance with the Level 1 Directive requiring a 99.5% confidence over a one year time horizon.	Partially agreed. To be covered by the CP on simplifications. See the resolution to e.g. comment no. 11 (CEA).

			Transfer to an empty reference undertaking is not appropriate. The transfer should be to a reference undertaking identical to the supervised entity/group after the transfer. Empty reference undertaking is not an appropriate basis as it does not recognise the economics of the portfolio on a going concern basis. Risk margin by line of business should be calculated assuming transfer to a reference entity/group that will be identical to the supervised entity/group after the transfer.	
18.	European Union member firms of Deloitte Touche To	General Comment	European Union member firms of Deloitte Touche Tohmatsu are currently involved in the Level 2 Impact Assessment of Solvency II conducted by the European Commission. “Risk Margin” is one of the policy issues and options dealt with by this impact assessment. . As a consequence, we have restricted our comments to those areas where there is no overlap with the issues addressed in the Impact Assessment.	Noted.
19.	Federation of European Accountants (FEE)	General Comment	We understand CEIOPS proposals to use a cost-of -capital measure and to determine its calculation for reasons of objectivity and simplification. However, the outcome of such calculation can hardly claim to be a true current-exit-value reflecting the price in an arms-length-transaction with another market participant. As a consequence of the different measurement attributes and measurement objectives defined for financial reporting under IFRS and Solvency II, the additional margin will be the major source of deviation between IFRS and Solvency II.	Noted. But CEIOPS has to follow the Level 1 text.
20.	FFSA	General Comment	FFSA thinks that the component of Risk Margin representing “unavoidable market risk” should be removed from the definition of risk margin in order to avoid double counting market risk. The CP 39 suggests valuing Best Estimate on a prudent approach: risk free rate with extrapolation of the curve if needed, in addition time	Partially agreed. However, there is no double counting of market risk. See the CP on simplifications.

			value of options and guarantees are covered in best estimate calculations. (see 3.130 – 4). FFSA would like to outline that all market risks are already taken into account, in particular through the time value of options and guarantees. and therefore taking into account "unavoidable market risks" in the risk margin is not material and difficult to quantify.	
			FFSA believes that calculation by line of business might not be appropriate in some cases. Furthermore FFSA strongly believes that diversification should be taken into account. As risk margin represents the amount needed to run the portfolio, it seems unjustified not to take into account diversification between lines of business. Such a statement could unfairly penalize well-diversified portfolios, which it is not in line with the Directive spirit. At least, diversification effects inside life or non-life portfolios should be recognized. (see 3.130 – 8)	Not agreed. See explanations in the summary feedback statement of the outcome of the consultation.
			FFSA welcomes the fact that CEIOPS considered the study carried out by the CRO forum which recommended a cost of capital in the [2,5% - 4,5%] range. However, does not understand why a number of key elements of this study were rejected by CEIOPS. On this ground, FFSA supports the CRO's froum recommendation and believes that the cost of capital of 6% is overly conservative and would like this reference to be reviewed (See 3.134). In addition, FFSA believes that the cost of capital should be the same for all undertakings and agrees with CEIOPS that it should remain constant over time.	Not agreed. CEIOPS has carried out a critical assessment of CRO Forum's report.
			FFSA understands that the cost of capital of 6% is a pre-tax rate.	
			FFSA believes that no recognition of the loss absorbing capacity of deferred taxes appears to be not consistent with an economic risk based approach and not consistent with the recommendations made through the CP35 (as a reminder the Industry strongly disagrees with the non recognition of unused tax losses and unused tax credits and highlights that the recognition of the unused tax	Not agreed. See paragraph 3.53 of CP 42 and explanations in the summary feedback statement of the outcome of the consultation.

			losses should be based on the recoverability principle). (See 3.130 – 7)	
21.			Confidential comment deleted.	
22.	German Insurance Association – Gesamtverband der D	General Comment	GDV appreciates CEIOPS's effort regarding the implementing measures and likes to comment on this consultation paper. In general, GDV supports the detailed comment of CEA. Nevertheless, the GDV highlights in this General Comment the most important issues for the German market concerning CEIOPS' advice in the blue boxes (para. 3.130ff). It should be noted that our comments might change as our work develops. Our views may evolve depending in particular, on other elements of the framework which are not yet fixed – e.g. specific issues that will be discussed not until the third wave is disclosed. Diversification should be taken into account - calculations done per line-of-business are not appropriate or feasible The risk margin represents the amount needed to run the portfolio - it is not appropriate to ignore diversification between lines of business as this would unfairly penalise diversified portfolios, which is not in line with the spirit of the Framework Directive. A market consistent valuation requires the recognition of diversification effects. The assumption of no diversification is based on CEIOPS' interpretation of the concept of the reference entity as an empty shell which we do not believe is compliant with how insurance liabilities are transferred in practice. In practice transfers are either by means of transferring whole entities or by separate lines of business. In the latter case the lines of business would invariably be acquired by insurers aiming to achieve synergies between their existing business and the acquired lines. Therefore, the acquiring insurer would not be an empty shell and would expect	See the resolution to e.g. comment no. 11 (CEA).

			diversification effects. The most appropriate assumption would be for the reference undertaking to equal a mirror of the own undertaking. Furthermore, in ALM-studies and Investment strategies, the insurer would not assess each line of business separately, rather investments would usually be pooled at the level of the insurer and managed at this level. Therefore, the insurer will manage its business taking diversification benefits into account. Finally, from a practical perspective, the calculation of the risk margin per line of business will require a breakdown of the SCR for underwriting, counterparty and operational risk per line of business as well as a projection until run-off of each portion of the SCR. This would represent a significant calculation burden and is unlikely to be feasible. There should be no requirement to calculate unavoidable market risk in the risk margin Conceptually unvavoidable market risk should be included in the risk margin to the extent that it is non-hedgeable. However, we expect in most cases unavoidable market risk to be residual. Therefore, we believe that it would be disproportionally complex to require undertakings to explicitly allow for it in the risk margin in particular when they are not using internal models. The key requirement of the Solvency II Directive is that technical provisions should represent the value an insurer would have to pay a third party to take over its insurance and reinsurance obligations immediately. The risk margin equals the amount required in addition to the best estimate such that the sum is a good proxy for the transfer price – it should not include excessive prudence. Recital 31 requires a market-consistent valuation, which will not be achieved if additional prudent margins are incorporated into the	

			risk margin. This will be to the detriment of policyholders who will have to bear this cost. In a number of important areas, the assumptions made by CEIOPS will result in risk margins which incorporate prudent margins and so will be significantly higher than those required by the Directive. These areas are: ☐ No allowance for diversification (as discussed above) ☐ The inclusion of “unavoidable market risk” (as discussed above) ☐ No allowance for the risk absorption of deferred taxes (as discussed below) ☐ An analysis of the CoC rate which results in a requirement for at least a 6% CoC rate, which is based on the most prudent assumption at each stage. On the last point we note that the impact assessment states that “a change in the cost of capital rate in the order of ± 1-1.5% …would not lead to significant changes in industry behaviour”. However this is not supported by qualitative nor quantitative evidence and in fact we believe that even small changes in the cost of capital rate would be likely to lead to changes industry behaviour. For this reason it is important that the calibration should not include excessive prudence and should be subject to periodic review to ensure this is not the case. We should state that we see no justification in CEIOPS’ analysis for the setting of a lower boundary on the CoC rate (the requirement for “at least” 6%). Where the cost of capital rate does not represent a best estimate assumption but instead includes substantial margins for prudence, the insurance industry will be unfavourably affected. For example: ☐ Excessive prudence for non-hedgeable risks will promote the sale of products with significant hedgeable risks (which are treated based on market prices and so for which no market value margin is	

			required), and away from products with significant non-hedgeable risks i.e. those that provide cover for insurance risks to consumers. This would be expected mostly in life insurance whereby product ranges would move towards savings features and away from longevity/mortality/disability covers. ☐ If the risk margin does not reflect estimated market prices for insurance risks there is more incentive for insurers in Europe to reinsure large blocks of non-hedgeable risks outside of the EU where it may not be subject to the same capital requirements. ☐ The EU insurance market may become uncompetitive compared to other insurance markets due to higher risk margin requirements. ☐ Companies may become complacent, relying on the prudence incorporated within the technical provisions rather than being more focused on testing of extreme scenarios. The loss absorption of deferred taxes should be recognised We disagree with the non-recognition of deferred taxes – deferred taxes should be recognised to the extent that they are recoverable. CEIOPS' requirement for no recognition of the loss absorbing capacity of deferred taxes in the risk margin calculation is inconsistent with an economic risk based approach. But as a reasonable simplification, we would propose that where it represents a significant calculation burden, insurers could chose not to take account of the loss absorbing capacity of deferred taxes. As we show above, the large majority of transactions of insurance portfolios are carried out at company level. Under company level transactions, deferred tax liabilities, due as a result of unrealised asset gains, would not be crystallised and so their loss absorbency would remain following the transfer. Similarly any unused tax credits/losses could be transferred over to the new company.	

			We welcome the clarification that the risk margin should only cover the risks for the existing business.	
23.	GROUPAMA	General Comment	Groupama has four major points regarding this CP: - The unavoidable market risk should be clarified. Indeed, it could lead to onerous calculations without clarifications and methodologies. Furthermore, if cash flows are matched and equities avoided in the entity where the liabilities are transferred, the unavoidable market risk is only for long-term cash flows (there are risk free bonds on the market that mature in up to 50 years), and in this case Groupama thinks this risk is not material. The principle of proportionality should apply in this case, and unavoidable market risk should be limited to liabilities in currencies where the market is not deep, and should be considered as zero for euro liabilities. (3.130) - Not taking into account the absorbing capacity of deferred taxes is too conservative. Indeed, it supposes that in all cases the entity to which the portfolio is transferred has no deferred tax liabilities. Furthermore, the industry questions the limitation of the absorbing capacity of deferred taxes at the level of the deferred tax liabilities. We suggest that CEIOPS state that the SCR used for Risk Margin calculation should be net of taxes. (3.130) - Diversification should be taken into account. As risk margin represents the amount needed to manage the portfolio, it seems unjustified not to take into account the diversification between lines of business. Such a statement could unfairly penalize well-diversified portfolios, which is not in line with the spirit of the Directive. At least the effects of diversification within life or non-life portfolios should be recognized. (3.82) - As the Directive states that the Cost of Capital rate should be the same for all (re)insurance undertakings, we suggest using	Partially agreed. To be covered by the CP on simplifications. Not agreed. See paragraph 3.53 of CP 42 and the explanations in the summary feedback statement of the outcome of the consultation. Not agreed. See explanations in the summary feedback statement of the outcome of the consultation. Not agreed (with respect to the level of the CoC-rate).

			the same rate for all (re)insurance companies. This rate could be calibrated using the CRO Forum studies, stating a cost of capital rate within a [2.5% - 4.5%] range. (3.96)	See explanations in the summary feedback statement of the outcome of the consultation. The discussion of this issue is amended in the final version of CP 42.
24.	Groupe Consultatif	General Comment	As far as the reference undertaking is concerned, the interpretation by CEIOPS in this paper that this must be an empty undertaking appears somewhat contrived, based on a particular interpretation of the Level 1 text which may not be the only one possible. It is not clear to Groupe Consultatif how material this issue is, but it would seem that allowing for diversification in the calculation of required capital as the basis for the risk margin would reinforce diversification in practice. This would appear to be consistent with the originally envisaged intent of the directive. The Groupe believes that more work is required on the cost of capital. We note that most academic studies (for example Gatumel (2008)) suggest that the cost of capital differs with respect to a range of factors including underlying risks and whether these are diversifiable or systematic. Even if the rate envisaged by CEIOPS is a reasonable average (on which we have no view) we are concerned that it may in application create distortions. This is because the application of an average rate directly to long-term life assurance liabilities may lead to a very material addition to best estimate, which would not be the case for (say) short-tail non-life liabilities running off quickly. We refer here to the discussion of this issue at 6.10.6 of the recent International Actuarial Association publication Measurement of Liabilities for Insurance Contracts: Current Estimates and Risk Margins. The justification for the 6% cost of capital allowance seems weak.	Noted. Noted. The discussion of this issue is

			The methodology should be checked by reference to what market participants pay for the risk e.g. calibrate to past transactions etc. It seems harsh and a bit arbitrary that diversification is not allowed for above LOB level – the more a company diversifies, the greater the benefit should be, The alternative is to have a loading for undiversified entities.	amended in the final version of CP 42.
			As a general comment, we think that CP 42 is at places inconsistent and not enough thought through. We are concerned that these inconsistencies will in the future potentially lead to uncertainty and arbitrariness in application. These inconsistencies revolve mainly around the undiversified Line of Business level calculation, the cost of capital rate envisaged and CEIOPS' assumptions on the general approach of calculating the risk margin.	
			It is helpful to first consider the definition of the cost of capital approach for market consistent valuation. An insurance liability is associated with a stochastic cash flow that describes the pay-ins and –outs for possible future states of the world from now until the expiry of the liability. The cash flow is then separated into two components: A component that can be replicated using financial instruments of a given reference market and a component that can not be replicated by such instruments. The component that can not be replicated or hedged gives rise to unavoidable risk which needs to be supported by capital. The risk margin is then the expected cost of capital to buffer the non-hedgeable risks (at a certain confidence level). The market consistent value of the insurance liability is given by the sum of the market value of the replicating portfolio (i.e. the portfolio of financial instruments that mirror the replicating component of the cash flow) and the risk margin.	Noted.

			This very general definition encompasses a number of different market consistent valuations, e.g. the MCEV, Solvency II, the SST, etc. From the definition, it becomes evident that a market consistent valuation is defined by: ☐ The cash flow that is associated with the insurance liabilities ☐ The reference market ☐ The replication (dynamic or static) ☐ The cost of capital rate associated with the risk margin The cash flows that are associated are a choice too and depend on the purpose of the valuation. Possible choices are for example: ☐ The financial state of the undertaking holding the liabilities (e.g. going concern or stressed) (This is for instance relevant for discretionary policyholder benefits.) ☐ Whether the liabilities are held in its own book or transferred to a reference undertaking ☐ The segmentation i.e. is it on portfolio level, legal entity level, Line of Business, etc. The reference market determines which risks are considered avoidable and which are not. It also determines the interest rate that is used for discounting the liabilities. The interest rate relates to the return earned on the replicating portfolio. For the replication, there are two choices. In a static replication, the cash flows are replicated but the replicating portfolio is then subsequently not changed. By assuming dynamic replication, the cash flows are replicated but the replicating portfolio is changed	

			frequently, e.g. every year, depending on the actual state of the insurance liability portfolio. As an aside, we would like to note that it seems to us that the GNAIE report (which is also used by CEIOPS later on to argue for its Cost of Capital rate) assumes implicitly a static replication of the insurance liabilities. While this is possible, it is not consistent with the approach discussed within a Solvency II context. Discount Rate As mentioned above, the discount rate is not a choice but a function of the reference market only. For example, if the reference market consists of government bonds only, the implied discount rate is the risk-free rate. Alternatively, if the discount rate is specified, this corresponds indicates the choice of a reference market. Again, if cash flows were discounted by the risk-free interest rate, the reference market would consist of government bonds only.	
25.	Investment & Life Assurance Group (ILAG)	General Comment	We believe that unavoidable market risk would be difficult to measure and its addition would create work that is disproportionate to the addition in liabilities that would emerge. We believe that CEIOPS should accept that market risk will be outside the Cost of Capital Risk Margins.	Partially agreed. To be covered by the CP on simplifications.
26.	Ireland's Solvency 2 Group, excluding representa	General Comment	The two primary observations identified from this CP are : We strongly support and endorse a proportionate approach to the calculation of Risk Margins and in particular note that proportionality should have regard not just to the size of the risk margin but also to the size of the risk margin compared to both the total technical provisions and the SCR. While noting the requirement to have a hard value for the cost of capital for the purpose of the QIS process and to allow a "placeholder" to ensure a consistent cost of capital across all	Partially agreed. To be covered by the CP on simplifications. Partially agreed. Further work needed on the

			undertakings we are concerned that there appears to be a de facto or default inclusion of 6% as a final value or minimum value without adequate explanation or elaboration as to future variation.	review mechanism.
27.	Just Retirement Limited	General Comment	We broadly support the main principles of this paper. We understand the rationale for the introduction of the SCR for unavoidable market risk into the calculation. However, it would be practically challenging to calculate and so simplifications and/or a proportionate approach having regard to the materiality of unavoidable market risk would be welcome. In our view the 6% cost-of-capital rate is appropriate only in distressed circumstances and therefore is not a long-term average rate as required by 3.132. We would suggest a rate of 4% as being more appropriate over the long term. The cost-of-capital rate should be subject to regular review every 3-5 years. The risk margin is specified to cover to cost of setting up a further risk margin, as well as the SCR, which would imply a calculation more onerous than that actually outlined. Further details clarifying this point would be welcome.	Partially agreed. To be covered by the CP on simplifications. Not agreed. CEIOPS has carried out a critical assessment of CRO Forum's report. However, further work is needed regarding the review mechanism. Noted.
28.	KPMG ELLP	General Comment	(a) The use of the internal model as the basis for the cost of capital calculation is a welcome addition, since it should better reflect the risk of that business. (b) The internal model will almost certainly perform calculations at a different level from the overall Solvency II classes, most likely at a finer more granular level of detail, i.e. consistent with how the (re)insurance undertaking runs its business and manages underwriting sub-portfolios. However, there will be some cases where internally modelled classes do not map uniquely to the Solvency II classes (as referred to in Article 85e) and the class segmentation proposed in CP27 would require this to be split. Therefore (re)insurance undertaking must be allowed to assess the risk margin at a level that is appropriate for their business, with	Noted. Noted.

			some approximation to map between this and the Solvency II classes. (Re)insurance undertakings should, of course, seek to align the calculation of the risk margin closely to the Solvency II classes where possible, but they must have discretion to deviate from this segmentation if this does not reflect the way in which the business might be transferred to a third party. We recommend that that such approximations should be fully documented and disclosed to the relevant supervisory authority who then has right to decide whether the approximation and allocation to technical provisions is acceptable. To this extent, we believe the requirement in paragraph 3.130(8) of CP 42 needs to be amended.	
			(c) Overall the approach to risk margins is more complicated that it was in the QIS4 study, and at this stage we are unsure whether this additional complexity enables the risk margins to better reflect the market value of liabilities.	Noted. To be covered by the CP on simplifications.
			(d) It has been implied that Article 85 precludes a diversified market value margin; this simplification introduces significant complexity and several of the sub-points in CP 42 are devoted to reducing the complexity introduced. The effect is that it reduces the likelihood that an internal model will fairly represent the risks of a business and undermines the principles based approach of Solvency II. There is no liquid and transparent market for insurance liabilities and the transfer of liabilities to a willing third-party are generally more likely to happen across a number of classes at once on a company becoming insolvent. Article 85 in our view implies that an organisation can calculate the diversified market value margin and then report the amounts attributed to each line (an alternative assumption 8). We therefore ask CEIOPS to consider further the underlying assumption that transfers should be assumed to be made to an	Not agreed. See explanations in the summary feedback statement of the outcome of the consultation.

			empty reference undertaking.	
29.	Legal & General Group	General Comment	We note the link between the risk margin and the risk free rate used and are keen that these proposals are considered again when discussions around CP40 are finalised. We disagree with a number of the proposals included here: These are summarised as the treatment of the following items in the calculation of the risk margin:	Noted.
			Diversification – allowance at an entity level should be permissible	Not agreed.
			Deferred tax – allowance should be given for the loss absorbency of deferred taxes	Not agreed. See the resolutions to e.g. comment no. 11.
			Unavoidable market risk – should not be allowed for in the risk margin	Not agreed. To be covered by the CP on simplifications.
			Finally, we support the CRO forum research on the determination of the cost of capital and feel the proposed rate of 6% (or higher) is inappropriate. However it is at least as important to have a regular review process, say every three years, and a set of principles to base the review on.	Not agreed. The discussion of this issue is amended in the final version of CP 42. Agreed with respect to the review process.
30.	Link4 Towarzystwo Ubezpieczeń SA	General Comment	We disagree with the assumption that diversification should not be allowed for in assessing the risk margin. We believe this introduces additional prudence into the calculation of Technical Provisions, beyond that indicated within the Directive. We propose an alternative method in paragraph 3.130 below.	Not agreed. See explanations in the summary feedback statement of the outcome of the consultation.
31.	Lloyd’s	General Comment	Lloyd’s welcomes the clarification around the calculation of the risk margins, which are an important part of the overall Solvency II	Noted.

			regime. The use of the internal model as the basis for the cost of capital calculation is a welcome addition, since it should more properly reflect the risk of that business. The level of calculation of the risk margin is an important issue, and this ties in with the use of an internal model. An internal model will almost certainly perform calculations at a different level from the overall Solvency II classes, most likely at a finer, more granular level of detail. In particular, the internal model will be developed and parameterised at a level which is consistent with how the undertaking runs its business and manages underwriting sub-portfolios. This is essential for the internal model to be accepted as a management tool and to pass the "use test". However, there will be cases where internally modelled classes do not map uniquely to the Solvency II classes (as referred to in Article 85e). For example, airline insurance is sold and managed as a combined insurance for the aircraft hull and passenger liability, and therefore may be modelled as a single class within an internal model. However, the class segmentation proposed in CP27 would require this to be split between Marine/Aviation/Transport and Third party liability. Therefore, undertakings must be allowed to assess the risk margin at a level that is appropriate for their business, with some approximation to map between this and the Solvency II classes. Undertakings should, of course, seek to align the calculation of the risk margin closely to the Solvency II classes where possible, but they must have discretion to deviate from this segmentation if it is considered inappropriate for calculating capital, or if it does not reflect the way in which the business might be transferred to a reference undertaking. All such approximations should be fully documented and disclosed to the supervisor who will decide whether the approximation and allocation to technical provisions is acceptable. To this extent the requirement in	Noted.

			paragraph 3.130(8) of CP42 that calculations "should be done at least by line of business" is too rigid and should be amended. Overall, the approach to risk margins is more complicated that it was in the QIS4 study, and we are unsure whether this additional complexity improves the estimation of the risk margin (to reflect the market value of liabilities). CEIOPS have chosen to understand Article 85 in a way that precludes a diversified market value margin; this simplification introduces significant complexity and several of the sub-points in CP 42 are devoted to reducing the complexity introduced. By taking such a view CEIOPS are mandating an approach that reduces the likelihood that an internal model will fairly represent the risks of a business and undermines the principles based approach of Solvency II. If there were a deep, liquid and transparent market for insurance liabilities, or a company were to become insolvent and required to transfer their liabilities to a willing third-party, then the transfer would likely happen across a number of classes at once since the receiving reference company would not want to concentrate their risk. An alternative interpretation of Article 85 is that an organisation can calculate the diversified market value margin and then report the amounts attributed to each line (an alternative assumption 8). We would welcome guidance from CEIOPS on whether this attribution should be on a prescribed basis or through an organisation-by-organisation approach, based on outputs from the internal model.	Partially agreed. See the CP on simplifications. Not agreed.
32.	Lucida plc	General Comment	Lucida is a specialist UK insurance company focused on annuity and longevity risk business. We currently insure annuitants in the UK and the Republic of Ireland (the latter through reinsurance). It is clear that for annuity business, the approach set out in this	Noted.

			paper would lead to technical provisions in excess of those envisaged by Articles 75.2 and 76.3, i.e. that the resulting technical provisions would exceed the "current amount insurance undertakings would have to pay if they were to transfer their obligations to another insurance undertaking". In addition, we have a general concern that by considering proposals on a paper by paper basis, the overall impact of proposals may be overlooked. Whilst taken in isolation any one paper might have a small impact on capital, when considered together the proposals layer prudence on prudence and hence the impact is significant. Industry commentators estimate that Solvency II could lead to a 20% increase in prices for annuity business.	Some information that may illustrate the issues for the annuity business would be welcomed.
33.	Munich RE	General Comment	We fully support all of the GDV statements and would like to add the following points: Diversification in the risk margin CEIOPS proposes not to take diversification effects between different lines of business into account when calculating the risk margin (3.130 (8)). Article 75.2 of the draft directive on the other hand states that "The value of technical provisions shall correspond to the current amount insurance and reinsurance undertakings would have to pay if they were to transfer their insurance and reinsurance obligations immediately to another insurance or reinsurance undertaking." In particular because this other insurance or reinsurance undertaking would take account of diversification effects also between different lines of business when bidding for these obligations, diversification effects should be allowed for when calculating the risk margin. Cost of capital rate CEIOPS states that a cost of capital rate of at least 6 percent should be assumed to reflect the cost of holding an amount of	Not agreed. The methodology used for calculating the risk margin should be consistent with respect to all types of transfers. Not agreed.

			eligible own funds for an insurance or reinsurance undertaking being capitalized corresponding to a confidence level of 99.5 percent Value-at-Risk over a one year time horizon (3.134). We here regard a cost of capital rate in the range of 2.5 percent to 4.5 percent as adequate based on research commissioned by the CRO Forum ("Market Value of Liabilities for Insurance Firms. Implementing elements for Solvency II", www.croforum.org/publications.ecp). We recommend to introduce one stable cost of capital rate in order to avoid cyclical effects. Loss absorbing capacity of deferred taxes The loss absorbing capacity of deferred taxes should adequately be taken into account in line with the proposed transfer concept: deferred tax positions present in the transferring company might not be included in the sale of an insurance portfolio, but the ability of the transferred portfolio to generate future deferred taxes will be acknowledged by a transferee company.	CEIOPS has carried out a careful assessment of CRO Forum's report. The discussion of this issue is amended in the final version of CP 42. Not agreed. See paragraph 3.53 of CP 42 and the explanations in the summary feedback statement of the outcome of the consultation.
34.	NORWAY: Codan Forsikring (Branch Norway) (991 502	General Comment	We disagree with the assumption that diversification should not be allowed for in assessing the risk margin. We believe this introduces additional prudence into the calculation of Technical Provisions, beyond that indicated within the Directive. We propose an alternative method in paragraph 3.130 below.	Not agreed. See explanations in the summary feedback statement of the outcome of the consultation.
35.	Pacific Life Re	General Comment	We have found Consultation Paper 42 ("CP42") very helpful in setting out the key issues in respect of the calculation of the risk margin and welcome the opportunity to comment on CEIOPS' proposals. We agree with the general approach to calculating the risk margin and with many of the components, as set out in CP42. However, for some types of business, the risk margin is going to be a very material component of the total technical provisions and capital requirements. We believe that the use of conservative	Noted.

			methodologies and assumptions in several areas will result in an excessive risk margin overall and the additional costs will ultimately be borne by policyholders. The proposed rules for calculation of the risk margin are based on the following assumptions: ☐ Each line of business is transferred to a separate undertaking even though it is capital-efficient to combine lines of business within undertakings; ☐ Each transferee has no existing risks to enable any diversification benefits to be achieved; ☐ Each transferee is prevented from using partial internal models. They can only use an internal model if it covers all non-hedgeable risks ☐ Each transferee is unable to raise debt. Pacific Life Re believes that this is unrealistic. In practice, any transfer of business is mostly likely to be made to an existing business that has some expertise in the relevant products and therefore a suitable internal model. The undertaking will clearly seek to manage risks and capital effectively and will either take on several product lines or merge the business with diversifying risks. CEIOPS appears to justify these artificial assumptions on the grounds that other approaches may be subject to „ambiguity” or excessive levels of diversification. We do not consider that these reasons are sufficient to justify the choice of an assumption that is unrealistic and in the vast majority of cases will result in artificially low levels of diversification and an excessive risk margin. There are many other elements of Solvency II where judgemental assessments or complex calculations are required in order to achieve a more accurate result. Additional safeguards may be required to avoid abuse of these judgemental areas. We do not see	Not agreed. There is no such statement in CP 42. Not agreed. The discussion of this issue is amended in the final version of CP 42. Not agreed. The methodology used for calculating the risk margin should be consistent with respect to all types of transfers.

			why a similar approach should not be taken in relation to the important issue of diversification in the risk margin calculation. The cost benefit analysis in Annex B only considers policyholder security. It does not consider possible increased costs for policyholders resulting from an excessive risk margin (although this was a consideration in the cost benefit analysis relating to the cost of capital rate). Insurance companies need to be adequately capitalised but it is important to note that it is policyholders who meet the cost of any capital through the price paid for products. Any excessive capital requirements will be to the detriment of policyholders either through higher prices or because suitable products will not be made available. The comments below focus on those areas where we believe changes are required to the current proposals.	Not agreed. The discussion of these issues is amended (and reorganised) in the final version of CP 42.
36.	Pearl Group Limited	General Comment	We are concerned with CEIOPS' proposals in CP 42 which, in a number of important areas, imposes overly prudent margins that could result in a risk margin significantly higher than the one required by the Framework Directive. We would remind CEIOPS that Recital 31 requires a market-consistent valuation of technical provisions and this will not be achieved if prudent margins are incorporated into the risk margin. Furthermore, this will be to the detriment of policyholders who will have to bear this cost, which is not in the intention of the Solvency II Framework Directive. The level of work required to produce the risk margin is onerous and will result in an answer with spurious accuracy. The SCR is difficult to project accurately, the universal cost of capital rate of 6% will not be accurate for each company and the allowance of diversification benefits within a line of business, but not between lines of business will lead to an arbitrary allowance for diversification benefit.	Not agreed. See the resolution to e.g. comment no. 11 (CEA) and comment no. 22 (GDV).

			In particular, we believe diversification effects between lines of business should be recognised. Otherwise this would unfairly penalise well-diversified portfolios. ☐ In practice, insurance liabilities are not transferred to an empty shell. The vast majority of transactions result in the transfer of all the business in a (re)insurance undertaking. Where insurance liabilities are transferred as separate lines of business, synergies are achieved between the portfolio of the acquirer and the lines of business acquired. Therefore, we believe the reference undertaking should equal a mirror of own undertaking and diversification effects should taken into account. ☐ This would also be in line with ALM-studies and Investment strategies where the insurer does not assess each line of business separately but in conjunction with each other. ☐ Finally, we would highlight that from a practical point of view, the calculation of risk margin for LoBs would represent a significant calculation burden as this would require a breakdown of the SCR for underwriting, counterparty and operational risk per LoB as well as a projection until run-off of each portion of the SCR. We believe further work is needed on the calibration of the cost of capital rate, currently set at 6%, in order to ensure it does not result in excess prudence. To this effect, we would suggest a mechanism for periodic review, perhaps every 5 years to make sure the calibration is appropriate. The risk margin should not include any element of market risk An additional component representing “unavoidable market risk” should not be introduced into the Risk Margin. All market risk is already taken into account in the value of assets. This new requirement compared to QIS4 should be removed from the definition of the risk margin in order to avoid double counting	

			market risk. Calculations done by line of business are unlikely to be appropriate As previously pointed out in our response to CP 35, we strongly disagree with the non-recognition of unused tax losses and unused tax credits and highlight that the recognition of the unused tax losses should be based on the recoverability principle. We believe CEIOPS' requirement for no recognition of the loss absorbing capacity of deferred taxes is inconsistent with an economic risk based approach. We welcome the clarification that the risk margin should only cover the risks for the existing business.	
37.	PricewaterhouseCoopers LLP	General Comment	We set out below specific comments on a number of the matters raised in the Consultation Paper. We refer to our comments on Consultation Paper 39 (Best estimate) where explicitly referenced. We refer also to our comments on Consultation Paper 45 (Simplifications) and in particular that approximate methods should be permitted in the projection of the SCR for the purpose of the risk margin to reflect proportionality, materiality and practicality of implementation. Appropriate safeguards over the accuracy of the calculation should also be in place.	Noted.
38.	RBS Insurance	General Comment	The risk margin is a comparatively small part of the Technical Provisions (about 10% for Non-Life from the appendix A.17). Therefore we support suitable measures to simplify the calculation for undertakings (eg- the ability to calculate a risk margin over the combined premiums provisions and claims provisions). We believe that the assumption of transferring business line by line into an empty reference undertaking is not the best approach as ☐ it removes all diversification benefit so does not promote	Partially agreed. See the CP on simplifications. Not agreed. See the resolution to e.g.

			good risk management practice via the diversification of portfolios; ☐ it is not realistic as it does not reflect what is likely to happen in practice. In particular we believe it is highly unlikely that business would be transferred line by line into separate empty undertakings; ☐ It is overcomplicated and makes calculations more difficult for undertakings using an internal model. Generally we believe assuming well diversified portfolios is not realistic either and therefore the assumption should be entity specific. We support the use of a single consistent Cost of Capital rate, but would welcome definitive views on frequency and methodology for its revision.	comment no. 11 (CEA) and comment no. 22 (GDV). Noted. Further work on the review mechanism is needed.
39.	ROAM – Draft V2	General Comment	ROAM has remarks on the content of the risk margin consultation paper: - The concept of unavoidable market risk should be clarified. Indeed, it could lead to burdensome calculations if the methodology to be followed is not provided. Furthermore, if the entity, to which the liabilities are transferred, match their cash flows and do not invest in equities, the unavoidable market risk should only be applicable for long term cash flows (there are risk free bonds until 50 years in the market). In this regard ROAM believes this risk is not material. Proportionality principle should apply instead, and unavoidable market risk should only be limited to liabilities in currency where the market is not deep (this risk should be valued at nil for liabilities assessed in euro). - Diversification benefits should be taken into account. As risk margin represents the amount needed to run the portfolio, it seems unjustified not to take into account diversification between lines of business. Such a statement could unfairly penalize well-diversified	Partially agreed. To be covered by the CP on simplifications. Not agreed. See the resolution to e.g. comment no. 11 (CEA) and

			portfolios and it is not in line with the Directive spirit. At least, diversification effects within life or non-life portfolios should be recognized. - As the Directive states that Cost of Capital rate should be the same for all (re)insurance undertakings, we suggest using a 6% rate, without taking into account any supplementary burden. As pointed out in the QIS4 report, the majority, if not all undertakings (independently of their size) used simplifications to project SCR for the purposes of calculating risk margins. The risk margin tabs for non-life were also extensively used by undertakings. ROAM members believe therefore that such simplification should be considered the standard method. (see comments to 3.85)	comment no. 22 (GDV). Noted. However, further work on the review mechanism is needed.
40.	RSA Insurance Group PLC	General Comment	We disagree with the assumption that diversification should not be allowed for in assessing the risk margin. We believe this introduces additional prudence into the calculation of Technical Provisions, beyond that indicated within the Directive. We propose an alternative method in paragraph 3.130 below.	Not agreed. See explanations in the summary feedback statement of the outcome of the consultation. See the resolution to e.g. comment no. 11 (CEA) and comment no. 22 (GDV).
41.	RSA Insurance Ireland Ltd	General Comment	We disagree with the assumption that diversification should not be allowed for in assessing the risk margin. We believe this introduces additional prudence into the calculation of Technical Provisions, beyond that indicated within the Directive. We propose an alternative method in paragraph 3.130 below.	See the resolution regarding comment no. 40.
42.	RSA - Sun Insurance Office Ltd.	General Comment	We disagree with the assumption that diversification should not be allowed for in assessing the risk margin. We believe this introduces additional prudence into the calculation of Technical Provisions, beyond that indicated within the Directive. We propose an alternative method in paragraph 3.130 below.	See the resolution regarding comment no. 40.

43.	SWEDEN: Trygg-Hansa Försäkrings AB (516401-7799)	General Comment	We disagree with the assumption that diversification should not be allowed for in assessing the risk margin. We believe this introduces additional prudence into the calculation of Technical Provisions, beyond that indicated within the Directive. We propose an alternative method in paragraph 3.130 below.	See the resolution regarding comment no. 40.
44.	UNICATT	General Comment	A fixed unitary Cost of Capital across LoBs is inconsistent with financial economics and possibly with prices observed in the market (for a formal discussion on this topic and related literature, see Floreani A., Pricing Insurance Contracts Following the Cost of Capital Approach: Some Conceptual Issues, May 2009. CAREFIN Research Paper No. 9/09. Available at SSRN: http://ssrn.com/abstract=1409551). Broadly speaking, two insurance contract portfolios with the same Best Estimate and SCR requirements are likely to have different current exit values owing to: - different exposure to priced (unhedgeable) factors; - different friction costs. If no exposure to priced (unhedgeable) factors and no frictional costs are considered, the risk margin should be zero. Therefore, a constant unitary cost of capital across LoBs could be accepted if and only if, the LoBs have equal exposure to priced (unhedgeable) factors or have equal friction costs across LoBs. In addition, the SCR should be the right risk measure related to the priced (unhedgeable) factors or to friction costs. In my paper there is no situation in which these conditions can be satisfied. A variable CoC is clearly inconsistent with level 1 text and it probably introduces more costs than benefits. However, it is my opinion that CEIOPS should address this topic and, if relevant, should find some solutions to this matter. A realizable solution is to set a higher fixed unitary CoC and	Noted. The comment/proposal is not in line with the Level 1 text.

			introduce a pseudo-diversification coefficient depending on the exposure of the LoB to the priced (unhedgeable) factors. Clearly, this coefficient should not be based on the effective-entity specific diversification of the SCR across LoBs, as the basic SCR calculation is. It should be based on the "theoretical diversifiability" of the LoB SCR across the market. In other words, the "theoretical diversifiability coefficient" is not a "diversification coefficient" but a rescaled LoB beta coefficient (equal across undertakings). 5. As a numerical example, consider two different insurance contract portfolios (P1 and P2) with best estimate BE1=BE2=10 CU and present value of (unhedgeable) future solvency capital requirements SCR1=SCR2=10 CU. The first portfolio is highly exposed to priced (unhedgeable) factors (for example some catastrophe risks or some non hedgeable systematic risks in which cash outflows are negatively correlated to economic growth scenarios), while P2 is not exposed to priced (unhedgeable) factors. It is reasonable that the reference undertaking is willing to receive more to assume the P1 portfolio, say 11 CU, than the second portfolio, say 10.2 CU. Under risk margin calculation proposed by the CP, the Technical Provisions are TP1 = TP2 = 10 + 10x6% = 10.6 for both P1 and P2. However, the correct risk margin calculation is TP1 = 10 + 10 x10% = 11 and TP2 = 10 + 10 x2% = 10.2. With the solution in point 4, a unitary Cost of Capital equal to 10% should be set and respectively, a 1 and a 0.2 "beta" or "diversifiability coefficient" is applied in order to obtain a calibrated current exit value, i.e. TP1 = 10 + 10% x 1 x 10 = 11 and TP2 = 10 + 10% x 0.2 x 10 = 10.2.	
45.	Unum Limited	General Comment	We are concerned with CEIOPS' proposals in CP 42 which, in a number of important areas, imposes overly prudent margins that could result in a risk margin significantly higher than the one required by the Framework Directive. We would remind CEIOPS that Recital 31 requires a market-consistent valuation of technical	Not agreed. See the resolution to comment no. 11 (CEA) and comment no. 22 (GDV).

			provisions and this will not be achieved if prudent margins are incorporated into the risk margin. Furthermore, this will be to the detriment of policyholders who will have to bear this cost, which is not in the intention of the Solvency II Framework Directive. In particular, we believe diversification effects between lines of business should be recognised. Otherwise this would unfairly penalise well-diversified portfolios. ☐ In practice, insurance liabilities are not transferred to an empty shell. The vast majority of transactions result in the transfer of all the business in a (re)insurance undertaking. Where insurance liabilities are transferred as separate lines of business, synergies are achieved between the portfolio of the acquirer and the lines of business acquired. Therefore, we believe the reference undertaking should equal a mirror of own undertaking and diversification effects should taken into account. ☐ This would also be in line with ALM-studies and Investment strategies where the insurer does not assess each line of business separately but in conjunction with each other. ☐ Finally, we would highlight that from a practical point of view, the calculation of risk margin for LoBs would represent a significant calculation burden as this would require a breakdown of the SCR for underwriting, counterparty and operational risk per LoB as well as a projection until run-off of each portion of the SCR. We believe further work is needed on the calibration of the cost of capital rate, currently set at 6%, in order to ensure it does not result in excess prudence. To this effect, we would suggest a mechanism for periodic review, perhaps every 5 years to make sure the calibration is appropriate. Calculations done by line of business are unlikely to be appropriate As previously pointed out in our response to CP 35, we strongly	

			disagree with the non-recognition of unused tax losses and unused tax credits and highlight that the recognition of the unused tax losses should be based on the recoverability principle. We believe CEIOPS' requirement for no recognition of the loss absorbing capacity of deferred taxes is inconsistent with an economic risk based approach. As a reasonable simplification however, we would propose that where it represents a significant calculation burden insurers could chose not to take account the loss absorbing capacity of deferred taxes. We welcome the clarification that the risk margin should only cover the risks for the existing business.	
46.	XL Capital Ltd	General Comment	Our key concerns with respect to CP 42 are that: a) We believe that the assumption that the reference undertaking has no insurance or reinsurance obligations or own funds before the transfer takes place is unrealistic.We strongly believe that entities which accept portfolio transfers do have existing portfolios which may span several lines of business and should not undertake the transfer at a rate which would create a loss (which would be the case if diversification is high and operational risk low in the tranferring company) and therefore remove the arm-length character of the transaction. A more realistic assumption would be to assume the existing portfolio corresponds to that of the transferring undertaking, and therefore diversification effects should be taken into account. b) The inclusion of "unavoidable market risk" in the risk margin calculation is likely to cause market risk to be double counted. For non-life this brings unwarranted additional complexity to the calculation. c) The inclusion of operational risk related to transferred insurance and reinsurance obligations will be very difficult to assess	Not agreed. See explanations in the summary feedback statement of the outcome of the consultation. See also the resolution to comment no. 11 (CEA) and comment no. 22 (GDV). Not agreed. There is no double counting. Not agreed.

			because this would involve allocating operational risk to the individual line of business transferred.	It is straightforward to use the standard formula per line of business.
47.	Amlin plc	1.	Amlin plc is an insurance group with interests within the Lloyd's market, in continental Europe and in Bermuda. As a member of the Lloyd's insurance market, Amlin has fed its views on the CEIOPS consultations into Lloyd's which has prepared a market wide response. With regard to this consultation for CP42, Amlin wishes to emphasise the need for there to be a degree of flexibility and proportionality in the granularity at which the risk margin is calculated and derived at the prescribed Solvency II class level. Firms will expect to be able to calculate the Risk Margin using their internal capital model. The internal capital model will be aligned to the way the firm manages its business, and consequently may not perform calculations at the same level as the overall Solvency II classes. At the same time, the Solvency II classes may not be a realistic grouping of how the business may be acquired by a third party if the business were to go into run-off. Therefore firms must be allowed to assess the risk margin at a level that is appropriate for their business, with some approximation to map between this and the Solvency II classes. Clearly, firms should seek to align the calculation of the risk margin closely to the Solvency II classes where possible, but they must have discretion to deviate from this segmentation if this is considered inappropriate for calculating capital or if it does not reflect the way in which the business might be transferred to a reference undertaking. This may mean that although overall the internal capital model performs calculations at a more granular level than the Solvency II classes, there may be cases where there is an allocation of the calculated risk margin back to the Solvency II class level. Implicitly this	Noted. Noted. See the CP on simplifications. Noted. These issues should be solved in the context of approval processes for internal models.

			means underlying the risk margin calculations there may be a degree of diversification across Solvency II classes. We would expect the firm to fully document and communicate their approach to the supervisor. The supervisor will have authority to decide whether the approach being taken does or does not deviate from the underlying principle of the risk margin calculation.	
48.	Association of British Insurers	1.3.	Despite statement in the third bullet, this paper does not specify the projection of the future SCRs related to the reference undertaking - Para 3.129 reveals that the third set of advice will include simplifications.	Agreed. The bullet point should be rewritten or deleted.
49.	CEA, ECO-SLV-09-437	1.3.	The third bullet is not correct - this paper does not specify the projection of the future SCRs related to the reference undertaking. Para 3.129 reveals that the third set of advice will include simplifications.	See resolution regarding comment no. 48.
50.	Pearl Group Limited	1.3.	Despite statement in the third bullet, this paper does not specify the projection of the future SCRs related to the reference undertaking - Para 3.129 reveals that the third set of advice will include simplifications.	See resolution regarding comment no. 48.
51.	Unum Limited	1.3.	Despite statement in the third bullet, this paper does not specify the projection of the future SCRs related to the reference undertaking - Para 3.129 reveals that the third set of advice will include simplifications.	See resolution regarding comment no. 48.
52.	Groupe Consultatif	2.	In the Level 1 text cited in 2.1 and 2.2 we do not see a legal basis for the requirement to calculate Risk Margins on a finer level than the whole insurers portfolio:	Noted. However, according to Article 79 and Article 85(e) the technical provisions – that is the best estimate plus the risk margin – should be calculated as a

				minimum by lines of business.
53.	DIMA (Dublin International Insurance & Management	2.1.	The principal of proportionality should be applied to the captives for calculation of risk margin. For captives, the risk margin should be calculated as certain percentage of overall Solvency Capital Requirement.	Noted. See the CP on simplifications for captives.
54.	Association of British Insurers	2.2.	Article 75 (3) states that "The calculation of technical provisions shall make use of and be consistent with information provided by the financial markets and generally available data on underwriting risks (market consistency)." The concept of market consistency is particularly important when setting the risk margin. Recital 31 is also particularly relevant in this regard.	Noted. See also resolution regarding comment no. 52.
55.			Confidential comment deleted.	
56.	CEA, ECO-SLV-09-437	2.2.	Reference should be made to Article 75 (3) and Recital 31. Article 75 (3) states that "The calculation of technical provisions shall make use of and be consistent with information provided by the financial markets and generally available data on underwriting risks (market consistency)." The concept of market consistency is particularly important when setting the risk margin. Recital 31 is also particularly relevant in this regard.	Noted. See also resolution regarding comment no. 52 and 54.
57.	DIMA (Dublin International Insurance & Management	2.2.	The risk margin calculation is dependent upon the value of Solvency Capital Requirement. If the Solvency Capital Requirement calculation is complex then the risk margin will follow the same pattern.	Noted.
58.	Groupe Consultatif	2.2.	We would read Article 75 2. (…. Transfer their obligations …) as a transfer of the whole portfolio to another company. The issue of partial transfers (d.f. 3.83) is not mentioned in level 1 text.	See the resolution regarding comment no. 52. The technical provisions (sum of

				BE and RM) should be calculated as a minimum per lines of business.
59.	Lucida plc	2.2.	Articles 75.2 and 76.3 state that "the technical provisions shall correspond to the current amount insurance undertakings would have to pay if they were to transfer their obligations to another insurance undertaking". Recent transactions involving annuity liabilities have been priced at levels close to best estimate (sometimes at a discount to best estimate) because insurers and reinsurers are prepared to take potential investment returns into account when pricing this business. However the approach set out in this paper would lead to technical provisions significantly in excess of best estimate (say 107%). If a liquidity premium cannot be allowed for in determining the risk free rate (see Lucida's response to CP40) then allowance for liquidity premium should be made in determining the cost of capital. Companies should be able to reduce the level of technical provisions to the price charged to reflect the economics of the transactions, particularly where the price charged is determined through an independent process such as an auction and the premium is similar to prices charged by other market participants.	Noted. Noted. Not agreed. Illiquidity premium is an issue for CP 40.
60.	Pearl Group Limited	2.2.	Article 75 (3) states that "The calculation of technical provisions shall make use of and be consistent with information provided by the financial markets and generally available data on underwriting risks (market consistency)." The concept of market consistency is particularly important when setting the risk margin. Recital 31 is also particularly relevant in this regard.	See the resolution regarding comment no. 56 (as well as 52 and 54).
61.	Unum Limited	2.2.	Article 75 (3) states that "The calculation of technical provisions shall make use of and be consistent with information provided by the financial markets and generally available data on underwriting	See the resolution regarding comment no. 56 (as well as 52 and 54).

			risks (market consistency).” The concept of market consistency is particularly important when setting the risk margin. Recital 31 is also particularly relevant in this regard.	
62.	KPMG ELLP	3.4.	Historical volatilities do not necessarily give the best estimate of future volatilities of credit spreads.	Noted. However, this is a comment on previous CEIOPS Advice.
63.	Lucida plc	3.4.	The Advice of March 2007 talks about non-hedgeable risks. Longevity risk is generally viewed as being non-hedgeable but where reinsurance is available it might be possible to take account of this when determining technical provisions, for example if reinsurance is available at 102% of best estimate then instead of the cost of capital approach, the difference between the reinsurance premium and the best estimate (2%) could be used as the basis for determining the appropriate risk margin.	Noted. However, this is a comment on previous CEIOPS Advice.
64.	Lucida plc	3.9.	We believe that the cost of providing own funds to back the SCR should be calculated with due regard to the benefits (investment returns) available from the funds under management	Noted. However, paragraph 3.9 concerns the QIS4 Technical Specifications.
65.	Dutch Actuarial Society – Actuarieel Genootschap (	3.11.	This comment relates to the first bullet and the risks that are to be reflected in the Risk Margin, in particular the comment relates to counter party default risk related to ceded reinsurance. Given that assets including reinsurance receivables are to be recorded at fair value (reflecting the embedded credit risk), we believe that also requiring the credit default risk to be part of the CoC calculation leads to double counting. For instance, reinsuring business through lower rated reinsurers will result in a lower value of the recorded receivable on a fair value basis. The related haircut is directly linked to the rating of the reinsurer and thus –ideally- with the amount of capital one needs to hold to cover the (conditional) credit risk. In fair valuing the receivable one would expect insurers to not only analyse the	Noted. However, paragraph 3.11 concerns the QIS4 Technical Specifications. This seems to be a criticism of the SCR-methodology per se.

			scenarios under which a reinsurance contract would result in a payment, but also the chance of such a payment not being made (expected default and loss in the event of default). Therefore, there does not seem to be a case to require a margin to be held in the reserves on top of this. This comment also related to paragraph 3.48 – assumption 5, 3.49, etc.	
66.	Groupe Consultatif	3.11.	This comment relates to the first bullet and the risks that are to be reflected in the Risk Margin, in particular the comment relates to counter party default risk related to ceded reinsurance. Given that assets including reinsurance receivables are to be recorded at fair value (reflecting the embedded credit risk), we believe that also requiring the credit default risk to be part of the CoC calculation leads to double counting. For instance, reinsuring business through lower rated reinsurers will result in a lower value of the recorded receivable on a fair value basis. The related haircut is directly linked to the rating of the reinsurer and thus –ideally- with the amount of capital one needs to hold to cover the (conditional) credit risk. In fair valuing the receivable one would expect insurers to not only analyse the scenarios under which a reinsurance contract would result in a payment, but also the chance of such a payment not being made (expected default and loss in the event of default). Therefore, it appears there may not be a case to require a margin to be held in the reserves on top of this. This comment also related to paragraph 3.48 – assumption 5, 3.49, etc.	See the resolution regarding comment no. 65.
67.	CEA, ECO-SLV-09-437	3.12.	Proportionality should also apply to the split between proportional and non-proportional reinsurance. As described below in our response to Para 3.56, we do not support a calculation of the risk margin which assumes that individual lines of business are transferred in isolation (to separate empty shells). However, if such segmentation were to be used when calculating the risk margin, we	Noted. However, paragraph 3.12 concerns the QIS4 Technical Specifications.

			would highlight our comments to CP27 on segmentation, in which we requested that the split into proportional and non-proportional reinsurance classes should be subject to the principle of proportionality. In this way, if the main risk driver is proportional then the reinsurance should be allowed to be treated as proportional in its entirety.	
68.	European Insurance CFO Forum	3.12.	The segmentation suggested for Cost-of-Capital calculations is too onerous. Segmentation is required into 16 and 14 lines of business for life and non-life business respectively. A simpler segmentation should be considered. For reinsurance contracts, if the main risk driver is proportional, the contract should be treated as proportional in its entirety. Disclosure at the segmentation level would be too onerous. As noted above, the segmentation level should be simplified however the option to aggregate these lines of business at the reporting level should be available.	Not agreed. The required segmentation follow from Article 79 and the corresponding implementing measures, cf. CP 27. However, paragraph 3.12 concerns the QIS4 Technical Specifications.
69.	Groupe Consultatif	3.12.	The segmentation described here appears to be reasonable. However we do not see the requirement to calculate risk margins for there segment separately may be justified by level 1 text.	See the resolution regarding comment no. 52.
70.	KPMG ELLP	3.12.	The segmentation is not very granular, especially for reinsurance lines.	See the resolution regarding comment no. 68.
71.	Legal & General Group	3.12.	The segmentation proposed is extremely onerous in terms of calculations required. We request that a simpler segmentation is used. The undertaking may wish to give a more granular breakdown if it feels appropriate. (Also relevant to 3.54)	See the resolution regarding comment no. 68.
72.	European Insurance CFO Forum	3.14.	Comments in 3.130 are also relevant here.	Noted. However, paragraph 3.14 concerns the QIS4 Technical

				Specifications.
73.	International Underwriting Association of London	3.14.	We recognise CEIOPS' rationales for why it is considered necessary to prevent Line of Business diversification between the specified lines', however, given that firms can at present, account for some diversification within each Line of Business, we would question whether this approach is inconsistent. For consistency, we believe that diversification should be permitted between these Lines. Furthermore, we believe that it should be recognised that the pooling of risks is a central philosophy to all insurance business.	Noted. See explanations in the summary feedback statement of the outcome of the consultation. However, paragraph 3.14 concerns the QIS4 Technical Specifications.
74.	Legal & General Group	3.14.	See response to 3.130 (assumption 8)	Noted. However, paragraph 3.14 concerns the QIS4 Technical Specifications.
75.	European Insurance CFO Forum	3.15.	Comments in 3.130 and 3.134 are also relevant here.	Noted.
76.	Legal & General Group	3.15.	We feel that the use of a fixed rate is inappropriate as it does not allow adjustment to changing market conditions.	However, the use of a fixed rate is in line with Article 76(5). Paragraph 3.15 concerns the QIS4 Technical Specifications.
77.	European Insurance CFO Forum	3.16.	Comments in 3.130 are also relevant here.	Noted.
78.	KPMG ELLP	3.16.	(a) We would note that risk free interest rates differ across the EEA. (b) It is proposed that diversification benefits will not be allowed on the cost of capital margin between lines of business, which implies that diversification on the margin will only take effect within a line of business. This will in particularly be the fact for reinsurance lines	Noted. Paragraph 3.16 concerns the QIS4 Technical Specifications.

			which are aggregated at a fairly high level.	
79.	Legal & General Group	3.16.	Point (d) See response to 3.130 (assumption 8)	Noted.
80.	Waszink Actuarial Advisory	3.16.	The Risk Margin is determined using the following steps: 1. Project the SCR , the Solvency Capital Requirement in all future years. 2. Multiply the SCR by the Cost-of-Capital rate in every year. 3. Discount the amounts calculated under (2) using the risk free rate. Having done several of such calculations for different portfolios, we have found that some of these Risk Margins appear to be high, if not very high. This can sometimes be attributed to the use of the risk free discount rate under step (3) above. In particular, using the risk-free rate as discount rate can lead to the Risk Margin being higher that the required capital SCR itself. We will argue below that instead of the risk-free rate, the Cost-of-Capital rate should be used for discounting. We would like to thank RiskQuest for useful comments provided in the drafting of this response. Calculation of Risk Margin The Risk Margin (RM) in CP42 is determined as: $RM = \sum_{i=1}^{n} SCR(i) * CoCr / [1 + r_f(i)]^i \qquad (1)$ with: $SCR(i)$ the projected SCR in year i.	Noted. The details regarding this description of RM-calculations can be discussed at a later stage. However, it may be noted that the assumptions regarding case 1 and case 2 are not realistic.

			$CoCr$: required return on the SCR in excess of the risk-free rate, in CP42 referred to as the Cost-of-Capital rate, and set at 6%. $r_f(i)$: annual risk free rate for maturity i years. n: the number of years over which the SCR needs to be held. We will now consider a number of examples in order to demonstrate why we are of the opinion that the Cost-of Capital Rate (CoCr) should be used for discounting, instead of the risk-free rate. Case 1 $SCR(i) = SCR$ for i=1,2.,n $SCR(i) = 0$ for $i > n$. with n a given constant. The SCR remains constant for n years, when the liabilities are fully run-off and the SCR is released in its entirety. RM is defined as the present value of the cost of capital over the run-off period of the liability. An alternative method to determine the cost of capital is to project the cash flows that the provider of capital will inject/receive over the entire period: $Cost\ of\ Capital = SCR - PV_n\,[SCR] + PV_n\,[Inv\ Inc] \qquad (2)$ with $PV_n[SCR]$: The present value of the release of SCR after n years. $PV_n\,[InvInc]$: The present value of investment income over	

			SCR at the risk free rate . The appropriate discount rate to be used in PVn[..] is the total return required by the provider of capital: risk free rate + CoCr. It is not clear however, which maturity should be chosen for the risk free rate1. We will therefore use an approximation to (2) that does not use the risk free rate. Investment income over the SCR is excluded, whilst the discount rate is reduced accordingly to CoCr. The cost of capital is now estimated by: $Cost\ of\ Capital = SCR - PV_n\,[SCR] \qquad (3)$ with $PV_n\,[SCR]$ discounted at the Cost of Capital rate: $CoCr$.It can be shown mathematically (see Appendix II) that (3) is always higher than (2), hence (3) is a safe approximation of the true cost of capital. Formula (3) equals (2) if the risk free rate equals 0 in all future periods, hence by using (3) we implicitly assume a zero risk free rate. It is also clear from both (2) and (3) that the Cost of Capital can never be higher than SCR, in other words the Cost of Capital is no greater than the capital itself. 1 This is also one of the classic problems of the CAPM Model, see for example ‘The Cost of Capital: Intermediate Theory’ by Seth Armitage 2005. From (3) it follows that: $RM \quad = SCR- SCR/(1+ CoCr)^n$ $= SCR\,[1-1/(1+ CoCr)^n]$.	

			It can be shown mathematically (see Appendix I) that the latter formula can be rewritten as: $SCR\ [1\text{-}1/(1+ CoCr)^{n}] =$ $SCR \sum_{i=1}^{n} \frac{CoCr}{(1+CoCr)^{i}} =$ $CoCr * SCR* \sum_{i=1}^{n} \frac{1}{(1+CoCr)^{i}}$. The last expression is equal to equation (1) with the risk free discount rate $r_f (i)$ replaced by $CoCr$. If $r_f(i) < CoCr$ then (1) will lead to an overestimation of the required risk margin, as shown in the following example. *Example* $SCR = 100$ $n = 50$ $CoCr = 6\%$ $r_f (i) = 4\%$ for all i^{2} . Using formula (1) gives: $RM = 128.89$ Using formula (3) gives: $RM = 94.57$ The value for the risk margin calculated using formula (1) is higher that the initial capital investment of 100. This is highly counterintuitive and appears to create an arbitrage opportunity. A	

company can assume a liability thereby receiving a risk margin of 128.89, whilst only requiring an investment in SCR of 100. In the absence of accounting constraints, the company could therefore realise an immediate gain of 28.89 whilst still maintaining sufficient protection for policyholders through the SCR.

Case 2 $SCR(i) = SCR \text{ for all } i = 1,2,\ldots$

This case is a special case of the previous case 1. The capital provider needs to put up an initial amount equal to SCR, which will never be returned to him as the SCR will be held in perpetuity.

It is intuitively clear that in this example, the cost of capital over all future years is simply equal to SCR, when assuming rf (.)=0 as is done in (3). The capital provider puts in SCR at the start, his investment will never be returned, and he receives no interest. Therefore, his total and immediate cost of capital is SCR.

2 For simplicity a constant risk-free rate is used, but a yield curve could also be used and would produce a similar result.

Using formula (1) however with, for simplicity, a constant rate rf independent of i, we find that:

$$RM =$$

$$\sum_{i=1}^{n} SCR^{*}\, CoCr / (1+r_f)^{i} =$$

$$CoCr\ SCR \sum_{i=1}^{\infty} 1/(1+r_f)^{i} =$$

			$CoCr\ SCR / r_f$ = $SCR\ CoCr / r_f$. We note that if $CoCr > r_f$ as is typically the case, then $RM > SCR$ which is undesirable. The only way to achieve that $RM = SCR$ in this example is by replacing r_f in formula (1) by $CoCr$. Conclusion As shown above, using the risk free yield curve for discounting in the Risk Margin formula can lead to considerable overestimation of the true Cost of Capital associated with running of a liability, in particular in case of liabilities with a long run-off period. We therefore advise that the Risk Margin be calculated using the Cost of Capital rate as discount rate instead. Appendix I $CoCr \sum_{i=1}^{n} \frac{1}{(1+CoCr)^i}$ = $CoCr\ [\sum_{i=1}^{\infty} \frac{1}{(1+CoCr)^i} - \sum_{i=n+1}^{\infty} \frac{1}{(1+CoCr)^i}]$ $=^*$ $CoCr\ [1/CoCr - \frac{1}{(1+CoCr)^n} \sum_{i=1}^{\infty} \frac{1}{(1+CoCr)^i}]$ =	

			$CoCr\ [1/CoCr - \frac{1}{(1+CoCr)^n} 1/CoCr\ ] =$ $1 - \frac{1}{(1+CoCr)^n}$. * Using the equality $\sum_{i=1}^{\infty} \frac{1}{(1+CoCr)^i} = 1/CoCr$. Appendix II Define: Define: r_f = risk free rate $r_t = r_f + CoCr$ $RM = SCR – PV_n\ [SCR] - PV_n\ [InvInc]$, with $PV_n[SCR]$: The present value of the release of SCR after n years. $PV_n\ [InvInc]$, The present value of investment income at the risk-free rate . The discount rate used in PV_n [..] equals r_t .	

RM now equals:

$$RM \quad = SCR - SCR/(1+r_t)^n - SCR\sum_{i=1}^{n}\frac{r_f}{(1+r_t)^i}$$

$$= SCR\,[1-1/(1+r_t)^n - \sum_{i=1}^{n}\frac{r_f}{(1+r_t)^i}\,]$$

$$= SCR\,[\sum_{i=1}^{n}\frac{r_t}{(1+r_t)^i} - \sum_{i=1}^{n}\frac{r_f}{(1+r_t)^i}\,]$$ (using the result of appendix 1)

$$= (r_t - r_f)\ SCR\sum_{i=1}^{n}\frac{1}{(1+r_t)^i}$$

$$= CoCr * SCR\sum_{i=1}^{n}\frac{1}{(1+r_t)^i}\ .$$

As by definition $r_t \geq CoCr$, it is always true that:

$$CoCr * SCR\sum_{i=1}^{n}\frac{1}{(1+r_t)^i} \leq CoCr * SCR\sum_{i=1}^{n}\frac{1}{(1+CoCr)^i}\ ,$$

and equality holds only if r_f =0 so that $r_t = CoCr$.

81.	KPMG ELLP	3.17.	Most companies used the simplifications for the calculation of the cost of capital margin. These are an important component of the implementing measures, and we recommend that the simplifications within QIS4 are retained.	Noted. To be considered by the CP on simplifications.
82.	Lloyd’s	3.17.	The simplifications mentioned are an important component of the implementing measures, and we recommend that the simplifications within QIS4 are retained.	Noted. To be considered by the CP on simplifications.
83.	Lucida plc	3.17.	We believe it is appropriate to apply simplifications where they will not materially affect the calculation, but will give significant gains in efficiency	Noted. To be considered by the CP on simplifications.
84.	European Insurance CFO Forum	3.18.	Comments in 3.130 are also relevant here.	Noted.
85.	Legal & General Group	3.18.	Regarding the cost of capital rate used, we support the CRO forum’s research recommending a cost of capital in the range 2.5% to 4.5% based on the circumstances of the individual company (rather that a rate of 6% or above). (Also relevant to 3.134). We also believe that the COC should be principle based and be reviewed every threes years.	Noted. To be considered in the context of para 3.134. The discussion of this issue is amended in the final version of CP 42.
86.	Lloyd’s	3.19.	As per 3.17	Noted.
87.	CEA, ECO-SLV-09-437	3.24.	Simplifications for the risk margin calculation should be standard. The industry proposes to include simplified methods for calculating the risk margin as standard, in particular we would support a requirement to calculate the risk margin only at T=0 and then allow for it to be run it off in line with the best estimate. Such an approach would significantly limit the administrative burdens and complexity and would enhance convergence.	Noted. To be considered by the CP on simplifications.

88.	Pearl Group Limited	3.24.	The response of the industry regarding the use of simplifications when calculating the risk margin was in essence a proposal to include the simplification as the default option e.g. calculating the risk margin only at T=0 and running it off in line with the best estimate. Such an approach would significantly reduce the administrative burdens and complexity and would enhance convergence.	See the resolution regarding comment no. 87.
89.	ROAM – Draft V2	3.24.	The response of the industry regarding the use of simplifications when calculating the risk margin was in essence a proposal to include the simplification as the default option e.g. calculating the risk margin only at T=0 and running it off in line with the best estimate. Such an approach would seriously reduce the administrative burdens and complexity and would enhance convergence.	See the resolution regarding comment no. 87.
90.	Unum Limited	3.24.	The response of the industry regarding the use of simplifications when calculating the risk margin was in essence a proposal to include the simplification as the default option e.g. calculating the risk margin only at T=0 and running it off in line with the best estimate. Such an approach would significantly reduce the administrative burdens and complexity and would enhance convergence.	See the resolution regarding comment no. 87.
91.	Association of British Insurers	3.25.	By definition this reference entity should be an insurer who has sufficient economies of scale and proper diversification. The reference entity should be assumed to comply with the requirements of Solvency II. The easiest approximation for the reference entity is to assume it is a mirror-image of the current entity. Transfer to an empty reference undertaking is not appropriate as it does not recognise the risk dynamics of the portfolio on a going	Not agreed. See explanations in the summary feedback statement of the outcome of the consultation. It should be stressed that the assumption stating that the RU is

			concern basis and hence does not reflect the market value or price of the liabilities. The transfer should be to a reference undertaking which is a mirror image of the current entity. This approach would not only give a more economic and market consistent valuation of the liabilities, but would also provide the right incentives to management to build a well diversified portfolio of business.	an empty undertaking and the assumption regarding diversification effects represent two different issues.
92.	CEA, ECO-SLV-09-437	3.25.	The reference entity should depict the typical average insurer in Europe. By definition this reference entity should be an insurer who has sufficient economies of scale and proper diversification. The reference entity should be assumed to comply with the requirements of Solvency II. The most appropriate approximation for the reference entity would be to assume it is a mirror-image of the current entity.	Not agreed. See the resolution regarding comment no. 91.
93.	DIMA (Dublin International Insurance & Management	3.25.	For small or captive undertakings the idea of calculating the SCR on grounds of transfer of business from original undertaking to reference undertaking is cumbersome. The risk margin calculation should be based as a certain percentage of the component of best estimate component of technical reserve.	Partially agreed. The issue is covered by the CP on simplifications.
94.	Lucida plc	3.25.	Overall the approach seems too theoretical and could lead to an inconsistent application of solvency II. Conceptually we do not believe the approach is sound. What is required is a simple formulaic basis of calculation which is easy to apply and not judgemental.	Not agreed. See explanations in the summary feedback statement of the outcome of the consultation. See also the CP on simplifications.
95.	Pearl Group Limited	3.25.	By definition this reference entity should be an insurer who has sufficient economies of scale and proper diversification. The reference entity should be assumed to comply with the	Not agreed. See the resolution regarding

			requirements of Solvency II. The easiest approximation for the reference entity is to assume it is a mirror-image of the current entity.	comment no. 91.
96.	Association of British Insurers	3.26.	See comments under Para 3.130 (1).	Noted.
97.	CEA, ECO-SLV-09-437	3.26.	See the comments for Para 3.130 (1).	Noted.
98.	CRO Forum	3.26.	"Assumption 1: The reference undertaking is not the undertaking itself (i.e. the original undertaking), but another undertaking." We agree with this assumption, as this assumption is consistent with the transfer concept in Article 75(2) of the directive. We do note however that, even though it is no longer an option due to the introduction of the transfer concept in the final version of the Framework Directive, it is an option in reality that an undertaking itself can recapitalize based on the release of Risk Margin that occurs after a loss of available capital.	Noted.
99.	Groupe Consultatif	3.26.	Assumption 1 is reasonable.	Noted.
100.	Lucida plc	3.26.	We do not believe it is necessary to make general market related assumptions. The calculations should be based on company specific assumptions, except where market data is available. This would avoid using "empty entity" type assumptions which seem artificial. If CEIOPS would like the provisions to be calculated by line of business then it should state this clearly and simply. In our view it would be preferable to include diversification effects in the capital calculation and not the technical provisions so that the results are easily comparable.	Not agreed. The assumption is consistent with Article 75(2) of the Level 1 text.

101.	Munich RE	3.26.	This assumption is in line with Article 75 (2) of the Draft Directive.	Noted.
102.	Pearl Group Limited	3.26.	The assumption that the reference undertaking is not the undertaking itself but another undertaking does not necessarily result in a more accurate result. Whilst an entity cannot transfer business to itself, the overall objective is to obtain technical provisions that are aligned with what an insurer would have to pay to transfer the business. If assuming entity specific assumptions results in a more accurate answer then they should be used.	Noted. However, the assumption is consistent with Article 75(2) of the Level 1 text
103.	Association of British Insurers	3.28.	See comments under Para 3.130 (2).	Noted.
104.			Confidential comment deleted.	
105.	CEA, ECO-SLV-09-437	3.28.	See the comments for Para 3.130 (2).	Noted.
106.	CRO Forum	3.28.	"Assumption 2: The reference undertaking is an empty undertaking in the sense that it does not have any insurance or reinsurance obligations and any own funds before the transfer takes place." In our view, the transfer concept described by the directive sets the right incentive in evaluating technical provisions. However, we believe that assuming the reference undertaking is an empty undertaking does not reflect market valuation principles associated with the transfer of insurance business from one (re)insurer to another.	Not agreed. The distinction between the RU as a notional undertaking (established for the risk margin calculations only) and any "real world" undertaking should be kept in mind. The rationale given in the last

				part of para 3.27 applies for this assumption as well. It should be stressed that the assumption stating that the RU is an empty undertaking and the assumption regarding diversification effects represent two different issues.
			☐ To assume that an empty undertaking will buy the (re)insurance obligations is conflicting with the principle of market valuation, as of all entities in the market for this entity it would be most expensive to run the obligations, since diversification benefits are minimized. Therefore it would always be the lowest bidder and most unlikely be the purchaser.	Not agreed. The methodology used for calculating the risk margin should be consistent with respect to all types of transfers
			☐ The reference entity would already hold, or have to raise, capital (own funds) at least equal to the SCR required to be held against the portfolio before any transfer.	Not agreed. The reference undertaking is empty before the transfer takes place.
			☐ The reference entity is highly likely to be better capitalised and more highly diversified than the original undertaking. The original undertaking therefore provides an important reference point to serve as a conservative proxy of the diversification benefits likely to exist in the reference entity. Please refer to our answer to paragraph B.11 for further explanation.	Not agreed. This will lead to inconsistencies with respect to the calculation of the risk margin for different undertakings.
			Furthermore, as this assumption (along with assumption 8) eliminates the diversification across lines of business, then we are concerned about: ☐ Inconsistency between the technical provisions and the SCR in their allowance for diversification.	The risk margin and the SCR serves different purposes. This aspect should be reflected in the calculation methods.

			☐ The lack of incentive to (re)insurers for risk mitigation via diversification. ☐ The reduction in competition and higher prices for consumers caused by highly diversified companies not being able to pass diversification benefits down to consumers in the way of lower prices. Proposed Assumption 2: The reference undertaking is a mirror image of the original undertaking with own funds equal to the total SCR of the original undertaking which takes into account diversification benefits across lines of business.	The potential impact of different calculation methods on the behaviour of the undertakings seem to be exaggerated. Not agreed. The proposal is not consistent with the assumption regarding the risks to be covered by the SCR of the reference undertaking.
107.	Groupe Consultatif	3.28.	This assumption appears to have been advanced without supporting justification. The transfer assumption to an entity without any activity is not realistic.	Not agreed. The distinction between the RU as a notional undertaking (established for the risk margin calculations only) and any "real world" undertaking should be kept in mind. See also the resolution regarding comment no. 106.
108.	Institut des actuaires (France)	3.28.	The transfer assumption to an entity without any activity is not realistic.	Not agreed. See the resolution regarding comment no. 106 and 107.
109.	Lucida plc	3.28.	Use of an empty undertaking as the reference undertaking seems unduly prudent since in practice if an insurer were to transfer their obligations to another insurance undertaking then in all likelihood this undertaking would have some business against which the obligations could be diversified.	Not agrred. See the resolution regarding comment no. 106 and 107.

110.	Munich RE	3.28.	Partial transfers will typically happen to a firm than can run off these liabilities at the lowest cost. This will typically be a firm even higher diversified than the transferring company itself. Hence diversification effects already established in the current insurance entity form an important reference point for the diversification benefits experienced for the risks bundled together in the transferee company. The transferring company's diversification benefits serve as a proxy for the magnitude to which they are reflected by the market participants. We therefore recommend a mirror image of the original undertaking as reference entity.	Not agreed. See the resolution regarding comment no. 106 and 107.
111.	Pearl Group Limited	3.28.	The assumption that the reference undertaking is an empty undertaking is unrealistic. It is not realistic to assume that the entity receiving the transfer is an empty undertaking in the sense that it doesn't have any liabilities or funds prior to the transfer. This would not occur in practice. Most commonly the receiving entity has existing business and funds. Therefore, the reference should be an entity which already has market knowledge and experience. An empty reference undertaking would have to incur significantly start up costs to run the business and is thus not equal / relevant.	Not agreed. See the resolution regarding comment no. 106 and 107.
112.	RBS Insurance	3.28.	The assumption that liabilities in run-off would be transferred into an empty undertaking is unlikely to hold in practice. In particular, the process of transferring business from a fully diversified entity to an empty entity could reduce policyholder protection in practice. Adopting this assumption for the risk margin would 1) Offer no incentive for firms to ensure portfolio diversification and thereby reduce risk 2) Place a disproportionate burden on diversified entities versus monoline entities 3) Not reflect the reality that if faced with run off, entities	Not agreed. See the resolution regarding comment no. 106 and 107.

			would aim to transfer to diversified entities to reduce the cost. We believe it would be more equitable between undertakings, and a better reflection of the protection for policyholders across the industry, to allow for the diversification benefits that are available. We believe that the assumption should be that liabilities are run off in a mirror of the original undertaking.	
113.	XL Capital Ltd	3.28.	We believe that Assumption 2 is unrealistic: "Assumption 2 - The reference undertaking is an empty undertaking in the sense that it does not have any insurance or reinsurance obligations and any own funds before the transfer takes place." Instead we would propose that a more realistic assumption would be that the reference undertaking has an existing portfolio which corresponds to that of the transferring undertaking.	Not agreed. See the resolution regarding comment no. 106 and 107.
114.	Association of British Insurers	3.29.	The assumption proposed by CEIOPS implies that the reference undertaking is a monoliner and this is not considered to be the reference within the insurance market. See also comments under 3.25	Not agreed. This comment is based on a misunderstanding. There is no reference to mono-liners in assumption 2 or the comments on this assumption. It should be stressed that the assumption stating that the RU is an empty undertaking and the assumption regarding diversification effects represent two different issues.
115.	CEA, ECO-SLV-09-437	3.29.	A monoliner is not considered to be the reference within the insurance market. The assumption proposed by Ceiops implies that the reference	Not agreed. See the resolution regarding comment no. 114.

			undertaking is a monoliner - this is not considered to be the reference within the insurance market.	
116.	Pearl Group Limited	3.29.	The assumption proposed by CEIOPS implies that the reference undertaking is a monoliner and this is not considered to be the reference within the insurance market.	Not agreed. See the resolution regarding comment no. 114.
117.			Confidential comment deleted.	
118.	CRO Forum	3.30.	Please refer to our comments for paragraph 3.28.	Noted.
119.			Confidential comment deleted.	
120.	CRO Forum	3.32.	“Assumption 3: After the transfer the reference undertaking has eligible own funds corresponding exactly to the amount of SCR that is necessary to support the transferred insurance and reinsurance obligations.” If more than one line of business, as defined by CEIOPS, is involved in the transfer of business, then this assumption would not hold, even if the reference entity is empty. Since the own funds needed to run both lines of business is smaller than the sum of own funds needed to run the lines of business separately. Proposed Assumption 3: After the transfer the reference undertaking has eligible own funds corresponding exactly to the amount of total SCR in the original undertaking	Not agreed. See the resolution regarding comment no. 119.
121.			Confidential comment deleted.	
122.	CRO Forum	3.35.	“Assumption 4: After the transfer of insurance and reinsurance obligations, the reference undertaking has assets to cover the Best Estimate net of reinsurance and SPVs, the risk margin and the SCR. These assets should be considered to minimize the market risk of the undertaking. The reference undertaking should only be subject to market risk that is unavoidable in practice.” We agree with this assumption for the purposes of calculating the	

			risk margin. We would add some additional word to make this clear. Proposed Assumption 4: After the transfer of insurance and reinsurance obligations, the reference undertaking has assets to cover the Best Estimate net of reinsurance and SPVs, the risk margin and the SCR. For the purposes of calculating the risk margin these assets should be considered to minimize the market risk of the undertaking. The reference undertaking should only be subject to market risk that is unavoidable in practice.	Agreed.
123.	DIMA (Dublin International Insurance & Management	3.35.	There is lot of ambiguity for determining the market risk which is unavoidable in practice. This should be clearly defined as all market risk is in some way unavoidable in practice.	Noted. The discussion of this issue is amended in the final version of CP42.
124.	Dutch Actuarial Society – Actuarieel Genootschap (	3.35.	We believe it may be clearer to state that after the transfer to the reference entity, it holds assets including possible reinsurance receivables to cover gross reserves, the risk margin and the SCR. We believe that this presentation more clearly highlights the fact that reinsurance receivables are to be treated separate from the gross reserves and are to be recorded at fair value reflecting any credit risk related to the contracts; thus eliminating the need for additional margins in the reserves related to CDR.	Noted. However, this seems to be an issue for the more detailed guidelines on level 3.
125.	European Insurance CFO Forum	3.35.	Comments in 3.54 are also relevant here.	Noted.
126.	Groupe Consultatif	3.35.	We believe it may be clearer to state that after the transfer to the reference entity, it holds assets including possible reinsurance receivables to cover gross reserves, the risk margin and the SCR. We believe that this presentation more clearly highlights the fact that reinsurance receivables are to be treated separate from the gross reserves and are to be recorded at fair value reflecting any	Noted. However, this seems to be an issue for the more detailed guidelines on level 3.

			credit risk related to the contracts; thus eliminating the need for additional margins in the reserves related to CDR.	
127.	KPMG ELLP	3.35.	Assumption 4 states 'The reference undertaking should only be subject to market risk that is unavoidable in practice'. Whilst we understand the theory behind this, we believe it may present significant practical difficulties for (re)insurance undertakings. We would ask CEIOPS to consider whether this level of complexity is appropriate and whether further guidance could be provided.	Noted. The issue is covered by the CP on simplifications.
128.	Legal & General Group	3.35.	See response to 3.130 (assumption 4)	Noted.
129.	Lucida plc	3.35.	The assumption that the reference undertaking would be averse to market risk is contrary to the evidence of market practice for annuity business. Theoretically, with a large amount of longevity risk, an insurer should definitely have an appetite for market risk as the two risks are not perfectly correlated and so risk premiums can be earned at a lower cost. In addition, the illiquid nature of annuity liabilities means that an additional investment return can be obtained by investing in illiquid assets to take advantage of any liquidity premium.	Noted. The intention of the assumption regarding market risk is to simplify the calculations.
130.	PricewaterhouseCoopers LLP	3.35.	"Unavoidable market risk" Assumption 4 in Paragraph 3.35 states: "The reference undertaking should only be subject to market risk that is unavoidable in practice." We accept the principle that an allowance should be made in the framework for market risk to the extent that the market risk is non-hedgeable. Further, we agree with paragraph 3.39 that the reference undertaking can be assumed to hold assets which minimise the market risk as this is consistent with the transfer value measurement articulated in Article 75 of the Level 1 text.	Noted. The discussion of this issue is amended in the final version of CP42.

			However, it is not clear to us what the definition of "unavoidable" is and how this relates to the "deep, liquid and transparent" financial market concept used in the best estimate liabilities (as defined in Consultation Paper 39). Paragraph 3.41 provides examples where there are no long dated markets from a recent CRO Forum publication. In such circumstances, in the best estimate liability following Consultation Paper 39 there is a requirement for prudent, objective and reliable corrections for distortions [CP39.3.260] and to do something "appropriate" and in line with Level 1 text [CP39.3.261]. Further, in the application of extrapolation techniques in an economic coherent manner there is likely to be an implicit allowance for the market price of risk captured in the best estimate liability. Therefore there is a risk of double counting the exposure allowance in the technical provisions unless there is a clear definition of "unavoidable." This may also apply to an extent in the use of statistical techniques for non-observable parameters (e.g. correlations and property volatilities) used in stochastic asset models to determine the best estimate liability. We agree with paragraph 3.46 that the allowance should be practical, proportionate and reflect materiality. However, there is no established basis for calculating the allowance and as noted above a significant risk of double counting the exposure. A simple approach as used in QIS3 could be considered provided it is representative of the exposure. We recommend the selected method is tested before a final decision is made. We also recommend that the Level 2 text describes the principles in allowing for "unavoidable market risk" with further guidance at Level 3 over the calculation method to ensure a consistent approach is applied across the industry. This comment relates to 3.36 – 3.47	This issue is elaborated further in the CP on simplifications.
131.	Pricewaterho	3.36.	See comments under 3.35	Noted.

	useCoopers LLP			
132.			Confidential comment deleted.	
133.	DIMA (Dublin International Insurance & Management	3.37.	The de-risking of assets is very complex process where the assets have to be made free from capital requirements linked to them. For original undertakings this may not be possible, however for reference undertakings this is hypothetically possible. In case of real life transfer of technical reserves it is not possible for recipient undertakings to de-risk all assets matching the business transfer liabilities.	Noted. The intention of the assumption regarding market risk is to simplify the calculations.
134.	KPMG ELLP	3.37.	It will be difficult to assess the liquidity in these different markets, especially since it is assumed that all transaction will take place simultaneously immediately after transfer.	Noted.
135.	PricewaterhouseCoopers LLP	3.37.	See comments under 3.35	Noted.
136.	RBS Insurance	3.37.	We agree with the assumption that in stressed circumstances the reference undertaking would de-risk its assets in order to reduce the part of the SCR related to market risk, and therefore support this suggestion.	Noted.
137.	AAS BALTA	3.38.	We agree strongly with this point	Noted.
138.	AB Lietuvos draudimas	3.38.	We agree strongly with this point	Noted.
139.	Association of British Insurers	3.38.	We welcome the pragmatic assumption made in this paragraph.	Noted.
140.	European Insurance CFO Forum	3.38.	The CFO Forum supports the points made in this paragraph.	Noted.

141.	Link4 Towarzystwo Ubezpieczeń SA	3.38.	We agree strongly with this point	Noted.
142.	NORWAY: Codan Forsikring (Branch Norway) (991 502	3.38.	We agree strongly with this point	Noted.
143.	PricewaterhouseCoopers LLP	3.38.	See comments under 3.35	Noted.
144.	RSA Insurance Group PLC	3.38.	We agree strongly with this point	Noted.
145.	RSA Insurance Ireland Ltd	3.38.	We agree strongly with this point	Noted.
146.	RSA - Sun Insurance Office Ltd.	3.38.	We agree strongly with this point	Noted.
147.	SWEDEN: Trygg-Hansa Försäkrings AB (516401-7799)	3.38.	We agree strongly with this point	Noted.
148.	Pricewaterho	3.39.	See comments under 3.35	Noted.

	useCoopers LLP			
149.	CEA, ECO-SLV-09-437	3.40.	In CP40, Ceiops requires the discount rate to be highly liquid for all maturities and to have realism (3.8). The suggestion made in this paragraph – that it may not be possible to match the cash flows completely – and the example of cash flows with very long term durations, highlights the difficulties that companies will face if Ceiops adopts a risk-free definition that is not realistic i.e. one for which there is not a ready supply of assets that can be used to hedge liabilities.	Noted. See the discussions on this issue in CP 40.
150.			Confidential comment deleted.	
151.	Groupe Consultatif	3.40.	Market risk is not necessarily totally avoidable if assets can be completely de-risked. Rather, market risk is completely reduced if the cash flows of assets and liabilities – seen in combination – do not depend on market risk factors anymore.	Noted.
152.	Pearl Group Limited	3.40.	'If the insurance obligations have a very long duration, it may not be possible to match the cashflows completely' - This not consistent with CP 40 where CEIOP recommends that the discount rate should be highly liquid for all maturities (3.10) and should be realistic (3.8).	Noted. See the discussions on this issue in CP 40.
153.	PricewaterhouseCoopers LLP	3.40.	See comments under 3.35	Noted.
154.	ROAM – Draft V2	3.40.	In CP 40 CEIOPS defines that the discount rate should be highly liquid for all maturities and should have realism (3.8). Therefore the suggestion made that it may not be possible to match the cash flows completely, and the example of cash flows for very long term durations, is not fully consistent.	Noted. See the discussions on this issue in CP 40.

155.	Unum Limited	3.40.	‘If the insurance obligations have a very long duration, it may not be possible to match the cashflows completely’ - This not consistent with CP 40 where CEIOP recommends that the discount rate should be highly liquid for all maturities (3.10) and should be realistic (3.8).	Noted. See the discussions on this issue in CP 40.
156.	Association of British Insurers	3.41.	See the comments under Para 3.47	Noted.
157.	CEA, ECO-SLV-09-437	3.41.	See the comments to Para 3.40.	Noted.
158.	German Insurance Association – Gesamtverband der D	3.41.		–
159.	Groupe Consultatif	3.41.	We agree that there are elements of non-diversifiable market risk which cannot in practice be hedged. This does not however necessarily mean that such ‘unavoidable market risk’ must necessarily be included in the calculated risk margin. Instead it usually is possible to develop a hypothetical market risk margin by reference to comparable margins in respect of similar hedgeable risks. As noted in our comments on CP41, it is better to have regard to this than not to take account of market information at all.	Noted. This issue is elaborated further in the CP on simplifications.
160.	Pearl Group Limited	3.41.	We are concerned with the inclusion of market risk within the risk margin calculation: 1) Any transfer of liabilities will include a transfer of assets. Under QIS4 the market risk associated with these assets was excluded.	Noted.

			We believe that this is correct on the basis that the market risks are deemed as hedge-able. However, what this does not capture is the interaction of the risks across the asset and liability book. This interaction is a key function of insurance and should be allowed for within the risk margin. If not, there would be an implicit transfer of profit to the reference entity which in an efficient market would not be the case, i.e. the transfer value would be overstated. An approximate way to calculate the interaction of the asset and liability book, whilst at the same time avoiding a capture of the hedge-able market risk is to apply pro-rata the diversification benefit calculated under the standard SCR calculation to the SCR used for the risk margin (where market risk is excluded). This would give the correct balance of risk margin for a transfer to a reference entity. 2) Including a subset of market risks will introduce an extra layer of complexity that appears in-appropriate for this calculation. The correlation factors between the subset of market risks and the other risks within the SCR calculation will need to be derived. It would be inappropriate to use the current correlation factors which look at the relationship between all of the market risks and the underwriting risks. An appropriate way forward is to exclude market risk capital completely subject to 1) above.	However, this approach/proposal is likely to make the calculations more complex.
			CEIOPS have not really defined what they mean by unavoidable market risk and how the risk margin in respect of this should be calculated. The examples of unavoidable market risk are the examples of non-hedgeable financial risks given by the CRO forum in Appendix A of their paper. There is a very real danger that what CEIOPS is proposing will result in double counting.	Noted. This issue is elaborated further in the CP on simplifications
			We would like to highlight the danger of double counting.	Noted.

161.	PricewaterhouseCoopers LLP	3.41.	See comments under 3.35	Noted.
162.	PricewaterhouseCoopers LLP	3.42.	See comments under 3.35	Noted.
163.	AAS BALTA	3.43.	In the context of non-life insurance liabilities the allowance for “unavoidable” market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	Noted. See para 3.45. There is no double counting of market risk involved here.
164.	AB Lietuvos draudimas	3.43.	In the context of non-life insurance liabilities the allowance for “unavoidable” market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
165.			Confidential comment deleted.	
166.			Confidential comment deleted.	
167.	CRO Forum	3.43.	Please refer to our comments in paragraph 3.47.	Noted.
168.	Groupe Consultatif	3.43.	CP 42 3.43 suggests that market risk can be reduced using corporate bonds. The choice of the risk-free interest rate (in CP 40) clearly indicates that CEIOPS considers the reference market to consist of top-rated government bonds only. We suggest that CEIOPS is very clear with respect to the reference market: Either it consists of (some or all) government bonds only and then market risk can only be hedged away or avoided by dynamically replicating using the same government bonds, or the	Noted.

			reference market can consist of financial instruments other than government bonds, but then the discount rate needs to be defined consistently. In the latter case, the further complication is that if different instruments in the reference market have different interest rates, then the resulting interest rate depends on the insurance liability to be valued.	
169.	Link4 Towarzystwo Ubezpieczeń SA	3.43.	In the context of non-life insurance liabilities the allowance for "unavoidable" market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
170.	NORWAY: Codan Forsikring (Branch Norway) (991 502	3.43.	In the context of non-life insurance liabilities the allowance for "unavoidable" market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
171.	PricewaterhouseCoopers LLP	3.43.	See comments under 3.35	Noted.
172.	RSA Insurance Group PLC	3.43.	In the context of non-life insurance liabilities the allowance for "unavoidable" market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
173.	RSA Insurance Ireland Ltd	3.43.	In the context of non-life insurance liabilities the allowance for "unavoidable" market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.

174.	RSA - Sun Insurance Office Ltd.	3.43.	In the context of non-life insurance liabilities the allowance for "unavoidable" market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
175.	SWEDEN: Trygg-Hansa Försäkrings AB (516401-7799)	3.43.	In the context of non-life insurance liabilities the allowance for "unavoidable" market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
176.	Association of British Insurers	3.44.	CEIOPS does not include in their assessment that market risk for certain life insurance products can be transferred to the policyholder (for example unit linked) or will have an impact on profit sharing features.	Noted. The issue regarding unavoidable market risk is elaborated further in the CP on simplifications.
177.	Belgian Coordination Group Solvency II (Assuralia/	3.44.	As in practice, the liability cash flows can only be replicated on best estimate level, consequently there will always be an unavoidable mismatch with the actual cash flows (even in Non-Life or short term Life, and especially for portfolios with volatile payment patterns). We would suggest that in such cases, the cost of the market risk SCR can indeed be neglected in the risk margin calculation but only if it is immaterial.	Noted.
178.	CEA, ECO-SLV-09-437	3.44.	Ceiops does not include in their assessment that market risk for certain life insurance products can be transferred to the policyholder such as for unit linked-type products or those with profit sharing features.	See the resolution regarding comment no. 176.
179.	CRO Forum	3.44.	This paragraph is unclear and is difficult to understand what is meant by "replicate the liability cash-flows on best estimate level.	Noted.
180.	Dutch Actuarial	3.44.	The stated definition for the basis of calculating this margin for unavoidable risk is the SCR for market risk following the standard	Noted. (It is assumed that the

	Society – Actuarieel Genootschap (		formula assuming investments in a risk minimizing portfolio. Given the simplification of the market risk quantification under the standard formula (eg limited interest rate shocks) it will be fair to say that actual unavoidable market risks will likely be higher; internal model results of the SCR calcs using the same investments would confirm this. Will those companies that have approved internal models be allowed/required to use their own numbers as a basis or the standard formula results? Allowing these firms to use the standard model results will probably lead to lower margins. Once the standard formula will also capture interest rate volatility, it will be unlikely (particular for life firms) that the SCR for market risk can be reduced to zero. This means that all companies will need to find a market risk minimizing asset portfolio which can be burdensome.	stakeholder is in favour of simplifying by disregarding the unavoidable market risk.) The issues concerning internal models should be solved in the context of the approval process.
181.	Groupe Consultatif	3.44.	This section is not contributing to clarity. It is not true that it is necessarily sufficient to replicate the expected cash flow only to reduce the market risk SCR to zero for insurance liabilities that contain options that depend on financial market risk parameters.	Noted.
182.	Just Retirement Limited	3.44.	For reasons of proportionality and consistency with the next paragraph we would suggest replacing "zero" with "to an immaterial level"	Agreed.
183.	Pearl Group Limited	3.44.	CEIOPS does not include in their assessment that market risk for certain life insurance products can be transferred to the policyholder (for example unit linked) or will have an impact on profit sharing features.	See the resolution regarding comment no. 176.
184.	PricewaterhouseCoopers LLP	3.44.	See comments under 3.35	Noted.
185.	AMICE	3.45.	See comment to paragraph 3.47	Noted.
186.			Confidential comment deleted.	

187.	Belgian Coordination Group Solvency II (Assuralia/	3.45.	See 3.44.	Noted.
188.	CRO Forum	3.45.	We agree with this paragraph.	Noted.
189.	European Insurance CFO Forum	3.45.	The CFO Forum supports the point made in this paragraph	Noted.
190.	Groupe Consultatif	3.45.	It is not necessary to state this. There are also short term life liabilities with substantial unavoidable market risk. The stated definition for the basis of calculating this margin for unavoidable risk is the SCR for market risk following the standard formula assuming investments in a risk minimizing portfolio. Given the simplification of the market risk quantification under the standard formula (eg limited interest rate shocks) it will be fair to say that actual unavoidable market risks will likely be higher; internal model results of the SCR calcs using the same investments would confirm this. Will those companies that have approved internal models be allowed/required to use their own numbers as a basis or the standard formula results? Allowing these firms to use the standard model results will probably lead to lower margins. Once the standard formula will also capture interest rate volatility, it will be unlikely (particular for life firms) that the SCR for market risk can be reduced to zero. This means that all companies will need to find a market risk minimizing asset portfolio which can be burdensome.	Noted. The intention of the assumption/ statement regarding unavoidable market risk in non-life insurance is to simplify the calculations. (It is assumed that the stakeholder is in favour of simplifying by disregarding the unavoidable market risk.) The issues concerning internal models should be solved in the context of the approval process for such models.
191.	KPMG ELLP	3.45.	We agree with the comment that non-life insurers typically have a short-term liability profile, and therefore the market risk SCR, in the context of the risk margin calculation, should be zero. However,	Noted. The intention of the assumption/

			Periodical Payments (annuities) on bodily injury claims in non-life insurance could generate market risk.	statement regarding unavoidable market risk in non-life insurance is to simplify the calculations.
192.	Lloyd's	3.45.	We agree with the comment that non-life insurers typically have a short-term liability profile, and therefore the market risk SCR, in the context of the risk margin calculation, should be zero.	Noted.
193.	PricewaterhouseCoopers LLP	3.45.	See comments under 3.35	Noted.
194.	CEA, ECO-SLV-09-437	3.46.	We note that the treatment in QIS3, in which market risk was captured in the calculation by allowing for the current market risk SCR in the first year but not any of the following years of the SCR projection, contradicts Para 3.38.	Noted.
195.	DIMA (Dublin International Insurance & Management	3.46.	We welcome CEIOPS' recognition that there is a need for a proportionate approach to the calculation of risk margins for market risks and look forward to the further advice on simplifications. In this regard DIMA would advocate a bias towards achieving the risk margin through margins in the valuation assumptions as opposed to direct calculation methods. In particular, the modelling error or simplifications required to achieve a direct calculation may in and of themselves create more uncertainty than they resolve.	Noted. Not agreed. The proposal is not in line with Article 76(4) of the Level 1 text.
196.	European Insurance CFO Forum	3.46.	Comments in 3.129 are also relevant here.	Noted.
197.	FFSA	3.46.	FFSA would like to have clarifications on the following point "allowance for market risk should be done in a practicable and proportionate way with particular consideration of its materiality".	Noted. The phrase referred to expresses the proportionality principle with other words.
198.	Pricewaterho	3.46.	See comments under 3.35	Noted.

	useCoopers LLP			
199.	AAS BALTA	3.47.	In the context of non-life insurance liabilities the allowance for "unavoidable" market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
200.	AB Lietuvos draudimas	3.47.	In the context of non-life insurance liabilities the allowance for "unavoidable" market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
201.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	3.47.	Without figures we cannot really answer the question. We suggest that the question should be reported on QIS5. However, we believe that the older approach was sound in its approach.	Noted.
202.	AMICE	3.47.	We suggest not calculating market risk for non life and short-term life insurance, as envisaged in paragraph 3.45. For long-term life insurance, the unavoidable market risk should be calculated in a simple way to avoid complexity when segmenting the cash flows according to their duration.	Noted. Noted. See the CP on simplifications.
203.	Association of British Insurers	3.47.	There should be no duplication of market risk in the risk margin. We believe that CEIOPS have defined replicatable cahflows far too narrowly in CP 41 and so far too much falls to the risk margin. We	Noted. There is no duplication of market risk in the risk margin. The issue of unavoidable margin

			believe that in most cases unavoidable (or unhedgeable) market risk will be a small residual. We also believe that in most cases it would be disproportionally complex to require undertakings to explicitly allow for it in the risk margin in particular when they are not using internal models. For example, for a market consistent valuation of the With Profits fund using an economic scenario generator, some parts of the calibration would be in respect of "hedgeable market risk" and some parts would be in respect of "unavoidable market risk" (e.g. medium to long term implied volatilities calibrated to OTC derivatives). It is impossible to see how this could all be unpicked in practice and so under the CEIOPS approach this might require a risk margin on the whole business. Given that the asset prices already have a risk margin incorporated, then this will end up with a double count of the market risk.	risk is elaborated further in the CP on simplifications.
204.	ASSOCIATION OF FRIENDLY SOCIETIES	3.47.	We believe that the resulting addition of market risk to the Cost of Capital Risk Margins would for non linked liabilities create a disproportionate amount of work for a miniscule addition to the liabilities. We would have to project the matching assets and liabilities (from a collection of hypothetical assets that the firm does not own and would need to research in detail) not only for the year end but for every time period (most actuarial valuation systems work in months) for the future.	Noted. The issue of unavoidable margin risk is elaborated further in the CP on simplifications.
205.			Confidential comment deleted.	
206.	BARRIE & HIBBERT	3.47.	We believe there are two viable approaches to allow for "unavoidable" market risk that meet the requirements of the Directive: 1. The method outlined in CP42 paragraph 3.43. Presumably this method would be used in conjunction with a calibration to market prices where available (and "deep, liquid and transparent"?) and to best estimate prices elsewhere. This would be necessary if	Noted. The issue of unavoidable margin risk is elaborated further in the CP on simplifications.

			the risk margin calculation is to avoid the double count effect described in the QIS4 Technical Specification and repeated in CP41 paragraph 3.3. 2. Calibrating to all available “active market” information, whether the market is “deep, liquid and transparent” or thinly traded. The IASB (see footnote 1) and FASB (see footnote 2) have both adopted the same definition of an “active market” and it is wider than the “deep, liquid and transparent” criteria. In cases where information is not available from an active market then the valuation inputs should be calibrated to extrapolated market information that reflects the assumptions that market participants would use when pricing including assumptions about risk. Thus, in the absence of active market information the valuation would be calibrated to extrapolated or ‘pseudo’ prices with a explicit market risk margin. In this case it would not be necessary to calculate a risk margin for “unavoidable” market risk as the values produced will already include a market risk margin. This approach is similar to that adopted for QIS4 but with the added requirement that all market information used in the calibration, whether extrapolated or otherwise, must contain a market risk margin. A rich framework for generating economically coherent extrapolated prices containing explicit risk margins already exists. For example: ☐ Annex B CP-40 already makes reference to the B+H macroeconomic framework. As described in the our response to CP-40 the approach to setting a limiting assumptions for forward interest rates has four components: o A limiting long term real yield o A limiting long term inflation assumption o A convexity adjustment o A nominal term premium adjustment	

			The nominal term premium is a market risk margin and reflects the reward an investor requires for holding a longer term bond. Whilst we have assumed ultra long-term extrapolated forward interest rates contain a positive term premium, we ‘respect’ the term premium observable in long-term market rates in the extrapolation. It would be perfectly reasonable to make other, more conservative, assumptions. ☐ A similar feature exists in the extrapolation of prices (or model-implied volatilities) for equity index and interest rate options beyond the terms quoted by market participants. Typically we choose to use a model to generate long-term option pseudo prices and parameterize the model with volatility assumptions that implicitly include a risk margin. The excess of implied volatility over expected (‘realistic’, real-world) long term volatility represents the risk margin that option writers charge for their capital costs and the risks they bear in hedging option exposures (see footnote 3). It is useful to consider some of the implications of the two approaches since, where we are pricing market risks, the implicit cost of capital generated by a model can be very different to the fixed 6% assumption used for non-market risks. Estimates using a fixed assumption for the cost of capital could be very different to estimates derived using an economic approach. Worse still, the method outlined in CP42 paragraph 3.43 could, in principle, produce economically ‘impossible’ prices and (inadvertently) introduce bias and/or arbitrage into models and model results. Which method makes the best use of market information? 1. The IASB and FASB both recognize the value in using market information from markets other than “deep, liquid and transparent” markets (see footnote4). They concluded that the market prices that are available from thinly traded markets are still the most reliable evidence of fair value. In cases where prices have	

			to be extrapolated then the inclusion of a market risk margin means the resulting inputs to the valuation are consistent with market risk margins charged by market participants, again an approach supported by FASB and the IFRS. Using best estimate prices and a CP-42 risk margin does not use information available on the markets' risk margin. One of the stated aims of Solvency II is that it makes optimal use of the information provided by financial markets (see footnote5). 2. Using the markets' information increases the compatibility of Solvency II reporting with financial reporting. One of the stated aims of Solvency II is to limit the administrative burden placed on companies (see footnote6). 3. A consequence of using the risk margin approach to value unavoidable market risk is that companies who have hedged their market risk, e.g. by holding a replicating portfolio, may not gain the benefit of the hedge in their Solvency II reporting. The liability value will be calculated on a different basis to the value of the replicating assets. One of the expected consequences of Solvency II is that companies will seek to more actively manage their market risk. It would be unfortunate if the benefit of this activity was not evident in their Solvency II reporting. Numerical comparison of the market risk and the risk margin calculation approaches to valuing liabilities We have prepared an example of a simple liability to illustrate the relative effect of the two approaches. We considered a simple liability of a 1 year contract with €100 invested in equity units but with a guaranteed minimum maturity value of €100. Using best estimate assumptions we calculated the best estimate liability and a risk margin assuming that the market risk was unavoidable. We also calculated the technical provision using assumptions with a market risk margin in addition to the best	

			estimate values – in this case the values were assumed to be extrapolated on thinly traded markets. In this example we ignored risks other than market risk. For this simple liability we found the value of the liability using the risk margin calculation was lower than the equivalent figure based on the markets' implicit risk margin. By varying the strike price of the embedded option we obtained a series of values. For all the values we looked at the risk margin was lower than the equivalent market risk with the risk margin typically being, on average, over 30% below the market based approach. In the case of the furthest out-of-the-money option the risk margin value was only 10% of the market based approach. Full details of the assumptions and the basis of these calculations are described in an Insights article to be published on the B+H website (see footnote7). No doubt if a different term and volatility (for example) combination had been chosen for this example a very different relationship could have been obtained between the risk margin values and their market consistent equivalent. The key point is that, in pricing non-hedgeable market risks, it is not at all obvious what the appropriate cost of capital should be. Exposures which embed large positive exposures to market risk (e.g. written put options) will require quite different cost of capital assumptions to exposures which contain negative exposure. It is our view that using a model is the most efficient method for simultaneously estimating coherent prices and implicitly applying an appropriate cost of capital. This issue does not arise for exposures which do not contain market risk. The CP-42 risk margin does not appear to us to be a good way to value market risk. The insights provided by the analysis from the B+H article explains some of the difficulty the risk margin calculation experiences. For options the present value of best-estimate cash flows (using a risk-free rate) turns out to be quite different from the 'correct' option	

			value and so the risk margin calculation specified in CP-42 is only an approximate correction. There is a well established body of research in support of the market risk calculation. Comment on the practicality of the CP-42 approach to calculating the risk margin. We have two comments to make on the practicality of the proposed approach: 1. The proposed approach would require some calibration inputs to be based on market values and others to be based on best estimates. This will create a discontinuity in the outputs from the calibration e.g. the equity volatility surface. The discontinuity will occur when markets cease to be “deep, liquid and transparent”. The point of discontinuity will vary from company to company since the “deep, liquid and transparent” definition depends upon the volume of transaction that will impact on the quoted price. There will inevitably be a degree of judgment in setting the boundary of the “deep, liquid and transparent” market. If the market risk approach is adopted, using extrapolated market prices and thinly traded information as appropriate, there is no discontinuity. 2. The identification of the portfolio of assets with the lowest market risk SCR is a considerable exercise in other than trivial situations. Some form of process to calculate a replicating portfolio would appear to be required with the selection criteria of the portfolio being the value of the market risk SCR. The alternative of using the markets’ risk margin in the calibration is much more straightforward. In conclusion The proposed treatment of unavoidable market risk does not use all the information available from the market on pricing risk and would introduce a source of incompatibility between Solvency II and financial reporting standards.	

			There is a well developed framework of using market inputs to price market risk in situations where markets are not "deep, liquid and transparent". For a simple liability the market-based framework produces answers that are significantly different from the treatment proposed in CP-42. This is a difference that can also be expected to be present in valuing complex liabilities with embedded market risks. Finally, we see considerable practical difficulties in implementing the proposed approach. Footnotes: [1] Para 48 of the May 2009 ED on Fair Value Measurement [2] Para 24 of FAS 157 [3] See for example our research notes 'A comparison of realised and expected volatility', April 2009 and 'Understanding the "Fairness" of FTSE Index Option Pricing', April 2003. [4] See for example the discussion in FAS 157 and the May 2009 Exposure Draft on Fair Value Measurement from the IASB [5] Solvency II Directive, Recitals, para 27 [6] Solvency II Directive, Recitals, para 28 [7] www.barrhibb.com "Understanding the market risk margin in option prices", September 2009	
207.	Belgian Coordination Group Solvency II (Assuralia/	3.47.	As mentioned in the comment of para 3.44, we do not agree to include the unavoidable market risk in the calculation of the risk margins.	Noted.
208.	CEA,	3.47.	The requirement to calculate unavoidable market risk in the risk	Noted.

	ECO-SLV-09-437		margin could result in excessive complexity. Conceptually, unavoidable market risk should be included in the risk margin to the extent that it is non-hedgeable. However, this will require undertakings to carry out disproportionally complex calculations even though we expect that in most cases unavoidable market risk will be residual. Therefore, we believe that unavoidable market risk should not be explicitly allowed for in Pillar 1, in particular when the insurer is not using an internal model.	The issue of unavoidable margin risk is elaborated further in the CP on simplifications.
209.	CRO Forum	3.47.	“Question to stakeholders: Regarding the treatment of market risk in the risk margin, CEIOPS is proposing a substantial change compared to QIS4. Stakeholders are asked to comment in particular on the conceptual soundness of the proposal and its implications on the size of the risk margin. Moreover, comments in order to ensure a practicable inclusion of market in the risk margin are welcomed.” Non-hedgeable market risk can be an important risk for some companies depending on their business profile (e.g. long dated liabilities and guarantees) and the markets (e.g. emerging markets) in which they operate. Certainly, it is our opinion that any company that takes on significant amounts of this risk should be able to make a self-assessment of their exposure to it, but we note that there are difficulties in trying to accurately assess this risk. There is a high degree of complexity involved in attempting to accurately separate the hedgeable and non-hedgeable market risk components in the calculation of the Best Estimate Liability- and the methods are not practical and not available to all (re)insurers. It is also not certain whether an accurate separation can actually be performed and to ensure double-counting is not occurring (see our example below on the calibration of Economic Scenario Generators which describes how the economic scenarios used by (re)insurers	Noted. The issue of unavoidable margin risk is elaborated further in the CP on simplifications.

			to calculate their Best Estimate Liability contain elements of non-hedgeable market risks already). There is also a need to be aware that the capital requirements – through the market risk shocks – also take non-hedgeable market risks to some extent. For example, a life insurer with very long-term liabilities exposed to market risk would have a larger interest rate SCR than one with shorter liabilities. Given the complexity and immaturity of the techniques required to measure non-hedgeable market risks, the non-availability of the techniques to all (re)insurers, and evidence of some allowance of non-hedgeable market risk in the valuation and capital requirements already, we propose that non-hedgeable market risks be excluded from the Risk Margin under Pillar 1. We do however believe this can be an important risk for some (re)insurers and therefore all (re)insurers should be made to assess this risk as part of the ORSA in Pillar 2. For reasons of harmonisation, and to ensure that companies where this risk is significant make more than a qualitative assessment, some guidance should be set in the implementing measures on the methods or tests that can be used to gauge whether the risk is significant. Companies with significant risk should demonstrate how it is being managed. The CRO Forum is available to support CEIOPS in interpreting and determining a way to further deal with the complex matter of non-hedgeable market risks. Example – Economic Scenario Generation: The economic scenarios used by (re)insurers to calculate their technical provisions contain elements of non-hedgeable market risks which therefore implies that there may be double counting if an adjustment for non-hedgeable market risks were to be included also in the Risk Margin. In calibrating Economic Scenario Generators (ESGs) market data	

			such as swaption and equity option prices are used to calibrate interest rate volatility and equity volatility. Taking the equity option implied volatility as an example, there might be liquid data to 3 a year term and then indicative price data to 10 years. Thereafter no reliable market exists. When calibrating ESG models there needs to be some input describing the longer term equity option implied volatility. Therefore the ESG will typically extrapolate the equity implied volatility to where the market could be expected to trade if a liquid market in long term options existed. In doing this it is typical for the calibration to contain a loading in excess of the best-estimate volatility because implied volatilities are generally upwardly biased estimates of best-estimate volatility - typically by a factor of 1.2. By having to add a risk margin for implied volatility beyond 3-10 years (depending on where we believe the liquid market ends) we will end up adding two extra margins on to the best estimate liability. If we were to try and strip out the implied volatility margin from the equity implied volatility we input to the ESG model we would end up with a discontinuity in the curve at the boundary between the liquid and non-liquid market which would be difficult to fit to a model without introducing arbitrage. Therefore in practice some double counting seems inevitable as the last liquid implied volatility point is extrapolated down to the long term best estimate value. There are many other non-hedgable risks in a typical ESG calibration, not least almost all the correlations that are used therein, long term interest rates and any estimate of property volatility. It is understandable why this CP tries to capture the market risk but splitting the economic risk between the ESG calibration and the Risk Margin could be quite messy. It could be easier for management to understand their market risk assumptions if all their market risk assumptions are in one part of the model and any extra margins, if any, are added in the ESG calibration	

			assumptions.	
210.	DIMA (Dublin International Insurance & Management	3.47.	We are supportive of the concept of unavoidable risk. In having regard to proportionate response or alternatives for simplification we would advocate that CEIOPS has regard not just to the market risk component of the risk margin but also of the total risk margins as compared to the total technical provisions.	Noted.
211.	Dutch Actuarial Society – Actuarieel Genootschap (	3.47.	We support the reflection of unavoidable market risk in the calculation of the risk margin. However, it will require the market risk to be split into an avoidable and an unavoidable part by trying to find the minimum risk investment portfolio which for smaller companies will not be easy. We would advise that companies would also be allowed to argue that no material unavoidable market risk exists in their portfolio given its characteristics relative to the assets available to the company. Burden of proof would remain with the insurer.	Noted. The issue of unavoidable margin risk is elaborated further in the CP on simplifications.
212.	European Insurance CFO Forum	3.47.	Response to CEIOPS' question to stakeholders on the treatment of market risk in the risk margin. The CFO Forum believes that unavoidable market risk should be allowed for in Pillar II rather than in Pillar I. This is commented on further in 3.130.	Noted. The issue of unavoidable margin risk is elaborated further in the CP on simplifications.
213.	European Union member firms of Deloitte Touche To	3.47.	We support CEIOPS' approach of taking unavoidable market risk into account in the risk margin. We however have concerns regarding some of the arguments that are given for the specifics of the calculation of unavoidable market risk. These are ☐ Unavoidable market risk can not per se be reduced using corporate bonds or government bonds without a clear definition of which financial instruments can be used to replicate the insurance liability cash flows. ☐ Avoidable market risk is not necessarily reduced maximally by replicating expected cash flows only	Noted. The issue of unavoidable margin risk is elaborated further in the CP on simplifications.

			☐ Short term liabilities might also have material unavoidable market risk	
214.	FFSA	3.47.	See 3.130	Noted.
215.			Confidential comment deleted.	
216.	Groupe Consultatif	3.47.	Unavoidable market risk ☐ CEIOPS draws the attention of participants to the new treatment that has been proposed for considering market risks in the calculation of risk margin. CEIOPS asks also for comments regarding the pertinence of the concept of an unavoidable market risk, its impact on the risk margin value and the capacity to put it into practice. ☐ Theoretically, the market risk is already included in the asset market price; the calculation of the risk margin has to reflect only the liability risk in order to avoid double counting. ☐ Conceptually, the perfect replication of liability cash flows is never possible, also for short-term contracts; the total diversification market risk assumption is not more realistic for those contracts than long-term contracts aimed by CEIOPS. ☐ The measure of the market risk seems impossible to put into practice ☐ CEIOPS does not give any clue about how to apply the concept in the case of contracts that include profit sharing with policyholders (situation where the minimisation assumption of market risk by the entity reference is not relevant enough) ☐ The assumption of market risk total diversification (which leads to not considering market risks) is an acceptable simplification. ☐ The new treatment which is proposed implies a divergence	Noted. The issue of unavoidable margin risk is elaborated further in the CP on simplifications.

			risk with IFRS principles. Evaluation of risk margins per branch and diversification effects ☐ Two approaches are possible for the branch allocation of risk margins: 1. Top down approach : calculation at the entity level and then reallocation (which allows consideration of diversification risks) 2. Bottom up approach : calculation per branch and then summation (which avoids diversification effects) ☐ The approach recommended by the CEIOPS seems to be a bottom up approach while some insurers deal usually with a top down approach. The absence of taking into account diversification effects between branches creates a link between the risk margin and the minimum level of provision segmentation per branch (thin segmentation mentioned by the CEIOPS in CP 27 : according to current distinctions of the CEIOPS, the life representation would be displayed into 12 or 16 sub-modules leading to rejecting a large part of diversification effects) We fully support CEIOPS approach of taking truly unavoidable market risk into account in the risk margin. We have however concerns regarding some of the arguments that are given for the specifics of the calculation of unavoidable market risk. To reiterate, our concerns are ☐ Unavoidable market risk can not per se be reduced using corporate bonds or government bonds without clear definition of which financial instruments can be used to replicated the insurance liability cash flows. ☐ Avoidable market risk is not necessarily reduced maximally by replicating expected cash flows only	

			Also short term liabilities might have material unavoidable market risk We support the reflection of unavoidable market risk in the calculation of the risk margin. However, it will require the market risk to be split into an avoidable and an unavoidable part by trying to find the minimum risk investment portfolio which for smaller companies will not be easy. We would advise that companies would also be allowed to argue that no material unavoidable market risk exists in their portfolio given its characteristics relative to the assets available to the company. Burden of proof would remain with the insurer.	
217.	Institut des actuaires (France)	3.47.	Unavoidable market risk ☐ The CEIOPS draws the attention of participants to the new treatment that has been proposed for considering market risks in the calculation of risk margin. The CEIOPS asks also for comments regarding the pertinence of the concept of an unavoidable market risk, its impact on the risk margin value and the capacity to put it into practice. ☐ Theoretically, the market risk is already included in the asset market price; the calculation of the risk margin has to reflect only the liability risk in order to avoid double counting. ☐ Conceptually, the perfect replication of liability cash flows is never possible, also for short-term contracts; the total diversification market risk assumption is not more realistic for those contracts than long-term contracts aimed by the CEIOPS. ☐ The measure of the market risk seems impossible to put into practice ☐ The CEIOPS does not give any clue about how to apply the concept in the case of contracts that include profit sharing with policyholders (situation where the minimisation assumption of	Noted. The issue of unavoidable margin risk is elaborated further in the CP on simplifications. (This comment is identical to comment no. 216.)

			market risk by the entity reference is not relevant enough) ☐ The assumption of market risk total diversification (which leads to not considering market risks) is an acceptable simplification. ☐ The new treatment which is proposed implies a divergence risk with IFRS principles. Evaluation of risk margins per branch and diversification effects ☐ Two approaches are possible for the branch allocation of risk margins: 1. Top down approach : calculation at the entity level and then reallocation (which allows consideration of diversification risks) 2. Bottom up approach : calculation per branch and then summation (which avoids diversification effects) ☐ The approach recommended by the CEIOPS seems to be a bottom up approach while some insurers deal usually with a top down approach. ☐ The absence of taking into account diversification effects between branches creates a link between the risk margin and the minimum level of provision segmentation per branch (thin segmentation mentioned by the CEIOPS in CP 27 : according to current distinctions of the CEIOPS, the life representation would be displayed into 12 or 16 sub-modules leading to rejecting a large part of diversification effects)	
218.	International Underwriting Association of London	3.47.	We also note that the inclusion of Market Risk within the Risk Margin is a departure from QIS 4. We fear this could be unduly onerous to implement. The Risk Margin calculation should not become overly complex.	Noted.
219.	Investment	3.47.	We believe that the resulting addition of market risk to the Cost of	Noted.

	& Life Assurance Group (ILAG)		Capital Risk Margins would for non linked liabilities create a disproportionate amount of work for a miniscule addition to the liabilities. We would have to project the matching assets and liabilities (from a collection of hypothetical assets that the firm does not own and would need to research in detail) not only for the year end but for every time period (most actuarial valuation systems work in months) for the future.	The issue of unavoidable margin risk is elaborated further in the CP on simplifications.
220.	KPMG ELLP	3.47.	Most companies found the current Cost of Capital calculations for QIS 4 technically challenging, time consuming and open to interpretation and error. Additionally allowing for market risk, even if it will increase the accuracy of the underlying theory, would increase the complexity of the calculations even further.	Noted.
221.	Legal & General Group	3.47.	See response to 3.130 (assumption 4)	Noted.
222.	Link4 Towarzystwo Ubezpieczeń SA	3.47.	In the context of non-life insurance liabilities the allowance for “unavoidable” market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
223.	Lloyd’s	3.47.	We agree with the proposals regarding the treatment of market risk within the risk margin calculation. We note that the proposed change from QIS4 would have no effect on non-life insurers.	Noted.
224.	NORWAY: Codan Forsikring (Branch Norway) (991 502	3.47.	In the context of non-life insurance liabilities the allowance for “unavoidable” market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
225.	Pearl Group	3.47.	We are concerned with the inclusion of market risk within the risk	Noted.

	Limited		margin calculation: 1) Any transfer of liabilities will include a transfer of assets. Under QIS4 the market risk associated with these assets was excluded. We believe that this is correct on the basis that the market risks are deemed as hedge-able. However, what this does not capture is the interaction of the risks across the asset and liability book. This interaction is a key function of insurance and should be allowed for within the risk margin. If not, there would be an implicit transfer of profit to the reference entity which in an efficient market would not be the case, i.e. the transfer value would be overstated. An approximate way to calculate the interaction of the asset and liability book, whilst at the same time avoiding a capture of the hedge-able market risk is to apply pro-rata the diversification benefit calculated under the standard SCR calculation to the SCR used for the risk margin (where market risk is excluded). This would give the correct balance of risk margin for a transfer to a reference entity. 2) Including a subset of market risks will introduce an extra layer of complexity that appears in-appropriate for this calculation. The correlation factors between the subset of market risks and the other risks within the SCR calculation will need to be derived. It would be inappropriate to use the current correlation factors which look at the relationship between all of the market risks and the underwriting risks. An appropriate way forward is to exclude market risk capital completely subject to 1) above. CEIOPS have not really defined what they mean by unavoidable market risk and how the risk margin in respect of this should be calculated. The examples of unavoidable market risk are the examples of non-hedgeable financial risks given by the CRO forum in Appendix A of their paper. There is a very real danger that what	The issue of unavoidable margin risk is elaborated further in the CP on simplifications.

			CEIOPS is proposing will result in double counting.	
226.	PricewaterhouseCoopers LLP	3.47.	See comments under 3.35	Noted.
227.	RBS Insurance	3.47.	We agree with the proposed change because we believe undertakings would de-risk their assets in practice.	Noted.
228.	ROAM – Draft V2	3.47.	We suggest not calculating market risk for non life and short life insurance, as envisaged in paragraph 3.45. For long-term life insurance, the unavoidable market risk should be calculated in a simple way to avoid complex segmentation of cash flows according to their duration.	Noted. The issue of unavoidable margin risk is elaborated further in the CP on simplifications.
229.	RSA Insurance Group PLC	3.47.	In the context of non-life insurance liabilities the allowance for “unavoidable” market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
230.	RSA Insurance Ireland Ltd	3.47.	In the context of non-life insurance liabilities the allowance for “unavoidable” market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
231.	RSA - Sun Insurance Office Ltd.	3.47.	In the context of non-life insurance liabilities the allowance for “unavoidable” market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
232.	SWEDEN: Trygg-Hansa Försäkrings AB (516401-	3.47.	In the context of non-life insurance liabilities the allowance for “unavoidable” market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be	See the resolution regarding comment no. 163.

	7799)		avoided.	
233.	Unum Limited	3.47.		–
234.	CRO Forum	3.48.	"Assumption 5: The SCR of the reference undertaking consists of: (a) underwriting risk with respect to the transferred insurance and reinsurance obligations; (b) counterparty default risk with respect to ceded reinsurance and SPVs; (c) operational risk; and (d) unavoidable market risk." Please see our comments in response to paragraph 3.47.	Noted.
235.	European Insurance CFO Forum	3.48.	Comments in 3.130 are also relevant here.	Noted.
236.	Legal & General Group	3.48.	See response to 3.130 (assumption 4)	Noted.
237.	Lloyd's	3.48.	See comment in 3.54 regarding the operational risk element of the SCR by line of business.	Noted.
238.	AAS BALTA	3.49.	It seems to us difficult how to assess the level of operational risk present in an empty reference entity, particularly if an internal model is being used to determine operational risk capital requirements. Further allocating operational risk calculated using an internal model will be hard to allocate to line of business, a process only introduced by CEIOPS advice in CP 42	Noted. W.r.t. the standard formula: For reasons of simplicity the Op risk module should be applied per line of business. W.r.t. internal models: The issue should be treated as an integral part of the approval process.

239.	AB Lietuvos draudimas	3.49.	It seems to us difficult how to assess the level of operational risk present in an empty reference entity, particularly if an internal model is being used to determine operational risk capital requirements. Further allocating operational risk calculated using an internal model will be hard to allocate to line of business, a process only introduced by CEIOPS advice in CP 42	See the resolution regarding comment no. 238.
240.	Association of British Insurers	3.49.	CEIOPS have stated that it seems obvious to take counterparty default risk related to reinsurance contracts into account in the risk margin. This depends on assumptions 1&2. Otherwise it is not so obvious, e.g. the optimal reinsurance mix might change after the transfer. Also, it would seem difficult to assess the level of operational risk present in an empty reference entity, particularly if an internal model is being used to determine operational risk capital requirements. Further allocating operational risk separately to lines of business will be complicated where an internal model has been used to generate an entity wide operational risk charges, as this will include many complex interactions of risks that may not neatly divide. It is also likely to introduce significant duplication of the effects of an operational risk event. This is a process only introduced by CEIOPS advice in CP 42. We would recommend that CEIOPS accepts a large degree of pragmatism when allocating operational risk. In addition, it is fair to note that not all operational risks would follow the liabilities (e.g. risk of past misselling – does that follow the liabilities upon transfer or does it remain with the original entity?). Also, the treatment of counterparty default risk for financial derivatives appears inconsistent with the treatment for reinsurance. This may create regulatory arbitrage.	Noted. For reasons of simplicity it is assumed that the risk mitigations contracts are carried over to the reference undertaking. See also the resolution regarding comment no. 238. This simplification has been introduced for reasons of practicability.
241.			Confidential comment deleted.	

242.	CEA, ECO-SLV-09-437	3.49.	10. Ceiops have stated that it seems obvious to take counterparty default risk related to reinsurance contracts into account in the risk margin. This depends on assumptions 1&2. Otherwise it is not so obvious as, for example, the optimal reinsurance mix might change after the transfer.	Noted. For reasons of simplicity it is assumed that the risk mitigation contracts are carried over to the reference undertaking.
243.			Confidential comment deleted.	
244.	DIMA (Dublin International Insurance & Management	3.49.	To ensure an even-handed approach to counterparty risk, all risk mitigation contracts should be included.	Noted. The simplification regarding financial derivative contracts has been introduced for reasons of practicability.
245.	Groupe Consultatif	3.49.	This paragraph also discusses factors to be taken into account when projecting the future SCR and proposes that counterparty default risk should be taken into account with respect to ceded reinsurance, but not with respect to counterparties to financial derivative contracts. This appears a little inconsistent and could lead to the promotion of mortality swap agreements ahead of reinsurance cover. Our view is that counterparty risk should be included for both situations.	Noted. The simplification regarding financial derivative contracts has been introduced for reasons of practicability.
246.	KPMG ELLP	3.49.	Counterparty default risk on financial derivatives contracts is probably more material in the current economic context than the default risk on insurance risk mitigation contracts.	Noted. The simplification regarding financial derivative contracts has been introduced for reasons of practicability.
247.	Link4 Towarzystwo Ubezpieczeń	3.49.	It seems to us difficult how to assess the level of operational risk present in an empty reference entity, particularly if an internal model is being used to determine operational risk capital requirements. Further allocating operational risk calculated using	See the resolution regarding comment no. 238.

	SA		an internal model will be hard to allocate to line of business, a process only introduced by CEIOPS advice in CP 42	
248.	Milliman	3.49.	The wording in this paragraph is not clear. We assume that the concept of catastrophe risk from "pre-claims obligations" refers to the risk margin for non-life premium provisions.	Noted. (The comment concerns para 3.48.)
249.	NORWAY: Codan Forsikring (Branch Norway) (991 502	3.49.	It seems to us difficult how to assess the level of operational risk present in an empty reference entity, particularly if an internal model is being used to determine operational risk capital requirements. Further allocating operational risk calculated using an internal model will be hard to allocate to line of business, a process only introduced by CEIOPS advice in CP 42	See the resolution regarding comment no. 238.
250.	Pearl Group Limited	3.49.	It seems difficult how to assess the level of operational risk present in an empty reference entity, particularly if an internal model is being used to determine operational risk capital requirements. Further allocating operational risk calculated using an internal model will be hard to allocate to line of business, a process only introduced by CEIOPS advice in CP 42	See the resolution regarding comment no. 238.
251.	PricewaterhouseCoopers LLP	3.49.	Paragraph 3.49 states that for reasons of practicality it is assumed that the reference undertaking does not carry any risk of default of counterparties to financial derivative contracts. Given recent market events, in particular the failure of Lehman Bros, CEIOPS will need to rationalise this approach carefully.	Noted. The simplification regarding financial derivative contracts has been introduced for reasons of practicability.
252.	RSA Insurance Group PLC	3.49.	It seems to us difficult how to assess the level of operational risk present in an empty reference entity, particularly if an internal model is being used to determine operational risk capital requirements. Further allocating operational risk calculated using an internal model will be hard to allocate to line of business, a process only introduced by CEIOPS advice in CP 42	See the resolution regarding comment no. 238.
253.	RSA	3.49.	It seems to us difficult how to assess the level of operational risk	See the resolution regarding

	Insurance Ireland Ltd		present in an empty reference entity, particularly if an internal model is being used to determine operational risk capital requirements. Further allocating operational risk calculated using an internal model will be hard to allocate to line of business, a process only introduced by CEIOPS advice in CP 42	comment no. 238.
254.	RSA - Sun Insurance Office Ltd.	3.49.	It seems to us difficult how to assess the level of operational risk present in an empty reference entity, particularly if an internal model is being used to determine operational risk capital requirements. Further allocating operational risk calculated using an internal model will be hard to allocate to line of business, a process only introduced by CEIOPS advice in CP 42	See the resolution regarding comment no. 238.
255.	SWEDEN: Trygg-Hansa Försäkrings AB (516401-7799)	3.49.	It seems to us difficult how to assess the level of operational risk present in an empty reference entity, particularly if an internal model is being used to determine operational risk capital requirements. Further allocating operational risk calculated using an internal model will be hard to allocate to line of business, a process only introduced by CEIOPS advice in CP 42	See the resolution regarding comment no. 238.
256.	Association of British Insurers	3.50.	See comments under Para 3.130 (6)	Noted.
257.	CEA, ECO-SLV-09-437	3.50.	See the comments to Para 3.130 (6).	Noted.
258.	CRO Forum	3.50.	“Assumption 6: The loss absorbing capacity of technical provisions in the reference undertaking corresponds to those of the original undertaking.” We agree with assumption 6.	Noted.
259.	Groupe Consultatif	3.50.	It appears sensible that the loss absorbing capacity of technical provisions (including the ability of with-profit bonus rates to be	Noted.

			varied) should not be altered in the SCR calculations for the purpose of the risk margin compared to how it is allowed for in the "full" SCR.	
260.	AMICE	3.52.	CEIOPS writes in Assumption 7 that there is no loss absorbing capacity of deferred taxes related to the reference undertaking. Not taking into account the loss absorbing capacity of deferred taxes is too conservative. Indeed, it assumes that the entity to which the portfolio is transferred has no deferred taxes liabilities.	Not agreed. Assumption 7 is consistent with assumptions 1 and 2. Accordingly, a distinction should be made between the original undertaking and the reference undertaking w.r.t. the treatment of deferred taxes. Moreover, it should be stressed that taxation is a rather complex issue, due to different tax regimes across the EU/EEA. Trying to introduce loss absorbing capacity of deferred taxes would lead to ambiguous results.
261.	Association of British Insurers	3.52.	See comments under Para 3.130 (7)	Noted.
262.			Confidential comment deleted.	
263.	CEA, ECO-SLV-09-437	3.52.	See the comments to Para 3.130 (7).	Noted.
264.			Confidential comment deleted.	
265.	CRO Forum	3.52.	"Assumption 7: There is no loss absorbing capacity of deferred taxes related to the reference undertaking."	See the resolution regarding comment no. 260.

			We disagree with assumption 7. If this assumption were to hold there would be an inconsistency between SCRs in the risk margin calculation and the SCR itself. Furthermore, there would also be an inconsistency with assumption 4. In addition, Article 107 of the Solvency II directive states that "… for the loss-absorbing capacity of technical provisions and deferred taxes shall reflect potential compensation of unexpected losses through a simultaneous decrease in technical provisions or deferred taxes or a combination of both." As the technical provisions are the sum of the best estimate liabilities and the risk margin we would expect to take to take into account the loss absorbency capacity of deferred taxes. From an economic point of view, a portfolio that is transferred would still generate tax liabilities (because during the transaction the purchase price would be such that the portfolio generates positive net profits), and under a stressed situation the amount of those tax liabilities would be expected to be reduced, that is, absorb some of the impact of the stress. That is, the deferred tax asset created after a loss equal to the SCR will have real economic value in the reference entity. Proposed Assumption 7: There is loss absorbing capacity of deferred taxes in the reference undertaking.	Not agreed.
266.	European Insurance CFO Forum	3.52.	Comments in 3.130 are also relevant here.	Noted.
267.	KPMG ELLP	3.52.	We support the recommendation that there is no loss absorbing capacity of deferred taxes related to the reference undertaking. We note that there are several references to deferred taxes within	Noted.

			the CPs and it is important that these are consistent. In this respect, we note that CP 46 (para 3.195c) has not yet concluded on whether deferred tax assets should be excluded from own funds or should be classified as Tier 3 capital). We recommend that when a decision on this matter is taken, CEIOPS reviews all other CPs to ensure advice regarding deferred tax is consistently applied.	
268.	Legal & General Group	3.52.	See response to 3.130 (assumption 7)	Noted.
269.	Munich RE	3.52.	The loss absorbing capacity of deferred taxes should adequately be taken into account in line with the proposed transfer concept: deferred tax positions present in the transferring company might not be included in the sale of an insurance portfolio, but the ability of the transferred portfolio to generate future deferred taxes will be acknowledged by a transferee company.	See the resolution regarding comment no. 260.
270.	Pearl Group Limited	3.52.	This is inconsistent with the requirements of the Framework Directive which requires allowance to be made for the risk absorbing effect of deferred tax liabilities. In practice the receiving entity will invariably already contain existing business and assets. The non recognition of the loss absorbing capacity of deferred taxes is therefore contrary to the idea of transfer risk to a third party and should be recognized in order to ensure an economic risk-based approach.	Not agreed. See the resolution regarding comment no. 260.
271.	RBS Insurance	3.52.	The fact that statement 3.53 is true lends even more weight to not assuming transfer to an empty undertaking.	Not agreed. See the resolutions regarding assumptions 1 and 2.
272.	CRO Forum	3.53.		–
273.	European Insurance	3.53.	Comments in 3.130 are also relevant here.	Noted.

	CFO Forum			
274.	Legal & General Group	3.53.	See response to 3.130 (assumption 7)	Noted.
275.	Association of British Insurers	3.54.	See comments under Para 3.130 (8)	Noted.
276.	Association of Run-Off Companies	3.54.	Why is no diversification between lines of business allowed?	See the discussion in para 3.55-3.61.
277.			Confidential comment deleted.	
278.	Belgian Coordination Group Solvency II (Assuralia/	3.54.	Regarding the diversification: LIFE ACTIVITIES > The proposed segmentation (in CP27) in 16 segments doesn't match with any real business practice and doesn't match with the more realistic segmentation of the Annex II of the directive. > This segmentation would never be applied in case of transfer and cannot be a sound basis for segmentation for Risk Margin purpose, if applicable.	This issue is discussed in the context of CP 27 (L2 Advice on segmentation).
279.	CEA, ECO-SLV-09-437	3.54.	See the comments to Para 3.130 (8).	Noted.
280.	CRO Forum	3.54.	"Assumption 8: The insurance and reinsurance obligations of each line of business (as defined in Article 85(e)) are transferred to the empty reference undertaking in isolation. Hence, no diversification benefit between lines of business arises. For the purpose of determining the risk margin, the SCR of the	

			reference undertaking should be calculated (using a standard formula or internal model) at least by line of business, based on the segmentation laid down by the implementing measures referred to in Article 85(e). If the SCR of the original undertaking is calculated by using an internal model, the segmentation may differ from the one laid down by the implementing measures referred to in Article 85(e). However, the risk margin shall always be valued at least at the level of lines of business laid down by those implementing measures." In its study "A framework for incorporating diversification in the solvency assessment of insurers" (2005) the CRO Forum expressed its view that risk diversification effects exist and are significant within and also across different lines of business. We believe that diversification effects across lines of business should be reflected in the calculation of the risk margin. In our view the transfer concept as described in the Draft Directive sets the right incentive in evaluating technical provisions. Any transferee company (reference undertaking) is likely to have such diversification effects across lines of business, and would reflect such effects in the purchase price of the portfolio in question. The diversification effects of the original undertaking forms an important proxy for those expected to be in any reference entity. We refer CEIOPS to our discussion on diversification with respect to Assumption 2. With respect to segmentation, we do not believe that there is any level of granular segmentation that adequately reflects the risk of each individual insurance liability that ensures that the risk margin is undertaking-unspecific. Furthermore, if an internal model is approved for use in calculating the SCR, then it is consistent to use the same internal model	Not agreed. See the discussion in para 3.55-3.61. There is a distinction between the original undertaking and the reference undertaking. The segmentation follows from Articles 79 and 85(e), cf. the Level 2 Advice (CP 27). The requirements regarding segmentation apply to all undertakings (incl. those applying internal models).

			segmentation for the risk margin calculation. To require a recalculation of the SCR for this purpose would be inconsistent and impractical. For presentation purposes, a reallocation of the risk margin into the segments defined for best estimate liabilities can be made.	
281.	Danish Insurance Association	3.54.	A basic feature of insurance is diversification and diversification features must, therefore, be reflected in Solvency II in order to reflect the political intention to adopt an economic risk-based approach to Solvency. The non-recognition of diversification benefits between lines of business, therefore, is unwarranted. Moreover, in our view, it goes beyond the directive requirements.	Not agreed. See the discussion in para 3.55-3.61.
282.	DIMA (Dublin International Insurance & Management	3.54.	The assumption of separate transfers at line of business level to different empty reference undertakings is arbitrary. We feel that the same level of diversification as for the main SCR calculation itself should be permitted here. For simplification purposes, captives and smaller insurance undertakings should be exempt from the requirement of no diversification benefit as for few lines of business there will be lot of input required if the SCR is to be calculated on basis of each line of business.	Not agreed. See the discussion in para 3.55-3.61. An issue to be covered by the CP on simplifications.
283.	European Insurance CFO Forum	3.54.	When determining the risk margin, an internal model should not be constrained by the segmentation requirements of the standard model. The third paragraph implies that an internal model must use a segmentation that is the same as or more granular than the standard model. We do not agree with this treatment. From a methodology point of view, the risks of the company may not be best captured using prescribed lines of business. There are also practical implications of this treatment. The standard model would have to be retained and used even after internal	Not agreed. The requirements regarding segmentation apply to all undertakings (incl. those applying internal models).

			model approval which would be labour intensive.	
284.	FFSA	3.54.	See 3.130	Noted.
285.	Groupe Consultatif	3.54.	3.54 to 3.56 and Annex B Not allowing for diversification above the LOB level in the calculation of the risk margin reduces the incentive for insurance undertakings to diversify their risks. Risk management is much more important than the details of risk measurement, particularly when the risk measurement is not particularly scientific. CEIOPS appears to use the LOB-transfer and empty-undertaking models too rigidly. In reality, transfers could take place of bigger or smaller chunks of the undertaking than LOB, so why choose this level as the appropriate one for diversification benefits? Very simply, a diversified undertaking is less risky than an undiversified undertaking, so the risk margin should reflect this. The calculation of a SCR per branch is not always possible (example: absorption capacity of future profit sharing with policyholders defined at the entity level). This assumption does not really follow by first principles and is not necessarily realistic. We would like to point out that an undiversified risk margin per LoB leads to difficult conceptual and calculation problems relating to intra- and extra-group reinsurance that can not be assigned to a single LoB only. Many reinsurance contracts are not simply cessions per LoB but often cover multiple Lines of Businesses or the entire portfolio of an insurer. It is then necessary to allocate the risk mitigating effect of such reinsurance contracts down to separate LoBs, which is of course an allocation problem. Another complication consists of the fact that a given LoB can contain geographically diverse business. External and internal reinsurance often covers business written throughout the world, so	Not agreed. See the discussion in para 3.55-3.61. The technical provisions, and accordingly the risk margin, shall in any case be calculated (at least) per line of business.

			even within a LoB similar problems arise as for a multi-line reinsurance cover. Requiring the undiversified calculation of the risk margin per line of business will relatively favour insurers that are less diversified than others. Well diversified insurers will for a given Line of Business have to provision the same amount as for example a mono-liner. We also question whether in case of financial stress, the transfer of a single Line of Business to an empty undertaking is a realistic assumption. In reality, insurers in financial stress either a) settle their obligations in a run-off, b) are taken over by a competitor which has often a similar composition of business or c) certain Lines of Businesses are taken over by competitors that are not empty undertakings but also have a similar composition. In all these cases, diversification exists. In addition, to be consistent, expense assumptions for the empty undertaking will likely be quite different from the insurer transferring the liabilities. This gives rise to additional difficulty as in the calculation of the risk margin and the best estimate, the insurer calculating the risk margin should take these size effects. (see also CP 39 3.101) Assumption 8 assumes that each segment mentioned in 3.12 will be transferred separately to the reference undertaking, which results in non-recognition of diversification effects. We do not consider this to be appropriate for the following two reasons In general solvency related considerations should be based on the whole portfolio approach. Furthermore in practical transfer situations the structure by lies-of-business of an insurance portfolio is of high importance for the transfer price. The justification for assumption 8 given by CEIOPS in 3.55 – 3.57 are either practicability arguments or relate to partial transfers, which we	The reference undertaking is a conceptual construction to be used in the context of risk margin calculations.

			would generally question (c.f our comments to 2.2)	
286.	Institut des actuaires (France)	3.54.	The calculation of a SCR per branch is not always possible (example: absorption capacity of future profit sharing with policyholders defined at the entity level).	Noted. This issue can be solved by using appropriate simplifications.
287.	KPMG ELLP	3.54.	(a) Internal models are often set up using a different segmentation to that applying within the standard formula SCR calibration. Therefore CEIOPS should recognise, and allow, a level of approximation in doing this assessment. (b) Another potential issue with this approach is that risk types, such as operational risk, may not be split between classes of business for the purposes of internal modelling, and therefore the operational risk module in the standard formula SCR may have to be used to assess the operational risk loading. This is equivalent to using a partial internal model for the purposes of assessing the capital for the risk margins. (c) The commercial reality is that a potential buyer would usually buy a business that would add diversification benefits to its current portfolio mix (which is consistent with an assumption of non-emptiness).	Noted. The requirements regarding segmentation apply to all undertakings (incl. those applying internal models). This issue can be solved by using appropriate simplifications. The reference undertaking is a conceptual construction to be used in the context of risk margin calculations.
288.	Legal & General Group	3.54.	First Paragraph: See response to 3.130 (assumption 8) regarding diversification. Second paragraph: When determining the risk margin (for SCR and internal model), the undertaking should not be restricted to the segmentation proposed in 3.12. (also relevant to 3.56 and 3.61)	Noted. The requirements regarding segmentation apply to all undertakings (incl. those applying internal models).
289.	Lloyd's	3.54.	Internal models are often set up using a different segmentation	This issue can be solved by using

			from that within the standard formula. Therefore CEIOPS should recognise, and allow, a level of approximation in doing this assessment. Another potential issue with this approach is that risk types, such as operational risk, may not be split between classes of business for the purposes of internal modelling, and therefore the operational risk module from the standard formula SCR may have to be used to assess the operational risk loading. This is equivalent to using a partial internal model for the purposes of assessing the capital for the risk margins.	appropriate simplifications. However, the requirements regarding segmentation apply to all undertakings (incl. those applying internal models). This issue can be solved by using appropriate simplifications.
290.	Lucida plc	3.54.	The transfer of each line of business on a line by line basis seems unduly prudent. In practice, the whole of an insurer's book is likely to be transferred and hence the impact of diversification should be allowed for in calculation of the risk margin. In particular, this assumption demands that the reference undertaking is rewarded for taking on specific risks, in addition to systemic risk. This is contrary to economic theory.	Not agreed. See the discussion in para 3.55-3.61.
291.	Munich RE	3.54.	Article 75.2 of the draft directive states that "The value of technical provisions shall correspond to the current amount insurance and reinsurance undertakings would have to pay if they were to transfer their insurance and reinsurance obligations immediately to another insurance or reinsurance undertaking." In particular because this other insurance or reinsurance undertaking would take account of diversification effects also between different lines of business when bidding for these obligations, diversification effects should be allowed for when calculating the risk margin. An approach which only allows for diversification benefits within a segment would not follow the way risks are managed in reality. This is typically done on a company/group level.	Not agreed. See the discussion in para 3.55-3.61. The reference undertaking is a conceptual construction to be used in the context of risk margin calculations.
292.	Pacific Life Re	3.54.	We consider that allowance for diversification between lines of business in the calculation of the risk margin should be permitted	Not agreed.

			as set out more fully in the response to 3.130	See the discussion in para 3.55-3.61.
293.	Pearl Group Limited	3.54.	Such assumption goes beyond what is required by the FD ☐ Our interpretation of Article 79 is that homogeneous risk groups should be used for the purpose of setting assumptions. We therefore disagree with CEIOPS' interpretation to support the non recognition of diversification in the risk margin: as all transfers are expected to be to companies with existing business there will be diversification effects. Transfer prices will therefore reflect this and as such in order to have a good proxy for these actual prices the risk margin should allow for diversification effects. ☐ Based on Article 75.2, all lines of business are assumed to be transferred together. Insurance or reinsurance undertakings would take account of diversification effects between different lines of business when bidding for these obligations - diversification effects should be allowed for when calculating the risk margin. ☐ In addition, line-of-business calculations could be very onerous to carry out, in particular combined with the requirement to include unavoidable market risk, as assets are not segmented by line of business. ☐ Finally, it seems inappropriate to require our internal model to use the LoBs from the standard approach.	Not agreed. See the discussion in para 3.55-3.61. Not agreed. This issue can be solved by using appropriate simplifications The requirements regarding segmentation apply to all undertakings (incl. those applying internal models).
294.	PricewaterhouseCoopers LLP	3.54.	Line of business and diversification benefits Assumption 8 states that the insurance and reinsurance obligations of each line of business are transferred to the empty reference undertaking in isolation. Hence, no diversification benefit between lines of business arises. The assessment for the exclusion by line of business relies on Article 85(e) which states: "the commission	Not agreed. See the discussion in para 3.55-3.61.

			shall adopt implementing measures laying down the following", "the lines of business on the basis of which insurance and reinsurance obligations are to be segmented in order to calculate technical provisions." We recommend CEIOPS articulate the rationale for why they believe this directs them to assume no diversification benefit can be recognised. We note that the Consultation Paper does not refer to the principles in Article 75 (4) which states: "Technical provisions shall be calculated in a prudent, reliable and objective manner." If prudence is a basis on which no diversification benefit is allowed then this should be explicitly considered and stated. A clear rationale in the context of the Level 1 directive is required. There are various approaches to diversification and the definition of the reference undertaking considered in the Consultation Paper. Each approach has advantages and disadvantages. The proposed approach is likely to lead to the greatest policyholder protection and potentially the greatest harmonisation, however, it will also lead to the highest cost to firms. Consultation Paper 27 introduced segmentation for life and non-life business. We question whether this segmentation is appropriate for the risk margin. In particular: ☐ It is not clear to us how structures in the original undertaking that act across lines of business would be allowed for in the risk margin calculation. For example, a stop loss reinsurance treaty operating over life protection contracts covering death and/or critical illness benefits. This example applies equivalently to the non life lines of business. ☐ In relation to non life business, the proposed segmentation does not split risks into homogeneous groups, for example, "Marine, Aviation, and Transport." This comment relates to 3.55 to 3.61	Noted. Noted. However, the technical provisions, and accordingly the risk margin, shall in any case be calculated at least per line of business, cf. Article 79 and 85(e).
295.	RBS	3.54.	It seems overly prudent that no diversification benefit can be	Not agreed.

	Insurance		allowed for here because it is implausible in practice that any run-off would be split by line of business. This argument is further supported by the sale of products that span more than one line of business (eg- motor policies cover both own damage and third party, and commercial package products give rise to both property and liability claims).	See the discussion in para 3.55-3.61.
296.	ROAM – Draft V2	3.54.	See 3.130	Noted.
297.			Confidential comment deleted.	
298.	CRO Forum	3.55.	We believe it is not a problem to allocate the risk margin on an approximate basis following calculation over all lines of business. Many other calculations specified in this CP and others will include approximate approaches.	Noted. However, there will be ambiguities involved in top-down calculations.
299.	Pacific Life Re	3.55.	We do not consider that any possible ambiguity is sufficient reason to prevent allowance for diversification as described more fully in the response to 3.130	Not agreed. See the discussion ina para 3.55-3.61.
300.	PricewaterhouseCoopers LLP	3.55.	See comments under 3.54	Noted.
301.	Association of British Insurers	3.56.	It is unrealistic to assume that (re)insurance obligations of individual lines of business are transferred in isolation. In practice, there are very few transfers of business occurring where individual lines of business are transferred in isolation. The vast majority of transactions result in the transfer of all the business in a (re)insurance undertaking. We refer to data to support this claim which suggests that almost 90% of transactions are carried out at entity level, rather than line-by-line, as shown below:	Not agreed. Cf. the fact that the reference undertaking is a conceptual construction to be used in the context of risk margin calculations

<table>
<tr><td></td><td></td><td></td><td>Summary of M&A type transactions from 01/02/02 to 29/06/09
<table><tr><th></th><th>Number of transactions</th><th>Percentage of transactions</th></tr><tr><td>Company</td><td>204</td><td>89%</td></tr><tr><td>Portfolio</td><td>24</td><td>11%</td></tr><tr><td>Total</td><td>228</td><td>100%</td></tr></table>
SOURCE: Towers Perrin analysis of Datamonitor information regarding M&A transactions in the life and non-life insurance industries in Europe.

The underlying data was extracted from published Datamonitor research by a registered user of Datamonitor's Knowledge Centers.
Transactions where one company has acquired a strategic holding of another company have been excluded from the analysis.
Each transaction has been categorised as either the transfer of a company or the transfer of a portfolio of business.</td><td>See the resolution to comment no. 5.</td></tr>
<tr><td></td><td></td><td></td><td>It is unrealistic to assume the reference entity is an empty shell

Furthermore, even if an individual line of business were to be transferred in isolation, it is highly unrealistic to assume that this will be transferred to an entity which is an empty shell. The best proxy for the expected diversification within the entity to which the business is transferring is the current insurer’s diversification.

We disagree with the notion that a ‘per line of business’ calculation is straightforward</td><td>See the resolutions regarding the comments on assumption 2.

Noticed.
The wording has been changed.</td></tr>
</table>

<table>
<tr><td></td><td></td><td></td><td>The line by line approach will seriously increase the administrative burdens for insurers. The segmentation of the calculation of the SCR is different to that required for the calculation of the best estimate, this is also stated in the level 1 text. Furthermore the segmentation proposed by CEIOPS goes beyond best practice for life insurers.</td><td>Partially agreed.
This is the main rationale for introducing simplifications.</td></tr>
<tr><td>302.</td><td></td><td></td><td>Confidential comment deleted.</td><td></td></tr>
<tr><td>303.</td><td>CEA,
ECO-SLV-09-437</td><td>3.56.</td><td>It is unrealistic to assume that individual lines of business are transferred in isolation.
In practice, there are relatively few transfers of individual lines of business in isolation. The vast majority of transactions result in the transfer of all the business in the undertaking. We have collected data to support this claim which suggests that almost 90% of transactions are carried out at entity level, rather than line-by-line:
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SOURCE: Towers Perrin analysis of Datamonitor information regarding M&A transactions in the life and non-life insurance industries in Europe.[2]
It is unrealistic to assume the reference entity is an empty shell.
Even if an individual line of business were to be transferred in isolation, it is highly unrealistic to assume that this will be</td><td>See the resolution to comment no. 11.</td></tr>
</table>

			transferred to an entity which is an empty shell. The best proxy for the expected diversification within the entity to which the business is transferring is the current insurer's diversification. We disagree with the notion that a 'per line of business' calculation is straightforward. The segmentation of the calculation of the SCR is different to that required for the calculation of the best estimate and this is also stated in the level 1 text. Furthermore the segmentation proposed by Ceiops is not in line with the best practices of life insurers. Thus the line-by-line approach will seriously increase the administrative burdens for insurers.	
304.	CRO Forum	3.56.	The risk margin calculations are made complex by the need to calculate the SCR at the line of business level. We refer CEIOPS to our response to CEIOPS consultation paper 27 on segmentation in particular the overly burdensome requirements that are implied by the 16 lines of business defined for life insurance as well as the complexity implied in unbundling life insurance contracts. It is important to note that the lines of business defined are not necessarily the perimeters set when managing insurance business. This therefore causes complexity in the calculation even if just calculating the SCR for underwriting risk. For example, it is not unusual for different types of life insurance savings products to be managed within the same asset pool. The SCR for lapse risk, calculated by a shock to lapse rates will affect the investment performance of the asset pool and therefore the profit sharing of some products (i.e. there is a cross subsidisation effect). The separation of the SCR for such business is not straight forward and not technically correct. Another example, some deferred annuity products have death and survival benefits that change in importance over the lifetime of the product, and as a result there a two different lines of business within one product portfolio.	Noted. This issue can be solved by using appropriate simplifications. Noted. However, the technical provisions, and accordingly the risk margin, shall in any case be calculated at least per line of business, cf. Article 79 and 85(e).

305.	DIMA (Dublin International Insurance & Management	3.56.	While the calculation of future SCR at LOB level may not introduce much extra complexity, the projection of the SCR is a complex process anyway for most (re)insurers and DIMA supports the use of simplified methods to make calculations more feasible.	Noted. This issue can be solved by using appropriate simplifications.
306.	European Insurance CFO Forum	3.56.	Comments in 3.54 are also relevant here.	Noted.
307.	Groupe Consultatif	3.56.	The reinsurance distribution per branch can be complicated. It is true that calculating the SCR for a single line of business is not difficult if a company were to use the standard formula. However, depending on the methodology, such a separate calculation of the SCR might be very difficult. This might be the case for models that are fully scenario based and model underlying risk drivers rather than only risk types as is done by the Solvency 2 standard formula. Requiring a separate calculation of LoB-level SCR might constrain the development of internal models as insurers would base the internal model too much on the standard formula.	Noted. This issue can be solved by using appropriate simplifications.
308.	Institut des actuaires (France)	3.56.	The reinsurance distribution per branch can be complicated.	Noted. This issue can be solved by using appropriate simplifications.
309.	Legal & General Group	3.56.	See response to 3.54	Noted.
310.	Pearl Group Limited	3.56.	It is unrealistic to assume that (re)insurance obligations of individual lines of business are transferred in isolation. It is unrealistic to assume the reference entity is an empty shell.	Not agreed. See the discussion in para 3.55-3.61.

			Furthermore, even if an individual line of business were to be transferred in isolation, it is highly unrealistic to assume that this will be transferred to an entity which is an empty shell. The best proxy for the expected diversification within the entity to which the business is transferring is the current insurer's diversification. We disagree with the notion that a 'per line of business' calculation is straightforward. This goes beyond best practise for our life assurance business.	Cf. the fact that the reference undertaking is a conceptual construction to be used in the context of risk margin calculations Noted. The wording has been changed.
311.	Pricewaterhouse Coopers LLP	3.56.	See comments under 3.54	Noted.
312.	Groupe Consultatif	3.57.	It is true that the allocation of the risk margin from an aggregated portfolio level down to separate LoB is not necessarily simple. However, the LoB level calculation requires the allocation of the risk mitigating effects of reinsurance down to LoBs, which is equally complex. 2nd bullet: It is true that the risk margin of the remaining portfolio has to be increased after the transfer of a part of that portfolio, if diversification between LoB is taken into account. This is not an argument against taking into account of diversification. It rather shows that the value of a liability depends on the insurer holding it or on the segmentation of the portfolio chosen. In fact, the second bullet point to a fact that is inherent in the risk margin depends on the entity holding the liabilities. That follows directly from the fact that the risk margin should cover the expected cost of capital to buffer the non-hedgeable risks. The capital for non-hedgeable risk depends on the overall portfolio of the insurer. While requiring an undiversified Line of Business-level calculation seems at first glance to allow for a calculation independent of the entity holding the liabilities, in reality it then	Noted. Not agreed. This issue is not (primarily) related to the insurer per se or the chosen segmentation. A given volume of business within a given line of business should give rise to a (best estimate and) risk margin not depending on the actual insurer. Agree that another choice of segmentation may lead to a different overall risk margin. This will be the case whether diversification benefits are

			fully depends on the (arbitrary) choice of Lines of Business. Any other choice of lines of business would lead to different risk margins.	allowed for or not. However, this is not the issue at stake in the present context.
313.	Pacific Life Re	3.57.	We accept the potential complications set out in 3.57 but do not consider they are sufficient reason to prevent allowance for diversification as described more fully in the response to 3.130. There are practical ways of overcoming the stated complications.	Noted. See also the resolution regarding comment no. 312.
314.	PricewaterhouseCoopers LLP	3.57.	See comments under 3.54	Noted.
315.	European Insurance CFO Forum	3.58.	Comments in 3.130 are also relevant here.	Noted.
316.	PricewaterhouseCoopers LLP	3.58.	See comments under 3.54	Noted.
317.	KPMG ELLP	3.59.	Using the same approach for technical provisions and market value margins is not a natural solution. We do not believe it is sensible to take the same approach to linearly additive and non-linearly additive items. Attribution of the SCR back to lines of business is not simple but is possible using a range of approaches. We would suggest that the MVM should be treated in a similar way.	Noted. However, the technical provisions, and accordingly the risk margin, shall in any case be calculated at least per line of business, cf. Article 79 and 85(e).
318.	Lloyd's	3.59.	Using the same approach for technical provisions and market value margins is not a natural solution. One cannot (sensibly) take the same approach to linearly additive and non-linearly additive items. Attribution of the SCR back to lines of business is not simple but is possible using a range of approaches. We would suggest that the MVM should be treated in a similar way.	See also the resolution regarding comment no. 317.

319.	PricewaterhouseCoopers LLP	3.59.	See comments under 3.54	Noted.
320.	PricewaterhouseCoopers LLP	3.60.	See comments under 3.54	Noted.
321.	Association of British Insurers	3.61.	We disagree with this assumption which is unrealistic and introduces additional constraints on the design of internal models. As described in Para 3.56 hardly any transfers of individual portfolios take place.	Noted. However, the technical provisions, and accordingly the risk margin, shall in any case be calculated at least per line of business, cf. Article 79 and 85(e).
322.	CEA, ECO-SLV-09-437	3.61.	We disagree with this assumption which is unrealistic and introduces additional constraints on the design of internal models which is inappropriate. As described in Para 3.56, few transfers of individual portfolios take place.	Noted. However, the technical provisions, and accordingly the risk margin, shall in any case be calculated at least per line of business, cf. Article 79 and 85(e).
323.	European Insurance CFO Forum	3.61.	Comments in 3.54 are also relevant here.	Noted.
324.	Groupe Consultatif	3.61.	We agree that there are merits to know the risk margin for given lines of business. This can however achieved by a) requiring a diversified risk margin calculation on a total portfolio level (e.g. group or legal entity) which is used for defining the market consistent value of liabilities b) requiring a undiversified calculation for Lines of Business for reasons of comparisons. Firms using the standard model could	Noted. However, it is not clear how the sketched approach will lead to technical provisions, and accordingly risk margins, calculated at least per line of business (in line with Article 79 and 85(e)).

			easily do this, while insurers using internal model might use an allocation method to arrive at the Line of Business level risk margin.	
325.	Legal & General Group	3.61.	See response to 3.54	Noted.
326.	Pearl Group Limited	3.61.	We disagree with this assumption which is unrealistic and introduces additional constraints on the design of internal models. As described in Para 3.56 hardly any transfers of individual portfolios take place.	Noted. However, the technical provisions, and accordingly the risk margin, shall in any case be calculated at least per line of business, cf. Article 79 and 85(e).
327.	PricewaterhouseCoopers LLP	3.61.	See comments under 3.54	Noted.
328.	AAS BALTA	3.62.	We think the calculation of line of business SCRs might be non-trivial depending on the design of the internal model. Further such calculations at Group level could become very complex and may not be a natural product of the internal model design	Noted. However, the technical provisions, and accordingly the risk margin, shall in any case be calculated at least per line of business, cf. Article 79 and 85(e).
329.	AB Lietuvos draudimas	3.62.	We think the calculation of line of business SCRs might be non-trivial depending on the design of the internal model. Further such calculations at Group level could become very complex and may not be a natural product of the internal model design	See the resolution regarding comment no. 328.
330.	AMICE	3.62.	It should be allowed to use internal models which cover all the risks referred to in assumption 5, (with the exception of operational risk), to measure the SCR of the reference undertaking. The SCR calculated from the internal model could be added to the capital	Noted. However, the technical provisions, and accordingly the risk margin, shall in any case be

			charge from operational risk calculated by the standard formula.	calculated at least per line of business, cf. Article 79 and 85(e).
331.	Association of British Insurers	3.62.	We think the calculation of line of business SCRs is likely to be non-trivial depending on the design of the internal model. Further such calculations at Group level could become very complex and may not be a natural product of the internal model design	See the resolution regarding comment no. 328.
332.			Confidential comment deleted.	
333.	CRO Forum	3.62.	"Assumption 9: The internal model of the original undertaking (partial or full) can be used to measure the SCR of the reference undertaking to the extent that these models cover at least the risks referred to in assumption 5 as defined by the standard formula." We agree with this assumption 9, but our comments on assumption 5 hold here also.	Noted. See, however, the resolutions regarding assumption 5.
334.	GROUPAMA	3.62.	It should be allowed to use internal models which cover all the risks referred to in assumption 5, except operational risk, to measure the SCR of the reference undertaking. The SCR calculated from the internal model could be added to the operational SCR calculated by the standard model.	See the resolution regarding comment no. 330.
335.	KPMG ELLP	3.62.	We agree with the principle that a properly calibrated and validated internal model should be a better reflection of the risk within the technical provisions, and should therefore be included within the risk margin calculation. However, since an internal model is likely to include diversification benefits between lines of business, in order to be fully consistent with the assumption of an empty reference undertaking, these correlations should be removed to allow calculation of the SCR for the reference undertaking. This is likely to be complex and costly for an organisation. However, if the internal model were not	Noted. Noted. This issue can be solved by using appropriate simplifications.

			adjusted, this could undermine the principle that no benefit be assumed for diversification across lines of business. We believe this area needs to be considered further, but our preference would be to use the unadjusted internal model.	Noted. This may be an issue for further elaboration on Level 3.
336.	Link4 Towarzystwo Ubezpieczeń SA	3.62.	We think the calculation of line of business SCRs might be non-trivial depending on the design of the internal model. Further such calculations at Group level could become very complex and may not be a natural product of the internal model design	See the resolution regarding comment no. 328.
337.	Lloyd’s	3.62.	We agree with the principle that a properly calibrated and validated internal model would be a better reflection of the risk within the technical provisions, and should therefore be included within the risk margin calculation.	Noted.
338.	NORWAY: Codan Forsikring (Branch Norway) (991 502	3.62.	We think the calculation of line of business SCRs might be non-trivial depending on the design of the internal model. Further such calculations at Group level could become very complex and may not be a natural product of the internal model design	See the resolution regarding comment no. 328.
339.	Pacific Life Re	3.62.	We support the proposal in 3.62 that the SCR used in the calculation of the risk margin can be determined from an internal model. This section limits the use of internal models “to the extent that these models cover at least the risks referred to in assumption 5”. We interpret this as meaning that a partial internal model can be used for any of the risks in assumption 5 provided the original undertaking’s partial internal model covers that specific risk. However, the wording is slightly ambiguous and an alternative meaning is that the partial internal model cannot be used at all unless it covers all the risk in assumptino 5. We can see no	Noted. The interpretation is correct.

			argument for preventing the use of an internal model for certain risks, simply because other risks are calculated using the standard formula. This is particularly true as, in most such cases, the risks not covered by the internal model will be the relatively minor risks of an enterprise while those covered by the internal model will be the primary risks. This would further separate the rationale for the calculation of the SCR within the risk margin from the SCR itself.	
340.	Pearl Group Limited	3.62.	We think the calculation of line of business SCRs might be non-trivial depending on the design of the internal model. Further such calculations at Group level could become very complex and may not be a natural product of our internal model design	See the resolution regarding comment no. 328.
341.	PricewaterhouseCoopers LLP	3.62.	Use of internal models Paragraph 3.62 permits the use of the original undertaking's internal model (fully or partially) to measure the SCR of the reference undertaking to the extent this model covers the risks in Assumption 5. We welcome this approach as the internal model may better reflect the characteristics of each line of the business transferred to the reference undertaking. However, it is likely that many internal models will include characteristics specific to the original undertaking that it would not be appropriate to apply to the empty reference undertaking. We recommend that there is a principle in Level 2 text to ensure such characteristics are removed in the risk margin calculation. As noted in paragraph 3.63, for the purpose of the risk margin calculation a projection of the SCR calculated by an internal model will be required. To perform this accurately will be particularly complex and onerous. Simplifications should be permitted and further guidance is required on this matter. We also query whether the ability to project the SCR using an internal model will be part of the model approval process.	Noted. Noted. Treated as a part of the approval process or by giving further guidance. Noted. Simplifications may apply also in cases where internal models are used for SCR calculations.

			Further, we caution that it will be complex (and therefore maybe not practical) to split internal model calculations of the SCR and its projection by the line of business segments prescribed in Consultation Paper 27. This comment relates to 3.63-3.65	
342.	RBS Insurance	3.62.	We agree that a partial internal model should be permissible to calculate the SCR. If the model does not cover all the risks in assumption 5, we believe that it should still be possible to use a combination of partial internal model and standard formula (eg- all risks except operational risk contained within the internal model, and operational risk included via the standard formula, and aggregation method as per partial internal models methodology).	Noted. However, the technical provisions, and accordingly the risk margin, shall in any case be calculated at least per line of business, cf. Article 79 and 85(e).
343.	RSA Insurance Group PLC	3.62.	We think the calculation of line of business SCRs might be non-trivial depending on the design of the internal model. Further such calculations at Group level could become very complex and may not be a natural product of the internal model design	See the resolution regarding comment no. 328.
344.	RSA Insurance Ireland Ltd	3.62.	We think the calculation of line of business SCRs might be non-trivial depending on the design of the internal model. Further such calculations at Group level could become very complex and may not be a natural product of the internal model design	See the resolution regarding comment no. 328.
345.	RSA - Sun Insurance Office Ltd.	3.62.	We think the calculation of line of business SCRs might be non-trivial depending on the design of the internal model. Further such calculations at Group level could become very complex and may not be a natural product of the internal model design	See the resolution regarding comment no. 328.
346.	SWEDEN: Trygg-Hansa Försäkrings AB (516401-7799)	3.62.	We think the calculation of line of business SCRs might be non-trivial depending on the design of the internal model. Further such calculations at Group level could become very complex and may not be a natural product of the internal model design	See the resolution regarding comment no. 328.

347.	Association of British Insurers	3.63.	Simplifications should be allowed to calculate the risk margin, even if an internal model is used. The QIS 4 results showed that no insurers projected future SCRs as this was too complex and judged to be unnecessary. Therefore, we do not agree with CEIOPS that no simplification should be allowed where an internal model is used.	Noted. CEIOPS has not stated that simplifications cannot apply in cases where internal models are used for SCR calculations.
348.	Association of Run-Off Companies	3.63.	For the purpose of the risk margin calculation, a projection of the SCR calculated by an internal model will be required. To perform this accurately may be particularly complex and onerous. How will this happen if there is no internal model? Will the ability to project the SCR using an internal model be part of the model approval process? Presumably Simplifications should be permitted here.	Noted. Simplifications may apply also in cases where internal models are used for SCR calculations.
349.	CEA, ECO-SLV-09-437	3.63.	11.	–
350.	German Insurance Association – Gesamtverband der D	3.63.	9.	–
351.	Lloyd’s	3.63.	1. This paragraph appears to indicate that no internal model is valid for MVM calculation using the cost of capital approach (and invalid calculation of the current SCR), which is not the case. We suggest that this paragraph is either removed or re-worded along the lines of “The internal model is only approved for the calculation of the current SCR and estimates of future SCR based on current information”.	Not agreed. The L2 advices on internal models focus only on the current SCR.
352.	Pearl Group Limited	3.63.	Simplifications should be allowed to calculate the risk margin, even if an internal model is used. The QIS 4 results showed that no	See the resolution regarding comment no. 347.

			insurers projected future SCRs as this was too complex and judged to be unnecessary. Therefore, we do not agree with CEIOPS that no simplification should be allowed where an internal model is used.	
353.	PricewaterhouseCoopers LLP	3.63.	See comments under 3.62	Noted.
354.	RBS Insurance	3.63.	It is not clear from this paragraph whether the inability of an approved Internal Model to calculate future SCRs precludes the use of that Internal Model for the purposes of calculating the risk margin. More advice on this would be helpful at level 3.	Noted. Simplifications may apply also in cases where internal models are used for SCR calculations.
355.	ROAM – Draft V2	3.63.	1. Simplifications should be allowed to calculate the risk margin, even if an internal model is used This assumption assumes that when an internal model is used no simplification can be used in calculating the risk margin. In our opinion this is a wrong restriction of the proportionality principle. Furthermore as stated by CEIOPS in Para 3.19, no insurers projected future SCRs in QIS4 as this is too complex and judged to be unnecessary.	Noted. Simplifications may apply also in cases where internal models are used for SCR calculations. The wording of para 3.63 is changed in order to avoid misunderstandings.
356.	Unum Limited	3.63.	Simplifications should be allowed to calculate the risk margin, even if an internal model is used. The QIS 4 results showed that no insurers projected future SCRs as this was too complex and judged to be unnecessary. Therefore, we do not agree with CEIOPS that no simplification should be allowed where an internal model is used.	See the resolution regarding comment no. 347.
357.	PricewaterhouseCoopers LLP	3.64.	See comments under 3.62	Noted.
358.			Confidential comment deleted.	
359.			Confidential comment deleted.	

360.	CRO Forum	3.65.	We seek further clarification on the conditions that CEIOPs intends to put in place with respect to the use of SCR's calculated using internal models. We note that internal models can provide a more accurate measurement of the risk levels specific to a particular portfolio (and not just at company level), and can result in SCR's both above and below the standard formula SCR's.	Noted. The wording has been adjusted in the final version of CP 42.
361.	PricewaterhouseCoopers LLP	3.65.	See comments under 3.62	Noted.
362.	RBS Insurance	3.65.	We support the possibility of being able to use the Internal Model SCR where it captures the risk characteristics of the portfolio in a better way than would be obtained under the standard formula, but accept that there may be a need for some restrictions.	Noted. The wording has been adjusted in the final version of CP 42.
363.	CRO Forum	3.66.	"Assumption 10: The Cost-of-Capital risk margin is defined net of reinsurance and SPVs." We agree with Assumption 10.	Noted.
364.	Federation of European Accountants (FEE)	3.66.	We do not believe that it is adequate to calculate the risk margin in technical provisions net of reinsurance only as proposed in Assumption 10. As a result, it is impossible to disclose the current exit value of the business gross and the reported risk feature will depend on the reinsurance taken currently, eliminating any comparability over time if the entity changes frequently its reinsurance coverage. We believe that IFRS will likely require to determine insurance liabilities to be presented gross and to report the difference to the net position as a reinsurance asset, including consequently positive margins on top of the current estimate of cash flows. In so far, IFRS already requires that the calculation is made twice, on a gross	Not agreed. Having a risk margin attached to the reinsurance assets (reinsurance recoverables) seems to be a non-viable approach. Especially, this approach requires

			and a net basis. In fact, a cession is always to be presented separately, but measured consistently with the ceded item to avoid accounting mismatch.	SCR calculations gross of reinsurance.
365.	Groupe Consultatif	3.66.	We agree that conceptually, the risk margin should be calculated net of reinsurance and SPVs. However the undiversified Line of Business level calculation poses conceptual and operational problems. The conceptual problem lies in the story underlying the CEIOPs risk margin. The story goes that a Line of Business is taken over by an empty undertaking. It is not realistic to assume that for example intra-group reinsurance will stay the same for the new undertaking as it was for the insurer transferring the liabilities. Obviously, the empty undertaking is no group and therefore intra-group reinsurance will not be applicable anymore. Also many reinsurance contracts are not defined for a certain Line of Business but can use very different segmentations (e.g. on a total portfolio, over several lines of business, etc.). This could be solved only by allocating the risk mitigating effects of reinsurance to the different Lines of Business. Then one would however have to assume that reinsurers would transfer the contracts to the different empty undertakings in such a way as to mirror the allocation used. This seems however to be very unrealistic. All these conceptual and operational problems vanish if the calculation of the risk margin is done on a total portfolio level, as then the assumption that reinsurance and SPVs can be taken account is more natural.	Noted. See the resolution regarding comment no. 364.
366.	KPMG ELLP	3.66.	We do not believe that it is adequate to calculate the risk margin in technical provisions net of reinsurance only as proposed in	See the resolution regarding comment no. 364.

			Assumption 10. As a result, it is impossible to disclose the current exit value of the business gross and the reported risk feature depends on the reinsurance taken currently, eliminating any comparability over time if the entity changes frequently its reinsurance coverage. We believe that, IFRS will require insurance liabilities to be determined gross and to report the difference to the net position as a reinsurance asset. Amending Assumption 10 to require a gross and not calculation would therefore avoid discrepancies with amounts reported in the financial statements.	
367.	Belgian Coordination Group Solvency II (Assuralia/	3.68.	We recommend calculating the risk margin gross and net of reinsurance for practical reasons; in terms of availability of data and dashboards, the best estimate and the risk margin are quite easily calculated gross of reinsurance; the gross-to-net is still a significant issue due to the reliability of data and due to the changes over years of reinsurance treaties. As a result, a simplified method has to be suggested to transform the gross MVM to the net MVM. For the financial statement, as the CRO Forum, we disagree with CEIOPS. A reinsurance asset should have a risk margin as well. This asset is no more than a negative (re)insurance liability and should therefore be treated similarly. However, the Groupe Consultatif noted that only a net risk margin may be inconsistent with the view of the IASB. The IASB is expected to propose that the risk margin for the reinsurance asset should be measured in a way consistent with that of the corresponding direct insurance liability. This view is supported by the International Actuarial Association in their work on measurement of liabilities for insurance contracts. Furthermore, the calculation of the gross liabilities (including the gross risk margin) might be relevant (or even necessary) if the	Noted. It is in principle possible to carry out the calculation on a gross basis and combine this calculation with e.g. a gross-to-net proxy. However, the gross calculation of the risk margin will require gross SCR calculations.

			amount of assets required to cover the (re-)insurance obligations corresponds to the amount of the obligations gross of reinsurance; the share of the reinsurer(s) can currently e.g. in Belgium only be used as covering asset when a number of conditions are fulfilled. Unless this requirement will disappear (which would imply less safety for the beneficiaries), this requires the calculation of a gross risk margin. Therefore, consistency with international accounting frameworks will need to be addressed when CEIOPS finalises its advice, expected around January 2010.	
368.	AAS BALTA	3.69.	We agree that the concept of risk margin only makes sense at net of reinsurance level.	Noted.
369.	AB Lietuvos draudimas	3.69.	We agree that the concept of risk margin only makes sense at net of reinsurance level.	Noted.
370.	Belgian Coordination Group Solvency II (Assuralia/	3.69.	For the financial statements, a negative risk margin (related to the cost of the SCR for counterparty default risk) could be shown on the reinsurance asset side, whereas the positive risk margin related to the risk mitigating effect of reinsurance could be shown as a negative adjustment on the liability side (as the “ceded risk margin” is related to the risk of an adverse evolution of the gross liabilities and not to an adverse evolution of the reinsurance asset). Reinsurance assets are linked 1-1 to insurance liabilities. If you handover the liabilities you also handover the reinsurance protection. We can’t really see a company handing over a loss transfer and keeping the reinsurance treaties.	Not agreed. This will make the calculations (as well as the presentation) more complex than necessary.
371.	Link4 Towarzystwo Ubezpieczeń SA	3.69.	We agree that the concept of risk margin only makes sense at net of reinsurance level.	Noted.

372.	NORWAY: Codan Forsikring (Branch Norway) (991 502	3.69.	We agree that the concept of risk margin only makes sense at net of reinsurance level.	Noted.
373.	Pearl Group Limited	3.69.	We agree that the concept of risk margin only makes sense at net of reinsurance level.	Noted.
374.	RSA Insurance Group PLC	3.69.	We agree that the concept of risk margin only makes sense at net of reinsurance level.	Noted.
375.	RSA Insurance Ireland Ltd	3.69.	We agree that the concept of risk margin only makes sense at net of reinsurance level.	Noted,
376.	RSA - Sun Insurance Office Ltd.	3.69.	We agree that the concept of risk margin only makes sense at net of reinsurance level.	Noted.
377.	SWEDEN: Trygg-Hansa Försäkrings AB (516401-7799)	3.69.	We agree that the concept of risk margin only makes sense at net of reinsurance level.	Noted.
378.	Unum Limited	3.69.	We agree that the concept of risk margin only makes sense at net of reinsurance level.	Noted.
379.			Confidential comment deleted.	
380.	CRO Forum	3.73.	The CRO Forum view is Assumption 1 is “another undertaking”, while assumption 2 is “non-empty mirror image of original undertaking” for reasons set out in our response to paragraphs 3.26 and 3.28.	Noted. The wording has been amended in the final version of CP 42.

381.	KPMG ELLP	3.73.	The allowance for diversification at business line level only means the arbitrary segmentation becomes critical in influencing the final capital requirements. It does not reward a diversified book.	Noted. Another choice of segmentation may lead to a different overall risk margin. This will be the case whether diversification benefits are allowed for or not. See also the resolution regarding comment no. 312.
382.	CRO Forum	3.77.	See comments under 3.78.	Noted.
383.	KPMG ELLP	3.77.	The approach suggested by CEIOPS is potentially more conservative, but is also more removed from the actual commercial reality and is very sensitive to the lines of business split assumption.	See the resolutions regarding comment no. 381 and 312 as well as e.g. no. 5 and 11.
384.	CRO Forum	3.78.	We refer CEIOPS to our comments in paragraph 3.28 and in Appendix B. We agree with the transfer concept and believe it gives the right incentives for the calculation of technical provisions. Whether the reference undertaking is a mirror image of the original undertaking, is an empty undertaking to where the total portfolio of the original undertaking is the transferred, or a well diversified company where the original undertaking's diversification profile is used as a proxy – all lead to the same outcome: that diversification across lines of business is included in the calculation of the risk margin. We believe this should be the case because it produces the right incentives and is consistent with market valuation principles, which is what the purchase price in any transfer will be based on.	See the resolution regarding comment no. 106.
385.	Groupe Consultatif	3.78.	We do not see material difference between CEIOPSs and the CRO Forum position. While CEIOPS assumes a transfer to an empty undertaking, this is equivalent to assuming of retaining the portfolio and settle it capitalized with the SCR. The settlement view and the	Noted. However, see the resolution regarding comment no. 106.

			transfer to empty shells are basically equivalent. In particular assumption 10 can be much more easily reconciled with a settlement view than with a transfer view. Given this, the level of undiversified calculation of the risk margin is not an actuarial question but of a regulatory choice. We think that is it very important that the regulatory choice does not give undesirable incentives. As it is, the lack of diversification within the risk margin gives a comparative advantage to undiversified insurers. It is clear that a monoliner for example has a relatively more risky business model than a well diversified insurer. However, this is not reflected in the risk margin. As already mentioned there is no need to be able to have a transfer line-by-line. A whole portfolio risk margin on top of best estimate liabilities should already sufficient to enable a whole portfolio transfer.	
386.	CEA, ECO-SLV-09-437	3.79.	Ceiops have not clearly stated the CEA's position. The CEA's position is based on the overarching requirement that the Framework Directive requires an accurate calculation of the current transfer value. Given that the receiving company will invariably already hold existing business, it is appropriate to reflect diversification effects as these will in practice be taken into account when transfer prices are determined.	Noted. The wording has been amended in the final version of CP 42.
387.	CRO Forum	3.80.	See comments under 3.81.	Noted.
388.	CRO Forum	3.81.	We understand that the way this is worded in the CRO Forum's MVL paper may have resulted in an incorrect interpretation by CEIOPS and apologise for that. Effectively, in projecting SCR's in the future, if a (re)insurers portfolio mix is expected to change significantly due to a very different profile for new business versus existing business, then the relative weight of the components of the SCR for non-hedgeable risks may change over time.	Noted.

			For the standard approach, this is difficult to incorporate. However, as an assessment of the SCR expected over a (re)insurers "business planning horizon" is part of the assessments made within the ORSA exercise, then if significant changes in portfolio mix are expected this item should cited in that exercise.	
389.	Association of British Insurers	3.82.	We do not see any suggestion in the Recital text that the calculation needs to be carried out line-by-line nor that diversification benefits should be ignored.	Noted. However, according to Article 79 and Article 85(e) the technical provisions – that is the best estimate plus the risk margin – should be calculated as a minimum by lines of business.
390.	CEA, ECO-SLV-09-437	3.82.	We do not see any suggestion in the Recital text that the calculation needs to be carried out line-by-line nor that diversification benefits should be ignored.	See the resolution regarding comment no. 389.
391.	FFSA	3.82.	FFSA does not see in the Recital text any suggestion to not integrate any diversification benefits.	See the resolution regarding comment no. 389.
392.	GROUPAMA	3.82.	Diversification should be taken into account. As risk margin represents the amount needed to manage the portfolio, it seems unjustified not to take into account the diversification between lines of business. Such a statement could unfairly penalize well-diversified portfolios, which is not in line with the spirit of the Directive. At least the effects of diversification within life or non-life portfolios should be recognized.	See the resolution regarding comment no. 389.
393.	Groupe Consultatif	3.82.	Our comments on 3.78. shows that the valuation principle can not apply to any portfolio of insurance or reinsurance obligations.	See the resolution regarding comment no. 389.

394.	Pearl Group Limited	3.82.	We do not see any suggestion in the Recital text that the calculation needs to be carried out line-by-line nor that diversification benefits should be ignored.	See the resolution regarding comment no. 389.
395.			Confidential comment deleted.	
396.	CRO Forum	3.84.	We agree with CEIOPS regarding the transfer concept and believes it gives the right incentives. We do however stress the need to distinguish between the purposes of the risk margin and the SCR in ensuring the solvency of a portfolio. The risk margin does not ensure solvency, the SCR does.	Noted.
397.	AMICE	3.85.	As pointed out in the QIS4 report, the majority, if not all undertakings (independently of their size) used simplifications to project SCR for the purposes of calculating risk margin. The spreadsheet for computing the non-life risk margin was also extensively used by undertakings. AMICE members believe therefore that such simplification should be considered the standard method.	Noted. This issue is elaborate further in the CP on simplifications.
398.	Association of British Insurers	3.85.	The best estimate is calculated using various sources of undertaking specific information, such as expense information, and the specific profile of the insurer’s policyholders for biometric assumptions such as lapses and mortality. Even a Best Estimate calculation (especially in Life business) would involve the recognition of diversification benefits. So, the same segment of insurance obligations, regardless of the risk margin, will be valued differently in two different entities. Therefore we do not see any justification for the exclusion of diversification in the risk margin.	Not agreed. The statement regarding the best estimate calculation does not seem to be fully in line with Article 75(2) and 75(3). Moreover, the statement is not valid as an argument for taking diversification benefits into account.
399.	CEA, ECO-SLV-09-437	3.85.	We request stronger justification as to why Ceiops believes a line-by-line calculation of the risk margin would mean that technical provisions were “not affected by undertaking-specific information”. The best estimate is calculated using various sources of	See the resolution regarding

			undertaking specific information, such as expense information as well as the specific profile of the insurer's policyholders for biometric assumptions such as lapses and mortality. The best estimate calculation would also involve the recognition of diversification benefits. So, the same segment of insurance obligations, ignoring the risk margin, will be valued differently in two different entities. Therefore we do not agree with Ceiops' justification for the exclusion of diversification in the risk margin.	comment no. 398.
400.	FFSA	3.85.	FFSA needs more explanation on this point. FFSA thinks than even a Best Estimate calculation (especially in Life business) involves diversification benefits. So, the same segment of insurance obligations, regardless of risk margin, will be valued differently in two different entities	See the resolution regarding comment no. 398.
401.	GROUPAMA	3.85.	We question this point. We think than even a Best Estimate calculation (especially in Life business) involves diversification benefits. So, the same segment of insurance obligations, regardless risk margin, will be valued differently in two different entities.	See the resolution regarding comment no. 398.
402.	Groupe Consultatif	3.85.	It is stated here that undertaking specific information should only be used in the calculation of technical provisions insofar as that information better reflects the characteristics of the underlying insurance portfolio. In our view the structure of the portfolio under consideration, together with the related diversification effects gives such information and therefore should be taken into account when calculating technical provisions.	See the resolution regarding comment no. 398.
403.	Lucida plc	3.85.	We recognise the benefits from a supervisory point of view of the same segment of insurance obligations results in the same value of technical provisions regardless of the whereabouts of those obligations. However, it is not obvious that this can be achieved without unduly penalising insurance companies who have carefully managed their portfolio of liabilities. At the extreme example, each	See the resolution regarding comment no. 398.

			policy is a different obligation and so should be considered separately. An approach that ignores diversification benefits would increase the cost of insurance to the end consumer.	
404.	Pearl Group Limited	3.85.	The best estimate is calculated using various sources of undertaking specific information, such as expense information, and the specific profile of the insurer's policyholders for biometric assumptions such as lapses and mortality. Even a Best Estimate calculation in Life business would involve the recognition of diversification benefits. So, the same segment of insurance obligations, regardless of the risk margin, will be valued differently in two different entities. Therefore we do not see any justification for the exclusion of diversification in the risk margin.	See the resolution regarding comment no. 398.
405.	ROAM – Draft V2	3.85.	We object to this point. We think that even best estimate calculations (especially in Life business) involve diversification benefits. So, the same segment of insurance obligations, regardless of the risk margin, will be valued differently in two different entities. As pointed out in the QIS4 report, the majority, if not all undertakings (independently of their size) used simplifications to project SCR for the purposes of calculating risk margins. The risk margin spreadsheet for non-life was also extensively used by undertakings. ROAM members believe therefore that such simplification should be considered the standard method	See the resolution regarding comment no. 398.
406.	Unum Limited	3.85.	The best estimate is calculated using various sources of undertaking specific information, such as expense information, and the specific profile of the insurer's policyholders for biometric assumptions such as lapses and mortality. Even a Best Estimate calculation (especially in Life business) would involve the recognition of diversification benefits. So, the same segment of insurance obligations, regardless of the risk margin, will be valued	See the resolution regarding comment no. 398.

			differently in two different entities. Therefore we do not see any justification for the exclusion of diversification in the risk margin.	
407.	Association of British Insurers	3.87.	See comments under 3.130 (8)	Noted.
408.	CEA, ECO-SLV-09-437	3.87.	Ceiops have not given an appropriate reason to reject the CEA's position that allocating the risk margin to different lines of business is not required. Ceiops base their rejection of the CEA's conclusion on the rationale for assumption 8 – however we believe that assumption 8 is artificial and is not required by the Framework Directive, as described in our comments to Para 3.130 (8) below.	According to Article 79 and Article 85(e) the technical provisions – that is the best estimate plus the risk margin – should be calculated as a minimum by lines of business.
409.	Lucida plc	3.87.	We agree with CEIOPs views about calculating risk margins by line of business.	Noted.
410.	Milliman	3.87.	CEIOPS requires that risk margins should be calculated for each LOB separately, without diversification benefits (CP39 Best Estimates was silent implicitly indicating that a best estimate is always equal to a mean, even though the mean is rarely knowable). Unadjusted and assuming a non-zero diversification effect, this approach will result in the overstatement of the undertaking's risk margin (and potentially also best estimates in a much less material way) from an economic point of view. This overstatement may or may not be material and needs to be tested.	According to Article 79 and Article 85(e) the technical provisions – that is the best estimate plus the risk margin – should be calculated as a minimum by lines of business. A given volume of business within a given line of business should give rise to a (best estimate and) risk margin not depending on the actual insurer.
411.	Pearl Group Limited	3.87.	Such assumption goes beyond what is required by the FD	See the resolution regarding comment no. 408 and 410.
412.	Pacific Life	3.89.		–

	Re			
413.	PricewaterhouseCoopers LLP	3.89.	Cost of capital rate We welcome the inclusion of a framework in the form of a three stage approach to determine the rate. Paragraph 3.114 proposes a 6% minimum cost of capital rate. There are a number of subjective assumptions in the derivation of the minimum rate and therefore a wide range of potential rates. We caution that the three stage framework may not provide a stable platform to determine the rate. We recognise market views will differ as to the absolute rate; however, CEIOPS may need to consider commissioning an independent analysis to provide better support for their own views. Further: ☐ It is unclear to us how a rate of "at least 6%" meets the requirements of the Level 1 text: "The rate used in the determination of the cost … (Cost-of-Capital rate) shall be the same for all … undertakings …" (Article 76(5)). Assuming the assertion of "at least 6%," it would be helpful to have additional guidance as to how the rate should be determined to ensure harmonisation. ☐ Paragraph 3.132 states: "The Cost-of-Capital rate has to be a long-term average rate, reflecting periods of both stability and period of stress." We question whether this is in line with the Level 1 text which refers to "the value of technical provisions shall correspond to the current amount … undertakings would have to pay … to transfer their … obligations immediately to another … undertaking." - Article 75(2). The Level 1 text could be interpreted as requiring a current rather than long-term average rate. A potential approach could be to set the rate with reference to a benchmark (and so varying over time) rather than a prescribed fixed rate.	Noted. Partially agreed. CEIOPS has carried out a critical assessment of CRO Forum's report. However, further work will be needed to update the assessment from time to time. Noted. The wording has been amended in the final version of CP 42. Not agreed. Is in line with the meaning of the Level 1 text, as the "current amount" has to allow for the financing of the SCR for future periods, and these periods can be both stressed and non-stressed. Not agreed. Not clear which benchmark could be an appropriate basis.

			Paragraph 3.100 refers to the CEIOPS view that the SCR is funded solely with equity capital, as opposed to the assumptions in the CRO Forum publication. We support the view expressed by CEIOPS that in adverse circumstances the SCR capital requirement could not be entirely funded by debt investors at costs substantially below equity costs. This is particularly relevant given the evidence of the current market conditions and cost of corporate debt. We agree with paragraph 3.95 that the procedures to be followed in reviewing the charge should be developed. Given the significance of the charge we recommend that the procedures (at least at high level) are detailed in Level 2 text. We agree with paragraphs 3.113-5, that the cost of capital rate may need to be adjusted to reflect any systematic bias in the projection of the SCR. However, we do caution that this may be spurious accuracy given the subjectivity of the rate itself. This comment relates to 3.90-3.115.	Not agreed See the amended wording in the final version of CP 42. Partially agreed. Further work needed on the review mechanism. Noted.
414.	Association of British Insurers	3.90.	See the comments under 3.131	Noted.
415.	CEA, ECO-SLV-09-437	3.90.	See the comments to Para 3.131.	Noted.
416.	Groupe Consultatif	3.90.	The reference to a confidence level of 99.5% over one year is a conceptual reference for the determination of the base of the capital cost (SCR of the reference entity) but it is not for the rate of the capital cost.	Noted.
417.	Institut des actuaires	3.90.	The reference to a confidence level of 99.5% over one year is a conceptual reference for the determination of the base of the	Noted.

	(France)		capital cost (SCR of the reference entity) but it is not for the rate of the capital cost.	
418.	Pearl Group Limited	3.90.	In order to get transfer prices consistent with an immediate transfer (Article 75 (2)) you need to use current cost of capital rates and not those at a 99.5th percentile value. This could be inconsistent with the statement in this paragraph, namely that "… this means that the cost of capital rate should be consistent with the VaR assumption corresponding to a confidence level of 99.5% over 1 year", which could be taken to mean the cost of capital after a 99.5th percentile shock. This is especially the case when considering the statement made in Para 3.132	Noted. The cost of capital rate is assessed as the current rate needed in a scenario that is based on both normal and stressed times.
419.	PricewaterhouseCoopers LLP	3.90.	See comments under 3.89	Noted.
420.	PricewaterhouseCoopers LLP	3.91.	See comments under 3.89	Noted.
421.			Confidential comment deleted.	
422.	PricewaterhouseCoopers LLP	3.92.	See comments under 3.89	Noted.
423.	PricewaterhouseCoopers LLP	3.93.	See comments under 3.89	Noted.
424.	Association of British Insurers	3.94.	We believe further work is needed on the calibration of the cost of capital rate, currently set at 6%, in order to ensure it does not result in excess prudence. To this effect, we would suggest a mechanism for regular periodic review, perhaps every 5 years to make sure the calibration is appropriate.	Noted. Further work is needed on the review mechanism.

425.	CEA, ECO-SLV-09-437	3.94.	We are concerned that the Cost of capital rate proposed includes excessive margins for prudence. We note that the impact assessment states that "a change in the cost of capital rate in the order of ± 1-1.5% …would not lead to significant changes in industry behaviour". However this is not supported by qualitative nor quantitative evidence. We note that even a small increase to the technical provisions without a corresponding change in assets values can have a big effect on the level of capital available and so we believe that even small changes in the cost of capital rate would be likely to lead to changes industry behaviour. For this reason it is important that the calibration should not include excessive prudence and should be subject to periodic review to ensure that this is not the case. The cost of capital rate should be the same for all undertakings. To this extent, when reviewing the cost-of-capital rate, due consideration should be given to the potential pro-cyclical effects the new rate may have on the market.	Not agreed. The wording has been adjusted in the final version of CP 42. Agreed. Pro-cyclical effects from a spuriously varying cost of capital rate were avoided by assessing the rate as a long term average rate.
426.	CRO Forum	3.94.	We acknowledge that the research presented in the CROF July 2008 MVL paper are not totally conclusive. We do however present that case for why we chose one method over another. In particular, our opinion is that shareholder return models that attempt to isolate the risk premium include elements of return that do not have anything to do with the cost of non-hedeagble risks. The frictional cost of capital approach was chosen for a number of reasons including the fact that it is used in the market for disclosure of the cost of non-hedgeable risks. Shareholder return models contain different elements of total return required by shareholders in excess of the risk free return: return on franchise value; return on the cost of hedgeable risks; and return on the cost of non-hedgeable risks. We are concerned	Not agreed. CEIOPS has carried out a critical assessment of CRO Forum's report and can not see that CRO Forum's conclusions are cogently implied by the research presented there. Not agreed. CEIOPS does take into account only the relevant part of return.

			that CEIOPS is taking into account more that just the latter type of return into account for the calculation of the Cost-of-Capital Rate for the Risk Margin. We would like to understand further the reasons for CEIOPS discarding the other methods (WACC, Market Price of Risk, and Frictional Cost of Capital) as this is not explained sufficiently in the commentary made in this CP. Furthermore it is not clear to us that under the approach selected by CEIOPS why an EU sample is more appropriate than the global sample just because it gives a higher number, given that it is just as likely that transfers of portfolios can also occur to undertakings outside of the EU. We would welcome further explanation on CEIOPS critical analysis that lead to the conclusions that certain CRO Forum assumptions are not considered valid.	Noted. CEIOPS rationale can be found both in the explanatory text and in the annexes. Not agreed. Transfers of portfolios can also occur to undertakings outside of Europe, but a transfer inside of Europe is seen as more likely. Noted.
427.	European Insurance CFO Forum	3.94.	Comments in 3.15 are also relevant here.	Noted.
428.	Pacific Life Re	3.94.	These comments apply to the section 3.1.3.2 – The Cost-of-capital rate in general: This section contains a valuable summary of the arguments surrounding the level of the Cost-of-Capital rate. We can understand how the balance of views supports the proposed 6% rate but are concerned by the suggestion that this is a minimum rate and that a higher rate might be set. This seems to us to be adding a further unjustified level of margin to the overall calculation.	Noted. Noted. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42.
429.	Pearl Group	3.94.	We believe further work is needed on the calibration of the cost of	Partially agreed.

	Limited		capital rate, currently set at 6%, in order to ensure it does not result in excess prudence. To this effect, we would suggest a mechanism for [periodic review, perhaps every 5 years to make sure the calibration is appropriate. Furthermore, we would highlight the following concerns: CEIOPS has used a CAPM (Capital Asset Pricing Model) approach to set the 6% cost of capital rate based on the return required by shareholders on equity. We are concerned this might not work in a market-consistent valuation which underpins Solvency II. Effectively the cost of equity is a combination of the risk-free rate plus the equity risk premium (which is the additional return required by investors for taking on the risk associated with the equity investment and reflecting the extent of any gearing). In a pure market consistent world, the return from the risk premium is not allowed to be captured and is implicitly offset against the additional risk associated with equities. This return is however captured within the 6% cost of capital assumption, i.e. the risk associated with equities is being allowed for twice - in both the liabilities and the risk margin. As such, a transfer to a reference entity on this basis will also “transfer” an additional layer of profit to that entity. It is right to assume that the additional expected return (equity risk premium or spread on corporate bonds) will be required by “new investors” – i.e. the reference entity. However, even though higher returns are expected on £1 of equity than £1 cash they have the same current value, i.e. £1. The reason is that the market price also implicitly allows for the greater risks associated with equity investments, which under an efficient market assumption are assumed to exactly offset the higher risks. Thus, the valuation of the liabilities will have already allowed for the market risk equity investors will be exposed to. This means that the 6% assumption will give additional returns to the new entity – these will be over	Further work needed on the review mechanism. Not agreed. The reference undertaking shall be in a position to invest in de-risked assets, whilst at the same time be able to pay to the equity provider the return this provider could expect from an investment in risky assets.

			and above the true cost of debt and equity which is inappropriate for the risk margin calculation. The "cost of capital" is actually a "cost of lock-in", i.e. it is the additional return over risk-free that investors require as compensation for the effects of double taxation, agency costs, etc. It is not intended to compensate for the additional return. This will be earned as the book runs-off and therefore should not be double counted.	
430.	PricewaterhouseCoopers LLP	3.94.	See comments under 3.89	Noted.
431.	Unum Limited	3.94.	We believe further work is needed on the calibration of the cost of capital rate, currently set at 6%, in order to ensure it does not result in excess prudence. To this effect, we would suggest a mechanism for [periodic review, perhaps every 5 years to make sure the calibration is appropriate.	See the resolution regarding comment no. 424.
432.	European Insurance CFO Forum	3.95.	Comments in 3.134 are also relevant here.	Noted.
433.	Groupe Consultatif	3.95.	We strongly recommend that CEIOPS works out advice about frequency and procedures of the periodical review of the Cost-of-Capital rate. This should include consideration under which conditions CEIOPS may change the CoC rate. It appears unsatisfactory to us that CEIOPS intends to leave the CoC rate unchanged (c.f. 3.134) after significant changes in the capital market conditions which is in contrast to the requirement of consistency of the CoC rate to observable market price.	Partially agreed. Further work is needed on the review mechanism.
434.	PricewaterhouseCoopers LLP	3.95.	See comments under 3.89	Noted.

435.			Confidential comment deleted.	
436.	CEA, ECO-SLV-09-437	3.96.	Ceiops takes several overly conservative assumptions in its analysis. We would like to highlight the following concerns with Ceiops' analysis: ☐ We do not support an assumption that the capital base is funded by 100% equity capital - Ceiops has assumed that the SCR is covered entirely by capital provided by shareholders. However, this, in our opinion, is inconsistent with the requirements of the Framework Directive. The Framework Directive requires the rate to be that which the "... undertaking would incur holding an amount of eligible own funds, as set out in section 3, equal to the Solvency Capital Requirement..." (Article 76 (5)). Where section 3 covers the eligibility of own funds, setting out certain quantitative limits for proportions of Tier 1, Tier 2 and Tier 3 capital (Article 98). The Directive does not require 100% Tier 1 capital (i.e. 100% equity) and indeed neither does Ceiops' advice on this topic (CP46). The Cost of Capital rate should reflect the fact that part of the capital base would be covered by other Tiers, in particular by debt, whose cost above the risk free rate is much lower than the Equity Risk Premiums taken into account by Ceiops. By not allowing for this, Ceiops overstates the Cost-of-Capital Rate o We request that Ceiops does not assume the capital base is funded solely with equity capital. ☐ We do not support the treatment of franchise value and market risk - In Para 3.109 of this CP, Ceiops does not make sufficient consideration of the fact that the Cost-of-Capital Rate is not equivalent to the total return required by shareholders - The total return expected by a shareholders (as measured by the ERP	Not agreed. Not agreed. The cost of capital rate is assessed as the current rate needed in a scenario that is based on both normal and stressed times. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42. Not agreed. See the resolution regarding comment no. 426 (CRO Forum).

			methodologies used by Ceiops) includes: (i) the expected return on franchise value, (ii) the expected return on the cost of hedgeable risks, and (iii) the expected return on the cost of non-hedgeable risks. Conceptually, only the latter type of expected returns should be taken into account for the calculation of the Cost-of-Capital Rate for the Risk Margin. Ceiops' analysis ignores the second type of expected returns and although Ceiops does mention the first type of expected returns, it considers that it is unlikely that it will outweigh the upward adjustments listed in 3.110. We do not agree – particularly we consider that the expected return on franchise value is a key component of ERPs. Therefore, we consider that Ceiops does not appropriately reflect the required adjustments, and doing so, adds further elements of conservatism. o We request that Ceiops appropriately reflects the expected adjustments, particularly the expected return on franchise value. ☐ Conservative assumption of method - Out of the 4 type of methods for calculating the cost of capital described in section 3.5 of the CRO Forum's publication on "market value of insurance liabilities", Ceiops decided to exclude 3 types of methods (namely the Frictional Cost of Capital, Market Price of Risk and WACC approaches). These 3 types of methods happen to be the methods which resulted in the lowest cost of capital and discarding them without sufficient explanation can be interpreted as an excessively prudent approach. Furthermore, as stated in our comments to Para 3.102, we do not believe that the methodology chosen by Ceiops is the most appropriate. o Consequently, we would request that Ceiops elaborates on what grounds it rejected these methods, which are widely used in	

			the finance community. ☐ Conservative assumption of data for ERPs - Ceiops considered it more appropriate to use the Equity Risk Premiums calculated for the sample of EU companies rather than for the larger Global sample. In an economy where (re)insurers quoted in the EU are increasingly active in non EU countries, while (re)insurers quoted outside of the EU are increasingly active in EU countries, we do not think that it is straightforward that the risk premium demanded by a third party to accept the transfer of a risk from an EU (re)insurer shall be based on the ERPs of (re)insurers quoted in the EU. Ceiops does not give any reason for this opinion. Ceiops' position can also be interpreted as an excessively prudent approach as ERPs based on a global sample of insurers are lower than those based on an EU sample, as shown in Para 3.106 of this CP. o We would request that Ceiops elaborates on what grounds it made the assumption to base its assessment of the ERPs on EU data. ☐ The setting of a "lower boundary" on the CoC rate – Ceiops concludes with the requirement for a cost of capital rate of "at least" 6%. o We see no reason for a lower boundary on the cost of capital rate and request justification of the need for this boundary. In conclusion, Ceiops' analysis adds a number of layers of assumptions of conservatism which overall may result in an overstated Cost-of-Capital Rate. We would request that Ceiops: ☐ Reconsiders its analysis on the basis of the above arguments ☐ Justifies the reasons when/if it considers the CRO Forum's assumptions are not valid, without adding additional elements of conservatism.	See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42 See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42 Noted.

437.	FFSA	3.96.	FFSA welcomes the fact that CEIOPS carried out an in-depth review of the CRO Forum's work on the Cost-of-Capital Rate as it sees the CRO Forum's work as a high-quality, fact-based contribution on this topic. The latter concluded that appropriate Cost-of-Capital rate in the [2.5%-4.5%] range while CEIOPS, using the same raw analyses, concluded that an appropriate Cost-of-Capital would have to be higher than 6%. While trying to understand the reasons for these very diverging views, FFSA noted the following points: 1) Out of the 4 type of methods for calculating the cost of capital described in section 3.5 of the CFO Forum's publication on "market value of insurance liabilities", CEIOPS decided to exclude 3 types of methods (namely the Frictional Cost of Capital, Market Price of Risk and WACC approaches). These 3 types of methods happen to be the methods which resulted in the lowest cost of capital and discarding them without sufficient explanation can be interpreted as an excessively prudent approach. Consequently, FFSA would like to better understand on what ground CEIOPS rejected these methods, which are widely used in the finance community 2) CEIOPS then focused its analysis on the CAPM and FF2F methods. CEIOPS considered it more appropriate to use the Equity Risk Premiums calculated for the sample of EU companies rather than for the larger Global sample (ERPs for the latter sample being on average 3.3% higher than for the former). CEIOPS does not give any reason for this opinion. In an economy where (i) (re)insurers quoted in the EU are increasingly active in non EU countries while (re)insurers quoted outside of the EU are increasingly active in EU countries, FFSA does not think that it is straightforward that the risk premium demanded by a third party to accept the transfer of a risk from an EU (re)insurer shall be based on the ERPs of (re)insurers quoted in the EU. From that perspective, CEIOPS position can also be interpreted as an excessively prudent approach and FFSA would like to understand on what grounds it was taken	Noted. Not agreed. See the resolution regarding comment no. 426 (CRO Forum). See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42

			3) In section 3.109 of this CP, CEIOPS also seems to minimize the impact of a fundamental argument of the CRO Forum's analysis (described in section 3.4 and 3.5 of the above mentioned publication), namely that the Cost-of-Capital Rate is not equivalent to the total return required by shareholders. Indeed, the total return expected by a shareholder (as measured by the ERP methodologies retained by CEIOPS) includes (i) the expected return on franchise value, (ii) the expected return on the cost of hedgeable risks and (iii) the expected return on the cost of non-hedgeable risks. Conceptually, only the latter type of expected returns should be taken into account for the calculation of the Cost-of-Capital Rate for the Risk Margin. CEIOPS' analysis ignores the second type of expected returns. CEIOPS does mention the first type of expected returns but considers that it is unlikely that it will outweigh the upward adjustments listed in 3.110. FFSA is of the opposite opinion as it considers that the expected return on franchise value is a key component of ERPs. Overall, FFSA, thus considers that CEIOPS does not appropriately reflect this important component of the CFO Forum's analysis and, doing so, adds further elements of conservatism 4) Finally, FFSA notes that CEIOPS does not seem to have taken into account an important element of analysis, which is that the AFR needed to cover the SCR are not entirely made up of capital provided by the shareholders. For instance, part of the AFR can be covered by debt, whose cost above the risk free rate is much lower than the ERPs taken into account by CEIOPS. By not allowing for this point, CEIOPS also overstates the Cost-of-Capital Rate. In conclusion, FFSA is of the opinion that CEIOPS' analysis adds a number of layers of assumptions that are or can be seen as conservative and which, overall, result in an overstated Cost-of-Capital Rate. FFSA would consequently like CEIOPS (i) to reconsider its analysis on the basis of the above arguments and (ii) to better explain the reasons when / if it considers the CFO Forum's	See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42 Not agreed. Further explanations in the (new) Annex C to CP 42. Noted.

			assumptions are not valid, without adding elements of conservatism.”	
438.	GROUPAMA	3.96.	As the Directive states that the Cost of Capital rate should be the same for all (re)insurance undertakings, we suggest using the same rate for all (re)insurance companies. This rate could be calibrated using the CRO Forum studies, stating a cost of capital rate within a [2.5% - 4.5%] range.	Not agreed. CEIOPS has carried out a critical assessment of CRO Forum’s report.
439.	PricewaterhouseCoopers LLP	3.96.	See comments under 3.89	Noted.
440.	ROAM – Draft V2	3.96.	ROAM welcomes the fact that CEIOPS carried out an in-depth review of the CRO Forum’s work on the Cost-of-Capital Rate as it sees the CRO Forum’s work as a high-quality, fact-based contribution on this topic. The latter concluded that an appropriate Cost-of-Capital rate would be in the [2.5%-4.5%] range while CEIOPS, using the same raw analyses, concluded that an appropriate Cost-of-Capital rate would have to be higher than 6%. While trying to understand the reasons for these very diverging views, ROAM noted the following points: 1) Out of the 4 type of methods for calculating the cost of capital described in section 3.5 of the CRO Forum’s publication on “market value of insurance liabilities”, CEIOPS decided to exclude 3 types of methods (namely the Frictional Cost of Capital, Market Price of Risk and WACC approaches). These 3 types of methods happen to be the methods which resulted in the lowest cost of capital. Discarding them without sufficient explanation can be interpreted as an excessively prudent approach. Consequently, ROAM would like to better understand on which grounds CEIOPS rejected these methods, which are widely used in the finance community	Noted. Not agreed. See resolution regarding comment no. 426 (CRO Forum).

			2) CEIOPS then focused its analysis on the CAPM and FF2F methods. CEIOPS considered it more appropriate to use the Equity Risk Premiums calculated for the sample of EU companies rather than for the larger Global sample (ERPs for the latter sample being on average 3.3% higher than for the former). CEIOPS does not give any reason for this opinion. In an economy where (i) (re)insurers quoted in the EU are increasingly active in non EU countries while (re)insurers quoted outside of the EU are increasingly active in EU countries, ROAM does not think that it is straightforward that the risk premium demanded by a third party to accept the transfer of a risk from an EU (re)insurer shall be based on the ERPs of (re)insurers quoted in the EU. From that perspective, CEIOPS position can also be interpreted as an excessively prudent approach and ROAM would like to understand on which grounds it was taken 3) In section 3.109 of this CP, CEIOPS also seems to minimize the impact of a fundamental argument of the CRO Forum's analysis (described in section 3.4 and 3.5 of the above mentioned publication), namely that the Cost-of-Capital Rate is not equivalent to the total return required by shareholders. Indeed, the total return expected by a shareholder (as measured by the ERP methodologies retained by CEIOPS) includes (i) the expected return on franchise value, (ii) the expected return on the cost of hedgeable risks and (iii) the expected return on the cost of non-hedgeable risks. Conceptually, only the latter type of expected returns should be taken into account for the calculation of the Cost-of-Capital Rate for the Risk Margin. CEIOPS' analysis ignores the second type of expected returns. CEIOPS does mention the first type of expected returns but considers that it is unlikely that it will outweigh the upward adjustments listed in 3.110. ROAM is of the opposite opinion as it considers that the expected return on franchise value is a key component of ERPs. Overall, ROAM thus considers that CEIOPS does not appropriately reflect this important component of the CRO Forum's analysis and, doing so, adds further	

			elements of conservatism 4) Finally, ROAM notes that CEIOPS does not seem to have taken into account an important element of analysis, which is that the AFR needed to cover the SCR are not entirely made up of capital provided by the shareholders. For instance, part of the AFR can be covered by debt, whose cost above the risk free rate is much lower than the ERPs taken into account by CEIOPS. By not allowing for this point, CEIOPS also overstates the Cost-of-Capital Rate In conclusion, ROAM is of the opinion that CEIOPS' analysis adds a number of layers of assumptions that are or can be seen as conservative and which, overall, result in an overstated Cost-of-Capital Rate. ROAM would consequently like CEIOPS (i) to reconsider its analysis on the basis of the above arguments and (ii) to better explain the reasons when / if it considers the CRO Forum's assumptions are not valid, without adding elements of conservatism."	Noted. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42 Noted.
441.	CEA, ECO-SLV-09-437	3.97.	Solvency II is based on a going-concern basis. Ceiops states that the risk margin needs to be such that it can guarantee that sufficient technical provisions are available even in a stressed situation. However the Solvency II framework is based on a going concern concept. Article 75(2) of the Framework Directive requires the technical provisions to correspond to the "current" amount the insurer would have to pay to transfer their insurance obligations.	Not agreed. The "current amount" has to allow for the financing of the SCR for future periods, and these periods can be both stressed and non-stressed. The going-concern assumption is not violated.
442.	FFSA	3.97.	See 3.96	Noted.
443.	Groupe Consultatif	3.97.	The suggestion that the cost of capital rate should be along-term average rate, reflecting both periods of stability and stress, sounds sensible. Otherwise, the rate would vary from year to year, and	Noted.

			would be higher in times of economic uncertainty (when providers of capital would be expected to seek greater returns for the comparatively higher risk) and would therefore contribute to higher technical provisions than in more stable economic situations.	
444.	PricewaterhouseCoopers LLP	3.97.	See comments under 3.89	Noted.
445.	RBS Insurance	3.97.	We support the view that the Cost-of-Capital rate should be a long term average rate and not changed frequently.	Noted.
446.	ROAM – Draft V2	3.97.	Solvency II is based on a going-concern basis CEIOPS states that the risk margin needs to be such that it can guarantee that sufficient technical provisions are available even in a stressed situation. However the Solvency II framework is based on a going concern concept. Article 75(2) of the Framework Directive requires the technical provisions to correspond to the "current" amount the insurer would have to pay to transfer their insurance obligations.	Not agreed. The "current amount" has to allow for the financing of the SCR for future periods, and these periods can be both stressed and non-stressed. The going-concern assumption is not violated.
447.	DIMA (Dublin International Insurance & Management	3.98.	We note and underline the reference to a 6% calibration for cost of capital as being a "placeholder" for the regulations and look forward to further advice on the approach to calibrations and implementation of the appropriate cost of capital in later guidance.	Noted.
448.	European Insurance CFO Forum	3.98.	Comments in 3.134 are also relevant here.	Noted.
449.	FFSA	3.98.	See 3.96	Noted.
450.	Groupe Consultatif	3.98.	We refer to the second bullet where upward and downward adjustments of the initial input are discussed that have to be based on objective input. However, in 3.111, CEIOPS states that these	Noted. CEIOPS would welcome expert

			adjustments are difficult to quantify reliably. It is difficult to reconcile these two arguments. We think that it is important that regulatory specified parameters are defined as objectively as possible. The approach chosen of adjusting shareholder returns does not satisfy the objectivity requirement. The three step procedure described here provides in our view an appropriate approach to obtain Cost-of-Capital rates. However its practical application is significantly limited by the current lack of quantification (c.f. comments to 3.109 – 3. 111)	feedback on methods to reliably quantify these adjustments.
451.	KPMG ELLP	3.98.	We would like to better understand the rationale behind the 6% rate assumed.	Noted.
452.	Lucida plc	3.98.	We believe that use of 6% as the cost of capital is excessively prudent and agree with the CRO Forum's suggestion that a lower rate would be appropriate. In particular, when considering the insurance of annuities it is clear that the technical provisions (as determined under Articles 75.2 and 76.3) would be less than those calculated using a 6% cost of capital. In pricing annuity business, insurers are making allowance for the investment spread that can be earned on the assets. This could be thought of as reducing liabilities (via a liquidity premium) or could alternatively be interpreted as reducing the cost of capital (since the spread that is earned on assets would contribute to the overall return being earned by the capital provider). For example, if the ratio of SCR to best estimate reserves was 1:6 then a deduction could be made from the cost of capital of 7 times the risk adjusted spread. A yield of 50bps would reduce the cost of capital from 6% to 2.5%.	Not agreed. The cost of capital rate shall be the same for all undertakings. No special treatment for annuities is assumed.
453.	Munich RE	3.98.	We regard a cost of capital rate in the range of 2.5 percent to 4.5 percent as adequate based on research commissioned by the CRO	Not agreed. CEIOPS has carried out a critical

			Forum ("Market Value of Liabilities for Insurance Firms. Implementing elements for Solvency II", www.croforum.org/publications.ecp).	assessment of CRO Forum's report.
454.	PricewaterhouseCoopers LLP	3.98.	See comments under 3.89	Noted.
455.	RBS Insurance	3.98.	We accept 6% as a placeholder for the Cost-of-Capital rate for solvency II.	Noted.
456.	CRO Forum	3.99.		–
457.	European Insurance CFO Forum	3.99.	Comments in 3.100 are also relevant here.	Noted.
458.	FFSA	3.99.	See 3.96	Noted.
459.	Legal & General Group	3.99.	The cost of capital should be based on a weighted average of the cost of equity and cost of debt. We feel it is reasonable to assume that some debt can be issued in stressed situations assuming a significant amount of equity is also issued (e.g. in the 20:80 ratio used by the CRO forum research). (also relevant to 3.100)	Noted. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42.
460.	PricewaterhouseCoopers LLP	3.99.	See comments under 3.89	Noted.
461.	Association of British Insurers	3.100.	Assuming that the capital base used when calculating the risk margin under a cost of capital methodology is funded solely with equity capital is inappropriate. This will considerably overstate the cost of capital where debt as well as equity is used to provide capital resources. In practice, an insurance company will raise capital using both debt and equity and the return required by the market will reflect average leveraging risks. Thus a weighted average cost of capital, based on the average level of debt and	Noted. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42.

			equity capital in the insurance industry, is needed, as in the CRO Forum paper. The cost of capital rate should not be based on overly prudent assumptions.	
462.			Confidential comment deleted.	
463.	CEA, ECO-SLV-09-437	3.100.	Ceiops' assumption that the cost of capital should assume that capital requirements are funded by 100% shareholder equity is inappropriate, inconsistent with financial economics and inconsistent with the Framework Directive. The Framework Directive states that "The Cost-of-Capital rate used shall be equal to the additional rate, above the relevant risk-free interest rate, that an insurance or reinsurance undertaking would incur holding an amount of eligible own funds, as set out in Section 3, equal to the Solvency Capital Requirement necessary to support the insurance and reinsurance obligation over the lifetime of that obligation." (Article 76 (5)). Where section 3 covers the eligibility of own funds, setting out certain quantitative limits for proportions of Tier 1, Tier 2 and Tier 3 capital (Article 98). The Directive does not require 100% Tier 1 capital (i.e. 100% equity) and indeed neither does Ceiops' advice on this topic (CP46). The Cost of Capital rate should reflect the fact that part of the capital base would be covered by other Tiers, in particular by debt, whose cost above the risk free rate is much lower than the Equity Risk Premiums taken into account by Ceiops. Furthermore, the "would incur" implies actual costs, meaning that the cost of capital rate to reflect the average cost of capital incurred by the insurance industry. Indeed, Para 3.97 argues that it should reflect the long-term average. An insurance company will raise capital using both debt and equity. Financial economic theory says that the average cost of capital for	Noted. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42. Not agreed. The risk margin shall ensure the financing of the SCR for future periods. These periods can be both stressed and non-stressed. Therefore the cost of capital rate has to reflect a long-term average.

			that company should depend on the total risk of the company, and not the level of debt versus equity. Excluding tax effects, the average cost of capital should not change if, for example, a firm issues debt. As a consequence, shareholders should require a greater return on their equity because of the increased risks for the shareholders associated with the extra leveraging. The return required by the market will reflect average leveraging risks. Thus a weighted average cost of capital, based on the average level of debt and equity capital in the insurance industry, is needed. Using only the required return on equity will overstate the cost of capital rate. ☐ We request that Ceiops does not assume that the capital base is funded solely with equity capital. ☐ The objective is to arrive at the most appropriate Cost-of-capital rate, which should not include any excessive prudence and should be subject to a review mechanism to ensure that it is not the case.	Noted.
464.	CRO Forum	3.100.		–
465.	European Insurance CFO Forum	3.100.	The Cost-of-Capital calculation should consider both the cost of equity and debt. CEIOPS sets out that the risk margin under a Cost-of-Capital approach should be funded solely with equity capital. The CFO Forum believes that in an adverse situation, a company should have the choice to use either the cost of equity or a weighted average cost of equity and debt based on the level of distress experienced.	Noted. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42.
466.	FFSA	3.100.	See 3.96	Noted.
467.	KPMG ELLP	3.100.	This approach does not give any benefit to (re)insurance	Noted.

			undertakings with a conservative investment portfolio including a high proportion of bonds. However, we support the view expressed by CEIOPS that in adverse circumstances the SCR capital requirement could not be entirely funded by debt investors at costs substantially below equity costs.	
468.	Legal & General Group	3.100.	See 3.99	Noted.
469.	Pacific Life Re	3.100.	One area worthy of comment is the response in 3.100 to the CRO Forum's proposal to incorporate an element of debt into the calculation of the rate. The argument stated is that debt could not be used because of the fact that the undertaking is in an adverse situation. However, the underlying rationale is that the business is transferred to a new, empty, reference undertaking with sufficient Own Funds to cover its SCR. This is not an adverse situation and it is not clear why the reference undertaking's ability to raise debt should be influenced by the position of the original undertaking.	Noted. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42.
470.	Pearl Group Limited	3.100.	Assuming that the capital base used when calculating the risk margin under a cost of capital methodology is funded solely with equity capital is inappropriate. This will considerably overstate the cost of capital where debt as well as equity is used to provide capital resources. In practice, an insurance company will raise capital using both debt and equity and the return required by the market will reflect average leveraging risks. Thus a weighted average cost of capital, based on the average level of debt and equity capital in the insurance industry, is needed, as in the CRO Forum paper. The cost of capital rate should not be based on overly prudent assumptions.	Noted. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42.

471.	PricewaterhouseCoopers LLP	3.100.	See comments under 3.89	Noted.
472.	CEA, ECO-SLV-09-437	3.101.	We request justification for the decision as to the method to use to calculate the CoC rate. Out of the 4 methods for calculating the cost of capital described in section 3.5 of the CRO Forum's publication on the "market value of insurance liabilities", Ceiops excludes 3 types of methods (namely the Frictional Cost of Capital, Market Price of Risk and WACC approaches). These 3 types of methods happen to be the methods which resulted in the lowest cost of capital and discarding them without sufficient explanation can be interpreted as an excessively prudent approach. Furthermore, as stated in our comments to Para 3.102, we do not believe that the methodology chosen by Ceiops is the most appropriate. ☐ We would request that Ceiops elaborates on what grounds it rejected these methods, which are widely used in the finance community.	Noted. Not agreed. CEIOPS has carried out a critical assessment of CRO Forum's report. Not agreed. Different methods are appropriate for distinct purposes.
473.	CRO Forum	3.101.	Shareholder return consists of several components: ☐ margins that are priced into insurance products that are a (market consistent return) on non-hedgeable risks that are taken over from the policyholder; ☐ Additional margins that can be priced into products that can be regarded as a reward for investments in distributions channels (franchise value); ☐ Investment returns that are earned by investing of the premiums. Only the first of these components should be considered when	Partially agreed. CEIOPS has in his assessment of the cost of capital rate made an appropriate allowance for the non-relevant part of the shareholder return.

			considering the cost-of-capital in the market value margin. Shareholder return models will include all components and cannot be directly used to deduce a cost-of-capital spread.	
474.	FFSA	3.101.	See 3.96	Noted.
475.			Confidential comment deleted.	
476.	PricewaterhouseCoopers LLP	3.101.	See comments under 3.89	Noted.
477.	Association of British Insurers	3.102.	The frictional cost of capital approach is the most appropriate approach as it only allows for the return on the capital held, not the return on franchise value or market risks. Market-consistent valuations explicitly allow for the uncertainty associated with market risk and this method is used by companies to calculate market-consistent embedded values.	Not agreed. The reference undertaking shall be in a position to invest in de-risked assets, whilst at the same time be able to pay to the equity provider the return this provider could expect from an investment in risky assets. This is not appropriately reflected in the frictional cost of capital approach.
478.	CEA, ECO-SLV-09-437	3.102.	The frictional cost of capital approach appears to be the most theoretically sound of the approaches. The appropriate cost of capital rate should reflect the rate of return required on the capital backing the SCR held to support the insurance obligations over their lifetime. This is not equivalent to the total return required by shareholders, as shareholders will also expect a return on the insurer's franchise value and a return to cover market risks. The cost of capital rate should not reflect either of these elements as it should apply to in-force business only whereas franchise value relates to new business, and it should not reflect the return on market risks as this would involve double-counting.	Not agreed. The reference undertaking shall be in a position to invest in de-risked assets, whilst at the same time be able to pay to the equity provider the return this provider could expect from an investment in risky assets. This is not appropriately reflected in the frictional cost of capital approach.

			The frictional cost of capital approach therefore appears to be appropriate as it only allows for the return on the capital held, not the return on franchise value or market risks.	
479.	FFSA	3.102.	See 3.96	Noted.
480.	Pearl Group Limited	3.102.	The frictional cost of capital approach is the most appropriate approach as it only allows for the return on the capital held, not the return on franchise value or market risks. Market-consistent valuations explicitly allow for the uncertainty associated with market risk and this method is used by companies to calculate market-consistent embedded values.	Not agreed. See the resolution to comment no. 478.
481.	PricewaterhouseCoopers LLP	3.102.	See comments under 3.89	Noted
482.	Association of British Insurers	3.103.	We agree that the results of the CRO Forum's report are dependent on certain key assumptions. But a sensitivity analysis is given in the report to give insights in the degree of dependence on the assumptions. Furthermore, in applying the shareholder return model for the Cost of Capital, several implicit approximations are made, of which the impact is unclear.	Noted
483.	CEA, ECO-SLV-09-437	3.103.	The arguments stated in this paragraph are not sufficient to reject the frictional cost of capital approach. We agree that the results of the CRO Forum's report are dependent on certain key assumptions. However, a sensitivity analysis is given in their report to give insights in the degree of dependence on the assumptions. In applying the shareholder return model for the Cost of Capital, also several implicit approximations are made, of which the impact has not been analysed.	Not agreed. See the resolution to comment no. 478

484.	CRO Forum	3.103.	Please refer to our response to paragraph 3.94.	Noted.
485.	FFSA	3.103.	See 3.96	Noted.
486.	Groupe Consultatif	3.103.	While not arguing for or against the frictional cost approach, we would like to point out that the key assumptions of the frictional cost approach Effective tax rate Loss carry forward period Risk free rate are not difficult to estimate in an EU context. We do not understand CEIOPS reservation regarding these key assumptions.	Noted.
487.	Pearl Group Limited	3.103.	We agree that the results of the CRO Forum's report are dependent on certain key assumptions. But a sensitivity analysis is given in the report to give insights in the degree of dependence on the assumptions. Furthermore, in applying the shareholder return model for the Cost of Capital, also several implicit approximations are made, of which the impact is unclear.	Noted.
488.	PricewaterhouseCoopers LLP	3.103.	See comments under 3.89	Noted.
489.	Association of British Insurers	3.104.	The arguments against the frictional cost approach could also be applied against the shareholder return models: the CoC rate is presented as one single percentage which is equal for all insurers and may not reflect the reality for each insurer or country. Whatever method is chosen, it will need to reflect an average.	Not agreed. The frictional approach can give a cost of capital rate of zero. Agreed. Not agreed

			Therefore, we believe this is not a strong argument for the rejection of the frictional cost of capital approach.	A cost of capital down to zero for low tax countries is not seen as appropriate
490.			Confidential comment deleted.	
491.	CEA, ECO-SLV-09-437	3.104.	The arguments stated in this paragraph are not sufficient to reject the frictional cost of capital approach. Arguments similar to those proposed by Ceiops against the frictional cost approach could be stated against the shareholder return models: the CoC rate is presented as one single percentage which is equal for all insurers and may not reflect the reality for each insurer or country. Whatever method is chosen, it will need to reflect an average. Therefore, we believe this is not a strong argument for the rejection of the frictional cost of capital approach.	Not agreed. See the resolution to comment no. 489 (ABI).
492.	CRO Forum	3.104.	Please refer to our response to paragraph 3.94.	Noted.
493.	FFSA	3.104.	See 3.96	Noted.
494.	Pearl Group Limited	3.104.	The arguments against the frictional cost approach could also be applied against the shareholder return models: the CoC rate is presented as one single percentage which is equal for all insurers and may not reflect the reality for each insurer or country. Whatever method is chosen, it will need to reflect an average. Therefore, we believe this is not a strong argument for the rejection of the frictional cost of capital approach.	Not agreed. See the resolution to comment no. 489 (ABI)
495.	PricewaterhouseCoopers LLP	3.104.	See comments under 3.89	Noted.
496.	Association of British	3.105.	We believe the use of the CAPM (Capital Asset Pricing Model) and FF2F (Fama French multifactor Model) approaches would not be	Not agreed.

	Insurers		appropriate as they assess the overall returns shareholders could reasonably expect for being exposed to the overall risks associated with shareholder equity, thus allowing for the return on the franchise value of the company and the return required in respect of market risk, as well as the required return on the SCR, held to cover non-market risk. Adjustments to the results provided would therefore be needed to obtain a correct cost of capital rate consistent with the methodology used in Solvency II and to avoid double counting risks. However, in practice, there is not enough reliable data available and so the adjustments required cannot be estimated reliably. See also comments under 3.102	CEIOPS has performed the appropriate adjustments, and only the relevant part of the rate from the total return models was taken into account.
497.			Confidential comment deleted.	
498.	CEA, ECO-SLV-09-437	3.105.	There are significant limitations to the CAPM and FF2F methodologies when used to determine the cost of capital rate. As described in our comments to Para 3.102, the methodology used to estimate the cost of capital rate should only reflect the rate of return required on the SCR held to support the insurance obligations over their lifetime. The CAPM and FF2F approaches assess the overall returns shareholders could reasonably expect for being exposed to the overall risks associated with shareholder equity. Thus they allow for the return on the franchise value of the company and the return required in respect of market risk. Adjustments to the results provided by the CAPM and FF2F approaches would be needed to obtain a correct cost of capital rate consistent with the methodology used in Solvency II and to avoid double counting risks. However, in practice, these adjustments can be difficult to estimate reliably. This highlights the problem with using the CAPM and FF2F methodologies to determine the cost of	Not agreed. CEIOPS has performed the appropriate adjustments, and only the relevant part of the rate from the total return models was taken into account.

			capital rate.	
499.	CRO Forum	3.105.	Please refer to our response to paragraph 3.94.	Noted.
500.	FFSA	3.105.	See 3.96	Noted.
501.	KPMG ELLP	3.105.	There will be important variations as to the actual cost of capital rate geographically within the EEA.	Noted.
502.	Pearl Group Limited	3.105.	We believe the use of the CAPM (Capital Asset Pricing Model) and FF2F (Fama French multifactor Model) approaches would not be appropriate as they assess the overall returns shareholders could reasonably expect for being exposed to the overall risks associated with shareholder equity, thus allowing for the return on the franchise value of the company and the return required in respect of market risk, as well as the required return on the SCR, held to cover non-market risk. Adjustments to the results provided would therefore be needed to obtain a correct cost of capital rate consistent with the methodology used in Solvency II and to avoid double counting risks. However, in practice, there is not enough reliable data available and so the adjustments required cannot be estimated reliably.	Not agreed. See the resolutions regarding comment no. 496 and 498.
503.	PricewaterhouseCoopers LLP	3.105.	See comments under 3.89	Noted.
504.	Association of British Insurers	3.106.	See comments under 3.105	Noted.
505.	CEA, ECO-SLV-09-437	3.106.	The reference to the CRO Forum report is not correct. The reference to the CAPM equity risk premiums for the European markets shown as from the CRO Forum report is not correct. The percentages of 10% for life and 7.4% for non-life are cost-of-equity	Not agreed. The values correspond (cf. table 4, page 58, CRO Forum's report) to the values used by the CRO-

			capital instead of Equity Risk Premiums. These figures are far too high for equity risk premiums. We do not agree with Ceiops that it is more reasonable to base the assessment of the CoC on the CAPM and FF2F method – see comments to Para 3.105.	Forum as global (5 year average) equity risk premiums. CEIOPS has instead chosen the European average ERP from the same table.
506.	CRO Forum	3.106.	Please refer to our response to paragraph 3.94.	Noted.
507.	FFSA	3.106.	See 3.96	Noted.
508.	Pearl Group Limited	3.106.	See comments under 3.105 above.	Noted.
509.	PricewaterhouseCoopers LLP	3.106.	See comments under 3.89	Noted.
510.	Unum Limited	3.106.		–
511.	Association of British Insurers	3.107.		–
512.	CRO Forum	3.107.	Please refer to our response to paragraph 3.94.	Noted.
513.	FFSA	3.107.	See 3.96	Noted.
514.	PricewaterhouseCoopers LLP	3.107.	See comments under 3.89	Noted.
515.	Unum Limited	3.107.		–
516.	ACA –	3.108.	We think that there is a lack of transparency in the adjustments.	Noted.

	ASSOCIATION DES COMPAGNIES D'ASSURANCES DU			
517.	CRO Forum	3.108.	Please refer to our response to paragraph 3.94.	Noted.
518.	FFSA	3.108.	See 3.96	Noted.
519.			Confidential comment deleted.	
520.	PricewaterhouseCoopers LLP	3.108.	See comments under 3.89	Noted.
521.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	3.109.	On top of qualitative argumentation, we would like more quantitative notion.	Noted.
522.	Association of British Insurers	3.109.	Although it is suggested by CEIOPS that a downward adjustment should be made to allow for the return on franchise value, there is no proposal for a downward adjustment to avoid double counting market risk already captured in the market-consistent value.	Not agreed. Downward adjustment is performed. No reliable quantitative methods available.
523.	CEA, ECO-SLV-09-437	3.109.	There is no downward adjustment proposed to allow for required shareholder return on market risks. As discussed in our comments to Para 3.105, the cost of capital rate calculated by the CAPM and FF2F approaches should be adjusted downwards to allow for the required return on franchise value and market risks. Although Ceiops states that a downward	Not agreed. Downward adjustment is performed. No reliable quantitative methods available.

			adjustment should be made to allow for the return on franchise value, they do not discuss a downward adjustment to avoid double counting market risk already captured in the market-consistent value.	
524.	CRO Forum	3.109.	Please refer to our response to paragraph 3.94.	Noted.
525.	FFSA	3.109.	See 3.96	Noted.
526.			Confidential comment deleted.	
527.	Groupe Consultatif	3.109.	While the qualitative argument is valid, its practical use is still limited by the lack of quantification.	Agreed.
528.	Pearl Group Limited	3.109.	Although it is suggested by CEIOPS that a downward adjustment should be made to allow for the return on franchise value, there is no proposal for a downward adjustment to avoid double counting market risk already captured in the market-consistent value.	Not agreed. Downward adjustment is performed. No reliable quantitative methods available.
529.	PricewaterhouseCoopers LLP	3.109.	See comments under 3.89	Noted.
530.	CEA, ECO-SLV-09-437	3.110.	We do not understand the upward adjustments: ☐ Frictional Costs: Ceiops seems to mean the agency costs here. However, one could reason that the costs are already embedded in the current estimates of the expenses, which are the basis for projected expense levels. ☐ Initial costs of raising capital: It is questionable whether the initial IPO costs of the Oxera report are suitable in the context of insurers. Usually insurers will have an existing capital base which is for a large part the result of past insurance business. Hence, this capital is net of any costs related to selling the business.	Not agreed. CEIOPS believes that this cost is not covered in the expenses. Not agreed. The risk margin is calculated under the assumption that the liability is transferred into an empty reference company.

			☐ Corporate income taxes: Could Ceiops explicitly state for which countries this applies? We suspect that this will not be relevant for most countries.	Partially agreed.
531.	CRO Forum	3.110.	Please refer to our response to paragraph 3.94.	Noted.
532.	Dutch Actuarial Society – Actuarieel Genootschap (	3.110.	First bullet: we would expect the costs related to frictional costs to be already reflected in the 7.5 to 10 % charge mentioned in section 3.107 as current shareholders will implicitly reflected these expenses as well in their required returns	Not agreed. CEIOPS believes that this cost is not covered yet.
533.	FFSA	3.110.	See 3.96	Noted.
534.	Groupe Consultatif	3.110.	First bullet: we would expect the costs related to frictional costs to be already reflected in the 7.5 to 10 % charge mentioned in section 3.107 as current shareholders will implicitly reflected these expenses as well in their required returns Same comment as above	Not agreed. CEIOPS believes that this cost is not covered yet.
535.	Pearl Group Limited	3.110.	We do not understand the upward adjustments: ☐ Frictional Costs: CEIOPS seems to mean the agency costs here. However, one could reason that the costs are already embedded in the current estimates of the expenses, which are the basis for projected expense levels. ☐ Initial costs of obtaining capital: It is questionable whether the initial IPO costs of the Oxera report are suitable in the context of insurers. Usually insurers will have an existing capital base which is for a large part the result of past insurance business. Hence, this capital is net of any costs related to selling the business. Corporate income taxes: could CEIOPS explicitly state for which countries this applies? We do not recognise this tax treatment and	Not agreed. See the resolution to comment no. 530 (CEA).

			suspect that this will not be relevant for most countries.	
536.	PricewaterhouseCoopers LLP	3.110.	See comments under 3.89	Noted.
537.	Association of British Insurers	3.111.	See comments under 3.105. We do not understand how CEIOPS reached the conclusion that it is unlikely that the downward adjustments outweighs the upward adjustments by a large margin.	Noted.
538.			Confidential comment deleted.	
539.	CEA, ECO-SLV-09-437	3.111.	We request that Ceiops justifies its conclusion that downward adjustments would not outweigh the upward adjustments. We think this is unlikely to be the case. We agree that the aggregate effect of both upward and downward adjustments is difficult to quantify in a reliable manner. However, we do not understand how Ceiops reached the conclusion that it is unlikely that the downward adjustments outweigh the upward adjustments by a large margin.	Noted.
540.	CRO Forum	3.111.	Please refer to our response to paragraph 3.94.	Noted.
541.	FFSA	3.111.	See 3.96	Noted.
542.	Groupe Consultatif	3.111.	The level 2 measures should include a sound estimation method of rates (and not the result of the estimation at the consultation date). We think that it would be useful if CEIOPS could give evidence that the upward and downward adjustments are of comparable size. Same comment as above	Noted.
543.	Institut des actuaires (France)	3.111.	The level 2 measures should include a sound estimation method of rates (and not the result of the estimation at the consultation date).	Noted.

544.	Pearl Group Limited	3.111.	We do not understand how CEIOPS reached the conclusion that it is unlikely that the downward adjustments outweighs the upward adjustments by a large margin.	Noted.
545.	PricewaterhouseCoopers LLP	3.111.	See comments under 3.89	Noted.
546.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	3.112.	Here, qualitative arguments are not enough. We expect more solid arguments.	Noted.
547.	CEA, ECO-SLV-09-437	3.112.	The overarching requirement of the Framework Directive is for technical provisions to be aligned with current transfer prices. However, no analysis is provided here. There are other sources of market calibration, such as calibrating to the M&A market or to the catastrophe bond market. ☐ Given the relevance and importance, we request that such an analysis is undertaken.	Partially agreed. More work has to be done regarding this issue.
548.	FFSA	3.112.	See 3.96	Noted.
549.			Confidential comment deleted.	
550.	Groupe Consultatif	3.112.	3.112 to 3.114 CEIOPS has proposed a cost of capital rate of 6% per annum. This rate seems a little high to me compared to the risk margins that appear to form the basis of risk discount rates used in embedded value reporting in Ireland. However, it is backed up by CEIOPS referring to a number of academic studies and by disagreeing with	Noted. See also the amended wording of subsection 3.1.3.2.2 of the final version of CP 42.

			the conclusions of the CFO Forum. The actual derivation of the final number of 6% is a little unclear, as previous mentions are made of ranges such as 7.5% to 10% and 6% to 8% but no roadmap is provided as to how CEIOPS decided upon 6%. CEIOPS does mention that the rate "has to be calibrated further to give final risk margins consistent with observable prices in the marketplace". This would be very helpful to promote consistency with the sort of returns sought by capital providers. However, given that CEIOPS is assuming that the business will not be subject to any "avoidable" market risk, then it is arguable that the cost of capital rate should reflect not just what rates are evident in the market, but that those rates should then be reduced to reflect the absence of any "avoidable" market risk. Following the headline given at the bottom of 3.111 one would expect that this and the following sections will deal with calibration against observable market figures. The only statement made is that the CoC rate should not be adjusted to follow market cycles. Consequently the required consistency of the Cost-of-Capital rate with observable market prices can only be achieved on the average considered over a whole cycle. One would expect that the whole cycle period will be fixed before a calibration to the average over this period is done. We like to question that such considerations have been made when fixing the 6 % CoC rate used for the SST and subsequently for QIS3 and 4.	Agreed. The "message" of this comment is not clear. Partially agreed. The cost of capital rate is a long time average of rates from stressed and unstressed periods. No cycle of a given length is defined, as all future SCR, for all kind of obligations – short termed, long termed, all currencies – have to be funded.
551.	PricewaterhouseCoopers LLP	3.112.	See comments under 3.89	Noted.
552.	Unum Limited	3.112.		–

553.	FFSA	3.113.	See 3.96	Noted.
554.	Groupe Consultatif	3.113.	We disagree that the cost of capital rate should be set higher if the capital base is underestimated by part of the insurers. It would be much more appropriate to require an adequate calculation of the capital base. Setting the cost of capital rate higher would put insurers at a disadvantage that project the capital base appropriately compared to insurers that use inappropriate proxies. The projection of future required capital to support the insurance liabilities is an important component of the long-term management of an insurance company. To be able to do this, the adequate modelling of future capital is essential and should be given incentives by CEIOPS.	Not agreed. If the majority of insurance companies are only able to use these simplifications, CEIOPS has to calibrate the cost of capital rate to this situation.
555.	KPMG ELLP	3.113.	It is unclear how the Cost-of-Capital rate should be adjusted when simplifications (for example the proportional method) are used to calculate future SCRs. We would welcome more detailed suggestions on these adjustments and the possible methods to calculate the adjusted rate.	Not agreed. If the majority of insurance companies are only able to use these simplifications, CEIOPS has to calibrate the cost of capital rate to this situation.
556.	Lloyd’s	3.113.	It is unclear how the Cost-of-Capital rate should be adjusted when simplifications (e.g. the proportional method) are used to calculate future SCRs. We would welcome more detailed suggestions on these adjustments and the possible methods to calculate the adjusted rate. We would further suggest that CEIOPS provide further discussion on the difficulties involved with the calculation of future SCRs, giving rise to the large take-up of simplification methods within QIS4.	Not agreed. If the majority of insurance companies are only able to use these simplifications, CEIOPS has to calibrate the cost of capital rate to this situation.
557.	Lucida plc	3.113.	We would agree with the ability for companies to calibrate risk	Not agreed.

			margin with observable market price but note that this should apply both to increase technical provisions and to decrease them.	CEIOPS will calibrate the cost of capital rate to observable market prices, not the companies.
558.	PricewaterhouseCoopers LLP	3.113.	See comments under 3.89	Noted.
559.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	3.114.	We suggest rather than to try to prove the rate of 6% (with bad or incomplete arguments), to fix it like a data market or an market assumption, in line with the Solvency Swiss test (corresponds to the cost of providing eligible own funds for BBB-rated insurance or reinsurance undertakings). The 3 step for assessing the CoC rate are clearly defined and appear relevant to us. Unfortunately only the first step was applied in a serious way, with transparent and documented methods. The two other steps are incomplete, we awaited arguments qualitative and quantitative but we don't have quantitative arguments. We have the impression that the objective was to find 6%, in any cases, or at all costs.	Noted. See also the amended wording of subsection 3.1.3.2.2 of the final version of CP 42.
560.	CRO Forum	3.114.	"As long as the method used in assessing the capital base does not systematically underestimate the needed amount, a Cost-of-Capital rate of at least 6 per cent could be seen as adequate. In order to avoid procyclical effects, the Cost-of-Capital rate should not be adjusted to follow market cycles." We believe that CEIOPS has not presented sufficient qualitative and quantitative evidence in order to set the cost of capital rate at least 6%. To take estimates of equity risk premiums and assume that all other effects net out is not adequate given the potential impact that just 1% in the cost of capital rate can have on the industry (please	Partially agreed. See also the amended wording of subsection 3.1.3.2.2 of the final version of CP 42

			refer to our comments on the impact assessment). Article 76(5) allows for periodic review of the cost of capital rate. If the cost of capital rate remains at 6%, we believe it already contains sufficient buffer and therefore we would be against the rate being increased even further in periods of stress or other points in the cycle. We therefore agree with CEIOPS comment in paragraph 3.114 that the cost of capital rate should not be adjusted to market cycles but believe this should also be reflected in the advice paragraphs.	
561.	Danish Insurance Association	3.114.	CEIOPS is suggesting a cost of capital rate of at least 6 per cent. This seems to contradict the level 1 text. The level 1 text requires a confidence level of 99,5 %. CEIOPS is assuming that a confidence level of 99,5 % could never be reached with a COC rate lower than 6 per cent. But there is no clear evidence that this assumption is correct. One of the reasons for the lower boundary of the COC rate is that CEIOPS does not want the COC rate to depend on market cycles. This reflects a wish to avoid procyclical effects (3.114). While reducing procyclical effects is important, keeping a rate of at least 6 per cent seems to an unlogical step to avoid to this end. It follows from this line of reasoning that at least 6 per cent should be kept even in a situation where this would overestimate the needed amount. However, this would contradict the intentions of the directive. CEIOPS claims that the CRO Forum has focused on results leading to the lowest estimate of the COC rate. It seems that CEIOPS is making the same mistake, but in the opposite direction, trying to increase the COC rate. According to the directive text the COC rate used "shall be equal to the additional rate, above the relevant risk-free interest rate, that an insurance or reinsurance undertaking would incur holding an	Partially agreed. See also the amended wording of subsection 3.1.3.2.2 of the final version of CP 42.

			amount of eligible own funds, […], equal to the Solvency Capital Requirement necessary to support the insurance and reinsurance obligation […].” In trying to argue for a rate of at least 6 per cent, CEIOPS is making use of a number of theoretical considerations. However, from a practical point of view, the COC rate should reflect the demand from a provider of capital. And that demand would reflect the alternative use that a capital provider could make of that capital. In particular, the capital could be invested in insurance companies or in any other company. Precisely because of the intense regulation of insurance companies, the risk for capital providers to insurance will be lower than the risk for capital providers to many other industries. In particular, a transfer situation will be initiated when there is still, in principle, sufficient capital (MCR) to fulfil all liabilities to policyholders. In many other industries, problems are recognised only when all capital is lost. This argument both lowers the COC rate (potentially below 6 per cent) and indicates that there should be no floor to the COC rate.	
562.	DIMA (Dublin International Insurance & Management	3.114.	Captive entities and smaller insurance undertakings should be allowed to use market rate (say Libor etc.), rate at which parent undertakings will borrow funds to finance the capital of captive undertaking.	Not agreed. The proposal is not in line with Level 1 text. According to Article 76(5) the cost-of-capital rate shall be the same for all (re)insurance undertakings.
563.	FFSA	3.114.	See 3.96	Noted.
564.			Confidential comment deleted.	
565.	PricewaterhouseCoopers	3.114.	See comments under 3.89	Noted.

	LLP			
566.	RBS Insurance	3.114.	3.112 and 3.114 may be hard to operate together in practice, as 3.112 requires risk margins to be consistent with observable prices, whereas 3.114 says the rate should not be adjusted to follow market cycles (to avoid procyclical effects).	Not agreed. The rate is a long term average and thus not following cycles.
567.	Association of British Insurers	3.115.	Simplifications should not be considered alongside the calibration of the CoC rate. As the quantification of the CoC alone will constitute a complex exercise, we believe issues in projecting the SCR should be addressed separately, particularly as these issues will be considered in a later consultation paper. In some cases, insurers may choose not to use the simplified projections of SCRs and so an appropriate and not overprudent rate should be set.	Noted. This paragraph is deleted in the final version of CP 42.
568.			Confidential comment deleted.	
569.	Belgian Coordination Group Solvency II (Assuralia/	3.115.	Regarding the projection of future SCR's : This matter – contrary to what is mentioned under para 1.3 - is not handled in depth in this CP. Therefore, we recommend to let this topic out of the scope and to handle it in a future CP. Nevertheless, we would point out that the statement given under para 3.115 is opposite to our own analysis for Life activities. Our conclusions are: - that future BEL is not really an appropriate driver for projecting the future SCR - and that using it leads to an overestimate of the future SCR and of the Risk Margin. (See graph below showing different drivers compared to BEL / more information is available if wanted).	Noted. This paragraph is deleted in the final version of CP 42.

			Therefore, our opinion is - that the projection of each SCR should be based on an appropriate related driver; - that the use of BEL as driver should be accepted as quick (over)estimate. For the non-life activities, we think that the future SCRs could be expressed as a percentage of the Best Estimate by LOB and to maintain this percentage constant over the years. It appears, from our analysis and calculations, that applying such a simplification leads to very similar results than those obtained with an internal model. To obtain this reference percentage, we think that the volatility parameters have to be related to the size of the undertaking or at least be conservative enough to take into account a potential high volatility due to the size of the undertaking.	
570.	CEA, ECO-SLV-09-437	3.115.	Simplifications should not be considered alongside the calibration of the CoC rate. As the quantification of the CoC on its own will constitute a complex exercise, we believe issues in projecting the SCR should be addressed separately, particularly as these will be considered in a later consultation paper. ☐ We request that this paragraph is deleted. The benefits of projecting the SCR each year should be weighed against the costs to the industry. Ceiops should acknowledge that in most cases a simplified approach will be the default method. To require full recalculation of each future SCR will be unduly burdensome in most cases. It should therefore be assessed whether the benefits of the SCR projections for future years outweigh the cost of the approach as	Noted. This paragraph is deleted in the final version of CP 42.

			compared to the more simple techniques. As part of the risk governance, an entity is always required to "back test" its methodologies against experience. If that assessment suggests a gap, then a more refined method could be applied. With regards to the "recent academic work" mentioned, we should highlight that the conclusion reached only related to non-life business and that for longer term business an opposite conclusion can be drawn. The Risk Margin could be overstated considerably as a result of the calibration of Long Term risks. We should also point out that we believe that for long term risks the approach of Ceiops, as well as the approximation method discussed in this paragraph, could overstate the Risk Margin considerably as a result of the calibration of certain risks. This is the case for risks that have the greatest impact on the value of future liabilities, rather than causing immediate losses in the 1-year time horizon, such as for example: longevity risk, mortality risk (excl. CAT) or non-life long-tail risk such as construction or medical liability insurance. For example, the calibration proposed by Ceiops for the 1-year 99.5% event for longevity risk results is a shock of -25% to all future mortality rates. This is a simplification of a change in best estimate assumptions over the next 1 year for annual improvements in longevity - as such a capital charge which was more reflective of the actual risks for the insurer would assign greater capital requirements for long-term liabilities for this risk compared to short-term liabilities. If the capital charge for longevity risk properly reflected longevity risks and if an insurer closed to new business and ran off its liabilities we would expect the capital charge for longevity risk to reduce over time due to the reducing term of the liabilities. There are several risks for which the capital charge would be expected to be dependent on the term of the liabilities and this is not properly reflected in its calibration (see	

			comments to CP49 on this topic). Therefore, the projection of the SCR could significantly overstate the Risk Margin requirements.	
571.	European Insurance CFO Forum	3.115.	Comments in 3.129 are also relevant here.	Noted. This paragraph is deleted in the final version of CP 42.
572.	FFSA	3.115.	See 3.96	Noted. This paragraph is deleted in the final version of CP 42.
573.	Groupe Consultatif	3.115.	GC proposes that more research is undertaken on the appropriate projection of the capital base	Noted. This paragraph is deleted in the final version of CP 42.
574.	Pearl Group Limited	3.115.	Simplifications should not be considered alongside the calibration of the CoC rate. As the quantification of the CoC alone will constitute a complex exercise, we believe issues in projecting the SCR should be addressed separately, particularly as these issues will be considered in a later consultation paper. The benefits of projecting the SCR each year should be weighed against the costs. CEIOPS should acknowledge that in most cases a simplified approach will be the default method. To require full recalculation of each SCR will be unduly burdensome in most cases. It should therefore be assessed whether the benefits of the SCR projections for future years outweigh the cost of the approach as compared to the more simple techniques.	Noted. This paragraph is deleted in the final version of CP 42.

			We believe that for long term risks / business the approach of CEIOPS, as well as the approximation method discussed in this paragraph, is overstating the MVM considerably. This is the case for risks that are mainly driven by the impact on the future liabilities, not by the losses in the 1-year horizon, such as longevity risk, mortality risk (excl. CAT), expense risk, lapse risk, non-life long-tail risk.	
575.	PricewaterhouseCoopers LLP	3.115.	See comments under 3.89	Noted. This paragraph is deleted in the final version of CP 42.
576.	ROAM – Draft V2	3.115.	Simplifications should not be considered alongside the calibration of the CoC rate 2. As the quantification of the CoC is difficult enough by itself, we propose to leave issues in projecting the SCR aside. These should be addressed separately. Furthermore, as these will be addressed in a later consultation paper it seems premature to base any assumptions for the CoC rate calibration on the supposed simplifications to be used for the risk margin calculation. The benefits of projecting the SCR each year should be weighed against the costs to the industry 3. The method used by most of the industry clearly provides evidence that the original envisaged required methodology is burdensome and that the “simplification” is used by the industry. It should therefore be assessed whether the benefits of the SCR projections for future years outweigh the cost of the approach as compared to the more simple techniques. As part of the risk governance, an entity is always required to “back test” its	Noted. This paragraph is deleted in the final version of CP 42.

			methodologies against experience. If that assessment suggests a gap, then a more refined method is to be applied. Also, the conclusion of the "recent academic work" was only related to non-life business; for longer term business an opposite conclusion can be drawn. 4. We argue that for long term risks / business the approach of CEIOPS, as well as the approximation method discussed in this paragraph, is overstating the MVM considerably. This is the case for risks that are mainly driven by the impact on the future liabilities, not by the losses in the 1-year horizon, such as longevity risk, mortality risk (excl. CAT), expense risk, lapse risk, non-life long-tail risk. For example, the 1-year 99,5% event for longevity risk results in a shock of -25% of all future mortality rates. In the CEIOPS approach, this is used in every future projection year to quantify SCR (T). However, it will not be possible that such events, with impact on all future rates, will occur every year. Therefore, the SCR (T) should be determined conditional on whether the event (partly) occurred for times t < T. In other words, there is a certain level of diversification over time periods. First tests on this area have shown that the Risk Margin is significantly lower when this diversification is addressed. The argument does not apply for risks / losses in the 1-year horizon: for example a mortality CAT can happen at year T irrespective of whether a similar event already happened at some time t < T.	
577.	Unum Limited	3.115.	Simplifications should not be considered alongside the calibration of the CoC rate. As the quantification of the CoC alone will constitute a complex exercise, we believe issues in projecting the SCR should be addressed separately, particularly as these issues will be considered in a later consultation paper.	Noted. This paragraph is deleted in the final version of CP 42.

			The benefits of projecting the SCR each year should be weighed against the costs to the industry. CEIOPS should acknowledge that in most cases a simplified approach will be the default method. To require full recalculation of each SCR will be unduly burdensome in most cases. It should therefore be assessed whether the benefits of the SCR projections for future years outweigh the cost of the approach as compared to the more simple techniques. We believe that for long term risks / business the approach of CEIOPS, as well as the approximation method discussed in this paragraph, is overstating the MVM considerably. This is the case for risks that are mainly driven by the impact on the future liabilities, not by the losses in the 1-year horizon, such as longevity risk, mortality risk (excl. CAT), expense risk, lapse risk, non-life long-tail risk.	
578.	DIMA (Dublin International Insurance & Management	3.116.	The main concern for captives is calculation of risk margin on the basis of each line of business. The approach should be to calculate this number being a certain percentage of the overall SCR of a captive or smaller company. For some lines of business the premium and the risks assumed are not sufficient to necessitate the each line of business analysis.	Noted. See the CP on simplifications.
579.	Groupe Consultatif	3.116.	The general approach as outlined in (3.116 to 3.120) can easily be misunderstood. Mathematically, CEIOPS does not distinguish between expected values of random variables and random variables. The equation in 3.120 relates the risk margin CoCM (which is an expectation or a number) to random variables (SCR(t), for t>0). Alternatively, CEIOPS might understand by SCR(t) actually the expected capital needed at time t. In that case however the approach outlined is not general anymore. A more general approach is actually to take into account that future capital needed to buffer unavoidable risk is stochastic. In that case, discounting can not be done using a given deterministic discount	Noted. The applied notation is in line with the notation used in e.g. the technical specifications for QIS4 and is as such deemed sufficiently accurate for the present purpose.

			rate but also would have to be done stochastically. We would also consider this as best practice. Understanding that future capital associated with the insurance liabilities is stochastic and can vary depending on the financial market conditions, losses experienced etc. is an important element of insurers' longer term risk and capital management.	
580.	DIMA (Dublin International Insurance & Management	3.117.	See comment 3.116.	Noted.
581.	Lloyd's	3.117.	Not allowing diversification makes the calculations overly prudent, as per the comments in the general observations	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking.
582.	DIMA (Dublin International Insurance & Management	3.118.	See comment 3.116.	Noted.
583.	Belgian Coordination Group Solvency II (Assuralia/	3.119.		–
584.	DIMA (Dublin International Insurance & Management	3.119.	See comment 3.116.	Noted.

585.	Association of British Insurers	3.120.	See the comments under 3.135.	Noted.
586.			Confidential comment deleted.	
587.	CEA, ECO-SLV-09-437	3.120.	See the comments to Para 3.135.	Noted.
588.	DIMA (Dublin International Insurance & Management	3.120.	See comment 3.116.	Noted.
589.	Pearl Group Limited	3.120.	Full diversification should be reflected in the CoC We request clarification as to whether the CoC rate is assumed to be pre or post tax	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking.
590.	RBS Insurance	3.120.	Given that the technical provisions will be reducing over the period of the calculation, so will SCR(t). As such, we believe the formula should allow for the SCR to average between t and t+1 when calculating the CoC to prevent it being overly prudent.	Noted. Further guidance regarding this aspect may be issued on Level 3. See the CP on simplifications.
591.	DIMA (Dublin International Insurance & Management	3.121.	See comment 3.116.	Noted.
592.	DIMA (Dublin	3.122.	See comment 3.116.	Noted.

	International Insurance & Management			
593.	Groupe Consultatif	3.122.	CEIOPS states that the method of calculation outlined in (3.116 to 3.120) should apply to both internal models and companies using the standard formula. Given the fact that CEIOPS's approach is not general and neglects the stochasticity of future capital, we propose to either make the formulation more general or open up the acceptable approaches for firms using internal models. In addition, we are not sure whether the equation is entirely consistent with the story of the transfer to an empty shell. Art 75 (general provisions) of the Level 1 text states that the transfer is immediately. Therefore the company receiving the liabilities has to set up capital (SCR(0)) immediately. That would imply that SCR_{RU,lob}(0) is not discounted by (1+r).	Noted. The applied wording is deemed sufficiently accurate for the present purpose. Further guidance regarding this aspect may be issued on Level 3. Noted. Some comments on this issue are given in the CP on simplifications.
594.	KPMG ELLP	3.122.	This implies consistency in the methodology used for the calculation of the risk margin but not in the calculation of the technical provisions which could lead to the comparison of the relative riskiness of (re)insurance undertakings to be skewed.	Not agreed. It is not obvious what kind of inconsistency it is referred to here. The advice on segmentation applies to all undertakings regardless of the methodology applied for the SCR-calculations.
595.			Confidential comment deleted.	
596.	CRO Forum	3.123.	Calculation of SCRRU,lob(t) should include diversification benefits of the whole company, including between operational risk and other risks, as well as an adjustment for the loss absorbing effect of taxes.	See the resolution regarding comment no. 595.
597.	DIMA	3.123.	See comment 3.116.	Noted.

	(Dublin International Insurance & Management			
598.	DIMA (Dublin International Insurance & Management	3.124.	See comment 3.116.	Noted.
599.	European Insurance CFO Forum	3.124.	Comments in 3.130 are also relevant here.	Noted.
600.	Legal & General Group	3.124.	See response to 3.130 (assumption 7)	Noted.
601.	DIMA (Dublin International Insurance & Management	3.125.	See comment 3.116.	Noted.
602.	Association of British Insurers	3.126.	This text is not clear: Could correlations within internal models be based on the Underwriting risk module?	Noted. This aspect should be clarified in the context of procedures for approving internal models.
603.	CEA, ECO-SLV-09-437	3.126.	This text is not clear: Is Ceiops proposing that correlations within internal models should be based on the Underwriting risk module? We would oppose any such restriction.	Noted. This aspect should be clarified in the context of procedures for approving internal models.
604.	DIMA	3.126.	See comment 3.116.	Noted.

	(Dublin International Insurance & Management			
605.	Pearl Group Limited	3.126.	This text is not clear: Could correlations within internal models be based on the Underwriting risk module?	Noted. This aspect should be clarified in the context of procedures for approving internal models.
606.	DIMA (Dublin International Insurance & Management	3.127.	See comment 3.116.	Noted.
607.			Confidential comment deleted.	
608.	DIMA (Dublin International Insurance & Management	3.128.	See comment 3.116.	Noted.
609.	RBS Insurance	3.128.	We support the approach of not being required to split the risk margin for premiums provisions and for provisions for claims outstanding for non-life insurance. This is because we believe the split will not produce a material difference in result proportionate to the extra effort involved. However we do not believe the use of this split within the calculation should be precluded.	Noted.
610.			Confidential comment deleted.	
611.	DIMA (Dublin International	3.129.	See comment 3.116.	Noted.

	Insurance & Management			
612.	European Insurance CFO Forum	3.129.	The risk margin calculation should not be unduly onerous. Principles outlining permissible methods of simplification are required. The risk margin calculation should not be unduly onerous; therefore, simplifications regarding estimation of the Solvency Capital Requirement ("SCR") over the future run-off of the liabilities are necessary. Level 2 implementing measures should include principles on how estimation of the SCR in future time periods is linked to underlying risk drivers.	Noted. See the CP on simplifications.
613.	Legal & General Group	3.129.	We welcome principles on simplifications to the risk margin calculations, particularly in order to enable estimation of future SCRs.	Noted.
614.	AAS BALTA	3.130.	We believe that the amount of the Risk Margin should be the same for a monoline insurer as for a multi-line insurer, for a particular line of business, where all other things are equal. However we disagree that these values should be equalised assuming no diversification, as proposed in Paragraph 8. Using analogies from Finance Theory it is clear that an acquiring entity for whom the portfolio offers the prospect of some diversification will charge a lower price than one for whom the diversification benefit is less complete. This suggests the concept of a reference entity that is "perfectly" diversified once the transferred portfolio has been accepted. Whilst somewhat idealised, such a reference entity is arguably no more unrealistic than the empty reference entity proposed by CEIOPS. We think arguments about the diversification or otherwise of the transferring entity are irrelevant. It is only the diversification of the accepting entity that matters.	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking. Not agreed. This comment is not in line with the concept of a reference undertaking, cf. recital 32 of the

			We need to consider a practical method for assessing this "perfect" diversification. One method would be to calculate the SCR (omitting market risk) for a reference entity that consists of equal volumes, by both premium and technical provision, of each line of business. The equivalent line of business only SCR, SCR(lob) say, could also be calculated. These calculations might require a "steady state" ratio of premium to technical provisions but this can be readily done. The diversification factor, DF, could be calculated from the following formula: DF = SCR/sum{SCR(lob)} DF could then be multiplied by the individual line of business SCR, whether calculated using an internal model or the standard formula, to determine the SCR to be used in the cost of capital formula. This approach would be simple to apply and DF would be the same for all undertakings. There is no need to allocate risk margin as a per line of business risk margin is calculated. The method allows for a more theoretically correct risk margin and is independent of the transferring entity.	Level 1 text. Noted. However, the merits of this method should be assessed. The method is only relevant if it is allowed for diversification benefits. The details of the sketched method need to be fleshed out, but it is likely that a large number of calculations of lob-specific (present and future) SCRs will be required. (The CP on simplifications may be useful in this context.)
615.	AB Lietuvos draudimas	3.130.	We believe that the amount of the Risk Margin should be the same for a monoline insurer as for a multi-line insurer, for a particular line of business, where all other things are equal. However we disagree that these values should be equalised assuming no diversification, as proposed in Paragraph 8. Using analogies from Finance Theory it is clear that an acquiring entity for whom the portfolio offers the prospect of some diversification will charge a lower price than one for whom the diversification benefit is less complete. This suggests the concept of a reference entity that is "perfectly" diversified once the transferred portfolio has been accepted. Whilst somewhat idealised, such a reference entity is	See the resolution regarding comment no. 614.

			arguably no more unrealistic than the empty reference entity proposed by CEIOPS. We think arguments about the diversification or otherwise of the transferring entity are irrelevant. It is only the diversification of the accepting entity that matters. We need to consider a practical method for assessing this "perfect" diversification. One method would be to calculate the SCR (omitting market risk) for a reference entity that consists of equal volumes, by both premium and technical provision, of each line of business. The equivalent line of business only SCR, SCR(lob) say, could also be calculated. These calculations might require a "steady state" ratio of premium to technical provisions but this can be readily done. The diversification factor, DF, could be calculated from the following formula: DF = SCR/sum{SCR(lob)} DF could then be multiplied by the individual line of business SCR, whether calculated using an internal model or the standard formula, to determine the SCR to be used in the cost of capital formula. This approach would be simple to apply and DF would be the same for all undertakings. There is no need to allocate risk margin as a per line of business risk margin is calculated. The method allows for a more theoretically correct risk margin and is independent of the transferring entity.	
616.	ACA – ASSOCIATION DES COMPAGNIES	3.130.	We believe that a portfolio that is transferred would have risk absorbing capacity via a reduction of tax liabilities (since transferred portfolios are supposed to generate gross profits). This means a reduction of the SCR of the reference entity. We would propose to keep some loss absorbing capacity of deferred taxes as	Not agreed. See e.g. the resolutions regarding the comments on assumption 7 of the reference undertaking.

	D'ASSURAN CES DU		this is conform to the reality. We believe that the transfer price of a portfolio is affected by risk diversification benefits within the portfolio's LoBs. Therefore we believe that diversification benefits of the original undertaking need to be taken into account in calculating the SCR of the reference undertaking.	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking.
617.	AMICE	3.130.	See comments to paragraph 3.47 Not taking into account the loss absorbing capacity of deferred taxes is too conservative. Indeed, it assumes that the entity to which the portfolio is transferred has no deferred taxes liabilities. Furthermore, the industry wonders whether the loss absorbing capacity of deferred taxes should be limited to (deferred tax) liabilities. We suggest CEIOPS defines the SCR to be used in the Risk Margin calculation as being net of taxes.	Noted. Not agreed. See e.g. the resolutions regarding the comments on assumption 7 of the reference undertaking.
618.	Association of British Insurers	3.130.	(1) The assumption that the reference undertaking is not the undertaking itself but another undertaking does not necessarily result in a more accurate result. Whilst an entity cannot transfer business to itself, the overall objective is to obtain technical provisions that are aligned with what an insurer would have to pay to transfer the business. If assuming entity specific assumptions results in a more accurate answer then they should be used. (2) The assumption that the reference undertaking is an empty undertaking is unrealistic. It is not realistic to assume that the entity receiving the transfer is an empty undertaking in the sense that it doesn't have any liabilities or funds prior to the transfer. This would not occur in practice. Most commonly the receiving entity has existing business and funds. Therefore, the reference should be an entity which already has market knowledge and experience. An empty reference	Noted. However, see e.g. the resolutions regarding the comments on assumption 1 of the reference undertaking as well as on subsection 3.1.3.1.B. Not agreed. See e.g. the resolutions regarding the comments on assumption 2 of the reference undertaking as well as on subsection 3.1.3.1.B.

			undertaking would have to incur significantly start up costs to run the business and is thus not equal / relevant. Furthermore, the assumption is that the reference undertaking has no other purpose than running off this business. This effectively rejects the concept of transfer value and replaces it with the concept of run-off value which we do not think is appropriate for this purpose. In addition, it should be noted that in principle when a winding-up situation occurs the whole insurance business is normally transferred to another party and not separate lines of business. See also comments under 3.25	
			(3) We agree that the reference entity should only be subject to market risk that is genuinely unavoidable and measured only of this is material.	Noted.
			(5d) There should be no duplication market risk in the risk margin Conceptually unavoidable market risk could be included in the risk margin to the extent that it is genuinely non-hedgeable and significant. However, we expect in most cases unavoidable market risk to be residual. Therefore, we believe that it would be disproportionally complex to require undertakings to explicitly allow for it in the risk margin in particular when they are not using internal models.	Noted. There is no duplication of market risk.
			(7) This is inconsistent with the requirements of the Framework Directive which requires allowance to be made for the risk absorbing effect of deferred tax liabilities. Deferred taxes to be incurred on future cashflows are an economic reality and have an absorbing capacity (e.g. you make lower future profits then less tax is paid) and therefore should be included within the calculation of the risk margin. If the deferred taxes under the stressed scenario result in an increase in existing deferred tax	Not agreed. See e.g. the resolutions regarding the comments on assumption 7 as well as the amended wording of subsection 3.1.3.2.2.

			assets, then an assessment should be made of their recoverability on a going-concern basis. (8) Such assumption goes beyond what is required by the FD and would involve artificial assumptions in some countries where the transfers may not be possible. ☐ Our interpretation of Article 79 is that homogeneous risk groups should be used for the purpose of setting assumptions. We therefore disagree with CEIOPS' interpretation to support the non recognition of diversification in the risk margin: as all transfers are expected to be to companies with existing business there will be diversification effects. Transfer prices will therefore reflect this and as such in order to have a good proxy for these actual prices the risk margin should allow for diversification effects. ☐ Furthermore, in some countries it may not be possible to split up and transfer the business as assumed here, e.g. because the profit sharing rules relate to the whole of the company's profit sharing and not individual lines of business. ☐ Based on Article 75.2, all lines of business are assumed to be transferred together. Insurance or reinsurance undertakings would take account of diversification effects between different lines of business when bidding for these obligations - diversification effects should be allowed for when calculating the risk margin. ☐ In addition, line-of-business calculations could be very onerous to carry out, in particular combined with the requirement to include unavoidable market risk, as assets are not segmented by line of business. ☐ Finally, it seems inappropriate to require undertakings with internal model to use the LoBs from the standard approach. The requirement to use an empty reference and transfer each line of business does not give a "market price" but gives a very skewed,	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.

			uneconomic and unrealistic view of a possible transfer of liabilities.	
619.	ASSOCIATION OF FRIENDLY SOCIETIES	3.130.	See our comment under 3.47.	Noted.
620.	CEA, ECO-SLV-09-437	3.130.	(1) The assumption that the reference undertaking is not the undertaking itself but another undertaking does not necessarily result in a more accurate result. This assumption is not in line with the overall objectives of Solvency II. The overall objective is to obtain technical provisions that are aligned with what an insurer would have to pay to transfer the business. If the use of entity specific assumptions results in a more accurate valuation then they should be used. (2) The assumption that the reference undertaking is an empty undertaking is unrealistic. It is completely unrealistic to assume that the entity receiving the transfer is an empty undertaking in the sense that it doesn't have any liabilities or funds prior to the transfer. This would not occur in practice and we would expect that the receiving entity has existing business and funds. Therefore, the reference should be an entity which already has market knowledge and experience. An empty reference undertaking would have to incur significantly start up costs to run the business and is thus not relevant. Furthermore, the assumption is that the reference undertaking has no other purpose than running off this business. This effectively rejects the concept of transfer value and replaces it with the concept of run-off value which we do not think is appropriate for this purpose. In addition, it should be noted that in principle when a winding-up situation occurs the whole insurance business is normally	See the resolution regarding comment no. 618.

			transferred to another party and not separate lines of business (see data in our comments to Para 3.56) (3) This creates a circular reference. These requirements create a circular loop since the asset risk would depend on the size of the SCR and the SCR would depend on the size of the asset risk. This potential problem does not appear to be explored within the CP. ☐ We request more explanation to know how to deal in practice with this potential issue. (4) and (5d) The requirement to calculate unavoidable market risk in the risk margin could result in excessive complexity. Conceptually, unavoidable market risk should be included in the risk margin to the extent that it is non-hedgeable. However, this will require undertakings to carry out disproportionally complex calculations even though we expect that in most cases unavoidable market risk will be residual. Therefore, we believe that unavoidable market risk should not be explicitly allowed for in Pillar 1, in particular when the insurer is not using an internal model. (6) This assumption is not relevant to non-life business. ☐ The CEA recommends that the wording should be changed such that it is clear that this is not applicable to non-life business. (7) This is inconsistent with the requirements of the Framework Directive which requires allowance to be made for the risk absorbing effect of deferred tax liabilities. No allowance for the loss absorbency of deferred taxes seems contrary to the idea of transfer risk to a third party. The loss absorbing capacity of deferred taxes should be recognised to ensure an economic risk-based approach. This is consistent with the recommendations made in the CEA response to the consultation	

			on CP35 where the industry highlighted its strong disagreement with the non-recognition of unused tax losses and unused tax credits, stating that the recognition of the unused tax losses should be based on the recoverability principle. We should add that even in stress scenarios tax credits can be available. Furthermore this assumption could introduce some doubts as to whether the calculation of the SCR should be made pre or post taxes. We believe the SCR should be calculated net of tax and that should be clarified in level 2. (8) This assumption goes beyond the requirements of the FD and would involve artificial assumptions in some countries where the transfers assumed may not be possible. Article 85 (e) calls for an implementing measure in respect of Article 79, which requires insurers to segment their business into homogenous risk groups and as a minimum by lines of business when calculating their technical provisions. The CEA’s interpretation is that this relates to using homogeneous risk groups for the purpose of setting assumptions. We disagree with Ceiops’ interpretation where they believe that it implies there should be no recognition of diversification within the risk margin. All transfers are expected to be to companies with existing business so there will be diversification effects. Transfer prices will therefore reflect this and as such in order to have a good proxy for these actual prices the risk margin should allow for diversification effects. Furthermore, in some countries it may not be possible to split up and transfer the business as assumed here, e.g. because the profit sharing rules relate to the whole of the company’s profit sharing and not individual lines of business. Article 75.2 of the draft directive states that “The value of technical provisions shall correspond to the current amount insurance and	

			reinsurance undertakings would have to pay if they were to transfer their insurance and reinsurance obligations immediately to another insurance or reinsurance undertaking." We take this to mean that all lines of business are assumed to be transferred together. Insurance or reinsurance undertakings would take account of diversification effects between different lines of business when bidding for these obligations - diversification effects should be allowed for when calculating the risk margin. In addition, line-of-business calculations could be very onerous to carry out, in particular combined with the requirement to include unavoidable market risk, as assets are not segmented by line of business. ☐ All diversification effects should be included in the calculations to be consistent with an economic risk-based approach. Finally, it seems inappropriate to require undertakings with internal models to use the LoBs from the standard approach.	
621.	CRO Forum	3.130.	ADVICE Please refer to our comments made earlier in this response in general comments and in paragraphs: 3.26; 3.28; 3.32; 3.35; 3.47; 3.50; 3.52;	Noted.

			3.54; 3.62; 3.66	
622.	DIMA (Dublin International Insurance & Management	3.130.	Section 8 – same comment as 3.54. The assumption of separate transfers at line of business level to different empty reference undertakings is arbitrary. We feel that the same level of diversification as for the main SCR calculation itself should be permitted here.	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
623.	European Insurance CFO Forum	3.130.	Transfer to an empty reference undertaking is not appropriate. The transfer should be to a reference undertaking identical to the supervised entity/group after the transfer (Assumption 2). Empty reference undertaking is not an appropriate basis as it does not recognise the economics of the portfolio on a going concern basis. Risk margin by line of business should be calculated assuming transfer to a reference entity/group that will be identical to the supervised entity/group after the transfer. Diversification benefits should not be limited to the line of business level (Assumption 8). Diversification should not be limited to the line of business level. The ability to combine independent risk is the basis for pricing insurance. Consolidation has been driven by the costs and benefits of managing diverse portfolios of business together. Ignoring the economic benefits of being part of a group is contradictory to the objectives of Solvency II. Diversification benefits should be allowed for at the company or group level, subject to fungibility of capital (covered in CP60).	Not agreed. See e.g. the resolutions regarding the comments on assumption 1 of the reference undertaking as well as on subsection 3.1.3.1.B. Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.

			☐ Loss absorbing capabilities of deferred taxes should be included within the valuation of the risk margin (Assumption 7). ☐ The Solvency Capital Requirement ("SCR") used to calculate the risk margin should take into account not only the loss absorbing capabilities of the technical provisions but also deferred tax and tax credits. ☐ The exclusion of the loss absorbing capabilities of deferred taxes appear to conflict with the Framework directive. ☐ To be consistent with our response to CP54, credit should be taken for deferred tax and for tax credits subject to applicable current and expected future tax rules consistent with anticipated profits or losses. Under IAS 12, a test for recoverability is mandatory when recognising deferred tax assets. Only when the net tax asset is deemed to be recoverable can it be recognised. The CFO Forum recommends that such net tax assets should also be recognised for regulatory reporting purposes under Solvency ll.	Not agreed. See e.g. the resolutions regarding the comments on assumption 7 as well as the amended wording of subsection 3.1.3.2.2.
			Unavoidable market risk should be excluded from the calculation of risk margin in the technical provisions until more reliable estimation techniques are developed, but should be assessed separately as part of the ORSA. In principle all unavoidable risks should be covered by the Risk Margin. Given the practical difficulties of separately measuring non-hedgeable market risks, due to the complexity and immaturity of the techniques available, the CFO Forum recommends that unavoidable market risk is excluded from the calculation of the risk margin in the technical provisions. Unavoidable market risk is included in the overall market risk charge in the SCR. Where unavoidable market risk is indentified as a key risk this should be separately identified and assess in the ORSA and disclosed in the	Not agreed. Simplified methods for this calculating are described in the CP on simplifications.

			Report to Supervisors.	
624.	FFSA	3.130.	Points 3 and 4: The reference company is to hold assets exactly equal to the SCR + technical provisions + risk margin. This creates a circular loop since the asset risk would depend on the size of the SCR and the SCR would depend on the size of the asset risk. This potential problem does not appear to be explored within the CP. FFSA would like to have more explanation to know how to deal in practice with this potential issue. Point 4: As the risk free rate is used for the calculation of the best estimate technical provisions which is conservative and as mass risk and lapses risk are already captured in the calculation of SCR, FFSA believes that unavoidable market risk calculation in the risk margin would lead to double counting some items. We understand that the "unavoidable market risk" which might occur for example where there are very long term liabilities and there are no matching assets of the required duration would be taken into account in deriving risk free rate therefore should not be taken into account in the risk margin. Point 7: FFSA believes that loss absorbing capacity of deferred taxes should be recognized to ensure an economic risk-based approach and consistent approach with the recommendation made in the answer of the CP35 where the Industry strongly disagrees with the non recognition of unused tax losses and unused tax credits and highlights that the recognition of the unused tax losses should be based on the recoverability principle. Furthermore this assumption could introduce some doubts whether the calculation of the SCR should be made pre or pro taxes. FFSA believes the SCR should be calculated net of tax and that should be clarified in the level 2 measures. Point 8: It is mentioned that calculation should be done by line of	Noted. The discussion regarding assumption 4 is amended in the final version of CP 42. Not agreed. There is no double counting of market risk. See also the simplified methods for calculating the unavoidable market risk as described in the CP on simplifications as well as the criteria for the risk free interest rat as discussed in CP40. Not agreed. See e.g. the resolutions regarding the comments on assumption 7 as well as the amended wording of subsection 3.1.3.2.2.

			business. FFSA believes this granularity is not convenient for risk margin calculation. For instance, this would lead to calculate a SCR for unavoidable market risk by line of business which may be difficult as assets are not segmented by line of business. Each undertaking should choose the appropriate granularity of calculation regarding the specificities of its portfolio. Point 8: CEIOPS states that no diversification benefits should be taken into account between lines of business. FFSA strongly disagrees with this statement and believes it is indeed unduly maximizing the risk margin as the underlining principle of the Solvency calculation is that all portfolios should be transferred together. When there are diversification benefits between them, then they should also be taken into account for the purpose of computing the risk margin.	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
625.	German Insurance Association – Gesamtverb and der D	3.130.	(1) The assumption that the reference undertaking is not the undertaking itself but another undertaking does not necessarily result in a more accurate result. This assumption is not in line with the overall objectives of Solvency II. Clearly an entity cannot transfer business to itself. However, the overall objective is to obtain technical provisions that are aligned with what an insurer would have to pay to transfer the business. If the use of entity specific assumptions results in a more accurate valuation then they should be used. (2) The assumption that the reference undertaking is an empty undertaking is unrealistic. It is completely unrealistic to assume that the entity receiving the transfer is an empty undertaking in the sense that it doesn’t have any liabilities or funds prior to the transfer. This would not occur in practice and we would expect that the receiving entity has existing business and funds. Therefore, the reference should be an entity which already has market knowledge and experience. An empty	See the resolution regarding comment no. 618.

			reference undertaking would have to incur significantly start up costs to run the business and is thus not relevant. Furthermore, the assumption is that the reference undertaking has no other purpose than running off this business. This effectively rejects the concept of transfer value and replaces it with the concept of run-off value which we do not think is appropriate for this purpose. In addition, it should be noted that in principle when a winding-up situation occurs the whole insurance business is normally transferred to another party and not separate lines of business. (4) and (5d) There should be no requirement to calculate unavoidable market risk in the risk margin Conceptually unavoidable market risk should be included in the risk margin to the extent that it is non-hedgeable. However, we expect in most cases unavoidable market risk to be residual. Therefore, we believe that it would be disproportionally complex to require undertakings to explicitly allow for it in the risk margin in particular when they are not using internal models. (7) This is inconsistent with the requirements of the Framework Directive which requires allowance to be made for the risk absorbing effect of deferred tax liabilities. No allowance for the loss absorbency of deferred taxes seems contrary to the idea of transfer risk to a third party. The loss absorbing capacity of deferred taxes should be recognised to ensure an economic risk-based approach. This is consistent with the recommendations made in the CEA response to the consultation on CP35 where the industry highlighted its strong disagreement with the non-recognition of unused tax losses and unused tax credits, stating that the recognition of the unused tax losses should	

			be based on the recoverability principle. We should add that even in stress scenarios tax credits can be available. (8) This assumption goes beyond the requirements of the FD and would involve artificial assumptions in some countries where the transfers assumed may not be possible. Article 85 (e) calls for an implementing measure in respect of Article 79, which requires insurers to segment their business into homogenous risk groups and as a minimum by lines of business when calculating their technical provisions. The GDV's interpretation is that this relates to using homogeneous risk groups for the purpose of setting assumptions. We disagree with CEIOPS' interpretation where they believe that it implies there should be no recognition of diversification within the risk margin. All transfers are expected to be to companies with existing business so there will be diversification effects. Transfer prices will therefore reflect this and as such in order to have a good proxy for these actual prices the risk margin should allow for diversification effects. Furthermore, in some countries it may not be possible to split up and transfer the business as assumed here, e.g. because the profit sharing rules relate to the whole of the company's profit sharing and not individual lines of business. Article 75.2 of the draft directive states that "The value of technical provisions shall correspond to the current amount insurance and reinsurance undertakings would have to pay if they were to transfer their insurance and reinsurance obligations immediately to another insurance or reinsurance undertaking." This implies that all lines of business are assumed to be transferred together. Insurance or reinsurance undertakings would take account of diversification effects between different lines of business when bidding for these obligations - diversification effects should be	

			allowed for when calculating the risk margin. In addition, line-of-business calculations could be very onerous to carry out, in particular combined with the requirement to include unavoidable market risk, as assets are not segmented by line of business. Finally, it seems inappropriate to require undertakings with internal models to use the LoBs from the standard approach.	
626.	GROUPAMA	3.130.	- The unavoidable market risk should be clarified. Indeed, it could lead to onerous calculations without clarifications and methodologies. Furthermore, if cash flows are matched and equities avoided in the entity where the liabilities are transferred, the unavoidable market risk is only for long-term cash flows (there are risk free bonds on the market that mature in up to 50 years), and in this case Groupama thinks this risk is not material. The principle of proportionality should apply in this case, and unavoidable market risk should be limited to liabilities in currencies where the market is not deep, and should be considered as zero for euro liabilities. - Not taking into account the absorbing capacity of deferred taxes is too conservative. Indeed, it supposes that in all cases the entity to which the portfolio is transferred has no deferred tax liabilities. Furthermore, the industry questions the limitation of the absorbing capacity of deferred taxes at the level of the deferred tax liabilities. We suggest that CEIOPS state that the SCR used for Risk Margin calculation should be net of taxes.	Noted. See the discussion of this issue in the CP on simplifications. Not agreed. See e.g. the resolutions regarding the comments on assumption 7 as well as the amended wording of subsection 3.1.3.2.2.
627.	Groupe Consultatif	3.130.	As explained earlier we do not share CEIOPS view that the risk margin shall be determined by line-of-business using the partial transfer approach. We recommend using a whole transfer approach which would allow for diversification between lines of business.	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.

628.	International Underwriting Association of London	3.130.	Furthermore, whilst we can see the rationale behind making the reference undertaking an "empty" undertaking, we would expect that in reality, this would rarely be the case in practice. Where liabilities are transferred to another undertaking, that undertaking will most likely have existing liabilities, and therefore will undoubtedly benefit from some form of diversification benefit - although the extent of such diversification will of course depend upon the entity in question. We would however question whether treating the reference undertaking as "empty" and not allowing from any form of diversification benefit will be introducing an undue level of prudence into the risk margin. We would suggest that it may be worth studying historical portfolio transfers, to ascertain whether there is a 'typical' discount applied to transfers, reflecting the diversification benefits the receiving entity may gain.	Not agreed. See e.g. the resolutions regarding the comments on assumption 1, 2 and 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
629.	Investment & Life Assurance Group (ILAG)	3.130.	See our comment under 3.47.	Noted.
630.	Just Retirement Limited	3.130.	Sub-paragraph 1: We support the principle that the reference undertaking is not the undertaking itself. Sub-paragraph 2: On the basis that assuming a non-empty reference undertaking (whether assumed to be identical to the entity itself, or some sort of "average" company) would introduce complexity and ambiguity into the calculation of the risk margin, we support the principle that the reference undertaking should be assumed to be empty. Sub-paragraph 4: The risk margin in the original undertaking cannot both (1) be transferred intact to the reference undertaking and (2) simultaneously used to fund the cost of raising capital to cover the SCR over the lifetime of the liabilities. One way of	Noted. Noted. Noted. However, the relevant capitalisation scenario is briefly

			proceeding would be to require the reference undertaking to have assets sufficient to cover the best-estimate liabilities and the SCR only, without the recursive requirement to cover a further risk margin in the reference undertaking itself. Sub-paragraph 5(d): We understand the rationale for including unavoidable market risk in the calculation, but for practical reasons a proportionate approach having regard to materiality should be adopted. Sub-paragraph 8: We support the approach described in which no diversification arises between lines of business. This means that the value of the technical provisions does not depend on the other liabilities held by the original undertaking, which is consistent with the transfer principle and with the valuation of the BEL as the sum of expected outgo across lines of business without regard to diversification. Sub-paragraph 9: It would be useful to clarify the treatment for an undertaking with a partial internal model that only partially covered the SCR modules in the risk margin calculation. For example, if counterparty risk was calculated on the standard model, but underwriting risk on an internal model, can the undertaking use a hybrid standard/internal model for the risk margin calculation, or does it have to use the full standard model?	described in the CP on simplification. Noted. This issue is elaborated further in the CP on simplifications. Noted. Noted. This issue should be elaborated further in a Level 3 guidance.
631.	Legal & General Group	3.130.	Assumption 2: We disagree with the use of a reference undertaking with a different economic profile to that of the undertaking. The transfer should assume a transfer to a reference to an entity or group that will be identical to the supervised entity or group after the transfer. This is particularly the case for participating business where the valuation of assets on the participation basis, for example book values would otherwise change on transfer to a new entity. In addition, we feel that diversification should be permissible and	Not agreed. See e.g. the resolutions regarding the comments on assumption 1 of the reference undertaking as well as on subsection 3.1.3.1.B.

			such an assumption prevents it. Assumption 4 (as included in 3.47): We do not believe that unavoidable market risk should be allowed for in the risk margin since the risk margin should be calculated based on risk associated with the insurance liabilities only. Including unavoidable market risk for insurance liabilities that are not directly linked to financial markets is inappropriate and is a duplication of the risk margin in the financial assets. Further it is extremely difficult to determine reliable estimates of unavoidable market risk. We agree with the CFO Forum's proposal that as part of the liabilities' risk, the risk margin should not include unavoidable market risk separately. It should only be included as part of market risk when the liabilities contain explicit market risks not already allowed for in the valuation of those liabilities. Assumption 7: The SRC used to calculate the risk margin should take into account not only the loss absorbing capabilities of the technical provisions but also deferred tax and tax credits. The exclusion of the loss absorbing capabilities of deferred taxes appear to conflict with the Framework directive. Credit should be taken for deferred tax and for tax credits subject to applicable current and expected future tax rules consistent with anticipated profits or losses. Assumption 8: Diversification should not be limited to the line of business level. The ability to combine independent risk is the basis for pricing insurance. Consolidation has been driven by the costs and benefits of managing diverse portfolios of business together.	Not agreed. Issues related to unavoidable market risk is elaborated further in the CP on simplifications. Not agreed. See e.g. the resolutions regarding the comments on assumption 7 as well as the amended wording of subsection 3.1.3.2.2. Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B

			Ignoring the economic benefits of being part of a group is contradictory to the objectives of Solvency II. Diversification benefits should be allowed for at the company or group level, subject to fungibility of capital (covered in CP60).	
632.	Link4 Towarzystwo Ubezpieczeń SA	3.130.	We believe that the amount of the Risk Margin should be the same for a monoline insurer as for a multi-line insurer, for a particular line of business, where all other things are equal. However we disagree that these values should be equalised assuming no diversification, as proposed in Paragraph 8. Using analogies from Finance Theory it is clear that an acquiring entity for whom the portfolio offers the prospect of some diversification will charge a lower price than one for whom the diversification benefit is less complete. This suggests the concept of a reference entity that is “perfectly” diversified once the transferred portfolio has been accepted. Whilst somewhat idealised, such a reference entity is arguably no more unrealistic than the empty reference entity proposed by CEIOPS. We think arguments about the diversification or otherwise of the transferring entity are irrelevant. It is only the diversification of the accepting entity that matters. We need to consider a practical method for assessing this “perfect” diversification. One method would be to calculate the SCR (omitting market risk) for a reference entity that consists of equal volumes, by both premium and technical provision, of each line of business. The equivalent line of business only SCR, SCR(lob) say, could also be calculated. These calculations might require a “steady state” ratio of premium to technical provisions but this can be readily done. The diversification factor, DF, could be calculated from the following formula: DF = SCR/sum{SCR(lob)}	See the resolution regarding comment no. 614.

			DF could then be multiplied by the individual line of business SCR, whether calculated using an internal model or the standard formula, to determine the SCR to be used in the cost of capital formula. This approach would be simple to apply and DF would be the same for all undertakings. There is no need to allocate risk margin as a per line of business risk margin is calculated. The method allows for a more theoretically correct risk margin and is independent of the transferring entity.	
633.	Lloyd's	3.130.	Carrying out an SCR calculation for each line of business including operational risk may not be a natural extension of most undertakings' internal models. Therefore we propose that where undertakings have an approved internal model, they are allowed to use a partial internal model including the operational risk element of the standard formula alongside the other elements of the internal model.	Noted. This issue should be elaborated further in a Level 3 guidance.
634.	NORWAY: Codan Forsikring (Branch Norway) (991 502	3.130.	We believe that the amount of the Risk Margin should be the same for a monoline insurer as for a multi-line insurer, for a particular line of business, where all other things are equal. However we disagree that these values should be equalised assuming no diversification, as proposed in Paragraph 8. Using analogies from Finance Theory it is clear that an acquiring entity for whom the portfolio offers the prospect of some diversification will charge a lower price than one for whom the diversification benefit is less complete. This suggests the concept of a reference entity that is "perfectly" diversified once the transferred portfolio has been accepted. Whilst somewhat idealised, such a reference entity is arguably no more unrealistic than the empty reference entity proposed by CEIOPS. We think arguments about the diversification or otherwise of the transferring entity are irrelevant. It is only the diversification of the	See the resolution regarding comment no. 614.

			accepting entity that matters. We need to consider a practical method for assessing this “perfect” diversification. One method would be to calculate the SCR (omitting market risk) for a reference entity that consists of equal volumes, by both premium and technical provision, of each line of business. The equivalent line of business only SCR, SCR(lob) say, could also be calculated. These calculations might require a “steady state” ratio of premium to technical provisions but this can be readily done. The diversification factor, DF, could be calculated from the following formula: DF = SCR/sum{SCR(lob)} DF could then be multiplied by the individual line of business SCR, whether calculated using an internal model or the standard formula, to determine the SCR to be used in the cost of capital formula. This approach would be simple to apply and DF would be the same for all undertakings. There is no need to allocate risk margin as a per line of business risk margin is calculated. The method allows for a more theoretically correct risk margin and is independent of the transferring entity.	
635.	Pacific Life Re	3.130.	Our major concern with the CP42 proposals is the prevention of any diversification benefits between lines of business. This is discussed under “Assumption 8” and the draft advice is in 3.130.8. The draft advice clearly envisages the transfer of business to a single reference undertaking. There is no discussion or consideration of different lines of business being transferred to different undertakings. A single reference undertaking would be able to take credit for diversification when calculating the Solvency Capital Requirement (“SCR”) after the transfer of business.	Noted.

Sections 3.54 to 3.61 set out CEIOPS’ rationale for preventing diversification benefits between lines of business. These focus on some technical challenges that would be faced in calculating the appropriate diversification benefit. We acknowledge these practical challenges, but don’t believe that the diversification benefit should be disallowed simply because it may be difficult to calculate. The resulting SCR could be materially higher than that which the reference undertaking would need to cover.

This is a very real issue for Pacific Life Re, amongst many others, and leads to some anomalous results when applied to our business. We would illustrate this by considering an example of a firm with equal amounts of mortality, morbidity and longevity risk in separate product lines.

The following table summarises the calculation of the risk margin relative to the SCR’s for each product line. For this purpose, we have assumed that the three risks are independent. The Longevity risk runs off linearly over 40 years and the other risks over 20 years.

Relationship between SCR and risk margin

Product Line	**SCR**	**Risk Margin**
Mortality	100.0	63.0
Morbidity	100.0	63.0
Longevity	100.0	68.5
Total	**300.0**	**194.5**
Initial Diversification Benefit	42%	
Net SCR	**173.2**	

The result is a risk margin (or Cost of capital) which is higher than the underlying capital, which is difficult to rationalise. Although this is a simplified example, used to illustrate a point, it is not materially different from Pacific Life Re’s actual position.

			The Directive stresses the importance of firms using their models when making strategic decisions. One logical risk management strategy for most firms is to spread risks over a number of un-related (or lowly-correlated) areas. This is supported by the resulting diversification benefits in the SCR. As noted above, the Risk Margin can be at least as significant as the SCR. Any restriction on diversification benefits in the Risk Margin can therefore be expected to dampen the pressure on firms to manage a balanced set of risks thereby undermining the risk management objective of internal models and the directive itself. Considering the points made in sections 3.54 to 3.61, we would comment further as follows: ☐ 3.55 refers to the potential ambiguity in allocating the risk margin by line of business. As noted above, it is surely preferable to have some approximation in allocating the risk margin, rather than to allocate an incorrect, over-stated figure; ☐ 3.57 highlights the complication in determining how the risk margin should be allocated between product lines if it is calculated including diversification. There are several ways this could be done and we would propose that an equal percentage diversification effect is applied to each line. So, for the example above, the risk margin for each product would be reduced by the 42% diversification effect initially. This approach seems more logical than allocation by earned premium or technical provisions but does not seem to have been considered. ☐ 3.57 also refers to the possibility that only a part of the obligations are transferred, leading to a reduction in the diversification effect. In our view, the requirements of the Directive make it unlikely that there will be undertakings with single undiversified risks and it is not unreasonable to assume that the obligations can be transferred to a situation where diversification	See the resolutions regarding para 3.54-3.61 of the draft CP 42 (being consulted).

			benefits can be achieved. Our strong view is that the proposals should be changed to permit diversification between lines of business. CEIOPS may be concerned that this could lead to excessive diversification for undertakings with multiple lines of business that could not easily be transferred to a new undertaking in a single transaction. If this is the case it may be appropriate to group together certain lines of business which are more likely to be associated within the same entity (such as life and health risks) and allow diversification effects within such a grouping. If the above approaches are found to be impossible, then we would suggest that diversification effects could be allowed in the calculation of the risk margin subject to a limit. For example, the total risk margin could be limited to 50% of the total initial net SCR, calculated only in respect of non-hedgeable risks.	
636.	Pearl Group Limited	3.130.	We disagree with the concept of the reference undertaking. This doesn’t allow for the diversity benefits that would exist within an undertaking and so means that the Solvency II requirements will be overly prudent. CEIOPS should review how this works. (1) The assumption that the reference undertaking is not the undertaking itself but another undertaking does not necessarily result in a more accurate result. Whilst an entity cannot transfer business to itself, the overall objective is to obtain technical provisions that are aligned with what an insurer would have to pay to transfer the business. If assuming entity specific assumptions results in a more accurate answer then they should be used. (2) The assumption that the reference undertaking is an empty undertaking is unrealistic.	See the resolution regarding comment no. 618.

			It is not realistic to assume that the entity receiving the transfer is an empty undertaking in the sense that it doesn't have any liabilities or funds prior to the transfer. This would not occur in practice. Most commonly the receiving entity has existing business and funds. Therefore, the reference should be an entity which already has market knowledge and experience. An empty reference undertaking would have to incur significantly start up costs to run the business and is thus not equal / relevant. Furthermore, the assumption is that the reference undertaking has no other purpose than running off this business. This effectively rejects the concept of transfer value and replaces it with the concept of run-off value which we do not think is appropriate for this purpose. In addition, it should be noted that in principle when a winding-up situation occurs the whole insurance business is normally transferred to another party and not separate lines of business. (3) This creates a circular reference. These requirements create a circular loop since the asset risk would depend on the size of the SCR and the SCR would depend on the size of the asset risk. This potential problem does not appear to be explored within the CP. We request more explanation to know how to deal in practice with this potential issue. (4) The inclusion of unavoidable market risk in the risk margin would lead to double-counting. This concept of unavoidable market risk may lead to take into account financial risks in the calculation of risk margin. See comments under 3.47 (5d) CEIOPS has not clearly defined unavoidable market risk and	

			how it should be calculated. There is a danger of double counting in respect of non-hedgeable financial risks. (7) This is inconsistent with the requirements of the Framework Directive which requires allowance to be made for the risk absorbing effect of deferred tax liabilities. In practice the receiving entity will invariably already contain existing business and assets. The non recognition of the loss absorbing capacity of deferred taxes is therefore contrary to the idea of transfer risk to a third party and should be recognized in order to ensure an economic risk-based approach. (8) Such assumption goes beyond what is required by the FD. ☐ Our interpretation of Article 79 is that homogeneous risk groups should be used for the purpose of setting assumptions. We therefore disagree with CEIOPS' interpretation to support the non recognition of diversification in the risk margin: as all transfers are expected to be to companies with existing business there will be diversification effects. Transfer prices will therefore reflect this and as such in order to have a good proxy for these actual prices the risk margin should allow for diversification effects. ☐ Based on Article 75.2, all lines of business are assumed to be transferred together. Insurance or reinsurance undertakings would take account of diversification effects between different lines of business when bidding for these obligations - diversification effects should be allowed for when calculating the risk margin. ☐ In addition, line-of-business calculations could be very onerous to carry out, in particular combined with the requirement to include unavoidable market risk, as assets are not segmented by line of business. ☐ Finally, it seems inappropriate to require our internal model	

			to use the LoBs from the standard approach. We believe that the amount of the Risk Margin should be the same for a monoline insurer as for a multi-line insurer, for a particular line of business, where all other things are equal. However we disagree that these values should be equalised assuming no diversification, as proposed in Paragraph 8. Using analogies from Finance Theory it is clear that an acquiring entity for whom the portfolio offers the prospect of some diversification will charge a lower price than one for whom the diversification benefit is less complete. This suggests the concept of a reference entity that is “perfectly” diversified once the transferred portfolio has been accepted. Whilst somewhat idealised, such a reference entity is arguably no more unrealistic than the empty reference entity proposed by CEIOPS. We think arguments about the diversification or otherwise of the transferring entity are irrelevant. It is only the diversification of the accepting entity that matters. We need to consider a practical method for assessing this “perfect” diversification. One method would be to calculate the SCR (omitting market risk) for a reference entity that consists of equal volumes, by both premium and technical provision, of each line of business. The equivalent line of business only SCR, SCR(lob) say, could also be calculated. These calculations might require a “steady state” ratio of premium to technical provisions but this can be readily done. The diversification factor, DF, could be calculated from the following formula: $DF = SCR/sum\{SCR(lob)\}$ DF could then be multiplied by the individual line of business SCR, whether calculated using an internal model or the standard formula, to determine the SCR to be used in the cost of capital	

			formula. This approach would be simple to apply and DF would be the same for all undertakings. There is no need to allocate risk margin as a per line of business risk margin is calculated. The method allows for a more theoretically correct risk margin and is independent of the transferring entity.	
637.	PricewaterhouseCoopers LLP	3.130.	See comments under 3.35, 3.49, 3.54, 3.62 and 3.89	Noted.
638.	ROAM – Draft V2	3.130.	Points 3 and 4: The reference company is to hold assets exactly equal to the SCR + technical provisions + risk margin. This creates a circular loop since the asset risk would depend on the size of the SCR and the SCR would depend on the size of the asset risk. This potential problem does not appear to be explored within the CP. ROAM would like to have more explanation to know how to deal in practice with this potential issue. Point 4: As the risk free rate is used for the calculation of the best estimate technical provisions which is conservative and as mass risk and lapses risk are already captured in the calculation of SCR, ROAM believes that unavoidable market risk calculation in the risk margin would lead to double counting some items. We understand that the "unavoidable market risk" which might occur for example where there are very long term liabilities and there are no matching assets of the required duration would be taken into account in deriving risk free rate therefore should not be taken into account in risk margin. Point 8: It is mentioned that calculation should be done by line of business. ROAM believes this granularity is not convenient for the risk margin calculation. For instance, this would lead to calculate a SCR for unavoidable market risk by line of business which may be difficult as assets are not segmented by line of business. Each	See the resolution regarding comment no. 624.

			undertaking should choose the appropriate granularity of calculation regarding the specificities of its portfolio. Point 8: CEIOPS states that no diversification benefits should be taken into account between lines of business. ROAM strongly disagrees with this statement and believes it is indeed unduly maximizing the risk margin as the underlining principle of the Solvency calculation is that all portfolios could be transferred together. When there are diversification benefits between them, then they should also be taken into account for the purpose of computing the risk margin.	
639.	RSA Insurance Group PLC	3.130.	We believe that the amount of the Risk Margin should be the same for a monoline insurer as for a multi-line insurer, for a particular line of business, where all other things are equal. However we disagree that these values should be equalised assuming no diversification, as proposed in Paragraph 8. Using analogies from Finance Theory it is clear that an acquiring entity for whom the portfolio offers the prospect of some diversification will charge a lower price than one for whom the diversification benefit is less complete. This suggests the concept of a reference entity that is “perfectly” diversified once the transferred portfolio has been accepted. Whilst somewhat idealised, such a reference entity is arguably no more unrealistic than the empty reference entity proposed by CEIOPS. We think arguments about the diversification or otherwise of the transferring entity are irrelevant. It is only the diversification of the accepting entity that matters. We need to consider a practical method for assessing this “perfect” diversification. One method would be to calculate the SCR (omitting market risk) for a reference entity that consists of equal volumes, by both premium and technical provision, of each line of business.	See the resolution regarding comment no. 614.

			The equivalent line of business only SCR, SCR(lob) say, could also be calculated. These calculations might require a "steady state" ratio of premium to technical provisions but this can be readily done. The diversification factor, DF, could be calculated from the following formula: DF = SCR/sum{SCR(lob)} DF could then be multiplied by the individual line of business SCR, whether calculated using an internal model or the standard formula, to determine the SCR to be used in the cost of capital formula. This approach would be simple to apply and DF would be the same for all undertakings. There is no need to allocate risk margin as a per line of business risk margin is calculated. The method allows for a more theoretically correct risk margin and is independent of the transferring entity.	
640.	RSA Insurance Ireland Ltd	3.130.	We believe that the amount of the Risk Margin should be the same for a monoline insurer as for a multi-line insurer, for a particular line of business, where all other things are equal. However we disagree that these values should be equalised assuming no diversification, as proposed in Paragraph 8. Using analogies from Finance Theory it is clear that an acquiring entity for whom the portfolio offers the prospect of some diversification will charge a lower price than one for whom the diversification benefit is less complete. This suggests the concept of a reference entity that is "perfectly" diversified once the transferred portfolio has been accepted. Whilst somewhat idealised, such a reference entity is arguably no more unrealistic than the empty reference entity proposed by CEIOPS. We think arguments about the diversification or otherwise of the transferring entity are irrelevant. It is only the diversification of the	See the resolution regarding comment no. 614.

			accepting entity that matters. We need to consider a practical method for assessing this "perfect" diversification. One method would be to calculate the SCR (omitting market risk) for a reference entity that consists of equal volumes, by both premium and technical provision, of each line of business. The equivalent line of business only SCR, SCR(lob) say, could also be calculated. These calculations might require a "steady state" ratio of premium to technical provisions but this can be readily done. The diversification factor, DF, could be calculated from the following formula: DF = SCR/sum{SCR(lob)} DF could then be multiplied by the individual line of business SCR, whether calculated using an internal model or the standard formula, to determine the SCR to be used in the cost of capital formula. This approach would be simple to apply and DF would be the same for all undertakings. There is no need to allocate risk margin as a per line of business risk margin is calculated. The method allows for a more theoretically correct risk margin and is independent of the transferring entity.	
641.	RSA - Sun Insurance Office Ltd.	3.130.	We believe that the amount of the Risk Margin should be the same for a monoline insurer as for a multi-line insurer, for a particular line of business, where all other things are equal. However we disagree that these values should be equalised assuming no diversification, as proposed in Paragraph 8. Using analogies from Finance Theory it is clear that an acquiring entity for whom the portfolio offers the prospect of some diversification will charge a lower price than one for whom the diversification benefit is less complete. This suggests the concept of a reference entity that is "perfectly" diversified once the transferred portfolio has been	See the resolution regarding comment no. 614.

			accepted. Whilst somewhat idealised, such a reference entity is arguably no more unrealistic than the empty reference entity proposed by CEIOPS. We think arguments about the diversification or otherwise of the transferring entity are irrelevant. It is only the diversification of the accepting entity that matters. We need to consider a practical method for assessing this "perfect" diversification. One method would be to calculate the SCR (omitting market risk) for a reference entity that consists of equal volumes, by both premium and technical provision, of each line of business. The equivalent line of business only SCR, SCR(lob) say, could also be calculated. These calculations might require a "steady state" ratio of premium to technical provisions but this can be readily done. The diversification factor, DF, could be calculated from the following formula: DF = SCR/sum{SCR(lob)} DF could then be multiplied by the individual line of business SCR, whether calculated using an internal model or the standard formula, to determine the SCR to be used in the cost of capital formula. This approach would be simple to apply and DF would be the same for all undertakings. There is no need to allocate risk margin as a per line of business risk margin is calculated. The method allows for a more theoretically correct risk margin and is independent of the transferring entity.	
642.	SWEDEN: Trygg-Hansa Försäkrings AB (516401-	3.130.	We believe that the amount of the Risk Margin should be the same for a monoline insurer as for a multi-line insurer, for a particular line of business, where all other things are equal. However we disagree that these values should be equalised assuming no	See the resolution regarding comment no. 614.

	7799)		diversification, as proposed in Paragraph 8. Using analogies from Finance Theory it is clear that an acquiring entity for whom the portfolio offers the prospect of some diversification will charge a lower price than one for whom the diversification benefit is less complete. This suggests the concept of a reference entity that is “perfectly” diversified once the transferred portfolio has been accepted. Whilst somewhat idealised, such a reference entity is arguably no more unrealistic than the empty reference entity proposed by CEIOPS. We think arguments about the diversification or otherwise of the transferring entity are irrelevant. It is only the diversification of the accepting entity that matters. We need to consider a practical method for assessing this “perfect” diversification. One method would be to calculate the SCR (omitting market risk) for a reference entity that consists of equal volumes, by both premium and technical provision, of each line of business. The equivalent line of business only SCR, SCR(lob) say, could also be calculated. These calculations might require a “steady state” ratio of premium to technical provisions but this can be readily done. The diversification factor, DF, could be calculated from the following formula: $DF = SCR/sum\{SCR(lob)\}$ DF could then be multiplied by the individual line of business SCR, whether calculated using an internal model or the standard formula, to determine the SCR to be used in the cost of capital formula. This approach would be simple to apply and DF would be the same for all undertakings. There is no need to allocate risk margin as a per line of business risk margin is calculated. The method allows for a more theoretically correct risk margin and is independent of the	

			transferring entity.	
643.	Uniqa	3.130.	(2) It is not realistic to assume an empty undertaking in the sense that it doesn't have any liabilities or funds prior to the transfer because this cannot be found in practice. Moreover an empty undertaking would have start up costs to run the business but such costs are not considered. (4) The calculation of the risk margin is a very theoretical framework with a lot of assumptions. Introducing an "unavoidable market risk" would make the calculation even more escapist; it should not be taken into account. (7) Why is the risk absorbing effect of deferred tax liabilities allowed for in the original undertaking but not allowed for in the reference undertaking? This assumption seems to be inconsistent with the Framework Directive. (8) Diversification effects should be allowed for when calculating the risk margin since an isolated transaction of a single LoB happens very seldom or never in practice.	Not agreed. See e.g. the resolutions regarding the comments on assumption 1 of the reference undertaking as well as on subsection 3.1.3.1.B. Not agreed. Issues related to unavoidable market risk is elaborated further in the CP on simplifications. Not agreed. See e.g. the resolutions regarding the comments on assumption 7 as well as the amended wording of subsection 3.1.3.2.2. Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B
644.	XL Capital Ltd	3.130.	Point 2) We believe that the assumption that the reference undertaking with no insurance or reinsurance obligations or own funds before the transfer takes place is unrealistic. In practice entities which accept	Not agreed. See e.g. the resolutions regarding the comments on assumption 1 of

			portfolio transfers are likely to be entities with their own existing/ongoing portfolio which may span several lines of business. We feel that a more realistic assumption would be that the reference undertaking has an existing portfolio which corresponds to that of the transferring undertaking, and therefore diversification effects should be taken into account.	the reference undertaking as well as on subsection 3.1.3.1.B.
			Point 4) and Point 5d) The inclusion of "unavoidable market risk" in the risk margin calculation represents a significant change from that tested in QIS 4. While this term has not been defined, we believe that this is likely to cause market risk to be double counted. Also for non-life this brings additional complexity to a calculation which is already difficult.	Not agreed. Issues related to unavoidable market risk is elaborated further in the CP on simplifications.
			Point 5c) The inclusion of operational risk related to transferred insurance and reinsurance obligations will be difficult to assess because this would involve allocating operational risk to the individual line of business transferred.	Not agreed. The inclusion of operational risk in the risk margin calculation does not increased complexity of the calculations as the information needed per line of business is readily available. See also the CP on simplifications.
			Point 6) It should be made clear that the loss absorbing capacity of technical provisions is not relevant to non-life business.	Noted.
			Point 8) We disagree with the assumption made here that "The insurance and reinsurance obligations of each line of business are transferred to the empty reference undertaking in isolation. Hence, there does	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of

			not arise any diversification benefits between lines of business”. In practice entities which accept portfolio transfers are likely to be entities with their own existing/ongoing portfolio and therefore we believe that it is appropriate to recognize diversification. It also seems inappropriate to require undertakings which use an internal model to use the lines of business from the standard formula.	the reference undertaking as well as on subsection 3.1.3.1.B
645.	Association of British Insurers	3.131.	In order to get transfer prices consistent with an immediate transfer (Article 75 (2)) you need to use current cost of capital rates and not those at a 99.5th percentile value. This could be inconsistent with the statement in this paragraph, namely that “… this means that the cost of capital rate should be consistent with the VaR assumption corresponding to a confidence level of 99.5% over 1 year”, which could be taken to mean the cost of capital after a 99.5th percentile shock. This is especially the case when considering the statement made in Para 3.132.	Noted. The cost of capital rate is assessed as the current rate needed in a scenario based on the expectation of both normal and stressed future times. What was meant in 3.132 is that the risk margin has to allow for the financing of the SCR for future periods, and as these periods can be both stressed and non-stressed a long-term cost of capital average rate has to be assessed.
646.	CEA, ECO-SLV-09-437	3.131.	The Framework Directive requires the cost of capital to reflect current costs and not those after a 99.5th percentile stress. The Framework Directive requires the risk margin to be calculated as the “cost of providing an amount of eligible own funds equal to the Solvency Capital Requirement necessary to support the insurance and reinsurance business obligations over the lifetime thereof”. Furthermore, Article 75 (2) requires the value to represent the price an insurer “would have to pay if they were to transfer their insurance and reinsurance obligations immediately”.	Noted. See the resolution regarding comment no. 645 (ABI).

			In order to get transfer prices consistent with an immediate transfer you need to use current cost of capital rates and not those at a 99.5th percentile value. Ceiops state that "this means that the cost of capital rate should be consistent with the VaR assumption corresponding to a confidence level of 99.5% over 1 year", which could be taken to mean the cost of capital after a 99.5th percentile shock and so which would be inconsistent with the Framework Directive.	
647.	CRO Forum	3.131.	ADVICE	-
648.	German Insurance Association – Gesamtverb and der D	3.131.	The FD requires the cost of capital to reflect current costs and not those after a 99.5th percentile stress The FD requires the risk margin to be calculated as the "cost of providing an amount of eligible own funds equal to the Solvency Capital Requirement necessary to support the insurance and reinsurance business obligations over the lifetime thereof". Furthermore, Article 75 (2) requires the value to represent the price an insurer "would have to pay if they were to transfer their insurance and reinsurance obligations immediately". In order to get transfer prices consistent with an immediate transfer you need to use current cost of capital rates and not those at a 99.5th percentile value. This could be inconsistent with the statement in this paragraph, namely that "this means that the cost of capital rate should be consistent with the VaR assumption corresponding to a confidence level of 99.5% over 1 year", which could be taken to mean the cost of capital after a 99.5th percentile shock. This is especially the case when considering the statement made in Para 3.132.	Noted. See the resolution regarding comment no. 645 and 646 (ABI, CEA).
649.	Pearl Group Limited	3.131.	In order to get transfer prices consistent with an immediate transfer (Article 75 (2)) you need to use current cost of capital	Noted. See the resolution regarding

			rates and not those at a 99.5th percentile value. This could be inconsistent with the statement in this paragraph, namely that "… this means that the cost of capital rate should be consistent with the VaR assumption corresponding to a confidence level of 99.5% over 1 year", which could be taken to mean the cost of capital after a 99.5th percentile shock. This is especially the case when considering the statement made in Para 3.132.	comment no. 645, 646 and 647 (ABI, CEA, DAV).
650.	PricewaterhouseCoopers LLP	3.131.	See comments under 3.89	Noted.
651.	ROAM – Draft V2	3.131.	The Directive requires the cost of capital to reflect current costs and not those after a 99.5th percentile stress. The Framework Directive requires the risk margin to be calculated as the "cost of providing an amount of eligible own funds equal to the Solvency Capital Requirement necessary to support the insurance and reinsurance business obligations over the lifetime thereof". Furthermore, Article 75 (2) requires the value to represent the price an insurer "would have to pay if they were to transfer their insurance and reinsurance obligations immediately". In order to get transfer prices consistent with an immediate transfer you need to use current cost of capital rates and not those at a 99.5th percentile value. This is not necessarily consistent with the statement in this paragraph, namely that "… this means that the cost of capital rate should be consistent with the VaR assumption corresponding to a confidence level of 99.5% over 1 year", which could be taken to mean the cost of capital after a 99.5th percentile shock. This is especially the case when considering the statement made in Para 3.132.	Noted. See the resolution regarding comment no. 645, 646 and 647 (ABI, CEA, DAV).
652.	Association of British Insurers	3.132.	There is no requirement in the FD for technical provisions to guarantee that the technical provisions are sufficient to facilitate a transfer even after a stressed scenario. As discussed above under	Noted. CEIOPS agrees that the technical provisions shall be sufficient for

			3.131 the requirement is for an immediate transfer as per Article 75 (2).	an immediate transfer. The cost of capital rate will be reviewed – in line with Art. 76(5) of the Level 1 text - periodically. In order to avoid spurious fluctuations in the risk margin, CEIOPS aims at reviewing this rate e.g. every 5 years. Therefore the cost of capital rate has to be assessed to cover both normal times and stressed scenarios for a transfer. Moreover, the risk margin has also to allow for the financing of the SCR for future periods, and as these periods can be both stressed and non-stressed, only a long-term cost of capital average rate is seen as appropriate
653.	CEA, ECO-SLV-09-437	3.132.	This statement is incorrect. There is no requirement in the Framework Directive for technical provisions to be at such a level that it can be guaranteed that they are sufficient to facilitate a transfer even after a stressed scenario. As discussed above in our comments to Para 3.131 the requirement is for an immediate transfer as per Article 75 (2).	Noted. See the resolution regarding comment no. 652.
654.	CRO Forum	3.132.	ADVICE "The risk margin should guarantee that sufficient technical provisions for a transfer are available even in a stressed scenario. Hence, the Cost-of-Capital rate has to be a long-term average rate, reflecting both periods of stability and periods of stress." The cost of capital rate, as per all other assumptions in the technical provisions, should be a best estimate assumption – a	Noted. See the resolution regarding comment no. 652.

			probability-weighted long-term average that takes into account all probable periods (e.g. stability, stress). It should reflect the cost of hedging (that is the market price of risk) against the exposure of non-hedgeable risks. It is important to note that the transfer of business in a stressed situation is facilitated by all the components of the SII framework (technical provisions, MCR and SCR) not just the risk margin. Therefore the cost of capital rate (as per all other best estimate assumptions) should not be arbitrarily increased above a probability-weighted long-term average for reasons of facilitating a "transfer"	
655.	German Insurance Association – Gesamtverband der D	3.132.	This statement is incorrect There is no requirement in the FD for technical provisions to guarantee that the technical provisions are sufficient to facilitate a transfer even after a stressed scenario. As discussed above under 3.131 the requirement is for an immediate transfer as per Article 75 (2).	Noted. See the resolution regarding comment no. 652.
656.	Just Retirement Limited	3.132.	The rate of 6% appears to us to be clearly a stressed rate (and is broadly consistent with the cost of capital for highly distressed banking institutions that underwent forced recapitalisations in the credit crisis). It is therefore inappropriate for use as a long-term average rate. We would suggest that a rate of 4% is more appropriate over the long term, having regard to the whole economic cycle. Conceptually, this leads to an undertaking having sufficient capital to withstand a 1-in-200 event and transfer its liabilities in the post-stress world to the reference undertaking, with sufficient assets to be able to raise capital to cover a second SCR (appropriate to the post-stress world) over its lifetime. If the risk margin is circularly	Not agreed. The 6% is an average long term rate, not a stressed rate. For the rationale refer to the consultation paper CP 42 and to the resolution regarding comment no. 652.

			included in its own calculation (see 3.130(4)) there is a further degree of recursion in that the reference undertaking can subsequently transfer to a second reference undertaking, and so on. It is not clear that this is intended by the Level 1 text. Further, from the perspective of prudential supervision this extremely high degree of policyholder protection may not be worth the cost in terms of higher premiums, and transitional loss of confidence in financial institutions as their reported solvency buffers reduce.	
657.	Pearl Group Limited	3.132.	There is no requirement in the FD for technical provisions to guarantee that the technical provisions are sufficient to facilitate a transfer even after a stressed scenario. As discussed above under 3.131 the requirement is for an immediate transfer as per Article 75 (2).	Noted. See the resolution regarding comment no. 652.
658.	PricewaterhouseCoopers LLP	3.132.	See comments under 3.89	Noted.
659.			Confidential comment deleted.	
660.	CEA, ECO-SLV-09-437	3.133.	Inconsistent text – the CoC rate should be the same for all undertakings. It is mentioned in Para 2.2 of this CP that Article 76 of the Level 1 text requires the cost of capital rate to be the same for all insurance and reinsurance undertaking. However, the procedure set out in this paragraph may lead to different cost of capital rates for undertakings. These two points seem to be inconsistent. ☐ We request that Ceiops clarifies the procedure – the cost of capital rate should be the same for all undertakings and so should not be calculated by each insurer.	Agreed. The CoC rate is 6% for all undertakings.
661.	CRO Forum	3.133.	ADVICE	Noted.

			Shareholder return consists of several components: ☐ margins that are priced into insurance products that are a (market consistent return) on non-hedgeable risks that are taken over from the policyholder; ☐ Additional margins that can be priced into products that can be regarded as a reward for investments in distributions channels (franchise value); ☐ Investment returns that are earned by investing of the premiums. Only the first of these components should be considered when considering the cost-of-capital in the market value margin. Shareholder return models will include all components and cannot be directly used to deduce a cost-of-capital spread.	Shareholder return models provide only the initial input. This input is then adjusted to reflect only the components which are relevant for the assessment of the cost of capital rate.
662.	FFSA	3.133.	It is mentioned in point 2.2 that in article 76 of Level 1 text, the rate used for determining cost of capital should be the same for all insurance and reinsurance undertaking. In point 3.133, the procedure proposed may lead to different cost of capital rate by undertaking. These two points seem to be inconsistent. FFSA would like CEIOPS to clarify this point Will each undertaking be able to determine its cost of capital rate or not? If not, who will be in charge of following the procedure set up to determine the rate to be used?	Noted. The CoC rate is 6% for all undertakings.
663.	German Insurance Association – Gesamtverband der D	3.133.	Inconsistent text – the CoC rate should be the same for all undertakings It is mentioned in para. 2.2 that Article 76 of the Level 1 text requires the rate used for determining cost of capital to be the same for all insurance and reinsurance undertaking. However, the procedure set out in this paragraph may lead to different cost of capital rates for undertakings. These two points seem to be	Noted. The CoC rate is 6% for all undertakings.

			inconsistent.	
664.	Just Retirement Limited	3.133.	There is a risk that Solvency II becomes a self-fulfilling prophecy because undertakings base transfer pricing on their expectation that the risk margin will be based on 6% cost-of-capital rate.	Noted.
665.	Lloyd's	3.133.	It is not clear how an undertaking that does not have shareholders would assess their cost of capital, and there are likely to be large inconsistencies in how undertakings assess their cost of capital. We recommend adopting a 6% cost of capital as per the QIS4 exercise, which, as stated in the document, reflects a long-term average.	Noted.
666.	Pearl Group Limited	3.133.	Article 76 of the Level 1 text requires the rate used for determining cost of capital to be the same for all insurance and reinsurance undertaking. However, the procedure set out in this paragraph may lead to different cost of capital rates for undertakings. These two points seem to be inconsistent.	Not agreed. The CoC rate is 6% for all undertakings.
667.	PricewaterhouseCoopers LLP	3.133.	See comments under 3.89	Noted
668.	Uniqa	3.133.	The Framework Directive requires one rate to be used for determining cost of capital. This paragraph sounds like it was possible that companies use different CoC rates.	Noted. The CoC rate is 6% for all undertakings.
669.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	3.134.	As a general remark, we do not agree with setting 'a priori' of a rate of 6% as CoC. This question deserves a thorough analysis as the issue of CoC (together with SCR of the reference entity) will determine the level of risk margins in technical provisions –as mentioned in the table presented under section A-17). It is of utmost importance that no double counting exists between the required capital and those risk margins (therefore SCR of the reference entity and the CoC needs to be set appropriately).	Noted.
670.	Association	3.134.	As previously mentioned, we do not agree with certain assumptions	Noted.

	of British Insurers		made by CEIOPS in this paper, that the entity is funded solely with equity capital, or that the CoC rate should reflect the cost of capital in stressed conditions. We would recommend that further investigation is carried out, in particular in relation to the calibration of the rate to give final risk margins consistency with observable prices in the marketplace. A review mechanism would also help ensuring the rate is appropriate. Furthermore we understand from this CP that the 6% is a post tax coefficient while some undertakings used 6% as pre-tax in the QIS4 calculation. We request clarification as to whether the CoC rate is pre or post tax.	See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42 and the resolution regarding comment no. 652. Further work is needed on the review mechanism. Agreed. 6% is a post tax rate.
671.			Confidential comment deleted.	
672.	CEA, ECO-SLV-09-437	3.134.	Ceiops takes several overly conservative assumptions in its analysis. We disagree with many of the assumptions made by Ceiops in this paper, such as: the entity is funded solely with equity capital, or that the CoC rate should reflect the cost of capital in stressed conditions. Furthermore, we see no justification in Ceiops' analysis for the setting of a lower boundary on the CoC rate (the requirement for "at least" 6%). See comments to Para 3.96. ☐ The CEA recommends that further investigation is carried out, in particular in relation to the calibration of the rate to ensure it gives final risk margins consistent with observable prices in the marketplace. ☐ We suggest that "a cost of capital rate of at least 6 per cent is assumed to reflect" is replaced by "a cost of capital rate is assumed to reflect". As there is no evidence that future studies won't conclude a lower CoC rate than 6%. It is inappropriate to state a lower boundary for the rate in Level 2.	Noted. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42 and the resolution regarding comment no. 652. CEIOPS agrees that further work will be needed during future review processes. Noted. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42

673.	CRO Forum	3.134.	ADVICE We are not satisfied that sufficient work has been performed to support the initial value of 6% for the cost of capital rate. In our July 2008 paper on the Market Value of Liabilities we set out our position with regards to the cost of capital rate. The cost of capital rate should reflect the rate return an insurer requires on the capital it deploys to support non-hedgeable risks. The rate should exclude those parts of any required return associated with other items, such as franchise value and hedgeable risks. The rate should be a best estimate assumption – a probability-weighted long-term average that takes into account all periods (e.g. stability, stress). We believe this is consistent with calculating the market-consistent value of assets and liabilities that form the basis of the Solvency II balance sheet, and consistent with the inclusion for any margins for prudence exclusively in the capital requirement. Based on the studies commissioned by the CRO Forum and presented in our July 2008 paper on the market value of liabilities, we believe an appropriate range for the cost of capital is 2.5% - 4.5%. We refer CEIOPS to our comments under “General” relating to the unfavourable effects of the cost of capital rate being higher than the market price of risk. We also refer CEIOPS to our answer in A.18 which indicates that a 1% change in the cost of capital rate is large enough to change industry behaviour.	Noted. See the resolution regarding comments no. 426 and no. 465.
674.	DIMA (Dublin International Insurance & Management	3.134.	We are concerned that what is presented as a “placeholder” has become a de facto cost of capital without due regard to its origin or scope to vary this amount over time. We are satisfied that 6% could be recommended for inclusion in QIS5, again as a placeholder, pending the implementation of a	Noted.

			standard methodology (which can satisfy the long-term stability aspirations of 3.97) which results in a uniform risk margin for all companies, without artificial minima (or maxima) applied.	
675.	European Insurance CFO Forum	3.134.	The CFO Forum supports a cost of capital in the range 2.5%-4.5% rather than "at least 6%". The return on capital selected should reflect the rate of return expected on capital held for bearing insurance risks and should not include other costs. The CFO Forum supports a cost of capital rate of 2.5-4.5% as per the CRO Forum paper "Market Value of Liabilities for Insurance Firms" dated 28 July 2008 see http://www.croforum.org/publications/20082807_resource/File.ecr?fd=true&dn=croforummvlpaperjuly2008	Noted. See the resolution regarding comments no. 673.
676.	FFSA	3.134.	FFSA welcomes the fact that CEIOPS made an in-depth review of the CRO Forum's work on the Cost-of-Capital Rate as it sees the CRO Forum's work as a high-quality, fact-based contribution on this topic. The latter concluded that appropriate Cost-of-Capital rate in the [2.5%-4.5%] range while CEIOPS, using the same raw analyses, concluded that an appropriate Cost-of-Capital would have to be higher than 6%. While trying to understand the reasons for these very diverging views, FFSA noted the following points: Out of the 4 type of methods for calculating the cost of capital described in section 3.5 of the CFO Forum's publication on "market value of insurance liabilities", CEIOPS decided to exclude 3 types of methods (namely the Frictional Cost of Capital, Market Price of Risk and WACC approaches). These 3 types of methods happen to be the methods which resulted in the lowest cost of capital and discarding them without sufficient explanation can be interpreted as an excessively prudent approach. Consequently, FFSA would like to	Noted. See the resolution regarding comment no. 437.

			better understand on what ground CEIOPS rejected these methods, which are widely used in the finance community CEIOPS then focused its analysis on the CAPM and FF2F methods. CEIOPS considered it more appropriate to use the Equity Risk Premiums calculated for the sample of EU companies rather than for the larger Global sample (ERPs for the latter sample being on average 3.3% higher than for the former). CEIOPS does not give any reason for this opinion. In an economy where (i) (re)insurers quoted in the EU are increasingly active in non EU countries while (re)insurers quoted outside of the EU are increasingly active in EU countries, FFSA does not think that it is straightforward that the risk premium demanded by a third party to accept the transfer of a risk from an EU (re)insurer shall be based on the ERPs of (re)insurers quoted in the EU. From that perspective, CEIOPS position can also be interpreted as an excessively prudent approach and FFSA would like to understand on what grounds it was taken In section 3.109 of this CP, CEIOPS also seems to minimize the impact of a fundamental argument of the CFO Forum's analysis (described in section 3.4 and 3.5 of the above mentioned publication), namely that the Cost-of-Capital Rate is not equivalent to the total return required by shareholders. Indeed, the total return expected by a shareholder (as measured by the ERP methodologies retained by CEIOPS) includes (i) the expected return on franchise value, (ii) the expected return on the cost of hedgeable risks and (iii) the expected return on the cost of non-hedgeable risks. Conceptually, only the latter type of expected returns should be taken into account for the calculation of the Cost-of-Capital Rate for the Risk Margin. CEIOPS' analysis ignores the second type of expected returns. CEIOPS does mention the first type of expected returns but considers that it is unlikely that it will outweigh the upward adjustments listed in 3.110. FFSA is of the opposite opinion as it considers that the expected return on franchise value is a key component of ERPs. Overall, FFSA, thus	

			considers that CEIOPS does not appropriately reflect this important component of the CFO Forum's analysis and, doing so, adds further elements of conservatism Finally, FFSA notes that CEIOPS does not seem to have taken into account an important element of analysis, which is that the AFR needed to cover the SCR are not entirely made up of capital provided by the shareholders. For instance, part of the AFR can be covered by debt, whose cost above the risk free rate is much lower than the ERPs taken into account by CEIOPS. By not allowing for this point, CEIOPS also overstates the Cost-of-Capital Rate In conclusion, FFSA is of the opinion that CEIOPS' analysis adds a number of layers of assumptions that are or can be seen as conservative and which, overall, result in an overstated Cost-of-Capital Rate. FFSA would consequently like CEIOPS (i) to reconsider its analysis on the basis of the above arguments and (ii) to better explain the reasons when / if it considers the CFO Forum's assumptions are not valid, without adding elements of conservatism." FFSA understands that the cost of capital of 6% is a pre-tax rate. FFSA proposes to replace "a cost of capital rate of at least 6 per cent is assumed to reflect (…)" by "a cost of capital rate is assumed to reflect (…)" because nothing says that future studies won't conclude to a lower cost of capital rate and we think inappropriate to state in Level 2 measures the rate to be chosen.	Not agreed. The cost of capital rate is a post tax rate. Noted. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42.
677.	German Insurance Association	3.134.	CEIOPS takes several overly conservative assumptions in its analysis We disagree with many of the assumptions made by CEIOPS in this	Noted. See the amended wording of subsection 3.1.3.2.2 of the final

	– Gesamtverb and der D		paper, such as: the entity is funded solely with equity capital, or that the CoC rate should reflect the cost of capital in stressed conditions. Furthermore, we see no justification in CEIOPS' analysis for the setting of a lower boundary on the CoC rate (the requirement for "at least" 6%). There is no evidence that future studies won't conclude to a lower CoC rate than 6%. It is inappropriate to state a lower bound for the rate in Level 2.	version of CP 42 and the resolution regarding comment no. 652.
678.	Groupe Consultatif	3.134.	We like to refer to our comment to 3.95 Furthermore there should be a unique definition of the CoC-rate. (Not 'at least')	Noted.
679.	International Underwriting Association of London	3.134.	We understand that it is challenging to ascertain a market cost of capital rate. However, inevitably the cost of capital will vary from company to company, and potentially be dependent upon the types of business which needs to be transferred. We would therefore query whether any single market rate could ever be truly considered as a market-consistent valuation; it is however, probably reasonable for it to be considered an economic valuation.	Noted. Art. 76(5) Level 1 text states that the cost of capital rate used to assess the risk margin shall be the same for all (re)insurance undertakings.
680.	Ireland's Solvency 2 Group, excluding representa	3.134.	We are concerned that what is presented as a "placeholder" has become a de facto cost of capital without due regard to its origin or scope to vary this amount over time. We are satisfied that 6% could be recommended for inclusion in QIS5, again as a placeholder, pending the implementation of a standard methodology (which can satisfy the long-term stability aspirations of 3.97) which results in a uniform risk margin for all companies, without artificial minima (or maxima) applied.	Noted.
681.	Just Retirement Limited	3.134.	For the reasons given in 3.132 above, we believe that a rate of 6% is inappropriately high. We suggest that 4% is more appropriate as a long-term average cost-of-capital. The cost-of-capital rate should be subject to regular review every 3-5 years.	Noted. Further work is needed on the review mechanism.
682.	Legal & General	3.134.	See response to 3.18	Noted.

	Group			
683.	Pearl Group Limited	3.134.	As previously mentioned, we do not agree with certain assumptions made by CEIOPS in this paper, that the entity is funded solely with equity capital, or that the CoC rate should reflect the cost of capital in stressed conditions. We would recommend that further investigation is carried out, in particular in relation to the calibration of the rate to give final risk margins consistency with observable prices in the marketplace. A review mechanism would also help ensuring the rate is appropriate. Furthermore we understand from this CP that the 6% is a post tax coefficient while some undertakings used 6% as pre-tax in the QIS4 calculation. We request clarification as to whether the CoC rate is pre or post tax.	Noted. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42 and the resolution regarding comment no. 652. Noted. Further work is needed on the review mechanism The 6% is a post tax coefficient.
684.	PricewaterhouseCoopers LLP	3.134.	See comments under 3.89	Noted.
685.	ROAM – Draft V2	3.134.	ROAM welcomes the fact that CEIOPS carried out an in-depth review of the CRO Forum’s work on the Cost-of-Capital Rate as it sees the CRO Forum’s work as a high-quality, fact-based contribution on this topic. The latter concluded that an appropriate Cost-of-Capital rate would be in the [2.5%-4.5%] range while CEIOPS, using the same raw analyses, concluded that an appropriate Cost-of-Capital would have to be higher than 6%. While trying to understand the reasons for these very diverging views, ROAM noted the following points: Out of the 4 type of methods for calculating the cost of capital described in section 3.5 of the CFO Forum’s publication on “market value of insurance liabilities”, CEIOPS decided to exclude 3 types of methods (namely the Frictional Cost of Capital, Market Price of Risk and WACC approaches). These 3 types of methods happen to be the methods which resulted in the lowest cost of capital and	Noted. See the resolution regarding comment no. 437.

			discarding them without sufficient explanation can be interpreted as an excessively prudent approach. Consequently, ROAM would like to better understand on what ground CEIOPS rejected these methods, which are widely used in the finance community CEIOPS then focused its analysis on the CAPM and FF2F methods. CEIOPS considered it more appropriate to use the Equity Risk Premiums calculated for the sample of EU companies rather than for the larger Global sample (ERPs for the latter sample being on average 3.3% higher than for the former). CEIOPS does not give any reason for this opinion. In an economy where (i) (re)insurers quoted in the EU are increasingly active in non EU countries while (re)insurers quoted outside of the EU are increasingly active in EU countries, ROAM does not think that it is straightforward that the risk premium demanded by a third party to accept the transfer of a risk from an EU (re)insurer shall be based on the ERPs of (re)insurers quoted in the EU. From that perspective, CEIOPS position can also be interpreted as an excessively prudent approach and ROAM would like to understand on which grounds it was taken In section 3.109 of this CP, CEIOPS also seems to minimize the impact of a fundamental argument of the CRO Forum's analysis (described in section 3.4 and 3.5 of the above mentioned publication), namely that the Cost-of-Capital Rate is not equivalent to the total return required by shareholders. Indeed, the total return expected by a shareholder (as measured by the ERP methodologies retained by CEIOPS) includes (i) the expected return on franchise value, (ii) the expected return on the cost of hedgeable risks and (iii) the expected return on the cost of non-hedgeable risks. Conceptually, only the latter type of expected returns should be taken into account for the calculation of the Cost-of-Capital Rate for the Risk Margin. CEIOPS' analysis ignores the second type of expected returns. CEIOPS does mention the first type of expected returns but considers that it is unlikely that it will outweigh the upward adjustments listed in 3.110. ROAM is of the	

			opposite opinion as it considers that the expected return on franchise value is a key component of ERPs. Overall, ROAM, thus considers that CEIOPS does not appropriately reflect this important component of the CFO Forum's analysis and, doing so, adds further elements of conservatism Finally, ROAM notes that CEIOPS does not seem to have taken into account an important element of analysis, which is that the AFR needed to cover the SCR are not entirely made up of capital provided by the shareholders. For instance, part of the AFR can be covered by debt, whose cost above the risk free rate is much lower than the ERPs taken into account by CEIOPS. By not allowing for this point, CEIOPS also overstates the Cost-of-Capital Rate In conclusion, ROAM is of the opinion that CEIOPS' analysis adds a number of layers of assumptions that are or can be seen as conservative and which, overall, result in an overstated Cost-of-Capital Rate. ROAM would consequently like CEIOPS (i) to reconsider its analysis on the basis of the above arguments and (ii) to better explain the reasons when / if it considers the CRO Forum's assumptions are not valid, without adding elements of conservatism." ROAM proposes to replace "a cost of capital rate of at least 6 per cent is assumed to reflect (…)" by "a cost of capital rate is assumed to reflect (…)" because nothing says that future studies won't conclude to a lower cost of capital rate and we think inappropriate to state in Level 2 measures the rate to be chosen.	Not agreed. The cost of capital rate is a post tax rate. Noted. See the amended wording of subsection 3.1.3.2.2 of the final version of CP 42.
686.	Uniqa	3.134.	6% seem to be quite high. For QIS purposes the rate was taken from the SST but for level 2 there should be done a more sophisticated calibration.	Noted.
687.	ACA –	3.135.	It's the same methodology as QIS4:	Noted.

	ASSOCIATION DES COMPAGNIES D'ASSURANCES DU		The workload seems to us ill-considered and not in line with the principle of proportionality, we expected a simplified method taking into account of the LOB, SCR by LOB and the duration (idem simplification qis4).	See the CP on simplifications.
688.	AMICE	3.135.	The projection of future SCR is a difficult exercise. We suggest keeping the simplified methods applied in the QIS4 exercise.	Noted. For simplifications see the CP on simplifications.
689.	Association of British Insurers	3.135.	Full diversification should be reflected in the CoC See comments to Para 3.130.	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
			We request clarification as to whether the CoC rate is assumed to be pre or post tax See comments to Para 3.134.	Noted. The cost of capital rate is a post tax rate.
690.	CEA, ECO-SLV-09-437	3.135.	Full diversification should be reflected in the CoC. See comments to Para 3.130.	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
691.	CRO Forum	3.135.	ADVICE	–
692.	European Insurance CFO Forum	3.135.	Comments in 3.130 are also relevant here.	Noted.

693.	FFSA	3.135.	The method doesn't allow for diversification between lines of business. See answer on 3.130 point 8. In the formula it should be clarified whether the SCR is pre or post tax and if the cost of capital rate needs to be adjusted for the taxes that would not belong to the shareholders.	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B. Noted. The cost of capital rate is a post tax rate.
694.			Confidential comment deleted.	
695.	German Insurance Association – Gesamtverband der D	3.135.	Full diversification should be reflected in the CoC. See comments to Para 3.130.	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
696.	Pearl Group Limited	3.135.	Full diversification should be reflected in the CoC. We request clarification as to whether the CoC rate is assumed to be pre or post tax. See comments to Para 3.134.	Not agreed. See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B. Noted. The cost of capital rate is a post tax rate.
697.	ROAM – Draft V2	3.135.	The projection of future SCR is a difficult exercise. We suggest keeping the simplified methods applied in the QIS4 exercise.	Noted. See the CP on simplifications
698.	Unum	3.135.	Full diversification should be reflected in the CoC.	Not agreed.

	Limited		We request clarification as to whether the CoC rate is assumed to be pre or post tax.	See e.g. the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B. Noted. The cost of capital rate is a post tax rate.
699.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	3.136.	We are of the opinion that this SCR computation at LoB level makes the process too complex and heavy. This will be hard to manage by small undertakings as well as big ones.	Noted. See the CP on simplifications
700.	Association of British Insurers	3.136.	Unavoidable market risk should be properly defined See comments under 3.130 (5d) and 3.41 There should be no implicit or explicit requirement for the SCR segmentation to be same as that used for the technical provision. The risk margin should not be calculated based on the segmentation proposed – it should be calculated at entity level. This implies that the SCR should also be calculated based on that segmentation. Furthermore, this is not in line with the requirements of the level 1 text: which only identifies a minimum segmentation of the insurance contracts.	Noted. See the CP on simplifications. Not agreed. According to Article 79 and Article 85(e) the technical provisions – that is the best estimate plus the risk margin – should be calculated as a minimum by lines of business. See also the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
701.	CEA,	3.136.	Unavoidable market risk should be properly defined.	Noted.

	ECO-SLV-09-437		If the level 2 text is to refer to unavoidable market risk it is essential that it is properly defined and guidance provided, perhaps at level 3, as to how it should be calculated. There should be no implicit or explicit requirement for the SCR segmentation to be equal to that used for the technical provisions. The risk margin should not be calculated based on the segmentation proposed – it should be calculated at entity level. This implies that the SCR should also be calculated based on that segmentation. Furthermore, this is not in line with the requirements of the level 1 text: which only identifies a minimum segmentation of the insurance contracts. There should be no restriction on the use of the correlation assumptions from Internal Models. 15. We believe that the calculation of the Basic SCRs could also be based on correlation assumptions derived from an internal model. Reference should be made to the SCR of the original undertaking. The indices in the formula reflect the "reference undertakings". We believe that the standard formula should refer to the "(original) undertaking".	See the CP on simplifications. Not agreed. According to Article 79 and Article 85(e) the technical provisions – that is the best estimate plus the risk margin – should be calculated as a minimum by lines of business. See also the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B. Not agreed. See e.g. the resolutions regarding the comments on assumption 1 and 2 of the reference undertaking as well as on subsection 3.1.3.1.B.
702.	CRO Forum	3.136.	ADVICE	–
703.	German Insurance Association – Gesamtverb	3.136.	Unavoidable market risk should be properly defined If the level 2 text is to refer to unavoidable market risk it is essential that it is properly defined and guidance provided, perhaps at level 3, as to how it should be calculated.	See the resolution regarding comment no. 701.

	and der D		However, it is essential that there is no double counting – see our response above to 3.130 (5d). There should be no implicit or explicit requirement for the SCR segmentation to be equal to that used for the technical provisions The risk margin should not be calculated based on the segmentation proposed – it should be calculated at entity level. This implies that the SCR should also be calculated based on that segmentation. Furthermore, this is not in line with the requirements of the level 1 text, which only identifies a minimum segmentation of the insurance contracts. There should be no restriction on the use of the correlation assumptions from Internal Models 12. We believe that the calculation of the Basic SCRs also could be based on correlation assumptions derived from an internal model. Reference should be made to the SCR of the original undertaking The indices in the formula reflect the “reference undertakings”. We believe that the standard formula should refer to the “(original) undertaking”.	
704.	Pearl Group Limited	3.136.	Unavoidable market risk should be properly defined. There should be no implicit or explicit requirement for the SCR segmentation to be equal to that used for the technical provision. The risk margin should not be calculated based on the segmentation proposed – it should be calculated at entity level. This implies that the SCR should also be calculated based on that	Noted. See the CP on simplifications. Not agreed. According to Article 79 and Article 85(e) the technical provisions – that is the best estimate plus the

			segmentation. Furthermore, this is not in line with the requirements of the level 1 text: which only identifies a minimum segmentation of the insurance contracts.	risk margin – should be calculated as a minimum by lines of business. See also the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
705.	CRO Forum	3.137.	ADVICE	–
706.	XL Capital Ltd	3.137.	We welcome the clarification that "With respect to non-life insurance the risk margin as calculated per line of business should be attached to the overall best estimate (i.e. no split between risk margins for premiums provisions and for provisions for claims outstanding)"	Noted.
707.	CRO Forum	A.1.	In our July 2008 paper on the market value of liabilities we set out our position with regards to the cost of capital rate. The cost of capital rate should reflect the rate return an insurer requires on the capital it deploys to support non-hedgeable risks. The rate should exclude those parts of any required return associated with other items, such as franchise value and hedgeable risks. The rate should be a best estimate assumption – a probability-weighted long-term average that takes into account all periods (e.g. stability, stress). We believe this is consistent with calculating the market-consistent value of assets and liabilities that form the basis of the Solvency II balance sheet, and consistent with the inclusion for any margins for prudence exclusively in the capital requirement. Based on the studies commissioned by the CRO Forum and presented in our July 2008 paper on the market value of liabilities, we believe an appropriate range for the cost of capital is 2.5% - 4.5%. In the impact assessment, CEIOPS states that "a change in the cost	Noted. See the resolution regarding comments no. 426 and no. 465. Not agreed.

			of capital rate in the order of ± 1-1.5% …would not lead to significant changes in industry behaviour". However this is not supported by qualitative nor quantitative evidence. We believe that even a change of 1% in the cost of capital rate is likely to change industry behaviour, and that a proper quantitative analysis of the QIS results is required to determine the real impact. Based on our approximations using limited CEIOPS reports and data, each 1 percentage point in the Cost of Capital rate implies an impact on risk margin in the order of EUR 35 – 40 Billion for life insurance and EUR 5-10 Billion for non-life insurance (see main body of this response for more information). Article 76(5) allows for periodic review of the cost of capital rate. If the cost of capital rate remains at 6%, we believe it already contains sufficient buffer and therefore we would be against the rate being increased even further in periods of stress or other points in the cycle. We therefore agree with CEIOPS comment in paragraph 3.114 that the cost of capital rate should not be adjusted to market cycles but believe this should also be reflected in the advice paragraphs.	The comment seems to exaggerate the potential consequence on the behaviour of industry. Agreed. CEIOPS does not aim to increase the cost of capital in periods of stress, as the rate is assessed as a long term average cost of capital rate. Further work has to be done on the reviewing process, but CEIOPS envisages reviewing the rate only e.g. every 5 years.
708.	KPMG ELLP	A.5.	The impact of a periodic change in cost of capital rate across all undertakings simultaneously will have to be assessed as this could generate additional systemic risk.	Noted. Further work will be needed on the periodical review mechanism.
709.	Pearl Group Limited	A.9.	We think that the rate should be appropriate for each company not set as a minimum	Noted. The Level 1 text states that one rate shall apply for all undertakings.
710.	Pearl Group Limited	A.10.	We think the rate should be changed annually	Not agreed. CEIOPS deems that an annual

				change in the rate will introduce spurious volatility in the assessment of the risk margin and will act destabilising.
711.	Groupe Consultatif	A.12.	CEIOPS refer to the need for occasional updates in future to the cost of capital rate. This sounds sensible, as the rates sought by capital providers will shift over time. It will be necessary, however, to avoid any conflict with the comments in paragraph 3.97 that the rate should represent a long-term average over the course of an economic cycle.	Agreed. See resolution to comment no. 707.
712.	International Underwriting Association of London	A.12.	We agree that the cost-of-capital rate should not be updated too frequently.	Agreed. See resolution to comment no. 707.
713.	RBS Insurance	A.12.	We agree that the cost of capital rate should not be updated too frequently. We would welcome more clarity about how often the rate will be updated	Noted. See resolution to comment no. 707.
714.	Institut des actuaires (France)	A.13.	The use of a unique rate for all branches is justified because risk differences between branches are already taken into account when determining the base of the capital cost (there is no reason for investors to demand a different remuneration for carrying proper funds if the default risk is always at 99.5% over one year.	Agreed.
715.	KPMG ELLP	A.13.	The CRO Forum suggests that cost of capital rates are lower on average for non-life business giving equal probability to the results of the two different methodologies presented.	Noted.
716.	Pearl Group Limited	A.13.	We think the life and non-life rates should be the same	Noted.
717.	KPMG ELLP	A.17.	The cost-of-capital rate might disproportionally affect some high risk undertakings such as reinsurers and Lloyd's syndicates.	Noted.

718.	Lucida plc	A.17.	Because of the duration of annuity business, Table 1 understates the impact of the cost of capital on our business. Our QIS4 submission showed that the ratio would be more like 7%. Hence our risk margin would be more sensitive than suggested by the Table to the cost of capital. Further, the use of this table implies that the ratio is constant between different lines of business within Life Insurance and does not allow a full examination of the impact of assuming a flat 6% charge on capital for all lines of business.	Noted.
719.			Confidential comment deleted.	
720.	CEA, ECO-SLV-09-437	A.18.	We request quantitative analysis to support this statement. The impact assessment states that “a change in the cost of capital rate in the order of ± 1-1.5% …would not lead to significant changes in industry behaviour”. However this is not supported by qualitative nor quantitative evidence. We note that even a small increase to the technical provisions without a corresponding change in assets values can have a big effect on the level of capital available. Therefore even a change of 1% in the cost of capital rate is likely to change industry behaviour, and that a proper quantitative analysis of the QIS results is required to determine the impact.	Noted. The discussion regarding this issue has been amended in the final version of CP 42. However, the comment seems to exaggerate the potential consequence on the behaviour of industry.
721.	CRO Forum	A.18.	We do not believe qualitative and quantitative evidence has been presented to support this argument, In Table 1 of paragraph A.17. the paper, CEIOPS shows that a cost of capital rate of 6% leads to a ratio of RM to BE of 5% for life insurance and 10% for non-life. Using CEIOPS´ data and results (see end of this comment), our estimates indicate that each 1 percentage point in the Cost of Capital rate implies an impact on risk margin in the order of EUR 35 – 40 Billion for life insurance and EUR 5-10 Billion for non-life insurance.	Noted. See resolution regarding comment no. 720.

			Given the potential size of the quantitative impact we believe that a change of 1% in the cost of capital rate is likely to change industry behaviour, and as a minimum a more detailed analysis of the QIS results is required to determine the impact on the industry and included in the impact assessment. Qualitative assessments of potential behaviour also should be included. References: CEIOPS, November 2008, "CEIOPS Report on its Fourth Quantitative Impact Study (QIS4) for Solvency II", Annex of Selected Tables; (Tables 71 and 74) CEIOPS, December 2008, "Financial Conditions and Financial Stability in the European Insurance and Occupational Pension Fund Sector 2007-2008 Risk Update", Statistical Update 2007 (Tables 3.2, 4 and 5.2)	
722.	Lucida plc	A.18.	Whilst a change in capital of +1% to 1.5% may not change the industry's behaviour, it would adversely impact pricing since the policyholder ends up paying for this capital.	Noted. See the resolution regarding comment no. 720.
723.	Lucida plc	A.19.	We would argue that for annuity business, the cost of capital has a more significant effect on pricing than is suggested here. There is also a compounding effect. Each change proposed by Solvency II might in isolation have only a 1% to 1.5% impact on capital held (and hence might seem reasonable when considered in isolation) but as many of the changes proposed will lead to more capital being held, there is likely to be a significant impact on pricing of annuities overall. Some commentators have suggested that annuities could be 20% more expensive as a result of Solvency II. The statement that this increase in solvency is a major improvement for policyholders and beneficiaries makes no sense,	Noted. See the resolution regarding comment no. 720.

			as that would lead to the obvious conclusion that the regulations should simply add a further buffer and ignore any reasoning behind that buffer. Given the high level of protection already afforded by the regulations (to a 99.5% confidence level) there is no evidence that a further buffer would provide cost effective additional protection.	
724.	CRO Forum	A.22.	Refer to comment under paragraph A.18.	Noted.
725.	KPMG ELLP	A.22.	Different cost of capital rates could also have a significant impact on the reinsurance buying strategy employed.	Noted. See also the resolution regarding comment no. 720.
726.			Confidential comment deleted.	
727.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	A.37.	If we understood : higher than 6 it is not well because there may be unintended costs to the policy-holders, lower than 6 will not meet the objective of the policyholder protection, and 6% it's perfect. The arguments advanced for fixed are also valid for 5% and 7%. Why 6%? After reading the arguments, We still don't know why.	Noted.
728.	CRO Forum	A.37.	Please refer to paragraph A.1	Noted.
729.			Confidential comment deleted.	
730.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	A.38.	Useless because there is no extra information compared to the point 3.1.3.2 .2	Noted.

731.			Confidential comment deleted.	
732.	CRO Forum	A.43.	Please refer to our comments on 3.101	Noted.
733.	Groupe Consultatif	A.55.	A.55 to A.57 CEIOPS does not appear to have made much of an attempt to calibrate the cost of capital to market prices. It has looked at studies that have tried to estimate the cost of equity and used this cost as the basis for the cost of capital, but this assumes that the SCR is the correct measure of capital. CEIOPS has not shown whether past transfers of insurance liabilities have been transacted in line with the suggested risk-margin methodology. That is, it has not investigated whether its market-consistent method is consistent with the market. Discussions about whether 6% is an appropriate cost-of-capital rate in isolation are not very meaningful: The meaningful discussion is about the appropriateness of the methodology in its entirety.	Noted.
734.	CRO Forum	A.57.	Article 76(5) allows for periodic review of the cost of capital rate. If the cost of capital rate remains at 6%, we believe it already contains sufficient buffer and therefore we would be against the rate being increased even further in periods of stress or other points in the cycle. We therefore agree with CEIOPS comment in paragraph 3.114 that the cost of capital rate should not be adjusted to market cycles but believe this should also be reflected in the advice paragraphs.	Agreed. CEIOPS does not aim to increase the cost of capital in periods of stress, as the rate is assessed as a long term average cost of capital rate. Further work has to be done on the reviewing process, but CEIOPS envisages reviewing the rate only e.g. every 5 years.
735.	International Underwriting Association of London	A.57.	We note CEIOPS’ comment that the cost-of-capital rate should not systemically underestimate the “true” amount. However equally, we believe it is important not to systemically overestimate the cost-of-capital rate. In our view, it would be useful if CEIOPS (or whoever else is responsible for setting the rate) were committed to	Noted.

			ensuring the rate applied neither systemically overestimates nor underestimates the "true" cost of capital over the medium to long term. Such a commitment provides regulatory certainty particularly against an undue level of prudence being applied through the setting of the rate, and allows for the benefit of experience gained over time when setting the rate. Targeting the "true" rate as best as it can be the approach that best reflects economic-reality.	
736.			Confidential comment deleted.	
737.	CRO Forum	A.64.	Please refer to our comments on 3.101	Noted.
738.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	A.62.	For a better comprehension, it misses model FAMA French multi Factor: $r = R_f + \beta_3(K_m - R_f) + bs \cdot SMB + bv \cdot HML + \alpha$ Here r is the portfolio's return rate, Rf is the risk-free return rate, and Km is the return of the whole stock market. The "three factor" β is analogous to the classical β but not equal to it, since there are now two additional factors to do some of the work. SMB stands for "small (market capitalization) minus big" and HML for "high (book-to-price ratio) minus low"	Noted.
739.	CRO Forum	B.6.	We believe that Option 2 is the best policy option. Please see our commentary in the response to paragraphs 3.28 and 3.130.	Noted. See also the resolutions regarding the comments on para 3.28 and 3.130 of the draft CP 42.
740.	CRO Forum	B.9.	We believe that diversification is one of the top risk mitigation techniques available to (re)insurers and should therefore be incentivised. The non-recognition of diversification has important implications for insurance prices. There will be higher prices for consumers caused by highly diversified companies not being able to pass diversification benefits down to consumers in the way of lower	Noted. See also the resolutions regarding the comments on para 3.28 and 3.130 of the draft CP 42.

			prices and making the insurance market more competitive.	
741.	Munich RE	B.9.	We agree with this view.	Noted.
742.	Lucida plc	B.10.	This section makes no reference to the trade off between additional policyholder protection and cost. Without considering this trade off, the option leading to more capital being held is always likely to seem best from the policyholders' perspective.	Noted.
743.	CRO Forum	B.11.	It appears that CEIOPS is assuming here, and in general in this CP that allowing for diversification benefits is an aggresive assumption. In the first place we note that diversification is a natural feature of insurance – in fact if there would not be diversification insurance would not even be possible. The key characteristic of insurance is the transfer of individual risk into a larger pool. A transferee company will bid for a (sub)portfolio based on its own production cost for running off that risk. These production costs can be assumed as cost of raising fresh capital supporting the risks in the transferee company. The cost of raising fresh capital on the other hand is based on the diversification effects on group level within the transferee company. In case of a partial transfer of liabilities, liabilities will be transferred to that company offering the best terms for policyholders and beneficiaries. The terms offered by bidding companies will be depend on how they value the associated liabilities. Assuming that best estimate assumptions of bidding companies don't vary too much, the liabilities calculated by bidding companies will depend significantly on their cost of capital, and thus on the amount of capital after diversification they need to allocate to the transferred business. Therefore it is safe to assume that the company with the lowest cost of capital, and thus with the highest diversification effect with respect to the transferred business will eventually get the business. As a consequence it is	Noted. See also the resolutions regarding e.g. the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.

			even conservative to assume that the reference entity is a well-diversified undertaking.	
744.	Munich RE	B.11.	A transferee company will bid for a (sub)portfolio based on its own production cost for running off that risk. These production costs can be assumed as cost of raising fresh capital supporting the risks in the transferee company. The cost of raising fresh capital on the other hand is based on the diversification effects on group level within the transferee company. In case of a partial transfer of liabilities, liabilities will be transferred to that company offering the best terms for policyholders and beneficiaries. The terms offered by bidding companies will be depend on how they value the associated liabilities. Assuming that best estimate assumptions of bidding companies don't vary too much, the liabilities calculated by bidding companies will depend significantly on their cost of capital, and thus on the amount of capital after diversification they need to allocate to the transferred business. Therefore it is safe to assume that the company with the lowest cost of capital, and thus with the highest diversification effect with respect to the transferred business will eventually get the business. As a consequence it is even conservative to assume that the reference entity is a well-diversified undertaking.	Noted. See also the resolutions regarding e.g. the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
745.	CRO Forum	B.12.	We disagree with this comment which is really just stating the obvious that higher financial requirements increases policyholder protection. We do however refer CEIOPS to our general introduction under "General" which sets out or views on policyholder protection. In brief, policyholder protection is reached via a combination of the technical provisions, MCR and SCR under the Solvency II framework, and impact assessments cannot be conducted totally independently for each of these components. The impact assessments need to take into account the impact on policyholders	Noted.

			of not including diversification – impacts in prices, products and covers offered, reinsurance of benefits outside the EU and incentives for risk mitigation. Wider roles (including promoting competitive markets and financial stability) should also be considered.	
746.	Munich RE	B.12.	Artificially high risk margins through inacceptance of diversification will lead to higher than necessary prices for insurance contracts and hence in tendency form an obstacle for the population to become a policyholder at all. The main building block to provide policyholder protection is the SCR (which allows for diversification). According to recital (31) the calculation of the risk margin should be market consistent. Margins for prudence should be captured exclusively in the required capital.	Noted. See also the resolutions regarding e.g. the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
747.	CRO Forum	B.13.	As discussed above a transferee company will typically be well diversified and even higher diversified than the transferring company itself – hence because of lowest cost being able to pay the highest price. The transferring company's diversification benefits serve as a proxy for the magnitude to which they are reflected by the market participants. By using them as a reference point furthermore the right incentives are given for proper risk management as discussed in B.9. Diversification effects lost in a transferring company after a partial transfer might well be compensated by gains from the price paid for the portfolio due to a smaller market value margin in the transferee company.	Noted. See also the resolutions regarding the comments on assumption 1, 2 and 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
748.	Munich RE	B.13.	As discussed above a transferee company will typically be well diversified and even higher diversified than the transferring company itself – hence because of lowest cost being able to pay the highest price. The transferring company's diversification benefits serve as a proxy for the magnitude to which they are reflected by the market participants. By using them as a reference point furthermore the right incentives are given for proper risk	See the resolution regarding comment no. 747.

			management as discussed in B.9. Diversification effects lost in a transferring company after a partial transfer might well be compensated by gains from the price paid for the portfolio due to a smaller market value margin in the transferee company.	
749.	CRO Forum	B.14.	Option 3 does not follow the way risks are managed in reality. This is typically done on a company/group level. Proper risk management might therefore not be achieved. Incentives might even be given for companies to accept risks with entity specific calculated risk margins being higher than undertaking-unspecific ones, as a company was relatively rewarded by a comparably low MVM.	Noted. See also the resolutions regarding the comments on assumption 1, 2 and 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
750.	Lucida plc	B.14.	In practice, transfer of liabilities to another provider is not the only solution in a stressed scenario. In the event that the SCR is exhausted, there are sufficient assets to meet the liabilities on a best estimate basis and hence to ensure a solvent run off.	Noted. See also the resolutions regarding the comments on assumption 1, 2 and 8 of the reference undertaking as well as on subsection 3.1.3.1.B
751.	Munich RE	B.14.	Option 3 does not follow the way risks are managed in reality. This is typically done on a company/group level. Proper risk management might therefore not be achieved.	Noted. See also the resolutions regarding the comments on assumption 1, 2 and 8 of the reference undertaking as well as on subsection 3.1.3.1.B
752.	Pearl Group Limited	B.14.	It is unlikely that transfer of liabilities will take place into an undertaking that is completely empty before the transfer. It is therefore likely that some allowance would be made of diversification and tax benefits in any transfer.	Noted. See also the resolutions regarding the comments on assumption 1, 2 and 8 of the reference undertaking as well as on subsection 3.1.3.1.B

753.	KPMG ELLP	B.16.	The issue of reallocating the benefit of reinsurance contracts covering several lines of business would remain under option 3 if individual line of business transfer is assumed.	Noted. This issue could be elaborated further in a Level 3 guidance.
754.	CRO Forum	B.17.	We regard portfolio mixes to be comparably stable over time. Large changes in portfolio mix occur when there are large changes in the strategy of a (re)insurer. We do not believe this paragraph is a valid argument as significant changes in portfolio mix will change all the other components of the Solvency II framework – own funds, technical provisions, MCR and SCR.	Noted.
755.	Munich RE	B.17.	We regard portfolio mixes to be comparably stable over time.	Noted.
756.	Munich RE	B.23.	Emphasizing the merits of an undertaking-unspecific valuation based on segments of insurance obligations opens the question as what these segments should be: e.g. sales methods used, target markets and underwriting standards would need to be homogeneous in any segment within an insurance firm. They furthermore need to be homogenous even between different entities to make sure the risk margin calculation is undertaking-unspecific. It seems questionable whether such a granular segmentation exists that adequately reflects the risk characteristics of each individual insurance liability.	Noted.
757.	Munich RE	B.26.	Based on Article 75.2 and 76.3 of the Draft Directive in connection with recital (31) the general objective relevant of this policy option in our view should be to assure market consistency of technical provisions. The main building block to provide policyholder protection on the other hand should be the SCR. The risk margin should provide a genuinely economic valuation of technical liabilities which does not contain margins for prudence. The latter should be captured exclusively in the required capital.	Noted. It should, however, be noted According to Article 79 and Article 85(e) the technical provisions – that is the best estimate plus the risk margin – should be calculated as a minimum by lines of business. See also the resolutions regarding

				the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
758.	Munich RE	B.31.	In our view improving risk management is one of the best means to provide policyholder protection. Harmonizing methodologies underlying the calculations of technical provisions and the assumptions made about a reference undertaking as requested in recital (30) and (32a) is different from requesting the calculation of company-unspecific risk margins. The cited recitals aim to harmonize principles and methodologies, not absolute numbers.	Noted. It should, however, be noted According to Article 79 and Article 85(e) the technical provisions – that is the best estimate plus the risk margin – should be calculated as a minimum by lines of business. See also the resolutions regarding the comments on assumption 8 of the reference undertaking as well as on subsection 3.1.3.1.B.
759.	KPMG ELLP	B.33.	Our only reservation is that option 3 could act against well diversified undertakings and monoline undertakings which would normally be attractive to a potential buyer for their niche expertise and beneficial addition to a different portfolio mix.	Noted.
760.	Pearl Group Limited	B.33.	We think the recommendation of option 3 is too prudent. An overly prudent approach may force companies to transfer liabilities when it is not needed. A forced transfer would also not be done at a true market value and so would be unfair. The allowance of diversification benefits is arbitrary if it is allowed for within but not between the current categories of business. The risk margin would alter is the categories were altered. The rules would favour companies with a small product range to ones with a large product range as companies with a large product range would not be able to take credit for the diversification benefits. It could therefore lead to a restructuring of companies,	Noted. It should, however, be noted According to Article 79 and Article 85(e) the technical provisions – that is the best estimate plus the risk margin – should be calculated as a minimum by lines of business. See also the resolutions regarding the comments on assumption 8 of the reference undertaking as well

			where companies will concentrate on a few lines of business. This could encourage concentration of risk within companies. If countries outside the EU allow for diversification benefits then it may be beneficial to reinsure lines of business outside the EU to get some of the diversification benefit.	as on subsection 3.1.3.1.B.
761.	DENMARK: Codan Forsikring A/S (10529638)	General Comment	We disagree with the assumption that diversification should not be allowed for in assessing the risk margin. We believe this introduces additional prudence into the calculation of Technical Provisions, beyond that indicated within the Directive. We propose an alternative method in paragraph 3.130 below.	See the resolution regarding comment no. 40.
762.	DENMARK: Codan Forsikring A/S (10529638)	3.38.	We agree strongly with this point.	Noted.
763.	DENMARK: Codan Forsikring A/S (10529638)	3.43.	In the context of non-life insurance liabilities the allowance for “unavoidable” market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
764.	DENMARK: Codan Forsikring A/S (10529638)	3.47.	In the context of non-life insurance liabilities the allowance for “unavoidable” market risk adds additional complexity into an already complex area. It also unclear how double counting this allowance with that arising from market risk assessments can be avoided.	See the resolution regarding comment no. 163.
765.	DENMARK: Codan Forsikring A/S (10529638)	3.49.	It seems to us difficult how to assess the level of operational risk present in an empty reference entity, particularly if an internal model is being used to determine operational risk capital requirements. Further allocating operational risk calculated using an internal model will be hard to allocate to line of business, a	See the resolution regarding comment no. 238.

			process only introduced by CEIOPS advice in CP 42.	
766.	DENMARK: Codan Forsikring A/S (10529638)	3.62.	We think the calculation of line of business SCRs might be non-trivial depending on the design of the internal model. Further such calculations at Group level could become very complex and may not be a natural product of the internal model design.	See the resolution regarding comment no. 328.
767.	DENMARK: Codan Forsikring A/S (10529638)	3.69.	We agree that the concept of risk margin only makes sense at net of reinsurance level.	Noted.
768	DENMARK: Codan Forsikring A/S (10529638)	3.130.	We believe that the amount of the Risk Margin should be the same for a monoline insurer as for a multi-line insurer, for a particular line of business, where all other things are equal. However we disagree that these values should be equalised assuming no diversification, as proposed in Paragraph 8. Using analogies from Finance Theory it is clear that an acquiring entity for whom the portfolio offers the prospect of some diversification will charge a lower price than one for whom the diversification benefit is less complete. This suggests the concept of a reference entity that is "perfectly" diversified once the transferred portfolio has been accepted. Whilst somewhat idealised, such a reference entity is arguably no more unrealistic than the empty reference entity proposed by CEIOPS. We think arguments about the diversification or otherwise of the transferring entity are irrelevant. It is only the diversification of the accepting entity that matters. We need to consider a practical method for assessing this "perfect" diversification. One method would be to calculate the SCR (omitting market risk) for a reference entity that consists of equal volumes, by both premium and technical provision, of each line of business.	See the resolution regarding comment no. 614.

			The equivalent line of business only SCR, SCR(lob) say, could also be calculated. These calculations might require a "steady state" ratio of premium to technical provisions but this can be readily done. The diversification factor, DF, could be calculated from the following formula: DF = SCR/sum{SCR(lob)} DF could then be multiplied by the individual line of business SCR, whether calculated using an internal model or the standard formula, to determine the SCR to be used in the cost of capital formula. This approach would be simple to apply and DF would be the same for all undertakings. There is no need to allocate risk margin as a per line of business risk margin is calculated. The method allows for a more theoretically correct risk margin and is independent of the transferring entity.	