Summary of Comments on CEIOPS-CP-49/09 **CEIOPS-SEC-112-09**

Consultation Paper on the Draft L2 Advice on SCR Standard Formula - Life underwriting risk

CEIOPS would like to thank Association of British Insurers, Association of Friendly Societies, Belgian Coordination Group Solvency II (Assuralia/, CEA,

ECO-SLV-09-444, Centre Technique des Institutions de Prévoyance (C, CRO Forum, Danish Insurance Association, Deloitte, DIMA, Dutch Actuarial Society – Actuarieel Genootschap (, FFSA, German Insurance Association – Gesamtverband der D, Groupe Consultatif, Institut des actuaires (France), Investment & Life Assurance Group (ILAG), Ireland\39s Solvency 2 Group, excluding representa, Just Retirement Limited, KPMG ELLP, Legal & General Group, Lucida plc, Munich RE, OAC plc, Pacific Life Re, PricewaterhouseCoopers LLP, RGA UK Services Limited, ROAM , Swiss Re, UNESPA (Association of Spanish insurers), Uniqa, Unum Limited, and XL Capital Ltd

The numbering of the paragraphs refers to Consultation Paper No. 49 (CEIOPS-CP-49/09)

No.	Name	Reference	Comment	Resolution
1.	Association of British Insurers	General Comment	Several of the assumed shocks seem to be too high Several of the shocks have been increased from their QIS4 level and we do not believe this is appropriate. We are particularly concerned about the life catastrophe risk stress (from 1.5 in QIS4 to 2.5 per mille) and the disability/morbidity risk stress (from 35% in QIS4 to 50% increases in 1st year inception rates). The 50% morbidity/disability stress is too high. By contrast a typical rate in the UK would be between 25-30%. The QIS 4 rates are generally more appropriate. Furthermore, we request clarification whether or not the 25% longevity stress is applied to best estimate technical provisions that already allow for longevity improvements (which is usually the case in the UK). If in other countries the stress test is applied to best estimate without longevity improvements then there will not be a level playing field. A one-off shock for mortality/longevity is appropriate only as a	General point noted Noted. Points specifically addressed below Noted. The 25% improvement factor is to be applied to a best estimate mortality table which includes improvement factors. Country specific details will be set in level 3.

			simplification The calculation with a one-off shock for mortality/longevity is appropriate as a simplification and these simplifications should be retained. However, they are not appropriately risk sensitive to form part of the standard formula. The standard formula should be refined to allow at least for the duration of the products and consideration/analysis should be carried out to determine whether it would also be appropriate to allow for additional refinement such as an allowance for other characteristics such as age or sex of the policyholder. The continuing use of a base table stress only for mortality/longevity risk is not appropriate. A trend base table and trend stress is more appropriate. The mass lapse module should apply to all policies. Application to only those with positive surrender strain in not realistic. We support the option to use model points rather than policy-by-policy data This is essential in order to avoid over-burdening insurers and is common practice by insurers. It should be possible to use entity specific parameters for life underwriting risk in the standard formula As noted in our QIS4 feedback, assumptions for best estimates are less uncertain for larger portfolios, and this would be recognised through, for example, the use of credibility weighted entity specific parameters.	Noted. Points specifically addressed below. Noted. Points specifically addressed below. Noted Noted. Points specifically addressed below.
2.	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-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 • In QIS 4 there was an option when assessing the mortality risk to either unbundle into mortality / longevity components and only take the mortality component into account under the mortality risk or to not unbundle and allow for mortality / longevity offset and apply floor of zero at contract level. This decision needed to be applied consistently. However, this option to unbundle has now been removed. For QIS4 we did use this option for Holloway business and are concerned that this option has been removed. • A 50% increase to the mortality stress seems high. • Morbidity / disability test. How does Manchester Unity approach to valuing sickness benefits fit into stress test as regards to recovery rates as these are implicit in rates used? The guidance does state "where applicable" for recovery rates - so can these be ignored for Manchester Unity approach? However, recovery rates are implicit in model so does not seem correct to ignore? • A much wider definition to lapses is proposed which incorporates all options to fully / partly, terminate or reduce benefit and conversion to paid-up – not sure how this work in practice?	Noted This wider definition has been brought in to ensure that all lapse type events are counted. Policy events which cause a surrender strain (as per para 134) would be included.
3.			Confidential comment deleted	
4.	CEA, ECO-SLV-	General Comment	The CEA welcomes the opportunity to comment on the Consultation Paper (CP) No. 49 on SCR Standard Formula – Life underwriting risk.	Noted

	09-444		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. 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. Ceiops appears to be taking an overly prudent approach. All changes Ceiops has proposed compared to the QIS4 calibration will result in increased capital requirements. Furthermore, industry proposals which would make the capital requirements more risk-sensitive (e.g. a gradual change in longevity or mortality instead of a one-off shock) were not taken into account by Ceiops. The proposed measures therefore seem aimed at increasing the level of the capital requirements rather than better reflecting the 99.5th percentile. An example of those proposed calibrations which we do not believe are justified are: - The life catastrophe risk stress: Ceiops proposes to raise this from 1.5 in QIS4 to 2.5 per mille, however there is strong evidence to suggest the original 1.5 is appropriate. We are very concerned about this change. - The disability/morbidity risk stress: Ceiops proposes to increase the calibration based on evidence from the Swedish FSA. This does not seem appropriate and we believe that there may be significant differences across member states.	Noted. Please see responses to specific comments below.

			- The treatment of lapse risk: - The addition of a 70% lapse shock for non-retail business seems particularly high and is not sufficiently justified. Additionally we believe that the correct reference for a differentiated stress would be more likely to be to institutional investors rather than non-retail. - Ceiops proposes to take lapse risk into account in the market risk module as well as in the life risk module which presents a serious risk of double-counting with the lapse risk module, particularly with the mass lapse risk. - Ceiops proposes only to apply the lapse risk stresses to those policies for which the shock produces a loss for the insurer. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more onerous than the 99.5th percentile. - The current lapse stresses are uniform across products and countries. However, there are lot of deviating types of products as well contract terms and legal restrictions across the EU which are likely to impact the variability of lapse rates. A 1-off shock for mortality/longevity is appropriate only as a simplification. The calculation with a 1-off shock for mortality/longevity is appropriate as a simplification. These simplifications should be retained; however, they are not appropriately risk sensitive to form part of the standard formula. The standard formula should be	

			refined to allow at least for the duration of the policy and the age of the insured person and consideration/analysis should be carried out to determine whether it would also be appropriate to allow for additional refinement such as an allowance for other characteristics such as sex of the insured person. The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic. For mortality, longevity and lapse risk, Ceiops proposes to only stress those policies for which a loss is produced. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more onerous than the 99.5th percentile. The diversification that naturally exists between policies should be recognised and Ceiops' approach currently significantly understates this. Furthermore, this requirement would be burdensome as insurers are required to identify which policies create a loss under each stress and stress these separately. Another element to further complicate the calculations could be when elements (such as profit sharing) are calculated based on groups of policies/product lines. We would suggest as a minimum the principle of proportionality is applied to these requirements, but the most appropriate solution would be to remove the requirements altogether. It should be possible to use entity specific parameters for life underwriting risk in the standard formula. As noted in our QIS4 feedback, assumptions for best estimates are less uncertain for larger portfolios, and this would be recognised through, for example, the use of credibility weighted entity specific parameters. We strongly request it is possible to use entity specific parameters in this module in addition to the ability to use partial internal	

			models. Ceiops will need to issue guidance to ensure that supervisors are well prepared to allow entities to make suitable adaptations without undue burden or prudence. We should note that it is essential that simplifications are also retained. The analysis Ceiops has carried out based on one country's data is not necessarily sufficiently representative for the calibration. We strongly disagree with the calibration for disability business resulting from observations only in the Swedish market which Ceiops then proposes to apply to all member states. In fact, the calibration of several shocks is based on country-specific analyses and these are not considered necessarily representative of the experience in other countries. It is important to ensure there is no double-counting with the health risk module. As a general comment on the health module, it will be important to ensure that the "morbidity-disability risk" (covering level, trend and volatility) and "health CAT risk" (covering one off events) are considered holistically to ensure there is no double counting of this risk with the health risk module. We support the option to use model points rather than policy-by-policy data. This is essential in order to avoid over-burdening insurers and is common practice by insurers.	Agreed. Although it is important to distinguish between the life underwriting and health CP's
5.	CRO Forum	General Comment	49.A The suggested mortality CAT calibration is too high (priority: high) The CRO Forum believes that the suggested mortality CAT	Noted, please see response to specific comments below.

			calibration of 2.5‰ (per mille) is too high. The original suggestion from Groupe Consultatif at 1.5‰ (per mille) is viewed as a better approximation to a 1 in 200 year event. 49.B Time horizon of stresses should be calibrated to a one-year view (priority: high) The CRO Forum believes that in some cases the stresses are overly conservative and not consistent with a 99.5% VaR over a one-year period. Overall the combined stresses for life insurance risks appear to be high even without the suggested increases. 49.C Lapse rates should be limited to full and partial surrender rates (priority: medium) The CP assumes that option take-up rates are not being accounted for in other shocks scenarios, e.g. to the level of interest rates. The CRO Forum believes this assumption could lead to double counting of risks, unless it is clear what "options" are accounted for in the non-lapse SCR shocks/scenario calculations, and what "option take-ups" are included in the lapse shock. The CRO Forum believes that achieving consistency across companies and member states would be very difficult due to different option definitions and/or product categories. The CRO Forum proposes that the standard approach limits the lapse risks to full and partial surrender rates, as well as premium discontinuance rates (e.g. paid-up rates). 49.D Early engagement of industry in QIS5 with respect to calibration is required (priority: high)	Not agreed, please see response to specific comments below. Not agreed, please see response to specific comments below. Noted
6.	Danish Insurance Association	General Comment	**[EMPTY]**	
7.	Deloitte	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. Overall comment We understand the challenge that CEIOPS faces for the provision of calibration factors in a short timeframe. However, we consider that the justification for the calibration of the modules lacks consistency. CEIOPS seems to use many different data sources, instead of conducting their own studies, which would be appropriate considering the cost of SCR at stake EU wide.	Noted
8.	DIMA	General Comment	The proposed implementing measures do not seem to be building on QIS4, but seem to be based on a completely new look at the SCR calculation. Some of the justification for the changed calculations is not comprehensive. In particular to look at the output of a number of internal models seems odd. Surely CEIOPS should consider the underlying data that has been used to set the parameters. Further clarification is sought on what business is classified as "retail" with regard to the mass lapse assumption. For example, does reinsurance of retail business qualify as "retail"? In connection with 3.183 I attach a cover note and 2 American papers on pandemic risk.	Noted. Please see response to various comments below
9.	Dutch Actuarial Society – Actuarieel Genootscha	General Comment	In the underwriting life module it's common to quantify the risks via one instant shock. The shock captures trend, level and volatility risk components. Volatility of parameters is one of the risks which is directly related to the size and homogeneity of the portfolio in force. The smaller the portfolio, the higher the risk of volatility is.	Not agreed. Please see response to comments below.

	p (		In our opinion, incorporating a size factor will strengthen the life underwriting risk module. Adding a size factor is a relative simple and easy to apply adjustment to the formula. Some of the stress factors seem not to be supported well by the results of research in the different countries. Examples are revision risk, mass lapse and mass lapse non retail business. We suggest that the Group Consultatif analyse these parameters and deliver their advice.	Noted
10.	FFSA	General Comment	FFSA observes that the calibration parameters have been increased: – Cat mortality risk stress test is more severe, but without quantitative justification. Cat disability has been removed with the justification that it will be treated in the health module. – Mortality risk stress test has increased, justified based on a survey of other internal models – Lapse risk: in addition to the standard lapse stresses (capital charge for the risk of misestimating of current lapse rates), CEIOPS suggests a separate capital charge (via dynamic lapse function) to reflect policyholders' behaviour in distressed financial market. In such case, we think that the current stress test (maximum between a relative permanent increase or decrease of 50% of lapse rates and a mass lapse) is too conservative. The calibration is based on a with-profit portfolio in UK and didn't isolate the adverse market scenario. - Furthermore, FFSA would like to point at the risk of overestimation of the lapse risk module. Indeed, a part of the lapse risk is already taken into account, for instance, in the interest rate risk as policy behaviour is dependent of the interest rate level. In particular, the 70% lapse assumption is disproportionate.	Please see discussion to comments below. Noted Noted Please see discussion to comments below

			– Disability stress increased for the first year and a simultaneous stress on recovery rates was also added. FFSA strictly disagrees with the application to all member states the calibration resulting form observations on the Swedish market. - Even if it is too early to assess the impact of this new calibration, it is clear that it will increase the capital charge FFSA would like to emphasize that for mortality, longevity and lapse risk, it could be very demanding to shock only the model points (or policies) which are sensible to those risks, because of the structure of actual models. The benefit of diversification of segregated funds naturally hedged to those risks by selling products sensitive and contra-sensitive could be unfairly underestimated. Furthermore, there are some elements (as profit sharing) which are calculated based on the entire segregated fund. FFSA suggests applying the principle of proportionality and shock at least all contracts backed by the same asset portfolio. As a conclusion, FFSA notes that all the changes done in the calibration with regard to the QIS 4 are all directed towards increasing the Capital requirements. All the proposition done by participants that could be seen as more economic (e.g. a graduate change in longevity or mortality shocks instead of a one-off shock) were not taken into account by CEIOPS. FFSA therefore wonders if the proposed measures aimed at better reflecting the 99.5% VaR or at increasing the level of the Capital requirements with the standard formula. We therefore recommend that when no European studies exist (for example on morbidity) the calibration remains at least the same than in the QIS 4	Noted. Please see discussion to comments below Please see discussion to comments below Not Agreed. The proposed methods ae aimed at reflecting a 99.5% stress to life underwriting risks
11.	German Insurance Association	General Comment	GDV appreciates CEIOPS' effort regarding the implementing measures and likes to comment on this consultation paper. In general, GDV supports the detailed comment of CEA. Nevertheless,	Noted

	– Gesamtverband der D		the GDV highlights the most important issues for the German market based on CEIOPS' advice in the blue boxes. 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. Overall comment: The increased level of many shocks is inappropriate. The former QIS4 level should be restored as long as no evidence is given that this former level was not appropriate. The application of the mass lapse scenario should not depend on a positive surrender strain. To avoid double-counting, lapse risk should not be taken in account in the market risk module, too. CEIOPS appears to be taking an overly prudent approach All the changes to the calibration compared to QIS4 have increased the capital requirements. Furthermore, all the industry proposals which attempt to make the capital requirements more economic (e.g. a gradual change in longevity or mortality instead of a one-off shock) were not taken into account by CEIOPS. The proposed measures therefore seem aimed at increasing the level of the capital requirements rather than better reflecting the 99.5th percentile. We recommend that when no European study exists (for example morbidity) the calibration remains at the QIS4 level. An example of those stresses that have been increased from their QIS4 level and for which we do not believe this is appropriate are: - The life catastrophe risk stress (from 1.5 in QIS4 to 2.5 per mille). We do not agree with CEIOPS' justification with the increase and believe the QIS4 figure is much more appropriate.	Noted Noted. Please see response to discussion below Noted Not Agreed. The proposed methods ae aimed at reflecting a 99.5% stress to life underwriting risks Noted, please see discussion below

			- The disability/morbidity risk stress (from 35% in QIS4 to 50% increases in 1st year inception rates). The 50% morbidity/disability stress is too high. By way of illustration, UK ICA rates are between 25-30%. The QIS4 rates are generally more appropriate.	Noted, please see discussion below
			- The treatment of lapse risk: A) The addition of a 70% lapse shock for non-retail business. 70% seems particularly high and is not sufficiently justified. B) The fact that CEIOPS also proposes to take lapse risk into account in the market risk module, presents a serious risk of double-counting with the lapse risk module, particularly the mass lapse risk calibrated at 50% but also the 50% lapse stresses, and so a reduced calibration from QIS4 levels is necessary to avoid double-counting this risk. C) The fact that CEIOPS proposes only to apply the lapse risk stresses to those policies for which this shock produces a loss for the insurer. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more onerous than the 99.5th percentile. D) There are lot of deviating terms and contract and legislations among EU countries which can have an impact on the probability of a product lapsing as well as the variability of this lapse rate. For example, in many EU countries, pension policies are much harder to lapse than the endowment policies. The analysis CEIOPS has carried out based on one country's data is not necessarily sufficiently representative for the calibration	Noted, please see discussion below
			We strongly disagree with the calibration for critical illness business	

			resulting from observations in the Swedish market only which CEIOPS then proposes to apply to all member states. In fact, the calibration of several shocks is based on country-specific analyses and these are not considered necessarily representative of the risks experienced in other countries. It is important to ensure there is no double-counting with the health risk module As a general comment on the health module, it will be important to ensure that the "morbidity-disability risk" (covering level, trend and volatility) and "health CAT risk" (covering one off events) are considered holistically to ensure there is no double counting. A 1-off shock for mortality/longevity is appropriate only as a simplification The calculation with a 1-off shock for mortality/longevity is appropriate as a simplification and these simplifications should be retained. However, they are not appropriately risk sensitive to form part of the standard formula. The standard formula should be refined to allow at least for the duration and the age of the policies and consideration/analysis should be carried out to determine whether it would also be appropriate to allow for additional refinement such as an allowance for other characteristics such as sex of the policyholder. A trend base table and trend stress is the most appropriate method. The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic For mortality, longevity and lapse risk, CEIOPS proposes to only stress those policies for which a loss is produced. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more	Noted, please see discussion below

			onerous than the 99.5th percentile. The diversification that naturally exists between policies should be recognised and CEIOPS' approach currently significantly understates this. Furthermore, this requirement would be burdensome as insurers are required to identify which policies create a loss under each stress and stress these separately. Another element to further complicate the calculations could be when elements (such as profit sharing) are calculated based on groups of policies/product lines. We would suggest as a minimum the principle of proportionality is applied to these requirements, but the most appropriate solution would be to remove the requirements altogether. We support the option to use model points rather than policy-by-policy data This is essential in order to avoid over-burdening insurers and is common practice by insurers. It should be possible to use of entity specific parameters for life underwriting risk in the standard formula As noted in our QIS4 feedback, assumptions for best estimates are less uncertain for larger portfolios, and this would be recognised through, for example, the use of credibility weighted entity specific parameters. We strongly request it is possible to use entity specific parameters in this module as well as partial internal models. CEIOPS will need to issue guidance to ensure that supervisors are well prepared to allow entities to make suitable adaptations without undue burden or prudence. We should note that it is also essential that simplifications are retained. There is a danger that CEIOPS is calibrating to a multi-year time	Noted

			horizon Whilst we share the advice given in the CP in many aspects, we currently see the danger that stresses in some cases are calibrated to a multi-year time-horizon instead of assuming a one-year view. This poses the danger of overly conservative calibration especially when comparing against other risk types. For all types of risks a stress event will in reality lead to an adjustment of best estimate assumptions for portfolio valuation at year end. For practical reasons, the change in assumptions and the single year stress could be combined into a single assumption stress. The standard formula needs to apply a simplified approach of setting best estimate assumptions at the end of the one-year time horizon. Typically, parts of any actual to expected deviation in the first year would result from process risk (random fluctuations) and thus not persist beyond the one-year time horizon. The effect in later years should therefore be smaller than in the first year. This needs to be considered when calibrating parallel shifts.	Noted. Please see discussion below.
12.	Groupe Consultatif	General Comment	We are concerned here that calibrations have increased according to criteria that are not always justified in actuarial terms. We get the impression of a prudential calibration rather than an economical calibration. In addition to our general comment, it seems that the proposals of QIS4 participants have not always been accepted. Example: Concerning paragraph (3.16), some participants suggested that capital requirement on mortality risk should be gradual rather than unique. This proposal has been considered and rejected by the CEIOPS. One general remark with respect to life risk: it would be easier and more logical to model not longevity and mortality, but trend and level uncertainty. It is easier to model and easier in setting	Noted Please see response to discussion below

			correlation factors. The rather limited data sources underlying this paper suggest that our comments on CP43 about the need for the authorities to encourage public bodies, industry associations, and professional bodies to improve the availability of statistics (at both national and European levels) should be repeated here.	Noted
13.	Institut des actuaires (France)	General Comment	The general comment about Consultation Paper 49 from the Institut des actuaires, the third European actuarial association is the following: calibrations have increased according to criterions that are not always justified in actuarial terms. We get the impression of a prudential calibration rather than an economical calibration. In addition to our general comment, it seems that the proposals of QIS4 participants have not always been accepted. Example: Concerning paragraph (3.16), some participants suggested that capital requirement on mortality risk should be gradual rather than unique. This proposal has been considered and rejected by the CEIOPS.	See response to comment 12
14.	Investment & Life Assurance Group (ILAG)	General Comment	Many of the SCR standard formulae proposed in this paper are more onerous than under QIS4. We are disappointed at the lack of justification presented in this paper for the increased onerousness of the various SCR components, particularly as CEIOPS did not express any doubt as to the adequacy of the QIS4 calibration at the time that theQIS4 results were released.	Noted
15.	Ireland's Solvency 2 Group, excluding representa	General Comment	We note that all of the calibrations in this CP have either increased or remained unchanged from QIS4. For example, disability/morbidity risk, lapse risk and mortality catastrophe have all seen their calibrations increase. We are not convinced by the arguments for these increases e.g. the increase in the disability stress test is driven by an analysis of just one country's experience and the justification for the increase in the mortality catastrophe	Noted. Please see response to specific comments below

			risk seems to be largely driven with reference to the Spanish Flu experience of 1918/1919. Accordingly, we suggest that the QIS4 calibrations be retained unless and until more comprehensive studies are produced. In addition, for lapse risk, we are concerned that the proposed non-symmetric treatment of contracts, whereby the individual stress tests would only apply to those contracts which will have higher provisions as a result of the test, will result in higher capital requirements for lapse risk than may be justified.	
16.	Just Retirement Limited	General Comment	In general, we support the overall structure of the standard model underwriting sub-module, but we are concerned about the proposed strengthening of a number of the stresses relative to those used in QIS4, without robust justification. Certain financial instruments (distinct from reinsurance contracts) held on the asset side of the balance sheet are sensitive to underwriting risks and it would be useful to re-focus the wording away from liabilities so that it covers a more general adverse change in value, across the balance sheet, arising from either an increase in liabilities or a fall in assets. It would be sensible to make the morbidity stress bidirectional as this would align it with mortality/longevity and lapsation up/down and deal with certain assets where the value can fall as morbidity lightens.	Noted See response to specific comments below.
17.	KPMG ELLP	General Comment	Our general comment is that compared to QIS4 the calibrations have increased in number of areas based on criteria that does not always appear justified by the analysis included in the CP.	Noted
18.	Legal & General Group	General Comment	There are sections of this CP where the degree of prudence in our view exceeds a 1:200 framework. In particular 3.25(permanent increase in mortality)(disallowing negative surrender strains);3.147 and especially 3.195(catastrophe	Please see response to specific comments below

			risk).	
19.	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). We have a general concern that by considering proposals on a paper by paper basis, the overall impact of proposals may be overlooked. For example, whilst taken in isolation the calibration of longevity risk in this paper might lead to only a small amount of extra capital being held compared with our current approach, when considered alongside proposed correlations the post-diversification result is likely to be significantly higher than the capital currently being held (based on the QIS4 correlations).	Noted
20.	Munich RE	General Comment	We fully support all of the GDV statements and would like to add the following points: Whilst we share the advice given in the CP in many aspects, we currently see the danger that stresses in some cases are calibrated to a multi-year time-horizon instead of assuming a one-year view. This poses the danger of overly conservative calibration especially when comparing against other risk types. Also company specific data especially on insured mortality could be used to reflect portfolio specifics. The charges in total on mortality risks appear to be high, especially when considering undertakings that are not just monoliners. QIS5 should therefore perform additional tests with respect to the calibration of the standard formula.	Please see response to individual comments below
21.	OAC plc	General Comment	In QIS 4 there was an option when assessing the mortality risk to either unbundle into mortality / longevity components and only take the mortality component into account under the mortality risk	See response to comment 2

			or to not unbundle and allow for mortality / longevity offset and apply floor of zero at contract level. This decision needed to be applied consistently. However, this option to unbundle has now been removed. For QIS4 we did use this option for Holloway business and are concerned that this option has been removed. A 50% increase to the mortality stress seems high. Morbidity / disability test. How does Manchester Unity approach to valuing sickness benefits fit into stress test as regards to recovery rates as these are implicit in rates used? The guidance does state "where applicable" for recovery rates - so can these be ignored for Manchester Unity approach? However, recovery rates are implicit in model so does not seem correct to ignore? A much wider definition to lapses is proposed which incorporates all options to fully / partly, terminate or reduce benefit and conversion to paid-up – not sure how this work in practice?	
22.	Pacific Life Re	General Comment	We have found Consultation Paper 49 ("CP49") very helpful in setting out the key issues in respect of the calculation of the life underwriting risk element of the SCR. We include below some comments relating to the Life catastrophe risk element of the SCR. We comment on the absolute level of the mortality shock and also seek clarification on how the shock will be applied in the modelling of joint life cases.	Noted
23.			Confidential comment deleted	
24.	PricewaterhouseCoopers LLP	General Comment	Overall, the CP provides further clarity on how firms will be expected to calculate the life underwriting risk element of the standard formula, especially around the calibration of the stresses and how this calibration compares to QIS 4. However, we note that no guidance has yet been provided on how simplifications may be applied to the standard formula for sub-modules other than	Noted

			persistency risk. Details of simplifications allowed (which CEIOPS has indicated will be provided as part of the third wave of CPs) are likely to be key in a firm's assessment of the amount of capital and the level of modelling development required to calculate the standard formula and thus it is important that clear guidance is given in this area.	
			We note that, overall, the standard formula for life underwriting risk appears more onerous than that applied for QIS 4, with the majority of changes since the QIS 4 process likely to increase capital requirements.	Noted
			Whilst details are given of how the parameters of the standard formula have been calibrated, it is not always clear how this relates to underlying data or evidence backing these parameterisations. The parameters have been calibrated primarily based on a combination of QIS 4 participant feedback, analysis of a small sample of internal models and research carried out by regulatory bodies in Member States, but the chosen stresses do not always appear justified by the evidence and in some cases (e.g. mass lapse stress for institutional investors) there does not seem to be sufficient underlying evidence. We would also encourage CEIOPS to consider the validity of research carried out by member states (which is based on data from only one or a subset of member states) as a representation of an appropriate stress for all member states and consider carrying out more detailed research to support the chosen stresses.	Noted
			Further clarification on the treatment of group life business may be useful. This business is typically operated as a short-term contract using methods similar to those used in the valuation of non-life insurance business (e.g. unexpired premium reserve). The practical application of the mortality stress in the life underwriting risk module is thus not immediately obvious.	Noted

25.	RGA UK Services Limited	General Comment	We are concerned that it appears that the calibration of the standard formula is being significantly strengthened from that used in QIS4. This may achieve an implicit objective of the regulators to encourage the more wide-spread use of an internal model, however it may also make it harder for smaller insurers to compete. Further, many overseas insurance markets are looking at the work of CEIOPS as a useful precedent for the reform of their own regulatory framework, with the emphasis on adopting the risk sensitive nature of Solvency 2. This external scrutiny makes it important to ensure that the standard formula for the SCR can be seen to have been determined with as much rigour as possible.	Noted
26.			Confidential comment deleted	
27.	ROAM	General Comment	ROAM observes that the calibration parameters have been increased: – Cat mortality risk stress test is more severe, but without quantitative justification. Cat disability has been removed with the justification that it will be treated in the health module. – Mortality risk stress test has increased, justified based on a survey of other internal models – Lapse risk: in addition to the standard lapse stresses (capital charge for the risk of misestimating of current lapse rates), CEIOPS suggests a separate capital charge (via dynamic lapse function) to reflect policyholders' behaviour in distressed financial market. In such case, we think that the current stress test (maximum between a relative permanent increase or decrease of 50% of lapse rates and a mass lapse) is too conservative. The calibration is based on a with-profit portfolio in the UK and did not isolate the adverse market scenario. Regarding the mass lapse scenario, it should not exclude policies with a negative surrender	Please see response to comment 10

			strain. A mass lapse event would likely be due to a confidence crisis, in which policies with both positive and negative surrender strain would be more likely to surrender. - Furthermore, ROAM would like to point at the risk of overestimation of the lapse risk module. Indeed, a part of the lapse risk is already taken into account, for instance, in the interest rate risk as policy behaviour is dependent of the interest rate level. In particular, the 70% lapse assumption is disproportionate. Hence, to avoid double counting, lapse risk should not be calculated based on a surrender strain. – Disability stress increased for the first year and a simultaneous stress on recovery rates was also added. ROAM strictly disagrees with the application to all member states of the calibration resulting from observations on the Swedish market. - Even if it is too early to assess the impact of this new calibration, it is clear that it will increase the capital charge ROAM would like to emphasize that for mortality, longevity and lapse risk, it could be very demanding to shock only the model points (or policies) which are sensible to those risks, because of the structure of actual models. The benefit of diversification of segregated funds naturally hedged to those risks by selling products sensitive and contra-sensitive could be unfairly underestimated. Furthermore, there are some elements (as profit sharing) which are calculated based on the entire segregated fund. ROAM suggests applying the principle of proportionality and shock at least all contracts backed by the same asset portfolio. As a conclusion, ROAM notes that all the changes done in the calibration with regard to the QIS 4 are all directed towards increasing the solvency capital requirements. All the proposition made by participants that could be seen as more economical (e.g. a	Noted. Please see response to comments below

			gradual change in longevity or mortality shocks instead of a one-off shock) were not taken into account by CEIOPS. ROAM therefore wonders if the proposed measures are aimed at better reflecting the 99.5% VaR or at increasing the level of the Capital requirements with the standard formula. We therefore recommend that when no European studies exist (for example on morbidity) the calibration remains at least the same than in QIS 4 without the surrender strain.	
28.	Swiss Re	General Comment	SwissRe is commenting only on the LifeCAT sections (3.174-3.196). We disagree with CEIOPS argumentation and its conclusions. We believe that 1.5per mille is a fully adequate calibration for Solvency II Standard Formula. We will be pleased to meet with CEIOPS or any of its members to explain our model, our views on developments since its publication and to discuss CEIOPS's own views. Please contact Raj Singh, Chief Risk Officer (Raj_Singh@swissre.com) or Philippe Brahin, Head of Group Regulatory Affairs (Philippe_Brahin@swissre.com)	Noted, see responses to detailed comments below, as well as modified section 3.8
29.	UNESPA (Association of Spanish insurers)	General Comment	Introductory remarks : UNESPA (Association of Spanish Insurers and Reinsurers) appreciates the opportunity to analyze and comment on Consultation Paper 49 about SCR Standard Formula – Life underwriting risk UNESPA is the representative body of more than 250 private insurers and reinsurers that stand for approximately the 96% of Spanish insurance market. Spanish Insurers and reinsurers generate premium income of more than € 55 bn, directly employ 60.000 people and invest more than € 400 bn in the economy.	Noted

			The comments expresed in this response represent the UNESPA´s views at this stage of the project. As our develops, these views may evolve depending in particular, on other elements of the framework which are not yet fixed. CEIOPS appears to be taking an overly prudent approach All the changes to the calibration compared to QIS4 have increased the capital requirements. Furthermore, all the industry proposals which attempt to make the capital requirements more economic (e.g. a gradual change in longevity instead of a one-off shock) were not taken into account by CEIOPS. The proposed measures therefore seem aimed at increasing the level of the capital requirements rather than better reflecting the 99.5th percentile. A 1-off shock for longevity is appropriate only as a simplification The calculation with a 1-off shock for longevity is appropriate as a simplification and these simplifications should be retained. However, they are not appropriately risk sensitive to form part of the standard formula. The standard formula should be refined to allow at least for the age of the insured person and the duration of the policy and consideration/analysis should be carried out to determine whether it would also be appropriate to allow for additional refinement such as an allowance for other characteristics such as sex of the insured person. Other stresses that have been increased from their QIS4 level and for which we do not believe this is appropriate are: - Mortality: The 10% shock initially proposed in QIS4 seems reasonable and CEIOPS has provided no information justifying the increase to 15%. - The addition of a 70% lapse shock for non-retail business.	Please see response to various comments below

			70% seems particularly high and is not sufficiently justified. - The life catastrophe risk stress (from 1.5 in QIS4 to 2.5 per mille). We do not agree with CEIOPS' justification with the increase and believe the QIS4 figure is much more appropriate. We suggest strong harmonization in the design of catastrophic scenarios at EU level in order to avoid arbitrage. Nevertheless, at the same time we also suggest that these scenarios should be flexible enough to recognize an appropriate reduction in capital requirements due to (i) Public institutions that in some countries play a crucial role in the coverage of certain extraordinary risks (as is the case in Spain where a public entity - Consorcio de Compensación de Seguros- covers certain extraordinary risks) and (ii) Reinsurance.	
30.	Uniqa	General Comment	We feel comfortable with the considerations provided by CEIOPS concerning the life underwriting risk and appreciate that it supports to abolish last ambiguities. However, towards some considerations we would like to add our comments.	Noted
31.	Unum Limited	General Comment	Several of the assumed shocks seem to be too high Several of the shocks have been increased from their QIS4 level and we do not believe this is appropriate. We are particularly concerned about the life catastrophe risk stress (from 1.5 in QIS4 to 2.5 per mille) and the disability/morbidity risk stress (from 35% in QIS4 to 50% increases in 1st year inception rates). The 50% morbidity/disability stress is too high. By contrast a typical rate in the UK would be between 25-30%. The QIS 4 rates are generally more appropriate. We are also concerned about the addition of a 70% lapse shock for non-retail business that seems particularly high. A one-off shock for mortality/longevity is appropriate only as a	Please see response to discussion below

			simplification The calculation with a 1-off shock for mortality/longevity is appropriate as a simplification and these simplifications should be retained. However, they are not appropriately risk sensitive to form part of the standard formula. The standard formula should be refined to allow at least for the duration of the products and consideration/analysis should be carried out to determine whether it would also be appropriate to allow for additional refinement such as an allowance for other characteristics such as age or sex of the policyholder. The continuing use of a base table stress only for mortality/longevity risk is not appropriate. A trend base table and trend stress is more appropriate. The mass lapse module should apply to all policies. Application to only those with positive surrender strain in not realistic. We support the option to use model points rather than policy-by-policy data It should be possible to use of entity specific parameters for life underwriting risk in the standard formula – based on how large the portfolio is	
32.	XL Capital Ltd	General Comment	We believe that some of the stresses are too high, in particular the 50% first year stress on inception rates for disability business, the 2.4 per mille mortality catastrophe stress and the 15% mortality stress. We believe that the QIS4 calibrations were more appropriate, notwithstanding comments below regarding the longevity stress, and there has been insufficient evidence presented in CP 49 to justify the movements between QIS 4 and now.	Please see response to discussion below
33.	CRO Forum	3.1.	For reasons of simplification we agree that the circularity of the risk margin and the SCR may not be reflected. Nevertheless Companies	Not agreed. For the standard formula CEIOPS considers that

			that wish to include the shock on the risk margins for the capital calculation should be allowed to do this since it is a more precise approach.	not including the risk margin presents a significant simplification.
34.	KPMG ELLP	3.1.	We support that a pragmatic approach is suggested to calculate the SCR using a balance sheet that excludes the risk margin to avoid a circular calculation. Also applies to 3.4	Noted.
35.	Munich RE	3.1.	We agree that the circularity of the risk margin and the SCR may not be reflected for practical reasons.	Noted
36.	Just Retirement Limited	3.2.	There is a growing set of financial instruments whose value depends on underwriting risks, for example longevity derivatives and equity release products. These are not reinsurance contracts and would appear on the asset side of the balance sheet. Under a literal reading of the text (which refers to adverse changes in the value of technical provisions) the value of such instruments would not be stressed in the underwriting SCR. This is unlikely to be the intention of the text and clarification would be welcome.	For such complex instruments, CEIOPS believes a (partial) internal model approach may be more appropriate, and so does not include discussion in this CP
37.	KPMG ELLP	3.2.	Our comments on including adverse changes in option take-up in the revaluation of technical provisions are covered in detail in the lapse risk section.	Noted
38.	Lucida plc	3.2.	It is not clear why only adverse changes should be allowed for – it would be more consistent to allow for any expected changes. This also applies to 3.5 and 3.160	Agreed – See new paragraph 3.3
39.	PricewaterhouseCoopers LLP	3.2.	We welcome the refinement of the standard formula calculation to allow for the change in option take-up rates as a result of stresses in the other sub-modules.	Noted
40.	UNESPA (Association	3.2.	See comments to Para 3.5	See reponse to comment 57

	of Spanish insurers)			
41.	CEA, ECO-SLV-09-444	3.3.	We agree that the complexity of design for the standard formula can be reduced by implicitly covering the volatility risk in the level, trend and catastrophe risk components.	Noted
42.	CRO Forum	3.3.	We agree that the complexity of design for the standard formula can be reduced by implicitly covering the volatility risk in the level, trend and catastrophe risk components.	See response to comment 41
43.	Munich RE	3.3.	We agree that the complexity of design for the standard formula can be reduced by implicitly covering the volatility risk in the level, trend and catastrophe risk components.	See response to comment 41
44.	RGA UK Services Limited	3.3.	We are concerned with the rationale used to continue to exclude a specific volatility component for mortality and other life underwriting risks. There are two reasons for our opinion. First, although for the industry as a whole this may be a small part of the overall mortality capital, we consider it important to recognise the impact that volatility (both in claim numbers and distribution of claim amounts) can have on reported financial strength. This is particularly important for companies starting to write a new line of business, or for smaller insurers who may be more likely to use the standard formula than to seek approval of an internal model. Second, we consider it important to use as much intellectual rigour as possible when selecting the standard stresses rather than just considering the aggregate impact of specific tests on the European insurance market as a whole. This is particularly important given the interest from other insurance markets in the work of CEIOPS.	Noted. Please see discussions below. Generally CEIOPS believes that not including a volatility parameter explicitly is appropriate in the context of the standard formula.

			This comment also applies to paragraph 3.6	
45.	CRO Forum	3.4.	For reasons of simplification we agree that the circularity of the risk margin and the SCR may not be reflected. Nevertheless Companies that wish to include the shock on the risk margins for the capital calculation should be allowed to do this since it is a more precise approach.	See response to comment 33
46.	Just Retirement Limited	3.4.	We welcome the decision to break the circularity between the SCR and risk margin by removing the risk margin from the calculation of the SCR.	Noted
47.	Legal & General Group	3.4.	Agree.	Noted
48.	Munich RE	3.4.	We agree that the circularity of the risk margin and the SCR may not be reflected for practical reasons	Noted
49.	Association of British Insurers	3.5.	The requirement to allow for any relevant adverse changes in option take-up behaviour should be applied in a proportionate manner and should also take account of positive changes in take-up. This requirement may be difficult to carry out in practical terms, therefore we request that it is only required where the risk is significant. We request that "any adverse change" is changed to "any material change". We would add that data on rational policyholder behaviour will be scant and so there will have to be more reliance upon expert judgement.	Not agreed. Please see response to comment 50.
50.			Confidential comment deleted	

51.	CEA, ECO-SLV-09-444	3.5.	The requirement to allow for any relevant adverse changes in option take-up behaviour should be applied in a proportionate manner and should also take account of positive changes in take-up. This requirement may be difficult to carry out in practical terms, therefore we request that it is only required for those where the risk is significant. We request that "any adverse change" is changed to "any material change".	See response to comment 49
52.	CRO Forum	3.5.	We agree that relevant changes in option take-up behaviour should be allowed for. However we disagree that only adverse changes in option take-up behaviour should be included, as this is not consistent with an economic solvency framework. We note that there will need to be a pragmatic approach to avoid undue complexity on items with low materiality.	See response to comments 49 and 50
53.	Danish Insurance Association	3.5.	CEIOPS is proposing the use of a permanent decrease in mortality rates of 25 per cent. The methodology chosen seems acceptable (reference to 3.6). But the proposed calibration of the longevity risk seems to be based on a regime where the capital requirement is not calculated on a market consistent basis as is the case now in some European markets. However, in a market consistent solvency regime any improvements in longevity – changes in level and trend – would be already included in the best estimate of liabilities as these, cf. article 76, must be based on realistic assumptions. The stress on longevity should only cover sudden/unforeseen permanent longevity changes and not the improvements which are based on historical data and are expected for the future.	Noted

54.	German Insurance Association – Gesamtverband der D	3.5.	The requirement to allow for any relevant adverse changes in option take-up behaviour should be applied in a proportionate manner and should also take account of positive changes in take-up. This requirement may be difficult to carry out in practical terms, therefore we request that it is only required for those where the risk is significant. We request that "any adverse change" is changed to "any material change".	See response to comment 49
55.	Legal & General Group	3.5.	I would like more comment on how this avoids double counting.	Noted
56.			Confidential comment deleted	
57.	UNESPA (Association of Spanish insurers)	3.5.	The requirement to allow for any relevant adverse changes in option take-up behaviour should be applied in a proportionate manner and should also take account of positive changes in take-up. This requirement may be difficult to carry out in practical terms, therefore we request that it is only required for those where the risk is significant. We request that "any adverse change" is changed to "any material change".	See response to comment 49
58.	CEA, ECO-SLV-09-444	3.6.	We agree that the complexity of design for the standard formula can be reduced by implicitly covering the volatility risk in the level, trend and catastrophe risk components.	Noted
59.	CRO Forum	3.6.	We agree that the complexity of design for the standard formula can be reduced by implicitly covering the volatility risk in the level,	Noted

			trend and catastrophe risk components.	
60.	Danish Insurance Association	3.6.	The proposal would lead to double counting of the level and trend improvements in longevity (see comments to 3.5). Calculations by Danish companies operating in a market consistent regime, clearly reveals that the proposal in 3.6 is extreme and unrealistic.	Noted
61.	German Insurance Association – Gesamtverband der D	3.6.	We agree that the complexity of design for the standard formula can be reduced by implicitly covering the volatility risk in the level, trend and catastrophe risk components.	Noted
62.	Legal & General Group	3.6.	Agree	Noted
63.	Munich RE	3.6.	We agree that the complexity of design for the standard formula can be reduced by implicitly covering the volatility risk in the level, trend and catastrophe risk components.	See response to comment 61
64.	RGA UK Services Limited	3.6.	See paragraph 3.3	See response to comment 44
65.			Confidential comment deleted	
66.	Association of British Insurers	3.10.	There should be separate level and trend components (applied as a single combined stress test). Both of these factors are allowed for in the assumptions used for the base liabilities, and will affect the risk for different policyholders. We believe that the need to apply separate level and trend components is greater here than for expenses. We further expect the level of effort required to implement a trend stress for mortality	Not agreed. CEIOPS believes that in this case, separating level and trend components will add unde complexity in the context of the standard formula.

			as similar to that required to do so for expenses. It is not clear therefore why this consultation paper recommends a trend stress for expenses, but not for mortality.	
67.	CEA, ECO-SLV-09-444	3.10.	Level and trend components should be separated, as there will be different answers for different companies.	See response to comment 66
68.	Legal & General Group	3.10.	Disagree – this should have separate level and trend components (applied as a single combined stress test). Both of these factors are allowed for in the assumptions used for the base liabilities, and will affect the risk for different policyholders. I would have thought that the need to apply separate level and trend components was greater here than for expenses – I would also expect the level of effort required to implement a trend stress for mortality as similar to that required to do so for expenses. It is not clear therefore why the CP recommends a trend stress for expenses, but not mortality.	See response to comment 66
69.	CEA, ECO-SLV-09-444	3.12.	We agree with the QIS4 feedback from several member states: a "1-off shock" for mortality risk is too simplistic.	See response to comment 66
70.	KPMG ELLP	3.12.	We agree that a gradual change in inception rates and trends would be more appropriate than a one-off shock for biometric risks. Also applies to 3.32	See response to comment 66
71.			Confidential comment deleted	
72.	CRO Forum	3.13.	In its paper "Calibration Principles for the Solvency II Standard Formula" the CRO Forum stated that it considers the stresses as high. This may be due to an implicit calibration to a longer time-horizon than the one-year time-horizon when calibrating the stresses. Stresses should also depend on the degree of diversification within an (re)insurance portfolio that mainly arises	See response to comment 71

			within the level risk component. A (re)insurance company selling multiple products through multiple sales channels should for example experience more diversification than a company depending predominantly one product through one distribution channel.	
73.	Munich RE	3.13.	We believe that the stresses are too high. This may be due to an implicit calibration to a longer time-horizon than the one-year time-horizon when calibrating the stresses and by neglecting diversifiaction effects within portfolios.	See response to comment 71
74.	Belgian Coordination Group Solvency II (Assuralia/	3.14.	We support the non unbundling of contracts which provide benefits on both death and survival.	Noted
75.	CRO Forum	3.14.	We agree that unbundling is not necessary and may even lead to an unjustified overstatement.	Noted
76.	Munich RE	3.14.	We agree that unbundling is not necessary and may even lead to an unjustified overstatement.	Noted
77.	CEA, ECO-SLV-09-444	3.15.	We agree that there should not be a requirement to unbundle obligations into separate death and survival components. For the purpose of the Best Estimate calculation for contracts where the death and survival benefits are contingent on the life of the same insured person, unbundling these risk may be technically difficult and would not reflect the economic reality of the contract.	Noted
78.	KPMG ELLP	3.15.	We support the bundled approach to dealing with (re)insurance obligations which provide benefits on both death and survival. This is mainly due to the practical difficulties of unbundling the obligations.	Noted
79.	UNESPA	3.15.	We agree that there should not be a requirement to unbundle	Noted

	(Association of Spanish insurers)		obligations into separate death and survival components For the purpose of the BE calculation for insurance contracts where the death and survival benefits are contingent on the life of the same insured person, unbundling these risk may be technically difficult and would not reflect the economic reality of the contract.	
80.	CRO Forum	3.16.	We agree. For practical reasons a Standard Formula can reasonably well operate with one-off shock scenarios provided there is a pragmatic approach to the use of partial internal models for cases where the simplification leads to inappropriate outcomes.	Noted
81.	Groupe Consultatif	3.16.	Groupe Consultatif believes that a gradual disimprovement in mortality rates, particularly for persons in mid-life, is the most realistic plausible shock contingency.	Noted. However CEIOPS believes that in this case, separating level and trend components will add unde complexity in the context of the standard formula.
82.	KPMG ELLP	3.16.	We agree that a gradual change in inception rates and trends would be more appropriate than a one-off shock for biometric risks. However, we support the view that a one-off mortality shock is more practical for the standard formula and it is also aligned with the approach currently adopted by many (re)insurance undertakings. Also applies to 3.17	Noted
83.	Munich RE	3.16.	We agree. For practical reasons a Standard Formula can reasonably well operate with one-off shock scenarios.	Noted
84.	RGA UK Services Limited	3.17.	We also suggest that CEIOPS considers the credibility of the insured data. It would appear appropriate to require a higher stress test for a smaller portfolio where the data used to assess the best estimate assumptions is less credible. Hence the standard formula could vary with the size of the portfolio insured.	Noted. However CEIOPS considers that taking into account the 'random volatility' element of stress would add undue complexity in the context of the standard formula.

85.	Association of British Insurers	3.19.	Further calibration analysis is required Has the information provided by internal models been controlled to ensure that it represents companies views of parameter, trend and volatility only? In many cases companies use a single parameter to additionally cover a mortality catastrophe stress. In such cases the deduction that 10% is not sufficient would be erroneous. Furthermore, we question whether this sample of 21 observations is representative of the industry as a whole and we request further justification of the proposed 15% stress factor for mortality risk as to whether it reflects the "true" 99.5% level. CEIOPS should also note that for many companies the calibration for mortality risk in internal models may be secondary to the market risk items and so a conservative assumption may have be chosen on grounds of materiality. This comment is also valid for paragraphs 3.40, 3.69 and 3.135-136.	The key point in this section is the calibration chosen, rather than the assumptions used in the internal models. CEIOPS considers that the calibration chosen reflects a 99.5% stress to mortality risk.
86.			Confidential comment deleted	
87.	CEA, ECO-SLV-09-444	3.19.	Further calibration analysis is required. Has the information provided by internal models been controlled to ensure that it represents companies' views of parameter, trend and volatility only? In some cases companies may use a single parameter to cover these. In such cases the deduction that 10% is not sufficient would be erroneous. Furthermore, we question whether this sample of 21 observations is representative of the industry as a whole and we request further justification of the proposed 15% stress factor for mortality risk as to whether it reflects the "true" 99.5% level. For example, we would like information on the country of origin and the related data used for the study.	See response to comment 85

			Ceiops should also note that for many companies the calibration for mortality risk in internal models may be secondary to the market risk items and so a conservative assumption may have be chosen on grounds of materiality. We should also note that stochastic modelling in this field is continuing to be developed. This comment is also valid for paragraphs 3.40, 3.69 and 3.135-136.	
88.	Centre Technique des Institutions de Prévoyance (C	3.19.	About calibration of mortality stress, we question the reference to internal models, because - They show large differences (at least, from 13% to 29%), as indicated in §3.19, - No information is given about the underlying data and methodology implemented by these models, - And, probably to the difference with internal models, the standard SCR methods do not take into consideration even the most usual non-proportional reinsurance covers, which mitigate the mortality stress. For these reasons, we do not see sufficient reason to set a higher mortality stress than in QIS4 and consider the QIS4 parameter should be maintained.	See response to comment 85 See response to comment 71
89.	CRO Forum	3.19.	In its paper "Calibration Principles for the Solvency II Standard Formula" the CRO Forum stated that it considers the stresses used in QIS4 as high. This may be due to an implicit calibration to a longer time-horizon than the one-year time-horizon when calibrating the stresses. Stresses should also depend on the degree of diversification within an (re)insurance portfolio that mainly arises within the level risk component. A (re)insurance company selling multiple products through multiple sales channels should for	See response to comment 71

			example experience more diversification than a company depending predominantly one product through one distribution channel. Therefore a mortality shift of 10% may be very remote event for a well diversified insurer whereas the event may be below the 99.5% percentile of the distribution for a single product insurer.	
90.	DIMA	3.19.	The 21 models analysed is not a big sample, and there was no indication of how sophisticated these internal models were, as well as no indication the sample was not biased. Some of these models are likely to have used the QIS4 increase of 10% a start point in calculating their assumption.	See response to comment 85
91.	FFSA	3.19.	CEIOPS based its calibration of the mortality stress on a sample of 21 internal models. FFSA would like to get clarifications on the study performed using a sample of 21 internal models including the country of origin and the related data used for the study.	See response to comment 85
92.	Groupe Consultatif	3.19.	We support the increase to the mortality stress. The QIS 4 stress was very low compared with the view taken by most companies in their internal models of a 1 in 200 year event, which could result in a disincentive to use internal models.	Noted
93.	Munich RE	3.19.	The studies referenced in the original calibration paper for QIS were based on ICA models that may implicitly be multi-year calibrations. We believe that especially when considering portfolio diversification appropriately adequate mortality stresses should not be higher than the tested 10% of QIS4.	Disagree. See response to comment 71
94.			Confidential comment deleted	
95.	ROAM	3.19.	CEIOPS based its calibration of the mortality stress on a sample of 21 internal models. ROAM would like to get clarifications on the study performed using	See response to comment 85

			a sample of 21 internal models including the country of origin and the related data used for the study.	
96.	Unum Limited	3.19.	Further calibration analysis is required Has the information provided by internal models been controlled to ensure that it represents companies views of parameter, trend and volatility only? In many cases companies use a single parameter to additionally cover a mortality catastrophe stress. In such cases the deduction that 10% is not sufficient would be erroneous. Furthermore, we question whether this sample of 21 observations is representative of the industry as a whole and we request further justification of the proposed 15% stress factor for mortality risk as to whether it reflects the "true" 99.5% level. CEIOPS should also note that for many companies the calibration for mortality risk in internal models may be secondary to the market risk items and so a conservative assumption may have be chosen on grounds of materiality. This comment is also valid for paragraphs 3.40, 3.69 and 3.135-136.	See response to comment 85
97.	Association of Friendly Societies	3.20.	We do not agree that evidence from internal models is a compelling reason for increasing the mortality stress factor by 50%, and consider that the 10% used in QIS4, although not as realistic as a gradual change, represents an adequate stress.	See response to comment 85 See response to comment 71
98.			Confidential comment deleted	
99.	CEA, ECO-SLV-09-444	3.20.	See comments to Para 3.25	See response to comment 139
100.	CRO Forum	3.20.	We do not believe that the amendment should lead automatically into an upward adjustment of the mortality stress (see comments	See response to comment 98

			under 3.19). A wide range of calibrations are appropriate depending on size, outstanding duration and diversification within this sub risk.	
101.	DIMA	3.20.	It seems very unscientific to get a median result of 22% from these models, then set the QIS4 figure to 15% (as the average of 10% and 22%).	Noted. See response to comment 85.
102.	KPMG ELLP	3.20.	We agree that the QIS4 calibration of 10% for the permanent increase in mortality rates was on the low side. From the 2008 KPMG Technical Practices Survey, of the 38 respondents 33 reported use of a mortality stress above 10% and 24 respondents had a stress above 20%. Therefore we believe that 15% is also on the low side of the 99.5th percentile. This is supported by the median from the internal model responses which was 22%.	Noted. See response to comment 71
103.	Munich RE	3.20.	We do not believe that the amendment should lead into an upward adjustment of the mortality stress.	See response to comment 102
104.	OAC plc	3.20.	We do not agree that evidence from internal models is a compelling reason for increasing the mortality stress factor by 50%, and consider that the 10% used in QIS4, although not as realistic as a gradual change, represents an adequate stress.	See response to comment 102
105.	RGA UK Services Limited	3.20.	We have reservations about the rationale for increasing the standard shock from 10% to 15%. This appears to rest on the comparison of the 10% used in QIS4 with the stress used in 21 internal models. However, and this is a point we stress elsewhere in this response, we do not consider it appropriate to rely solely on the existing work of current internal models as the main justification for a European wide solvency standard. This is because, without further investigation, it is not possible to determine the rigour and element of prudence that has gone into selecting those stress tests. Different companies may have adopted different levels of rigour to each risk depending on its importance to	Noted. See response to comment 85.

			them. We favour splitting this component of mortality risk into an immediate "mis-estimation" component and a longer term trend component. This approach is widely used in the UK as part of the Individual Capital Assessment methodology (along with two further components for volatility and for catastrophe). This comment applies to paragraph 3.25 as well	Noted, see response to comment 66
106.	UNESPA (Association of Spanish insurers)	3.20.	See comments to Para 3.25	See reponse to comment 150.
107.	Association of British Insurers	3.21.	We agree that unbundling is not necessary and may lead to an unjustified overstatement. A zero floor should not apply at contract level if the result of the scenario is favourable According to paragraph 3.110 in CP 39, the existence of negative reserves is accepted. If this premise is kept in an individual shock, negative results should be accepted under the mortality stress and a "zero floor" should not be implemented. Furthermore, this requirement is likely to be excessively burdensome for the insurer to carry out.	Not agreed. For SCR purposes it is considered that a non symmetric approach provides appropriate values for the 99.5% confidence level.
108.	CEA, ECO-SLV-09-444	3.21.	We agree that unbundling is not necessary and may even lead to an unjustified overstatement. A zero floor should not apply. In CP39, Para 3.110, the existence of negative reserves is accepted. If this premise is kept in an individual shock, negative	See response to comment 107

			results should be accepted under the mortality stress and a "zero floor" should not be implemented. Furthermore, this requirement will be excessively burdensome for the insurer to carry out.	
109.	CRO Forum	3.21.	We agree that unbundling is not necessary and may even lead to an unjustified overstatement.	Noted
110.	Dutch Actuarial Society – Actuarieel Genootschap (	3.21.	We favour the approach proposed by CEIOPS, but this approach seems opposite to the proposals in CP27 on Segmentation. We suggest to follow the approach as proposed in CP49.	See revised text, paragraph 3.22
111.	KPMG ELLP	3.21.	As mentioned in 3.15 above, we support a bundled approach to dealing with (re)insurance obligations which provide benefits on both death and survival. However, we do not believe that a floor of zero should be applied at the contract level if the net result of the 'natural' mortality hedge is favourable. We believe that, although this is prudent, it does not realistically reflect the financial impact of the mortality shock on the (re)insurance undertaking. In addition, applying this floor will add an extra layer of complexity into the calculation of the standard formula. Comment also applies to 3.44 and 3.46	See response to comment 107
112.	Legal & General Group	3.21.	A zero floor should not apply at contract level if the scenario is favourable	See response to comment 107
113.	Munich RE	3.21.	We agree that unbundling is not necessary and may even lead to an unjustified overstatement.	See response to comment 109
114.			Confidential comment deleted	

115.	UNESPA (Association of Spanish insurers)	3.21.	A zero floor should not apply In CP 39, Para 3.110, the existence of negative reserves is accepted. If this premise is kept in an individual shock, negative results should be accepted under the mortality stress and a "zero floor" should not be implemented. Furthermore, this requirement will be excessively burdensome for the insurer to carry out.	See response to comment 107
116.	Unum Limited	3.21.	A zero floor should not apply at contract level if the result of the scenario is favourable In CP 39, Para 3.110, the existence of negative reserves is accepted. If this premise is kept in an individual shock, negative results should be accepted under the mortality stress and a "zero floor" should not be implemented. Furthermore, this requirement will be excessively burdensome for the insurer to carry out.	See response to comment 107
117.	Association of British Insurers	3.22.	We strongly support the proposal to allow the use of "model points" in the mortality stress, as well as the other components of the capital requirements.	Noted
118.	CEA, ECO-SLV-09-444	3.22.	We strongly support the proposal to allow the use of model points in the mortality stress, as well as the other components of the capital requirements. Assuming that the policy grouping process is conducted appropriately and the grouped policies capture the characteristics (and specifically the risks) of the underlying data, the grouped model points would reduce the number of policies required to be modelled and so would reduce the required calculation run time, without endangering the accuracy. Specifically in the case of stochastic calculations this is very desirable.	Noted

119.	KPMG ELLP	3.22.	We agree that model points should be allowed to the extent that they appropriately capture the risks of the portfolio. Also applies to 3.45 and 3.47	Noted
120.			Confidential comment deleted	
121.	PricewaterhouseCoopers LLP	3.22.	Further clarification is needed as to the level of grouping which is considered to "capture appropriately the mortality risk of the portfolio" for the purposes of applying the defined approach to unbundling. (Also applies to 3.47, 3.27, 3.52)	Noted. This sort of clarification and explication is considerd beyond the scope of CP49
122.	UNESPA (Association of Spanish insurers)	3.22.	We strongly support the proposal to allow the use of "model points" in the mortality stress, as well as the other components of the capital requirements. Assuming that the policy grouping process was conducted appropriately and the grouped policies capture the characteristics (and specifically the risks) of the underlying data, the grouped model points would reduce the number of policies required to be modelled and so would reduce the required calculation run time, without endangering the accuracy. Specifically in the case of stochastic calculations this is very desirable.	Noted.
123.	Unum Limited	3.22.	We strongly support the proposal to allow the use of "model points" in the mortality stress, as well as the other components of the capital requirements.	Noted.
124.	CEA, ECO-SLV-09-444	3.23.	The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic. Ceiops proposes to only stress those policies for which a loss is produced under the mortality stress. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more onerous than the 99.5th percentile. The diversification that naturally exists	Disagree. Where asymmetric treatments are suggested, CEIOPS believes that the treatment produces appropriate

			between policies should be recognised and Ceiops' approach currently significantly understates this. Furthermore, this requirement would be burdensome as insurers are required to identify which policies create a loss under each stress and stress these separately. Another element to further complicate the calculations could be when elements (such as profit sharing) are calculated based on groups of policies/product lines. If this diversification is not recognised we would expect Ceiops to re-visit the calibration of this stress as it would need to be significantly reduced. This will prove difficult to do in practice though as each insurer will have a different degree of diversification between its policies. The most appropriate would be to allow each insurer to take account of its own naturally existing diversification and not attempt to calibrate the stress to allow for this. We would suggest that Ceiops removes this requirement.	values for the 99.5% confidence level
125.	CRO Forum	3.23.	We agree.	Noted
126.	Deloitte	3.23.	We welcome the approach described by CEIOPS but we think that stochastic mortality is a powerful tool that requires many analyses and tests before its use. Nevertheless, instead of using such complex tools, insurance undertakings should be allowed to use their own parameters to calculate their risk, provided they have serious studies on the mortality of their policyholder.	Noted
127.	German Insurance Association – Gesamtverband der D	3.23.	The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic CEIOPS proposes to only stress those policies for which a loss is produced under the mortality stress. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more onerous than the 99.5th percentile. The diversification that naturally exists	See response to comment 124

			between policies should be recognised and CEIOPS' approach currently significantly understates this. Furthermore, this requirement would be burdensome as insurers are required to identify which policies create a loss under each stress and stress these separately. If this diversification is not recognised we would expect CEIOPS to re-visit the calibration of this stress as it would need to be significantly reduced. This will prove difficult to do in practice though as each insurer will have a different degree of diversification between its policies. The most appropriate would be to allow each insurer to take account of its own naturally existing diversification and not attempt to calibrate the stress to allow for this. We would suggest that CEIOPS removes this requirement.	
128.	Ireland's Solvency 2 Group, excluding representa	3.23.	We do not agree that the scope of the mortality stress should be restricted to those policies where the amount payable on death is greater than the technical provision. The stress test should apply to all policies.	See response to comment 124
129.	Legal & General Group	3.23.	Agree	Noted
130.	Munich RE	3.23.	We agree.	Noted
131.	UNESPA (Association of Spanish insurers)	3.23.	The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic	See response to comment 124
132.	CRO Forum	3.24.	We agree.	Noted
133.	Legal & General	3.24.	Agree	Noted

	Group			
134.	Munich RE	3.24.	We agree.	Noted
135.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	3.25.	We take note of this increase.	Noted
136.	Association of British Insurers	3.25.	A one factor approach is considered far too simplistic – we advocate the possibility to split the stress into trend and level components, dependent on the duration of the risk/age of the policyholder, as well as the possibility to use own parameter methods In paragraphs 3.11-3.17 CEIOPS recognises the limited accuracy of the approach proposed but offers no advice as to how to deal with companies where it results in inappropriate outcomes. There is no mechanism to allow for diversification within risk types (e.g. by geographic separation), neither for differing outstanding durations nor for differing levels of quantity and quality of experience data. Combined these can lead to much lower stress levels. In particular, the use of a permanent increase to mortality rates may not be appropriate because of the different underlying risk profiles of non-overlapping segments of the insured population. The assumption of a permanent increase to mortality rates should perhaps be presented as a simplification, with more accurate age/duration-dependent modelling representing the default approach. It should be allowed to split level and trend components. We continue to press for formal acknowledgement of own	See response to comment 66.

			parameter methods. The 10% calibration in QIS4 seemed reasonable The 10% shock initially proposed in QIS4 seems reasonable and CEIOPS has provided no information justifying the increase to 15%. For many entities, 15% would be high as it fails to reflect the impact of larger volumes of experience and the reductions flowing from diversification effects due to geographic spread or product mix. The appropriate outcome is also dependent of the outstanding term of the exposures as discussed above. We request further information about the calibration proposed by CEIOPS. We urge CEIOPS to work to establish accessible alternatives of own parameters and partial internal models. Furthermore, as stated above, we do not consider that a single factor approach is sufficiently risk sensitive.	See response to comment 71. See response to comment 84
137.	Association of Friendly Societies	3.25.	See comment on 3.20	See response to comment 97
138.			Confidential comment deleted	
139.	CEA, ECO-SLV-09-444	3.25.	A one factor approach is considered far too simplistic – we advocate the possibility to split the stress into trend and level components, dependent on the duration of the risk/age of the insured person, as well as the possibility to use own parameter methods. In paragraphs 3.11-3.17 Ceiops recognises the limited accuracy of the approach proposed but offers no advice as to how to deal with companies where it results in inappropriate outcomes. There is no mechanism to allow for diversification within risk types (e.g. by geographic separation), for differing outstanding durations nor for	See response to comment 66.

			differing levels of quantity and quality of experience data. Combined an allowance for these can lead to much lower stress levels. In particular, the use of a permanent increase to mortality rates may not be appropriate because of the different underlying risk profiles of non-overlapping segments of the insured population. The assumption of a permanent increase to mortality rates should perhaps be presented as a simplification, with more accurate age/duration-dependent modelling representing the default approach. It should be allowed to split level and trend components. We continue to press for formal acknowledgement of own parameter methods. The 10% calibration in QIS4 seemed reasonable. The 10% shock initially proposed in QIS4 seems reasonable and Ceiops has provided no information justifying the increase to 15%. For many entities, 15% would be high as it fails to reflect the impact of larger volumes of experience and the reductions flowing from diversification effects due to geographic spread or product mix. The appropriate outcome is also dependent of the outstanding term of the exposures as discussed above. We request further information about the calibration proposed by Ceiops. We urge Ceiops to work to establish accessible alternatives of own parameters and partial internal models. Furthermore, as stated above, we do not consider that a single factor approach is sufficiently risk sensitive.	For the reasons given in 3.19, CEIOPS feels 15% is an appropriate calivration
140.	CRO Forum	3.25.	We do not believe that the mortality rate of 15% is calibrated	For the reasons given in 3.19,

			appropriately to a one-year time-horizon. As lined out in the calibration paper of the CRO Forum we think that already a shift of 10% may be a remote event for diversified insurers whereas the event may be below the 99.5% percentile of the distribution for a single product insurer. Considering the combined stresses for the life insurance products (mortality stress, cat but also components like lapse) the CRO Forum thinks that the calibration has already been high with the factors tested under QIS4. Therefore an upward change from 10% to 15% appears onerous.	CEIOPS feels 15% is an appropriate calivration.
141.	Dutch Actuarial Society – Actuarieel Genootschap (	3.25.	Why an increase in mortality rates of 15% (and not of 20%) while the median stress was 22% (See 3.19)	The 15% was chosen as a meeting point between the median stress, and the QIS4 calibration.
142.			Confidential comment deleted	
143.	German Insurance Association – Gesamtverband der D	3.25.	A one factor approach is considered far too simplistic – we advocate the possibility to split the stress into trend and level components, dependent on the duration of the risk/age of the policyholder, as well as the possibility to use own parameter methods In paragraphs 3.11-3.17 CEIOPS recognises the limited accuracy of the approach proposed but offers no advice as to how to deal with companies where it results in inappropriate outcomes. There is no mechanism to allow for diversification within risk types (e.g. by geographic separation), for differing outstanding durations nor for differing levels of quantity and quality of experience data. Combined these can lead to much lower stress levels. In particular, the use of a permanent increase to mortality rates	See response to comment 139

			may not be appropriate because of the different underlying risk profiles of non-overlapping segments of the insured population. The assumption of a permanent increase to mortality rates should perhaps be presented as a simplification, with more accurate age/duration-dependent modelling representing the default approach. It should be allowed to split level and trend components. We continue to press for formal acknowledgement of own parameter methods. The 10% calibration in QIS4 seemed reasonable The 10% shock initially proposed in QIS4 seems reasonable and CEIOPS has provided no information justifying the increase to 15%. We do not believe that the mortality rate of 15% is calibrated appropriately to a one-year time-horizon. As lined out in the calibration paper of the CRO Forum we think that this may be a remote event for diversified insurers. For many entities, 15% would be high as it fails to reflect the impact of larger volumes of experience and the reductions flowing from diversification effects due to geographic spread or product mix. The appropriate outcome is also dependent of the outstanding term of the exposures as discussed above. We request further information about the calibration proposed by CEIOPS. We urge CEIOPS to work to establish accessible alternatives of own parameters and partial internal models. Furthermore, as stated above, we do not consider that a single factor approach is sufficiently risk sensitive. Furthermore, given that member states may have different	CEIOPS does not consider this appropriate for the SCR in a pan-

			mortality experience, it may be worth calibrating this stress for groups of countries that are expected to have homogeneous mortality levels and expected development, rather than attempting to find one solution that is appropriate for all member states.	european context.
144.	Groupe Consultatif	3.25.	Agree that the shock in mortality risk should be higher than the 10% used in QIS4. In the way the Standard model is set up it should contain both trend uncertainty as level uncertainty. The separate level uncertainty will be close to a 10% shock. Still it is better to make the shock duration dependent as trend-uncertainty is duration dependent. More detailed comments and advises are given in longevity risk.	Noted. Please see response to comment 66
145.	Legal & General Group	3.25.	This stress is strong relative to our ICA. We believe this is stronger than 1:200 and would need to see the justification for this.	Noted. Please see response to comment 141
146.	Munich RE	3.25.	We do not believe that the mortality rate of 15% is calibrated appropriately to a one-year time-horizon. As supported by the calibration paper of the CRO Forum we think that this may be a remote event for diversified insurers.	Noted. Please see response to comment 141
147.	OAC plc	3.25.	See comment on 3.20	See response to comment 104
148.			Confidential comment deleted	
149.	RGA UK Services Limited	3.25.	See paragraph 3.20	See response to comment 105
150.	UNESPA (Association of Spanish insurers)	3.25.	The 10% calibration in QIS4 seemed reasonable The 10% shock initially proposed in QIS4 seems reasonable and CEIOPS has provided no information justifying the increase to 15%. A 15% shock would be high as it fails to reflect the impact of larger	Please see response to comment 141

			volumes of experience and the reductions flowing from diversification effects due to geographic spread or product mix. We request further information about the calibration proposed by CEIOPS.	
151.	Unum Limited	3.25.	We do not support the increase in the mortality risk stress to 15%. The 10% calibration in QIS4 was appropriate. We understand that in this simplistic approach two effects are being considered: the deterioration of long-term expectations and uncertainty. Regarding the deterioration of long-term expectations, these could be originated due to a change in the population behaviour, which may cause an increase of some kinds of illness. Experts' expectations are between 2% and 3%, so we understand that 2.5% shock should be appropriate when lacking information	Please see response to comment 150
152.	XL Capital Ltd	3.25.	The mortality stress of 15% appears to be insufficiently justified. We believe the QIS 4 calibration of 10% was more appropriate. We would request further information regarding the CEIOPS calibration or a reversion to the previous level.	Please see response to comment 150
153.	Association of Friendly Societies	3.26.	We generally agree that mortality and survivorship benefits should not be unbundled, but would like to see the option retained, at least where the survivorship benefits relate to sickness.	Noted. CEIOPS believes barring unbundling produces an appropriate calibration for this risk.
154.	CEA, ECO-SLV-09-444	3.26.	See comments to Para 3.51	See response to comment 259
155.	German Insurance Association	3.26.	See comments to Para 3.51	See response to comment 261

	– Gesamtverband der D			
156.	Just Retirement Limited	3.26.	Applying the floor at the level of individual contracts (or model points per 3.27) would disregard inter-contract diversification of underwriting risks and tend to overstate the economic exposure of an undertaking to underwriting risks. It is preferable to apply the floor by line of business.	Not agreed. CEIOPS believes the floor on a per policy basis produces an appropriate stress for the SCR.
157.	Legal & General Group	3.26.	Agree	Noted
158.	OAC plc	3.26.	We generally agree that mortality and survivorship benefits should not be unbundled, but would like to see the option retained, at least where the survivorship benefits relate to sickness.	See response to comment 153
159.	Association of British Insurers	3.27.	This recommendation is not clear – it could be read so as to allow "hedging" of mortality and longevity exposed contracts at a higher level than that of the individual policyholder. This would not be appropriate.	CEIOPS considers that closely defined details as to the choice of model points in inappropitate in this CP.
160.	CEA, ECO-SLV-09-444	3.27.	We strongly support the proposal to allow the use of model points in the mortality stress, as well as the other components of the capital requirements.	Noted
161.	German Insurance Association – Gesamtverband der D	3.27.	We strongly support the proposal to allow the use of "model points" in the mortality stress, as well as the other components of the capital requirements.	Noted

162.	Legal & General Group	3.27.	This recommendation is not clear – it could be read so as to allow "hedging" of mortality and longevity exposed contracts at a higher level than that of the individual policyholder. I don't think this is appropriate and any such "hedging" should be explicitly disallowed. This also applies to section 3.52	Noted
163.	UNESPA (Association of Spanish insurers)	3.27.	We strongly support the proposal to allow the use of "model points" in the mortality stress, as well as the other components of the capital requirements.	Noted
164.	Dutch Actuarial Society – Actuarieel Genootschap (	3.29.	In the QIS 4 technical specifications the following is noted: "TS.II.B.8. Cash-flow projections should reflect expected demographic, legal, medical, technological, social or economic developments. For example, a foreseeable trend in life expectancy should be taken into account." Therefore, it is common that for the calculation of the technical provisions of annuity contracts and pensions obligations the expected development in life expectancy is already captured. In our opinion there is a realistic risk of double counting. A comparison should be made between the expected improvement in life expectancy, the realistic improvement and following that the 99,5% confidence interval between the two aforementioned measures.	Noted. The 25% stress is to be applied to a best estimate mortality table already incuding base improvements. As such the double counting point should not present an issue.
165.	CRO Forum	3.32.	We note that trend risk is duration dependent. On average it will probably be adequate to use a one-shock scenario, but in individual cases it can lead to incorrect outcomes and hence incorrect conclusions, particularly in case it is used in risk management.	Not agreed. CEIOPS considers that applying a duration or age differentiation provides undue complexity in the context of the standard formula. For this and other reasons outlined in 3.39

				CEIOPS disagrees.
166.	Munich RE	3.32.	For practical reasons a Standard Formula may reasonably well operate with one-off shocks. Nevertheless it should be considered to use different stresses depending on duration.	See response to comment 165
167.	RGA UK Services Limited	3.32.	We agree with the comments made as part of the feedback to QIS4	Noted
168.	FFSA	3.33.	**[EMPTY]**	
169.	KPMG ELLP	3.33.	We agree that a gradual change in inception rates and trends would be more appropriate than a one off shock for longevity. We agree with the suggestion for an improvement factor expressed as x% per annum would be more appropriate. This is because longevity risks are more sensitive than mortality risks to the timing of changes in mortality. The aggregate level of mortality improvement that represents the 99.5th percentile should then vary between blocks of liabilities of different outstanding durations. This relationship would be achieved by the suggestion. Note that a cap on the maximum aggregate mortality improvement may be required. Also applies to 3.35	See response to comment 165
170.	RGA UK Services Limited	3.33.	We agree with the comments made previously by various undertakings.	Noted
171.	ROAM	3.33.	**[EMPTY]**	
172.	CRO Forum	3.34.	We agree. Nevertheless, for practical reasons a Standard Formula can reasonably well operate with one-off shocks. It should be noted that in individual cases it can lead to incorrect outcomes and hence incorrect conclusions, particularly in case it is used in risk	Noted.

			management.	
173.	KPMG ELLP	3.34.	We believe that the extent to which a particular company would consider 25% to be conservative would depend on the profile of their liabilities. From the 2008 KPMG Technical Practices Survey, of the 27 respondents with annuity blocks 12 used less than 20% and 7 used a more than 30%. Therefore on balance, the 25% mortality improvement factor does appear to be on the conservative side.	Partially Agree. CEIOPS considers that a 25% improvement shock presents an appropriate figure for a 1:200 standard formula event
174.	Munich RE	3.34.	We agree. For practical reasons a Standard Formula may reasonably well operate with one-off shocks. Nevertheless it should be considered to use different stresses depending on duration.	See response to comment 165
175.	Lucida plc	3.35.	We share the views of the undertakings that argue an age dependent shock would be more appropriate (potentially achieved by an adjustment to improvements). Use of a single shock to the base table means that the capital requirement for older lives is excessive and potentially too low for younger lives (particularly deferred annuitants).	See response to comment 165
176.			Confidential comment deleted	
177.	CRO Forum	3.36.	Although we believe that the shock for longevity risk should be more pronounced than for mortality, as there is usually less diversification within a longevity portfolio, we nevertheless feel that the shock tested in QIS4 was on the high end.	See response to comment 173
178.	KPMG ELLP	3.36.	We agree that ideally longevity improvements should be a function of both age and duration. However, we acknowledge that this is a complex approach that may not be appropriate for a standard formula.	Noted
179.	Munich RE	3.36.	Although we believe that the shock for longevity risk should be more pronounced than for mortality, as there is usually less diversification between different products within a longevity portfolio, we nevertheless feel that the shock tested in QIS4 was	Noted. See response to comment 173

			too high.	
180.	CEA, ECO-SLV-09-444	3.37.	**[EMPTY]**	
181.	Dutch Actuarial Society – Actuarieel Genootschap (	3.37.	We don't agree the conclusion that the differentiating by duration (see Appendix B) is small and so not important. This conclusion seems to be based only on observations in a couple of countries over 15 or less years. This is too short for recognizing and modelling trends with sufficient quality. Moreover: in many countries observations are available covering a longer observation period.	See response to comment 165
182.	German Insurance Association – Gesamtverband der D	3.37.	**[EMPTY]**	
183.	Groupe Consultatif	3.37.	The arguments in this paragraph only justify not using a shock that depends on age and duration. However, the one off reduction in mortality is much less realistic than a gradually increasing shock, and results in an overstatement of the risk margin. Given that in the past, the rate of mortality improvement has often been significantly underestimated, a stress that increases with duration would seem more realistic than a one off stress. It could still be easy to apply, without the disadvantages of the shock that varies by age.	See response to comment 165
184.	KPMG ELLP	3.37.	Bullet 1 - We believe that the attention that longevity improvement has received in the last few years has resulted in modelling being relatively advanced in this area. Therefore we believe that a more	See response to comment 165

			complex approach could be adopted for this risk. For example an annual improvement percentage, subject to an overall maximum mortality improvement. Bullet 3 – Most (re)insurance obligations for longevity risk are made up of annuity blocks so we agree that they will be weighted to the older age groups. However, the mortality improvements still vary significantly for, say, a 60 year old versus an 80 year old. We believe however that varying the mortality improvement by age would be overly complex and therefore inappropriate for a standard formula.	Noted.
185.			Confidential comment deleted	
186.	Dutch Actuarial Society – Actuarieel Genootschap (	3.38.	In our opinion the method proposed by CEIOPS does not quantify the risk correctly. We prefer a time dependent shock. The solvency shock represents (only) the uncertainty around the Best Estimate trend, included in the BE liabilities. In modelling the uncertainty around the trend we recognise two parts: a short time (random walk; volatility risk) part and a long time part (The drift = the real trend; trend risk). The aforementioned risks are not covered separately. Therefore we propose to change the measure into a time dependent shock (trend and volatility risk) in combination with a constant shock (level risk). The combined approach is a better representation of the risk components.	See response to comment 165 Disagree. CEIOPS believes that a single combination stress to model the two risk components is produces satisfactory results with less work required.
187.	RGA UK Services Limited	3.38.	We prefer to see a stress that better reflects the underlying risks. This could be done with the adoption of a two-tier stress. The first component would represent mis-estimation (similar to that used for mortality risk) while the second would represent future mortality improvements. This could be expressed as, for illustration purposes only, a stress of mortality improving at 2.5%pa at all ages less that	Noted.

			already contained in the calculation of the best estimate component of the technical provisions. However, we also appreciate the comments made in paragraph 3.37 of the CP and, on balance, consider the proposed stress to be reasonable given the current state of knowledge around mortality improvements.	
188.	Association of British Insurers	3.39.	We believe that simplicity of application is not necessarily the right criterion if it materially misstates the risk. The proposed approach should be allowed as a simplification under the normal circumstances where simplified approaches apply. We agree that the stress should be more complicated to reflect the true risk of longevity. Whether a 25% stress is excessive really depends on the nature of the business and the assumptions used in determining the best estimate of liabilities. The statement in sub-point 3 "with respect to differentiation by age, portfolio of (re)insurance obligations for which longevity risk is applicable are generally heavily weighted in favour of older age groups" would still mean an age range of 60-90 even for just immediate annuities. This is a wide enough range that level vs. trend is an important distinction. Furthermore, we do not agree with the statement that it would be difficult to calibrate level and trend separately. It is difficult to know what calibration criteria is given according the lack of justification in many of the modules.	Noted. See response to comment 165
189.	Belgian Coordination Group Solvency II (Assuralia/	3.39.	Regarding to the longevity shock: Although we acknowledge that a shock proportional to the outstanding policy duration and/or age of the insured (as suggested by UNESPA) would make sense, we agree that this would complicate computations unnecessarily. We nevertheless recommend to use a progressive deviation from	Noted. Not agreed. CEIOPS believes that

			the best estimate instead of the one-off shock as suggested in the current Consultation Paper; for example 1 or 2% decrease in mortality per annum. Our proposal is more in line with the nature of the underlying business (both long and shorter term contracts) and the risk covered.	such a progressive deviation would provide too much extra complexity.
190.	CEA, ECO-SLV-09-444	3.39.	The shock of 25% should be a simplification. The standard formula should be more risk sensitive and should allow for the factors that can have significant influence on the longevity risk of the policy, such as the duration of the policy and the age of the insured person. See comments to Para 3.50 on this issue. We also add: The study carried out by the Ceiops (point B.5) generally presents lower shocks than 25%. 25% is applied to both savings and protection products. It could be the case that a 1-off shock in the absence of more information could be suitable for savings products but not for protection products due to the greater sensitivity of protection products to longevity risk. We see no reason why the calibration of longevity risk should be less granular than some other risks the undertaking faces, in particular for those risks which generate lower capital requirements. Ceiops has not given sufficient reasoning for ignoring the industry's requests in this area. Increasing the granularity of the longevity risk shock in the standard formula is essential. Ceiops has increased the granularity of other shocks (e.g. interest rate, spread, currency, lapse) although the previous ones were also more straightforward to apply.	See response to comment 165. See response to comment 173
191.	CRO Forum	3.39.	We agree but want to note that trend risk is duration dependent.	Noted.

			On average it will probably be adequate to use a one-shock scenario, but in individual cases it can lead to incorrect outcomes and hence incorrect conclusions, particularly in case it is used in risk management.	
192.	German Insurance Association – Gesamtverband der D	3.39.	**[EMPTY]**	
193.	Groupe Consultatif	3.39.	Mortality rates are tending to decline in almost all EU countries. Good actuarial practice should already assume some level of continuing improvement in future. The plausible shock is a sustained acceleration in the rate of improvement reflecting perhaps a combination of lifestyle changes and medical advances. We acknowledge that the increased pace of improvement need not differ by age. We have concerns that CEIOPS's preferred approach of a permanent decrease in mortality rates may have serious distortion implications.	Noted
194.	Legal & General Group	3.39.	Simplicity of application is not necessarily the right criterion if it materially misstates the risk. The proposed approach should be allowed as a simplification under the normal circumstances where simplified approaches apply. The statement "longevity risk is applicable … [to] older age groups" would still mean an age range of 60-90 even for just IAs. This is a wide enough range that level vs trend is an important distinction. I do not agree with their statement that it would be difficult to calibrate level and trend separately. It is difficult to know what their calibration criteria are given the lack of justification in many of the modules.	Disagree. CEIOPS considers the shock appropriate within a standard formula context. See response to comment 165

			This also applies to section 3.50.	
195.	Munich RE	3.39.	For practical reasons a Standard Formula may reasonably well operate with one-off shocks. Nevertheless it should be considered to use different stresses depending on duration.	See response to comment 165
196.	UNESPA (Association of Spanish insurers)	3.39.	A 1-off shock for longevity is appropriate only as a simplification. The standard formula should be more risk sensitive and should allow for the factors that can have significant influence on the longevity risk of the policy, such as the age of the insured person and the duration of the policy. The reasons given by CEIOPS for concluding that a one-off shock to longevity is more appropriate than an alternative structure to the longevity shock depending on age of the insured person and duration of the policy are not convincing: Increasing the granularity of the longevity risk shock in the standard formula is essential. CEIOPS has increased the granularity of other shocks (e.g.: interest rate, spread, currency, lapses, etc.) although the previous ones were more straightforward to apply. CEIOPS´s investigations (contained in Appendix B; B.5) clearly indicate that the differences between shocks for different ages on insured person are quite significant. Both UNESPA Longevity Risk Investigation, Towers Perrin, 21 January 2009 and CEIOPS´s investigation show very similar results and demonstrate that there is sufficient reliable data to calibrate at a more granular level. The shocks of future improvements in mortality rates (stochastic model) contained in Appendix B; B4-B5 are much more reliable than the analysis of historic improvements contained in Appendix B; B3.	See response to comment 165

197.	FFSA	3.41.	CEIOPS has outlined that stochastic models have provided with a stress rate lower than the required 25% but it has attached more weight to the historical analysis. FFSA observes that mortality stress was calibrated using internal models and would like to understand the consistency in terms of approach between the mortality and longevity stresses.	CEIOPS notes that the stress was calibrated with reference to, and not exclusively using, internal models. Mortality and longevity stresses are consistent in so far as they both refer to 99.5% one off stresses.
198.	ROAM	3.41.	Regarding longevity, CEIOPS has outlined that stochastic models have provided a stress rate lower than the required 25% and has attached more weight to the historical analysis. ROAM observes that mortality stress was calibrated using internal models and would like to understand the consistency in terms of approach between the mortality and longevity stresses.	See response to comment 197
199.	Association of British Insurers	3.43.	We do not believe that the figures used by CEIOPS provide the comparability that would be needed to determine the appropriate stress test. The analysis uses historic mortality rates over a 15-year time-period, which is not in line with the one-year time-horizon proposed in the Solvency II framework. This assessment would therefore consequently overstate the impact of longevity risk.	The study quoted was only part of the rationale for CEIOPS' calibration. The figures in Table 1 of appendix B are best estimate over 15 years. The figures in table 4 show the one proposed 12 month shocks which correspond as per appendix B.5.
200.			Confidential comment deleted	
201.	CEA, ECO-SLV-09-444	3.43.	As per our comments in Section B3, we do not believe that the presentation of historical improvements that Ceiops has used quite provides the comparative figures that would be needed to determine the appropriate stress test – i.e. it uses attained ages and cumulative improvements over the period rather than effective average reductions over the duration of the policy and the additional improvements compared to expected rather than just	See response to comment 164

			improvements.	
202.	CRO Forum	3.43.	We do not agree with the method proposed by CEIOPS and the way the analysis are made to prove that a duration independent shock of 25% is correct. CEIOPS appears to take an observed improvement over a 15 year period and apply it without regard to the improvement assumption that will already be in the best estimate. But the model would need to assume that in the Best Estimate Liabilities the BE trend is already included. The solvency shock is only the uncertainty around the BE trend. The CROF would be happy to discuss further on this topic.	See response to comment 199
203.	Groupe Consultatif	3.43.	There is a considerable difference in impact between a series of improvements which amount in total to 25% over 15 years and a one-off improvement of 25%.	Noted. See response to comment 199
204.	Just Retirement Limited	3.43.	It is unclear that analysing mortality improvements over a 15 year period is appropriate for the calibration of a 1-year value-at-risk test. A runoff stress may be more appropriate to the nature of longevity risk, but Solvency II is explicitly defined in terms of value-at-risk, i.e. in relation to adverse impacts that could materialise over 1 year. For certain lines of business such as whole-life annuities, projecting what is essentially a run-off stress over the liability run-off period arguably involves double-counting. Putting it another way, it is unclear that the form of the longevity SCR fits well with the spirit of the risk margin.	See response to comment 199.
			Many insurers allow for material future improvements in longevity risk in their technical provisions. The SCR should be calibrated with regard to the level of future improvements assumed, rather than an absolute level of observed historical improvements.	See response to comment 164
			It is also notable that a stress based on a reduction in mortality rates is inherently mis-matched with the nature of the underlying risk, on the basis that a stress of this type increases in severity for	Noted. See response to comment 165.

			lives with higher initial mortality rates (ie older ages). In reality, however, the impact of longevity risk is least significant for older lives, and more significant for younger lives where the uncertainty over future life expectancy is greater. It would be useful to break down the longevity SCR into a component for mis-estimation of current longevity rates, and a component for mis-estimation of future improvements, since both assumptions are material and both can be mis-estimated. To the extent that an undertaking sets its longevity assumptions by reference to an experience analysis, the degree to which current longevity rates could be mis-estimated is strongly related to the undertaking's exposed-to-risk and hence is highly undertaking-specific.	Not agreed, CEIOPS considers that this would introduce undue complexity.
205.	KPMG ELLP	3.43.	There appears to be an inconsistency in the rationale used to set the level of the stress when compared to arguments put forward for the mortality stress. The mortality stress was at a significantly lower level than the median stress from the internal model feedback as part of QIS4. In contrast, the primary argument put forward to calibrate the longevity stress at 25% is that the internal model feedback from QIS4 produced a median longevity stress of 25%.	Noted
206.	Munich RE	3.43.	CEIOPS appears to take an observed improvement over a 15 year period and apply it without regard to the improvement assumption that will already be in the best estimate. But the model would need to assume that in the Best Estimate Liabilities the BE trend is already included. The solvency shock is only the uncertainty around the BE trend. Therefore the calibration of the 25% shock does not seem to be capturing the risk.	See response to comments 164 and 199
207.	UNESPA (Association	3.43.	As per our comments in Section B3, we do not believe that the presentation of historical improvements that CEIOPS has used quite	See response to comment 199.

	of Spanish insurers)		provides the comparative figures that would be needed to determine the appropriate stress test – i.e. it uses attained ages and cumulative improvements over the period rather than effective average reductions over the duration of the policy and the additional improvements compared to expected rather than just improvements. Furthermore, the analysis uses historic mortality improvements over a 15 year time-period for calibration, which is not in line with the one-year time-horizon required for Solvency II purposes; hence this assessment would substantially overstate the impact of longevity risk.	
208.	Dutch Actuarial Society – Actuarieel Genootschap (	3.44.	We favour the approach proposed by CEIOPS, but this approach seems opposite to the proposals in CP27 on Segmentation. We suggest following the approach in CP49.	Noted
209.	Groupe Consultatif	3.44.	We would wish to understand this better. Did firms using internal models include a one-off or a progressive rate of decrease?	The 25% figure is calculated as being equivalent to a one-off stress.
210.	Association of British Insurers	3.45.	See comments to 3.50.	See response to comment 238
211.	CEA, ECO-SLV-09-444	3.45.	See comments to Para 3.50.	See response to comment 241
212.	CRO Forum	3.45.	Although we believe that the shock for longevity risk should be more pronounced than for mortality, as there is usually less diversification within level risk and the trend risk is prevailing within	Noted

			a longevity portfolio, we nevertheless feel that the shock tested in QIS4 was at the high end. As trend risk is duration dependent shocks for annuity products that are already in the pay-out phase should be lower, whereas for deferred annuities the tested longevity shocks may be adequate. To use one shock only for the full range of products might lead to wrong risk management incentives.	
213.	Groupe Consultatif	3.45.	We are not satisfied that this is adequately supported. It is not clear to us how it is supported by the information at Appendix B.	See response to comment 199
214.	Lucida plc	3.45.	Although the proposed calibration leads to a result which is not that different from our current ICA longevity shock, we are uncomfortable with the broad brush approach of a single one off decrease in mortality rates. In addition, we are concerned that the impact of the stress will be magnified by the proposed correlation table (recognising that correlation is the subject of a future paper).	See response to comment 165. Noted
215.	Munich RE	3.45.	Although we believe that the shock for longevity risk should be more pronounced than for mortality, as there is usually less diversification between different products within a longevity portfolio, we nevertheless feel that the shock tested in QIS4 was too high.	Noted
216.	UNESPA (Association of Spanish insurers)	3.45.	See comments to Para 3.50.	See response to comment 255
217.	Association of British Insurers	3.46.	See comments to 3.21.	See response to comment 107
218.			Confidential comment deleted	
219.	CEA,	3.46.	See comments to Para 3.21.	See response to comment 108

	ECO-SLV-09-444			
220.	CRO Forum	3.46.	Conceptually the issue is that the same life cannot be assumed to be both dead and alive simultaneously. Therefore, where the same life holds both a contract contingent on mortality and longevity it should be possible to offset these subject to a floor of zero on the life, not contract. In practice it would be difficult to 'match up' policies held by the same life so the more conservative approach of not allowing for the hedge should be permitted.	See response to comment 218
221.	DIMA	3.46.	This paragraph is located between 3.25 and 3.26.	The latest version of the paper has this corrected.
222.	UNESPA (Association of Spanish insurers)	3.46.	See comments to Para 3.21	See response to comment 115
223.	DIMA	3.47.	This paragraph is located between 3.25 and 3.26.	The latest version of the paper has this corrected.
224.	Association of British Insurers	3.48.	The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic CEIOPS proposes to only stress those policies for which a loss is produced under the longevity stress. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more onerous than the 99.5th percentile. The diversification that naturally exists between policies should be recognised and CEIOPS's approach currently significantly understates this. Furthermore, this requirement would be burdensome, as insurers are required to identify which policies create a loss under each stress, and stress these separately. Another element to further complicate the	Not agreed. CEIOPS considers the proposed non symmetric approach produces an appropriate calibration for a 99.5% confidence level.

			calculations could be when elements (such as profit sharing) are calculated based on groups of policies/product lines. We should add that we would not expect diversification outside of ring-fenced funds to be taken into account. The shocks should be applied at the level of the ring-fenced fund to take account of the natural diversification that exists between the policies within this fund. If this diversification is not recognised we would expect CEIOPS to re-visit the calibration of this stress, as it would need to be significantly reduced. This will prove difficult to do in practice though as each insurer will have a different degree of diversification between its policies. The most appropriate would be to allow each insurer to take account of its own naturally existing diversification and not attempt to calibrate the stress to allow for this. We would suggest that CEIOPS removes this requirement.	
225.	CEA, ECO-SLV-09-444	3.48.	The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic. Ceiops proposes to only stress those policies for which a loss is produced under the longevity stress. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more onerous than the 99.5th percentile. The diversification that naturally exists between policies should be recognised and Ceiops' approach currently significantly understates this. Furthermore, this requirement would be burdensome as insurers are required to identify which policies create a loss under each stress and stress these separately. Another element to further complicate the calculations could be when elements (such as profit sharing) are calculated based on groups of policies/product lines. If this diversification is not recognised we would expect Ceiops to re-visit the calibration of this stress as it would need to be	See response to comment 224

			significantly reduced. This will prove difficult to do in practice though as each insurer will have a different degree of diversification between its policies. The most appropriate would be to allow each insurer to take account of its own naturally existing diversification and not attempt to calibrate the stress to allow for this. We would suggest that Ceiops removes this requirement.	
226.	DIMA	3.48.	The longevity stress test should be applied to separate age/duration bands in order to properly capture the greater potential for higher cumulative mortality improvements at different ages. Separate rates of improvement by age band would easily allow for this.	See response to comment 165
227.	German Insurance Association – Gesamtverband der D	3.48.	The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic CEIOPS proposes to only stress those policies for which a loss is produced under the longevity stress. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more onerous than the 99.5th percentile. The diversification that naturally exists between policies should be recognised and CEIOPS' approach currently significantly understates this. Furthermore, this requirement would be burdensome as insurers are required to identify which policies create a loss under each stress and stress these separately. If this diversification is not recognised we would expect CEIOPS to re-visit the calibration of this stress as it would need to be significantly reduced. This will prove difficult to do in practice though as each insurer will have a different degree of diversification between its policies. The most appropriate would be to allow each insurer to take account of its own naturally existing diversification and not attempt to calibrate the stress to allow for this.	See response to comment 224

			We would suggest that CEIOPS removes this requirement.	
228.	Groupe Consultatif	3.48.	3.48-3.50 Don't agree with the method proposed by CEIOPS and the way the analysis are made to prove that a duration independent shock of 25% is correct. To start with the comments on the model (appendix B) we make the assumption that in the Best Estimate Liabilities the BE trend is already included. The solvency shock is only the uncertainty around the BE trend. Further in modelling trend we must recognise two parts: first, trend development contains a random walk: this is a short term deviation of the real trend, and second, the drift. This is the real trend we want to know and can change because of medical development, change in behaviour. The random walk is more the result of a stochastic process; the drift is the real trend. In the result in estimating uncertainties the random walk is more important for the uncertainty at short term, the drift is more important for the long term. Back to the used model: Observations in a couple of countries over 15 or fewer years are used for modelling. This is too short for modelling trends. It mainly measures the random walk, not changes in drift. This explains the duration independency of the results, particularly when a Normal Distribution is used to extrapolate the uncertainty. By the way: in the same dataset used (www.mortality.org) data are available for several countries starting in the 19th century. Because of the too short observation period almost by definition the result is less duration dependent, particularly for higher durations. Including an analysis of the drift will result in a highly dependency of duration of the trend uncertainty. Particularly for products with a high longevity risk in it like deferred WL annuities for younger ages	Noted

			(<55) the proposed model gives wrong results. Therefore we propose to make the shock time dependent with a constant part in it, representing the level uncertainty. It can look like: 10% + x%*t, where t is the duration. <GC: I'm happy to advise further on the level of the x% in this formula> With a constant shock for longevity products the standard model can not be used for risk management by for example the smaller companies who don't have an internal model. They will underestimate the risk for products with long durations like deferred annuities. We think this is a dangerous way to go. For example: for a deferred annuity, whole life guaranteed, for a 25 year old male an internal model would result in a solvency capital of 28% of the BE liabilities; the standard model would result in only 9%. Will lead to quite a lot of difference in decision making by risk managers!	
229.	Ireland's Solvency 2 Group, excluding representa	3.48.	We do not agree that the scope of the longevity stress should be restricted to those policies where the amount payable on death is less than the technical provision. The stress test should apply to all policies.	Not agreed. See response to comment 224
230.	Legal & General Group	3.48.	Agree	Noted
231.	UNESPA (Association of Spanish insurers)	3.48.	The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic	See response to comment 224
232.	Association of British Insurers	3.49.	See comments to 3.50.	See response to comment 238

233.	CEA, ECO-SLV-09-444	3.49.	See comments to Para 3.50.	See response to comment 241
234.	FFSA	3.49.	CEIOPS considers that it's more appropriate to use a permanent decrease in mortality rate of 25% (a one-off shock rather than a gradual change). FFSA observes that the historical data provided do not demonstrate the previous statement. We believe that a gradual change in longevity is more appropriate than a one-off shock.	Not agreed. See response to comment 165
235.	German Insurance Association – Gesamtverband der D	3.49.	See comments to Para 3.50.	See response to comment 245
236.	Legal & General Group	3.49.	Agree	Noted
237.	ROAM	3.49.	CEIOPS considers that it is more appropriate to use a permanent decrease in mortality rate of 25% (a one-off shock rather than a gradual change). ROAM observes that the historical data provided do not demonstrate the previous statement. We believe that a gradual change in longevity is more appropriate than a one-off shock.	See response to comment 234
238.	Association of British Insurers	3.50.	We do not agree that there should be a single one-up shock. See comments to 3.39. Furthermore, Appendix B, which is used to support the single	Noted. See response to comment 199

			longevity factor, shows the significant difference in pan-European improvement factors that are heavily influenced by social factors which vary across the countries. There have been a number of papers, "Two-dimensional mortality data: patterns and projections" by Richards, S. J.1; Ellam, J. R.; Hubbard, J.; Lu, J. L. C.; Makin, S. J.; Miller, K. A. includes a comparison of the cohort improvement factors in England & Wales; France and Germany. There is a noticeable difference between the countries. It does not seem appropriate to ignore this variation and it would be more appropriate to have country specific stresses.	
239.	Association of Friendly Societies	3.50.	We are content that the 25% stress used in QIS4 has not been changed.	Noted
240.			Confidential comment deleted	
241.	CEA, ECO-SLV-09-444	3.50.	The most risk-sensitive treatment of Longevity risk would be via a change in mortality trends for those insurers where this risk is particularly significant. The most appropriate treatment of mortality risk would be via a split of the risk into level and trend components of the mortality risk assumptions, where these 2 components are shocked over the next year. We understand, however that this may be too complicated for the standard formula and as such an insurer may wish to create a (partial) internal model to model this accurately. Therefore, the Ceiops simplification, to model mortality risk as a one-off shock, may be retained within the standard formula, but we request the following improvements: Where the longevity risk stress is modelled by a permanent decrease in mortality rates, the magnitude of this decrease should vary according to outstanding policy duration and age of the	Noted. See response to comment 165.

			insured person. It should be calibrated against relevant mortality statistics and justified. Under the immediate shock approximation for longevity risk in the standard formula, it is inappropriate to set the same shock for all policies. Longevity risk will have a far greater impact on policies with a long outstanding duration rather than policies with only a few years outstanding. Those policies with a longer outstanding duration would have the cumulative opportunity for future changes in risk factors and in the treatment of diseases underlying mortality. The age of the insured person or the cohort of lives will also have a significant influence on the effect of any longevity stress. Further work may also be required to determine whether other risk factors should also be taken into account in the calibration of this stress and therefore it may be appropriate to also vary the stress dependent on sex, to reflect the relative importance of different diseases underlying mortality experience. For undertakings where longevity risk is not relevant, as a simplification, where longevity risk is immaterial, it may be appropriate to calibrate a shock based on average duration and average age of the policyholders in the portfolio.	CEIOPS considers that the proposed approach is appropriate in the context of an SCR requirement.
242.	Centre Technique des Institutions de Prévoyance (C	3.50.	Add: "When mortality tables used for calculating technical provisions incorporate an hypothesis of longevity improvement (prospective mortality tables), the longevity stress, normally set to 25%, will be reduced accordingly. Specifically, CEIOPS will publish guidance for those national regulatory tables whose design includes such an hypothesis."	Disagree. See response to comment 164
243.	CRO Forum	3.50.	Although we believe that the shock for longevity risk should be more pronounced than for mortality, as there is usually less	Noted

			diversification within level risk and the trend risk is prevailing within a longevity portfolio, we nevertheless feel that the shock tested in QIS4 was at the high end. As trend risk is duration dependent shocks for annuity products that are already in the pay-out phase should be lower, whereas for deferred annuities the tested longevity shocks may be adequate. To use one shock only for the full range of products might lead to wrong risk management incentives.	
244.	FFSA	3.50.	CEIOPS states that a permanent decrease in mortality rates of 25% should apply. FFSA believes that there is no link between the « age » of the mortality table (i.e. if it has been created a year ago or 40 years ago), the fact that they are prospective or not and the level of the shock. FFSA therefore proposes that there is a credibility function to reduce the shock : the more accurate the mortality table is, the lower the shock is.	Not agreed. CEIOPS believes that such a credibility function would significantly increase complexity and be incompatible with an SCR requirement.
245.	German Insurance Association – Gesamtverband der D	3.50.	The most risk-sensitive treatment of Longevity risk would be via a change in mortality trends for those insurers where this risk is particularly significant The most appropriate treatment of mortality risk would be via a split of the risk into level and trend components of the mortality risk assumptions, where these 2 components are shocked over the next year. We understand, however that this may be too complicated for the standard formula and as such an insurer may wish to create a (partial) internal model to model this accurately. Therefore, the CEIOPS simplification, to model mortality risk as a one-off shock may be retained within the standard formula, but we request the following improvements: Where the longevity risk stress is modelled by a permanent decrease in mortality rates, the magnitude of this decrease should	See response to comment 165

			vary according to outstanding policy duration and age. It should be calibrated against relevant mortality statistics and justified. Under the immediate shock approximation for longevity risk in the standard formula, it is inappropriate to set the same shock for all policies. Longevity risk will have a far greater impact on policies with a long outstanding duration rather than policies with only a few years outstanding. Those policies with a longer outstanding duration would have the cumulative opportunity for future changes in risk factors and in the treatment of diseases underlying mortality. The age of the policyholder or the cohort of lives will also have a significant influence on the effect of any longevity stress. Further work may also be required to determine whether other risk factors should also be taken into account in the calibration of this stress and therefore it may be appropriate to also vary the stress dependent on sex, to reflect the relative importance of different diseases underlying mortality experience. As a simplification, it may be appropriate to calibrate a shock based on average duration and average age of the portfolio.	
246.	Groupe Consultatif	3.50.	The shock does not take into account the credibility of tables. There is no link between the « age » of the mortality table (i.e. if it has been created a year ago or 40 years ago), the fact that they are prospective or not and the level of the shock. We therefore propose that there is a credibility function to reduce the shock: the more accurate the mortality table is, the lower the shock is. It is also important that a European assessment of the national mortality table exists to avoid non-justified differences between tables.	See response to comment 244

247.	Institut des actuaires (France)	3.50.	The shock does not take into account the credibility of tables. There is no link between the « age » of the mortality table (i.e. if it has been created a year ago or 40 years ago), the fact that they are prospective or not and the level of the shock. We therefore propose that there is a credibility function to reduce the shock: the more accurate the mortality table is, the lower the shock is. It is also important that a European assessment of the national mortality table exists to avoid non-justified differences between tables.	See response to comment 244
248.	Ireland's Solvency 2 Group, excluding representa	3.50.	We do not think that a simple instantaneous shock for longevity is the appropriate standard formula approach for this risk. This could be retained as a simplification option, but we would favour a somewhat more complex approach to this risk in the standard formula. The standard formula approach should, at a minimum, allow for the age and sex of the policyholder as well as the remaining term of the insurance contract.	See response to comment 165
249.	Legal & General Group	3.50.	Strongly disagree, reasons as given above for 3.39W. Furthermore, Appendix B which is used to support the single longevity factor, shows the significant difference in pan-european improvement factors which are heavily influenced by social factors which vary across the countries. There have been a number of papers, "Two-dimensional mortality data: patterns and projections" by Richards, S. J.1; Ellam, J. R.; Hubbard, J.; Lu, J. L. C.; Makin, S. J.; Miller, K. A. includes a comparison of the cohort improvement factors in England & Wales; France and Germany. There is a noticeable difference between the countries. It does not seem appropriate to ignore this variation and it would be more appropriate to have country specific stresses.	Noted. See response to comment 238

250.	Munich RE	3.50.	Although we believe that the shock for longevity risk should be more pronounced than for mortality, as there is usually less diversification between different products within a longevity portfolio, we nevertheless feel that the shock tested in QIS4 was too high.	Not agreed. See response to comment 173
251.	OAC plc	3.50.	We are content that the 25% stress used in QIS4 has not been changed.	Noted
252.			Confidential comment deleted	
253.			Confidential comment deleted	
254.	ROAM	3.50.	CEIOPS states that a permanent decrease in mortality rates of 25% should apply. ROAM believes that there is no link between the « age » of the mortality table (i.e. if it has been created a year ago or 40 years ago), the fact that they are prospective or not and the level of the shock. ROAM therefore proposes that there is a credibility function to reduce the shock: the more accurate the mortality table is, the lower the shock is.	See response to comment 244
255.	UNESPA (Association of Spanish insurers)	3.50.	Longevity risk should be modelled adequately where this risk is particularly significant The QIS4 scenario was a permanent 25% decrease in mortality rates. We consider that the use of a matrix of increased mortality improvements by age and either calendar year or year of birth reflects a more plausible pattern of mortality improvements under a stressed scenario than the assumption of permanent decreases in mortality rates. Under the immediate shock approximation for longevity risk in the standard formula, it is inappropriate to set the same shock for all policies. All ages should not have the same shock, because the	Not agreed. See response to comment 165.

			younger the person is the greater the possible mortality improvement, as it is demonstrated in the investigation carried out by CEIOPS in Appendix B about shocks of future improvements in mortality rates. Further work may also be required to determine whether other risk factors should also be taken into account in the calibration of this stress and therefore it may be appropriate to also vary the stress.	
256.	Unum Limited	3.50.	The shock of 25% should be a simplification. The standard formula should be more risk sensitive and should allow for the factors that can have significant influence on the longevity risk of the policy, such as the duration of the policy and the age of the policyholder. Regarding durations, we assume that the evidences are not yet significant, but clearly shows that a shock of 25% is clearly excessive.	Not agreed. See response to comment 165. Not agreed. See response to comment 173.
257.	XL Capital Ltd	3.50.	The longevity stress is still applied as a one-off decrease in mortality rates, and does not consider base mortality and improvements separately, which we believe would be the most appropriate parameterisation. If this is not deemed to be practical, a longevity stress that depends on outstanding duration and policyholder age might also be suitable, but we do not believe that a flat 25% decrease in mortality rates is appropriate.	Not agreed. See response to comment 164
258.	Association of British Insurers	3.51.	We agree that these obligations should not be unbundled. We do not agree that a floor zero should be applied and suggest deleting the last sentence ("note that a floor of zero applies at the level of contract if the net result of the scenario is favourable to the (re)insurer").	Not agreed. CEIOPS considers the floor an important part of the calibration of the proposed stress.
259.	CEA, ECO-SLV-09-444	3.51.	A floor of zero should not be applied. There is no reason for applying a floor of zero in the case that the net result is beneficial to the (re)insurer, as this is the reality of the	See response to comment 258

			result of the shock. However, if this situation arises then the contract should be shocked under the longevity risk sub module rather than the mortality risk sub module. We request that the last sentence is deleted: ("note that a floor of zero applies at the level of contract if the net result of the scenario is favourable to the (re)insurer".)	
260.	CRO Forum	3.51.	See our comments on 3.46	See response to comment 220
261.	German Insurance Association – Gesamtverband der D	3.51.	A floor of zero should not be applied There is no reason for applying a floor of zero in the case that the net result is beneficial to the (re)insurer, as this is the reality of the result of the shock. However, if this situation arises then the contract should be shocked under the longevity risk sub module rather than the mortality risk sub module. We request that the last sentence is deleted: ("note that a floor of zero applies at the level of contract if the net result of the scenario is favourable to the (re)insurer".)	See response to comment 258
262.	Just Retirement Limited	3.51.	Applying the floor at the level of individual contracts (or model points per 3.52) would disregard inter-contract diversification of underwriting risks and tend to overstate the economic exposure of an undertaking to underwriting risks. It is preferable to apply the floor by line of business.	Not agreed. CEIOPS considers the floor at policy level an important part of the calibration of the proposed stress.
263.	Legal & General Group	3.51.	Agree	Noted
264.	UNESPA (Association of Spanish insurers)	3.51.	A floor of zero should not be applied There is no reason for applying a floor of zero in the case that the net result is beneficial to the (re)insurer, as this is the reality of the result of the shock. However, if this situation arises then the	See response to comment 258

			contract should be shocked under the longevity risk sub module rather than the mortality risk sub module. We request that the last sentence is deleted: ("note that a floor of zero applies at the level of contract if the net result of the scenario is favourable to the (re)insurer".)	
265.	Legal & General Group	3.52.	See 3.27B	See response to comment 162
266.	Just Retirement Limited	3.53.	Morbidity risk also applies to contracts which pay lump sums on illness or disability, or where morbidity acts an acceleration of payments or obligations which fall due on death.	Agree, please see modified para 3.53
267.	Association of British Insurers	3.54.	More flexibility is required in the definition of contracts covered by the disability-morbidity risk module We recommend a more flexible condition for the possibility to have a disability sub-module within the life underwriting risk module, by including situations where unbundling from a product perspective would be unnatural, although it would be technically possible. We request that "applicable only in cases where contracts cannot be unbundled" is replaced by "applicable in cases where it is not appropriate to unbundle contracts"	Partially agree. Please see modified paragraph 3.53. Agreed. Please see modified CP
268.	Belgian Coordination Group Solvency II (Assuralia/	3.54.	This paragraph indicates that most of the (re)insurance obligations, for which the disability-morbidity risks are applicable, would be treated by the health module rather than the life underwriting module. As such, CEIOPS expects that this disability - morbidity sub-module is only likely to be applicable in cases where contracts cannot be unbundled. Based on the nature of the business we would advise to report the capital related to disability - morbidity risks for riders under this sub-module. We are certainly not in favour of a further diversification of the calculation basis and	Noted

			parameters used. We are convinced that similar business should be treated similarly, but in our opinion, reporting needs to be aligned to the nature of the business to which it relates, i.e. capital needs for riders should be treated under the life underwriting risk module.	
269.	CEA, ECO-SLV-09-444	3.54.	More flexibility is required in the definition of contacts covered by the disability-morbidity risk module. We recommend a weaker condition for the possibility to have a disability sub-module within the life underwriting risk module, by including situations where unbundling from a product perspective would be unnatural, although it would be technically possible. We request that "applicable only in cases where contracts cannot be unbundled" is replaced by "applicable in cases where it is not appropriate to unbundle contracts".	Please see response to comment 267.
270.	PricewaterhouseCoopers LLP	3.54.	Further clarification is needed on the criteria that should be used to determine whether the health component of a contract can be unbundled from other components. In many cases it is not practical to unbundle contracts, as the cash-flows from different components are interdependent. It would be helpful if, where practical and relevant, the requirements for unbundling are aligned with those in IFRS. For medical insurance, different treatment can be applied to calculate the health risk component depending on whether it is deemed the health risk component can be unbundled from an underlying contract (and thus considered under CP50) or not. Without clear guidance, this will remain a grey area in the regulations, with the potential for inconsistent treatment across the EU.	Please see response to comment 267
271.	Unum Limited	3.54.	More flexibility is required in the definition of contracts covered by the disability-morbidity risk module	Please see response to comment 267

			We recommend a weaker condition for the possibility to have a disability sub-module within the life underwriting risk module, by including situations where unbundling from a product perspective would be unnatural, although it would be technically possible. We request that "applicable only in cases where contracts cannot be unbundled" is replaced by "applicable in cases where it is not appropriate to unbundle contracts"	
272.	FFSA	3.55.	**[EMPTY]**	
273.	ROAM	3.55.	**[EMPTY]**	
274.	CEA, ECO-SLV-09-444	3.57.	Especially for disability business, country and product specifics play an important role, thus we caution the use of studies only from one country.	Noted, however any studies used informed rather than dictated the calibration. In addition A.3 notes that studies from one country require extra interpretation.
275.	Groupe Consultatif	3.57.	We support the change to have separate stresses to inception and recovery rates for income protection business. In the UK, models for projecting sickness experience have moved away from disability rates (representing the proportion claiming at any one time) to separate inception and recovery rates. The use of sickness rates to model morbidity had become discredited, as they often understated the projected future experience. It is not possible to model a stress to sickness rates with an inception/recovery rate model.	Noted
276.	CRO Forum	3.59.	Especially for disability business country and product specifics play an important role, thus we caution against using only studies from one country.	Noted. Please see response to comment 274.
277.	Munich RE	3.59.	Especially for disability business country and product specifics play an important role, thus we caution against using only studies from one country.	Noted. Please see response to comment 274.

278.	DIMA	3.60.	Should the stress tests for disability vary according to the type of benefit e.g. (critical illness, income protection, long term care)?	For SCR purposes CEIOPS believes that one consistent approach is appropriate.
279.	CRO Forum	3.61.	Although we believe that the shock for disability risk should be more pronounced than for mortality risk we nevertheless feel that the shock tested in QIS4 was too high. The relation to the mortality shock, however, should be maintained.	Noted
280.	KPMG ELLP	3.61.	Bullet 2 – We agree that a stress on the recovery rates is also needed and should be introduced.	Noted
281.	Munich RE	3.61.	Although we believe that the shock for disability risk should be more pronounced than for mortality risk we nevertheless feel that the shock tested in QIS4 was too high. The relation to the mortality shock, however, should be maintained.	See response to comment 279
282.	RGA UK Services Limited	3.61.	We do not consider it necessary, or appropriate, for the standard formula to have a higher stress test in the year following the valuation than for all future years.	Noted. As discussed in the CP and its appendix CEIOPS believes this is a reasonable assumption.
283.	Just Retirement Limited	3.62.	The concept of payment duration is not relevant to contracts which pay out lump sums or trigger policyholder obligations on inception of morbidity risk.	Noted
284.	CEA, ECO-SLV-09-444	3.63.	Especially for disability business, country and product specifics play an important role, thus we caution to use only studies from one country.	See response to comment 274.
285.	Groupe Consultatif	3.63.	Although we do not necessarily disagree, the logic of a different stress in year one and subsequent years has not been adequately explained. Why is the experience in the first year likely to differ from the base assumption any more than the experience in 10 years time? If anything the current uncertainty over the experience in 10 years time should be greater than in the coming year,	Noted. Please see response to comment 282.

			although for simplicity we recommend applying a flat percentage increase to claim inception rates in all years. The high volatility of Swedish claim rates is partially explained by political interference. It is inappropriate to assume that this is the case throughout the EC. This has not been a feature of the UK market. The level of unemployment is a significant cause of variability of morbidity experience in the UK. We suggest that CEIOPS should be very careful in drawing conclusions for all countries from experience in a single country – morbidity experience is particularly heterogeneous across countries.	Please see response to comment 274.
286.	KPMG ELLP	3.63.	The investigation by the Swedish FSA set out in Appendix A appears to consider only Swedish specific considerations. In particular, the conclusion that inception rates in the first year should increase by 50% is made based on the possibility of the specific circumstances in Sweden reoccurring in the future. The operation of the Swedish disability insurance is different to other countries within Europe and therefore may not be fully relevant to setting the level of the first year stress. Further from the appendix, it is also unclear how the 50% increase in the inception rate is derived. We do not see how the proposed 50% relates to a 1 in 200 year event. We therefore believe care should be taken in solely using the Swedish FSA report to support the 50% increase in inception rates for the first year. Also applicable to A.5 and A.6	Please see response to comment 274. Agreed. As noted in Appendix A
287.	RGA UK Services Limited	3.63.	We note that the justification for strengthening the test used in QIS4 rests on work analysing the results of Swedish disability income benefit policies. As noted in Appendix A to the CP there are some significant difficulties in applying the results of that work to a pan-European framework – in particular the manner in which the	See response to comment 274

			insured benefits are linked to the social security system and its assessment criteria. In our opinion there needs to be a recognition (for all health-related insurances such as disability income, critical illness and medical expenses) that there is a difference between risks from the uncertainty around the future of the underlying pure health status of the insured, and how this translates to the acceptance of a valid claim. We suggest that some of the past volatility in claims experience may be more due to changes in claims management practice than in true health status. Hence we consider the proposed change to the stress test to be inappropriate as it is too severe. We note also the reference to the UK survey of stresses used for Individual Capital Adequacy purposes. Although this information is useful, we repeat our point made previously that, without further investigation, it is not possible to determine the rigour and element of prudence that has gone into selecting those stress tests. Indeed, we are aware of other surveys of UK practice that show an extremely large distribution in the stress tests used for ICA work. It is possible that the severity of the stress test used is inversely proportionate to the importance of the risk to the insurer. That is, if a particular risk was not a key part of an insurer's overall risk exposure then the insurer was more likely to adopt a severe stress than would be the case for an insurer for whom the risk was material. Further, we do not consider it necessary, or appropriate, for the standard formula to have a higher stress test in the year following the valuation than for all future years. We therefore suggest that the approach to the standard formula for this risk is revisited, perhaps with the view to splitting the stress between volatility, mis-estimation and trends on the underlying	Disagree. CEIOPS considers that separating the risk into it's constituent components would produce undue complexity.

			pure health risk. Risks from varying claims management or integration with state benefits could then be dealt with through inclusion in the Operational Risk component. This comment applies to paragraphs 3.51 to 3.72	
288.	KPMG ELLP	3.64.	Similar comments to 3.63 are applicable to this point. We do not consider this investigation as appropriate to set the recovery rate stress as it is based on only the data from only 9 companies and it is unclear how the 20% was derived. We do not see how the proposed 20% relates to a 1 in 200 year event. We therefore believe care should be taken in solely using the Swedish FSA report to support the 20% decrease in recovery rates for the first year. Also applies to A.8 and A.11	Noted. Please see response to comment 274.
289.	CRO Forum	3.65.	Especially for disability business country and product specifics play an important role, thus we caution to use only studies from one country.	Noted. Please see response to comment 274
290.	Munich RE	3.65.	Especially for disability business country and product specifics play an important role, thus we caution to use only studies from one country.	Noted. Please see response to comment 274
291.	RGA UK Services Limited	3.66.	We note also the reference to the UK survey of stresses used for Individual Capital Adequacy purposes. Although this information is useful, we repeat our point made previously that, without further investigation, it is not possible to determine the rigour and element of prudence that has gone into selecting those stress tests. Indeed, we are aware of other surveys of UK practice that show an extremely large distribution in the stress tests used for ICA work. It is possible that the severity of the stress test used is inversely proportionate to the importance of the risk to the insurer. That is, if a particular risk was not a key part of an insurer's overall risk	Noted. Please see response to comment 274/287

			exposure then the insurer was more likely to adopt a severe stress than would be the case for an insurer for whom the risk was material. See comment under 3.63	
292.	RGA UK Services Limited	3.67.	See 3.63	See response to comment 287
293.	RGA UK Services Limited	3.68.	See 3.63	See response to comment 287
294.	KPMG ELLP	3.69.	The survey results carried out by the UK Actuarial Profession Healthcare Working Party suggests that the proposed calibration is stronger than a 1 in 200 event.	Noted. However CEIOPS believes that the calibration is appropriate for a pan-european SCR 99.5% requirement.
295.	RGA UK Services Limited	3.69.	See 3.63	See response to comment 287
296.			Confidential comment deleted	
297.	CRO Forum	3.70.	The analysis does not seem to be calibrated to the one-year time-horizon required for Solvency II purposes but to a multi-year time-horizon and this overstating the impact.	See response to comment 296
298.	DIMA	3.70.	Should the stress tests for disability vary according to the type of benefit e.g. (critical illness, income protection, long term care)?	Not agreed. See response to comment 278.
299.	Munich RE	3.70.	The analysis does not seem to be calibrated to the one-year time-horizon required for Solvency II purposes but to a multi-year time-horizon and this overstating the impact.	See response to comment 296.
300.	Association	3.71.	We consider that the increase in the first year stress from 35% to	Noted

	of Friendly Societies		50% is not justified. There seems no reason for it to be higher than the 40% arising from the investigation into critical illness. We also consider that the inception rate stress is sufficient without the imposition of a stress on recovery rates. It the test is to be combined then firms should be required to consider either a high (40%) stress on inception rates with no change to recovery rates or a 20% stress on both inception and recovery rates, and to reserve for whichever gave the higher result.	
301.	CRO Forum	3.71.	Although we believe that the shock for disability risk should be more pronounced than for mortality risk we nevertheless feel that the shock tested in QIS4 was at the high end.	Noted
302.	Groupe Consultatif	3.71.	See our comments on 3.63 – we do not disagree with this.	Noted
303.	Munich RE	3.71.	Although we believe that the shock for disability risk should be more pronounced than for mortality risk we nevertheless feel that the shock tested in QIS4 was at the high end.	See response to comment 301
304.	OAC plc	3.71.	We consider that the increase in the first year stress from 35% to 50% is not justified. There seems no reason for it to be higher than the 40% arising from the investigation into critical illness. We also consider that the inception rate stress is sufficient without the imposition of a stress on recovery rates. It the test is to be combined then firms should be required to consider either a high (40%) stress on inception rates with no change to recovery rates or a 20% stress on both inception and recovery rates, and to reserve for whichever gave the higher result.	See response to comment 300
305.			Confidential comment deleted	
306.	CEA, ECO-SLV-09-444	3.72.	We do not believe that the new morbidity rates can be calibrated correctly using an investigation by the Swedish FSA only. As neither the morbidity rates were neither tested in a Quantitative	Noted. Please see response to comment 274.

			Impact Study up to now nor the calibration was verified by other countries, we would suggest to either have the industry review this rate first (e.g. in QIS5) and leave the explicit morbidity rate for the Level 3 advice or at least fill in a disclaimer stating that the morbidity rates will be reviewed after QIS5 and still can be changed.	Noted
307.	DIMA	3.72.	The revised calculation appears better and more justified than the QIS4 proposal.	Noted
308.	FFSA	3.72.	On one hand, CEIOPS has increased the stress on the inception risk and on the other hand, it added a stress on the recovery rate. Also, a 50% rate was assumed in the morbidity/disability inception rate for the first year using Swedish market data. FFSA believes that this approach is very conservative. In fact, any increase in the inception rate could imply a higher recovery rate (i.e. lower duration of the claim due to mortality). FFSA wonders why the calibration of 50% derived from a study relating only to the Swedish market is appropriate for all other markets. FFSA considers that increasing the first year stress to 50% seems extreme, especially in combination with the stress on recovery rates. It doesn't consider that management can mitigate the impact of macroeconomic effects on claims within the first year. FFSA believes that a study that seems to have been conducted only on the Swedish market is not a sufficient argument to change the QIS 4 calibration. Therefore FFSA recommends to stay at the 35% shock.	Noted. Please see response to comment 274
309.	German Insurance Association	3.72.	We do not believe that the new morbidity rates can be calibrated correctly using an investigation by the Swedish FSA only. As neither the morbidity rates were neither tested in a Quantitative Impact	Please see response to comment 274

	– Gesamtverband der D		Study up to now nor the calibration was verified by other countries, we would suggest to either have the industry review this rate first (e.g. in QIS5) and leave the explicit morbidity rate for the Level 3 advice or at least fill in a disclaimer stating that the morbidity rates will be reviewed after QIS5 and still can be changed.	
310.	Investment & Life Assurance Group (ILAG)	3.72.	We are particularly concerned about the onerousness of this test. We have estimated that this test has the effect of doubling the present value of claims in the SCR scenario compared to the "best estimate" in the technical provisions, and we fear that such a high capital requirement will result in large increases in costs to consumers and leaves insurers faced with the prospect of raising significant additional capital.	Noted
311.	Legal & General Group	3.72.	Agree	Noted
312.			Confidential comment deleted	
313.	RGA UK Services Limited	3.72.	See 3.63 We therefore suggest that the approach to the standard formula for this risk is revisited, perhaps with the view to splitting the stress between volatility, mis-estimation and trends on the underlying pure health risk. Risks from varying claims management or integration with state benefits could then be dealt with through inclusion in the Operational Risk component.	Not agreed. CEIOPS considers that the method proposed is appropriate for a standard formula approach, and the method in the comment may increase complexity.
314.	ROAM	3.72.	On one hand, CEIOPS has increased the stress on the inception risk and on the other hand, it added a stress on the recovery rate. Also, a 50% rate was assumed in the morbidity/disability inception rate for the first year using Swedish market data. ROAM believes that this approach is very conservative. In fact, any increase in the inception rate could imply a higher recovery rate	See response to comment 308

			(i.e. lower duration of the claim due to mortality). ROAM wonders why the calibration of 50% derived from a study relating only to the Swedish market is appropriate for all other markets. ROAM considers that increasing the first year stress to 50% seems extreme, especially in combination with the stress on recovery rates. It doesn't consider that management can mitigate the impact of macroeconomic effects on claims within the first year. ROAM believes that a study that seems to have been conducted only on the Swedish market is not a sufficient argument to change the QIS 4 calibration. Therefore ROAM recommends to stay at the 35% shock.	
315.	Unum Limited	3.72.	We do not believe that a higher stress in year one is justified. CEIOPS does not give a clear rationale. In the case of critical illness a 50% stress is extremely conservative for the 12 month horizon specified in Solvency II. The increases in inceptions of 50% in year 1 and 25% in subsequent years and a permanent reduction of 20% in mortality/disability recovery rates are too high. The rates used in QIS4 should have been reduced rather than increased. (In the UK, rates are between 25-30%). The QIS4 scenario was an increase in disability inception rates in the first year of 35% and 25% in subsequent years. In previous QIS4 feedback that the then proposed increases to disability inception rates were already regarded as too high by many of its members. The choice of the current proposed disability stress is assumed to be based on research carried out by the Swedish FSA that is presented in Appendix A.	See response to comment 312

			We request reconsideration of the increase in the shocks and additional evidence to support the final calibration. We would support the development of separate stresses for critical illness, income protection and long-term care policies.	Noted
316.	XL Capital Ltd	3.72.	Disability-Morbidity risk stresses have increased from a 35% to a 50% increase in inception rates in the first year We consider this stress to be too high, given the work performed by the UK Actuarial profession Healthcare reserving working party. We do not believe that the Swedish investigation is suitable as a benchmark for calibrating this stress.	Noted. Please see response to comment 274.
317.	Legal & General Group	3.73.	Agree	Noted
318.	Association of British Insurers	3.74.	We do not believe that a higher stress in year one is justified. CEIOPS does not give a clear rationale. In the case of critical illness, a 50% stress is extremely conservative for the 12 month horizon specified in Solvency II. The QIS4 scenario was an increase in disability inception rates in the first year of 35% and 25% in subsequent years. The increase in inceptions to 50% in year 1, maintaining 25% in subsequent years and adding a permanent reduction of 20% in mortality/disability recovery rates gives in aggregate an outcome that is too high. The rates used in QIS4 should have been reduced rather than increased, for example, in the UK, ICA inception rates are between 25-30%. Any increase in the stressed inception rate would be likely to imply a higher recovery rate (i.e. lower duration of the claim due to mortality), rather than also combining this with lower recovery	See response to comment 312

			rates. The choice of the current proposed disability stress is assumed to be based on research carried out by the Swedish FSA that is presented in Appendix A. However this analysis is not consistent with the research carried out by the UK Actuarial Profession Healthcare Reserving Working Party, as referenced by CEIOPS is Para 3.68 and 3.69, which shows much lower stresses than those proposed by CEIOPS. We request feedback as to why the calibration of 50%, derived from a study relating only to the Swedish market, is appropriate for all other markets. We request reconsideration of the increase in the shocks and additional evidence to support the final calibration. A study that seems to have been conducted only on the Swedish market is not sufficient to change the QIS4 calibration. We recommend the retention of the 35% shock. We would support the development of separate stresses for critical illness, income protection and long-term care policies. The study referred by CEIOPS in Para 3.69 highlights that there are significant differences in the calibration of stresses for different morbidity and disability products in the UK market. We are concerned that any attempt to calibrate one stress for all products will result in excessive conservatism in the calibration. The stress should also shock the severity of the claim as well as the duration or frequency of the claims The calibration of the shocks does not seem to consider that in case of medical expenses reimbursement, a key risk driver is the severity of the claim, which may not be linked to the duration of the claim. The explanatory text only refers to higher frequency or duration of the claim.	See response to comment 274. Not agreed. CEIOPS do not consider this appropriate for the life underwriting module. Not agreed. CEIOPS considers that splitting out a severity component of the claim would provide undue complexity.

319.	Association of Friendly Societies	3.74.	See comments on 3.71	See response to comment 300
320.	CEA, ECO-SLV-09-444	3.74.	We do not believe that a higher stress in year one is justified. Ceiops does not give a clear rationale. In the case of critical illness, a 50% stress is extremely conservative. The QIS4 scenario was an increase in disability inception rates in the first year of 35% and 25% in subsequent years. We noted in our QIS4 feedback that the then proposed increases to disability inception rates were already regarded as too high by many of our members. The increase in inceptions to 50% in year 1, maintaining 25% in subsequent years and adding a permanent reduction of 20% in mortality/disability recovery rates gives in aggregate an outcome that is too high. The rates used in QIS4 should have been reduced rather than increased, for example, in the UK, ICA inception rates are between 25-30%. Any increase in the stressed inception rate would be likely to imply a higher recovery rate (i.e. lower duration of the claim due to mortality), rather than also combining this with lower recovery rates. The choice of the current proposed disability stress is assumed to be based on research carried out by the Swedish FSA that is presented in Appendix A. However this analysis is not consistent with the research carried out by the UK Actuarial Profession Healthcare Reserving Working Party, as referenced by Ceiops is Para 3.68 and 3.69, which shows much lower stresses than those proposed by Ceiops. We request feedback as to why the calibration	Noted Please see response to comment 274.

			of 50%, derived from a study relating only to the Swedish market, is appropriate for all other markets. We request reconsideration of the increase in the shocks and additional evidence to support the final calibration. A study that seems to have been conducted only on the Swedish market is not sufficient to change the QIS4 calibration. We recommend the retention of the 35% shock. We would support the development of separate stresses for critical illness and income protection policies. The study referred by Ceiops in Para 3.69 highlights that there are significant differences in the calibration of stresses for different morbidity and disability products. We are concerned that any attempt to calibrate one stress for all products will result in excessive conservatism in the calibration. For CI business, we note the UK data only gives an average (possibly unweighted by volume) of contributing companies with no ranges and that it is drawn from the early years of the ICA requirements where many firms will have focussed on items having greater impact on their total ICA capital, as we understand that for most firms the risk is heavily reinsured. If Ceiops is to rely on this data there needs to be an effective mechanism for own factors and partial models so that where it is a significant risk and firms have a more meaningful evaluation of the risk then that can be used to replace the standard calibration. Updated information giving ranges would be helpful. The stress should also shock the severity of the claim as well as the duration or frequency of the claims The calibration of the shocks does not seem to consider that in case of medical expenses reimbursement, a key risk driver is the	Please see response to comment 318

			severity of the claim which may not be linked to the duration of the claim. The explanatory text only refers to higher frequency or duration of the claim.	
321.	CRO Forum	3.74.	We do not believe that the new morbidity rates can be calibrated correctly using an investigation by the Swedish FSA only. As neither the morbidity rates were neither tested in a Quantitative Impact Study up to now nor the calibration was verified by other countries, we would suggest to either have the industry review this rate first (e.g. in QIS5) and leave the explicit morbidity rate for the Level 3 advice or provide a disclaimer stating that the morbidity rates will be reviewed after QIS 5 and still can be changed. The introduction of a higher first year stress may require further testing, as we believe that this could lead to a more onerous calculation procedure with relatively little insight. Thus QIS5 should test the impact of this additional feature of the standard formula. Given the different product characteristics CEIOPS should establish different tests for DI and CI. The recognition of risk from variation in termination rates is welcome and essential for proper evaluation of disabled life reserves. However, for active lives it could be consolidated with the inception stress into a single cost of claim stress without loss of materiality and giving simpler computation. A PIM should be available for those where there is material distortion.	See response to comments 274, 318.
322.	German Insurance Association – Gesamtverband der D	3.74.	We do not believe that a higher stress in year one is justified. CEIOPS does not give a clear rationale. In the case of critical illness, a 50% stress is extremely conservative. The QIS4 scenario was an increase in disability inception rates in the first year of 35% and 25% in subsequent years. The GDV	See response to previous comments, particularly 315.

			noted in previous QIS4 feedback that the then proposed increases to disability inception rates were already regarded as too high by many of its members. The increase in inceptions to 50% in year 1, maintaining 25% in subsequent years and adding a permanent reduction of 20% in mortality/disability recovery rates gives in aggregate an outcome that is too high. The rates used in QIS4 should have been reduced rather than increased, for example, in the UK, ICA inception rates are between 25-30%. Any increase in the stressed inception rate would be likely to imply a higher recovery rate (i.e. lower duration of the claim due to mortality), rather than also combining this with lower recovery rates. The choice of the current proposed disability stress is assumed to be based on research carried out by the Swedish FSA that is presented in Appendix A. However this analysis is not consistent with the research carried out by the UK Actuarial Profession Healthcare Reserving Working Party, as referenced by CEIOPS is Para 3.68 and 3.69, which shows much lower stresses than those proposed by CEIOPS. We request feedback as to why the calibration of 50%, derived from a study relating only to the Swedish market, is appropriate for all other markets. We request reconsideration of the increase in the shocks and additional evidence to support the final calibration. A study that seems to have been conducted only on the Swedish market is not sufficient to change the QIS4 calibration. We recommend the retention of the 35% shock. We would support the development of separate stresses for critical illness, income protection and long-term care policies.	

			The study referred by CEIOPS in Para 3.69 highlights that there are significant differences in the calibration of stresses for different morbidity and disability products in the UK market. We are concerned that any attempt to calibrate one stress for all products will result in excessive conservatism in the calibration. For CI business, we note the UK data only gives an average (possibly unweighted by volume) of contributing companies with no ranges and that it is drawn from the early years of ICA where many firms will have focussed on items having greater impact on their total ICA capital. We understand that for most firms the risk is heavily reinsured. If CEIOPS is to rely on this data there needs to be an effective mechanism for own factors and partial models so that where it is a significant risk and firms have a more meaningful evaluation of the risk that can be used to replace the standard calibration. Updated information giving ranges would be helpful. The stress should also shock the severity of the claim as well as the duration or frequency of the claims The calibration of the shocks does not seem to consider that in case of medical expenses reimbursement, a key risk driver is the severity of the claim which may not be linked to the duration of the claim. The explanatory text only refers to higher frequency or duration of the claim.	
323.	Institut des actuaires (France)	3.74.	Based upon a study of twenty Swedish companies, the morbidity-disability risk has increased from 35% to 50%. We believe that this study is not convincing enough to justify the shock increase. We propose to keep the shock level at the QIS4 calibration.	See response to comment 274
324.	Just Retirement Limited	3.74.	It is possible for lighter morbidity rates to adversely impact net asset value. A bidirectional morbidity stress should therefore be considered, similar to that which applies for longevity and mortality	Partially agreed. Althogh in some cases a bi-directional morbidity stress may be relevant, for the

			risk. This would reduce the need for small institutions subject to lighter-morbidity risk to develop internal models.	purposes of the standard formula only increased mortality is considered relevant.
325.	Legal & General Group	3.74.	This appears strong relative to our ICA and therefore is stronger than 1:200. We would like to see some justification.	Noted. Please refer to section 3.4 of the CP for justification of the stress. CEIOPS believes the stress is reasonable for a 99.5% confidence event within an SCR context.
326.	Munich RE	3.74.	We do not believe that the new morbidity rates can be calibrated correctly using an investigation by the Swedish FSA only. As neither the morbidity rates were neither tested in a Quantitative Impact Study up to now nor the calibration was verified by other countries, we would suggest to either have the industry review this rate first (e.g. in QIS5) and leave the explicit morbidity rate for the Level 3 advice or provide a disclaimer stating that the morbidity rates will be reviewed after QIS 5 and still can be changed. The introduction of a higher first year stress may require further testing, as we believe that this could lead to a more onerous calculation procedure with relatively little insight. Thus QIS5 should test the impact of this additional feature of the standard formula. Given the different product characteristics CEIOPS should establish different tests for DI and CI. The recognition of risk from variation in termination rates is welcome and essential for proper evaluation of disabled life reserves. However, for active lives it could be consolidated with the inception stress into a single cost of claim stress without loss of materiality and giving simpler computation. A PIM should be available for those where there is material distortion.	See response to comment 274. See response to comment 321

327.	OAC plc	3.74.	See comments on 3.71	See response to comment 304
328.	UNESPA (Association of Spanish insurers)	3.74.	We do not believe that a higher stress in year one is justified. CEIOPS does not give a clear rationale. In the case of critical illness, a 50% stress is extremely conservative.	Noted. See response to comment 312
329.	PricewaterhouseCoopers LLP	3.75.	(Also applies to 3.76-3.88) Many companies outsource part of their operations to a third party for a fixed expense. This provides some mitigation of the risk of unexpected variability in expenses but, at the same time, introduces the risk of a significant increase in expenses should the third party default on the agreement. While it is not realistic to expect the standard formula to be able to accommodate all such individual circumstances, we suggest that the advice includes mention of such arrangements. It may be appropriate to make reference to capital add-ons or partial internal models to address the necessary lack of flexibility in the standard formula.	Agreed. THE CP has been modified to reflect this comment.
330.	CEA, ECO-SLV-09-444	3.80.	In the area of expense risk country specific factors might be useful to reflect market practices.	Disagree. For standard formula purposes, country specific factors are not appropriate.
331.	CRO Forum	3.80.	In this area country specific factors might be useful to reflect market practices.	See response to comment 330.
332.	KPMG ELLP	3.80.	We agree that the expense risk shock should be expressed in two parts – as a percentage increase in future expenses and a change in future inflation levels. However, we believe that an alternative definition of the inflation stress may result in a more robust calibration. In particular, the	Noted. Disagree. This would produce extra complexity to the calibration and use of the

			inflation stress could be defined as a proportional increase in the anticipated expense inflation rate, subject to a minimum absolute increase per annum. We believe that this approach would ensure the inflation stress is appropriate in both high and low inflationary environments and therefore require less frequent recalibration.	standard formula, and is unlikely to have a material impact.
333.	Munich RE	3.80.	In this area country specific factors might be useful to reflect market practices.	See response to comment 330.
334.			Confidential comment deleted	
335.	Groupe Consultatif	3.81.	We support the proposal to remove the prescriptive rules regarding adjustments to policy charges. It is inappropriate that the same rule applies to products where discretionary increases have been applied annually (typically based on an index) and those where the right to increase charges has never been applied. However, given that discretionary increases are often linked to an index, CEIOPS should clarify the extent to which the 1%p.a increase in expense inflation is due to increases in key indices of price and earnings inflation.	Noted. The 1% trend movement is intended as a 'catch all' trend effect, as used in QIS4.
336.			Confidential comment deleted	
337.	Association of British Insurers	3.82.	The expense stress has level and trend components, which were dismissed as too complex for longevity (where the split is arguably more important). It is not clear why the arguments applied to ignore this split for longevity have not also been applied to expenses, where arguably the simplification is more reasonable.	Noted. The application of a 'level and trend' stress is seen to be less onerous for expenses than longevity. As the study in Appendix B notes, CEIOPS do not consider the effect of a duration approach in longevity calibration would be material.
338.	Legal & General Group	3.82.	The expense stress has level and trend components which were dismissed as too complex for longevity (where the split is arguably more important). It is not clear why the arguments applied to	See response to comment 337

			ignore this split for longevity have not also been applied to expenses, where arguably the simplification is more reasonable.	
339.	Association of British Insurers	3.83.	Under the principle of proportionality, the option to model a reduced stress for policies with adjustment loadings should be retained We understand CEIOPS' position and accept that in principle allowance for adjustable loadings should follow the provisions for management actions. However, it is important that the capital requirements allow for expense risk adjustments for policies with adjustable loadings and we have concern that those insurers that are using less sophisticated models may not be able to take these into account. We therefore expect to have the possibility to use these kinds of adjustments in the life module without excessive process requirements and request that the principle of proportionality is applied in this area. Our response is conditional on the final form of advice related to CP32. Indeed, it is worth noting that this discussion on management actions both affects the calculation of the BEL and the SCR and the same approach should apply to both. This arises from the contradictory approach raised in CP54, which as it stands, disallows most management actions for the BEL calculations. Therefore, this contradiction between the two CPs needs to be resolved first.	Not agreed. For the reasons discussed, in paragraph 3.83, as well as those of complexity, CEIOPS does not intend to retain references to policies with reduced loadings in the SCR
340.	CEA, ECO-SLV-09-444	3.83.	Under the principle of proportionality, the option to model a reduced stress for policies with adjustable loadings should be retained. We understand Ceiops' position and accept that in principle allowance for adjustable loadings should follow the provisions for management actions. However, it is important that the capital requirements reflect reduced expense risk for policies with adjustable loadings and we have concern that those insurers that	See response to comment 339

			are using less sophisticated models may not be able to take these into account. We therefore still expect to have the possibility to use these kinds of adjustments in the life module without excessive process requirements and request that the principle of proportionality is applied in this area. We note that our response is conditional on the final form of advice related to CP32.	
341.	Groupe Consultatif	3.83.	This change appears reasonable in principle.	Noted
342.	Legal & General Group	3.83.	Agree	Noted
343.	KPMG ELLP	3.84.	We agree with the general level of the calibration of the expense risk shock.	Noted
344.			Confidential comment deleted	
345.	Association of Friendly Societies	3.86.	We are content with the retention of the QIS 4 stresses on expenses.	Noted
346.	CEA, ECO-SLV-09-444	3.86.	In the area of expense risk country specific factors might be useful to reflect market practices.	See response to comment 330.
347.	Groupe Consultatif	3.86.	In para. 3.86 it is proposed that the stress for expense risk shall be based on an increase of 1% per annum of the expense inflation rate compared to anticipations. Using a constant shift the calibration of the Life expense risk is very rough since it does not adequately reflect different levels of inflation. Though beyond the scope of CP 49, more guidance how to derive the anticipated inflation would help in order to harmonize the calculation of the technical provisions.	Noted

348.	Lucida plc	3.86.	It is not clear why the expense risk stress should be separated into two risks whereas, for both mortality and longevity, it was decided that a one-off shock was "more straightforward to apply" and "more appropriate in the context of the standard formula"	See response to comment 337.
349.	OAC plc	3.86.	We are content with the retention of the QIS 4 stresses on expenses.	Noted
350.			Confidential comment deleted	
351.	RGA UK Services Limited	3.86.	We agree with the proposed approach	Noted
352.	Unum Limited	3.86.	We support the retention of the expense risk stress in QIS4, consisting of a 10% increase in future expenses compared to best-estimate current expectations and expense inflation of 1% greater than best-estimate future expectations.	Noted
353.	CEA, ECO-SLV-09-444	3.87.	We support the retention of the expense risk stress in QIS4, consisting of a 10% increase in future expenses compared to best-estimate current expectations and expense inflation of 1% greater than best-estimate future expectations.	Noted
354.	German Insurance Association – Gesamtverband der D	3.87.	We support the retention of the expense risk stress in QIS4, consisting of a 10% increase in future expenses compared to best-estimate current expectations and expense inflation of 1% greater than best-estimate future expectations.	Noted
355.	Legal & General Group	3.87.	Agree	Noted
356.	Association	3.88.	**[EMPTY]**	

	of British Insurers			
357.	CEA, ECO-SLV-09-444	3.88.	In the area of expense risk, country specific factors might be useful to reflect market practices.	See response to comment 330.
358.	CRO Forum	3.88.	In this area country specific factors might be useful to reflect market practices.	See response to comment 330.
359.	German Insurance Association – Gesamtverband der D	3.88.	In the area of expense risk country specific factors might be useful to reflect market practices.	See response to comment 330.
360.	Legal & General Group	3.88.	It's not clear that it is appropriate to apply these as a combined stress test when these are likely to be uncorrelated risks (mismanagement of expenses vs economic). Again, little justification.	Not agreed. CEIOPS considers that both risks should be treated as a combined stress as performed in QIS4.
361.	Munich RE	3.88.	In this area country specific factors might be useful to reflect market practices.	See response to comment 330
362.	PricewaterhouseCoopers LLP	3.88.	In our response to CP 39, paragraph 3.55, we express the view that the allowance for expenses in the best estimate technical provisions should most appropriately be assessed on a "going concern" basis, with an addition to the SCR to avoid undue strain in the event of closure to new business. We make no suggestion for how this should be done within the standard formula but note that any such allowance should be included within the expense risk sub-module.	Noted.
363.	Unum	3.88.	This seems to be combining two elements, which do not work	See response to comment 360

	Limited		together.	
364.	Association of British Insurers	3.90.	It may not be appropriate to apply these risks in a combined stress test, as these risks are likely to be uncorrelated (e.g. mismanagement of expenses vs. economic conditions).	See response to comment 360
365.			Confidential comment deleted	
366.	Belgian Coordination Group Solvency II (Assuralia/	3.90.	As for the supplementary covers of life insurance contracts (to be treated in the life module), our view is that the annuities arising from non-life claims have to be treated in the non-life module. Of course, the methodology and the calibration of the stresses have to be consistent with those used in the life module.	Noted
367.	CEA, ECO-SLV-09-444	3.90.	Life and non-life risks are mixed, revision risk may already be taken into account for non-life business The risk connected to reopening (or indeed the total difference between reported incurred claims and projected ultimate claims cost) is covered by the IBNR reserve and not the annuity reserve, the IBNR being based on paid to ultimate and/or incurred to ultimate triangles. One therefore cannot use the reopening frequency and severity for annuities as a basis for evaluating the strength of the annuity reserve; the annuity reserve is only meant to cover the structured payments of already settled claims whereas any reopening or re-evaluation of reported claims, as well as unreported claims, is covered already in the IBNR reserve. Therefore we can't see any reason for adding revision risk (i.e. where the amount may be revised during the next year) as this risk is already reflected in the premium and reserve risk. We suggest that the risks from annuities from non-life policies should be covered in the non-life reserve risk component.	As noted in 105 3e) of the level 1 directive, CEIOPS considers revision risk an appropriate addition to the life underriting module.
368.	CRO Forum	3.90.	There is a danger that life and non-life risks are mixed. We suggest to evaluate the risks from annuities from non-life policies in the	Not agreed. It should be relatively straightforward to take

			non-life reserve risk component to avoid double counting.	account of revision risk in the life module separately from the non-life module.
369.	Munich RE	3.90.	There is a danger that life and non-life risks are mixed. We suggest to evaluate the risks from annuities from non-life policies in the non-life reserve risk component to avoid double counting.	See response to comment 368
370.	CRO Forum	3.99.	There is a danger that life and non-life risks are mixed. We suggest to evaluate the risks from annuities from non-life policies in the non-life reserve risk component to avoid double counting.	See response to comment 368
371.	Munich RE	3.99.	There is a danger that life and non-life risks are mixed. We suggest to evaluate the risks from annuities from non-life policies in the non-life reserve risk component to avoid double counting.	See response to comment 368
372.	Groupe Consultatif	3.101.	Lapse risk Some general remarks: Lapse risk is modelled in a much more complex way than for example longevity risk. The way it is set up looks a bit out of balance. Requests for inclusion in life provisions of cash flows associated with expected future renewal behaviour probably dictated a more sophisticated a stringent approach to the lapse risk component of SCR. In lapse risk we should be careful to calibrate the model based on only a few countries. Behaviour of lapse risk can be completely different in the several jurisdictions, for example because of tax laws.	Noted
373.	KPMG ELLP	3.101.	We agree that a scenario approach where a specific change relating to a certain risk takes place while all parameters relating to other risks remain unchanged may lead to unrealistic results that do not reflect the risk insurers are exposed to in some cases. We agree	Noted

			that the three examples presented are examples of situations where this occurs.	
374.			Confidential comment deleted	
375.	Belgian Coordination Group Solvency II (Assuralia/	3.103.	Regarding the mass lapse event, our view is as follows: the inclusion in the market risk module of the policyholder's behaviour (including possible massive lapses in extreme conditions) is appropriate. Therefore including another mass lapse in the life underwriting module could be considered as double counting.	Disagree. CEIOPS believes that lapse risk is an important insurance risk, and notes that it is not only precipitated by market stress. Moreover, it can be considered an extreme or irregular event (see cat risk, which actually only includes mortality in the calibration) and should therefore be included in the life underwriting module.
376.	Institut des actuaires (France)	3.103.	**[EMPTY]**	
377.	CRO Forum	3.104.	On the treatment of lapse risk in other scenario calculations, the CP appears to be implying that option take-up rates are not being taken into account in other scenarios, such as interest rate risk. We think this broad assumption could lead to double counting of risks. We would like to emphasize that in advanced models the calculation of technical provisions that certain policyholder behaviour is already taken into account. This is especially the case for inherent financial options and guarantees in order for the technical provisions to have the correct market consistent value of TVFOG. Also, TS.II.D.11 to TS.II.D.15 of QIS4 proposed the inclusion of policyholder behaviour in the technical provisions.	Noted. CEIOPS notes that CP49 is limited to life underwriting risk within the standard formula, the concerns raised may be dealt with better by a (partial) internal model.

			Therefore, if the behaviour rules and option-take up rates are dynamically taken into account in the calculation of technical provisions, when a (re)insurer performs each shock scenario to calculate the sub-module SCR's, the impact would already be taken into account. Therefore, there must be a clear distinction between what is included in the valuation model (where options would be dynamically included in the other SCR shocks/scenario calculations) and the specifically what option take-ups are included in the lapse shock. We use the examples to explain in 3.102 and 3.105. Only in case a standard model is based on less sophisticated models, option take-up rates should be considered, but not only in relation to lapses, but also reinvestments, guarantee setting etc.	
378.	DIMA	3.105.	The points raised are very relevant, but not with respect to lapse risk. Surely this is just a policy feature which has significant value under certain circumstances, and should be valued accordingly.	Disagree. CEIOPS believes that the method discussed in CP49 best reflects the risks arisen from policyholder lapses.
379.	CRO Forum	3.106.	Example 1: Lapse triggered by reduction in bonus rates. If a (re)insurer's model used to calculate the technical provisions already includes a dynamic lapse assumption based on financial conditions, then when bonus rates are changed because of a financial shock the dynamic lapse assumption in the model will already adjust the results. In this case, the lapse risk would already be taken into account and is in effect market risk, since the market risk event is causing the loss via and effect on lapse rates.	Noted. The scenarios were given for illustrative purposes only.
380.	DIMA	3.106.	The points raised are very relevant, but not with respect to lapse risk. Surely this is just a policy feature which has significant value under certain circumstances, and should be valued accordingly.	See response to comment 378
381.	Association of Friendly Societies	3.107.	We consider that this scenario is a completely unrealistic flight of fancy which has no credibility in the real world. While clearly economic circumstances may influence lapse rates we believe that	Noted. The scenarios were given for illustrative purposes only. CEIOPS believes that the method

			this is adequately covered by the normal stress assumption.	discussed in CP49 best reflects the risks arisen from policyholder lapses
382.	DIMA	3.107.	The points raised are very relevant, but not with respect to lapse risk. Surely this is just a policy feature which has significant value under certain circumstances, and should be valued accordingly.	See response to comment 378
383.	OAC plc	3.107.	We consider that this scenario is a completely unrealistic flight of fancy which has no credibility in the real world. While clearly economic circumstances may influence lapse rates we believe that this is adequately covered by the normal stress assumption.	See response to comment 381
384.	Association of Friendly Societies	3.108.	We do not consider it necessary to make allowance for the risk, other than the normal stress since any attempt to do so makes the calculation unnecessarily complicated, and the differences are unlikely to be material. For any firm where this is a material risk the actuary should make an appropriate allowance as part of the normal prudent reserving process.	See response to comment 375
385.	Just Retirement Limited	3.108.	The discussion of the inter-relationships between different risk factors is very useful and highlights that a correlation matrix is inadequate to capture all the inter-dependencies, although in the context of the standard formula this simplification is necessary. See also 3.119.	Noted
386.	OAC plc	3.108.	We do not consider it necessary to make allowance for the risk, other than the normal stress since any attempt to do so makes the calculation unnecessarily complicated, and the differences are unlikely to be material. For any firm where this is a material risk the actuary should make an appropriate allowance as part of the normal prudent reserving process.	See response to comment 375
387.	CRO Forum	3.109.	Example 2: Lump-sum option triggered by the increase in interest rates. This is what most (re)insurers would term a Guaranteed	See response to comment 375, and note that the examples were

			Annuity Option, where depending on the financial conditions at maturity, a policyholder would elect a guaranteed annuity or take a lump sum. This option, being a financial option would already be taken into account in the (re)insurers valuation model for technical provisions. When testing a scenario – e.g. interest rate shocks – the valuation model will already revalue this option. If (re)insurers assume 100% rationality (which is a quite conservative assumption) then the maximum risk would already be taken into account automatically when the shock/scenario is applied in the valuation model.	provided for illustrative purposes only.
388.	Lucida plc	3.109.	We strongly disagree with this statement. Where deferred annuities are in respect of pension buy-out arrangements the take-up rate for lump sums is high and there is no compelling evidence that lump sum take-up rates are materially affected by the levels of interest rates. This is consistent with behavioural psychology studies and the tax advantages in the UK of lump sum pension benefits.	Note that the examples were provided for illustrative purposes only, and were not intended to be country specific.
389.	Association of Friendly Societies	3.111.	Most well-run firms will already allow for this in the calculation of the reserves.	Noted. See response to comment 375.
390.	OAC plc	3.111.	Most well-run firms will already allow for this in the calculation of the reserves.	See response to comment 389
391.	KPMG ELLP	3.112.	We do not agree that the standard SCR formula does not take into account the risk of a policyholder run created by market, credit or operational risk. The mass lapse event stress must be as a result of some change that could include market, credit or operational risk. However, we agree that the nature of these second order lapse impacts resulting from market, credit or operational risks may not be adequately captured by the currently defined mass lapse stress.	Noted.

			It should be noted that it is difficult to say that there may be insufficient allowance for lapse risk in the SCR standard formula as the mass lapse event stress is calibrated roughly as there is little empirical evidence to support a more accurate calibration.	
392.	Association of Friendly Societies	3.113.	We consider that this effect is marginal and will again add an unnecessary level of complexity to the calculation.	Disagree. See response to comment 375
393.	CRO Forum	3.113.	The listed examples are in our view demonstrating that European (re-)insurance companies were not or only marginally affected by the listed events. Thus the argument could be made that no further increases are necessary due to these events.	See response to comment 387
394.	OAC plc	3.113.	We consider that this effect is marginal and will again add an unnecessary level of complexity to the calculation.	See response to comment 392
395.	CRO Forum	3.114.	We agree that the case of adjustable premiums is an important issue. However, it is expected that according to general principles where management actions need to be take into account, management would only effect premium increases and decreases which have a preferred outcome on profits therefore having the effect of dampening any extreme additional impacts on lapses. For example, management would not increase premiums by 10% in an extreme scenario if it was going to cause lapses of 20%, but may instead increase premiums by a much smaller amount. So the question here is not the stress for lapses, but how premium increases/decreases dynamic has been included in the (re)insurer valuation model.	Noted
396.	FFSA	3.114.	FFSA believes that it's a good idea to distinguish two elements for the lapse risk, one for the misestimating of current lapse rates to capture parameter uncertainty and model uncertainty and another for the dynamic policyholder behaviour due to market change. The	Noted. CEIOPS believes that the second element is best captured as an insurance risk, as discussed in the response to 375.

			question is whether the second element should be part of the market risk module because the adverse scenario is a consequence of market risk. If this approach is adopted, we need to make sure that the stress test (a relative permanent increase or decrease of lapse rates) capture only the misestimation, otherwise we are going to double count. The 50% is quite conservative and was calibrated on data that didn't differentiate between the lapses due to market conditions and otherwise. Additionally, there is no reference made to the explicit separation of lapse risk due to misestimation and the risk related to market movements in the official advice. It was, however, discussed in the explanatory text. This point should be treated in the official advice.	Disagree. For brevity, this is left out of the official advice. As mentioned, it is explicitly discussed in the text.
397.	KPMG ELLP	3.114.	We do not agree that the examples demonstrate that the QIS4 approach to lapse risk does not take into account that the take-up option by the policyholder may be triggered by other risks. The examples only show that there are cases where there is a second order lapse effect. Despite the low dependency between lapse risk and the other risks it is not clear the extent to which QIS4 reflects a 99.5 percent confidence interval for lapse risk due to the inclusion of the mass lapse stress.	Noted
398.	ROAM	3.114.	ROAM believes that it is a good idea to distinguish two elements for the lapse risk, one for the misestimating of current lapse rates to capture parameter uncertainty and model uncertainty and another for the dynamic policyholder behaviour due to market change. The question is whether the second element should be part of the market risk module because the adverse scenario is a consequence of market risk. If this approach is adopted, we need to make sure that the stress test (a relative permanent increase or decrease of lapse rates)	See response to comment 396

			capture only the misestimation, otherwise we are going to double count. The 50% is quite conservative and was calibrated on data that didn't differentiate between the lapses due to market conditions and otherwise. Additionally, there is no reference made to the explicit separation of lapse risk due to misestimation and the risk related to market movements in the official advice. It was, however, discussed in the explanatory text. This point should be treated in the official advice.	
399.			Confidential comment deleted	
400.	KPMG ELLP	3.115.	We agree that due to the structure of the SCR calculation it would be inappropriate to change the correlation between the underwriting and market risk modules to better allow for the second order lapse impacts as it would lead to an unjustified increase in dependency between other risks.	Noted
401.	Association of Friendly Societies	3.116.	We accept that there is some risk here, however many countries offer a form of statutory protection for policyholders and where this is the case policyholders are more likely to remain under the umbrella of statutory protection than lapse their policies.	Disagree. CEIOPS believes that in order to achieve a harmonised approach, a pan-European scenario is appropriate.
402.			Confidential comment deleted	
403.	CRO Forum	3.116.	We do not agree for insurance portfolios. It is stated that the opinion of stakeholders is "the main risk in life insurance is not take into account in the standard formula". This seems contrary to results presented by CEIOPS in their report on QIS4 and in the CROF QIS4 benchmarking study where lapse risk was the largest risk on average in the life underwriting risk SCR in many member states.	Noted. The paragraph refers specifically to full policyholder runs.
404.	Deloitte	3.116.	We welcome the relaxation of the scenario definition as an increase in the accuracy of the standard model. We would however prefer CEIOPS to provide guidance on the policyholder behaviour in	Noted.

			relation to certain events, to ensure the comparability of the standard formula.	
405.	Groupe Consultatif	3.116.	This proposal seems reasonable and practical.	Noted
406.	KPMG ELLP	3.116.	We agree that an alternative approach may be to relax the scenario definition applied to the SCR calculations and instead also allow for adverse changes in option take-up rates. We have the following comments on this suggestion: We do not believe that this approach can be taken in conjunction with a crudely calibrated mass lapse stress which serves as a 'catch-all' component. This is because the mass lapse can only occur as a result of an event which includes market, credit or operational events (3.139 cites some of these reasons for the mass lapse event stress). The mass lapse stress would need to be carefully calibrated to exclude the impact on lapses as a result of events that are allowed for in the SCR scenarios. However, due to the lack of empirical evidence to calibrate the mass lapse stress we do not believe this is possible. This suggestion will result in the lapse risk capital charge being included in a number of different components of the SCR. As a result it will be unclear how much of the capital required is for lapse risk and hence may make interpretation of the results difficult. We would like to see additional disclosure of the financial impact that the change in option take-up rates has had on the individual capital requirements. We do not agree that only adverse impacts from changes in option take-up rates should be allowed for in the scenario SCR calculations. We think this adds a layer of prudence to the capital charges resulting in a stronger than 1 in 200 stress.	Noted. CEIOPS believes it is important to include lapse risk within this module for the reasons discussed in the comment to response 375.

			Also applies to 3.156	
407.	OAC plc	3.116.	We accept that there is some risk here, however many countries offer a form of statutory protection for policyholders and where this is the case policyholders are more likely to remain under the umbrella of statutory protection than lapse their policies.	Noted. CEIOPS feels the method is appropriate for pan European SCR legislation.
408.	Uniqa	3.116.	We fully agree to the proposed methodology and, as also mentioned in 3.117, it is a common way to allow for dynamic policyholder behaviour in order to determine the value of options and guarantees.	Noted
409.	KPMG ELLP	3.117.	We accept that the same option take-up assumptions from the cost of options and guarantees calculation can be used. However we note that this appears to move away from the otherwise parameterised nature of the SCR standard formula.	Noted
410.	Uniqa	3.117.	In the case that option and guarantees are not valued directly but by a simplified approach, we believe it can be difficult to define a satisfying methodology that allows for the impact of option take-up behaviour. Therefore we would appreciate getting further guidance on this issue.	Noted
411.	Association of British Insurers	3.118.	We agree that the revaluation of technical provisions should allow for any relevant changes in policyholder option take-up behaviour. However, there are two risks that need to be addressed: Double-counting of lapse risk The Solvency II framework deals with the issue of dependencies between risks by means of the correlation matrix and therefore the proposed dependency between lapse risk and each market risk stress is not consistent and will result in double counting with the Life lapse risk module. We recommend making sure that the stress test (a relative permanent increase or decrease of lapse rates)	The assumptions behind the calibration are documentd in section 3.7, calibration section. CEIOPS considers that this produces a reasonable account of the rationale. CEIOPS notes the point regarding double counting with market risk, but feels that the calibration given produces a reasonable 99.5% stress.

			captures only the misestimation, otherwise there is a risk of double counting. The 50% is already quite conservative and was calibrated on data that didn't differentiate between the lapses due to market conditions and otherwise. Furthermore, we believe that there will be significant double counting when also combined with the mass lapse capital requirements. Excessive administrative burdens Furthermore, this additional requirement to include policyholder behaviour will increase the administrative burdens for insurers and is likely to be especially difficult for SME's. The application of the principle of proportionality would be very important. Additionally, there is no reference made to the explicit separation of lapse risk due to misestimation and the risk related to market movements in the official advice. It was, however, discussed in the explanatory text. This point should be treated in the official advice.	Agreed. Proportionality is a consideration and CEIOPS' covering letter contains a brief discussion of this propotionality.
412.	Association of Friendly Societies	3.118.	We do not agree that the QIS4 approach was likely to lead to a significant underestimation.	Noted
413.			Confidential comment deleted	
414.	CEA, ECO-SLV-09-444	3.118.	When requiring the revaluation of technical provisions to allow for any relevant changes in policyholder option take-up behaviour, there are two risks that need to be addressed: Double-counting of lapse risk The Solvency II framework deals with the issue of dependencies between risks by means of the correlation matrix and therefore the proposed dependency between lapse risk and each market risk stress is not consistent and will result in double counting with the	See response to comment 411

			Life lapse risk module. We recommend making sure that the stress test (a relative permanent increase or decrease of lapse rates) capture only the misestimation of lapse assumptions, otherwise there is a risk of double counting. The 50% is already quite conservative and was calibrated looking at data that didn't differentiate between the lapses due to market conditions and otherwise. Furthermore, we believe that there will be significant double counting when also combined with the mass lapse capital requirements. Excessive administrative burdens This additional requirement to include policyholder behaviour will increase the administrative burdens for insurers and is likely to be especially difficult for SME's. The application of the principle of proportionality would be very important. Additionally, there is no reference made to the explicit separation of lapse risk due to misestimation of lapse assumptions and the risk related to market movements in the official advice. It was, however, discussed in the explanatory text. This point should be treated in the official advice.	
415.	CRO Forum	3.118.	We are in favour to distinguish two elements for the lapse risk, one for the misestimating of current lapse rates to capture parameter uncertainty and model uncertainty; and another for the dynamic policyholder behaviour due to market change. The question is whether the second element should be part of the market risk module because the adverse scenario is a consequence of market risk. In fact, in this feature, we need to make sure that the stress test (a relative permanent increase or decrease of lapse rates) capture only the mis-estimation, otherwise we are going to double count.	Noted. See reponse to comment
416.	Lucida plc	3.118.	There is a great deal of evidence to suggest that lapse risk is	See response to comment 411

			approximately independent from other risks. Hypothetical postulation to the contrary is unhelpful if not backed up by any historical or scientific evidence. Assuming dependence when there is none will lead to a significant overestimation of the 99.5% confidence level of the SCR	
417.	OAC plc	3.118.	We do not agree that the QIS4 approach was likely to lead to a significant underestimation.	Noted
418.	UNESPA (Association of Spanish insurers)	3.118.	We agree in general that the revaluation of technical provisions should allow for any relevant changes in policyholder option take-up behaviour. However, there are two risks that need to be addressed: Double-counting of lapse risk The Solvency II framework deals with the issue of dependencies between risks by means of the correlation matrix and therefore the proposed dependency between lapse risk and each market risk stress is not consistent and will result in double counting with the Life lapse risk module. We recommend making sure that the stress test (a relative permanent increase or decrease of lapse rates) capture only the misestimation, otherwise there is a risk of double counting. The 50% is already quite conservative and was calibrated on data that didn't differentiate between the lapses due to market conditions and otherwise. Furthermore, we believe that there will be significant double counting when also combined with the mass lapse capital requirements. Excessive administrative burdens Furthermore, this additional requirement to include policyholder behaviour will increase the administrative burdens for insurers and is likely to be especially difficult for SME's.	See response to comment 411

			The application of the principle of proportionality would be very important. Additionally, there is no reference made to the explicit separation of lapse risk due to misestimation and the risk related to market movements in the official advice. It was, however, discussed in the explanatory text. This point should be treated in the official advice.	
419.	CRO Forum	3.119.	We agree that simply increasing the correlations will have the nonsensical effect of increasing the dependency between other risks. It is also important to note that it will also have the effect of increasing lapse risk across all products even if those products are not sensitive to the particular shock.	Noted
420.	Just Retirement Limited	3.119.	We agree that correlation factors are not well suited to capturing the inter-dependencies between lapse risk and other risks. More sophisticated approaches such as multiple-risk stochastic models are preferable, although these are clearly inappropriate in the context of the standard model.	Noted
421.	Association of British Insurers	3.120.	We agree in principle with the proposed methodology, as it is common to allow for dynamic policyholder behaviour in order to determine the value of options and guarantees. See also comments to 3.118.	Noted
422.	CEA, ECO-SLV-09-444	3.120.	Please see also our comments to Para 3.118.	See response to comment 414
423.	CEA, ECO-SLV-09-444	3.121.	Proportionality will be an essential consideration for taking changes of policyholder behaviour into account. In the case that options and guarantees are not valued directly but by a simplified approach, we believe that it can be difficult to define a satisfying methodology that allows for the impact of changes of	See response to comment 411 Noted

			option take-up behaviour. Therefore we request that Ceiops explicitly considers simplifications for this requirement.	
424.	Lucida plc	3.121.	We feel that market-specific actuarial guidance should have due regard to historical and scientific evidence.	Noted
425.	UNESPA (Association of Spanish insurers)	3.121.	Proportionality will be an essential consideration for taking changes of policyholder behaviour into account In the case that options and guarantees are not valued directly but by a simplified approach, we believe that it can be difficult to define a satisfying methodology that allows for the impact of option take-up behaviour. Therefore we would appreciate getting further guidance on this issue.	See response to comment 423
426.	CRO Forum	3.122.	The term 'option take-up rates' is used in 3.129 to refer to the entire scope of the lapse sub-risk module , that is to include options to fully or partially encash, cease premiums etc. This appears to contradict 3.117/3.118 which includes only relevant options and guarantees. We would be supportive of the proportionate approach in 3.117/3.118 where it is only take-up rates of guarantees which are changed in stress.	Noted
427.	Investment & Life Assurance Group (ILAG)	3.122.	The concept that any change in lapse rates (or rates of take-up of any policyholder action) can be broken down into a component that is "organic" and a component that is in response to changes in other economic or demographic variables will greatly increase the complexity of setting assumptions for the rates of take-up of each policyholder action. For example, if using historical data to derive an assumption for lapse rates to be used in the SCR lapse risk module, it will be necessary to strip out the effects that changes in other demographic or economic circumstances brought to bear on lapse	Noted. See response to comment 378

			rates over the period for which you are analysing the data. We are doubtful that the effects of the "non-organic" components of changes in lapse rates could be stripped out in a credible manner, and thus the "organic" component of the lapse rate cannot be properly assessed.	
428.	KPMG ELLP	3.122.	The key point here is that the mass lapse event needs to be carefully calibrated to ensure that it does not double-count risks that are now allowed for in the SCR scenarios. We do not believe this can be done with great certainty given the poor level of data available to calibrate the mass lapse stress. Also applies to 3.140	Noted. Please see response to 411
429.			Confidential comment deleted	
430.	Association of British Insurers	3.124.	In the case where policyholders are not believed to act 100% rationally in response to a change in the current market conditions or where the effect is not material, the insurer should not be required to take account of "lapse category B" in the different sub-module SCR calculations.	Disagree. CEIOPS believes that the proposed approach is a reasonable for an SCR submission.
431.	CEA, ECO-SLV-09-444	3.124.	Proportionality will be an essential consideration for taking changes of policyholder behaviour into account. In the case where there is no sufficient evidence to suggest that policyholders will react in response to a change in the current market conditions or in the case that the effect is not expected to be material, the insurer should not be required to take account of "lapse category B" in the different sub-module SCR calculations.	Agreed. See response to 423 See response to 430
432.	CRO Forum	3.124.	Division into lapse A (misestimate of current lapse risk) and lapse category B (change of lapse because of current market situation): We do not believe that policyholders act 100% rational to the financial markets. There also exist studies that state that especially lapse is mainly dependent on the personal situation of each	See response to 430

			policyholder and does not change materially with changing financial markets. So in the case where the policyholder is not believed to act because of a change in the current market situation or where the effect is not material, one should not take account of the lapse category B in the different sub-module SCR calculations.	
433.	Munich RE	3.124.	Division into lapse A (misestimate of current lapse risk) and lapse category B (change of lapse because of current market situation): We do not believe that policyholders act 100% rational to the financial markets. There also exist studies that state that especially lapse is mainly dependent on the personal situation of each policyholder and does not change materially with changing financial markets. So in the case where the policyholder is not believed to act because of a change in the current market situation or where the effect is not material, one should not take account of the lapse category B in the different sub-module SCR calculations.	See response to 432
434.			Confidential comment deleted	
435.			Confidential comment deleted	
436.			Confidential comment deleted	
437.			Confidential comment deleted	
438.	CEA, ECO-SLV-09-444	3.128.	We agree with the need for clarification in the Level 2 as to the scope of the lapse risk module.	Noted
439.	KPMG ELLP	3.128.	We agree that the wide definition of lapses is preferable. We believe it is consistent with the contemporary understanding of the term 'lapses'.	Noted
440.	UNESPA (Association of Spanish	3.128.	We agree with the need for clarification in the Level 2 as to the scope of the lapse risk module.	Noted

	insurers)			
441.	DIMA	3.129.	It is very sensible to restrict the lapse shock to those policies that generate a cost.	Noted
442.	Groupe Consultatif	3.129.	We support the inclusion of stresses to the take up rate of options within the lapse rate stress. This is an important risk for UK companies with Guaranteed Annuity Options. In QIS 4 they were only required to be stressed to the extent that the mortality and interest rate stresses were expected to affect the take up rate. In practice they can also vary due to factors not related to the risks in the QIS 4 model.	Noted
443.			Confidential comment deleted	
444.	FFSA	3.130.	FFSA believes that it would likely be very difficult to meet the requirements of a broader scope	Noted
445.	ROAM	3.130.	ROAM believes that it would likely be very difficult to meet the requirements of a broader scope	See response to 444
446.	CRO Forum	3.133.	Under this approach there needs to be specification of which options to be taken up are included in the scope and how they should be treated, and avoid double counting with dynamic rules already in the valuation model. We believe that this exercise will be cumbersome to perform and difficult to ensure consistency across companies and countries. Also, there would be dubious accuracy in setting up all these definitions given the lack of sufficient empirical evidence used to come up with the calibration of the shock. Therefore, we propose that the standard approach limit the lapse risks to full and partial surrender rates, as well as premium discontinuance rates (e.g. paid-up rates).	Disagree. CEIOPS believes that it is material to capture all possible lapse events. The 'surrender strain' definition performs this.
447.	FFSA	3.133.	FFSA believes that the calibration should be reviewed	See response to 411
448.	Legal &	3.133.	"all policies with a positive surrender strain" should be clarified to	CEIOPS believes that the

	General Group		say this is at the valuation date. Limiting the shock to just those policies with positive surrender strains seems inappropriate. There is nothing in past policyholder behaviour to suggest that this is the case. In a mass lapse scenario (intended to prevent a "run"), it is much less likely that policyholders will select against the company (even if they had the knowledge to do so).	treatment produces appropriate values for the 99.5% confidence level.
449.			Confidential comment deleted	
450.	ROAM	3.133.	ROAM believes that the calibration should be reviewed	
451.	CEA, ECO-SLV-09-444	3.134.	It may be very difficult to meet the requirements of a broader scope.	Noted
452.	CRO Forum	3.134.	This definition of surrender strain appears too conservative; it does not take into account the release of risk margins after a surrender. The surrender strain should be the difference between the amount payable upon surrender and the total provisions currently held, both best estimate provisions and risk margins. The surrender strain should also be based on the surrender value which would be payable should the modelled proportion lapse, which is not necessarily the same as the current surrender value.	See response to comment 443
453.	Just Retirement Limited	3.134.	Surrender strain applies to the liability side of the balance sheet. There is an economically similar situation on the asset side of the balance sheet where certain financial instruments have an value which reduces based on lapsation of underlying policyholders. The wording could be made more general to cover this case.	For such complex assets, CEIOPS considers that a (partial) internal model may be necessary and appropriate.
454.	Lucida plc	3.136.	The QIS4 approach is clearly flawed and encourages institutions to enter into offsetting lapse risks for no additional capital. For example an institution exposed solely to a significant amount of	Disagree. CEIOPS believes that the method discussed in CP49 best reflects the risks arisen from

			downwards lapse risk could take on a significant amount of upwards lapse risk without needing to hold any more capital. It is not implausible to suggest that lapse risk could be packaged and sold on to take advantage of this regulatory-arbitrage opportunity. To take only the maximum of two completely different risks is at odds with the approach taken in other areas of the standard formula. It would be much more appropriate (and no more complicated) to assume that the two risks were independent and apply a sum-squares approach to their aggregation. This comment also applies to 3.163	policyholder lapses.
455.	CEA, ECO-SLV-09-444	3.138.	Lapse behaviour is very country specific and product specific – we suggest separate parameterisations by member state and by product type. We believe that the calibration of the lapse shock with the 2003 UK study is not representative for other countries (lapse behaviour is very different across different countries). Furthermore, product specifics are not reflected in the study. We would expect, for example, with-profit and non-profit policyholders may behave quite differently.	Disagree. CEIOPS considers this inappropriate in the case of pan-European harmonisation of the SCR. Whilst the UK study adds further evidence in the CEIOPS calibration it was not the only contributory factor to the choice.
456.	CRO Forum	3.138.	We believe that the calibration of the lapse shock with the 2003 UK study may not be representative for other countries (lapse behaviour is very different throughout different countries, mostly as a result of different product designs). If policyholder changes their lapse behaviour throughout a financial crisis, than this calibration of risk factors does not only take into account lapse category A but also lapse category B, especially as the study took place during a financial market turmoil in 2003. As we understand 3.122 this risk factor should only take into account lapse of the category A and residual type B lapse risk. As a consequence the factors appear too	Whilst the UK/Poland study adds further evidence in the CEIOPS calibration it was not the only contributory factor to the choice.

			high and potentially cause double-counting of the risk if calculating the policyholder's change in behaviour in all the other risk categories. Also the mass lapse event would be calculating a lapse scenario of the category B and thus potentially lead to double-counting. Product specifics currently cannot be reflected (e.g. W/P and Non-Profit policies may behave differently)	
457.	Deloitte	3.138.	We notice an asymmetry in the restriction of the shocked lapse rate. An upward shock cannot exceed a level of 100%, which of course makes sense. A downward shock however, cannot exceed a reduction of 20% of the unshocked lapse rates. We at present do not see why a larger downward shock would be inappropriate and would like CEIOPS to provide a justification.	See response to comment 448
458.	DIMA	3.138.	What justification is there for the -20% floor on the Lapseshock (down) rate? It appears arbitrary and unnecessary.	See response to comment 457
459.	FFSA	3.138.	FFSA believes that the calibration should be reviewed	See response to comment 411
460.	Munich RE	3.138.	We believe that the calibration of the lapse shock with the 2003 UK study may not be representative for other countries (lapse behaviour is very different throughout different countries, mostly as a result of different product designs). If policyholder changes their lapse behaviour throughout a financial crisis, than this calibration of risk factors does not only take into account lapse category A but also lapse category B, especially as the study took place during a financial market turmoil in 2003. As we understand 3.122 this risk factor should only take into account lapse of the category A and residual type B lapse risk. As a consequence the factors appear too high and potentially cause double-counting of the risk if calculating the policyholder's change in behaviour in all the other risk categories. Also the mass lapse event would be calculating a lapse scenario of the category B and thus potentially lead to double-	See response to comment 456

			counting. Product specifics currently cannot be reflected (e.g. W/P and Non-Profit policies may behave differently)	
461.	ROAM	3.138.	ROAM believes that the calibration should be reviewed	See response to comment 459
462.			Confidential comment deleted	
463.	CEA, ECO-SLV-09-444	3.140.	Our understanding is that the experience of Polish life insurance business is very different compared to other countries. No conclusion relative to the experience in other countries can be drawn.	See response to comment 456
464.	Deloitte	3.140.	In 3.140, CEIOPS rightfully notes that the calibration of the mass lapse should account for the newly proposed scenario definition as stipulated in 3.116 (inclusion of effects due to lapse in other stress scenario's, such as interest rate risk, etc.). However, maintaining the mass lapse calibration of QIS 4 (3.143), CEIOPS seems in contradiction with paragraph 3.140.	CEIOPS does not believe the CP is unclear in its definitions.
465.	Legal & General Group	3.141.	The text admits that the shock may produce "excessive results", but no effort has been made to adjust for this. This is inappropriate and over prudent.	See response to comment 448
466.	CRO Forum	3.142.	The down scenario lapse rates should have a lower limit of 0%.	Agreed. See revised text.
467.	Munich RE	3.142.	The down scenario lapse rates should have a lower limit of 0%.	See response to 466
468.	Belgian Coordination Group Solvency II (Assuralia/	3.143.	Independently of the comment of 3.103, we are in favour of a further product differentiation for the mass lapse risk if maintained. The reason for this is that the currently proposed shock appears to be excessive for some product ranges, for example individual life policies with tax incentives, group business, etc. Other product classes, such as financial contracts are more susceptible to mass lapses and a differentiation seems in order.	CEIOPS considers that the data required to make such a differentiation is not substantial enough to allow calibration.

469.	CEA, ECO-SLV-09-444	3.145.	The Northern Rock example of mass lapse risk adds nothing to the analysis. Insurance is different from banking and is expected to have different lapse experience.	The example is included purely for the purpose of illustration.
470.	DIMA	3.145.	Please clarify the position for reinsurance companies (of retail business). Is that retail or non-retail?	CEIOPS believes this should be clarified in the legal articles quoted in the footnote to this paragraph.
471.			Confidential comment deleted	
472.			Confidential comment deleted	
473.	DIMA	3.146.	No justification provided, but 70% lapse rate seems very high.	Noted
474.			Confidential comment deleted	
475.	Unum Limited	3.146.	The proposed 70% mass lapse stress for non-retail business is too high The feedback in QIS4 was that, if anything, the 30% stress was too high and the introduction of a 70% stress for non-retail business whilst maintaining a 30% stress for retail business is inconsistent with this feedback. The introduction of the 70% mass lapse stress for non-retail business seems particularly excessive, and although the risk of mass lapse on these products may be higher, no justification has been provided for the 70% stress parameter. The existence of positive surrender strains will not necessary mean that the policyholder is more likely to lapse or surrender. Even in the case of positive surrender strains, there can be other aspects that prevent the policyholder from lapsing or surrendering, for example in the Spanish market, most life non-retail business corresponds to the externalisation of pensions commitments	Noted. See responses to comment 411 and comment 472

			required by the local labour law. Furthermore, non-retail business is linked to market courses and rational lapse risk is implicitly captured in the market risk module. (Management actions should also be taken into account here). This advice needs clarification This commences with "For non retail business…", however, the discussion in Para 3.145 refers to "institutional investors" (e.g. investments by pension fund trustees). Non retail would capture a wider range of business which has not been examined.	
476.	Association of British Insurers	3.147.	The previous feedback was that a 30% lapse rate was excessive. The proposed calibration should apply to all policies and not just those with positive surrender strains.	Noted. CEIOPS believes that 30% is a reasonable figure at a 99.5% confidence level. CEIOPS believes that treating just policies with positive strains backs up this value as appropriate.
477.	CEA, ECO-SLV-09-444	3.147.	There is not sufficient justification to maintain the 30% mass lapse calibration. Even though it's outlined that the calibration of the mass lapse event is poor, the CP maintain the 30% calibration rate. We request justification as to whether it's appropriate to maintain the mass lapse in the context of such an arbitrary calibration.	CEIOPS believes it is important to consider the mass lapse stress, see response to comment 375
478.	Legal & General Group	3.147.	Limiting the shock to just those policies with positive surrender strains seems inappropriate. There is nothing in past policyholder behaviour to suggest that this is the case. In a mass lapse scenario (intended to prevent a "run"), it is much less likely that policyholders will select against the company (even if they had the knowledge to do so).	See response to comment 448

479.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	3.148.	We believe that a simple scenario is the best. We are aware that some products are less sensible to lapses for fiscal reasons for instance. However, there is no protection for ever. Changes in law can still happen modifying completely the environment. However, there are some products for which lapses are impossible. They should be kept separated.	Noted
480.			Confidential comment deleted	
481.	Groupe Consultatif	3.148.	a) Question 2: We cannot see why a mass lapse event as described in para. 3.139 which is triggered by, say, the deterioration of the financial position of the undertaking, could reasonably be isolated to products with certain characteristics since the triggering event possibly affects all policyholders.	Noted
482.	KPMG ELLP	3.148.	a. As this is the definition of the standard formula we believe that the balance should err on the side of simplicity, where companies that require a more complex allowance for lapse risk can adopt an internal model approach. However, with simplicity in mind, we believe there is scope to increase the complexity of the structure of the mass lapse event stress by possibly differentiating the stress calibration by product.	Noted. See response to comment 468
483.	Legal & General Group	3.148.	This text says that product characteristics should have an impact on mass lapse stress, which we strongly agree with. For example we would expect mass lapse to be significantly lower for protection than for a saving contract. However, no account of this has been taken in the calibration proposed in 3.167B.	See response to comment 482
484.			Confidential comment deleted	
485.	RGA UK	3.148.	The CP sets out the difficulties around calibrating a sound stress	Not agreed. CEIOPS believes this

	Services Limited		test for this risk. In response to the specific questions set out in paragraph 3.148 we suggest that for the purposes of the standard formula it may be inappropriate to design a sophisticated system to cater for all the types of business that exist across the Member States. Our suggestion is to retain a reasonably straightforward approach, such as that in paragraph 3.152 and to rely on the supervisors review of the insurer's Own Risk and Solvency Assessment work to determine whether to require the insurer to adopt some form of partial internal model, or to hold a capital add-on to the results of the standard formula, because of the specific nature of its business and hence exposure to changes in lapse patterns.	suggestion is incompatable with the SCR framework.
486.	CEA, ECO-SLV-09-444	3.149.	We request that Ceiops re-visits the assumptions behind the 70% calibration for non-retail business. It may not always hold true that mass lapse risk in non-retail business is substantially greater than in retail business. For example, it may be that a large part of non-retail business is pension business where an employer has given a pension promise to its employees. The employer may not be able to suddenly decide to lapse the policies. Furthermore, if the solvency of the insurer decreases during an economic downturn there might not be a more secure insurer available to take over the business and so lapses are not expected to be as significant as proposed. We would therefore recommend that the stress parameter is proportional to the relevant historical data of the business.	Noted. The example is noted, however CEIOPS considers that there is a real difference between the two product types which need to be taken account of within the calibration.
487.	KPMG ELLP	3.149.	We support the inclusion of simplifications to the surrender strain calculation (which allows homogeneous risk group, instead of policy-by-policy, calculations). We believe that this is in line with the proportionality principle that overarches the Solvency II proposals.	Noted

488.	UNESPA (Association of Spanish insurers)	3.149.	It may not always hold true that mass lapse risk in non-retail business is substantially greater than in retail business. For example, it may be that a large part of non-retail business is pension business where an employer has given a pension promise to its employees. The employer may not be able to suddenly decide to lapse the policies. Furthermore, if the solvency of the insurer decreases during an economic downturn – like we are currently experiencing – there might not be any more secure insurer available to take over the business. We would therefore recommend that the stress parameter is proportional to the relevant historical data of the business.	See response to comment 486
489.	CEA, ECO-SLV-09-444	3.150.	See comments to Para 3.168.	See response to comment 598
490.	CRO Forum	3.150.	This topic deserves in our view further discussion. Where business originates in non EU markets it could severely damage the competitive position of EU groups. CEIOPS therefore should proceed with caution. We believe that there is no evidence to support a 70% mass lapse assumption for non-retail business. Given the significance of the capital requirements that could emerge the impact will have to be assessed in impact studies (QIS5). Furthermore, the QIS 3 the shock tested was 75% of the positive strain on unit-linked business. CEIOPS discusses the actions of institutional investors then expands its description to non retail products without discussion of what is explicitly covered. In particular CEIOPS should note that a mass lapse test is not appropriate for reinsurers and also that in various products management have protection mechanisms	Noted. See response to comment 472. CEIOPS believes that 70% is an appropriate stress to wholesale business for the reasons discussed in the CP.

			available.(see 3.152) It should be noted that observed policyholder behaviour is not entirely economically ration and not targeted to do maximum harm to the firm.	
491.	Groupe Consultatif	3.150.	The calculation at individual policy level will normally be difficult, yet for a product such as term assurance it is unlikely that it is any more practical to group in such a way as to make the error caused by grouping immaterial. Therefore, it would seem reasonable to allow companies to estimate adjustments to results of stresses applied to groups, provided that the overall result is not believed to be materially inaccurate. The principles in CP45 could be applied.	Noted
492.	Just Retirement Limited	3.150.	We agree that non-retail investors are more sophisticated and pro-active and may in general lapse in greater volumes than retail investors. However, a 30% lapse rate is already extremely severe and reflects contagious financial panic. Non-retail investors might be expected to react in a more sanguine manner, reflecting their greater experience and professionalism. Taking the two offsetting points into account, we suggest that a mass lapse stress of 30% for both retail and non-retail investors, or perhaps a somewhat higher stress for non-retail investors, of no more than 50%.	Disagree. CEIOPS considers that retail investors are likely to have significantly higher lapse rates fot thre reasons outlined in the CP.
493.	Munich RE	3.150.	CEIOPS discusses the actions of institutional investors then expands its description to non retail products without discussion of what is explicitly covered. In particular CEIOPS should note that a mass lapse test is not appropriate for reinsurers and also that in various products management have protection mechanisms available.(see 3.152) It should be noted that observed policyholder behaviour is not entirely economically rational.	See response to comment 472
494.	UNESPA	3.150.	See comments to Para 3.168.	See response to comment 606.

	(Association of Spanish insurers)			
495.	CEA, ECO-SLV-09-444	3.151.	Ceiops should note that the dynamics of inwards reinsurance are different to direct insurance.	Noted
496.	Association of British Insurers	3.152.	The mass lapse risk stress should differ by broad product class It is not realistic to assume that mass lapse surrender probabilities are the same for all products types. There can be big differences in lapse behaviour between, for example, traditional with-profit contracts (which have important penalties in case of lapse and minimum guarantee options) and non-profit contracts, such as unit linked contracts (generally with a low level of penalties and guarantee). Distribution channel can also have a big effect on lapse behaviour. An appropriate mass lapse risk stress should differ substantially by product class, as the effect on lapse incidence of any extreme scenario and the financial impact of each lapse in an extreme scenario are likely to differ by product class.	See response to comment 468
497.	Association of Friendly Societies	3.152.	The calculation needs to be kept as simple as possible.	Noted
498.	CEA, ECO-SLV-09-444	3.152.	The mass lapse risk stress should differ by broad product class. It is not realistic to assume that mass lapse probabilities are the same for all products types. There can be big differences in lapse behaviour between, for example, traditional with-profit contracts (which have important penalties in case of lapse and minimum guarantee options) and non-profit contracts, such as unit linked	See response to comment 496

			contracts (generally with a low level of penalties and guarantee). Distribution channel can also have a big effect on lapse behaviour. An appropriate mass lapse risk stress should differ substantially by product class.	
499.	CRO Forum	3.152.	We agree that the lapse characteristics of particular blocks of business are likely to depend on the underlying features of the product and how those characteristics interact with a particular scenario. For example, in scenarios which could generate mass lapses which also result in maturity guarantees becoming more valuable, we would expect the lapse experience on those products to with guarantees be less severely affected than those products where there were no guarantees. This would also apply to products with premium-related guarantees or heavy surrender penalties. However, in those situations, the existing distinction between products with positive strain on surrender those without would capture this (those products with no strain on surrender effectively being excluded from the capital requirement). We also agree that it is likely that non-retail investors are likely to react more quickly and in greater numbers than retail investors which reacting to triggers of mass lapses, although non retail investors will be less prone to panic.	Noted
500.	Deloitte	3.152.	Overall, we believe that the lapse mass event charge should depend on the product characteristics. There can be significant differences between lapse assumptions between product groups: products with guarantees can have higher persistency which should be captured in lapse risk SCR. To some extent, the lapse mass effect calculated as 30% of the sum of positive surrender strains already captures this, as surrender value depends on the level of lapse rates assumed.	Noted

			But we emphasise that the proportionality principle (i.e. materiality) should apply. If a differentiation based on product characteristics cannot be sufficiently substantiated (due to lack of available information), it should not be made. For example, against the arguments put forward in 3.149, it can be stated that for non-retail business, lapse risk might well be lower than for retail business, considering the complexity involved with switching large company-wide pension contracts from one insurer to another, and considering a possibly less 'emotional' reaction of large investors to rumours of insolvency than consumers. Therefore, at this moment, we do not see any evidence that can substantiate a differentiation in the calibration of lapse risk	
501.	Just Retirement Limited	3.152.	b. See response to 3.150.	See response to comment 492
502.	OAC plc	3.152.	The calculation needs to be kept as simple as possible.	Noted
503.	PricewaterhouseCoopers LLP	3.152.	We agree that it is reasonable to distinguish between retail and non-retail business for the purposes of the mass lapse scenario due to the vastly different financial sophistication of the investors / policyholders concerned. However, within the category of retail business there would appear to be no clear justification for distinguishing between different product types. Policyholder behaviour is typically not strongly influenced by the presence of guarantees and the degree to which they are in the money. We would thus consider the simplicity of the calculation for the mass lapse scenario to be the overriding consideration in the calibration.	Noted
504.	UNESPA (Association of Spanish insurers)	3.152.	The mass lapse risk stress should differ by broad product class It is not realistic to assume that mass lapse surrender probabilities are the same for all products types.	See response to comment 468

			An appropriate mass lapse risk stress should differ substantially by product class, as the effect on lapse incidence of any extreme scenario and the financial impact of each lapse in an extreme scenario are likely to differ by product class.	
505.	Legal & General Group	3.154.	The text here says that if the results of a different calculation are not materially different then it's appropriate to use that calculation instead. I would have thought this is the definition of materiality, and it seems odd to have it as part of the lapse sub-module and nowhere else. I'm not sure what this is adding.	Partially agreed, the purpose of point b was to include a 'materiality' definition into the 'proportionate' definition.
506.	PricewaterhouseCoopers LLP	3.154.	The simplification to the lapse risk sub-module, allowing the calculation of the surrender strain at homogeneous risk group level (as described in 3.153) is permitted if it is proportionate to the nature, scale and complexity of the risk. The current guidance on how this proportionality should be assessed is subjective. It would be helpful to have some more quantitative measures that can be considered when determining when assessing whether a simplified approach can be taken.	Noted. See response to comment 411
507.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	3.155.	The Option 1: "The standard formula includes a factor-based simplification for lapses risk" is not our option. We are not comfortable with the factors. We prefer the option 2.	Noted
508.			Confidential comment deleted	
509.	KPMG ELLP	3.155.	We believe that Option 1 is preferable to Option 2 which provides no simplification alternatives for (re)insurance undertakings that, based on the principle of proportionality, do not model lapses in a more sophisticated way.	Noted

			As the factor based simplification can only be used if the capital requirement for lapse risk is small relative to the overall SCR, we think that the approximation should provide adequate results given its materiality. In particular the simplification should capture adequately the scale of the lapse risk in the context of the (re)insurance undertaking. Also applies to 3.166, 3.167 and 3.168	
510.			Confidential comment deleted	
511.	Uniqa	3.155.	We support option 1 to remain the factor based simplification in the standard formula. In the case only one sub-module of the life underwriting risk does not allow for a simplified approach, the undertaking has to build up a full projection model and would therefore not need any factor-based simplification anymore. As we believe that there is a huge range of approaches used (from factor-based simplification to internal models) one should ensure to provide standards or at least simplifications for each of those. The incentive to step forward to more complex models should be given by advantages in the SCR measurement but not by forcing undertakings in providing complex projection tools in a rapid way.	Noted
512.	FFSA	3.156.	FFSA believes that clarification on the specified scenario is required and identifies a risk of double-counting the mass risk	Noted
513.	Groupe Consultatif	3.156.	**[EMPTY]**	
514.	ROAM	3.156.	ROAM believes that clarification on the specified scenario is required and identifies a risk of double-counting the mass risk	Noted
515.	FFSA	3.157.	CEIOPS clarified the scope of the module which should take account of all legal or contractual policyholders' options. FFSA agrees on the need for clarification of the scope of the module	Noted

			as mentioned in 3.124 but it does not think that the CP addresses this need in enough detail. In particular we would like some additional clarification on mass risk to avoid a double-counting of mass risk	
516.	Investment & Life Assurance Group (ILAG)	3.157.	We are concerned at the resulting complexity of the calculation if the SCR lapse risk module is intended to cover the impact of every conceivable policyholder action. In addition to the conventional options of surrender and conversion to paid-up status, we must consider all policyholder options explicitly stated in the contract (e.g. renewability, convertibility, exercise of a guaranteed annuity option) and the ten other options listed in paragraph 3.157. One of the most difficult aspects of implementing this module will be the how to assess the rates of take-up of each of the options available to the policyholder at each time period. In addition to rates of take-up assessed independently for each option, an assessment of the correlations between take-up rates of each option will be required, and variation in take-up of other options following the take-up of a particular option will also need to be assessed (for example, following conversion to paid-up status, lapse experience is likely to be quite different than for an equivalent policy of the same duration that has not converted to paid-up status). Furthermore, for options such as increase or decrease in cover, the amount of increase or decrease will be another variable to be estimated or parameterised. We consider that only a stochastic calculation could possibly take into account all possible policyholder actions and their probability of occurrence in each future time period. We assert that a model of such complexity is beyond the resources of all but the largest insurers, and we question whether this is CEIOPS's intention.	Noted. It is not CEIOPS' intention to bar this module to all but the largest insurers.
517.	KPMG ELLP	3.157.	The last sentence which says "This includes….options which allow	Any policy option may be

			the full or partial establishment, renewal, increase, extension or resumption of insurance cover." This definition appears to incorporate guaranteed insurability options within the definition of a lapse risk. We are not sure if that is intended.	contained within the lapse risk if it satisfies the 'surrender strain' criteria set out.
518.	ROAM	3.157.	CEIOPS clarified the scope of the module which should take account of all legal or contractual policyholders' options. ROAM agrees on the need for clarification of the scope of the module as mentioned in 3.124 but it does not think that the CP addresses this need in enough detail. In particular we would like some additional clarification on mass risk to avoid a double-counting of mass risk	Noted
519.	CEA, ECO-SLV-09-444	3.159.	The CEA supports the use of the factor-based simplifications for lapse risk (i.e. Option 1) as used in QIS4. Factor-based simplifications can be very useful for SMEs. Therefore, we prefer Option 1, i.e. that the standard formula retains a factor-based simplification for lapse risk. If one sub-module of the life underwriting risk module does not allow for a simplified approach, the undertaking will have to build a full projection model and would therefore not need any factor-based simplifications. We believe that there should be a wide range of approaches should be available (from factor-based simplifications to internal models). The incentive to step forward to more complex models should be given via advantages in the SCR calibration, not via removing simplifications.	Noted
520.	CRO Forum	3.159.	We believe that a factor-based simplification for lapse risk should not be allowed for in the standard formula (i.e Option 2). The surrender strain on most insurance products will change over time and this is not adequately allowed for in the simplification. Besides, in order to calculate the parameters "n" properly you would need to	Noted

			project your surrender strain profile which then means you should be able to use the standard approach.	
521.	FFSA	3.159.	15. FFSA needs some clarifications to avoid double-counting mass risk and needs some clarification to understand how the loss-absorbing effect of future discretionary benefits and taxation shall be treated in this calculation.	Noted
522.	Groupe Consultatif	3.159.	We favor option 2 that refrains from a factor-based simplification since the influence of altered lapse rates on the in-force business and prospective cash flows cannot properly be taken into account	Noted
523.			**[EMPTY]**	
524.	ROAM	3.159.	15. ROAM needs some clarifications to avoid double-counting mass risk and needs some clarification to understand how the loss-absorbing effect of future discretionary benefits and taxation shall be treated in this calculation.	Noted
525.	UNESPA (Association of Spanish insurers)	3.159.	We support the use of the factor-based simplifications for lapse risk (i.e. Option 1) as used in QIS4 Factor-based simplifications can be very useful for SMEs. Therefore, we prefer Option 1, i.e. that the standard formula retains a factor-based simplification for lapse risk.	Noted
526.	Association of British Insurers	3.160.	14. We support the introduction of the allowance for relevant adverse changes in option take-up behaviour of policyholders in the scenarios for other risks within the standard formula SCR, such as the equity and interest rate risk modules. This will allow a correct treatment of the non-linear dependence between these different risk types. However, care must be taken over the calibration of the lapse risk stress itself as there is a significant risk of double counting of causal lapse risk (where lapse rates reflect policyholders' reactions to, for example, movements in	Noted

			financial markets).	
527.	Association of Friendly Societies	3.160.	We do not agree that this is necessary and consider it introduces an unnecessary level of complication for a stress which is already appropriate covered implicitly in the lapse stress calculation.	See response to comment 375
528.	CEA, ECO-SLV-09-444	3.160.	Ceiops needs to remove double-counting with the lapse risk module following the introduction of the allowance for relevant adverse changes in option take-up behaviour in the market risk module. Care must be taken over the calibration of the lapse risk stress itself as there is a significant risk of double counting of causal lapse risk (where lapse rates reflect policyholders' reactions to, for example, movements in financial markets). See comments to Para 3.118.	See response to comment 375
529.	CRO Forum	3.160.	We agreed with the proposal that option take up behaviour should be allowed for in the scenario calculations of the SCR. For the avoidance of doubt, we assume this means in all modules in the SCR calculation. This however does not fully allow for the risk that specific market or credit risk events when surrender values guarantees become more valuable that the risk of lapses is heighted as policyholders are able to surrender their policy and reinvest immediately for an immediate benefit. While this would be partially captured by the correlations, it would not be fully captured. (see comments on 3.100)	Noted.
530.	German Insurance Association – Gesamtverband der D	3.160.	It is very challenging to cover this requirement in a standard model, because modelling adverse changes in option take-up behaviour of policyholders is very complex and difficult. To do this adequately an internal model is needed. We agree in general that the revaluation of technical provisions should allow for any relevant changes in policyholder option take-	Noted. See response to comment 411

			up behaviour. However, there are two risks that need to be addressed: Double-counting of lapse risk The Solvency II framework deals with the issue of dependencies between risks by means of the correlation matrix and therefore the proposed dependency between lapse risk and each market risk stress is not consistent and will result in double counting with the Life lapse risk module. We recommend making sure that the stress test (a relative permanent increase or decrease of lapse rates) capture only the misestimation, otherwise there is a risk of double counting. The 50% is already quite conservative and was calibrated on data that didn't differentiate between the lapses due to market conditions and otherwise. Furthermore, we believe that there will be significant double counting when also combined with the mass lapse capital requirements. Excessive administrative burdens Furthermore, this additional requirement to include policyholder behaviour will increase the administrative burdens for insurers and is likely to be especially difficult for SME's. The application of the principle of proportionality would be very important. Additionally, there is no reference made to the explicit separation of lapse risk due to misestimation and the risk related to market movements in the official advice. It was, however, discussed in the explanatory text. This point should be treated in the official advice.	
531.	Groupe Consultatif	3.160.	We agree, that the modeled behavior of policyholders should be consistent with the one assumed in the calculation of the technical provisions in CP 39	Noted

532.	Legal & General Group	3.160.	Agree	Noted
533.	OAC plc	3.160.	We do not agree that this is necessary and consider it introduces an unnecessary level of complication for a stress which is already appropriate covered implicitly in the lapse stress calculation.	See response to comment 375
534.	Association of British Insurers	3.161.	We agree with the need for clarification of the scope of the module, however we do not think that this CP gives enough detail as to the proposed scope. The current wording may be difficult to apply in practice because of the great variety of possible policyholder options changing insurance cover (e.g. part termination options or the choice between lump sums or previously fixed annuity in annuity insurance) The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic CEIOPS proposes to only stress those policies for which a loss is produced under the lapse stress. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more onerous than the 99.5th percentile. The diversification that naturally exists between policies should be recognised and CEIOPS' approach currently significantly understates this. Furthermore, this requirement would be burdensome as insurers are required to identify which policies create a loss under each stress and stress these separately. Another element to further complicate the calculations could be when elements (such as profit sharing) are calculated based on groups of policies/product lines. We should add that we would not expect diversification outside of ring-fenced funds to be taken into account. The shocks should be	Noted. Disagree. CEIOPS believes that the stress as described is appropriate for a 99.5% event.

			applied at the level of the ring-fenced fund to take account of the natural diversification that exists between the policies within this fund. If this diversification is not recognised we would expect CEIOPS to re-visit the calibration of this stress as it would need to be significantly reduced. This will prove difficult to do in practice though as each insurer will have a different degree of diversification between its policies. The most appropriate would be to allow each insurer to take account of its own naturally existing diversification and not attempt to calibrate the stress to allow for this. We would suggest that CEIOPS removes this requirement.	
535.	Association of Friendly Societies	3.161.	We do not agree that this is necessary and consider that the lapse stress should relate only to full surrender of the policy, as most other options will not have material financial consequences.	See response to comment 375
536.	CEA, ECO-SLV-09-444	3.161.	There is not sufficient detail as to the proposed scope of the module. We agree with the need for clarification of the scope of the module. However we do not think that this CP gives enough detail as to the proposed scope. The current wording may be difficult to apply in practice because of the great variety of possible policyholder options changing insurance cover (e.g. part termination options or the choice between lump sums or previously fixed annuity in annuity insurance) The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic. Ceiops proposes to only stress those policies for which a loss is produced under the lapse stress. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more onerous than the 99.5th percentile. The diversification that naturally exists between policies	See response to comment 534

			should be recognised and Ceiops' approach currently significantly understates this. Furthermore, this requirement would be burdensome as insurers are required to identify which policies create a loss under each stress and stress these separately. Another element to further complicate the calculations could be when elements (such as profit sharing) are calculated based on groups of policies/product lines. If this diversification is not recognised we would expect Ceiops to re-visit the calibration of this stress as it would need to be significantly reduced. This will prove difficult to do in practice though as each insurer will have a different degree of diversification between its policies. The most appropriate would be to allow each insurer to take account of its own naturally existing diversification and not attempt to calibrate the stress to allow for this. We would suggest that Ceiops removes this requirement.	
537.	CRO Forum	3.161.	Whilst in principle we agree, we nevertheless think that taking into account not only the lapse event but also all other legal or contractual policyholder options and stress those seems very extensive. We do not believe that it is currently possible to base the option exercise rates for the valuation on sufficient statistical data. Options like the increase of the premiums and the insurance coverage are very dependent on the personal / financial situation of the policyholder. Also the assumptions that have to be taken into account for the impact of future changes in financial conditions will be hard to derive and not easily verified. Therefore we think it is more transparent to limit the standard approach limit the lapse risks to full and partial surrender rates, premium discontinuance rates (e.g. paid-up rates) and expect firms to include allowance for take-up of other policyholder options only to the extent these have	Disagree. The broad requirement is intended to be non country specific, and to 'catch all' lapse risks to which a firm would be exposed.

			a material impact on the results, rather than have a broad requirement that requires firms to allow for all policyholder options regardless of materiality.	
538.	DIMA	3.161.	Restricting the lapse calculations to those policies where the company would carry a cost is sensible.	Noted
539.	FFSA	3.161.	CEIOPS outlines that the calculation of surrender strain should be done with a policy by policy comparison between surrender strain and best estimate. FFSA believes that the calculation of surrender strain on a policy per policy basis does not always reflect properly the company's practice and constraints and in particular may not take into account the effect of future discretionary benefits. FFSA believes the granularity of calculations shall reflect the company's constraints and fits with the practical need of producing regular results and therefore the principle should not refer to a policy per policy basis but on a simplified approach	Not agreed. CEIOPS considers that the approach is proportionate.
540.	German Insurance Association – Gesamtverband der D	3.161.	This proposed extension of scope is difficult to apply in practice because of the great variety of possible policyholder options changing insurance cover. (for instance partly termination option or choice between lump sum or previously fixed annuity in annuity insurance) Whilst in principle we agree, we nevertheless think that taking into account not only the lapse event but also all other legal or contractual policyholder options and stress those seems very extensive. We do not believe that it is currently possible to base the option exercise rates for the valuation on sufficient statistical data. Options like the increase of the premiums and the insurance coverage are very dependent on the personal / financial situation of the policyholder. Also the assumptions that have to be taken into	Noted. See response to comment 534

			account for the impact of future changes in financial conditions will be hard to derive and not easily verified. Therefore we think it is more transparent to limit the lapse risks in the standard approach to full and partial surrender rates, premium discontinuance rates (e.g. paid-up rates) and expect firms to include allowance for take-up of other policyholder options only to the extent these have a material impact on the results, rather than have a broad requirement that requires firms to allow for all policyholder options regardless of materiality We agree with the need for clarification of the scope of the module, however we do not think that this CP gives enough detail as to the proposed scope. The current wording may be difficult to apply in practice because of the great variety of possible policyholder options changing insurance cover (e.g. part termination options or the choice between lump sums or previously fixed annuity in annuity insurance) The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic CEIOPS proposes to only stress those policies for which a loss is produced under the lapse stress. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more onerous than the 99.5th percentile. The diversification that naturally exists between policies should be recognised and CEIOPS' approach currently significantly understates this. Furthermore, this requirement would be burdensome as insurers are required to identify which policies create a loss under each stress and stress these separately. If this diversification is not recognised we would expect CEIOPS to re-visit the calibration of this stress as it would need to be significantly reduced. This will prove difficult to do in practice though as each insurer will have a different degree of diversification between its	

			policies. The most appropriate would be to allow each insurer to take account of its own naturally existing diversification and not attempt to calibrate the stress to allow for this. We would suggest that CEIOPS removes this requirement. With respect to health insurance we have to state that there are other intensions to close a health insurance contract than to close a life insurance contract. Hence there could be other reasons to lapse such a contract. In Germany everyone has the obligation to have a health insurance. Hence a substituting health insurance contract can only be lapsed if the policyholder changes to another undertaking or he or she is obligated to be insured at the statutory health insurance ("gesetzliche Krankenversicherung"). This means that the possibility to lapse such a contract restricted by law. On the other hand it is likely that the policyholders will reduce their insurance cover to compensate financial strains. Therefore it would make sense to distinguish between lines of businesses for the SLT Health lapse risk. A lump-sum shock factor of 50% for all lines of businesses and all ages seems to be inappropriate.	
541.	Groupe Consultatif	3.161.	Technical problems may arise if all legal or contractual policyholder options were taken into account. Hence, we propose to state explicitly that the principles of proportionality and materiality have to be considered.	Agreed. See response to comment 411
542.	Investment & Life Assurance Group (ILAG)	3.161.	We are concerned that the requirement to assess the direction of the strain for each possible policyholder option for each contract in each time period adds an extra dimension of computational difficulty to the calculate.	Noted
543.	Ireland's	3.161.	Some members of our group do not agree with the proposed	Noted

	Solvency 2 Group, excluding representa		approach whereby only those policies without a positive surrender strain are included.	
544.	Legal & General Group	3.161.	Agree	Noted
545.	Munich RE	3.161.	Whilst in principle we agree, we nevertheless think that taking into account not only the lapse event but also all other legal or contractual policyholder options and stress those seems very extensive. We do not believe that it is currently possible to base the option exercise rates for the valuation on sufficient statistical data. Options like the increase of the premiums and the insurance coverage are very dependent on the personal / financial situation of the policyholder. Also the assumptions that have to be taken into account for the impact of future changes in financial conditions will be hard to derive and not easily verified. Therefore we think it is more transparent to limit the standard approach limit the lapse risks to full and partial surrender rates, premium discontinuance rates (e.g. paid-up rates) and expect firms to include allowance for take-up of other policyholder options only to the extent these have a material impact on the results, rather than have a broad requirement that requires firms to allow for all policyholder options regardless of materiality.	Noted
546.	OAC plc	3.161.	We do not agree that this is necessary and consider that the lapse stress should relate only to full surrender of the policy, as most other options will not have material financial consequences.	Disagree. It is considered that for some firms the other options can be material.
547.			Confidential comment deleted	
548.	ROAM	3.161.	CEIOPS outlines that the calculation of surrender strain should be done with a policy by policy comparison between surrender strain	Noted. See response to comment 539

			and best estimate. ROAM believes that the calculation of surrender strain on a policy per policy basis does not always reflect properly the company's practice and constraints and in particular may not take into account the effect of future discretionary benefits. ROAM believes the granularity of calculations shall reflect the company's constraints and fits with the practical need of producing regular results and therefore the principle should not refer to a policy per policy basis but on a simplified approach	
549.	CEA, ECO-SLV-09-444	3.162.	See comments to Para 3.161.	See response to comment 536.
550.	FFSA	3.162.	CEIOPS calibrates a 50% decrease or increase in lapse rates. FFSA asks why the calibration of 50% derived from a study relating to the UK with-profit life products and on the Polish market is considered as appropriate for other markets. It's not clear if the boundaries fixed for the shocked take-up addresses properly the objective outlined in 3.137 (adapt the calibration of the shock to the level of the lapse rate). These boundaries only partially address the issue when the base lapse assumptions are already very high. FFSA needs some clarification to understand how the loss-absorbing effect of future discretionary benefits and taxation shall be treated in this calculation.	Note that the calibration is not entirely dependent on the Polish market. This was merely one contributory factor to the calibration.
551.	German Insurance Association –	3.162.	See comments to Para 3.161.	See response to comment 540

	Gesamtverband der D			
552.	Investment & Life Assurance Group (ILAG)	3.162.	We are concerned that the requirement to assess the direction of the strain for each possible policyholder option for each contract in each time period adds an extra dimension of computational difficulty to the calculate.	Noted
553.	Ireland's Solvency 2 Group, excluding representa	3.162.	Vice versa with 3.161	See response to comment 543
554.	Legal & General Group	3.162.	Agree	Noted
555.	ROAM	3.162.	19. CEIOPS calibrates a 50% decrease or increase in lapse rates. 20. ROAM asks why the calibration of 50% derived from a study relating to the UK with-profit life products and on the Polish market as both are considered inappropriate for other markets. 21. It's not clear if the boundaries fixed for the shocked take-up address properly the objective outlined in 3.137 (adapt the calibration of the shock to the level of the lapse rate). These boundaries only partially address the issue when the base lapse assumptions are already very high. 22. ROAM requests further clarification to understand how the loss-absorbing effect of future discretionary benefits and taxation shall be treated in this calculation.	See response to comment 550

556.	Association of British Insurers	3.163.	The mass lapse stress is no longer required if CEIOPS is also requiring lapse probabilities to vary in response to other stress scenarios It is not common practice to apply a mass lapse stress in companies' internal models. Instead, companies usually have a lapse up and down stress and allow lapses to vary in the market risk stresses. If a mass lapse stress is included, and lapses are also required to vary in other scenarios, this is likely to lead to a double counting of causal lapse risk. Therefore, we request sufficient justification of the calibration of the mass lapse risk, specifically in the light of the consideration of lapse risk within the market risk module, to ensure this risk will not be double-counted. The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic CEIOPS proposes to only stress those policies for which a loss is produced under the mass lapse stress. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more onerous than the 99.5th percentile. The diversification that naturally exists between policies should be recognised and CEIOPS's approach currently significantly understates this. Furthermore, this requirement would be burdensome as insurers are required to identify which policies create a loss under each stress and stress these separately. Another element to further complicate the calculations could be when elements (such as profit sharing) are calculated based on groups of policies/product lines. We should add that we would not expect diversification outside of ring-fenced funds to be taken into account. The shocks should be	See response to comment 534

			applied at the level of the ring-fenced fund to take account of the natural diversification that exists between the policies within this fund. If this diversification is not recognised we would expect CEIOPS to re-visit the calibration of this stress, as it would need to be significantly reduced. This will prove difficult to do in practice though as each insurer will have a different degree of diversification between its policies. The most appropriate would be to allow each insurer to take account of its own naturally existing diversification and not attempt to calibrate the stress to allow for this. We would suggest that CEIOPS removes this requirement. See also comments to 3.167. The calculation of lapse risk should probably include: transfers, making a policy paid up and material option take-up (e.g. guaranteed annuity rates). Less material options (such as premium reductions and guaranteed no MVR income levels) could be ignored on materiality grounds (and lack of any credible evidence for calibrating stresses).	
557.	CEA, ECO-SLV-09-444	3.163.	The mass lapse stress is no longer required if Ceiops is also requiring lapse probabilities to vary in response to other stress scenarios. It is not common practice to apply a mass lapse stress in companies' internal models. Instead, companies usually have a lapse up and down stress and allow lapses to vary in the market risk stresses. If a mass lapse stress is included, and lapses are also required to vary in other scenarios, this is likely to lead to a double counting of lapse risk. Therefore, we request sufficient justification of the calibration of the mass lapse risk, specifically in the light of the consideration of lapse risk within the market risk module, to ensure	See response to comment 534

			this risk will not be double-counted. The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic. Ceiops proposes to only stress those policies for which a loss is produced under the mass lapse stress. This non-symmetric treatment is not in line with the economic risk-based framework and produces capital requirements that are far more onerous than the 99.5th percentile. The diversification that naturally exists between policies should be recognised and Ceiops' approach currently significantly understates this. Furthermore, this requirement would be burdensome as insurers are required to identify which policies create a loss under each stress and stress these separately. Another element to further complicate the calculations could be when elements (such as profit sharing) are calculated based on groups of policies/product lines. If this diversification is not recognised we would expect Ceiops to re-visit the calibration of this stress as it would need to be significantly reduced. This will prove difficult to do in practice though as each insurer will have a different degree of diversification between its policies. The most appropriate would be to allow each insurer to take account of its own naturally existing diversification and not attempt to calibrate the stress to allow for this. We would suggest that Ceiops removes this requirement. See also comments to Para 3.167.	
558.	CRO Forum	3.163.	As the CRO Forum Benchmarking Study on QIS4 showed, the charges on lapse risk were lower in internal models. In light of this any further expansion of the standard formula (see comments on 3.157) appears to add to a further increase and potential complexity of this sub-risk module.	Noted

559.	FFSA	3.163.	CEIOPS outlines that the capital requirement for the risk of a mass lapse event should be defined as 30% of the sum of surrender strains over the policies where the surrender strain is positive. Even though it's outlined that the calibration of the mass lapse event is poor, the CP appears to maintain the 30% calibration rate on all products. FFSA asks whether it's appropriate to maintain the mass lapse in the context of such an arbitrary calibration. FFSA needs some clarification to understand how the loss-absorbing effect of future discretionary benefits and taxation shall be treated in this calculation.	Noted. See response to comment 468
560.	German Insurance Association – Gesamtverband der D	3.163.	The mass lapse stress is no longer required if CEIOPS is also requiring lapse probabilities to vary in response to other stress scenarios It is not common practice to apply a mass lapse stress in companies' internal models. Instead, companies usually have a lapse up and down stress and allow lapses to vary in the market risk stresses. If a mass lapse stress is included, and lapses are also required to vary in other scenarios, this is likely to lead to a double counting of causal lapse risk. Therefore, we request sufficient justification of the calibration of the mass lapse risk, specifically in the light of the consideration of lapse risk within the market risk module, to ensure this risk will not be double-counted. The natural hedges that exist between risks should be reflected – a non-symmetric treatment is not economic CEIOPS proposes to only stress those policies for which a loss is produced under the mass lapse stress. This non-symmetric treatment is not in line with the economic risk-based framework	See response to comment 534.

			and produces capital requirements that are far more onerous than the 99.5th percentile. The diversification that naturally exists between policies should be recognised and CEIOPS' approach currently significantly understates this. Furthermore, this requirement would be burdensome as insurers are required to identify which policies create a loss under each stress and stress these separately. If this diversification is not recognised we would expect CEIOPS to re-visit the calibration of this stress as it would need to be significantly reduced. This will prove difficult to do in practice though as each insurer will have a different degree of diversification between its policies. The most appropriate would be to allow each insurer to take account of its own naturally existing diversification and not attempt to calibrate the stress to allow for this. We would suggest that CEIOPS removes this requirement. See also comments to Para 3.167. A mass lapse event is not a relevant scenario for SLT Health insurance because the risk here is a decrease of lapse rates.	
561.	Groupe Consultatif	3.163.	The calculation of the capital requirement for lapse risk is complicated and is based on three scenarios (this approach has not changed since QIS4): a permanent increase of lapse rates by 50% on contracts that have more surrender value than the best estimate provision. a permanent decrease of lapse rates by 50% on contracts that have less surrender value than the best estimate provision. a mass lapse event where 30% of the sum of positive gaps between surrender value and the best estimate provision. The maximum of the three shocks mentioned above constitutes the	Noted.

			impact. According to our experience, the mass lapse event is by far the most important compared to the two other shocks. A 30% calibration is perhaps too strong and should be reconsidered by reference to any relevant experience. As stated in our comment to para. 3.159 we recommend to calculate the lapse shocks independently from the sign of the respective business strain. In our view, the rationale of the mass lapse event described in para. 3.139-3.141 underlines this request, as it is highly questionable whether the sign of the surrender strain has any impact on "herd behavior".	
562.	Institut des actuaires (France)	3.163.	The calculation of the capital requirement for lapse risk is complicated and is based on three scenarios (this approach has not changed since QIS4): a permanent increase of lapse rates by 50% on contracts that have more surrender value than the best estimate provision. a permanent decrease of lapse rates by 50% on contracts that have less surrender value than the best estimate provision. a mass lapse event where 30% of the sum of positive gaps between surrender value and the best estimate provision. The maximum of the three shocks mentioned above constitutes the impact. According to our experience, the mass lapse event is by far the most important compared to the two other shocks. A 30% calibration is perhaps too important and should be reconsidered. In this case, there is no consideration of a tax disincentive.	See response to comment 561
563.	Legal & General	3.163.	The mass lapse stress should also be applied to policies with a negative surrender strain	See response to comment 448

	Group			
564.			Confidential comment deleted	
565.	ROAM	3.163.	CEIOPS outlines that the capital requirement for the risk of a mass lapse event should be defined as 30% of the sum of surrender strains over the policies where the surrender strain is positive. Even though it's outlined that the calibration of the mass lapse event is poor, the CP appears to maintain the 30% calibration rate on all products. ROAM asks whether it's appropriate to maintain the mass lapse in the context of such an arbitrary calibration. ROAM needs some clarification to understand how the loss-absorbing effect of future discretionary benefits and taxation shall be treated in this calculation. ROAM believes that the mass lapse scenario should not exclude policies with a negative surrender strain. A mass lapse event would likely occur due to a confidence crisis, in which policies with both positive and negative surrender strain would be more likely to surrender.	See response to comment 448
566.	UNESPA (Association of Spanish insurers)	3.163.	We understand that the implementation of "mass lapse" should apply to all policies Its application only to those products with "positive strain surrender" is not realistic	Noted
567.	CEA, ECO-SLV-09-444	3.164.	The lapse mass definition is not clear. It seems that paragraph 3.164 is missing?	Agreed. In some printed versions it seems that part of paragraph 164 is missing, this has been rectified.
568.	FFSA	3.164.	CEIOPS propose that the Mass lapse rate for non-retail business is 70% of the positive surrender strain.	Noted

			If FFSA understands and agrees with the argumentation of CEIOPS to have a different rate for this type of business, FFSA thinks that this will lead to an uneven playing field. Indeed, Pension Funds in UK are not subject to Solvency II, and for the same kind of business in France, the capital charge is dramatically increased. FFSA therefore recommends having a single rate of 30% for all kinds of businesses.	
569.	German Insurance Association – Gesamtverband der D	3.164.	The lapse mass definition is not clear. It seems that paragraph 3.164 is missing?	See response to comment 567
570.	Groupe Consultatif	3.164.	The proposed dependency between the lapse shock and the surrender strain is very cumbersome to implement from a practical point of view. Moreover, diversification effects within the written business are neglected. Summing up, we suggest to calculate the lapse shocks in each case based on all policies.	Noted
571.	Legal & General Group	3.164.	The 70% mass lapse risk for non retail business is not based on any date and is too high. For retail business it may well be higher but needs justification.	Noted. See response to comment 411.
572.			Confidential comment deleted	
573.	ROAM	3.164.	CEIOPS proposes that the Mass lapse rate for non-retail business is 70% of the positive surrender strain. Although ROAM understands and agrees with the argumentation of CEIOPS to have a different rate for this type of business, ROAM thinks that this will lead to an uneven playing field. Indeed, Pension Funds in the UK are not subject to Solvency II, and for the same kind of business in France, the capital charge is dramatically	See response to comment 568

			increased. ROAM therefore recommends having a single rate of 30% for all kinds of businesses.	
574.	Association of British Insurers	3.165.	This should apply for homogeneous risk groups rather than individual policies, as the requirement would be otherwise too burdensome.	Noted
575.	CEA, ECO-SLV-09-444	3.165.	See comments to Para 3.166 and 3.167. A strict requirement for policy-by-policy calculations is burdensome and may not appropriately take future profit-sharing correctly into account. It should be possible to use model points rather than individual policies otherwise this requirement would be overly burdensome. Furthermore, the calculation of surrender strain on a policy per policy basis does not always reflect the company's practice and constraints and in particular may not take into account the effect of future discretionary benefits.	See responses to comments 581 and 589. Noted.
576.	FFSA	3.165.	CEIOPS proposes a simplification in the calculation of the SCR lapse. FFSA believes this simplification should replace the definition CEIOPS outlines that a calculation at the level of homogeneous risks groups should be considered to be proportionate if the result of a policy by policy calculation would not differ materially from a calculation on homogeneous risks groups. FFSA would like to have a more precise definition of this wording to ensure consistency across europe.	Noted.
577.	German Insurance Association	3.165.	See comments to Para 3.166 and 3.167. A strict requirement for policy-by-policy calculations is burdensome and may not appropriately take future profit-sharing correctly into	See response to comment 575

	– Gesamtverband der D		account It should be possible to use model points rather than individual policies; otherwise this requirement would be overly burdensome. Modelling with distinction between policies with a positive or a negative surrender strain is difficult. In particular, if this is required policy-by-policy, the best estimate provisions have to be determined policy-by-policy, too. (The surrender strain of a policy is defined as the difference between the amount currently payable on surrender and the best estimate provision held.) Furthermore, the calculation of surrender strain on a policy per policy basis does not always reflect the company's practice and constraints and in particular may not take into account the effect of future discretionary benefits.	
578.	Legal & General Group	3.165.	It would be more appropriate to apply this by homogeneous risk group rather than for individual policies. The restriction to "policies without a positive surrender strain" is inappropriate as described above.	Noted
579.	ROAM	3.165.	CEIOPS proposes a simplification in the calculation of the SCR lapse. ROAM believes this simplification should replace the definition CEIOPS outlines that a calculation at the level of homogeneous risks groups should be considered to be proportionate if the result of a policy by policy calculation would not differ materially from a calculation on homogeneous risks groups. ROAM would like to have a more precise definition of this wording to ensure consistency across Europe.	See response to comment 576

580.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	3.166.	See 3.155	See response to comment 507
581.	CEA, ECO-SLV-09-444	3.166.	We request more justification of the calibrations chosen. We request more justification as to why the calibration of +/-50%, derived from a study relating to the UK with-profit life products and the Polish market, is considered as appropriate for other markets. Furthermore, it is not clear why the boundaries fixed for the shocked take-up address the objective to "adapt the calibration of the shock to the level of the lapse rate" as outlined in Para 3.141. These boundaries only partially address the issue when the base lapse assumptions are already very high.	See response to comment 411
582.	FFSA	3.166.	CEIOPS proposes as an option the possibility to use a factor-based simplification in the calculation of the lapse SCR. FFSA believes that the standard formula should include a factor based simplification for based risk. FFSA notes that there is no explication on Lapse Mass in the simplifications. Does this mean that if the undertaking uses simplifications, it doesn't need to proceed to the Lapse Mass calculation?	Noted. It is not the intention that the simplification does not require consideration of the lapse mass calculation. See revised text, paragraph 3.175 for clarification.
583.			Confidential comment deleted	
584.	German Insurance Association	3.166.	We request more justification of the calibrations chosen We request more justification as to why the calibration of +/-50%,	See response to comment 411

	– Gesamtverband der D		derived from a study relating to the UK with-profit life products and the Polish market, is considered as appropriate for other markets. Furthermore, it is not clear why the boundaries fixed for the shocked take-up addresses the objective to "adapt the calibration of the shock to the level of the lapse rate" as outlined in Para 3.141. These boundaries only partially address the issue when the base lapse assumptions are already very high.	
585.	Institut des actuaires (France)	3.166.	The simplifications do not mention elements concerning the mass lapse. Does this mean that if we use simplifications, we don't need to proceed to the Lapse Mass calculation?	See response to comment 582.
586.	Legal & General Group	3.166.	Agree	Noted
587.	ROAM	3.166.	CEIOPS proposes as an option the possibility to use a factor-based simplification in the calculation of the lapse SCR. ROAM believes that the standard formula should include a factor based simplification for based risk. ROAM notes that there is no explication on Lapse Mass in the simplifications. Does this mean that if the undertaking uses simplifications, it doesn't need to proceed to the Lapse Mass calculation?	See response to comment 582
588.	Association of British Insurers	3.167.	The mass lapse stress should also be applied to policies with negative surrender strain The application only to those products with positive strain surrender is not realistic and it is overly conservative not to allow for surrender profits generated by policies in a mass lapse stress when mass actions would be likely to involve some negative surrender strain surrenders in practice.	See response to comment 448

			Furthermore, distinguishing between policies, which have positive surrender strain compared to those that have negative surrender strain will cause additional calculation burdens. This will be a particular problem if this is required policy-by-policy, as then the best estimate provisions will also have to be determined policy-by-policy. QIS4 participants experienced unreasonably high SCR requirements for lapse risk and this was in a large part due to the high mass lapse calibration.	
589.	CEA, ECO-SLV-09-444	3.167.	The mass lapse stress should also be applied to policies with negative surrender strain. The application only to those products with positive strain surrender is not realistic and it is overly conservative not to allow for surrender profits generated by policies in a mass lapse stress when mass actions would be likely to involve some negative surrender strain surrenders in practice. Furthermore, distinguishing between policies which have positive surrender strain compared to those which have negative surrender strain will cause additional calculation burdens. This will be a particular problem if this is required policy-by-policy, as then the best estimate provisions will also have to be determined policy-by-policy. QIS4 participants experienced unreasonably high SCR requirements for lapse risk and this was in a large part due to the high mass lapse calibration.	See response to comment 588
590.	FFSA	3.167.	In the simplified calculation CEIOPS uses a 50% decrease or increase in the lapse rates. FFSA believes that the calibration of 50% is not appropriate and	Noted

			must be revised.	
591.	German Insurance Association – Gesamtverband der D	3.167.	The mass lapse stress should also be applied to policies with negative surrender strain The application only to those products with positive strain surrender is not realistic and it is overly conservative not to allow for surrender profits generated by policies in a mass lapse stress when mass actions would be likely to involve some negative surrender strain surrenders in practice. Furthermore, distinguishing between policies which have positive surrender strain compared to those which have negative surrender strain will cause additional calculation burdens. This will be a particular problem if this is required policy-by-policy, as then the best estimate provisions will also have to be determined policy-by-policy. QIS4 participants experienced unreasonably high SCR requirements for lapse risk and this was in a large part due to the high mass lapse calibration.	See response to comment 588
592.	Ireland's Solvency 2 Group, excluding representa	3.167.	In the view of some of our members, the mass lapse stress should be applied to all policies i.e. including those with negative surrender strain. They argue that it is not realistic (and is overly conservative) to assume that only policies with a positive strain would lapse in a mass lapse event.	Noted
593.	Legal & General Group	3.167.	I still dispute the rationale for a mass lapse test. But this one seems reasonable if there is going to be one (other than the restriction to positive surrender strain policies) at an overall level. We do however think that the stress should differentiate between policies with different characteristics as discussed in 3.148W above.	Noted. See response to comment 468
594.	ROAM	3.167.	In the simplified calculation CEIOPS uses a 50% decrease or increase in the lapse rates.	See response to comment 590.

			ROAM believes that the calibration of 50% is not appropriate and must be revised.	
595.	UNESPA (Association of Spanish insurers)	3.167.	The mass lapse stress should also be applied to policies with negative surrender strain The application only to those products with positive strain surrender is not realistic and it is overly conservative not to allow for surrender profits generated by policies in a mass lapse stress when mass actions would be likely to involve some negative surrender strain surrenders in practice. Furthermore, distinguishing between policies which have positive surrender strain compared to those which have negative surrender strain will cause additional calculation burdens. This will be a particular problem if this is required policy-by-policy, as then the best estimate provisions will also have to be determined policy-by-policy. QIS4 participants experienced unreasonably high SCR requirements for lapse risk and this was in a large part due to the high mass lapse calibration.	See response to comment 588
596.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	3.168.	See 3.155	See response to comment 507
597.	Association of British Insurers	3.168.	This wording of this advice needs amendment – "non-retail" should be replaced by "institutional" This commences with "For non retail business…" however, the	See response to comment 472

			discussion in Para 3.149 refers to "institutional investors" (e.g. investments by pension fund trustees). Non-retail could be interpreted to capture a wider range of business which has not been examined e.g. reinsurance. We recommend that CEIOPS is more precise and is consistent with Para 3.149. This paragraph should start with "For business with institutional investors…".	
598.	CEA, ECO-SLV-09-444	3.168.	This wording of this advice needs amendment – "non retail" should be replaced by "institutional". This commences with "For non retail business…", however, the discussion in Para 3.149 refers to "institutional investors" (e.g. investments by pension fund trustees). Non retail could be interpreted to capture a wider range of business which has not been examined e.g. reinsurance. We recommend that Ceiops is more precise and is consistent with Para 3.149. This paragraph should start with "For business with institutional investors…". The proposed 70% mass lapse stress for non-retail business is too high. The feedback in QIS4 was that, if anything, the 30% stress was too high and the introduction of a 70% stress for non-retail business, whilst maintaining a 30% stress for retail business, is inconsistent with this feedback. The introduction of the 70% mass lapse stress for non-retail business seems particularly excessive, and although the risk of mass lapse on these products may be higher, no justification has been provided for the 70% stress parameter. The existence of positive surrender strains will not necessary mean	See response to comment 472. See response to comment 448

			that the policyholder is more likely to lapse or surrender. Even in the case of positive surrender strains, there can be other aspects that prevent the policyholder from lapsing or surrendering, for example in the Spanish market, most life non-retail business corresponds to the externalisation of pensions commitments required by the local labour law. Furthermore, non-retail business is linked to market causes and rational lapse risk is implicitly captured in the market risk module. In addition, this is a good example of how the different treatment of lapse risk could possibly increase the unlevel playing field with pension funds in the EU.	
599.	CRO Forum	3.168.	This topic deserves in our view further discussion. Where business originates in non EU markets it could severely damage the competitive position of EU groups. CEIOPS therefore should proceed with caution. We believe that there is no evidence to support a 70% mass lapse assumption for non-retail business. Given the significance of the capital requirements that could emerge the impact will have to be assessed in impact studies (QIS5). Furthermore, the QIS 3 the shock tested was 75% of the positive strain on unit-linked business. CEIOPS discusses the actions of institutional investors then expands its description to non retail products without discussion of what is explicitly covered. In particular CEIOPS should note that a mass lapse test is not appropriate for reinsurers and also that in various products management have protection mechanisms available.(see 3.148) It should be noted that observed policyholder behaviour is not entirely economically ration and not targeted to do maximum harm	Noted. See response to comment 448.

			to the firm.	
600.			Confidential comment deleted	
601.	German Insurance Association – Gesamtverband der D	3.168.	This wording of this advice needs amendment – "non retail" should be replaced by "institutional" This commences with "For non retail business…", however, the discussion in Para 3.149 refers to "institutional investors" (e.g. investments by pension fund trustees). Non retail could be interpreted to capture a wider range of business which has not been examined e.g. reinsurance. We recommend that CEIOPS is more precise and is consistent with Para 3.149. This paragraph should start with "For business with institutional investors…". The proposed 70% mass lapse stress for non-retail business is too high The feedback in QIS4 was that, if anything, the 30% stress was too high and the introduction of a 70% stress for non-retail business, whilst maintaining a 30% stress for retail business, is inconsistent with this feedback. The introduction of the 70% mass lapse stress for non-retail business seems particularly excessive, and although the risk of mass lapse on these products may be higher, no justification has been provided for the 70% stress parameter. The existence of positive surrender strains will not necessary mean that the policyholder is more likely to lapse or surrender. Even in the case of positive surrender strains, there can be other aspects that prevent the policyholder from lapsing or surrendering, for example in the Spanish market, most life non-retail business corresponds to the externalisation of pensions commitments	See resoinse to comment 598

			required by the local labour law. Furthermore, non-retail business is linked to market causes and rational lapse risk is implicitly captured in the market risk module. In addition, this is a good example of how the different treatment of lapse risk could possibly increase the unlevel playing field with pension funds in the EU.	
602.	Groupe Consultatif	3.168.	For non-retail business, the risk of a mass lapse event is defined as 70% and not 30%. We have some concern that this leaves out of account the fact that institutional purchasers are relatively sophisticated both on the way in and on the way out. There is indeed an argument for a higher rate than for retail business but not to this degree.	Noted. See response to comment 411.
603.	Institut des actuaires (France)	3.168.	For non-retail business, the risk of a mass lapse event is defined as 70% and not 30%. If this point is somehow justified in actuarial terms, it is more complicated if you consider it at a European level. Pension funds are not impacted by Solvency 2 and therefore are not impacted by this risk. However, a French company that does the same business will experience a mass lapse risk of 70%. This is a very important impact on the SCR (one of the most emphasized). This risk should be limited in order to insure a level playing field.	Noted
604.	Legal & General Group	3.168.	This is strong and not based on any evidence.	Noted
605.	Munich RE	3.168.	CEIOPS discusses the actions of institutional investors then expands its description to non retail products without discussion of what is explicitly covered. In particular CEIOPS should note that a mass lapse test is not appropriate for reinsurers and also that in various products management have protection mechanisms available.(see 3.152)	Noted

			It should be noted that observed policyholder behaviour is not entirely economically rational.	
606.	UNESPA (Association of Spanish insurers)	3.168.	The proposed 70% mass lapse stress for non-retail business is too high The introduction of the 70% mass lapse stress for non-retail business seems particularly excessive, and although the risk of mass lapse on these products may be higher, no justification has been provided for the 70% stress parameter. The existence of positive surrender strains will not necessary mean that the policyholder is more likely to lapse or surrender. Even in the case of positive surrender strains, there can be other aspects that prevent the policyholder from lapsing or surrendering, for example in the Spanish market, most life non-retail business corresponds to the externalisation of pensions commitments required by the local labour law. Furthermore, non-retail business is linked to market causes and rational lapse risk is implicitly captured in the market risk module.	See response to comment 598. Noted. However CEIOPS believes the restriction is best placed for a realistic 99.5% event for SCR purposes.
607.	Association of British Insurers	3.169.	We support the introduction of a simplification that allows firms to perform the lapse risk calculations at a model point level The choice of model points should distinguish between policies with different lapse risks. However, we would welcome further guidance from CEIOPS as to how insurers might validate that "the result of a policy-by-policy calculation would not differ materially from a calculation on homogeneous risk groups". Assuming that the policy grouping process was conducted appropriately and the grouped policies capture the characteristics (and specifically the risks) of the underlying data, the grouped	Noted.

			model points would reduce the number of policies required to be modelled and so would reduce the required calculation run time, without endangering the accuracy. Specifically in the case of stochastic calculations this is very desirable.	
608.	Association of Friendly Societies	3.169.	We consider that the simplifications should allow for the option to assume no lapses in the best estimate calculation as long as this is a prudent assumption.	Noted
609.	CEA, ECO-SLV-09-444	3.169.	We support the introduction of a simplification that allows firms to perform the lapse risk calculations at a model point level. Assuming that the policy grouping process was conducted appropriately and the grouped policies capture the characteristics (and specifically the risks) of the underlying data, the grouped model points would reduce the number of policies required to be modelled and so would reduce the required calculation run time, without endangering the accuracy. Specifically in the case of stochastic calculations this is very desirable. However, we would welcome further guidance from Ceiops as to how insurers might validate that "the result of a policy-by-policy calculation would not differ materially from a calculation on homogeneous risk groups".	See response to comment 607
610.	CRO Forum	3.169.	Proportionality is welcomed but please see also comments for 3.170	Noted. See response to comment 617
611.	German Insurance Association – Gesamtverband der D	3.169.	We support the introduction of a simplification that allows firms to perform the lapse risk calculations at a model point level The choice of model points should distinguish between policies with different lapse risks. However, we would welcome further guidance from CEIOPS as to how insurers might validate that "the result of a policy-by-policy calculation would not differ materially from a calculation on homogeneous risk groups".	See response to comment 607

			Assuming that the policy grouping process was conducted appropriately and the grouped policies capture the characteristics (and specifically the risks) of the underlying data, the grouped model points would reduce the number of policies required to be modelled and so would reduce the required calculation run time, without endangering the accuracy. Specifically in the case of stochastic calculations this is very desirable.	
612.	Just Retirement Limited	3.169.	We welcome the simplifications for calculating lapse risk using homogeneous risk groups rather than on a policy by policy basis.	Noted
613.	Legal & General Group	3.169.	This text is not necessary given it only applies if the difference is immaterial.	See response to comment 505
614.	Munich RE	3.169.	Proportionality is welcomed but please see also comments for 3.170	Noted. See response to comment 621
615.	OAC plc	3.169.	We consider that the simplifications should allow for the option to assume no lapses in the best estimate calculation as long as this is a prudent assumption.	Discussion as to the best estimate is not in the scope of the responses to this CP
616.	CEA, ECO-SLV-09-444	3.170.	See comments to Para 3.159. We note that there is no explanation as to how to treat Mass Lapse Risk in the simplifications. Does this mean that if the undertaking uses simplifications, it doesn't need to carry out the Lapse Mass calculation?	See response to comment 519 and comment 582
617.	CRO Forum	3.170.	We believe that a factor-based simplification for lapse risk should not be allowed for in the standard formula (i.e Option 2). The surrender strain on most insurance products will change over time and this is not adequately allowed for in the simplification. Besides, in order to calculate the parameters "n" properly you would need to	Noted

			project your surrender strain profile which then means you should be able to use the standard approach.	
618.	German Insurance Association – Gesamtverband der D	3.170.	The GDV supports the use of the factor-based simplifications for lapse risk (i.e. Option 1) as used in QIS4 Factor-based simplifications can be very useful for SME's. Therefore, we prefer Option 1, i.e. that the standard formula retains a factor-based simplification for lapse risk. If one sub-module of the life underwriting risk module does not allow for a simplified approach, the undertaking will have to build a full projection model and would therefore not need any factor-based simplifications. We believe that there should be a wide range of approaches should be available (from factor-based simplifications to internal models). The incentive to step forward to more complex models should be given via advantages in the SCR calibration, not via removing simplifications. We note that there is no explanation as to how to treat Lapse Mass in the simplifications. Does this mean that if the undertaking uses simplifications, it doesn't need to carry out the Lapse Mass calculation?	Noted. See response to comment 582
619.	Groupe Consultatif	3.170.	We favor option 2 that refrains from a factor-based simplification since the influence of altered lapse rates on the in-force business and prospective cash flows cannot properly be taken into account	Noted.
620.	Legal & General Group	3.170.	It is difficult to evaluate these simplifications in isolation. Simplifications have not been given for other modules, so there is no basis for comparison. Generally these seem appropriate. This also applies to section 3.171, 3.172 and 3.173	Noted.
621.	Munich RE	3.170.	We believe that a factor-based simplification for lapse risk should not be allowed for in the standard formula (i.e Option 2). The	See response to comment 617

			surrender strain on most insurance products will change over time and this is not adequately allowed for in the simplification. Besides, in order to calculate the parameters "n" properly you would need to project your surrender strain profile which then means you should be able to use the standard approach.	
622.	CEA, ECO-SLV-09-444	3.171.	See comments to Para 3.166 – we believe that the calibration of 50% is not appropriate and must be revised.	Noted
623.	CRO Forum	3.171.	We believe that a factor-based simplification for lapse risk should not be allowed for in the standard formula (i.e Option 2). The surrender strain on most insurance products will change over time and this is not adequately allowed for in the simplification. Besides, in order to calculate the parameters "n" properly you would need to project your surrender strain profile which then means you should be able to use the standard approach.	See response to comment 617
624.	German Insurance Association – Gesamtverband der D	3.171.	See comments to Para 3.166 – we believe that the calibration of 50% is not appropriate and must be revised.	See response to comment 622
625.	Legal & General Group	3.171.	As per 3.170	See response to comment 620
626.	Munich RE	3.171.	We believe that a factor-based simplification for lapse risk should not be allowed for in the standard formula (i.e Option 2). The surrender strain on most insurance products will change over time and this is not adequately allowed for in the simplification. Besides, in order to calculate the parameters "n" properly you would need to	See response to comment 617

			project your surrender strain profile which then means you should be able to use the standard approach.	
627.	Legal & General Group	3.172.	As per 3.170	See response to comment 620
628.			Confidential comment deleted	
629.	Legal & General Group	3.173.	As per 3.170	See response to comment 620
630.	Association of British Insurers	3.176.	Any benefits associated with income for the insurer in a catastrophe are not included in the definition of catastrophe risk. We request that these are also included.	Not agreed. The adoption of the 'alternative proposal', supported by many respondents, to restrict the mortality catastrophe to only areas which would be adversely affected by mortality bars this definition.
631.	CEA, ECO-SLV-09-444	3.176.	Any benefits which give rise to income for the (re)insurer in a catastrophe are not included in the definition of catastrophe risk. We request that these are also included.	See response to comment 630
632.	UNESPA (Association of Spanish insurers)	3.176.	Any benefits associated with income for the insurer in a catastrophe are not included in the definition of catastrophe risk. We request that these are also included.	See response to comment 630
633.	RGA UK Services Limited	3.177.	We agree with the removal of morbidity catastrophe to the separate non-life catastrophe module.	Noted
634.	CRO Forum	3.178.	In its paper "Calibration Principles for the Solvency II Standard Formula" the CRO Forum stated that it considered this stress as not	Noted. CEIOPS considers that separating insured and population

			appropriately calibrated to portfolio specifics. The relation of insured portfolio mortality vs. corresponding general population mortality could be taken into account when applying the increase factor.	lives would introduce extra complexity
635.	Munich RE	3.178.	The relation of insured portfolio mortality vs. corresponding general population mortality should be taken into account to some extent when applying the increase factor.	See response to comment 634
636.	FFSA	3.180.	CEIPOS wants to increase the calibration to take into account other pandemics. FFSA believes that influenza pandemics are appropriate to focus on due to the nature of their global impact; other diseases/events mentioned would not have a global impact or would not represent a catastrophic spike in mortality rates.	See response to comment 634
637.			Confidential comment deleted	
638.	Swiss Re	3.180.	**[EMPTY]**	
639.	Unum Limited	3.180.	We support the removal of the morbidity component of the life catastrophe stress to the health sub-module.	Noted
640.			Confidential comment deleted	
641.	Association of British Insurers	3.182.	We support the removal of the morbidity component of the life catastrophe stress to the health sub-module.	Noted
642.	CEA, ECO-SLV-09-444	3.182.	We support the removal of the morbidity component of the life catastrophe stress to the health sub-module. For practical reasons this simplification seems justifiable.	Noted
643.	CRO Forum	3.182.	We agree. For practical reasons this simplification seems justifiable.	Noted
644.	Dutch	3.182.	During the 1918 flu pandemic there weren't enough and successful	Noted. Please see modified

	Actuarial Society – Actuarieel Genootschap (		vaccines applicable. So a rise to death levels of above 5 per mille is explicable. It isn't a argument for the advice in 3.191	section 3.8
645.	FFSA	3.182.	CEIOPS outlines that the 1918 flu pandemic gave rise to death levels of above 5 per mille. FFSA considers that the comment regarding the 1918 pandemic is irrelevant as it ignores the improvement in underlying health and medical advances.	Noted. Please see modified section 3.8
646.	Munich RE	3.182.	We agree. For practical reasons this simplification seems justifiable.	Please see response to comment 643
647.			Confidential comment deleted	
648.	DIMA	3.183.	Please find enclosed two reports from America concerning pandemic risk, and an explanatory cover note. Both reports suggest a much lower pandemic risk than 2.5 per mille.	Noted. Please see modified section 3.8
649.	RGA UK Services Limited	3.183.	We do not agree with the proposed increase in the mortality stress test from 1.5 per mille to 2.5 per mille for the year following the valuation, nor to the proposed restriction of the application of the test to policies with a positive sum at risk. Our reasons for this are as follows. First, the 2007 paper from Swiss Re is still generally regarded as a valid assessment of the risks around influenza pandemics. In particular we consider the nature of the health systems in developed countries has changed so materially since the 1918-19 Spanish influenza outbreak as to make the use of that data (and indeed other historic events) of limited use, and making the use of epidemiological models of more use. (This is similar to the use of "cause of death" models used to consider the possible changes in	Noted. Please see modified section 3.8

			annuity mortality). Second, the comments in paragraph 3.180 around terrorist attacks or natural disasters are, in our opinion, best dealt with by consideration of concentration risks rather than the uniform application of an increased mortality across the whole insured portfolio. Third, we note that the economic model published by Standard & Poors (which uses varying factors depending on size of portfolio) appears to suggest that even a 1.5 per mille stress would be stronger than that required to support a BBB rating. Finally, we disagree with the interpretation of the historic data on the incidence of influenza by age. As mentioned previously, we do not regard the 1918-19 experience as meaningful when considering the potential impact of future events, while normal influenza has in more recent times continued to affect the elderly more than those at other ages. Consequentially we consider it to be inappropriate to exclude policies with a negative sum at risk (annuities in payment) from the calculation. In summary, for catastrophe risk we would favour the retention of the 1.5 per mille used in QIS4. These comments apply to paragraphs 3.170 to 3.192	
650.	Association of British Insurers	3.184.	We disagree with CEIOPS' analysis of the Swiss Re model "However, there are a number of potential weakness in this model such as not adequately allowing for the probability of flu jumping across species, such as from birds to humans… " The Swiss Re model is based on historical pandemics. As cross-species mutation is a key driver for these historic pandemics, the model therefore implicitly allows for cross-species mutation.	Noted. Please see modified section 3.8

			"… not allowing for non-influenza pandemics (e.g. AIDS, drug resistant TB, Ebola virus, MRSA, SARS) " It is correct that the Swiss Re pandemic model does not allow for these risks and there are currently pandemic events involving TB, MRSA and HIV according to the WHO definition. However, none of these pandemics has the mortality catastrophe potential of an Influenza A pandemic (at present). We do not believe that the focus on viruses as the sole initiators of significant infectious mortality is appropriate. "… or other causes of mortality catastrophe such as terrorism or physical catastrophes such as earthquakes" It is correct that the model does not allow for mortality arising from non-pandemic events such are terrorism. The scale of mortality in such attacks at a 1 in 200 level would be covered by the pandemic capital. For small local companies, there is potentially an argument for some additional risk capital to cover this risk but an additional 1 per mille would be extreme.	
651.			Confidential comment deleted	
652.	CEA, ECO-SLV-09-444	3.184.	We disagree with Ceiops' analysis of the Swiss Re model: "However, there are a number of potential weakness in this model such as not adequately allowing for the probability of flu jumping across species, such as from birds to humans,… " The Swiss Re model is based on historical pandemics. As cross-species mutation is a key driver for these historic pandemics, the model therefore implicitly allows for cross-species mutation. "… not allowing for non-influenza pandemics (e.g. AIDS,	Noted. Please see modified section 3.8

			drug resistant TB, Ebola virus, MRSA, SARS) " It is correct that the Swiss Re pandemic model does not allow for these risks and there are currently pandemic events involving TB, MRSA and HIV according to the WHO definition. However, none of these pandemics has the mortality catastrophe potential of an Influenza A pandemic (at present). We don't believe that the focus on viruses as the sole initiators of significant infectious mortality is appropriate. "… or other causes of mortality catastrophe such as terrorism or physical catastrophes such as earthquakes" It is correct that the model does not allow for mortality arising from non pandemic events such are terrorism. The scale of mortality in such attacks at a 1 in 200 level would be covered by the pandemic capital. For small local companies, there is potentially an argument for some additional risk capital to cover this risk but an additional 1 per mille would be extreme.	
653.	CRO Forum	3.184.	CEIOPS questions whether 1.5 per mille makes adequate allowance for the probability of flu jumping across species, such as from birds to humans but offers no quantification of any extra it considers appropriate compared to that allowed for explicitly and implicitly in any model that uses past events which were also related to cross species virus mutation. CEIOPS notes other potential causes of pandemics citing AIDS, drug resistant TB, Ebola virus, MRSA, SARS are not addressed. The only widespread virus that has emerged to cause significant mortality in recent history is AIDS and it did not rapidly but over a long time-horizon. Other pathogens (eg West Nile virus, SARS) in recent history did not cause significant mortality. Any assessment	Noted. Please see modified section 3.8

			would be heavily impacted by the ability to mitigate harm (eg containment, anti virals etc.) If a pandemic event were to develop from a source other than flu it is likely that the capital determined at 1.5 per mille held to cover a 1 in 200 pandemic event would be sufficient to cover the cost. In other words it is likely that no additional capital would be required to cover a 1 in 200 event irrespective of the trigger for the pandemic. CEIOPS also refers to 'other causes of mortality catastrophe such as terrorism or physical catastrophes such as earthquakes'. The scale of mortality in such attacks is typically much smaller and local and here too for reasonably spread entities the claim burden arising from such events at the 1 in 200 level is likely to be covered by a 1,5 per mille capital.	
654.	Groupe Consultatif	3.184.	The impact of the examples mentioned like AIDS, SARS etc. is always smaller than a worldwide severe pandemic. Because of independency between a pandemic and the mentioned non-influenza diseases the capital calculated at the worst level will be high enough and don't need any increase. Indeed at local level analysis should be made with respect to concentration risk but this is more a pillar 2 exercise.	Noted.
655.	Munich RE	3.184.	CEIOPS also refers to 'other causes of mortality catastrophe such as terrorism or physical catastrophes such as earthquakes'. The scale of mortality in such attacks is typically much smaller and local and here too for reasonably spread entities the claim burden arising from such events at the 1 in 200 level is likely to be covered by a 1,5 per mille capital.	Noted. Please see modified section 3.8
656.	Swiss Re	3.184.	CEIOPS comments: "However, there are a number of potential weakness in this model such as not adequately allowing for the probability of flu jumping across species, such as from birds to	Noted. Please see modified section 3.8

			humans," CEIOPS gives little detail on its own beliefs in these areas so we are unable to comment on them. The SwissRe model implicitly allows for any of the sources of new pandemic influenza viruses, including transmission between species. Two variables determine the likely mortality outcome in a pandemic. The R0 value determines how rapidly infection spreads as well as the ultimate proportion of the population infected. The lethality (death rate per infection) determines how many of the infected people die. These variables are generated using distributions that are based on our research of historical pandemic influenza events. Many of these historical events will have occurred as a consequence of viruses originating in birds or swine – the risk of viruses originating in animals is thus implicit in the key inception variables that determine mortality. There is some uncertainty around the distributions used, and this uncertainty was investigated and reported in section 5.4.2 ("Sensitivity of results…") of the report "Pandemic Influenza: A 21st century model for mortality shocks" ("Pandemic Influenza Report"). The annual probability of an outbreak of influenza is taken to be 1 in 30, based on historical data. The 1 in 30 year likelihood of a pandemic was given careful consideration in the development of the model. We presented the results of the sensitivity testing of this assumption in section 5.4.2. There is an alternative view that a 1 in 20 year assumption would be more appropriate. The argument is that there is an increased general risk today of animal-to-human transmission of disease related to the intersecting density of human and poultry (or swine) populations. Determining this risk with any accuracy is difficult and, in some parts of developing countries,	

			overlapping densities have increased. However, this is counter-balanced by increased regulation in many more locations requiring separation of swine and poultry rearing and human settlement. Given that the risk of transmission mainly involves those working directly with poultry and animals, our conclusion is that the risk is lower and so we believe that a 1 in 30 year likelihood is appropriate. The model does allow for an enhanced risk of the emergence of a humanly transmissible virus originating with other species and we believe this to be fully adequate for current uncertainties. Given that H5N1 was circulating at the time the model was run, it was decided that special allowance should be made for this risk. This was done by choosing a lognormal distribution to model lethality. In this way the model allows for a greater risk of a high lethality pandemic, while keeping other variables the same. The effects of this, the sensitivity of the model to distribution type, and the range of outcomes is shown on page 61 of the Pandemic Influenza Report. CEIOPS comments that the SwissRe model does not allow for : " non-influenza pandemics (e.g. AIDS, drug resistant TB, Ebola virus, MRSA, SARS)". There is risk attached to emerging or re-emerging diseases, but the risk is overwhelmingly dwarfed by the 1 in 200 influenza pandemic risk. Only one non-influenza disease has emerged to cause substantial mortality in recent times (HIV), and this has been slow moving and has so far affected mainly developing countries or sub-populations of developed countries. Non-influenza pandemics are possible. The main sources are: emergence of a completely new infectious agent, or re-emergence of previously known infectious agents due to deliberate release	

			(e.g. terrorism), accidental release (e.g. laboratory accident), or mutation (e.g. drug resistance). New infectious organisms are discovered at a rate of about one per year, for example HIV or SARS. These are generally thought to either be entirely new or to have existed previously but were unable to spread or cause harm. The ability to causes harm is determined by the combination of spread capability, incubation period, patterns of contagiousness, and lethality. A highly lethal virus that kills quickly, for example, is likely to experience limited spread, especially if symptoms are quickly apparent. Recent history indicates that the vast majority of new diseases have very limited ability to cause mortality Swiss Re has examined an extensive range of existing infectious disease agents. Diseases examined included Plague, Smallpox, Syphilis, waterborne diseases (e.g. Cholera, Typhoid), HIV, Haemorrhagic Fever viruses (e.g. Ebola, Marburg), and vector-borne diseases (e.g., Malaria, Viral Encephalitis, West Nile Fever). After HIV the most threatening of these is Smallpox (deliberately released), but the fact that symptoms are evident before the infected person becomes infectious to others means containment is possible. Even pessimistic scenarios examining deliberate release show only a few thousand deaths. None of the other diseases are likely to cause high numbers of deaths due to the timing of infectiousness and symptoms. CEIOPS comments that the model does not allow for: ".. other causes of mortality catastrophe such as terrorism or physical catastrophes such as earthquakes" We believe that at a 1 in 200 level the stand alone cost of a localised event will not exceed the cost of a global pandemic. It is correct that the model does not allow for mortality arising from	

			non pandemic events such as terrorism or earthquake. The scale of mortality in such attacks is typically much smaller and localized. We note that the highest cost of claim to date is the 9/11 attacks which we believe cost the industry as a whole $2.7bn with about 3,000 deaths. If the event occurred today the cost to Swiss Re would be significantly less than 5% of annual claims. For a small insurance company with a local client base centred on one of the big cities, this may represent a higher proportion of claim, thus highlighting that one size doesn't fit all. Obviously one can imagine more extreme outcomes associated with, for example, terrorist nuclear events but we think these are much more extreme than the 1 in 200 standard set in Solvency II. If the additional 1per mille is to cover such other causes of mortality catastrophe, the new value of 2.5 per mille either assumes an additional 1per mille risk is fully correlated to pandemic risk or alternatively that the additional risk is independent of pandemic and is approximately 2 per mille on a stand alone basis. These would be very extreme assumptions and we believe that at a 1 in 200 level the stand alone cost of a localised event will not exceed the cost of a global pandemic. Even if we make a conservative assumption of either 0.5 pm or 1 pm additional mortality, the overall catastrophe charge would be 1.6 pm or 1.8 pm, assuming independence. Therefore, an overall catastrophe charge of 2.5 pm appears inconsistent with a 1 in 200 view.	
657.	Association of British Insurers	3.185.	We disagree with CEIOPS' analysis of the Swiss Re model Swiss Re did quantify the level of uncertainty and parameter risk arising from using the historic pandemic models and acknowledged it in their report on pg 68.	Noted. Please see modified section 3.8
658.	CEA,	3.185.	We disagree with Ceiops' analysis of the Swiss Re model.	Please see response to comment

	ECO-SLV-09-444		Swiss Re did quantify the level of uncertainty and parameter risk arising from using the historic pandemic models and acknowledged it in their report on pg 68.	656
659.	Swiss Re	3.185.	CEIOPS commented : "Furthermore, due to sparse historical data on pandemics, there is a significant degree of uncertainty around the calibration of any pandemic model." See our comment to 3.184	Please see response to comment 656
660.	Association of British Insurers	3.186.	Any comparison with the 1918 flu pandemic needs to be weighed against the advance since then In 1918, there were no anti-virals or antibiotics, no knowledge of viruses as such, less advanced medical care and lack of hospital facilities; populations had poor nutrition and compromised health status (e.g. TB). In developing the model, Swiss Re looked at the 1918 pandemic and estimated what the effect of that virus would have were it to occur today. Allowing for health improvements and improvements to knowledge and medical care, the same virus would result in additional mortality of less than 2 per mille.	Noted. Please see modified section 3.8
661.			Confidential comment deleted	
662.	CEA, ECO-SLV-09-444	3.186.	Any comparison with the 1918 flu pandemic needs to be weighed against the advancements since then. In 1918, there were no anti-virals or antibiotics, no knowledge of viruses as such, less advanced medical care and lack of hospital facilities; populations had poor nutrition and compromised health status (e.g. TB). In developing the model, Swiss Re looked at the 1918 pandemic and estimated what the effect of that virus would have were it to	Noted. Please see modified section 3.8

			occur today. Allowing for health improvements and improvements to knowledge and medical care, the same virus would result in additional mortality of less than 2 per mille.	
663.	CRO Forum	3.186.	CEIOPS observe the mortality in 1918. The medical abilities were by far not as advanced as they are today e.g no knowledge of how the flu virus worked, no antibiotics or antivirals (e.g. Tamiflu), populations with poorer health conditions making them more susceptible (e.g. widespread TB) and less well developed public health management and hospital facilities. There are, of course, also other aspects that might allow an influenza to spread faster today, nevertheless we believe that the advances since 1918 far outweigh this and that 1918 does not provide a benchmark for 1 in 200 in modern times.	Noted. Please see modified section 3.8
664.	Groupe Consultatif	3.186.	The situation during the Spanish Flu in 1918 was completely different: less medical development; just at the end of the First World War; also a TB epidemic existed in the same period. In the research done by Swiss re and Groupe Consultatif together with the EC this was taken into account and translated into the 0.15% at a 1 in 200 level like used in QIS4.	Noted. Please see modified section 3.8
665.	Munich RE	3.186.	In 1918 the medical abilities (e.g. no antibiotics) were by far not as advanced as they are today (e.g. Tamiflu). There are also other aspects that might allow an influence spread faster today, nevertheless we believe that the advances in medical abilities should be reflected.	Noted. Please see modified section 3.8
666.	ROAM	3.186.	CEIOPS outlines that the 1918 flu pandemic gave rise to death levels of above 5 per mille. ROAM considers that the comment regarding the 1918 pandemic is irrelevant as it ignores the improvement in underlying health and medical advances.	Noted.

667.	Swiss Re	3.186.	CEIOPS comments: " We also note that the 1918 flu pandemic, which is the most significant mortality catastrophe for which data is available, gave rise to death levels of above 5 per mille." CEIOPS gives no information on how this observation has been built into their conclusions. A virus such as that in 1918, which caused mortality just below 5 per mille in developed countries would now cause population mortality of around 1.6 per mille. An event causing population mortality of 5 per mille in modern times is estimated to be a 1 in 3000 year event (this estimate subject to very high uncertainty). This topic is covered in our Report on pages 68 to 69. The main contributors to the expected reduction in mortality since 1918 are antibiotics to treat secondary infections, antivirals to treat primary viral infection, and changed demographics which affect spread of the virus and the proportions in high risk age groups. We have made the conservative assumption that underlying health improvements in the USA would not improve mortality at all, and that only improvements in other countries in excess of those improvements seen in the USA would have an effect (i.e. we have a substantial margin of caution on this issue). Since the publication antiviral stocks have increased, and vaccine technologies have improved which further reduce the likely effect of a 1918-like virus. Our report, pages 80-87 (Appendix A), presents evidence that a lower age specific excess mortality can be expected for insured lives compared to the general population. Our model does not make any adjustment for this.	Noted. Please see modified section 3.8
668.	Association of Friendly Societies	3.187.	We do not consider that the available data justifies a 40% increase in the catastrophe risk assumption compared with QIS4. We consider that advances in understanding of how disease is	Noted. Please see modified section 3.8

			transmitted and improved isolation techniques are a mitigant against some of the factors in para 3.184	
669.	OAC plc	3.187.	We do not consider that the available data justifies a 40% increase in the catastrophe risk assumption compared with QIS4. We consider that advances in understanding of how disease is transmitted and improved isolation techniques are a mitigant against some of the factors in para 3.184	Please see response to comment 668
670.	Pacific Life Re	3.187.	Section 3.187 describes how CEIOPS have decided to increase the mortality shock parameter from its QIS4 value of 1.5 per mille to 2.5 per mille. In our view this is an overly cautious assumption. There is a widely accepted view within the industry that the shock parameter should be in the region of 1.0 to 1.5 per mille and as far as we are aware there has been no material research that would suggest a higher assumption is appropriate. We believe that that the proposed assumption of 2.5 per mille would result in capital being held at a level higher than that required to cover a 1 in 200 year event. As well as commenting on the level of the parameter we would also like some clarification on its application, in particular in the case of joint life policies. We would ask that the text is clearer in its guidance on whether the per mille loading should be applied on a lives basis or on a per policy basis for Joint Life policies. We are assuming that the loading would apply to each life separately as there would appear to be no actuarial justification for applying the loading on a policy basis. We feel that CEIOPS guidance should be made clearer on this matter as we think there is a risk that others will apply the loading on a per policy basis if this is not stipulated.	Noted. Please see modified section 3.8 Agreed. Please see updated paragraph 3.191

671.	RGA UK Services Limited	3.187.	We disagree with this proposal as it would discourage the use of diversification within portfolios.	Disagree. Whilst the stress has been reduced from 2.5 to 1.5, the allowance for diversification within a catastrophe has been discounted.
672.			Confidential comment deleted	
673.	CRO Forum	3.188.	In addition to the comment under 3.184 and 3.186 we believe that there is a difference of mortality assumptions for insured portfolios and the general public that should also be allowed for when calibrating mortality stresses for pandemic and other one-off mortality stress events.	Please see response to comment 672
674.	Groupe Consultatif	3.188.	Looking at above we don't see any reason to increase the Life catastrophe risk shock. What we would advise is to take the catastrophe part of life risk out of the life module to make it easier to set correlation factors with other types of risks.	Disagree. CEIOPS does not have plans to change the structure of the life module at this stage. The correlation setting will be discussed in a further CP
675.	Munich RE	3.188.	In addition to the comment under 3.184 and 3.186 we believe that there is a difference of mortality assumptions for insured portfolios and the general public that should also be allowed for when calibrating mortality stresses for pandemic and other one-off mortality stress events.	Please see response to comment 672
676.	PricewaterhouseCoopers LLP	3.188.	The increase in the calibration of the mortality catastrophe stress from QIS4, with the absolute increase in mortality changing from 1.5 per mille to 2.5 per mille, is significant and does not appear to be strongly supported by the arguments or evidence set out in the consultation paper. While we acknowledge that catastrophe events are, by nature, very rare, we would prefer to see some further justification for this stress.	Noted. Please see modified section 3.8

677.	ROAM	3.188.	CEIPOS wants to increase the calibration to take into account other pandemics. ROAM believes that influenza pandemics are appropriate to focus on due to the nature of their global impact; other diseases/events mentioned would not have a global impact or would not represent a catastrophic spike in mortality rates.	Noted. Please see modified section 3.8
678.	Association of British Insurers	3.189.	CEIOPS should set the 'right' level for the stress not one that implicitly allows for the offsetting impact of annuities Companies will have different offsetting effects including many who have no annuity exposure. The offsetting impact should be allowed for in the calculation not in the calibration.	Noted. Please see modified section 3.8
679.			Confidential comment deleted	
680.	CEA, ECO-SLV-09-444	3.189.	Ceiops should set the 'right' level for the stress not one that implicitly allows for the offsetting impact of annuities. Companies will have different offsetting effects including many who have no annuity exposure. The offsetting impact should be allowed for in the calculation not in the calibration.	Please see response to comment 678
681.	CRO Forum	3.189.	This alternative approach should be tested in QIS5. Unbundling, however, should also not be made.	See response to comment 679
682.	Groupe Consultatif	3.189.	The alternative proposal described in para. 3.189 - 3.193 seems appropriate for the catastrophe stress: The stress should only be applied to (re)insurance obligations which are contingent on mortality. In this context, the QIS4 calibration constituting an absolute increase in the rate of policyholders dying over the following year of 1.5 ‰ should be retained.	Noted. Please see modified section 3.8
683.	Munich RE	3.189.	This alternative approach should be tested in QIS5. Unbundling, however, should also not be made.	See response to comment 679

684.			**[EMPTY]**	
685.	Association of Friendly Societies	3.191.	Many insurers choose to write both protection and annuity business in order to mitigate risks through diversification. It would seem perverse to remove the benefits which this brings by introducing bias into the capital requirements calculation.	Not agreed. Please see the modified section 3.8 which adopts the 'alternative proposal' when considering mitigating business on catastrophe risk.
686.	Dutch Actuarial Society – Actuarieel Genootschap (	3.191.	No adequate argumentation to deviate the Swiss Re study in 2007. See also 3.182	Noted. Please see modified section 3.8
687.	FFSA	3.191.	CEIOPS calibrates the catastrophe risk at 2.5 per mille. FFSA observes that the calibration on past pandemics is likely stronger than many other calibrations used for other risks as it is supported by much scientific research. No explanation of the 2.5 is provided. After reading CP50 it seems perhaps the stress was increased to have a consistent scenario with disability in the health module, for which a calibration based solely on pandemics would not make as much sense.	Noted. Please see modified section 3.8
688.	Ireland's Solvency 2 Group, excluding representa	3.191.	The life catastrophe risk factor has been increased by a factor of 66% from 1.5 per thousand to 2.5 per thousand on the basis of very flimsy evidence. The reference to the level of excess mortality from the Spanish Flu Pandemic of 1918 (5 per thousand) seems to us to be of limited relevance given the very substantial improvements in medical care that have taken place since then. We suggest that the factor be retained at its QIS4 level of 1.5 per thousand until a full study has been undertaken which addresses	Noted. Please see modified section 3.8

			CEIOPS's criticisms of the Swiss Re study (which informed the original choice of 1.5 per thousand).	
689.	OAC plc	3.191.	Many insurers choose to write both protection and annuity business in order to mitigate risks through diversification. It would seem perverse to remove the benefits which this brings by introducing bias into the capital requirements calculation.	See response to comment 685.
690.			Confidential comment deleted	
691.	RGA UK Services Limited	3.191.	We disagree as per full comments under 3.183	See response to comment 649.
692.	ROAM	3.191.	CEIOPS calibrates the catastrophe risk at 2.5 per mille. ROAM observes that the calibration on past pandemics is likely stronger than many other calibrations used for other risks as it is supported by much scientific research. No explanation of the 2.5 is provided. After reading CP50 it seems perhaps the stress was increased to have a consistent scenario with disability in the health module, for which a calibration based solely on pandemics would not make as much sense.	Noted, please see updated section 3.8
693.	XL Capital Ltd	3.191.	Mortality catastrophe stress increased from 1.5 per mille to 2.5 per mille with very limited justification. We do not believe that referral to the 1918 flu pandemic is appropriate to modern calibrations of mortality catastrophe scenarios as, among numerous other differences between then and now, advances in modern medicine will have drastically changed the number of deaths from any pandemic.	Noted, please see updated section 3.8
694.	CRO Forum	3.192.	It is not clear whether CEIOPS choice of 2.5 is driven by this annuity consideration. This should not be a driver for the calibration. Entities will have different balances between annuities and insurances. CEIOPS should not attempt to reflect annuity offset	Noted, please see updated section 3.8, particularly noting the adoption of the 'alternative proposal'.

			by adjusting the basic calibration for all. Any proposal should certainly be tested. CEIOPS may want to consider a reduced rate of offset.	
695.	ACA – ASSOCIATION DES COMPAGNIES D'ASSURANCES DU	3.193.	In our opinion, Non-life scenario is not adequate.	Noted
696.	CEA, ECO-SLV-09-444	3.193.	See comments to Para 3.189. The alternative proposal is not better than the current proposal.	Disagree. Please see updated section 3.8
697.	CRO Forum	3.193.	In its paper "Calibration Principles for the Solvency II Standard Formula" the CRO Forum stated that it considers the stresses as not appropriately calibrated to portfolio specifics. The relation of insured portfolio mortality vs. corresponding general population mortality could be taken into account when applying the increase factor. We thus do not agree to the increase when considering that the extra mortality is applied to insurance portfolios.	Noted. Please see updated section 3.8
698.	Deloitte	3.193.	The arguments to amend the increase of mortality from 1.5 per mille to 2.5 per mille are rather weak. No estimation is given of the impact of the weaknesses of the Swiss Re model mentioned in 3.109, and a reference to a pandemic that happened during a war more than 90 years ago seems inappropriate. In fact, the Swiss Re paper estimates that if that same pandemic would happen today, mortality rates would be 65% to 70% lower, which would bring them in the 1.5 per mille range.	Noted. Please see updated section 3.8

699.			Confidential comment deleted	
700.	German Insurance Association – Gesamtverband der D	3.193.	**[EMPTY]**	
701.	Munich RE	3.193.	We do not agree to the increase especially when considering that the extra mortality is applied to insurance portfolios. We support the study of the Groupe Consultatif The relation of insured portfolio mortality vs. corresponding general population mortality could be taken into account when applying the increase factor.	Noted. Please see updated section 3.8 CEIOPS considers separating insured and population lives would introduce undue complexity at the SCR level.
702.	PricewaterhouseCoopers LLP	3.193.	We note that different undertakings write different lines of business in widely varying proportions. It thus does not seem appropriate to prescribe a single mortality catastrophe stress which takes into account the wide range of possible diversification benefits between lines of business with mortality and longevity risk. As such, we suggest that life catastrophe risk is treated in a similar way to mortality risk – a single (extreme) stress is applied to all business subject to mortality risk and any diversification benefits are allowed for through the correlation matrix which is used to combine catastrophe risk with other sub-modules of the life underwriting risk module. In relation to the calibration of the single extreme stress, we refer to our comments at paragraph 3.188.	Disagree. Please see updated section 3.8. CEIOPS believes the proposal would introduce excessive further complexity.
703.	UNESPA	3.193.	**[EMPTY]**	

	(Association of Spanish insurers)			
704.	Unum Limited	3.193.	We request further evidence or justification for an increase in the life catastrophe risk stress. We do not support the increase of 1.5 per thousand to 2.5 per thousand 16. The QIS4 life catastrophe risk stress was 1.5 per mille, and analysis presented from the Swiss Re Influenza Pandemic Model suggested that a 1-in-200 influenza pandemic would be associated with stresses of between 1.0 and 1.5 per mille in a developed country. 17. CEIOPS suggests that a higher life catastrophe stress is necessary because the Swiss Re Influenza Pandemic Model does not allow for the exchange of genetic information between influenza viruses in different species or for the possibility of other non-influenza pandemics, as well as referring specifically to excess death rates in the 1918/1919 influenza pandemic even though more recently introduced medical interventions such as anti-viral drugs, vaccines and antibiotics would have significantly reduced the number of resulting deaths.	Noted. Please see modified section 3.8
705.	Legal & General Group	3.194.	Agree	Noted
706.	ACA – ASSOCIATION DES COMPAGNIES	3.195.	We note the new rate of 2.5 per mille.	Noted

	D'ASSURANCES DU			
707.	Association of British Insurers	3.195.	We request further evidence or justification for an increase in the life catastrophe risk stress. We do not support the increase of 1.5 per thousand to 2.5 per thousand The QIS4 life catastrophe risk stress was 1.5 per mille, and analysis presented from the Swiss Re Influenza Pandemic Model suggested that a 1-in-200 influenza pandemic would be associated with stresses of between 1.0 and 1.5 per mille in a developed country. CEIOPS suggests that a higher life catastrophe stress is necessary because the Swiss Re Influenza Pandemic Model does not allow for the exchange of genetic information between influenza viruses in different species or for the possibility of other non-influenza pandemics, as well as referring specifically to excess death rates in the 1918/1919 influenza pandemic even though more recently introduced medical interventions such as anti-viral drugs, vaccines and antibiotics would have significantly reduced the number of resulting deaths. However, the Swiss Re Influenza Pandemic model does implicitly allow for the effects of viral reassortment through modelling the impact of pandemics over a 300-year period including those in 1918/1919, 1957 and 1968. Further, those diseases listed by CEIOPS as causing potential non-influenza pandemics would either be unlikely to have a global impact (e.g. Ebola) or would be more likely to lead to a continued trend or permanent increase in mortality (e.g. drug resistant TB, MRSA & AIDS) rather than a life catastrophe stress.	Noted. Please see modified section 3.8
708.	CEA, ECO-SLV-	3.195.	We request further evidence or justification for an increase in the life catastrophe risk stress. We do not support the increase of 1.5 per thousand to 2.5 per thousand.	Please see response to comment 707.

	09-444		The QIS4 life catastrophe risk stress was 1.5 per mille, and analysis presented from the Swiss Re Influenza Pandemic Model suggested that a 1-in-200 influenza pandemic would be associated with stresses of between 1.0 and 1.5 per mille in a developed country. Ceiops suggests that a higher life catastrophe stress is necessary because the Swiss Re Influenza Pandemic Model does not allow for the exchange of genetic information between influenza viruses in different species or for the possibility of other non-influenza pandemics, as well as referring specifically to excess death rates in the 1918/1919 influenza pandemic even though more recently introduced medical interventions such as anti-viral drugs, vaccines and antibiotics would have significantly reduced the number of resulting deaths. However, the Swiss Re Influenza Pandemic model does implicitly allow for the effects of viral reassortment through modelling the impact of pandemics over a 300 year period including those in 1918/1919, 1957 and 1968. Furthermore, those diseases listed by Ceiops as causing potential non-influenza pandemics would either be unlikely to have a global impact (e.g. Ebola) or would be more likely to lead to a continued trend or permanent increase in mortality (e.g. drug resistant TB, MRSA & AIDS) rather than a life catastrophe stress. Whilst harmonisation of the design of the Life catastrophe Risk charge is required, scenarios should be flexible enough to recognise national specificities. We suggest strong harmonization in the design of catastrophic scenarios at EU level in order to avoid arbitrage. Nevertheless, at the same time we also suggest that these scenarios should be flexible enough to recognize an appropriate	

			reduction in capital requirements due to: Public institutions that in some countries play a crucial role in the coverage of certain extraordinary risks (as is the case in Spain where a public entity - Consorcio de Compensación de Seguros- covers certain extraordinary risks) ; and Reinsurance. Example of national specificity existing in Spanish market: The Consorcio is a public business institution, attached to the Ministry of Economy and Finance through the Directorate-General for Insurance and Pension Funds. The Consorcio is closely linked to extraordinary (catastrophic) risks cover, being the core tool of a disaster claim compensation system. Consorcio shall compensate insured persons, having paid the corresponding surcharges, for extraordinary losses which are not covered by their insurer. For those extraordinary events which occur in Spain, it covers events which cause damage to people or goods located in the country. In case of extraordinary events occurring abroad, the Consorcio will compensate for personal injuries if the policyholder is resident in Spain. It is usually compulsory for life insurance policies to be covered by Consorcio.	Disagree. CEIOPS velieves that in order to achieve a harmonised approach, a pan-European scenario is appropriate.
709.	CRO Forum	3.195.	As pointed out under 3.184, 3.186 and 3.188 we do not agree that the calibration should be increased from 1.5 to 2.5 per Mille. In addition there are several studies supporting the 1.5 per Mille. Please refer to the original suggestion from Groupe Consultatif that views 1.5‰ as a good approximation to a 1 in 200 year event. This is for example also supported by Swiss Re's disclosed model for pandemcis (for detailed references of these studies please see	Noted, please see responses to earlier comments, and modified section 3.8.

			the CRO Forum Position Paper – Influenza Pandemics)	
710.			Confidential comment deleted	
711.	German Insurance Association – Gesamtverband der D	3.195.	We request further evidence or justification for an increase in the life catastrophe risk stress. We do not support the increase of 1.5 per thousand to 2.5 per thousand The QIS4 life catastrophe risk stress was 1.5 per mille, and analysis presented from the Swiss Re Influenza Pandemic Model suggested that a 1-in-200 influenza pandemic would be associated with stresses of between 1.0 and 1.5 per mille in a developed country. CEIOPS suggests that a higher life catastrophe stress is necessary because the Swiss Re Influenza Pandemic Model does not allow for the exchange of genetic information between influenza viruses in different species or for the possibility of other non-influenza pandemics, as well as referring specifically to excess death rates in the 1918/1919 influenza pandemic even though more recently introduced medical interventions such as anti-viral drugs, vaccines and antibiotics would have significantly reduced the number of resulting deaths. However, the Swiss Re Influenza Pandemic model does implicitly allow for the effects of viral reassortment through modelling the impact of pandemics over a 300 year period including those in 1918/1919, 1957 and 1968. Further, those diseases listed by CEIOPS as causing potential non-influenza pandemics would either be unlikely to have a global impact (e.g. Ebola) or would be more likely to lead to a continued trend or permanent increase in mortality (e.g. drug resistant TB, MRSA & AIDS) rather than a life catastrophe stress.	Noted. Please see modified section 3.8
712.	Legal & General	3.195.	Strongly disagree. The proposed stress is too high and contradicts widely available evidence, without giving any counter evidence.	Noted. Please see modified section 3.8

	Group		The following is based on the epidemic papers from last year based on data from reliable sources such as the WHO and the HPA in the UK. Additional diseases that are mentioned in the text, with specific refutation of why they are unlikely to add an additional 1 per mille to the 1 in 200 year event: AIDS – this is a long term disease and the initial spike in the disease in the 1980 was due to the long gestation period. However, recent medical techniques have significantly increased the life expectancy of sufferers and although there is a long term reduction in mortality this is not a short term shock. Therefore, it does not appear appropriate to include this disease in a one year shock assessment. Drug resistant TB – The recent rise in the level of the multi drug resistant strains has lead to an increased threat of a tuberculosis epidemic. The British Government's investigation into the greatest threat to human's ranked tuberculosis in the top ten, although not as an epidemic risk. The WHO, in 2008, announced stabilization in the global level of tuberculosis diagnosis, but the risk from tuberculosis is high. Currently, in the UK approximately one in fifteen cases of tuberculosis is resistant to any one of the first line drugs. Tuberculosis has a current incidence rate in the 13 per 100,000, although in London this is as high as 45 per 100,000. The current Case Fatality Rate from the disease is 7%, however this overstates the CFR as it will include a number of deaths where patients have died with, rather than of, TB. This would imply excess deaths of 0.03 deaths per mille assuming that an epidemic occurs. Ebola virus – pathogen depends on carrier, which normally only survive in tropical climates, this is part of the VHF (Viral Haemorrhagic Fever) family of disease. In general the European	

			environment does not currently support the animal reservoirs of these diseases. (According to the WHO there is a low risk in southern Europe from ticks which are known vectors of CCHF). This makes the likelihood of an epidemic very low, especially as, although there is a risk of the animal reservoirs migrating this is highly unlikely, especially for those of the more fatal filovirus family. The VHF with the highest infection rate is dengue fever where historic epidemics have experienced infection rates of up to 40% with approximately 2.5% of cases being dengue haemorrhagic fever (1% infection rate). All other forms of VHF have experienced significantly lower infection rates. The case fatality rates also range dramatically between the virus families. CFR ranges from 1% for Dengue haemorrhagic fever and Lassa fever to up to 90% for Ebola and Marburg fever. If there was to be an outbreak of VHF type then a realistic worst case could be as high as c. 7 excess deaths per mille. However this is dependent on the outbreak occurring, even if we were to say that a full blow pandemic of this VHF type was a 1 in 200 year event then excess deaths would be 0.035 per mille. MRSA – A drug resistant strain, with very low mortality rates in healthy people. In 2006 in the UK there were just over 500 reported cases where MRSA was listed as the cause of death. SARS – As the most recent epidemic "near miss" after Avian 'flu, SARS (Severe Acute Respiratory Syndrome) illustrated a lethal new disease with airborne transmission. As SARS has already occurred assume the probability of a reoccurrence is 1/100. This has been limited due to the effective containment of the disease through control measures, resulting in the disease never becoming endemic.	

			From the available data SARS did not show a distinct age or sex profile. Due to the late infection stage of the disease SARS was able to be contained. The high economic cost of this disease was primarily due to the high profile concern over the disease rather than straight mortality claims costs. For an epidemic that will affect mortality payments a higher infection rate will be required than was experienced, the highest infection rate was in Hong Kong at 0.03% of the population. Case fatality rate from the only known outbreak was estimated at between 5% and 10%. This would imply a reasonable maximum level of excess deaths of 0.03 deaths per mille assuming that an epidemic occurs New diseases – these are the main source of risk, an influenza strain only has the potential to be a pandemic if it is a new strain to the population. It is, of course, impossible to predict the nature of a new disease, but by using already known diseases with additional margins for unknown future variants (as discussed above) some additional comfort can be taken that an allowance has been made for new diseases. In total, ignoring probabilistic diversification, this sums to 0.1 excess deaths per mille – significantly less than 1 per mille.	
713.	Munich RE	3.195.	As pointed out under 3.184, 3.186 and 3.188 we do not agree that the calibration should be increased from 1.5 to 2.5 per Mille.	Please see response to comment 709.
714.	Swiss Re	3.195.	CEIOPS advises: "The capital requirement shall be calculated as the change in net asset value (assets minus liabilities) following an absolute increase in the rate of policyholders dying over the following year of 2.5 per mille." As noted in 3.184-3.194 we strongly disagree with CEIOPS argumentation and its conclusions.	Noted. Please see modified section 3.8

			Our view is that an appropriate 1 in 200 calibration for typical assured lives portfolio age distribution in well developed countries is in the range 1-1.5 per mille. 1.5per mille is a fully adequate calibration for Solvency II Standard Formula. We will be pleased to meet with CEIOPS or any of its members to explain our model, our views on developments since its publication and to discuss CEIOPS views. Please contact Raj Singh, Chief Risk Officer (Raj_Singh@swissre.com) or Philippe Brahin, Head of Group Regulatory Affairs (Philippe_Brahin@swissre.com)	
715.	UNESPA (Association of Spanish insurers)	3.195.	We request further evidence or justification for an increase in the life catastrophe risk stress. We do not support the increase of 1.5 per thousand to 2.5 per thousand Whilst harmonisation of the design of the Life catastrophe Risk charge is required, scenarios should be flexible enough to recognise national specificities We suggest strong harmonization in the design of catastrophic scenarios at EU level in order to avoid arbitrage. Nevertheless, at the same time we also suggest that these scenarios should be flexible enough to recognize an appropriate reduction in capital requirements due to: (i) Public institutions that in some countries play a crucial role in the coverage of certain extraordinary risks (as is the case in Spain where a public entity - Consorcio de Compensación de Seguros- covers certain extraordinary risks) and (ii) Reinsurance. Example of national specificity existing in Spanish market: The Consorcio is a public business institution, attached to the	Noted. Please see modified section 3.8 Disagree. CEIOPS velieves that in order to achieve a harmonised approach, a pan-European scenario is appropriate.

			Ministry of Economy and Finance through the Directorate-General for Insurance and Pension Funds. The Consorcio is closely linked to extraordinary (catastrophic) risks cover, being the core tool of a disaster claim compensation system. Consorcio shall compensate for extraordinary losses to insured persons having paid the corresponding surcharges, not being covered against the extraordinary risk concerned by policy subscribed with an insurance company active in the market. The aim of Consorcio is to compensate, in above-mentioned cases, for losses produced by extraordinary events occurred in Spain, causing damages on people or goods located in the country. In case of extraordinary event occurred abroad, the Consorcio will compensate for personal injuries if the policyholder is resident in Spain. It is peculiar for Spanish system the definition of covered catastrophic risks considering the enormous potentiality of losses to be generated. This is not conditioned to the occurrence of events affecting a huge amount of insured persons or an extensive territory; nor to the fact that due to the importance of damages the event might be rated as "catastrophe". A single insured person affected by the loss should be entitled to compensation. A formal declaration as "catastrophe" or "catastrophic area" by public authorities will not be required. The cover is automatic for the events guaranteed. Those are: Natural events: extraordinary flood, earthquake, seaquake, volcanic eruption, atypical cyclonic storm and fall of sidereal bodies and meteorites. Socio-political events: acts of terrorism, rebellion, sedition, riot and civil commotion, as well as acts or actions of Armed or Security Forces during peacetime.	

			Protection against extraordinary risks is compulsorily linked to the underwriting of an insurance policy in certain branches (most of life insurance policies are covered by Consorcio).	
716.	CEA, ECO-SLV-09-444	A.5.	The strong link between disability insurance and social security insurance, as in Sweden, may not exist in other countries. Therefore we do not believe that the new morbidity rates can be calibrated correctly using an investigation by the Swedish FSA only.	Please see response to comment 274
717.	CRO Forum	A.5.	The strong link of disability insurance to social security insurance, as it is given in Sweden, may not exist in other countries. Therefore we do not believe that the new morbidity rates can be calibrated correctly using an investigation by the Swedish FSA only.	See response to comment 716
718.	Munich RE	A.5.	The strong link of disability insurance to social security insurance, as it is given in Sweden, may not exist in other countries. Therefore we do not believe that the new morbidity rates can be calibrated correctly using an investigation by the Swedish FSA only.	See response to comment 716
719.	CEA, ECO-SLV-09-444	A.6.	We do not believe that the new morbidity rates can be calibrated correctly using an investigation by the Swedish FSA only. Furthermore, we think that a +50% scenario in the first year is a remote event for internationally diversified insurers.	As noted in A.5 the calibration takes account potential changes in external circumstances which could be relevant in any country.
720.	CRO Forum	A.6.	We do not believe that the new morbidity rates can be calibrated correctly using an investigation by the Swedish FSA only. It is not evident how CEIOPS arrives at an increased level for the first year. Unless well justified it represents a computational complication for no material improvement in outcome.	Please see response to 719.
721.	Munich RE	A.6.	We do not believe that the new morbidity rates can be calibrated correctly using an investigation by the Swedish FSA only. It is not evident how CEIOPS arrives at an increased level for the first year. Unless well justified it represents a computational complication for no material improvement in outcome.	Please see response to 719.

722.	UNESPA (Association of Spanish insurers)	Appendix	See comments to Paragraphs 3.39 and 3.43	Please see response to comments 207 and 196
723.	CEA, ECO-SLV-09-444	B.	See comments to Para 3.39.	Please see response to comment 190
724.	Just Retirement Limited	B.	See comments under 3.43.	Please see response to comment 204
725.	CEA, ECO-SLV-09-444	B.3.	Whilst the comparative analysis of historical mortality improvements provided by Ceiops clearly demonstrates variability by age group and between countries, these analyses do not have a direct relevance to the choice of a permanent change in mortality as they appear to consider attained ages rather than cohorts of lives and present cumulative improvements over the selected periods rather than an average impact over that period.	This is a known issue with the analysis, it was taken into account when the proposed calibration was set.
726.	CEA, ECO-SLV-09-444	B.7.	Table 4 does not provide supporting evidence to the proposed longevity risk stress of 25%, which has been principally based on comparisons of stresses produced by internal models, and therefore it does not seem appropriate to use the results of Table 4 to justify the approach of having a single stress that would apply to all ages or outstanding policy durations.	The figures in Table 4 show the average one off shocks derived from the future improvements in mortality rates. For the reasons stated in B.8, CEIOPS leaves the stress to be 25%.
727.	Lucida plc	B.7.	Since whole life annuity contracts are common and the shocks clearly reduce with age for this duration, consideration should be given to a shock that varies with age.	Please see modified table and note response to comment regarding simplicity of approach above.
728.	Groupe	B.8.	We are not sure how to reconcile a median decrease of 25% with	The data held a large skew, and

	Consultatif		an interquartile range from 19% to 25% - are median and quartile equal?	had relatively few data points, so the mean and third quartile are equivalent.
729.	Lucida plc	B.8.	The argument set out in this paragraph implies that historic improvements are being compared with no improvement. The comparison should be with assumed improvements at the time since this would represent the increase in the amount of capital required. Hence the analysis in this Annex might be taken to imply that calibration at less than 25% would be appropriate and also that the calibration should vary by age.	Noted
730.	UNESPA (Association of Spanish insurers)	B.	Whilst the comparative analysis of historical mortality improvements provided by CEIOPS clearly demonstrates variability by age group and between countries, these analyses do not have a direct relevance to the choice of a permanent change in mortality as they appear to consider attained ages rather than cohorts of lives and present cumulative improvements over the selected periods rather than an average impact over that period.	See response to comment 725
731.	CEA, ECO-SLV-09-444	D.21.	The CEA supports the conclusion that a scenario based approach is preferred due to its greater risk sensitivity.	Noted
732.	CEA, ECO-SLV-09-444	D.22.	The CEA supports the availability of simplifications to mitigate the complexity of the calculations for smaller and medium sized companies.	Noted