EIOPA-FS-11/17

Version 17 May 2011

Stress Test Exercise 2011

Questions & Answers

Stress Test - List of Methodological Issues Raised by Participants and Supervisors

General Disclaimer

The answers given below are not official EIOPA positions but tentative Working Group answers referring to this Stress Test Exercise only.

Specifically, the answers are not intended to pre-judge EIOPA or its members in future discussions on the upcoming Solvency II regime.

No Q.	No paragraph in EIOPA-FS-11/012 (if provided)		Date (answer)
1	1.4 Background (Best Estimate Liabilities)	Question: Both for companies which took part to the QIS 5 and those which did not take part (especially for the latter) we propose the possibility to use the 2009 "BEL/Local Gaap Technical Liabilities" ratio as a proxy to estimate the BEL as of 31 December 2010. The local supervisor could provide the average ratio for the market according to QIS 5 results, to be adopted by undertakings which did not take part to QIS 5.	
		Answer: No, we do intend to allow for use of a general 2009 average. Neither, we would found it appropriate to use 2009 Local GAAP Technical Provision as a per see proxy ratio for 2010 pre stress test technical provision.	17/05/2011
2	5. Data Collection and analysis (MCR)	Question: Can we use our internal model in order to calculate the MCR (derived from the SCR)?	
		Answer: For the purpose of the Stress Test exercise, SCR and MCR can be derived on a best-effort basis in close co-ordination with the relevant supervisor. To derive the pre-stress MCR various reasonable inputs can be used, including information from a used internal model where appropriate. In any case, such approaches should be consistent with the general principles underlying the QIS5 exercise, in order to ensure an adequate degree of comparability of the results of the Stress Test. Information regarding the most relevant calculation methodologies adopted and its estimated impact (if different from the standard formula) must be shared with the relevant supervisor.	4/04/2011
3	5. Data Collection and analysis (MCR)	Question: For the purpose of the stress test, can the capital charge of credit & suretyship be adjusted given the major discrepancies reported in QIS5?	
		Answer: As mentioned in Question 1, for the purpose of the Stress Test exercise participants are allowed to perform the necessary calculations on a best-effort basis, and this includes the use of information from internal methodologies in place. However, general compliance with the QIS5 principles (namely the confidence level for the capital	4/04/2011

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		requirements) shall be ensured.	
4	5. Data Collection and analysis (SCR -Equity risk dampener)	Question: Can we assume the same value for the equity risk dampener as of end-2009? I.e. re-calculating our pre-stress SCR/MCR with a 30% equity shock by applying the dampener of 9 percentage points?	
		Answer: Although the QIS5 framework is the very basis for the stress test, some market parameters needed to be updated for the stress test. Besides the yield curves, EIOPA also provides a new value for the equity risk dampener as of end-2010. For the purpose of this stress test, the SCR equity risk capital charge should be based on a 49% shock for EEA/OECD equity and a 59% shock for other equity – including the equity dampener which exhibits the value of +10 percentage points by end-2010.	4/04/2011
5	Data Collection and analysis (MCR updates -Equity)	Question: We understand that for insurers wanting to calculate new MCR/SCR after equity stress, they have to use new equity risk capital charges, based on a 41.5% shock for EEA/OECD equity in the baseline scenario and 34% in the adverse scenario. Do you agree with this interpretation?	
		Answer: No, if a participating undertaking/group chose to update the MCR/SCR after stress the equity shock in the SCR formula is unchanged (i.e. 49 % for EEA/OECD equity and 59 % for other equity).	13/04/2011
6	Data Collection and analysis (MCR/SCR updates -Equity)	Question: The shocks updated for equity (49% and 59%) have to be used only if an undertaking chose to update MCR/SCR after stress. Is it correct?	
		Answer: Updating MCR/SCR after the stress is optional, however the equity charges of 49% and 59% applies to both calculations: (1) determining the MCR/SCR before stress and (2) re-calculating the MCR/SCR after the stress.	19/04/2011
7	5. Data collection and analysis (QIS 5 specifications)	Question: What does it exactly mean that the Stress Test is based on QIS5-type specifications? Should be considered that after calculating Solvency II Balance sheet and SCR /MCR at	

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		31/12/2010, QIS5 is applied before shocking the QIS5-stressed Balance sheet at 31/12/2010? Does this proceeding represent a double counting considered both QIS5 shocks and ST scenarios shocks?	
		Answer: The stress test methodology does not provide a double application of shocks. The procedure to be applied consists in: 1) calculating Solvency II Balance sheet as well as SCR/MCR (based on QIS5), 2) applying stresses to 2010 balance sheet (baseline, adverse and inflation scenario) and calculating change in available capital (own funds) as a result of shocks (for each shock and on aggregated basis in line with specifications). 3) At last, the available capital after stresses should be compared with SCR/MCR (for the latter either use pre-stress figure or recalculate based on stressed balance sheet).	8/04/2011
8	5. Data collection and analysis (QIS 5 specifications)	Question: We would like to be sure about the interpretation of the procedure to be applied, consisting in calculating Solvency II Balance sheet as well as SCR/MCR (based on QIS5). Are all the pre-stress shocks based on QIS5 (i.e. equity shock 30% for EEA and 40% for other)?	
		Answer: No, in calculating MCR/SCR updated equity charges of 49% and 59% are to be used since the equity dampener has been adjusted to reflect the equity market situation as of end-2010. All other market stresses (as well as counterparty default and underwriting stresses) have been kept unchanged.	19/04/2011
9	5 Data collection and analysis (own funds)	Question: How should group owns funds be calculated following the application of the stresses?	
		Answer: Groups should follow the QIS5 - Technical Specification regarding the availability of group own funds.	19/04/2011
10	5. Data Collection and analysis (MCR)	Question: Can the internal model be used in order to calculate the shocks impacts?	
		Answer: Internal Models can be used to assess the MCR pre stress test (see answer no. 1 for further details). The impact of the stress test is, by its very nature, an internal model	8/04/2011

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		having each undertaking to assess the impact of the stresses applied.	
11	5. Data Collection and analysis (MCR)	Question: Tiering - The MCR calculation in Annex 1 does not appear to allow for tiering rules. Is this correct?	
		Answer: QIS5 guidelines apply. See also below Q&A on spreadsheet (tiering) for further details	13/04/2011
12	5. Data Collection and analysis (SCR)	Question: For the calculation of "SCR before stress", should be used the "pre stress" interest rate curve? Or can be used other risk free curves such as the Zero Coupon Swap?	
		Answer: The pre-stress test curves are credit-risk adjusted zero-coupon curves that are calculated for each of the liquidity buckets (0%, 50%, 75%, and 100%). Only the discount curves provided in the EIOPA Excel sheet should be used for the relevant calculations covering pre-stress, as well as the stress scenarios.	8/04/2011
13	5. Data Collection and analysis (SCR)	Question: Particularly for insurance companies which did not take part to QIS-5, it could be really useful to avoid the calculation of the SCR. In fact, SCR is only necessary to determine the MCR cap and floor and for the Risk Margin estimation. If the local supervisor provides the average cap and floor and risk margin from QIS 5 results, all the calculations regarding SCR could be avoided. Similarly insurance companies which took part to QIS-5 could use their results regarding the MCR cap and floor and Risk Margin estimation in application of the best effort basis principle, where needed. Considering the short time provided to perform the stress test exercise, the proposed simplification could be very useful. Is it feasible?	
		Answer: This solution can be adopted only for the undertakings which did not take part to QIS5.	17/05/2011

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14	5. Data Collection and analysis	Question: Can firms use their own yields curves and hence illiquidity premiums for 2010?	
		Answer: For currencies for which EIOPA has not provided a yield curve, participants can derive their own yield curve based on a similar methodology. However, for the currencies provided by EIOPA these yield curves should be used.	13/04/2011
15	5. Data collection and analysis (Pension Schemes in Own funds, SCR and stress)	Question: Pension Scheme - Clarity on the treatment of firms' own defined benefit pension schemes is required to ensure consistency. The QIS5 SCR specification excluded the risk to defined benefit pension schemes. What is intended in: i) the calculation of own funds under the EIOPA stresses; and ii) the SCR calculation post stress?	
		Answer: As per QIS5 specification – defined benefit pension scheme liabilities should be on balance sheet at IFRS value and no specific risk capital should be calculated for this.	13/04/2011
16	5. Data collection and analysis (Pension Schemes in Own funds, SCR and stress)	Question: Use of Transitionals - Our working assumption is that results will presented using QIS5 transitionals, as appropriate (in particular Own Funds transitionals). Is this appropriate?	
		Answer: Transitionals can be included if these were set out in the QIS5 specification.	13/04/2011
17	5. Data collection and analysis (reporting)	Question: The question refers to the reporting requirements for group companies. Assuming that participating groups have to report on a consolidated group level, is a report on a solo entity level necessary?	
		Answer: Solo undertakings which are part of a group should not report to EIOPA as their result is already captured by the group submission. However, lead supervisors may request solo results in order to validate the Group SCR floor.	19/04/2011

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18	8. Reference date	Question: Section 8 asks for QIS5 results to be updated for "year-end 2010 financials". This could be interpreted as use the data and models set up as at year-end 2009 for QIS5 and update the economic basis or, alternatively that this be updating for the end of 2010 overall position (e.g. 2010 data, risk exposures etc.), as opposed to just financials. Presumably the latter is intended?	
		Answer: Firms should roll over the 2009 QIS5 balance sheet for 2010 financials. This would also include updating the SCR and MCR prior to applying the stresses. Approximations as set out in the EIOPA stress test specifications are permissible.	13/04/2011
19	9. Consolidation	Question: When participating as a group, is there a non-materiality threshold for very small subsidiaries? Or do we have to include all insurance subsidiaries for a worldwide-consolidated approach?	
		Answer: The worldwide consolidation of a group should include all insurance subsidiaries which have more than only a negligible impact on the capital requirements of the group. This means that very small subsidiaries with no above-average risk exposure could be excluded from the consolidation in this stress test exercise for the purpose of simplicity. Participating groups are strongly encouraged to disclose the scope of consolidation to their lead supervisor.	4/04/2011
20	9. Consolidation	Question: How should group solvency be calculated in particular for non-EEA undertakings	
		Answer: Approach needs to be in line with stress test specifications and QIS5. For EEA entities, the accounting consolidation method should be used where possible but for third countries where there is equivalence under the Solvency I regime, groups can use local rules for valuation and combine with the rest of the group using the deduction and aggregation (D&A) method.	13/04/2011

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21	9. Consolidation	Question: What treatment should be applied to insurance participations (look through or equity)?	
		Answer: Firms should follow QIS5 specifications for the treatment of participations	13/04/2011
22	10. valuation approach	Question: QIS5 consistency/ comparability - The EIOPA QIS5 report indicated that firms did not complete QIS5 on a consistent basis (e.g. Own Funds, ring fenced funds, contract boundaries). In view of this, will EIOPA be providing further guidance on the "lessons learned" from QIS5 to ensure there is consistency and greater comparability across participating insurers?	
		Answer: For the EIOPA Stress test, EIOPA will not provide further guidance on the 'lessons learned'.	13/04/2011
23	10. valuation approach	Question: What should firms do if there is a difference between the stress testing specification and the QIS5 specification?	
		Answer: There should not be a difference as the EIOPA Stress test document makes explicit reference to the QIS5 specifications.	13/04/2011
24	10. valuation approach	Question: How do you apply the stresses to own funds where there are ring-fenced funds (such as with-profits funds)?	
		Answer: Firms should follow the approach as set out in the QIS5 specifications (SCR.11)	13/04/2011
25	11. Stress Test Output	Question: Given the need to calculate the MCR for end-2010 based on QIS5 Technical Specifications, we were wondering whether EIOPA could provide an updated QIS5 spreadsheet which takes into account remarks by QIS5 participants on possible malfunctions.	
		Answer: Unfortunately, EIOPA cannot provide an updated QIS5 spreadsheet.	4/04/2011

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26	12. Loss-absorbing capacity (deferred tax)	Question: How should Deferred Tax Assets be calculated?	
		Answer: The assessment of Deferred Tax Assets should be done as in QIS5, including SCR 2.3 and OF 7	13/04/2011
27	15. Dynamic Hedging	Question: We have difficulties in seeing how this can be implemented in a Solvency II environment, as the shocks are considered to be instantaneous	
		Answer: It is correct the observation that dynamic hedging is not appropriate for instantaneous shocks hence it is not applicable for the purpose of this exercise.	4/04/2011
28	16. Management Actions (post stress)	Question: We do not understand the scope and impact of these provisions, and would like further clarity regarding its practical implementation.	
		Answer: Please note that this section specifically refers to post stress management actions and not to management actions described in the QIS5 TS TP.2.112. This section was included to give participating groups/firms the option to report the impact of potential management actions, after the stresses occurred, on their solvency position. Firms should consider actions which they would envisage in order to improve the solvency position after applying the stresses, such as stopping writing new business, selling portfolios or other potential measures in a stressed scenario. Please note that firms still need to report stress test results before any management actions (gross) and if applicable on a net (after management actions). This calculation is optional. However, the national supervisors should verify whether these actions are feasible.	8/04/2011
29	16. Management Actions	Question: Is it possible to change the annual accounts, e.g. profit sharing, as management actions, when 31.12 is used as reference date, and if, for this purpose, negative events occur 6 months prior the reference date?	

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		Answer: For pre stress test the management action within the assessment of the loss absorbing capacity follows the technical provision for QIS 5 specifications. However, for post stress test management actions. i.e. actions that can be taken after the stress can include "realistic actions". If another profit sharing is deemed realistic management action taken this can be included in post stress test management actions (par 16 and cell E26 in spreadsheet for stress scenarios).	17/05/2011
30	17. stress test scenario (Annex 2)	Question: Scenario assumptions - What are the assumptions for: 1) inflation; and 2) illiquidity premia used in the calculation of technical provisions under stress for the 3 scenarios in Annex 2?	
		Answer: The Illiquidity premium is included in the yield curve as per EIOPA spreadsheet In the Claims reserve deficiency test (par 17.4.2) the inflation assumptions assessing technical provisions has to be changed with 2 percentage point compared with pre stress. However, for all other assessments the inflation assumptions are as per QIS5 specification.	13/04/2011
31	17.3. Interest rate, equity, property, spread risk parameters	Question: What is the expected approach for stressing the market risk? Is only the asset side of the balance sheet to be stressed or both assets and liabilities?	
		Answer: Following the QIS5-type approach, both assets and liabilities (NAV) have to be stressed.	8/04/2011
32	17.3.1 Interest rate risk	Question: In our portfolio we have bonds valuated with government curves, so should we use the shock fixed by the ST specifications document (i.e. Baseline: -40bps for 0-3M and -20bps for 3M+; Adverse: -125bps for 0-3M and -62,5bps for 3M+) or government bonds are excluded from the interest rate shock?	
		Answer: The interest rate shock is applied to the Government bonds as well.	8/04/2011

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33	17.3.1 Interest rate risk	Question: What is the split of the interest rate stresses between real yields and inflation? In particular, in the inflationary scenario are the yield rises entirely due to inflation or is it a bit of both?	
		Answer: For the purpose of the interest rate shock no change in inflation should be assumed in the assessment of assets and liabilities (e.g. bonds and technical provisions).	19/04/2011
34	17.3.1 Interest rate risk	Question: In order to calculate the interest rate risk shock do we need to use the 3 curves provided for Baseline, Adverse and Inflation scenarios appropriately modified for the up/down shock as per QIS5 Technical Specifications document or do we apply the 3 curves provided and compare the results to the pre-stress results?	
		Answer: The 3 curves provided by EIOPA for this stress test should be applied; afterwards the outcome of each stress has to be compared to the pre-stress results.	19/04/2011
35	17.3.3 Property Risk	Question: Shall we apply the property stress also to property held for own use?	
		Answer: Yes, property held for own use should also be stressed. This is similar to the approach taken for SCR/MCR calculations. Please refer to paragraph SCR.5.44 in the QIS5 Technical Specifications.	4/04/2011
36	17.3.4 Spread Risk	Question: How shall covered bonds which are not AAA-rated be treated? Is there a preferential treatment, i.e. lower stress parameter as for AAA-rated covered bonds?	
		Answer: Covered bonds which are not AAA-rated should be stressed like ordinary corporate bonds. In the spreadsheet, the "helper tab spread risk" automatically checks whether a covered bond is AAA-rated and applies the preferential treatment accordingly.	4/04/2011
37	17.3.4. Spread Risk	Question: The Stress Test Specifications state that the first table under 17.3.4 should apply to corporate bonds and non-EU government bonds. On the other hand, the satellite scenario for sovereign bonds specifies stresses for bonds issued by Iceland,	

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		Liechtenstein, Norway and Switzerland? Does this mean that for bonds of these four countries both stresses (spread risk stress and sovereign stress) should be applied?	
		Answer: The reference to "non-EU" government bonds is indeed an unfortunate typo. The spread risk stress should only apply to government bonds of countries which are not listed in Table 1 in Annex 3 of the Stress Test Specifications (EEA countries and Switzerland) – for these countries the sovereign stress as defined in the satellite scenario should be applied.	4/04/2011
38	17.3.4. Spread Risk	Question: In the QIS5 exercise there was a distinction in the SCR standard formula calculation between government bonds issued in the currency of this government and in other currencies. Does such a distinction also play a role in this stress test exercise?	
		Answer: No, both the spread risk stress and the sovereign satellite scenario are applicable to all sovereign bonds, irrespective of the currency in which they are denominated. However, for determining the pre-stress MCR and SCR this distinction is still unchanged.	4/04/2011
39	17.3.4. Spread Risk	Question: Could you please elaborate further on the scope of the spread risk stress for structured credit instruments? Does this stress only include tranched products like ABS, MBS and CDOs, or does it also include CDS?	
		Answer: CDS positions held as investment should ~~not~~ be stressed in the spread risk module similar to structured credit instruments.	4/04/2011 Unintentional typo updated on 13/04/2011
40	17.3.4. Spread Risk	Question: With reference to the calculation method as in the following formula: Mktsp= MV*Duration*F(Rating), which is the F(rating) entity for a rating A within the table provided in the specifications? a. 0.295% or b. 1.87% + 0.295%	

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		Answer: The F(Rating) for rating A is 0.295%.	8/04/2011
41	17.3.4 Spread risk	Question: Credit Stresses - Are the absolute spread stresses set out in section 17.3.4. to be used as implied by this section, or will firms apply proportionate shocks specified to actual spreads based on actual holdings as set out in the Annex 2?	
		Answer: The increase in spreads should be calculated using the tables in section 17.3.4 of the published version of the EIOPA stress test specifications. Participants might wish to use the helper tab for spread risk which is included in the Stress Test Spreadsheet.	13/04/2011
42	17.3.4 Spread risk (Annex 2)	Question: We assume that the annexes are the source of the shock data and not the main text as such. This is due to the fact that there is a general credit spread shock in Annex 2, whereas section 17.3.4 of the main text offers granular shocks. Is it correct?	
		Answer: No not fully. Each of the spread increases shown in the table 17.3.4 corresponds to the relative increases shown in Annex 2 for Investment grade and High-yield. I.e. the stress is 0.44 % for all AA rated corporate bonds, no matter if the actual spread on a particular AA rated bond, say 0.1 % or 10.0 %.	13/04/2011
43	17.4 Non-life Stresses	Question: For both the natural catastrophe stress and the claims deficiency reserve stress, the Stress Test Specifications mention that the stress test result to be calculated should be "net of tax". What does this mean? Does this refer to the general risk-mitigating effect of deferred taxes mentioned in section 12 of the Stress Test Specifications?	
		Answer: Yes, the risk-mitigating effect of deferred taxes mentioned in section 12 of the Stress Test Specifications applies to all stresses of this stress test exercise.	4/04/2011
44	17.4 Non-life Stresses	Question: Do the non-life insurance stresses in 17.4 also apply to non-SLT Health?	
		Answer: See question referred to paragraph 17.4.2 Claims reserve deficiency stress (LoB)	19/04/2011

No Q.	No paragraph in EIOPA-FS-11/012 (if provided)		Date (answer)
45	17.4.1 Natural catastrophe event	Question: For Non-Life insurance related stress, about natural catastrophe event: for credit insurance is this stress considered or not? (Credit insurance does not consider natural catastrophe event but only man-made catastrophe event....)	
		Answer: According to the EIOPA specifications only natural catastrophe events have to be stressed while man-made catastrophe events are not included in the exercise.	19/04/2011
46	17.4.1 Natural catastrophe event	Question: Non-life Insurance Risk, under all Stress test Scenarios, assumes the largest 1/200 natural catastrophe PML with a recovery rate from reinsurers of only 70%. Can you please confirm that the remaining 30% of the PML will be covered directly by the insurance company and would therefore lead to an equivalent reduction in Own Funds?	
		Answer: Yes, for every 100 Euro ceded loss only 70 Euro is assumed recovered by the reinsurer. I.e. the remaining part is the stress test impact.	19/04/2011
47	17.4.1 Natural catastrophe event	Question: The recovery rate incorporates an implicit set of assumptions for probability of default and Loss Given Default. It is not clear how the financial standing (e.g. rating) or the diversification within the panel of reinsurers will impact this calculation. Could you please provide the reasoning behind the calibration of these parameters and in particular why reinsurer ratings and diversification are ignored? Furthermore we point-out that, for a small market, a natural catastrophe is unlikely to be a tail event for major global reinsurers hence the recovery rate of 70% appears exceptionally onerous and of unprecedented magnitude. Is there a possibility of recalibrating this stress to allow within the probability of default the size of the market and the quality and diversification of reinsurers?	
		Answer: It is a scenario which reflects a situation where a number of reinsurers become distressed during a major cat event. For simplicity reason no ratings or financial strength differentiation was considered. I.e. no recalibrating of the stress is possible.	19/04/2011
48	17.4.1 Natural catastrophe event	Question: When calculating the largest 1/200 natural catastrophe probable maximum loss (PML),	

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		for the most severe peril in our portfolio, shall companies calculate the PML for an Annual Aggregate Loss or for the Largest Annual Occurrence Loss?	
		Answer: Companies shall calculate the PML for the largest occurrence loss.	05/05/2011
49	17.4.1 Natural catastrophe event	Question: Which methodology has to be followed in order to calculate the losses coming from natural catastrophe event? We've to use QIS5-TS or we could use results coming from Internal model, as well?	
		Answer: Both solutions can be adopted.	17/05/2011
50	17.4.2 Claims reserves deficiency stress	Question: Clarification of the non-life claims deficiency stress: • How should the 2 percentage point higher inflation be interpreted (compound or one-off)? What liabilities classes would be affected? • Why is there no reinsurance recovery?	
		Answer: • This stress test is seeking to understand the extent to which additional claims inflation in relation to liability business might impact firms, by assuming that all future liability claims payments are subject to inflation that is 2% per annum higher than has been assumed in their best estimate reserving calculation. This additional claims inflation might arise from rising medical costs or changes in Court awards for liability claims. The stress test should be applied to identify "liability" lines of business as classified under QIS5. For the longest tailed liability classes this will lead to a significant increase in the assessed value of the unpaid claims reserves and we will review the potential realism of this scenario in light of the returns that we receive. • This reflects actual past experience in markets where reinsurance protection did not respond to a surge in claims inflation. We would ask firms to use this, more prudent, assumption in preparing their responses to the stress test exercise but they may, in addition, provide figures based upon the actual reinsurance protections that they do have in place and reflecting the additional counterparty credit risk that would arise.	13/04/2011

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51	17.4.2 Claims reserve deficiency stress (LoB)	Question: The stress framework says on the claims reserves deficiency stress "Groups or undertakings should calculate a shortfall for all liability claims reserves." In the Q&A document it is reported that "The stress test should be applied to identified "liability" lines of business as classified under QIS5.". Do I understand correctly that the claims reserves deficiency stress should only be applied to insurance product which insure against liability claims? So in QIS5 terms this means the product groups 'motor vehicle liability', all liabilities arising out of use of any form of transport within 'marine, aviation and transport' and 'general liability'?	
		Answer: The non-life insurance stresses should be applied to all non-life lines of business as defined in paragraphs TP.1.15-17 and TP.1.27 of the QIS5 Technical Specifications. This includes the non-SLT health lines of business (medical expenses, income protection, and workers' compensation)	19/04/2011
52	17.4.2 Claims reserve deficiency stress (interest rate)	Question: Usually a rise in claims inflation will be accompanied by a rise in general inflation which in turn should be accompanied by a rise in risk-free interest rates. Can the calculation take into account such an interrelationship (e.g. based on macro-economic models)?	
		Answer: No change in risk-free rates other than through the interest rate shock should be assumed.	19/04/2011
53	17.4.2 Claims reserve deficiency stress (inflation risk)	Question: Several non-life claims do not contain any inflation risk, e.g. claims for which according to the insurance contract a fixed amount will be paid following a claim. It would make sense not to include such claims in the scenario. Is that assumption correct?	
		Answer: Yes, if the contract has a fixed amount (i.e. no inflation risk) no claims reserve deficiency stress is needed.	17/05/2011
54	17.4 -17.5 Non-life and life insurance stresses	Question: Do non-life insurance stresses apply exclusively to non-life activities and life insurance stresses apply exclusively to life insurance activities? For example, let's take annuities steaming from non-life contracts, do we have to	

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		calculate the impact of the inflation stress on these annuities (non-life insurance stress) or do we have to calculate the impact of both the inflation stress and the impact of the longevity stress (life insurance stress)?	
		Answer: See question referred to paragraph 17.4.2 Claims reserve deficiency stress (LoB)	19/04/2011
55	17.4.1,17.4.2 – 17.5.1 17.5.2 Non-Life and life insurance stresses	Question: The Non-life and Life stresses are the same under the baseline, adverse and inflation scenarios. The insurance stresses imply that participants need to recalculate the best estimate technical provisions, using the modified claims inflation increase, mortality increase, mortality improvement, losses from catastrophe. This means recalculating the stream of future liability cash flows, and then discounting them to produce the new best estimate liability. But does this mean that companies should use the 3 stressed curves for discounting cash flows or the pre-test curve for all scenarios? Obviously, this would be detrimental under the baseline and adverse case, but beneficial under the inflation case.	
		Answer: The stressed curves are only used to measure impact for the interest rate scenarios. The non-life and life scenarios should be calculated independently from the interest rate scenario using the pre stress curves and the outcomes should then be aggregated using the appropriate correlation coefficient between non-life & market risk as well as life & market risk.	13/04/2011
56	17.5.1 Mortality	Question: Regarding the mortality shock should the 1.5 additional deaths per thousand live be applied to only the first year or is this for eternity?	
		Answer: This is a one-off shock and mortality assumptions would return to normal.	13/04/2011
57	17.5.1-17.5.2 Mortality/Longevity	Question: If we are able to do a rough calculation of one of these two shocks to show that it was clearly smaller than the other shock, would it be sufficient to present the rough calculation in the spreadsheet (given it won't take effect in the stress test)?	

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		Answer: As best effort applies to the stress test, we can accept this approach.	13/04/2011
58	17.5.2 Longevity	Question: We do not fully understand the stress being specified as "improvements rate of 23%". Could you please elaborate in more detail on the necessary calculations?	
		Answer: This stress test module takes into account the future developments of individual mortality rates and introduces a stress on the best estimate mortality the firm will assume, expressed as a percentage reduction in mortality rates (to be applied in addition to best estimate improvements). The below stress parameters measure the stress of mortality improvements. • Groups and undertakings should calculate the impact of a reduction in mortality rates. • Based on the average compound improvements in mortality developments between 1965–2009, undertakings should apply a 23% reduction in mortality rates across all ages for both males and females in the immediate annuity portfolio (i.e. annuities in pay out). • The impact is to be calculated net of tax. • It is assumed that no reinsurance recovery is possible in respect of the additional reserving requirements.	4/04/2011
59	17.5.2 Longevity	Question: Should the application of the 23% stress be interpreted that, if 1% p.a. improvement is assumed, then this means as stressed value of 1.23%?	
		Answer: • Undertakings should apply a 23% reduction in mortality rates across all ages and genders. Impact is to be calculated net of tax and assuming no additional reinsurance recovery is possible in respect of the additional reserving requirements. • The calculation should follow the same principles as in the QIS5 specification regarding the longevity risk module.	13/04/2011
60	17.5.2 Longevity	Question: The longevity shock is not entirely clear. Does the longevity scenario require a 23%	

No Q.	No paragraph in EIOPA-FS-11/012 (if provided)		Date (answer)
		increase to annual mortality improvements included in base 2 dimensional annuity mortality tables? (e.g. if a 1% pa reduction to mortality rates is currently incorporated for all ages, does this mean a re-cut of table assuming 1.23% p.a. improvement)	
		Answer: The example is correct. In addition, the calculation should follow the same principles as in the QIS5 specification regarding the longevity risk module.	13/04/2011
61	17.5.2 Longevity	Question: Can EIOPA explain how the 3* standard deviation principle and illustrative build up in tables 2a-c in Annex 2 is used to calibrate a 23% annual increase in mortality improvements?	
		Answer: The annex was for illustrative purposes only and was produced for an earlier version of the stress test specifications. Following feedback from the industry an average improvement across all ages (male and female) and for all immediate annuities was provided for an easier calculation of the longevity stress.	13/04/2011
62	17.5.2 Longevity	Question: In EIOPA specifications it is reported that the stress should be applied to 'immediate annuities (in pay-out)' and also 'in line with QIS5'. Should the stress be limited to only those annuities already in payment, or to all annuities including those currently premium paying? In QIS5 it was all annuities, not just those already in payment.	
		Answer: It is only for those annuities already in payment.	05/05/2011
63	17.6 Calculation of aggregated market and insurance stresses	Question: The first paragraph of section 17.6 in the "Specifications for the 2011 EU-wide stress test in the insurance sector" reads: *"As pointed out in section 8, market and credit risk stresses should be calculated by assuming that all adverse developments occur instantaneously and simultaneously."* The implementation in the spreadsheet seems to disregard the word "simultaneously", as it contains separate sections (2,3,4,5) for interest rate, equity, property and spread risk. When a position is exposed to several risk factors in a way that is non-linear (e.g.	

No Q.	No paragraph in EIOPA-FS-11/012 (if provided)		Date (answer)
		a bond with both interest rate and spread risk), and gets a simultaneous shock over several of these factors, you cannot produce an additive decomposition as suggested by the spreadsheet. Also, the spreadsheet setup allows for reuse of technical provisions across the four market and credit factor shocks, which seems highly inappropriate for the case of simultaneous shocks.	
		Answer: Each stress should be applied independently from the others. By applying a correlation of 1 for market and credit risks, an additive effect is the intended result of the stress test.	19/04/2011
64	17.6 Calculation of aggregated market and insurance stresses	Question: As reported in section 8 of EIOPA Specification, it is required that the capital market stresses occur simultaneously. However, the spreadsheet EIOPA-Stress-Test-Spreadsheet.xls requires the results for the Interest rate risk, Equity risk, Property risk and Spread risk to be shown separately. How can this be done (since there will be interaction effects between the different tests if they are applied simultaneously)?	
		Answer: See question referred to paragraph 17.6 Calculation of aggregated market and insurance stresses	19/04/2011
65	19. Sovereign stress	Question: In the QIS5 exercise there was a distinction between government bonds issued in the currency of this government and in other currencies. Does such a distinction also play a role in this stress test exercise?	
		Answer: No, both the spread risk stress and the sovereign satellite scenario are applicable to all sovereign bonds, irrespective of the currency in which they are denominated.	4/04/2011
66	19. Sovereign risk – annex 3	Question: Does the increase in yields of sovereign debt apply directly on the status quo situation or after the adverse scenario situation in annex 3?	
		Answer: The sovereign stress is, as a satellite scenario, independent from the three main scenarios (baseline, adverse and inflation). As such, it should be applied to the status	8/04/2011

No Q.	No paragraph in EIOPA-FS-11/012 (if provided)		Date (answer)
		quo situation.	
67	19. Sovereign risk	Question: About the sovereign risk module of the ST, we understand that the widening of bond spreads concerns government bonds, but also bonds demonstrably guaranteed by national government of an EEA state, or issued by a multilateral development bank, or issued by an international organization, or issued by the European Central Bank. Do you agree with this interpretation?	
		Answer: Yes, but only for bonds issued or guaranteed by EEA sovereigns (or Switzerland). All other sovereign bonds or bonds issued by supranational / international organizations or guaranteed by these, should be included in the spread risk module of the core scenarios.	05/05/2011
68	19. Sovereign risk	Question: Given that bonds issued by multilateral development banks and international institutions were treated the same as sovereign bonds for QIS5 purposes (no spread risk), should these be subject to sovereign risk in the stress test? If yes, how shall the split by country be carried out?	
		Answer: Multilateral development banks and international institutions is part of the core stress test, subject to their ratings, but these are not part of the sovereign satellite module.	17/05/2011
69	Spreadsheet	Question: In all three scenario tabs (base, adverse and inflation) the columns J and M (as well as column E for the spread, non-life and life stresses: "Including adjustment effect of technical provisions") contains formulas which simply refer to the stress test result without this adjustment effect. Is this a malfunction of the spreadsheet?	
		Answer: By default, the spreadsheet assumes no adjustment effect of technical provisions, i.e. the effect on assets or liabilities excluding and including the adjustment effect of technical provisions is the same. The formulas in columns J and M (as well as in column E) can easily by overwritten, taking into account the adjustment effect.	4/04/2011

No Q.	No paragraph in EIOPA-FS-11/012 (if provided)		Date (answer)
70	Spreadsheet	Question: In excel spreadsheet, in all the scenarios, the change in net asset value after the interest rate stress has a minimum zero floor. By doing so the overall impact reflects only those risk factors that negatively affect the net asset value, not allowing for the positive effect derived by the yield curve movement (this distortion can be evident in the "inflation scenario"). Does this prudent approach implemented in the spreadsheet truly reflect the objective of the stress test (to test whether the company "will be able to meet the MCR even after applying well defined stress scenarios")?	
		Answer: The spreadsheet indeed follows a prudent approach by applying the same zero-floor mechanism like QIS5. However, when analyzing the results, national/lead supervisors and EIOPA will evaluate the effect of this floor – the relevant results will be interpreted against this background.	17/05/2011
71	Spreadsheet (Tiering)	Question: In the sheet "Overview", the spreadsheet calculates eligible own funds over MCR after stress scenario considering Tier 3. Does it mean that Tier 3 is also to be included in order to cover MCR?	
		Answer: The calculation of eligible own funds should follow QIS5 standards. For solo undertakings the total eligible own funds for MCR consists of Tier 1 + Tier 2. For groups, the Floor to Group SCR coverage is (Tier 1 + Tier 2 + Tier 3), subject to caps according to QIS5 Technical Specifications	8/04/2011
72	Spreadsheet (own funds)	Question: In "Overview" the spreadsheet calculates eligible own funds over MCR after stress scenario starting from eligible own funds included in "Status Quo". Does it mean that impact is applied to eligible own funds calculated before stress?	
		Answer: Yes, the comparison is eligible own funds before and after the stress scenarios compared with the MCR. Any update of MCR (post stress test) is voluntary.	8/04/2011

No Q.	No paragraph in EIOPA-FS-11/012 (if provided)		Date (answer)
73	Spreadsheet (Add. Scen. Sovereigns)	Question: What does "net Exposure" mean?	
		Answer: It means that the netting of exposures is allowed, e.g. by taking into account offsetting CDS positions.	19/04/2011
74	Spreadsheet (Add. Scen. Sovereigns)	Question: What should be considered a "No Adjustment effect of technical provisions": the market value of the bonds after the stress, or the variation of the value (value at status quo - value after stress)?	
		Answer: It's the market value of the bonds after the stress (in column F and G without and with the adjustment effect of technical provisions, respectively). It is therefore exactly the same logic as in columns I and J in the sheets "Base Scenario", "Adverse Scenario" and "Inflation Scenario".	19/04/2011
75	Spreadsheet (Add. Scen. Sovereigns)	Question: In the excel sheet, should the data included in column F be the net pre-stress value of the sovereign bonds minus post-stress value? If this is not the case, the value of cell F20 in "Status-Quo", that should inform of the change in available capital due to sovereign shock, would be equal to the value of the sovereign bonds after stress. But, the above Q&A regarding the Spreadsheet (Add. Scen. Sovereigns) states that the figures should be considered with the same criteria used in the base Scenario, Adverse Scenario… nevertheless we consider that in those Scenarios the change in available capital is calculated as a difference in the pre and post stress amounts, while in the "Add. Scen. Sovereigns" this difference is not calculated. It is important to make clear that different approach because otherwise the sovereign scenario could be misunderstood.	
		Answer: Columns F and G in the sovereign tab do not ask for the difference in pre- and post-stress exposures but only for the post-stress net exposure (excluding and including the adjustment effect of technical provisions, respectively). The difference is then calculated in the cells D8 and E9. We have clarified it in the updated spreadsheet	17/05/2011

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		(version 20110516). Accordingly, column D should contain the initial value of the sovereign bond (pre stress test).	
76	Spreadsheet (red tabs, H37 and K37)	Question: As a first step, for constructing the Balance sheet we have the chain of Asset's cash flows and the chain of liabilities' cash flows which are to be discounted at the "pre-stress" curve. As for the stress calculation, and for the cells stated above, we are requested to change ONLY the discount curve (Baseline, Adverse and Inflation curves) to have a different Actual Value of the cash flows. If we are able to know the influence of the change of interest rates on the options embedded (either assets or liabilities) this will be taken into consideration?	
		Answer: Yes. It is similar as in the QIS5 approach.	19/04/2011
77	Spreadsheet (red tabs in cells H43 and K43)	Question: If the market value on the Balance sheet for equities is 100 euro, the stress to apply will be 15% (15 euro) or 7.5% (7.5 euro) depending on the scenario? Participations will be stressed with same percentages stated above depending on the scenario?	
		Answer: If this pre-stress equity exposure of 100 does not include any kind of hedges or other instruments with a non-linear payoff (options or anything else with leverage), then the result would indeed be 15 or 7.5, respectively, after applying the 15 or 7.5% stress. The participations in solo undertakings should be stressed with the same percentages referred to the scenario. Please note that, as stated in the EIOPA specifications, only insurance activities and other non-banking participations are mandatory for inclusion in the exercise.	19/04/2011
78	Spreadsheet (Status Quo)	Question: In the sheet "Valuation" of QIS5 we had 3 rows for OFS: one for Assets and two for Liabilities (called "[G]: Total other financial sector liabilities" and "[G]: Total other financial sector own funds"). Now in "Status Quo" we have just one row for "FOR GROUPS: Total other financial	

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		sector liabilities". We wonder if we have to include even OFS own funds in this row.	
		Answer: The "Other financial sectors own funds" is be included in row 86 "Other basic own funds" of the Status Quo sheet.	19/04/2011
79	Spreadsheet (Status Quo)	Question: Since in section 2 of " Overview", Floor coverage ratios are calculated considering Total Eligible Own Funds (cell C12 of "Status Quo"), we wonder if in section 1 of "Status Quo" we have to input Group Own Funds including OFS Own Funds. Are OFS Own Funds eligible in order to cover Floor to Group SCR even if OFS does not contribute to Floor calculation?	
		Answer: In line with QIS5, own funds of OFS (Other Financial Sectors) have to be deducted, as it should be only looked at the insurance part and in order to avoid duplication with the banking one. Nevertheless, the figure should be provided in the spreadsheet.	05/05/2011
80	Spreadsheet (Status Quo –Tiering)	Question: In Status Quo, total eligible own funds for MCR (cell C12) includes Tier 1 and Tier 2 items. Since Tier 1 items should be at least 80% of MCR, are Tier 2 items subject to a cap of 20% of MCR?	
		Answer: Yes, accordingly to QIS-5	17/05/2011
81	Spreadsheet: Base scenario	Question: As required, the shortfall is to be calculated net of tax assuming that the tax burden would be reduced as a result of this event. But when each shock, net of the fiscal effect, is filled in cell E24, this somehow seems to be deducted twice. Can this point be clarified?	
		Answer: When EIOPA stress test specifications say that the results should be calculated net of taxes, then this is only an additional requirement as the standard information which should be provided is gross (i.e. no mitigating effect through deferred taxes,	17/05/2011

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		analogously to the adjustment effect of TP). The only difference to the adjustment effect of TP is that for the mitigating effect of deferred taxes the effect cannot be filled in the spreadsheet on a module-by-module basis but only as an aggregate in cell E24.	
82	Excel sheet "stress test curves"	Question: Are the discount rates provided in the EIOPA Excel sheet called "stress test curves" continuously compounded?	
		Answer: Yes, the discount curves provided by EIOPA are continuously compounded. If your discounting framework requires discretely compounded rates, it is recalled that the following relationship exists between continuously compounded rates and discretely compounded rates: r{discrete}_tau = exp(r{Eiopa}_tau)-1 where r{discrete} is the annually discretely compounded rate, tau is the maturity of the rate, and r{Eiopa} refers to the continuously compounded rates provided by EIOPA. The rates, r{discrete} and r_{Eiopa}, refer to percentage rates.	8/04/2011
83	Excel sheet "stress test curves"	Question: EIOPA says that the curves are continuously compounding. This is remarkable since the EIOPA curves for the QIS5 calculations in September, which have the same layout, were discretely compounded (see Q&A QIS5 question number 10 on page 40 https://eiopa.europa.eu/fileadmin/tx_dam/files/consultations/QIS/QIS5/CEIOPS-Q-and-A-document-20101104.pdf). And it is extra remarkable since the illiquidity spread is exactly the same figure (0.53% for EUR 1 year), where you would expect a difference due to discretely vs. continuously. So EIOPA tells this below: EIOPA QIS5: EIOPA stress test: swap curve: discrete swap curve: continuous illiquidity curve: discrete illiquidity curve: continuous, but it seems discrete Given that is was specified that EIOPA Stress Test would follow the specifications of QIS5, we used the rates as if they were discrete compounded for our calculations.	

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		Also, it is difficult to justify use of different rate basis for QIS5 and Stress Test given that we need to compare the results. Could you please let us know if this was an oversight or a deliberate choice?	
		Answer: EIOPA confirms that the provided curves are continuously compounded, and that this is not an oversight. The agreed framework for QIS5 relies on the Smith-Wilson method for extrapolating the discount curve beyond the last observable maturity point. Since the Smith-Wilson method draws on continuously compounded rates, we found it to be model-consistent to express curves in the same basis. As for the credit risk adjustment of 10bp (that is subtracted from the forward curves), and for the illiquidity premiums (that are added to the discount curves), it was chosen to treat both these terms as being additive to the continuously compounded rates. In this connection it should be emphasized that the illiquidity premiums used in the stress test exercise are regarded merely as appropriate correction terms, since they have not been updated from 2009 to 2010. Also, when considering whether illiquidity premiums in 2009 were calculated on the basis of continuously or discretely compounded rates, it is worth recalling that the difference between treating, for example, the Euro illiquidity premium as being reported either as continuously or discretely compounded, would not affect the final discount curve in any material way (the effect is roughly in the area of -0.1bp). It has been brought to the attention of EIOPA that the illiquidity premium for the Euro area, at the end of 2010, is in the neighborhood of 45-50bp, and not the used 53bp (i.e. the 2009 number). This order of magnitude for the change in illiquidity premiums from 2009 to 2010 is confirmed by the CFO forum, which has mentioned that illiquidity premiums would have decreased by approximately 2bp on average, for the currencies for which curves have been calculated.	19/04/2011