

Comments to the Second Discussion Paper on Methodological principles of insurance stress testing

25 June 2020

Responding to this paper

EIOPA welcomes comments on the “Second Discussion Paper on Methodological principles of insurance stress testing”.

Comments are most helpful if they:

- respond to the question stated, where applicable;
- contain a clear rationale; and
- describe any alternatives EIOPA should consider.

Please send your comments to EIOPA in the provided Template for Comments, by email to <eiopa.stress.test@eiopa.europa.eu> by **2 October 2020**. Contributions not provided in the template for comments, or sent to a different email address, or after the deadline will not be considered.

Publication of responses

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¹ Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents (OJ L 145, 31.5.2001, p. 43).

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³ Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39).

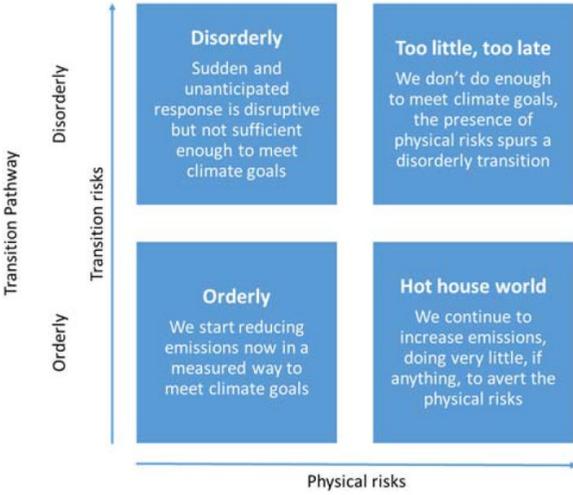
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|--|---|
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| Disclosure of comments | |
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| <p>EIOPA will make all comments available on its website, except where respondents specifically request that their comments remain confidential.</p> <p>Please indicate if your comments should be treated as confidential, by deleting the word "Public" in the column to the right and leaving only the word "Confidential".</p> | Public |

Section 1 -Climate Change stress test

| # | Question | Answer |
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| Q.1. | What are your views on the main climate change related risks and transmission channels? Are there any other climate change related risks or transmission channels that should be considered? | <p>As a starting point, we believe that these are appropriate.</p> <p>The proposed table appears to be comprehensive. As a side comment, transition risk on real estate mortgages should be added (see also para 71)</p> <p>While non-physical risks (e.g. financial, PI etc.) may be material for certain insurers / reinsurers, the capacity and knowledge within individual companies may not currently exist to estimate the impact of these. However, we believe that these additional risks should be considered in later rounds of stress tests.</p> <p><u>Individual exposure to these risk is a key condition for consideration. We have identified the following:</u></p> <p><u>Physical Risk.</u></p> <p>Within underwriting risk besides higher amounts of insurance claims a higher incidence can have an effect.</p> <p>Possible further risks to consider:</p> <ul style="list-style-type: none"> i. Nat Cat - Damages ii. Health (warming increase and NAT events) iii. Mortality (warming increase and NAT events) iv. Damages – Fire v. Damages - Deterioration vi. Depopulation and concentration due to warming increase <p><u>Transition Risk.</u></p> |

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| | | <p>Effect on reinsurance prices and coverage not only affected by the actual current increase in catastrophes, but also by the expected exposure to these.</p> |
| <p>Q.2.</p> | <p>What are your views on the objectives of a climate change ST? Should any additional objectives be considered?</p> | <p>We broadly agree with the objectives of the climate change stress test.</p> <p>The macroprudential objectives should include an analysis of the consistency of the policies both within EU and outside EU and the risk of regulatory arbitrage.</p> <p>An additional objective could be to assess current preparedness of companies in assessing their climate change risks. Enhancing knowledge of the different re/insurance market protections could improve robustness of the sector</p> |
| <p>Q.3.</p> | <p>Are there any other scenario narratives that should be considered as part of a climate change stress test exercise?</p> | <p>We understand the scenario narrative will be aligned with figure 1-2 page 17 ensuring an interplay between transition and physical risk:</p>  <p>We recommend to ensure that this narrative also captures possible scenarios already considered in other relevant publications.</p> |

a) By other NCA's (e.g. 2018 DNB paper „An energy transition risk stress test for the financial system of the Netherlands“ combining **technological breakthroughs** on top of policy stance).

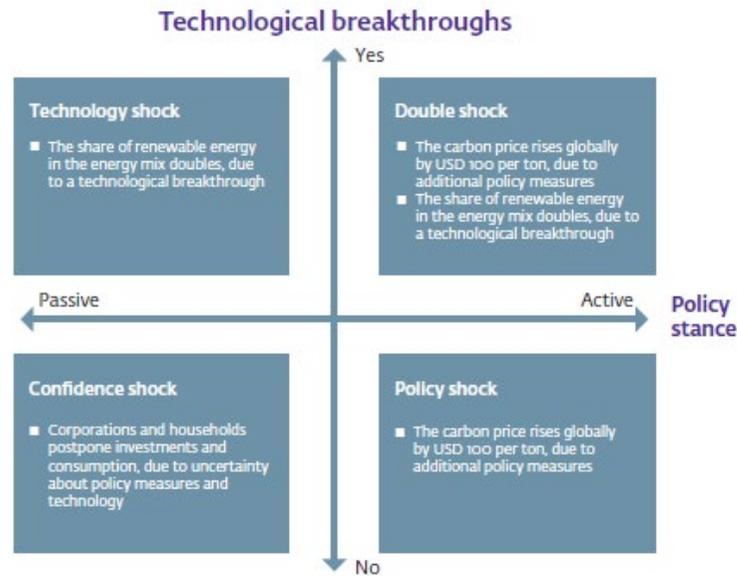


Figure 2.1: Four disruptive energy transition scenarios

https://www.dnb.nl/en/binaries/OS_Transition%20risk%20stress%20test%20versie_web_tcm47-379397.pdf

The NiGEM model (National Institute Global Econometric Model) used by the DNB and Banque de France (see 1.4.1.3) in the Discussion paper appears to consider on transition risk the **double shock scenario**: delayed policy response and asymmetric technology shocks. Would this result in the "Disorderly" scenario?

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| | | <p>Based on DNB primarily results, the confidence shock scenario was the most adverse to the insurance and pension sector as the rates would remain low with a shock on stock markets. Would this be assimilated to the “Too little, too late” scenario?</p> <p>The ST is also focusing on future climate scenarios. Current modelling considers existing models. It would be appropriate to first check if the current starting scenarios already consider the current state of climate before stressing it.</p> <p>We also note that a lack of sufficient guidance on climate risk stress testing is likely to result in diverging approaches among supervisors.</p> <p>b) The NGFS (Network of Central Banks and Supervisors for Greening the Financial System) report is already consolidated across financial sector and the two dimension matrix is well defined.</p> <p>The only comments at this stage are</p> <ul style="list-style-type: none"> (i) in connection with principle 2 in the sense of properly assess the increase of the complexity exercise planned to be done and (ii) (ii) regarding principle 3 clarify the link with SII exercise. In any case we recommend not to increase the calculation burden. <p>A potential additional scenario would be business as usual and not expected manifestation of physical risks to happen (different risks to those already identified).</p> |
| <p>Q.4.</p> | <p>What is your view on the appropriate scenario specification granularity? Would the proposed granularity be compatible with your modelling to calculate the stressed impact?</p> | <p>The proposed approach appears to strike a good balance between comparability and complexity while ensuring a learning curve for the different stakeholders.</p> <p>If the scenario specification is too aggregated, there will be difficulty in maintaining consistency across markets. However, if the scenarios are too specific, then it is likely to be onerous and difficult to estimate.</p> <p>We suggest that, initially, sectoral analysis is on a best efforts basis. Companies who have the data can do this detailed analysis if they so wish and get an understanding of their likely exposures. Other companies may not be able to segregate their portfolios as proposed (for example in unit-linked look-through data) and could instead use broad economic factors based on asset class. This simplification may undermine the value of the exercise as it misses a key elements of transition risk so this should be considered in later rounds of stress tests.</p> |

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| | | <p>The implications at firm and activity levels could be covered via a qualitative questionnaire (policies and initiatives already implemented or to be implemented) providing useful input for the forward looking assessment as considered in para 150 of the consultation. This would combine a bottom-up and top-down approach.</p> <p>The proposed granularity would be compatible with most models to perform the stress test assessment and would ensure consistency within EU. This granularity could be a path-setting for future ORSA's or other risk management requirements.</p> <p>In addition and where appropriate a refinement and a consideration of a combination of sectors that would suffer from different scenarios could deliver valuable insights. It might also be considered to introduce in the pyramid (see figure 1-4) an intermediate level between sector and firm, where sectors are further split in homogenous groups in terms of climate innovators.</p> |
| <p>Q.5.</p> | <p>What is your view on the appropriate time horizon for a climate change ST?</p> | <p>30 years appears appropriate with regard to the nature of climate change risks.</p> <p>EIOPA proposes a medium-to-long-term time horizon (30 years) with an end-of-modelling horizon impact evaluation. This requires a link between climate models extrapolated up to 2100 with insurers models aimed at reflecting management actions over the business plan. A vast number of assumptions has to be considered. These assumptions to a great extent depend on the undertakings strategy and lines of business.</p> <p>Given the uncertainty inherent in assessing long term risks, care does need to be taken in interpreting the results of stress testing a balance sheet that is projected further into the future; the underlying assumptions, weaknesses and limitations need to be clearly explained when presenting results.</p> <p>In any case, the impact at a longer term (e.g. 30 year) horizon can be a part of the separate forward-looking assessment. This forward-looking assessment can take into account dynamic responses and will therefore be more meaningful compared to a 30 year projection under the assumption of a fixed balance sheet and no management actions. The current stress testing approach was based on existing balance sheet, to prepare the stress test beyond the planning business cycles of insurance companies, requires to take many decisions about new business assumptions, strategic assets allocation, that might have much heavier impact on results and resources needed.</p> <p>Considering this a shorter horizon may be preferable as:</p> <ul style="list-style-type: none"> • For many insurers, the large majority of liabilities will have matured at a 30 year horizon (except in case of significant proportion of Individual Medical Care or annuity contracts that are long-life). For Non-Life insurers there is much shorter time horizon usually up to 3 years run off portfolio |

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| | | <p>on average. Hence, for many insurers, an impact assessment 30 years in the future may not be very meaningful. The portfolio might be renewed completely and no longer be comparable with the currently existing. Assumptions on new business will determine the outcome.</p> <ul style="list-style-type: none"> • Impact assessments are usually calculated, and are most useful, over the horizon of the business plan, which is generally 3 to 5 years in line with ORSA exercise. Models currently in use may not easily allow an impact assessment at a 30 year horizon. • Many transition risks (e.g. policy actions), and related asset risks (e.g. negative impact on certain sectors or activities) may materialize over a relatively short horizon e.g. 1 to 5 years. |
| Q.6. | <p>What is your view on modelling the long-term shocks on a fixed reference date balance sheet (without reactive management actions)? Would this approach strike a right balance between allowing an assessment of the potential risk, modelling feasibility, complexity and comparability?</p> | <p>In a first stage, it seems appropriate to apply LT shocks at a fixed date without management actions.</p> <p>Level playing field on starting scenarios (current climate state) is an important aspect to consider before applying the ST. Consistency in the selected climate patterns and variables (e.g. +2°, +2.5°, etc.) is also critical given their major impacts on the paths and the results.</p> <p>It is important to isolate the effects of climate change, and the effects of any mitigating actions undertaken by the company – allowing for both together would miss a key piece of the interactions.</p> <p>We would suggest to allow companies to perform an additional ST where the company is able to perform reactive management actions (not fixed BS assumptions). This will help companies to analyse how to improve their situation in the ST (mainly risk management initiatives). This will have to be a different analysis from the separate forward-looking assessment.</p> |
| Q.7. | <p>What is your view on having a separate forward-looking to assess reactive management actions, implications for business models and potential spill-over effects?</p> | <p>We are supportive of this approach. Considering likely management actions, even if only on a qualitative basis, should also foster the engagement of senior management in any ST exercise, which is an important factor in the effectiveness of a firm’s management of climate change risks. Comparing a results “with” and a “without” reactive management actions would allow an assessment of undertaking’s resilience.</p> <p>Depending on the complexity and expected workload, an alternative could be to add a qualitative assessment on the considered management actions.</p> |
| Q.8. | <p>What are your views on the different modelling approaches presented? Are there</p> | <p>We broadly agree with the challenges identified by EIOPA in its report; this area is very nascent and hence inevitably practical challenges will arise due to the variety of possible modelling approaches</p> |

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| | <p>any other modelling approaches for transition risk that should be considered?</p> | <p>available, lack of complementary data and inconsistencies in underlying assumptions within the models etc. The number of possible modelling approaches is huge. The approaches presented in the paper have a good stage of development. Recognising that no approach will be optimal, for the purposes of “first generation” of ST, the preferred approach could be for EIOPA to prescribe a model that is most practical for participants to implement, whilst being very transparent about its limitations.</p> <p>Back-testing cannot reliably be used. The appropriateness has to be assessed regularly considering new insights.</p> <p>Concerning CARIMA:</p> <p>The application of the CARIMA model for mortgages appears to include too much basis risk as the sources of risk are different, especially on existing mortgages.</p> <p>For mortgage loans, the CARIMA model only seems to be applicable indirectly by stressing the prices of the underlying properties, impacting the mortgage loan valuation through loss given default (LGD) and cost of risk (CoR). In any case, as energy efficiency data is unlikely to be available for many residential mortgages, the impact can only be calculated through proxies at a portfolio level.</p> <p>An alternative source for property value risk - both for investments, home insurance coverage and mortgage collateral purposes - could be based on data mapping flood sensitive locations as used by reinsurers in their software tariffication.</p> |
| <p>Q.9.</p> | <p>Are there particular external sources to calibrate transition risks for assets that should be considered?</p> | <p>We are aware that Carbon Delta (now part of MSCI) provide transition risks for different scenarios at an instrument level (this is both a methodology and data). In terms of the other models mentioned in the discussion paper, PACTA has also been used in this context.</p> |
| <p>Q.10.</p> | <p>Do you agree that windstorm, floods, heatwaves, wildfires and droughts are the more material perils amplified by climate change which are relevant for non-life risks?</p> | <p>Yes but the perils that are appropriate will be region specific.</p> <p>We assume that ‘floods’ peril includes coastal flooding (due to sea level rises); Hail, subsidence and freeze are arguably other distinct perils that could be considered in their own right, whilst recognising the need in each case to assess whether there is enough data available to establish longer term trends over random variation.</p> |
| <p>Q.11.</p> | <p>Do you agree that prescribing changes to frequency, severity and correlation of</p> | <p>This might depend on technical preparedness of undertakings. The event based scenario resembles the Nat cat scenarios in Solvency II already implemented in undertakings.</p> |

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| | <p>specific perils linked to climate change evidence (but not prescribing the specific events) should be the preferred approach? Would this type of specification allow you to calculate the stressed impact for your portfolio?</p> | <p>Specifying changes to frequency and severity might be more easily implemented by companies than prescribing specific events. Additionally, it is more likely to result in consistent application across companies.</p> <p>However, notwithstanding any modelling constraints, the ideal approach might be a combination of the two types of stress – the event based scenario would enable better understanding of potential impacts on reinsurance strategy (both at micro/firm and macro/industry level), in line with capacity offered by reinsurers.</p> <p>In either case it is also important to specify that the starting scenario should be adapted to the current climate state (models refer to historical observations in many cases and could not reflect adequately the current state)</p> |
| Q.12 | <p>Would you have suggestions of a methodology to define the changes to frequency, severity and correlation of specific perils in light of climate change? Are there particular external sources to calibrate physical risk impacts on insurance liabilities should be considered when calibrating the scenario variables?</p> | <p>One potential source is reinsurers’ data – although it’s backward looking, its global reach and comprehensiveness would be a useful starting point for the purposes of anticipating potential future scenarios.</p> <p>Some EU funded initiatives are looking to coordinate some climate change scenarios (e.g. PESETA, Cordex). It could provide a basis to define some parameters.</p> |
| Q.13 | <p>Do you agree that heatwaves, floods, droughts, fires and vector-borne diseases are the more material perils amplified by climate change which are relevant for life and health risks?</p> | <p>Yes, we agree that these are material risks. However, as climate change is a systemic risk, it will influence the emergence and pattern of other risks, including those listed in the question, with resultant knock-on effects on life and health risks, both directly and indirectly (for example, knock-on impacts on food production etc.).</p> |
| Q.14 | <p>Do you agree that shocking mortality and morbidity rates as part of a climate stress test is relevant? Are there further risks beyond mortality and morbidity that should be specified as part of climate change ST?</p> | <p>There is today an apparent increase in many infectious diseases (vector-borne and waterborne) that is partially explained by climate change and its impact on transmission. The relevance has to be decided based on exposure of the undertaking. Where relevant, this should be properly captured in shocked medical expenses, morbidity and mortality, taking into account that:</p> <ul style="list-style-type: none"> • The characteristics of the insured population may differ heavily from the general population. Hence, a general undifferentiated mortality shock may be inappropriate for insurance stress testing purposes. |

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| | | <ul style="list-style-type: none"> • Mortality and morbidity effects induced by climate change might have an impact on the long term. The impact on the in force portfolio may therefore not be material given the repricing mechanism on new business <p>In general (see Q10-13-14), we observe a close follow up of the insurance portfolio and a proactive underwriting aiming at a proper risk diversification. This is an important feature of the risk management.</p> <p>Given</p> <ul style="list-style-type: none"> • the comparatively low vulnerability and comparatively high readiness of most European countries according to the ND-GAIN index • the very long-term character of possible physical risks due to climate change and • the uncertain and hitherto not considered influence of e.g. <ul style="list-style-type: none"> ○ medical and technical progress, ○ digitization and the resulting changes in the world of work or ○ the future performance of the health and social systems <p>on mortality and morbidity rates</p> <p>we do not consider a climate stress test regarding mortality or morbidity of high relevance and informative value.</p> |
| Q.15 | Could you suggest a methodology to calibrate such a shock? | <p>Some reference scenarios from previous scenarios (e.g. 2003 heatwave in different EU countries) could help in this calibration. The complexity will come from the impact on insured population versus global population.</p> <p>Reinsurance data may be a useful starting point; the (pooled) views of reinsurers on potential future scenarios would also be a useful input to calibrate the required shock.</p> |
| Q.16 | What are your views on the risk posed by physical risk on your assets and investments? | <p>More severe events (storms, flooding and also subsidence type of exposure) could impact some assets and investments directly (real estate) or indirectly with further impacts on firms and sectors affecting overall profitability and business. Some sectors seem to be indirectly exposed to physical risks (telco, energy, etc.) as they have considerable assets that can be destroyed by catastrophes – with correspondent impact on the company value.</p> <p>Whilst acknowledging the (data and practical) challenges in assessing the impact of physical risk on assets, methodology and data sources do already exist.</p> <p>Modelling physical risk to assets enables a more complete picture of the impact of climate change on assets. There is also less potential upside than is the case for transition risk. More details on methodology are needed.</p> |

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| Q.17. | Are you already trying to assess impact on assets from physical risk? Do you have any other indicators or methodologies to do so? | The physical risks to assets are generally driven by the exposure of the facilities (buildings, plant, infrastructure) owned or used by the company that has issued the financial instrument, their “facilities”, and the supply chain they rely on for producing their end product. The underlying data used to perform the physical risk assessment is data at physical asset level. We understand that Carbon Delta have built a database of asset locations per company (e.g. exposure of each power plant or real estate property etc.). |
| Q.18. | Do you have a methodology to disentangle physical and transition risk on the asset side? | We are aware of methodologies such as that developed by Carbon Delta that are able to disentangle the risks – in that case, physical and transition risk is defined per scenario such that they are disentangled. Within a scenario (e.g. 1.5 degree warming), transition and physical risk are independent - the scenario drives the mean view of the loss. |
| Q.19. | What are your views on the proposed specification of the shocks? Do you foresee any challenges regarding the proposed specification of the variables for your modelling of the impact? | The variables specified seem reasonable (and comparable with the proposed BoE 2021 BES). It would be very helpful if regulatory bodies co-ordinated their approach to climate stress testing as much as possible to make the process more feasible, especially for global insurers who need to meet different requirements in different jurisdictions (e.g. EIOPA and the BoE / PRA). The application of the scenarios as presented within point 1.4.3. will be challenging. Proportionality has to be considered. |
| Q.20. | What are your views on the application of shocks? Do you foresee any challenges regarding the proposed treatment of reinsurance and nat-cat schemes? | While it’s important to understand the impacts gross and net, we can foresee difficulties in estimating the likely impact of reinsurance given the long time horizon and the fact that events linked to climate change are likely to be in the tail (i.e. extreme events). Due to the very long term projection, the possible increase in the reinsurance costs should be considered. If the scenarios are well specified, application of reinsurance and Nat-Cat schemes should not pose any challenge as long as the risk transfer is clear. Nat schemes could be more problematic to manage when (re)insurance carriers are sharing some market losses amongst themselves. |
| Q.21. | Are there alternative approaches to capturing the interactions between physical and transition risks in climate change scenarios? | The interaction between physical and transition risk could be considered into the assumptions provided for the exercise. |

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| Q.22 | What are views on the treatment of Nat-Cat schemes? | See above – Q20 Nat-Cat schemes should be considered fully as part of the exercise (similar to reinsurance) with their mitigating effects disclosed (balance sheet impacts initially). |
| Q.23 | Do you agree that the preferable indicators should be the ones based on the balance sheet information and that no information on SCR post stress should be requested in the context of a climate stress test exercise? | Yes, we agree. While SCR (or, more particularly, SCR coverage) may be desirable: - For the first exercise, it would be onerous - In the context of a horizon of 30 years, the basis of SCR may change materially. Therefore, initially BS metrics have the advantage of being relatively more straightforward to estimate and will give an indication of the likely impact of the stress on the entity. Given the long-term pattern of the climate change implications we prefer taking the BS as the base for the exercise. With regard to profitability indicators, it is unclear how these would be defined (e.g. local GAAP only or IFRS) and the horizon of those indicators (e.g. over the business plan). |
| Q.24 | Are there any technical indicators that you might not be able to provide? | Exposures by area at a future time are likely to be difficult to estimate. Undertakings must be enabled to provide those indicators by themselves. |
| Q.25 | Which are, in your view, the more significant technical indicators in the context of a climate stress test exercise? | In our view, the following are the most significant technical indicators: - Aggregate losses, average annual losses (AAL) gross and net of reinsurance protections - 1 in x year return period |
| Q.26 | Are you able to provide information on the exposures for other perils (not included in the Standard formula calculation) split by countries or geographical areas? Are there any relevant information that you think could be useful in order to analyse and validate the results? | Reinsurer data could be used to analyse or validate the results. Although it's backward looking, its global reach and comprehensiveness would be a useful starting point for the purposes of anticipating potential future scenarios. It also could be useful to refer to relevant academic literature linking climate change to potential changes in biometric rates. |

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| | | Extending the models by other perils not included in the standard formula calculation can cause significant model changes. The potential use of such an extension has to be traded off against time and effort needed to adapt models. |
| Q.27 | Are there any other indicators you would suggest to include? | <p>Liquidity metrics might be useful.</p> <p>Ratio Ceded AAL / Gross AAL based on real exposure and current protections.</p> <p>Impact of mitigation action if applied, split by action</p> |
| Q.28 | Do you consider that the proposed forward-looking information gathering exercise will help shed light on potential second-round effects of climate change, such as the issues of availability and affordability and the protection gap in insurance? | <p>We consider that this is a worthwhile exercise. However, it should be recognised that any answers will be speculative since most companies will not have begun to consider their reaction to such events. This as to be considered when identifying second-round effects of climate change and potential protection gaps.</p> <p>We also question the limiting of the question to selected companies, rather than gathering a wider range of answers.</p> |
| Q.29 | Do you agree that a qualitative questionnaire, with some quantitative elements, is a good option to assess post-reactive and preventive management actions within a climate change ST scenario? | Yes. Opportunities for quantitative analysis are likely to be limited in the initial stages and so a combination of quantitative and qualitative questions is likely to be the most appropriate. |
| Q.30 | Do you agree on the quantitative metrics proposed or are there other relevant indicators that you would include? | <p>We are broadly in agreement with the metrics proposed.</p> <p>However, it is unlikely that an insurer would be aware of the level of underinsurance in the market, not to mind the likelihood of underinsurance after the proposed stresses and so suggest that this should be directed to the regulator.</p> <p>Also, while a company's appetite might be for more reinsurance in the stressed situation, reinsurance might not be available, or only available at a prohibitive price and so information on a key piece of the transaction is missing.</p> <p>It would also be useful to include specific questions about withdrawal from markets / lines of business to identify portfolios which could become uninsurable.</p> |

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| | | <p>Reputation metric (to be specifically defined) is also relevant (e.g. non-respect of published ESG policies are harmful).</p> <p>This seems to be further evidenced by the CARIMA model where “Public Perception” and “Adaptability” (next to the “Value Chain”) appear to be significant contributors to the “Carbon Beta” (see 4.1.2.2)</p> |
| Q.31 | Do you agree on the type of questions asked with regards to the level of integration of climate change risks in business models and risk management strategies? | Yes, subject to a materiality assessment in the first instance. Whilst the most severe impacts of climate change may only be felt beyond the usual business planning horizon (c.3 years), it’s important to engage the Board and senior management on this topic now so that a more sustainable direction may be taken for the business, for the longer term. |
| Q.32 | Do you agree on the scope intended for the information gathering exercise? | It is likely that a significant amount of detail will be requested and so we suggest that it is key that companies are permitted to answer on a best efforts basis. |
| Q.33 | Do you have any other concerns related to the proposed exercise? | <p>Resource constraints are a key concern, given the likely resource commitment needed to complete the proposed exercise – especially in context of a rapidly evolving regulatory landscape and corresponding increase in regulatory expectations.</p> <p>In addition, we might have to consider further risks like cyber risk or pandemic.</p> |
| | Do you have general comments, remarks, suggestion on Section 1? | <p>The value of the exercise will largely be in prompting timely discussion and relevant questions at the senior, decision-making levels of the organisation, as well as providing indicative results as to possible impacts of various scenarios; it should be widely understood that the results definitely won’t be “accurate” and striving for this would be futile.</p> <p>This should very much be an iterative process, reflecting continuous improvement and learnings along the way.</p> <p>The set of tools discussed will need to be revised with a high frequency to capture changes.</p> |

Section 2 - Liquidity stress tests

| # | Question | Answer |
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| Q.34. | Do you agree with the advantages and disadvantages on groups and solos proposed in Table 2 2? | Yes, we broadly agree with the advantages and disadvantages proposed. |
| Q.35. | Which additional advantages and disadvantages do you consider relevant? | None |
| Q.36. | Do you consider the intra-group support a key part of the liquidity assessment? If yes how can this be included in the design of a Stress Test? | <p>Yes, intra-group support should be a key part of a liquidity assessment.</p> <p>This could be included as an additional separate request to a solo-undertaking scenario. EIOPA could ask for impacts with and without expected intra-group support.</p> <p>Intra-group reinsurance could affect liquidity positions in case receivables are not paid on due time.</p> |
| Q.37. | Do you consider the list of the liquidity exposures exhaustive? If not please elaborate on the missing elements. | <p>We broadly agree with the list of liquidity exposures. The following might be considered:</p> <p>The lapse likelihood can also be impacted by fiscal changes or other legal features in life policies. The relative performance return of unit-linked products (see Q.44) can also be a lapse trigger.</p> <p>The following exposures could also be considered (see also IAIS application paper on liquidity risk management dd 29/06/20 - https://www.iaisweb.org/page/consultations/closed-consultations/2019/draft-application-paper-on-liquidity-risk-management):</p> |

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| | | <ul style="list-style-type: none"> - Funding risk related to other sources than reduced access to repo market. The concept of “Wholesale funding” would be more appropriate to include any financing from institutions - Other risks could include <ul style="list-style-type: none"> o Foreign exchange convertibility and access to foreign exchange markets o Concentration and correlation of funding sources should be included (market, sector, geography and counterparty as suggested but also at instrument type and currency level) |
| <p>Q.38.</p> | <p>Do you consider the description of the exposures appropriate? If not please provide suggestions.</p> | <p>The descriptions do not account for the risk mitigations that are generally implemented by the insurance sector. Some examples are given below:</p> <ul style="list-style-type: none"> • Exposure to insurable events: <ul style="list-style-type: none"> o Asset side: insurers generally hold a strong buffer of cash and high-quality liquid assets. In addition, in going concern, incoming cash flows will be realized from new business and premiums outside contract boundaries. o Liability side: for life, e.g. fiscal penalties and market value adjustments are important mitigations. Non-life CAT is usually mitigated through reinsurance, in addition, the run-off of claims usually takes a long time. • Balance sheet exposures: can be mitigated through e.g. cash flow matching and market value adjustments • Funding risk: exposure to repo markets is usually limited compared to the total balance sheet of insurers. In addition, insurers usually have a large stock of high quality liquid assets to post as collateral. • Counterparty: |

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| | | <ul style="list-style-type: none"> ○ Counterparty risk of reinsurance contracts mitigated through the high creditworthiness of the reinsurer or through the posting of collateral. ○ Mortgage loans are underwritten based on strong standards of debt-to-income and loan-to-value. Mortgage loans may represent an attractive investment for insurers as it provides long-term, stable cash flows and diversification based on a large number of relatively small counterparties. |
| <p>Q.39.</p> | <p>Indicators such as the surrender ratio can be based on surrender values or exposures (e.g. best estimates). Which is in your opinion the best option?</p> | <p>There are advantages and disadvantages to both.</p> <p>Surrender ratio based on surrender values represent the actual amounts to be paid out rather than the best estimate. It can be an important indicator for liquidity purposes. The denominator should be consistent, e.g. the book value of technical reserves (and not premiums as in Table 2-3).</p> <p>Best estimates would give a better indication of liquidity position but will be more difficult to compare due to differences in assumptions.</p> <p>The nature of the metric might need to vary with the risk-profile of the business. For example, SP unit-linked business with no future premiums – considering premium in a liquidity metric could give a distorted view of ongoing surrender rates/liquidity constraints.</p> |
| <p>Q.40.</p> | <p>Which other liquidity indicators do you consider to be relevant especially in the context of a ST?</p> | <p>A simple projection of Liquidity Sources Minus Liquidity Needs over the business plan horizon could be useful.</p> <p>Cashflow projection remains the preferred approach.</p> <p>We would like to point to the following fact: There are significant differences in the business models of banking industry and insurance industry. The focus of banks is on the liquidity risk which is not a comparable high risk for insurers. Tailor-made indicators for banks should not be brought unchecked into the insurance business.</p> |

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| | | <p>Especially the specificities of long term business models in combination with recurring premiums cannot be reflected by such an indicator. For long term business models illiquidity is not a large risk. Insurers should rather be able to earn an illiquidity premium due to special rigidity and predictability of liability cash flows.</p> <p>Due to this incompatibility of the two business models, a simple application of LCR and NSFR will not show an adequate risk heat map for insurance business in its entirety.</p> <p>The implementation of a complementary indicator inspired from Basel III would therefore need appropriate adjustments given the different business specificities and relevant horizons to measure liquidity risk.</p> |
| <p>Q.41.</p> | <p>Which classification do you consider as the most appropriate between the ESRB and the IAIS?</p> | <p>Both approaches have advantages and disadvantages. The ESRB approach appears to be easier for firms to implement but still captures the liquidity characteristics of the various assets. ESRB is also quite clear/prescriptive in terms of structure, so easier to understand/apply.</p> <p>IAIS allows for an extra category with low credit & market risk that is readily marketable and has a proven record in stressed liquid markets. We question whether such a category would also be relevant and which assets are typically part of this remaining category.</p> <p>The ESRB classification treats covered bonds rated CQS 0 and 1 as level 2B assets:</p> <ul style="list-style-type: none"> • Covered bonds have proven to be a stable asset class during previous crisis periods and are compliant with the requirement of “ensuring that they can be monetised without incurring large discounts in sale or repurchase agreement markets in times of stress.” • We remind that covered bonds are considered in the secondary bucket by the IAIS. • As such, a level 2A classification would be more appropriate for covered bonds, in line with the IAIS bucketing. |

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| | | <p>The proposed classifications exclude financial sector issuers from the liquidity portfolio. While a differentiated approach for the financial sector could be justified (as it is the case under the standard formula for SCR spread and VA calculations), a full exclusion from liquid assets does not seem appropriate</p> <ul style="list-style-type: none"> • The ESRB classification, and the proposed exclusion of the financial sector, was copied from Basel III LCR framework for banks. For banks, this exclusion may be appropriate in order to account for specific idiosyncratic risks stemming from the banking sector. However, it is not clear why the same should be applied for insurers. • Liquidity scenarios for banks (with risks stemming from the interbank market, short term deposits and potential run on the bank) are fundamentally different from the insurance sector. As insurers can provide a stabilizing factor in crisis periods through their predictable cash flows and liabilities, liquidity frameworks should adequately distinguish insurance undertakings from banks. • Overall, excluding the financial sector seems rather arbitrary as different sectors are exposed to different risks. Sector-specific effects should be based on a broader stress test narrative; e.g. a pandemic scenario or a climate transition stress test will likely target other sectors or specific activities, without assuming a full illiquidity of financial sector assets. • In any case, we remind that residual risks of level 2 assets can be accounted for through a prudent haircut. |
| <p>Q.42.</p> | <p>Which other methods to classify assets according to their liquidity do you consider to be relevant?</p> | <p>Classifications in other frameworks may also define the liquidity level of the assets from a management perspective, e.g. Held to Maturity under IFRS9 (only specific Equities qualification under S2 seems to be taken into account in Table 2-6).</p> |
| <p>Q.43.</p> | <p>Please provide your view on the exemplificative calibration of the haircuts presented in the IAIS and ESRB example. Do you have other suggestions for the calibration?</p> | <p>Overall, the haircuts appear to be very prudent compared to:</p> <ul style="list-style-type: none"> • Solvency II SCR market calibrations • Haircuts on G7 equities and investment grade bonds during 2007-2009 reported by the CGFS (BIS Committee on the Global |

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| | | <p>Financial System, The role of margin requirements and haircuts in procyclicality, Paper No.36, March 2010, p. 2)</p> <ul style="list-style-type: none"> • Repo haircuts on corporate and equity exposures during the financial crisis, surveyed by Fitch Ratings (Fitch Ratings, Repo Emerges from the “Shadow”, February 3 2012, p.3) |
| <p>Q.44.</p> | <p>Could you please confirm the relevance of the classification of insurance products according to their sensitivity to lapses by a liquidity perspective?</p> | <p>We agree that the classification of products by sensitivity to lapses should be considered when looking at liquidity needs. However, the classification should also take other characteristics into account. Term protection products are classed as having a low lapse sensitivity but they can lead to liquidity risk if there are a large number of claims.</p> <p>Pure Unit-Linked products could be quite sensitive to lapses depending on the return of the fund versus alternative investments and the policyholder’s needs for cash in a crisis situation. However, the risk is not borne by the company.</p> <p>As a general remark the classification does not allow for fiscal and/or contractual restrictions and is thus not meaningful on a stand-alone basis.</p> |
| <p>Q.45.</p> | <p>How much time and effort would be required to set up a classification of your product portfolio according to lapse sensitivity criteria (as proposed by Table 2.8 or by your answer to Q.44) and to implement such a product classification in your projection models for running a liquidity stress scenario as outlined in section 2.3?</p> | <p>This would depend on the type of firm, the complexity of its product offering and the granularity of its model. It is not something that we expect firms to already have in place.</p> <p>The classification to lapse sensitivity criteria can be relatively straightforward. However, the overall liquidity stress test requires a projection of stressed cash flows, as well as stressed balance sheet projections, which would require more time and effort compared to previous stress test exercises.</p> <p>While models exist, a proper calibration of the lapse parameters under specific circumstances can be quite challenging given the lack of representative data.</p> <p>Disability covers are often added as a rider to e.g. an annuity or endowment tariff. Lapse sensitivity depends also on this contract.</p> |

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| <p>Q.46.</p> | <p>Do you consider the relevance of the classification of insurance products according to their sensitivity to penalties such as tax incentives relevant for a liquidity perspective? Please elaborate.</p> | <p>We agree that the classification of products by sensitivity to penalties should be considered when looking at liquidity needs. However, we are not convinced that the extra effort to determine the buckets would give extra information when compared to just bucketing by lapse sensitivity.</p> <p>We raise the question of the appropriateness of the penalty rate of 20% threshold w.r.t. product classification. The penalties might have different significations: fiscal, fixed or variable % in case of full lapse, market-dependant penalties in case of arbitrage between guaranteed and unit-linked products and vice-versa...</p> <p>As a general remark the relevance of the classification of insurance products according to their sensitivity to penalties such as tax incentives is relevant for a liquidity perspective. Best Estimate assumptions in the corresponding granularity clearly show the relevance in e.g. Germany. However, this approach lacks the product view.</p> <p>Combining the approaches presented in Tables 2-8 and 2-9 might fix some shortcomings.</p> |
| <p>Q.47.</p> | <p>How much time and effort would be required to set up a classification of your product portfolio according to lapse penalties criteria (as proposed by Table 2 9 or by your answer to Q 46) and to implement such a product classification in your projection models for running a liquidity stress scenario as outlined in section 2.3?</p> | <p>This would depend on the type of firm, the complexity of its product offering and the granularity of its model. It is not something that we expect firms to already have in place.</p> |
| <p>Q.48.</p> | <p>Which other methods to classify liabilities according to their liquidity do you consider to be relevant?</p> | <p>n/a</p> |
| <p>Q.49.</p> | <p>Do you agree with the proposed approach and its foreseen evolutions?</p> | <p>Yes. As a first step, the balance sheet approach will not require as much data from insurers and will still give supervisors enough detail to gain insights on the liquidity position of insurers. We agree that the cash flow approach seems to provide the most comprehensive view.</p> |

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| | | Please consider to combine the approaches presented in Tables 2-8 and 2-9 in order to fix the shortcomings addressed in our answers to Q44 and Q46. |
| Q.50. | Are you already using similar method to assess your liquidity? | n/a |
| Q.51. | Could you please explain the conceptual and practical gaps between the proposed analysis and the tools/approaches you are actually using? | <p>A fully-fledge CF liquidity indicator as a final step might require some fine-tuning and IT developments.</p> <p>The proposed analysis includes a series of fixed, arbitrary shocks that are usually not present in the currently applied tools and approaches. We would recommend removing those fixed parameters from the risk measure to have a “neutral” risk measure” before applying stresses.</p> <p>Actual approaches are usually based on a “neutral” risk measure with a stress test narrative, which is used as a basis to calibrate shocks and stresses.</p> <p>Some examples of gaps between the proposed analysis and currently used approaches are:</p> <ul style="list-style-type: none"> • HQLA: stress calibration based on narrative instead of fixed haircuts or limitations on level 2 assets • Cash inflows: stressed cash inflows based on narrative instead of fixed 75% cap. • Financial sector in HQLA: sector level stress calibrations based on narrative instead of financial sector exclusion |
| Q.52. | Could you please explain the conceptual and practical gaps between the proposed analysis and the tools/approaches you are actually using? | n/a |
| Q.53. | Could you please explain the conceptual and practical gaps between the proposed analysis and the tools/approaches you are actually using? | The time horizon up to 6 months might not be sufficient given possible spill-over effects in a systemic crisis. Adding a one-year horizon might be more appropriate (also used by the ACPR) with Non-Life insurance features being considered |

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| Q.54. | Do you think that relevant events or shocks are missing? If yes, please elaborate. | No, we believe that all significant shocks are included in the table. |
| Q.55. | Do you think that the proposed sources / events and shocks are plausible for a scenario that evolves over 5 days? | Yes. A short-time additional source of risk could be a cyber-attack on a financial institution temporarily blocking transactions. To consider: A 1-5 days horizon seems to be more appropriate to the bank sector. Longer horizons 1 month, 6 months and 12 months would be more appropriate and should be considered for insurers. |
| Q.56. | Do you think that the indication of the calibration of the shocks is plausible? | Yes |
| Q.57. | Is the liquidity risk profile of insurers exposed to other shocks in the short time? | Large one-off unexpected expenses can also impact short-term liquidity. The risk of this is quite low given the expense controls in most insurers. |
| Q.58. | Do you think that the proposed sources / events and shocks are plausible for a scenario that evolves over 30 days? | Higher lapse rates over a number of months are possibly more likely than one mass lapse event within 30 days. |
| Q.59. | Do you think that the indication of the calibration of the shocks is plausible? | Yes |
| Q.60. | Is the liquidity risk profile of insurers exposed to other shocks in the medium run? | No material risks. |
| Q.61. | Do you think that the proposed sources / events and shocks are plausible for a scenario that evolves over 6 months? | This is quite a severe scenario and it is important that the interactions between the different risks are captured (for example, the greater number of claims will be exacerbated by the default of the reinsurer). For comparability purposes, it may be better to split the triggers out into different scenarios. In case of general recession over at least a 1 year horizon, other liquidity issues could materialise. Those include a.o.: |

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| | | <ul style="list-style-type: none"> - Policyholder behaviour: strong need for cash resulting in extra lapses and premium reduction - Balance sheet exposure: reduced income on illiquid assets resulting from lower dividends and defaults - Funding risk: increased disruption in wholesale funding in case of non-agreement at central bank levels <p>As illiquid assets are not included in the considered liquidity indicator, this scenario could not be captured in the considered risk measure.</p> |
| Q.62. | Do you think that the indication of the calibration of the shocks is plausible? | Yes |
| Q.63. | Is the liquidity risk profile of insurers exposed to other shocks in the long run? | <p>An adverse financial market development might lead to a reduction in the market value of unit-linked assets and a large decrease in the fund management charges collected.</p> <p>An increase in expected expense inflation (for example, due to salary increases across the market) can lead to higher liquidity needs in the long-term.</p> |
| Q.64. | Do you think that the proposed approach provides meaningful information on the liquidity position of an insurer under adverse scenarios? Which other approaches could be considered? | <p>Yes, but we believe that management actions are an important factor that should be captured in some manner when assessing the liquidity position of an insurer under adverse scenarios.</p> <p>The following might need further consideration:</p> <ul style="list-style-type: none"> - The baseline scenario should include all liability CF (surrenders, claims but also maturity, expenses, commissions expected in renewed premiums) - The haircut applies only to liquid assets whereas the proposed long time scenario also impacts illiquid assets and lapse assumptions. An additional metric such as change in excess of assets over liabilities would be more appropriate in this case |

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| | | - It should be made clear whether a 75% cap on inflows would apply in any scenario as indicated in para 223 |
| Q.65. | What is your view on the instantaneous nature of the shocks? What are the major limitations brought by this approach? | Instantaneous shocks will be an easier approach for firms to implement. Again, this approach will not capture the post-stress management actions which are an important factor when assessing the liquidity position of an insurer under adverse scenarios. |
| Q.66. | Do you think that the exposures and the shocks proposed (please refer also to Annex 4.3.1) include the most relevant ones to assess the liquidity of an insurer? | Yes |
| Q.67. | Are there any additional exposures or shocks you consider relevant to be assessed in a potential first liquidity ST? | No |
| Q.68. | Do you consider the proposed "mixed" approach as a viable solution from an operational perspective? | Yes |
| Q.69. | What question would you include in the quali-quantitative questionnaire to assess potential spill-over effects? | If the scope is solo-entities, it would be important to assess the level of intra-group support post stress. Also potential post stress management actions should be required. It would be interesting to gather information on the existence (plus short description) of a contingency funding plan and at which level (undertaking/group) |
| Q.70. | What are the main limitations you foresee in the proposed analysis? | A lack of comparison or benchmark to gauge the results is the main limitation. |
| Q.71. | Do you have suggestions for additional analysis to be performed? | Some NCAs already request a liquidity report (e.g. as prerequisite to use the VA). It would be interesting to have an overview of those reports and see how we can leverage on those. |

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| Q.72. | What is your view on the alternative approach? | The alternative approach could be a simple tool used by insurers to monitor their own liquidity exposures. It will concentrate on the firm's own risks which may not be captured in a market-wide stress test. |
| Q.73. | What potential main limitations do you foresee in this technique? | The main limitation is the independence of the shocks. |
| | Do you have general comments, remarks, suggestion on Section 2? | <p>The considered ST seems to be mostly inspired from liquidity risks of the bank sector insufficiently capturing the specificities of the insurance sector.</p> <p>In more detail we propose to consider the following remarks:</p> <ol style="list-style-type: none"> 1. The differences between the banking sector and the insurance sector, but also the differences within the insurance sector caused by the different business models, legal forms (e.g. listed, mutual), local accounting rules, product mix etc. should be adequately reflected for solution that meets the principles of materiality and proportionality. 2. Examples of topics that should especially be analysed to meet the principles of materiality and proportionality (compare tables 2.13 -2.15) are the following: <ol style="list-style-type: none"> a. Funding risk: Derivatives and Margin calls / Collateral risk <p>Use of and exposure to derivatives is very different for insurance companies compared to banks, e.g. the risk of margin calls is often very limited for a typical insurance company. Furthermore in some legislations (e.g. in Germany) it is in general not possible to post collateral directly in the tied assets ("Sicherungsvermögen"), derivatives transactions / strategies are therefore in general executed within the free assets. I.e. in general the free assets are the counterpart of a derivatives transaction and would receive the margin call. The insurance company could therefore provide liquidity to the fund. In addition any derivatives counterparty would analyse</p> |

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| | | <p>the ability of this fund to post collateral and limit the possible exposure accordingly.</p> <p>Summarizing, we do think that for a lot of insurance companies the liquidity risk arising from derivative transactions is very limited and a proportionate approach should be implemented.</p> <p>b. Repo markets</p> <p>Like under a., the role of the repo markets is very different for insurance companies compared to banks. The materiality of liquidity risks should be considered on an individual basis and a proportionate approach should be implemented.</p> <p>c. Approach to capital markets</p> <p>Again the materiality of the risk should be considered as most insurance companies (e.g. mutuals) do not use the capital markets to raise equity or debt.</p> <p>d. Fire sales</p> <p>The risk of fire sales should be analysed based on empirical data. We deem that this is a risk that is more relevant for the (pre-crisis) bank sector where the loss of long term asset market value might enforce a fire sale as the ability of a (usually) short term funding might deteriorate, i.e. is usually caused by the duration gap between long-duration assets and short-term funding. This is not an issue for insurance companies whenever liabilities have a long duration, which is very often the case.</p> <p>Overall we suggest to analyse liquidity risks stemming from capital market events for insurance companies in more depth as we think that the risks for insurance companies are different from those in the banking sector and the risk-exposure within the insurance sector is much more varying than within the bank sector and in a lot of cases materially smaller.</p> |
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Section 3 - Multi-period stress tests

| # | Question | Answer |
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| <p>Q.74.</p> | <p>Besides the potential operational challenges for the technical implementation of a multi-period (baseline or stress) scenario: do you consider the list of risk drivers to be specified over the time horizon of the scenario as comprehensive enough? If no, which further data would be required in which granularity?</p> | <p>We assess the list of risk drivers to be comprehensive, especially as there is the item "other assets".</p> <p>However we have following additional remarks on this section:</p> <ul style="list-style-type: none"> • As several risk drivers are involved in defining the baseline and the stress scenarios, it will be difficult to ensure consistency, which in our view is absolutely necessary. Consistency requirements are for example: <ul style="list-style-type: none"> ○ The lapse part of the scenarios (base and stress) should be consistent with the development of the assets and interest rates as lapses might depend on the "in-the-moneyness" of the contracts. ○ The spread-development needs to be consistent with the development of the volatility adjustment ("VA"). If the development of the VA is not predefined for each scenario, a further complication arises as the VA needs to be determined for each point in time of each scenario, which is a considerable operational burden and possibly leads to widely diverging VA-assumptions. On the other hand, a pre-defined VA will lead to inconsistencies in the projection. ○ The development of the different risk factors should also be consistent with the correlation assumptions to make sense. Any deviation from this requirement leads to results which will be hard to understand and to communicate and which can be challenged. ○ The development of the risk drivers must be granular enough to allow the derivation of all necessary calibration-input for the valuation-ESGs (Economic |

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| | | <p>Scenario Generators), especially including full yield curves and volatility surfaces.</p> <ul style="list-style-type: none"> ○ The risk driver list must be comprehensive enough to capture risks which are not present in the current portfolio but will be introduced by either new business or external developments. <p>We would also like to remark that a MST stretching over a longer period of time requires an assumption on the development of the UFR and EIOPA would have to give guidance. It might well be that such guidance could actually destabilize the insurance industry and create unwanted side-effects. Even the assumption that the path of the UFR stays unchanged compared to the current situation might have a detrimental effect.</p> |
| <p>Q.75.</p> | <p>Which information on the assumed temporal development of implied volatilities would be precisely required from your perspective?</p> | <p>EIOPA does not currently specify volatilities as part of its monthly provision of market/technical information (i.e. along with interest rate curves). Different participants will therefore apply volatilities in different ways, for example, by using normal or log-normal interest rate volatilities. Whatever approach is taken it is important that any specification is unambiguous in terms of what the output from the stress should be i.e. an x bp change in the level of normal implied volatility for a given term-tenor. For those not only using ATM but also OTM calibrations, further information might be required.</p> <p>As EIOPA does not prescribe Economic Scenario Generators (ESG), there are many actively used in the market. Each uses a different set of calibration assets including information on implied volatilities. As it seems to be impossible to predefine a consistent set of parameters for the calibration of all ESGs this will be a major issue.</p> <p>The same is true for asset and liability portfolios: depending on the granularity and materiality they will require different calibration assets.</p> <p>To cover all eventualities, in theory, all possibly used derivatives and their market-prices need to be projected for each scenario by EIOPA.</p> |

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| <p>Q.76.</p> | <p>Do you agree with the presented advantages and disadvantages of the discussed alternative approaches for future new business assumptions?</p> | <p>No, we see have identified further disadvantages. We list the main ones below:</p> <p>Constrained approach:</p> <ul style="list-style-type: none"> • This approach is inconsistent with the going-concern assumption under Solvency II, especially regarding expenses and going-concern-reserve. • This approach might be inconsistent with the recoverability-test for DTAs as these might assume new business. • This approach does not reflect reality and thus the whole idea of the MST based on this approach can be challenged. <p>Individual approach:</p> <ul style="list-style-type: none"> • There will be no comparability of the results as the assumptions will be company-specific and might differ wildly. • It is still not ensured that the new business assumptions are consistent with the going-concern assumptions or the assumptions used in recoverability tests. <p>Intermediate approach:</p> <p>This approach combines the disadvantages of the constrained and the individual approach.</p> |
| <p>Q.77.</p> | <p>Do you have further methodological proposals for the specification of future new business assumptions in the context of a multi-period exercise?</p> | <p>We do not have a further methodological proposal but would like to draw the attention on the following 2 points:</p> <ul style="list-style-type: none"> - New business mix can be quite sensitive to economic environment. - Gives leeway to discretion for undertakings. Comparability is impeded. |

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| | | <p>- Cost allocation depends on volume, some high level checks on expense evolution should be foreseen</p> <p>see also our answer to Q.76</p> |
| Q.78. | Do you have a preference for a specific approach? If so, please elaborate on the reasons for your preference, with a specific focus on conceptual, technical and operational aspects. | see our answer to Q.76 |
| Q.79. | Do you have a preference for a specific approach for the projection of the risk margin? If so, please elaborate on the reasons for your preference, with a specific focus on conceptual, technical and operational aspects. | <p>The risk margin is already based on a projection of the SCR. Typically using risk drivers. This approach can be applied for future points in time as well, considering proportionality.</p> <p>The risk margin is depending on insurance risk only and the yield curve used for discounting. This input should be readily available at each point of the projection time.</p> <p>The impact of new business however is complex to determine and would, in theory, lead to the requirement to recalculate the SCR for each future point in time for each scenario and each point in time. This would be prohibitively onerous. The quality of any approximation method however would most probably depend on the specific circumstances of the in-force business and new business and thus we do not think a method could be prescribed which fits all circumstances.</p> |
| Q.80. | Do you have a preference for a specific approach for the projection of DTA and DTL positions in the baseline and in the stress scenario? If so, please elaborate on the reasons for your preference, with a specific focus on conceptual, technical and operational aspects. | A projection of the DTA/L positions, but even more of the risk-absorbing capacity of taxes for future points in time under different scenarios will be extremely onerous and basically would require totally new industrialized processes for most companies. The recoverability test would have to be performed for each scenario and each projected point in time. We do not think this is feasible. |
| Q.81. | Which criteria would be applicable from your perspective for the recognition of projected DTA positions? | We do think that only a very simplified approach would be possible, e.g. scaling DTAs and assuming full recoverability. |

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| Q.82. | Do you agree with the presented advantages and disadvantages of the discussed alternative approaches for the application of reactive management actions? | As in our answer to Q.76, we see many more disadvantages. |
| Q.83. | Do you have further methodological proposals regarding the allowance for reactive management actions in the context of a multi-period exercise? | No, see Q.82. |
| Q.84. | Do you have a preference for a specific approach? If so, please elaborate on the reasons for your preference, with a specific focus on conceptual, technical and operational aspects. | <p>At least a sub-set of management actions should be possible such as:</p> <ul style="list-style-type: none"> • Reduction of dividends • Reduction of discretionary profit sharing <p>Other possible management actions could be described without being tested as they are more dependant to external factors (e.g. rolling hedge arrangements, risk mitigation strategies, premium increases,)</p> <p>An important consideration is whether these management actions are aligned with the capital policy or risk management policy of the insurance undertaking.</p> <p>see also Q.82.</p> |
| Q.85. | What is your view on the potential requirement to project the SCR in the baseline and / or in the stress scenario? Please elaborate on conceptual, technical and operational aspects regarding such a projection. | <p>This at the first glance understandable requirement, as well as any proposed requirement to project the SCR needs to be considered in light of the complexity of this task and the approximations and assumptions that would be needed. SCR is well-defined in the Solvency II context. The calibration of risk-modules ensuring the 99.5 VaR over a 1-year horizon cannot be achieved in such a projection.</p> <p>In certain instances, for reasons of materiality, it might be appropriate not to project the SCR or certain components of the SCR.</p> <p>Projecting the SCR for each relevant point in time and each scenario will be a major effort. We see following challenges:</p> |

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| | | <ul style="list-style-type: none"> • Internal models are very different thus prescribing specific methods would be very difficult. • The ESG (economic scenario generator) calibrations for future points in time and different scenarios would have also to include the stress ESGs and/or calibration ESGs for proxy approaches (replication portfolio, LSMC, curve-fitting etc.). Some companies even use full nested stochastic approaches. This does not seem feasible for an MST. • Most companies applying internal models use proxy models (see above) and calibrate these to the liabilities for every SCR-evaluation. Doing this in an MST-setting will generate massive efforts. • The risk-absorbing capacity of taxes would need to be determined at each point in time for each scenario. This includes a recoverability test. This does not seem feasible. • All necessary validations need to be performed repeatedly. As these validations are performed mostly manually, this seems not to be possible. • We foresee the necessity of model-changes to be able to robustly fulfil all requirements and this most probably would require a model-change and -approval. This could take considerable time. • Usually there are last manual steps in determining the SCR, and performing these repeatedly for an MST would result in undue effort. An example is the intercompany-capital-and-risk-transfer instruments. • There is also a philosophical question to be answered: if, for example for the next 5 years, the development of relevant insurance and asset parameters follows a deterministic planned development, then in reality most assumptions would take this into account and e.g. the volatility of most insurance risks would reduce substantially. It is unclear whether this should be reflected |
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| | | in the MST. EIOPA would have to issue guidance on this and it is not immediately clear whether a consistent approach is possible. |
| Q.86. | Do you think that a multi-period stress test exercise can run relying on the same process applied so far for the instantaneous shock based exercise? | <p>No. As discussed in this discussion paper, a whole new methodological framework would have to be established. The time and effort involved in this, also for EIOPA, should not be underestimated. In addition, the MST requires a full industrialization of all affected processes. The high workload, massive validation efforts and large number of results, effectively repeating the process to determine Solvency II results several times, would not allow to use current processes.</p> <p>Although companies try to achieve an industrialization of all Solvency II processes, this industrialization can only happen as soon as all requirements are clear and stable. This is currently not the case (Solvency II 2020 review).</p> <p>It would be preferable to carefully design and test the requirements before making them mandatory. And afterwards the requirements need to be stable to avoid immense maintenance costs and resources for the model.</p> |
| Q.87. | What is your view on the proposed approach based on iterative calculation / validation process? | <p>We did not find a concrete description of the iterative calculation / validation process in the discussion paper.</p> <p>We assume that this means the fact that the validation at each point in time should be finalized before moving to the next point in time. This is indeed one of the many challenges for an MST-production process and adds to its complexity. We refer to our answer on Q.86 regarding the resulting problems.</p> <p>All in all such an approach will be immensely time and resource consuming.</p> |
| Q.88. | What is your view on the proposed timeline? | The timeline seems to refer to a situation where the whole MST-methodology has already been well defined and introduced and companies have established all necessary processes. This is not the case and hence these steps are missing in the proposed timeline. |

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| | | We therefore believe that it is much more important to consider the timeline for the initial introduction of an MST-approach. We think that the time necessary to develop, discuss, define, implement first prototypes and test such an approach would be massive and will easily exceed several years. |
| Q.89. | Do you have different proposal on the operationalization of multi-period a stress test exercise? | no |
| | Do you have general comments, remarks, suggestion on Section 3? | Given the complexity of the exercise, we recommend as a general principle a proportionate approach depending on the objective of the ST exercise providing sufficient guidance, interactions with the NCAs and allowing leverage on ORSA exercise and general Business Plan stresses. |