IRSG

INSURANCE AND REINSURANCE STAKEHOLDER GROUP

Advice on Stress Testing

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CONTENTS

SUMMARY ON IRSG ADVICE ON STRESS TESTING

CLIMATE CHANGE STRESS

The IRSG welcomes EIOPA's consultation on methodological principles on climate risk stress testing and is of opinion that in this consultation many highly important matters and different aspects which needs to be solved are being brought out. In general, we see that we are dealing with a complex and constantly evolving issue which needs a good holistic overall view with a clear idea on the level of details. And that this cannot be managed without a continuous, seamless and effective communication with all the relevant stakeholders. Considering the specific answers in the consultation, we would like to highlight the following:

- A strong cooperation and coordination between supervisors would be welcome to achieve consistency in the way climate-related stress tests are designed and prevent duplication of efforts that would arise if each jurisdiction is doing its own stress test at local level.
- Climate change stress cannot be conceived as "fail or pass" stress tests so we would suggest to talk about 'climate scenario risk analysis' rather than "stress test" which would be more adequate. We would also bring out that climate change related stresses, as important they are, are going beyond the Solvency 2 framework, e.g. in terms of, time horizon or allowance for new business.
- Quantitative stresses can be applied when looking at the business impact in a short-term period and we find many of the ideas presented quite reasonable. Anyway we strongly support exploring long-term impacts to the business model only on a qualitative basis.
- Having the possibility to include credible Management actions is highly important. From the insurer's point of view, making assumptions about its own future management decisions is a pedagogical exercise that can help raise awareness of these long-term issues. As things change constantly there is on occasions not yet a well-functioning strategy in place and therefore any stress test must have possibility to include management actions to allow reactions.
- Granularity vs. standardisation a challenging point as well. It is noted that internal climate studies tailored to individual firms are generally more meaningful for those firms (as linked to actual business and strategic considerations) than standardised supervisory scenario analysis and potentially more insightful for supervisors as well. They are thus preferred to sector-wide supervisory stress test, also in view of managing the growing resource burden arising from this topic. If EIOPA goes ahead with standardised supervisory exercise, it needs to provide participants with a host of granular transition and physical variables across currencies and geographies ready to be applied as

instantaneous shocks on a fixed balance sheet (in a way that could eventually be done through a top-down approach).

- Climate change has similarities on the on-going work on shared resilience schemes and some connections could be recognized. Climate change needs to be addressed with a strong public–private – partnership where also issues like what will be insurable and what not will be considered

The IRSG encourages EIOPA to continue to engage with firms on this important topic in order to facilitate the design and development of meaningful climate-related scenario analysis adapted to the insurance sector's specific needs and its role in the economy and wider society. One effective way to do this could be to create a forum where supervisors and industry representatives along with other key stakeholders on this topic could exchange views on good industry practices. It is noted that firms are now performing their own internal climate analysis linked to actual business and strategic considerations and these could provide useful insights for supervisors in developing their own tools and capabilities in this area.

LIQUIDITY STRESS

The IRSG is of opinion that the liquidity stress test consultation has a variety of good findings on how liquidity risk should be understood and what are the details in it and congratulates EIOPA for the work done. But as the issue is complex, we would certainly encourage EIOPA to take into consideration the following high-level observations:

- Management of liquidity is highly dependent on the business model, operational setup and Treasury environment. Even more than capital, insurers have put in place frameworks to measure their exposure to liquidity risk using company specific fittings that meet their needs. EIOPA stress tests on liquidity should not give rise to the expectation, or mean in practice, that undertakings would have to change their systems, data processes and governance set up for performing the exercise. For example, there are concerns that attempts to standardize a cash flow approach would create costs but not produce results that would be economically relevant.
- We see that both solo and group aspects are important and it would be important to find the right balance to cover this properly in view of the objective of the exercise. In particular, given the idiosyncratic nature of the liquidity management and monitoring, micro-prudential objectives are dealt with in practice through the supervisory dialogue that each firm has with its supervisor. Therefore, the objective of the stress test should be elsewhere, e.g. to provide the market with a sector-wide view on its resilience to liquidity stresses. Ultimately, the best approach is to let decide participants on whether it makes more sense to provide results on a group or solo basis according to their internal liquidity management set up, the overall objectives of EIOPA stress test and the scenarios being tested.

- Liquidity is a minor issue in insurance industry. The industry operates with inverted production cycle and is not involved in monetary creation the way banks are. This risk should receive attention as any other business risk and in the context of the broader macro-economic issues but EIOPA should avoid to over-emphasize the topic to the detriment of policyholders protection or level playing field. We would also point out that in Solvency liquidity is being covered implicitly in several parts of both balance sheet valuation and in the SCR calculation which also should be fully acknowledged before considering any additional requirements.

- As one specific point, we would point out unit linked contracts, where the possible liquidity risk is even more limited than in products with guaranteed rates because of the asset value decrease and possible haircuts falling for customers. But we would also point out that in unit linked contract the policyholder behavior might differ a lot and also if private assets are used these might bring additional liquidity issues to consider.

We would like also to refer to a liquidity stress best practice paper which was presented to EIOPA in an IRSG meeting 2nd October 2019 as one way to efficiently cover the wide aspects of a liquidity stress. The rationale was to first fully understand the balance sheet and business model, then to bring a double stress scenario having market stress combined with a lapse shock and finally by looking the resulting balance sheet, making the conclusions.

Also, we would invite EIOPA to take into consideration the CRO Forum's paper on liquidity risk management by insurers, published also in 2019.

MULTI-PERIOD STRESS

The IRSG considers that EIOPA has started a fruitful discussion on how multi-period stress tests, with sufficient ways to model balance sheet and the insurance business, could be approached. Companies will in general already incorporate multi-period stress tests in their ORSA processes, using risk drivers which are similar to those listed. These tests may incorporate a central scenario, in many cases based on the company's medium term plan. Such plans are likely to include central projections over a 3 to 5-year term and we consider that this is the appropriate term to use in constructing quantitative projections of this nature.

Multi-period stress tests prepared by companies are now prepared for internal benefit and may not be prepared with sufficient accuracy and detail to enable effective comparison at industry level. They will also be constructed to enable effective risk considerations based on the risk profile of individual companies and may not incorporate scenarios which would facilitate comparison at industry level. As mentioned in the Discussion Paper, there is heterogeneity in a number of factors

from company to company in the approach to these projections. The IRSG believes that a move to standardise scenarios, technical details and outputs of such projections would not lead to improvement in risk management at individual company level and would be an onerous requirement for limited benefit at a time when so many other demands on companies are in place. We also consider such a fundamental change is premature and a 'step too far' and the IRSG suggest not to be in any rush to pursue these ideas.

Especially we would like to bring out that:

- Move to standardised and comparable multi-period stress tests would be a fundamental shift from any current requirements. The data and technical tools to model balance sheet, business lines and KPI's in a detailed way which would be comparable across the industry would be a significant change in approach which would require diversion of resources and skills from developments relating to other existing mandatory requirements which are already in place.
- Standardisation of scenarios may be informative at an industry level but standardised scenarios may not represent stresses which are most impactful on companies at an individual level. A need for companies to carry out tests which are relevant to their individual position, as well as standardised tests, would lead to duplication which would not be constructive.
- We consider that the "individual" approach to new business is likely to be most valid in that it most closely reflects companies' views of their prospects and their business plans. This approach would not lend itself well to comparable projections as individual expectations are likely to differ from company to company.
- The need for management actions, even though increasing the complexity, would provide valuable insight to likely outcomes of scenarios in practice and would be a helpful add on.
- In certain cases, where prescribed levels of accuracy are not possible, more emphasis on qualitative analysis should be applied.

For the reasons above, we recommend that further consideration be given to this area and that existing stress testing for ORSA purposes be used as far as possible to deliver the benefits sought.

1. ANSWERS ON CLIMATE CHANGE STRESS

Section 1 -Climate Change stress test		
#	**Question**	**Answer**
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?	We tend to agree that the risks can be presented as in the table 1-2 but see that as we trying to define a long term process and its risks it might be difficult to stick into narrow definitions about the risk categories. As societies change, everything changes alongside it.
Q.2	What are your views on the objectives of a climate change ST? Should any additional objectives be considered?	We support a measured, proportionate approach towards introducing climate risk into ST exercises, with the primary objective to advance awareness, understanding and capabilities in collaboration with the industry step-by-step over time. Throughout this journey, ST design should acknowledge prevailing model and data limitations, and complexity should be kept proportionate to expected impacts over business-relevant time horizons to generate meaningful results. In our view a climate change ST should not necessarily aim at quantification over long time horizons to inform above objectives, risking to suggest wrong accuracy where uncertainties around model assumptions are significant. Instead we would see a benefit in leveraging on qualitative assessments over long time horizons. We agree that the assessment along plausible scenario paths, with no likelihood attached, as well as its explorative nature render climate STs unsuitable for defining capital requirements against climate risks based on results. We do not believe that a climate change ST is particularly useful for quantifying the potential widening of the protection gap under climate change.

		Talking about "stress test" is inappropriate and it would be more adequate to label those exercises "climate scenario risk analysis". Those exercises are going beyond the Solvency 2 framework, e.g. in terms of time horizon or allowance to new business, they rely on strong assumptions to overcome the data gap and the level of uncertainty is such that they cannot be conceived as "fail or pass" stress tests. Until at least the data gap is closed (in part thanks to the forthcoming EU disclosure regulations), there should be two objectives for those supervisory climate risk analysis; Raising awareness – by providing a caveated sector-wide picture of the risks; Testing the test – by allowing both supervisors and the industry to progress on the methodology to adequately capture climate risks. Moreover, one significant aspect seems absent from the conceptual framework, i.e. to make climate-related scenario analysis bring real added value and additional insights to participating firms for internal purposes. EIOPA should ensure that it designs the exercise such that the efforts put into it when participating are commensurate with the insights that firms could gain out of their participation.
Q.3	Are there any other scenario narratives that should be considered as part of a climate change stress test exercise?	Overall, the scenarios should be kept plausible and simple. The NGFS framework / scenarios provide a good starting point and a good platform to ensure consistency in the scenario design of financial supervisors across jurisdictions. It is noted however that the NGFS scenarios are most relevant for banks. The link between the scenarios and the transition risk on the assets is quite clear, but how those scenarios help calibrating the physical risks on the liabilities of insurers is not. Also, if risks are not tested separately but in combination in a given scenario, a dynamic view would avoid testing inconsistent "double hit" scenarios where physical risk – calculated on "business as usual" trajectories (the worst-case ICPP RCP 8.5 scenario) – is applied simultaneously with transition risks calibrated after a hard and steep transition to low carbon economy. The most severe transition shocks

		and most extreme physical risks are more plausible in isolation. When combining risks, the impact of the transition to a low carbon economy would generally be reflected through a positive feedback loop on the physical risk. While it can be conceived that the positive impact is not immediate, considering the stock of GES, positive impacts of the transition on physical risk can materialise in the short and medium terms for some risks (e.g. positive health developments due to reduction in air pollution).
Q.4	What is your view on the appropriate scenario specification granularity? Would the proposed granularity be compatible with your modelling to calculate the stressed impact?	Testing physical risk is the most demanding aspect of climate scenario analysis. To make the test workable, firms should either be free to come up with their own internal assessment or EIOPA should come up with very detailed P&C, life and health shocks ready to be applied to insurance cash flows. Any intermediate options would prove overly costly and burdensome for firms. For transition risk on the asset side, a sectoral approach for investment stress testing over long term periods has strong limitations and e.g. the sectoral approach leads to significant complexity (30-year, reallocation…) and limitation (e.g firm's heterogeneity within sectors and change is business strategy are not considered). The sectoral approach is not enough consistent with what companies may do today, which may be driven by a "name-by-name" analysis for specific asset classes (mostly government bonds and listed corporate bonds/equity). Nonetheless, a more granular approach would be too complex and burdensome. This would require forward-looking data embedding future commitments from corporates to reduce their carbon footprint that EIOPA should not be able to provide. Long term forecasting (eg 30y) are consistent with climate-related issues and regulatory framework time horizon (2050 - Paris agreement), but forecasting financial assumptions over a 30-year time horizon based on different climate scenarios is very uncertain in volatile financial environment and will lead to large simplifications/approximations. It is noted that internal climate studies tailored to individual firms are generally more meaningful for those firms (as linked to actual business

		and strategic considerations) than standardised supervisory scenario analysis and potentially more insightful for supervisors as well. They are thus preferred to sector-wide supervisory stress test, also in view of managing the growing resource burden arising from this topic. If EIOPA goes ahead with standardised supervisory exercise, it needs either to provide participants with a host of granular transition and physical variables across currencies and geographies ready to be applied as instantaneous shocks on a fixed balance sheet (in a way that could eventually be done through a top-down approach), or it would have to refrain from standardization and allows much more freedom in modelling and accepting full comparability is not possible. Either way, EIOPA need to clearly set out the objective and purpose of a climate stress test in order to ensure that the design is fit for purpose and will deliver meaningful and useful output for both firms and supervisors. In particular, the objective and purpose should clearly articulate how it would link and complement, rather duplicate, on-going activity by firms to incorporate climate change in the ORSA over the coming years. Finally, for the moment providers' methodologies are quite heterogeneous and give inconsistent results and no investment decisions can give made upon the use of these calculation (at least for the moment) and that these methodologies use global country and section hypothesis when facing a lack of corporate specific data which makes the end results not adapted to the right transition path of the respective corporates.
Q.5	What is your view on the appropriate time horizon for a climate change ST?	We believe that time horizons should be chosen such that the climate risk analysis provides information which is decision-relevant today, i.e. linked to typical time horizons for financial or strategic planning. Against the background of increasing complexity and uncertainty we would suggest to keep long-term assessments on a qualitative level. Quantitative long-term STs are less relevant given considerable business evolution / climate change adaption up to this point in time, which is impossible to easily capture in a quantitative framework. We would like to question the significance of a stress test result that models the changes in a current portfolio over the medium to long term. The projection period should therefore be as short as possible if

		based on the current portfolio; otherwise too many assumptions have to be made for the future, also including infrastructural mitigation measures. In addition, it is appreciated that the long-term horizon of climate change means that the traditional horizon of supervisory exercises (instantaneous in insurance, 3 years in banking) needs to be reviewed. However, it should be highlighted and acknowledged in the conceptual framework of the stress tests that only projections consistent with one undertaking's business plan horizon are fully meaningful. Beyond the horizon of business planning (usually in the range of 3 to 8 years), the results cannot be linked to the reality of the business and are less useful from a decision-making perspective. We would expect that the longer the projection, the more qualitative the feedback for firms (e.g. quantitative feedback up to 10 years in the projection at the latest, and qualitative information thereafter especially on future management actions). Quantitative results may provide an impression of "scientificness" for outsiders while, in fairness, aggregated results over a 30-years projection are essentiality speculation that cannot be relied upon to form strong regulatory, supervisory or business decisions.
Q.6	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?	The proposed approach (instantaneous shocks applied to the reference date BS, no reactive management actions) has clear advantages in terms of comparability and feasibility but can work only in short-term stresses. Over long time horizons, we suggest to put more emphasis on qualitative analysis instead, which may provide more realistic insights as compared to abstract quantitative models. A discussion on available management actions to mitigate the impact of climate change would be relevant as part of the qualitative assessment over longer term horizon. However, the insight that can be brought by exploring future management actions in a distant future known in advance and essentially driven by model-dependent assumptions seems fairly limited. there is a risk that the results do not reflect participating firms own assessment of the risks and mitigation actions they would take but rather the assumptions and trajectories of the main economic and financial variables of the scenario. This is because the trajectories of

		the main economic and financial variables are known in advance, and therefore there is a risk firm's assumed reinvestment strategies will align to the optimal strategy in that scenario and consequently will resemble a market-wide "arbitrage à cours connu".
Q.7	What is your view on having a separate forward-looking to assess reactive management actions, implications for business models and potential spill-over effects?	We support exploring long-term impacts to the business model on a qualitative basis. We are of the opinion that a qualitative assessment of the main lines would be possible but quantitative information is too complex. Regarding any forward-looking assessment, it is crucial to avoid too much complexity and too far-reaching interpretations. In the end, the whole exercise should be proportionate and manageable. This forward-looking assessment makes most sense if the quantitative part of the exercise is done by EIOPA following a top-down approach. If a bottom-up approach is retained, however, the burden of doing the quantitative part should be kept to the minimum.
Q.8	What are your views on the different modelling approaches presented? Are there any other modelling approaches for transition risk that should be considered?	Generally, we agree with the presented modelling approaches. Regarding the methodology of CARIMA we have doubts, if the carbon beta really is statistically significant. Furthermore, we don't see CARIMA as an optimal starting point for a stress test because asset prices at that time were formed by assumptions of market participants and the carbon factor was probably not that significant 20 years ago. We do not see a benefit in comparing models within a climate change ST exercise, since running multiple models increases efforts and might bear a sense of arbitrariness. We rather suggest to upfront select and test based on defined criteria that are aligned with ST objectives. We feel alignment metrics are more inside out rather than outside in measures and therefore less aligned to objectives of a traditional Stress test, although they can be viewed as a proxy for transition risk information and thus are less reliable with respect to use with specific corporate investments and any associated management actions. There are other forward looking kpi's proposed by providers other than the WP but all, even if conceptually simpler to grasp, always rely on forward hypothesis not corporate specific information and thus are

		less reliable with respect to use with specific corporate investments and any associated management actions.
Q.9	Are there particular external sources to calibrate transition risks for assets that should be considered?	-
Q.10	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?	Climate change does not impact these perils at the same level. Furthermore, there is a significant discrepancy in terms of available data to perform the impact assessment. E.g. droughts are among the most climate sensitive perils with a direct link with increased temperature, but what the impact will be on P&C exposure remains unclear. On floods more data seems available to make a first assessment. On windstorm we do not see evidence so far of changes in storm activity in the northern hemisphere.
Q.11	Do you agree that prescribing changes to frequency, severity and correlation of 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?	Testing physical risk is the most demanding aspect of climate scenario analysis. To make the test workable for the short or medium term, firms should be free to come up with their own internal assessment as this will most accurately capture impacts. Alternatively, EIOPA could come up with very detailed P&C, life and health shocks via a scenario-based approach, although this seems very ambitious at the moment. Any intermediate options would prove overly costly and burdensome for firms
Q.12	Would you have suggestions of a methodology to define the changes to frequency, severity and correlation of	The wide variability between different data sources and climate models as to the location-level changes of a peril under climate change is a significant challenge.

	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?	
Q.13	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?	Not really. It is possible that heatwaves and vector-borne disease (malaria in particular) could be amplified by climate change. However, we believe that: (i) These physical risks are likely to be marginal in comparison to broader risks (not physical) that could emerge within the considered time horizon for climate change. (ii) The potential changes due to those specific physical risks are likely to occur at a speed that will allow us to adapt either our pricing, reserving or underwriting strategy efficiently without undergo significant shocks in our solvency or profitability.
Q.14	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?	The materiality of shocking mortality and morbidity is not clear and therefore it is unclear whether it would be proportionate to include theses shocks. There is a risk that the proposed shock would be highly speculative and furthermore it is likely the pace of the changes would allow adaption of for example pricing and strategy to mitigate the impact for many insurance products
Q.15	Could you suggest a methodology to calibrate such a shock?	Considering physical risks only, we deem that any shocking mortality and morbidity rates as part of a climate stress test for Life & Health business needs to be considered carefully as the materiality at this stage is unclear.

Q.16	What are your views on the risk posed by physical risk on your assets and investments?	-
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?	Some companies have started to screen its asset portfolio for physical risk and use the results for asset selection. The focus is often on real assets (real estate, infrastructures).
Q.18	Do you have a methodology to disentangle physical and transition risk on the asset side?	-
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?	In general, the proposed models/methodologies for the ST should be as clear and simple as possible. If the physical and transition shocks are sufficiently well clearly defined in terms of model parameters, it should be feasible to quantify the effects separately or in combination. Regarding the key variables in Table 1-12 related to physical risks, it is difficult to translate temperature pathways into specific model parameters for the ST given the uncertainty in climate models. Therefore, if EIOPA were to opt for a very simple exercise then they would need to 'translate' the relevant pathways into concrete parameters/factors. For transition risks such a relation to model variables is even less obvious. As long as concrete ST scenarios are not specified yet it is hard to tell whether any challenges for modelling of the impact may emerge. Key variables have to be fully specified for ST application if EIOPA opt for a very simple exercise. The principle of proportionality should apply – no variables should be specified where impacts are expected to be

		minor or methodologically not justified (where there is no clear evidence).
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?	Modelling P&L and balance sheet over such long time horizons is a new exercise for insurers. The models used will certainly not be at the same granularity as those used for ORSA projections for example. Therefore, the technical specifications will have to be very precise to ensure consistent results across participants. In order to make any exercise more tractable it would make sense just to measure the impacts net of reinsurance given that reinsurance is a key risk mitigation tool. In general, the proposed models/methodologies for the ST should be as clear and simple as possible.
Q.21	Are there alternative approaches to capturing the interactions between physical and transition risks in climate change scenarios?	Delaying transition will in time increase physical risks as climate heating will build up further. Simultaneously also transition risk would increase because reversing the climate heating will become increasingly hard. The transition will be more sudden and stress would be higher. If risks are not tested separately but in combination in a given scenario, a dynamic view would avoid testing inconsistent "double hit" scenarios where physical risk – calculated on "business as usual" trajectories (the worst-case ICPP RCP 8.5 scenario) – is applied simultaneously with transition risks calibrated after a hard and steep transition to low carbon economy. The most severe transition shocks and most extreme physical risks are more plausible in isolation. When combining risks, the impact of the transition to a low carbon economy would generally be reflected through a positive feedback loop on the physical risk. While it can be conceived that the positive impact is not immediate, considering the stock of GES, positive impacts of the transition on physical risk can materialise in the short and medium terms for some risks (e.g. positive health developments due to reduction in air pollution).

Q.22	What are views on the treatment of Nat-Cat schemes?	Nat-Cat schemes should be considered fully. The comparability of the gross financial impact across countries in light of the heterogeneous Nat-Cat schemes should be ensured.
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?	The climate risk indicator should be based on a delta NAV approach. The SCR ratio is unsuitable for an exercise with such time horizons and P&L indicators should also be avoided as local GAAPs are not harmonised across the EU.
Q.24	Are there any technical indicators that you might not be able to provide?	-
Q.25	Which are, in your view, the more significant technical indicators in the context of a climate stress test exercise?	-
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?	In principle this can be attainable, but to avoid major inconsistencies consistent climate scenarios / climate model output datasets should be provided. In some cases, sub-national exposures may be difficult to represent given policy structures. Significant costs associated with further peril analysis need to be considered, in particular as all relevant perils are already covered under Solvency II anyway. Therefore, a materiality/effort balance is particularly important to avoid effectively irrelevant while costly stress test elements.

Q.27	Are there any other indicators you would suggest to include?	-
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?	Yes, but this should be kept as simple as possible. Second-round effects like changes in the availability and affordability of insurance cover and the insurance protection gap should not be part of the stress testing framework as this would overload the framework. Future market developments are highly uncertain and depend on many influencing factors. In the design it should be carefully considered what additional information is necessary to inform the objectives in order to keep efforts at appropriate level. It is unclear to what extent this exercise may add to address protection gap issues, as this involves supply as well as demand side.
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, but this should be kept as simple as possible and limited to a narrow set of relevant questions and quantitative elements. Such an approach makes most sense if the quantitative part of the exercise is done by EIOPA following a top-down approach. If a bottom-up approach is retained, however, the burden of doing the quantitative part should be kept to the minimum.
Q.30	Do you agree on the quantitative metrics proposed or are there other relevant indicators that you would include?	Yes, but the scope should be kept to a minimum.
Q.31	Do you agree on the type of questions asked with regards to the level of integration of climate change risks in business	We would include questions with regards to the level of integration of climate change risks in business models and risk management strategies only if climate change risks are material from the undertakings individual risk management perspective.

	models and risk management strategies?	For the purpose of the ST exercise qualitative questions should be more closely linked to scenarios. The examples appear to take a more general view, enquiring about basic integration of climate risk considerations in business and risk strategy.
Q.32	Do you agree on the scope intended for the information gathering exercise?	Any additional information gathering should be limited to a minimum to avoid burdensome work.
Q.33	Do you have any other concerns related to the proposed exercise?	-
	Do you have general comments, remarks, suggestion on Section 1?	

2. ANSWERS ON LIQUIDITY STRESS

Section 2 - Liquidity stress tests		
#	**Question**	**Answer**
Q.34	Do you agree with the advantages and disadvantages on groups and solos proposed in Table 2 2?	Insurers employ different practices on whether the focus should be on solo or group level and EIOPA's stress testing should not result in disrupting these. Whether the stresses should be run at solo or group level should rely on the appreciation of each participating firm based on the scenario being tested. Some groups manage liquidity on a group level based on a central liquidity pooling/management. For such groups a solo focus would introduce additional complexity and inconsistencies which could underestimate or ignore the benefit of central management actions giving an incomplete incorrect view of scenario impacts. However, for many other groups/insurers, liquidity is managed on solo level there may not be a reasonable meaning of group liquidity and a group focus.
Q.35	Which additional advantages and disadvantages do you consider relevant?	Without a clear view on the objective and need of a standardized industry stress test on liquidity it is difficult to assess advantages and disadvantages, either those in EIOPA paper or any further ones. As mentioned in the previous question, there are many general drawbacks when trying to establish an industry standard and it is highly questionable one detailed defined standard is appropriate in the case of measuring liquidity, especially with the purpose of comparing the results of individual insurers. In any case, insurers employ different practices on whether the focus should be on solo or group level and EIOPA's stress testing should not result in disrupting these. Whether the stresses should be run at solo or group level should rely on the appreciation of each participating firm based on the scenario being tested.
Q.36	Do you consider the intra-group support a key part of the liquidity	In case there is an intra-Group liquidity support foreseen it clearly is a key aspect of the liquidity management of the Group and should be reflected in the respective liquidity risk management. In the absence of such an implemented support it however does not play a role and does not need to be considered.

	assessment? If yes how can this be included in the design of a Stress Test?	
Q.37	Do you consider the list of the liquidity exposures exhaustive? If not please elaborate on the missing elements.	The key question is how much those exposures are relevant for individual insurer. Subject to the business mix, the risk profile and the Treasury department's policy, many of those exposures may be of low relevance for firms. Qualitative answers should be allowed in such situation. Premium inflows are not included in the list and yet, notably for non-life insurance, they constitute a major source of cash and an instrumental tool for liquidity management for undertakings
Q.38	Do you consider the description of the exposures appropriate? If not please provide suggestions.	We would like to note that that under the Solvency II framework, it is already the responsibility of undertakings to assess and manage any arising liquidity risk, as it is the case for any other risk. Both due to the (re)insurance business model and the regulatory framework already in place, liquidity risk exposure of the insurance industry is very moderate and situations of systemic liquidity risk are extremely unlikely.
Q.39	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?	Liabilities are considered to be illiquid. Therefore, a measure of liquidity makes little sense. We rather suggest looking at payment patterns and stressed payment patterns of liabilities. The surrender ratio, as defined in the paper, is of limited relevance. If received premiums do provide liquidity and ability to pay for surrenders, the payment of surrenders can also come from selling assets backing the technical provision constituted over the years. Besides, it only covers part of the liquidity risk. In any case, such indicators should be computed based on best estimates (to avoid possible volatility arising when considering short time horizon)
Q.40	Which other liquidity indicators do you consider to be	The liquidity indicator (i.e. the ratio between liquidity sources and needs) is the most meaningful metric for liquidity in our view. In the context of a stress test, however, in addition to the liquidity needs and sources observed in the base case, possible countermeasures (i.e. countermeasures which reduce liquidity

	relevant especially in the context of a ST?	needs and such which increase liquidity sources) should be taken into account as those are natural elements of the liquidity risk management of an insurer. As liquidity is more sensitive to some balance sheet items than others, any specific liquidity ratios that are considered needs to take this properly into account to avoid misleading risk indicators. Also similar balance sheet items can have several characteristics that needs to be taken into account to capture the liquidity profile in it. Liquidity indicators should be qualified with a time horizon significantly shorter than typical durations of best estimates. We would advise an indicator that sets a bridge between assets and liabilities reflecting the way liquidity gaps are managed in practice.
Q.41	Which classification do you consider as the most appropriate between the ESRB and the IAIS?	Both classifications from ESRB and IAIS have shortcomings and would only provide extremely crude assessments for liquidity risk testing, in the sense that they rely on market or credit risk characteristics (e.g. issuer quality or rating) which are not fully relevant for liquidity risk. Therefore, while the design is fine as a simplified approach, the right calibration is key and further work by EIOPA would be needed to objectivise the calibration by reference to the economic literature and by fitting them on actual historical stresses relevant for the insurance sector. Apart from the market vs liquidity risk angle, another aspect for EIOPA to consider in its calibration is the time dimension. For instance, real estates might indeed receive 100% haircut for immediate liquidity needs, but it may be appropriate to reduce progressively this haircut at e.g. 80% in 3 months' time, 50% in one year's time etc. Moreover, the severity of the stress (e.g. 1:10, 1:20) and whether this is an asymmetric or a systemic shock would influence the haircut in a given scenario. In any case, as per the above, the haircut should be evidence- and scenario-based and as a result a general exclusion of FIs' exposures (i.e. 100% haircut) is unjustified and deviates from market practices. These are limitations that need to be understood and can be relevant when analysing results and drawing conclusions.
Q.42	Which other methods to classify assets according to their	The classification could in a first step follow the SII MVBS structure and differentiate between cash, equity and fixed income instruments. Within these major classes additional features can be considered, e.g. distinguishing between the size of the issuer of equity or the issuer type for fixed income (e.g.

	liquidity do you consider to be relevant?	government / corporate). In addition to come to various liquidity classes. credit ratings of instruments can be considered, similarly to both mentioned proposals.
Q.43	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?	The IAIS bucketing is in our view unfortunate as the classification into primary, secondary and tertiary suggest an implicit order which assets will be used first in order to generate liquidity. Whether the strength of the haircuts is appropriate depends primarily on the design of the scenario and the time horizon. If the scenario affects the entire market (e.g. in the context of a financial crisis), high haircuts may be appropriate. If the constrain in the liquidity position is mainly due to liquidity requirements on the liabilities side, which for example also applies to only one or a few companies, low haircuts or no haircuts are to be applied. Similarly, the haircut would tend to reduce as the period considered to settle the stress in a given scenario increases. For instance, real estates might indeed receive 100% haircut for immediate liquidity needs, but it may be appropriate to reduce progressively this haircut at e.g. 80% in 3 months' time, 50% in one year's time etc. Haircuts reflect the amounts that may be lost when an investment is sold. The loss in value may be retraced to: - Adverse market condition at the time of the selling. - Discount consented to buyers in order to settle the investment quickly EIOPA's CP suggests that only the later point was accounted for (e.g. Sovereign bonds have no haircuts while exposed to interest rate risk). This is justified by the fact that SCR already accounts for market losses. Therefore, haircuts should be more explicitly identified as a measure of the discount that a seller would be bound to accept in order to settle quickly a deal. For instance a 0% haircut (against the proposed 100%) should apply to equities whose market is commonly the most liquid. Deriving standardized haircut for all firms without regard to their risk profile and business mix could result in artificial drawdowns at individual level. In any case, EIOPA should seek to objectivise the calibration by reference to the economic literature and by fitting them on actual historical stresses relevant for the insurance sector.

Q.44	Could you please confirm the relevance of the classification of insurance products according to their sensitivity to lapses by a liquidity perspective?	Lapse rates are specific to products and companies. The underlying reasons for increases in lapse rates are various. Some products provide tax free payouts after a certain period. This is a point in time, where lapses increase (as expected). Hence, a uniform assumption by broad product class is not appropriate. Applying different shocks depending on some lapse sensitivity (which is not defined) will be hard to calibrate and/or justify. Applying one single shock to all portfolios in scope might be more relevant rather than to rely on an artificial and crude bucketing. As a specific point, unit linked contracts shows lapses that may be sensitive to market conditions while lapses in euro denominated funds (general portfolio of the insurer for instance) show a limited sensitivity to market conditions because life contracts are savings vehicles largely driven by policyholder's own private situations (age, family situation, estate, tax rate.) As we see it, a lone sensitivity to lapse based on a product feature does not depict in itself a level of liquidity risk in a balance sheet. A liquidity risk arises where liquidity gaps exist, that is where the ALM in place fails to provide enough cash in-flows to cover cash out-flows on a "liquidity risk horizon".
Q.45	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	In general, we expect a significant effort and time to set up a classification of our insurance products according to lapse sensitivity, that is going beyond the implemented SII classifications, which IT systems are built to reflect. Especially in cases of non-standardized products, that provide the policyholder with several options at contract inception the lapse behaviour can materially change, albeit contracts belonging to the same classification. The same holds true in case of different groups of policyholders, e.g. large single premium contracts could reflect more financially educated policyholders, which lapse in case financially opportunistic. Granularity with respect to lapse sensitivity is typically not available in the system which can be used to provide data for a stress test exercise. Significant effort would be required to go through the back book to classify policies according to lapse sensitivity, or would be available only after additional IT support in case already existing information in any database can be used. Especially for larger international insurance groups such an exercise would also require the set-up of a large implementation project including complex communication across a significant number of affected entities.

	running a liquidity stress scenario as outlined in section 2.3?	We would like to bring out that for a reinsurance company this is impossible. Classification is not done along these product categories. In many cases we have no outright exposure to products and lapses.
Q.46	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.	No. That's only one effect. Other factors might have a similar effect on lapse rates as well (personal need for money, surrender value combined with the penalty rate, etc.). Additionally, penalty distributions might change within contracts due to elapsed time. Penalties and tax incentives are important and do affect customer behaviours. Those effects are generally embedded in some way in best estimates where lapses rate differs with the policy duration (and/or age of customers, beneficiaries). Some tax incentives might exist and only known by the policyholder, not the insurer so the picture could be partial and sometimes biased. Defining several different shocks based on the % of penalty rate will be difficult to calibrate/justify and is likely to distort results significantly making it difficult to compare results across companies or even portfolios.
Q.47	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	Such a classification could prove to be complex. For instance, succession duties applied on inheritance of life insurance contracts in France differ with the age of policyholder. A proper model would require to switch at a certain point of time in the projection from one level of penalty to another. This level of granularity may prove to be too burdensome in term of computations and counterproductive in term of calibration quality for lapse rates. Also a significant effort and time to set up a classification of insurance products according to penalties sensitivity could be expected. In some cases, and jurisdictions, the required data will not be readily available in the IT systems or it would be hardly possible to derive it, e.g. due to different approach for building the model points.

	outlined in section 2.3?	
Q.48	Which other methods to classify liabilities according to their liquidity do you consider to be relevant?	We rather look at payment patterns and stressed payment patterns of liabilities. This includes the speed and volume of expected payments per modelled pay-out date. Also illiquidity method should be adapted in order to track effective impact on liquidity needs.
Q.49	Do you agree with the proposed approach and its foreseen evolutions?	Generally, we agree with the proposed step-by-step approach (i.e. starting with a balance sheet approach enriched with some cash flow information). It should be however ensured that such an approach would allow for some flexibility to ensure insurers which already have an implemented liquidity risk framework considering balance sheet and cash flows can leverage on that and do not have to implement a parallel system without any added value but increased operational complexity and costs.
Q.50	Are you already using similar method to assess your liquidity?	-
Q.51	Could you please explain the conceptual and practical gaps between the proposed analysis and the tools/approaches you are actually using?	-
Q.52	Could you please explain the conceptual and	-

	practical gaps between the proposed analysis and the tools/approaches you are actually using?	
Q.53	Could you please explain the conceptual and practical gaps between the proposed analysis and the tools/approaches you are actually using?	-
Q.54	Do you think that relevant events or shocks are missing? If yes, please elaborate.	As we see it, there are three relevant time dimensions: • The time horizon of cashflows to consider in the liquidity indicator (for instance 12 months net expected cashflows); • The time horizon for the event to fully develop and the issue to be settled; • The return period to calibrate the stresses. It is unclear in this section of the consultation document which dimension is looking at. There is a difference between liquidity stress whose return period is every 5 or 30 days, and liquidity stress which needs to be settled in the next 5 or 30 days. In practice, the time horizon of cashflows to consider would vary according to the KRIs being tested but would generally be longer than 30 days or indeed 5 days. Regarding the calibration of the stress, there is no reason to align it to Solvency 2 SCR (99.5 VaR over 1 year).

		We also find that some insurance contracts might have a cancellation option granted to the insured in case the insurance undertaking is exposed to a rating downgrade. Under such circumstances premium refunds or collaterals might be required. In addition, an operational risk event that for example is disturbing the premium collection process for some time might be relevant.
Q.55	Do you think that the proposed sources / events and shocks are plausible for a scenario that evolves over 5 days?	It is not clear that a 5 days horizon scenario, which may be relevant for banks, is relevant for traditional (re)insurance business.
Q.56	Do you think that the indication of the calibration of the shocks is plausible?	We favour an approach based as much as possible on data. Data driven calibration of fire-sale calibration is possible with historical data and may account for rebounds when they occurred within a short timeframe. EIOPA should seek to objectivise the calibration by reference to the economic literature and by fitting them on actual historical stresses relevant for the insurance sector.
Q.57	Is the liquidity risk profile of insurers exposed to other shocks in the short time?	There might be undertaking specifics but in general the stated shocks should cover the most relevant short term shocks.
Q.58	Do you think that the proposed sources / events and shocks are plausible for a scenario that	In principle the assumptions seem reasonable. Regarding the deterioration of the credit rating the assumption that this will happen for all companies within 30 days is quite conservative, as this typically would take longer especially if companies are selling a broad spectrum of products and the actual impact of the stress is not instantaneously clear.

	evolves over 30 days?	For instance, the insurance and market events that happened over the month of March 2020 may have created liquidity needs that didn't necessarily had to met in 30 days. This is particularly true for insurance claims which in the case of NDBI may take years before all litigation processes are exhausted.
Q.59	Do you think that the indication of the calibration of the shocks is plausible?	EIOPA should seek to objectivise the calibration by reference to the economic literature and by fitting them on actual historical stresses relevant for the insurance sector. Non-renewal/new business should be calibrated less severe as mass lapse within 30 days. Regarding the deterioration of the credit rating, the assumption that this will happen for all companies within 30 days is quite conservative, as this typically would take longer especially if companies are selling a broad spectrum of products and the actual impact of the stress is not instantaneously clear. Concerning premium inflows, the question is not very clear since it is linked to contract boundaries. So far premiums outside of the boundaries are not included in the models. However, we do agree that accounting for future premiums and then performing a stress on those premium would give a more realistic assessment of the liquidity position. Data driven calibration for fire-sale is possible with historical data and may account for rebounds when they occurred within a medium timeframe. Deterioration of credit rating is likely to cause an increase in funding cost. The severity of this shock will depend on the amplitude of the downgrade. A downgrade by several credit notches could probably be linked to a specific cause or group of causes.
Q.60	Is the liquidity risk profile of insurers exposed to other shocks in the medium run?	Main drivers are in our view already covered.

Q.61	Do you think that the proposed sources / events and shocks are plausible for a scenario that evolves over 6 months?	The proposed assumptions seem reasonable.
Q.62	Do you think that the indication of the calibration of the shocks is plausible?	Without further scenario description the consistency to the medium term scenario in severity assumptions is not obviously clear and further explanation could be provided. For example, the mass lapse event is less severe than in the medium term although the triggering event is the same, or the collateral requests are less than in the medium term even though now also the PC sector is affected. In case the severity has a timing perspective and reflects that for example the same amount of policies are lapsed but now spread over a longer time period it makes sense. If the amount of policies being lapsed is assumed to be less than in the medium term scenario the underlying reasoning is not obvious.
Q.63	Is the liquidity risk profile of insurers exposed to other shocks in the long run?	-
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	The instantaneous application of the shocks proposed by EIOPA may give a distorted information about the liquidity position. As pointed out by EIOPA, shocks with different horizon have different drivers and are addressed differently by undertakings. Models used by undertaking may not give the possibility to model shocks with very thin time horizon. However an adaptation should be performed to account for the variety of the shocks. We see no value in testing methods that are unlikely to be part of the final requirement. This is due to computational efforts, inaccuracy due to

	could be considered?	approximations and differing interpretation of rules on both sides. Any test calculation should be based on a sound common understanding. Some types management actions are relevant and should be allowed within reasonable bounds, including: - limited sales of liquid assets - intra group funding Management actions are important to reflect what could happen in a real world, especially if the shocks have to be applied instantaneously.
Q.65	What is you view on the instantaneous nature of the shocks? What are the major limitations brought by this approach?	We agree with the instantaneous nature of the shocks. However, we question the assumption not to consider reactive management actions. For example, in our view it is unreasonable to exclude committed credit lines as an additional source of liquidity in a stress situation. They constitute a legal obligation of the provider and providers hold capital against such commitments. Also if cash is parked in highly liquid investments or money market instruments the use of this instruments should be recognized as it reflects the way the company is managing liquidity. We believe that if the undertaking is able to demonstrate the appropriateness of the management action it should be considered as additional liquidity source.
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?	The requirement to deliver the value of the claims for non-life business **by line of business** is in our view unnecessary, unless there are any restrictions regarding the liquidity sources, i.e. in case of multiple LoBs specific liquidity sources can only be used for liquidity needs resulting out of a specific LoB (similar to ring fencing). Otherwise liquidity is usually managed on a company level. In addition, more detail whether and how reinsurance should be treated to define the cost of claims would be helpful.
Q.67	Are there any additional exposures or shocks you	There might be company specific ones but we agree that the lapse, premium inflow and the claim stress reflect the most common liquidity stress events for life and non-life companies.

	consider relevant to be assessed in a potential first liquidity ST?	
Q.68	Do you consider the proposed "mixed" approach as a viable solution from an operational perspective?	Taking a balance sheet approach might be more straightforward and would reduce the complexity of any exercise.
Q.69	What question would you include in the quali-quantitative questionnaire to assess potential spill-over effects?	We do not see any spill over effects. Also it is not clear how this could happen based on historical evidence. E. g. market share of insurers for bond segments and how much is assumed to be sold, compared with daily trading volumes during times of stress. Or any other backing of this claim. A possible quali-quantitative questionnaire may include questions regarding the nature and quantity of additional liquidity sources which could be used in case of a stress, e.g. credit lines with banks, total volume of sales and repo of assets etc. Concerning type and amount of security sold, the questionnaire should allow for the facts that answers depend much on the specific situation of a company at a precise point of time. For instance, undertaking with unrealized gain on a specific asset category may sell in priority this category to avoid effects on the annual financial results, even if this category has to be sold with a discount. Similarly, the sequence and timing as well as channels of the sales depend on the specific situation of a company.
Q.70	What are the main limitation you foresee in the proposed analysis?	Limitations will be operational. The more the exercise deviates from the standard formula exercise the more it should be anticipated. Limitations may rise as well from incorrect appreciation of the timeframe leading to improper evaluation of the impact. Management actions may drastically change the impact of some scenarios and yet should be accounted because of the instrumental role they play in practice.

		In other words, not factoring management actions is an artificial exercise that does not bring relevant results nor valuable insights. More important figure 2-1 proposed by EIOPA performs an analysis based on bucketing of assets and liabilities. We do not favor this approach that is not relevant with pooled assets and liabilities and may lead to a distorted vision of risks and drivers. The results to be informative needs to be based on the economic reality of firms, i.e. results should be reported at solo or group level according to an appreciation of each participant. In any case, those sector-wide stress tests cannot capture the true risk profile of individual firms and are therefore less suited for the on-going supervisory dialogue than internal studies. Results may provide a proxy at sector level when aggregated, but interpretation of the results at individual level should be caveated as they would be to some extent artificial (i.e. driven more by the methodology and assumptions of the exercise than by economic risk exposures of firms).
Q.71	Do you have suggestions for additional analysis to be performed?	-
Q.72	What is your view on the alternative approach?	It doesn't seem to be clear how the results from such an alternative approach would be used (and aggregated) for further analyses, which we understand is one overarching goal. The alternative approach does not represent a combined stress and is not suitable for comparing entities. The "area of the pentagon" does not correspond to the probability of the single events. E.g. 30% cash (asset) haircut of company A might be less likely than 50% haircut at company B. In addition:

		This approach does not reflect the combined simultaneous impact of the main risk sources This approach is costlier from an operational standpoint, due to the numerous separate calculations which are required In line with the CRO Forum paper published in 2019 on liquidity risk management by insurers, this approach is not commonly used by insurers for internal liquidity risk management It is not clear how the results from such an alternative approach will be used (and aggregated) for further analyses, which we understand is one overarching goal.
Q.73	What potential main limitations do you foresee in this technique?	-
	Do you have general comments, remarks, suggestion on Section 2?	No further comments.

3. ANSWERS ON MULTI-PERIOD STRESS TESTS

Section 3 - Multi-period stress tests		
#	**Question**	**Answer**
Q.74	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?	The development of multi-period stress testing is a long-term endeavour. Developing the systems to support such exercises would be extremely costly and entailed lengthy projects and processes. In addition, we would like to stress that a multi period stress testing is not compatible with the way systems are set up to reflect the one-year time horizon prescribed by the SII regulation to determine the SCR. Multi period analyses require an enormous amount of effort especially in big companies and are therefore typically implemented in planning processes. Outside these already implemented processes it is from a resource perspective not feasible to conduct such an stresstest in detail. Any required stresstest outside these processes could consequently only be approximated on a high level basis using existing data available, which will impair the usefulness of such an exercise. But even if implemented in the planning process there will be no harmonized planning reference date across Europe, which in our view would further reduce the comparability of the industry wide results.
Q.75	Which information on the assumed temporal development of implied volatilities would be precisely required from your perspective?	-
Q.76	Do you agree with the presented advantages and disadvantages of the discussed alternative	Running any projection on a multitude of non-economic assumptions different to plan (e.g. new business being constrained / closed) will be unrealistic and not reflect what we expect to happen

	approaches for future new business assumptions?	
Q.77	Do you have further methodological proposals for the specification of future new business assumptions in the context of a multi-period exercise?	In general, we agree that for a multi-period stress test there would be changes necessary otherwise the results could be useless. In our view it should be up to the single participating undertaking to define how new business assumptions will be derived and plugged into the projection. Base line new business is a key business assumption for mid-term planning activities and justified assumptions should be already widely available.
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.	Intermediate approach may appear as a compromise. However, it may lead to a distorted picture. For instance, a company planning to leave a market or with a successful track record in entering a market will provide a wrong risk assessment if the product mix remains constant.
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.	A simplified approach seems to be the preferred option. Taking into account that this approach has significant limitations, this should be sufficient because the influence of the change in risk margin would not be the leading effect in the projected economic situation after stress. Furthermore, the proportionality principle should be applied since the risk margin has a different share in the total technical provisions depending on the line of business. Anyway, it can be argued that given the variety of risk systems and IT set ups across the industry a scaling approach could also be the appropriate solution to get comparable results.
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	We would prefer to apply a simplified approach, e.g. for the baseline the same percentage as for the actual balance sheet could be applied and for the stress scenario a simplified approach for the recognition of DTA should be considered.

	elaborate on the reasons for your preference, with a specific focus on conceptual, technical and operational aspects.	
Q.81	Which criteria would be applicable from your perspective for the recognition of projected DTA positions?	We would prefer a simplified approach based on the numbers of the previous years for the sake of comparability und practicability.
Q.82	Do you agree with the presented advantages and disadvantages of the discussed alternative approaches for the application of reactive management actions?	Yes we agree with the presented advantages and disadvantages.
Q.83	Do you have further methodological proposals regarding the allowance for reactive management actions in the context of a multi-period exercise?	-
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.	Constraining management actions will be rather unrealistic and not reflect what we expect to happen and only will create a hypothetical exercise showing what definitively will not occur. Instead, a stress test should rather show which management rules are possible and what their effects are. This is especially true for multi-period stresses that are set up to exactly take management actions into account. Any artificial restrictions in this area are likely to defeat the purpose of a multi-period stress test.
Q.85	What is your view on the potential requirement to	As noted in previous answers, this level of detail and granularity in re-computation of numbers is generally not present in current

	project the SCR in the baseline and / or in the stress scenario? Please elaborate on conceptual, technical and operational aspects regarding such a projection.	systems and would require major adaptations and investments to build into.
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?	No, we are sure that the bottom-up approach, which means a projection of the SII-Balance sheet for the next 3 years does not fit to the current processes and will be burdensome for the insurers involved. Costly adaptations to systems are likely required, which will also take significant time and take resources away from other, more pressing, projects.
Q.87	What is your view on the proposed approach based on iterative calculation / validation process?	Iterative calculation and validation are burdensome and there would be a real issue about the capacity to mobilize the teams responsible for SCR and ORSA computations for an extended period of time on top of their regular workload. It seems the benefits will not outweigh the costs, and in any case even initial adaptations to systems will take significant time and investments.
Q.88	What is your view on the proposed timeline?	In the case of multi-year stress tests, the redesign of the process must also take into account a longer calculation and validation time for undertakings. The whole Solvency II reporting process is quite burdensome and the full run, including all new developments which always come up in the financial accounting processes, needs full attention of the risk management departments. A multi-period ST is very time-consuming in all process steps. The proposed process to start with the design phase in January with the aim of an earlier start of calculation is not realistic because of the year-end activities and the year-end date need to be available.
Q.89	Do you have different proposal on the operationalization of multi-	At this moment, we do not see it as a viable option for inclusion in a standardized sector-wide stress test. Costly systems have been set up for very detailed SII reporting and are currently being prepared

	period a stress test exercise?	for the implementation of IFRS 17, neither of which are geared to support multi-period stress testing.
	Do you have general comments, remarks, suggestion on Section 3?	-