Chapter 2		
	Question	**Answer**
Q.1.	What are your views on the presented stress test elements and their relations? Please elaborate on any relevant elements that have not been covered.	The insurance industry welcomes the opportunity to provide input on EIOPA's Discussion Paper on Methodological principles of insurance stress testing. This response has jointly been prepared by Insurance Europe, the CRO Forum and the CFO Forum. We look forward to continued engagement with EIOPA on the development of an effective and proportionate stress testing framework. Our key views on stress testing exercises are as follows. 1. **The objective must be clearly defined and articulated**. It is important that stress testing is used for clearly defined and targeted purposes. It should not be used as a parallel to Solvency II and should not be designed or used in a manner which leads to an amplification of capital requirements. Any individual vulnerabilities beyond the Pillar I capital requirements can be assessed via the ORSA process. 2. **The calculation of the post-stress SCR is not necessary to achieve EIOPA's financial stability mandate**. The calculation of the post-stress Solvency Capital Requirement (SCR) sets vastly higher levels of implied capital than the 1 in 200-year calibration level agreed for Solvency II as it results in the insurer having not only to withstand the stress test scenario, but also the post-shock 1-200-year SCR scenario. This can create confusion and result in an unrealistic and unnecessarily pessimistic view of the health of the insurance industry. 3. **Results should continue, as in previous years, to be published at aggregate level.**

		"Voluntary" company-level disclosures change the nature of the exercise from a vulnerability test to a capital exercise. Any voluntary disclosure of results should remain at an undertaking's own volition. EIOPA should not have a role to play in the co-ordination of voluntary disclosures. Besides, from a macroprudential perspective, company-level disclosure can be counterproductive. 4. **The approach, scope and specifications of any exercise should be proportionate to its objectives**. A reduction of the frequency of stress test exercises is crucial. A full exercise every three years together with follow-up analysis and proportionate sensitivity assessments in the intervening years is sufficient. The overall burden of stress testing must be reduced.It is unnecessary to require insurers to run bottom-up stress tests akin to full quarterly reporting processes. The EIOPA-stress testing approach should be comparable and leverage companies' existing stress and scenarios testing approaches and processes. It should not require companies to effectively build and develop separate process, system and procedures which are solely utilised for EIOPA's tri-annual stress testing exercises. Technical specifications should be clear, avoid unnecessary complexity and be published with sufficient time. 5. **The scheduling and permitted timescales of future exercises should be improved**. Future exercises should be planned with sufficient foresight to provide insurers in scope with the time to prepare for the exercise. Sufficient time should also be allowed for consultation with industry and for insurers to run their calculations and complete internal validations/sign-offs. **6. Data collection and validation should be standardised and consistent.** The volume of data collected should be kept to a minimum. Previous exercises have required highly-granular data sets which appear to provide limited value. While the use of QRT templates can be helpful if they are consistent with those already used by the insurer, QRT templates

		which are not used by the insurer and ad-hoc templates create a high level of operational burden and should be avoided as far as possible. Insurer's stress and scenario testing (SST) processes are typically not designed to produce results at QRT granularity. 7. **Communication on the stress testing should ensure that the design, limitations and results of any exercise are appropriately communicated and well understood.** Previous exercises have continually shown the European insurance industry to be well capitalised and resilient to financial and insurance shocks. However, EIOPA's key message has typically been to highlight perceived vulnerabilities which are instead a reflection of the balanced and calculated risks that insurers take. EIOPA has also continually described the scenarios being tested as plausible without providing any indication of the expected frequency of such events.
Q.2.	What are your views on the different stress test objectives and the advantages and disadvantages mentioned?	Insurance Europe generally agrees with the proposed objectives of micro and macro stress tests. In future exercises, it is necessary for EIOPA to find an appropriate balance between its microprudential and macroprudential objectives. The following considerations should be taken into account when striking this balance. <u>Microprudential stress tests</u> • As noted in the paper, the Solvency II framework is a system of stress tests which already provides a significant amount of information about the microprudential risks which insurers face. • Any future exercises should be designed to avoid the duplication of Solvency II information. The ORSA and SFCR can further be used to assess micro-prudential issues. • One additional disadvantage is that they could result in additional capital requirements for the same risks that are assessed under SII therefore going beyond the 1-in-200 year calibration of the SII framework.

		Macroprudential stress tests • Insurance Europe recognises the importance of obtaining information about the resilience of the whole insurance system to stressed conditions. However, the complexity of such exercises is clearly of a significantly greater magnitude than microprudential stress testing. • The insurance industry has shown to make a limited contribution to systemic risk and therefore the costs of any macroprudential testing must remain proportionate. In addition, any stress testing exercise must be proportionate to its objectives and should be used to complement existing reporting. Future exercises should be designed to use the extensive systems and processes firms already have in place as part of Solvency II. They should also take into consideration the practicalities of companies in scope of the exercise ie if it is a group or solo exercise.
Q.3.	What are your views on combining a microprudential stress test with a quantitative assessment of post-stress reactions by insurers to provide additional insight in potential second-round effects?	It is difficult to provide a concrete assessment of this proposal without further detail on the specific approach that would be taken. However, the insurance industry expects that it would be challenging to incorporate second-round quantitative effects into a stress test exercise, resulting in excessively complex calculations. Therefore, caution must be exercised, and a proportional approach taken to the design of any assessment of post-stress reactions. Finally, we note that although previous exercises were predominantly of a micro-prudential nature, they have enabled EIOPA to draw conclusions regarding the insurance sector as a whole (eg they were regularly referred to in financial stability reports).
Q.4.	What are your views on the definition and recalculation of the baseline for stress test purposes? If a recalculation of the baseline would be requested, what would be the estimated additional resources/costs for this?	We agree that the comparability of pre and post stress test results is important. However, the reference date should always be at end of year (where SCR and Solvency position are calculated) and the baseline position should always be the insurer's Solvency II position at the relevant date. A recalculation of the baseline is typically neither required nor reasonable.

		• Baseline recalculations can be complex in terms of timing and, depending on the changes requested, also in terms of technical constraints (eg changes that affect actuarial platforms). • Such a recalculation only serves to reduce comparability and interpretability of the results. In order to make specific recommendations to individual insurers, the results of the stress test need to be well-argued, evidence-based and consistent with Solvency II. • The use of different models does not necessarily create sufficient divergences which would trigger the need for a recalculation. For example, stress impacts from one model may be overlaid on to base positions from another, with appropriate checks and controls over completeness and consistency (taking proportionality and materiality into account). However, we recognise that there may be exceptional cases, such as the restructuring of a group after the applicable stress test date, which would justify a recalculation of the baseline scenario when it has not already been done.
Q.5.	What are your views on the different time horizon approaches for stress tests purposes? What would be the most appropriate approach in your view in light of the different stress test objectives?	Instantaneous stress tests are well understood by all stakeholders and sufficient to achieve the objectives of most stress testing exercises. The use of instantaneous stress scenarios complemented with specific scenario components stretched out over time has proven to be a confusing approach previously due to conflicting interaction between long-term and short-term considerations. The insurance industry recognises the conceptual benefits of multi-period scenarios (insofar as stressed situations are rarely instantaneous and typically escalate and propagate over a protracted period), depending on objectives. However, the use of multi-period stress tests should be restricted to cases where they will create significant added value for risk management. Multi-period calculations create a heavy operational burden and design challenges as interactions, paths, order of occurrences and numbers of risk drivers need to be specified and communicated with clarity. It should also be noted that some insurers may not have yet developed models which enable them to perform multi-period stress tests.

		In practice, if multi-period approaches are to be followed, it would require acceptance of a wide range of simplifications over and above those already considered necessary, due to the additional complexity involved. The extended use of simplifications may drive a material loss of comparability in the results across undertakings
Q.6.	What are your views on the treatment of management actions in the context of a stress test exercise?	The insurance industry supports the inclusion of management actions in stress testing exercises where these reflect stated management principles and practices and have been assessed as appropriate for inclusion as part of the insurer's Solvency II modelling. It is appreciated that the validation of management actions could create an additional burden. However, management actions allow insurers the possibility to manage the stress and when such adverse market stresses occur, each insurer will take management actions. Discarding management actions therefore creates an unrealistic scenario which hampers comparison pre and post stress and provides limited insight/benefit from a risk management perspective. On the other hand, permitting management actions creates a more realistic scenario and will provide useful information about the resilience of the undertakings to severe events. In this regard, their inclusion is necessary to fully understand the macroprudential implications of the stress scenario.
Q.7.	What are your views on requesting post-stress calculations both with and without management actions?	It should be borne in mind that these additional requests can result in a considerable increase in time and resource requirements. It is also important that embedded management actions implemented for the calculation of the MVBS have to remain unchanged when performing the SCR calculation. This approach should be applied for both reference date scenario and stressed scenario.
Q.8.	Please provide your view on the distinction and different treatment of embedded management actions and reactive post-stress management actions	Embedded management actions should always be allowed in a stress test because they are executed automatically. However, reactive post-stress management actions should be limited to where they are recognised within the insurer's policies and business plans. This is more realistic and can provide additional insight in potential second round effects.

		The extent to which reactive management actions are recognised should be governed by the extent to which these actions are formalised (eg. in the recovery plan, ORSA, etc.). The insurer should be able to demonstrate that it is actually willing and able to take the reactive management actions in case a stress scenario occurs.
Q.9.	Which elements in your view can/should be limited in the embedded management actions to enhance the comparability of the post-stress results?	None, this is embedded in the business model and strategy so limiting their use will lead to lack of accuracy.
Q.10.	Please elaborate on the key elements of the technical information that would be required in order to implement potential limitations to embedded actions (content, scope, granularity etc.).	Not allowing or limiting embedded management actions would make the stress test less useful for risk management purposes and therefore should not be considered. See response to Q9.
Q.11.	Please elaborate on the feasibility (e.g. time and effort needed for the implementation) of the potential limitation to embedded management actions to calculate post stress positions.	Not allowing or limiting embedded management actions would make the stress test less useful for risk management purposes and therefore should not be considered. It can also be very difficult to change or discard management actions from the models. They are a core part of the models and are not designed to be changed. See response to Q9.
Q.12.	What are your views on the 3 possibilities for future EIOPA stress test exercises summarized in Table 2 8?	It is important to define any stress test exercise in such a way that it will gain additional insights and add value. Stress testing should not be a goal in itself but be able to provide additional insights and vulnerabilities, not already known from previous (stress testing) exercises or from existing Solvency II data. The insurance industry does not consider the recalculation of the baseline position to be necessary as part of any stress testing exercise. Neither does it support the restriction of management actions which are in line with the insurer's policies and which form part of its standard Solvency II business practice ie those which the insurer could reliably demonstrate that it would take in a stress scenario.

Q.13.	Do you have any further considerations regarding the potential evolution of future EIOPA stress test exercises?	
	Do you have general comments, remarks, suggestion on Chapter 2?	The stress testing regime should be proportionate to its objectives and should be used to complement existing reporting. A key question which has not been investigated as part of the consultation is the levels of precision/accuracy which are needed to achieve the objectives of the exercises. The 2018 exercise required calculations and requested information of a level of granularity which was significantly beyond that needed to meet EIOPA's objectives. It is unclear how the detailed information on, for example, the structure of the asset portfolio, liability characteristics and cashflows under stress will be used to assess vulnerabilities or raise awareness of threats to financial stability. Stress tests by their nature evaluate areas of vulnerability and exposure to highly uncertain hypothetical scenarios – the levels of precision provided by primary reporting processes are not necessary to achieve these objectives. However, the consultation paper still suggests, to a significant extent, that running processes akin to primary regulatory reporting models/processes is required. This is onerous, and not what primary stress and scenario testing (SST) processes are typically designed to support. SST models typically do not generate QRT levels of granular output, as this is not necessary for internal stress testing purposes.

Chapter 3		
#	**Question**	**Answer**
Q.14.	What is your view on the appropriate scope for a stress test exercise? Do you agree with the advantages and disadvantages of the different approaches?	The insurance industry agrees that that the scope is a fundamental aspect of the stress testing framework and is directly related to the objective of the exercise. It is critical to recognise that group level exercises introduce significant additional process complexities, as well as condensing the timeframes available to solo entities to carry out the exercise due to the need to build in group consolidation and governance. Therefore, relevant proxies and proportionate reporting requirements should be permitted when running exercises at group level (nb. excessively granular reporting undermines proxies). The proposal to stress test "synthetic" groups should be avoided - there do not appear to be material advantages in their use since the group level aggregation procedure can more or less provide information about the contribution by node or jurisdiction.
Q.15.	What are your views on the metrics to be used for defining the scope for solos and groups, respectively?	The proposed metrics are reasonable.
Q.16.	What are the main challenges (if any) to assess the post-stress position of a synthetic group?	The insurance industry does not support the use of "synthetic groups", these are likely to significantly reduce comparability and interpretability of the results of the exercise.
	Do you have general comments, remarks, suggestion on Chapter 3?	

Chapter 4		
#	**Question**	**Answer**
Q.17.	What are your views on the historical versus forward looking approach? Do you envisage additional advantages / disadvantages on top of the ones listed?	The insurance industry agrees that a hybrid approach is the most appropriate. However, it is important to ensure that forward looking considerations are justified, plausible and in conformity with economic theory and scientific literatureand, as such, do not lead to extremely prudent assumptions and/or excessively conservative scenarios. Additional advantages of the historical approach are: it is less volatile, provides evidence across many economic cycles and seems to be more reliable since it relies on observed data instead of strong assumptions.
Q.18.	What is your view on the consistency of the scenarios with the Solvency II framework versus market compatible scenarios for the purpose of a stress test, in particular for the treatment of the RFR parameters?	Stress tests which aim to assess the vulnerability of the European insurance sector to specific adverse scenarios should be fully consistent with Solvency II. The insurance industry does not agree that consistency may limit the evaluation of the impact of scenarios. On the contrary, consistency provides a solid basis that allows assessing vulnerabilities. Fundamental parts of the Solvency II framework, including the UFR, LLP and other RFR parameters, should not be subject to stress as part of the exercise. Likewise, other standard features of Solvency II, such as the recalibration of TMTP, should not be restricted. The suggestion that changes to the UFR are needed to reflect the stress test narrative is counterintuitive to the existence of a UFR and a short-term stress test. However, within a stress test, the UFR could be recalibrated - in that case the UFR could decrease by 15 bp per annum. Any specific considerations regarding dependency on long-term guarantee measures should be addressed through supplementary information.
Q.19.	What are your views on using single risk factors, single scenarios or combined scenarios for the purpose of a stress test?	The insurance industry considers that single risk factors, single scenarios and combined scenarios can all be useful. Specific choices will depend on

		the objectives of any particular exercise. As a general rule, scenarios should be kept as simple as possible. Combined scenarios can potentially provide additional explanatory power, but caution must be exercised when using these scenarios as they require many assumptions about how individual companies and regulations interact. There is a risk that stems from this approach as flawed assumptions can lead to wrong conclusions. As shown in the past, combined scenarios can also easily be over-calibrated and beyond the 1/200 year events in SII. Finally, combined scenarios that are too complex or too granular may cause issues for available systems to apply simultaneously all the components. Therefore, this might require further assumptions and flexibility on the calculation.
Q.20.	What are your views on having combined scenarios, but allowing the identification of the single shocks in isolation (for instance impact of market and insurance shocks shown separately)?	The insurance industry does not support this approach due to the significant operational challenges and additional burden that it entails. In principle, we recognise the potential value gained by identifying and reporting the impact of single shocks in isolation in combined scenarios. However, there could be significant practical and systems-based challenges in reporting and apportioning at this level of granularity in a consistent manner across the industry, in particular for scenarios where there are material interactions between market and insurance risks. Furthermore, it would create issues in reallocating impacts of the combined scenarios to the single shocks which could undermine a combined approach. Therefore, if the use of a combined scenario is considered meaningful for the achievement of the objective, it should also be accepted that the results allow conclusions to be drawn about the combined shocks but not (or only to a small extent) about the individual shocks.
Q.21.	What is your view on the bucketing approach for market shocks? Does a bucketing approach reduce the operational burden for the application of the shocks?	The insurance industry supports a more simplified bucketing approach for specifying market shocks. The operational burden depends on whether the bucketing approach proposed in the exercise coincides or not with the reporting/modelling approach already used by the relevant undertakings. Typically, a very granular approach results in additional operational burden and spurious accuracy.

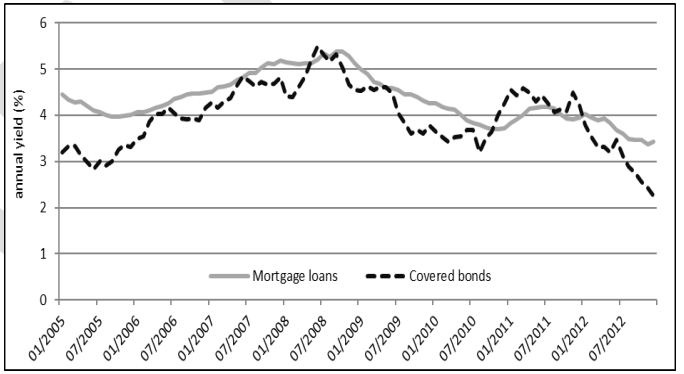
		It is also not clear why the use of buckets would result in approximations in the calculation of the VA. The VA should be calculated in accordance with the prescribed shocks.
Q.22.	What is your view on the possible approaches to climate stress testing?	Short-term climate stresses (ie a period of one year as established in Solvency II) are easier to apply, interpret and validate. Therefore, they should be easier to implement in practice and could be a starting point for developing a process over time to conduct long-term scenarios. The insurance industry considers long term stress tests to be relevant, but for the reasons described under "disadvantages", they are not compatible with EU-wide stress testing. The insurance industry advises to refrain from establishing uniform requirements for long-term-scenario analysis until there is significantly more agreement on scenarios and methodologies. Undertakings should be free to establish tailored approaches with regard to long-term climate risk, eg as part of the ORSA.
Q.23.	What would be appropriate metrics to assess transition risk in assets?	The insurance industry considers transition risk to be a component of market risk. Therefore, the transition risk metrics should be consistent with market risk metrics.
Q.24.	What level of granularity would be needed in your view (i.e. industry level, underlying technology level, asset level)? Please distinguish between different asset categories if possible (i.e. equities, government bonds, corporate bonds, real estate)	In general, an industry level of granularity should at least serve as a starting point. However, the more granular the specification of the stress test, the easier and more unambiguous it is to apply and therefore there will be consistency among insurers on how the stress is applied. However, if (for example) the scenario states that "equities related to the oil industry fall by 80%" there will be a large number of different interpretations likely across the industry. Granularity should remain consistent with already existing asset categories within the Solvency II framework.
Q.25.	How could climate related shocks be calibrated (please distinguish between physical risks and transition risks in your answer)? What data sources could be considered?	Calibration of climate shocks/stress should be developed by climate experts and be based on relevant research. For example, physical risks could be calibrated by working with experts and national meteorological agencies, combining "weather" and "insurance" data.

		Transition risks could be calibrated by qualitative assessment of government policies or disruptive technologies.
Q.26.	Do you have any further considerations on the inclusion of climate related risks in EIOPA's stress testing framework?	Despite the complexity of these risks, the industry welcomes that climate-related risks are included in the stress tests, as it gives insurance companies the opportunity to develop their internal processes around these risks as well as increase their knowledge on this important subject. The construction and use of internal models should be encouraged. These are based on detailed claims experience with a longer time horizon than current vendor models (typically 1 year, which is not enough for climate risk assessment). It should be noted that many insurers do not currently have the tools or data to undertake climate-related stress testing.
	Do you have general comments, remarks, suggestion on Chapter 4?	A realistic view of the vulnerability of the insurance sector can only be achieved if the specifications underlying the exercise are consistent with economic reality. To properly assess the potential systemic impact of the adverse economic events, the extreme scenarios being tested must remain plausible, economically justifiable and should be internally consistent. As a general principle, stress test exercises should not only assess the negative implications of a scenario but should also recognise any positive offsetting effects which may arise in a stress situation. For example, while there are clearly risks associated with future climate change, there will also be opportunities for insurers. To gain a credible picture of the likely impact of certain events, both the positive and negative implications of an event need to be considered. The technical specifications for the 2018 exercise contained several significant inconsistencies which are contrary to Solvency II regulation and standard market practice. This inhibits the usefulness of the exercise in assessing what the true potential drivers of systemic risk are. To highlight the extreme nature of these events and inconsistencies within the specifications, any public reporting of the results should contain appropriate referencing and caveating. EIOPA's estimated return period for each scenario should also be disclosed.

Chapter 5		
#	**Question**	**Answer**
Q.27.	What are your views on the calibration and application of the shocks to fixed income assets? Do you think that the proposed specifications are sufficiently detailed? If not please provide suggestion on how to improve the guidance.	We consider the specifications sufficiently detailed. It would also be helpful if the shocks were provided in terms of credit spread rather than bond yield.
Q.28.	With regard to the derivation of the shocks to different maturities do you have different solutions to propose?	No.
Q.29.	What are your views on the shocks to equities?	The level of granularity should be as low as possible to meet the objectives of the exercise. For example, where the objective of the exercise is to assess the impact of changes in longevity, standard formula levels of granularity (eg. Type 1 and Type 2 equities) should be used. However, where the objective is to assess potential spill-overs during a period of market stress, country-level granularity may be justified.
Q.30.	What are your views on treating Equity unlisted [R0120] according to the shocks prescribed to listed equities? Do you consider the approximation reasonable?	The insurance industry considers this to be a reasonable approximation especially in light of the limited availability of data series for unlisted equities.
Q.31.	What are your views on the shocks to real estate?	We consider these to be reasonable.
Q.32.	What are your views on the treatment of property, plant and equipment held for own use?	We consider it reasonable to shock property for own use in line with the shocks for investment property. However, all other items should remain constant under stress.
Q.33.	Are RMBS yields the proper index to treat Loans and mortgages ([R0230])? Is an additional granularity needed to treat the sub-items of the loan and mortgages category (i.e. Loans on policies, Loans and mortgages to individuals, Other loans and mortgages)? If yes, please provide suggestions for fitting indices.	We consider that covered bonds constitute a better proxy for mortgage loans. Applying RMBS shocks for Loans and Mortgages will overestimate the risks for mortgage loans. The graph below provides the yields of mortgage loans and covered bonds over the past crisis periods, including the 2007-2008 financial crisis and

the 2011-2012 sovereign debt crisis. Both yield series are highly correlated and present relatively stable yields.

- The mortgage loan yields are obtained from the ECB Statistical Data Warehouse, Lending for house purchase excluding revolving loans and overdrafts, convenience and extended credit card debt, Over 10 years. Key MIR.M.U2.B.A2C.P.R.A.2250.EUR.N. Monthly data from January 2003 up to June 2019.
- Covered bond yields are obtained from Markit, index iBoxx € Covered annual yield, ISIN DE0007670119, monthly data from January 2003 up to June 2019.



The relationship between the yields of mortgage loans and covered bonds can be quantified through the Pearson correlation and Spearman's rho. The table below displays dependence statistics for:

- yield levels of mortgage loans and covered bonds
- Dyields: the first difference of yields at a 1 year interval
- Dspreads: the first difference of spreads at a 1 year interval, with spreads measured as the difference between yields and the interest rate swaps of the corresponding maturity. Spread statistics are displayed for the years 2007-2013 i.e. periods with higher spread volatility.

	yield	Dyield	Dspread

		<table><tr><td>Pearson correlation</td><td>95.0%</td><td>72.1%</td><td>60.2%</td></tr><tr><td>Spearman's rho</td><td>88.8%</td><td>73.7%</td><td>63.5%</td></tr></table> The high correlation of Dyields indicates that yield shocks of mortgage loans may indeed be proxied by covered bonds. **Loans on policies** A loan on policy is a contract whereby an insurance undertaking issues a loan and retains the reserves of the policyholder's life insurance as collateral. Hence, **loans on policies are essentially risk-free**, as the loans are fully covered by collateral managed by the insurance undertaking. RMBS spread or yield shocks would significantly overestimate the risk of loans on policies. A zero spread shock appears to be the only meaningful spread calibration for loans on policies. Alternatively, a AAA (covered) bond shock could be used as a conservative proxy.
Q.34.	Do you envisage potential constraints in the application of a look-through approach?	The look-through approach could be more challenging to use in a multi-period stress test because this would require several assumptions which might impact comparability and interpretability of results.
Q.35.	What is your view on the shocks to type 1 Exposures? Do you consider the shocks to counterparties sufficiently specified? If not please provide indication on how to improve the specification.	They appear to be sufficiently specified. In any case, the shocks are expected to be expressed as percentage losses of the Type1 exposures, and the loss coefficient to be linked exclusively to the CQS of the counterparty.
Q.36.	What are your views on the calibration and application of the mortality/longevity shocks?	The complexity should be kept low. The specification of two-dimensional shock factors h(x,n) for mortality rates is not standard in many projection models. The proposed modelling, introducing a new dimension, being the (remaining) term of the product/policy, is not present in current modelling practices and as such cannot be done. As an alternative, the specification of a uniform stress factor (as in the standard formula) has already been implemented and should also lead to useful results with a conservative choice - with considerably less effort.

Q.37.	Can you suggest any time-series to be used to calibrate the shock to lapse?	Lapse data have been collected by supervisors during the financial crisis. Supervisors could leverage on the data already gathered to calibrate the shocks. It is noted that such a review of available data is highly appropriate and would give the opportunity to challenge the mass lapse risk the level of which has been overestimated in the original setup of Solvency II and set to a 40% level that is completely inappropriate.
Q.38.	What are your views on the described approaches to the application of the lapse shocks?	The insurance industry does not agree that an adjustment is required to mitigate the impact of a positive marginal impact from a lapse event in the context of a stress test. Policyholders' decisions to lapse a contract are independent of the impact on the insurer's financial position. Therefore, it is unrealistic to assume that only those policies which would be detrimental to the insurer's financial position would materialise. As a main principle, an approach to the application of the lapse shocks should be easy to implement and calibrate. Highly sophisticated models should be avoided. The most feasible option to be adopted for the application of lapse shocks, in the context of a stress test exercise, seems to be the uniform approach. This provides some solid and experience-based results. Therefore, lapse shocks should be calibrated on the basis of the empirical evidences of the sensitivity of policyholder lapse behaviour to movement in capital markets. In case an historical economic scenario is considered for a stress test exercise (ie 2008 financial crisis), the level of lapse to be applied in the context of the stress test should be derived from the same historical point in time.
Q.39.	What are the main theoretical and operational issues you envisage in the application of the "standard formula" approach?	The standard formula approach is not consistent with real policyholder behaviour; see comments above.
Q.40.	What are the main theoretical and operational issues you envisage in the application of the classification approach based on product characteristics (option 1 in the classification approach)?	The main issue is the difficulty in achieving a consistent application across all stress test participants. This approach could also be challenging to implement from an operational perspective. No artificial segmentation of the ways risks are managed should be induced. Where it exists diversification and mutualisation should be

		properly reflected in stress tests and/or sensitivity analysis in order to avoid creating a distorted view of the level of risk.
Q.41.	Does the proposed classification approach based on product characteristics fits your liability portfolio? If not please suggest a different classification.	
Q.42.	What are the main theoretical and operational issues you envisage in the application of the classification approach based on guaranteed rate / penalties (option 2 in the classification approach)?	This approach would be very challenging and complicated to implement from an operational perspective and should be avoided. It is also worth noting that fiscal rules are an important consideration for policyholders on whether they lapse. Option 2 is far too simplistic to account for the variety of situations and behaviours encountered along various product types. Also, as noted in paragraph 189, there is no empirical evidence about rational economic behaviour.
Q.43.	Is the technical rate a proper reference to assess the level of the guarantee? If not do you have other suggestions?	No, the technical rate is not necessarily representative of the minimum guarantee. For some contracts, its possible that the minimum guarantee changes over time.
Q.44.	What are proper thresholds to be applied to the technical rate?	
Q.45.	What is in your view a proper criteria to classify the penalties?	
Q.46.	Do you have other suggestion to classify the life portfolio in the light of a lapse shock?	
Q.47.	What are your views on the calibration and application of the life expense shock? What data sources could be used to calibrate the shocks?	A proportionate and easily implementable approach should be followed. Highly sophisticated models should be avoided. As specified in the paper, administrative expenses are influenced by a series of factors, some exogenous and some internal to the company. Given the nature of administrative expenses, the internal component is generally manageable and controllable by the company, therefore the stress test should focus on the expense inflation stress rather than the expense unit level stress.

Q.48.	What are your views on other life risk shocks, in particular regarding morbidity and disability shocks, revision shocks and/or pandemic shocks in a stress test? What data sources could be used to calibrate the shocks?	A proportionate and easily implementable approach should be followed. Highly sophisticated models should be avoided. These life risks should be considered to be immaterial in the context of stress testing exercises as they are not expected to have any significant impact on an insurer's solvency position.
Q.49.	What is your view on the Scenario based approach versus the Standard formula based approach?	**Standard formula** Given the choices provided, for practical reasons the default approach should be the standard formula approach given its accessibility by all insurers as it wouldn't require an expensive internal model or a vendor model. This approach would also limit the burden on insurers, as it should require only minor additional inputs from companies. **Scenario-based** The use of a scenario-based approach should be restricted to exercises where the scope of the exercise justifies the additional complexity. Where it is used, the scenario mustbe independent of third-party model providers. As such an approach will inevitably be limited in scope, it will inevitably penalise some companies vs others randomly, depending on the specific scenarios being considered.
Q.50.	What is your view on the approach to the application of the Shocks: A) claim disbursement; B) full reserve presented on the claim disbursement?	The choice of approach to claim disbursement should be related to the objective of each exercise and whether it is an instantaneous or multi-year exercise. For an instantaneous stress test, a full reserve approach seems to be the more suitable approach because in the case of a severe catastrophe, it is more likely that it will take some time to evaluate, investigate, estimate and pay the claims. The technical specification should clearly define the requirements as a consequence of the increase in technical provisions.

Q.51.	What is your view on the options presented on the treatment of the reinsurance recoverables?	If the shock is instantaneous, it is more plausible that recoverables are accounted as credit to be received from reinsurers. The stress test specifications should make clear the requirements regarding the calculation of the counterparty default risk, reinsurance availability and the effect of any reinstatements.
Q.52.	Do you have suggestions on the treatment of the post-stress DTA/DTL and on potential controls to be applied?	The stress test scenarios should, to the greatest extent possible, be in line with business practice. Therefore, DTA and DTL should be recalculated. The rules introduced in the new Solvency II Delegated Acts should be used to calculate DTA/DTL and to explain the evolution of the post-stress DTA/DTL.
Q.53.	Do you consider the information provided sufficient for a revaluation of the post stress position on derivatives? If not please provide indications on the missing information.	Yes.
Q.54.	What are your views on the general approach to simplifications and the materiality criteria?	We support the general approach to simplifications but highlights that the use of simplifications should not trigger significant additional requirements (eg. documentation, quantitative justifications). The materiality criteria should also be indicative to allow suitable discretion from NSAs in its application. See also response to Q1, section 4.
Q.55.	What are your views on the proposed simplifications for the post-stress LACDT? Do you agree with the rough assessment of the post-stress LACDT with the pre-stress net DTL? If not please provide different approach to identify potential miscalculations of the LACDT	Capping LAC DT with the amount of net DTL from the baseline balance sheet could penalise those undertakings that already substantiate LAC DT, in addition to the net DTL, on the basis of future profitability. The proposed simplification could turn out to be a strong restriction on the degree of allowance for post-shock LAC DT substantiated by future taxable profits. The stress test scenarios should, to the greatest extent possible, be in line with business practice. Therefore, DTA and DTL should be recalculated. The rules introduced in the new Solvency II delegated act should be used to calculate DTA/DTL and to explain the evolution of the post-stress DTA/DTL.

Q.56.	What are your views on the possible simplifications for the use of regression techniques post-stress? In your answer please clearly distinguish between theoretical principles and the viable (in terms of feasibility) solutions in the context of a Stress Test exercise.	A full and complete recalibration of proxy functions would not be a viable solution for the time frame of the stress test.
Q.57.	In case of a scaling approach what are the proper parameters to estimate the post-stress loss distributions?	From a pure asset perspective, a thorough calibration of a scaling approach would require the determination of the stressed value of all the underlying market data used to inform the calibration of the distribution of market and credit risk factors. Considering that each Internal Model is characterised by its own specific choice of risk factor granularity and market data, a suitable compromise could be providing stressed values for the most relevant market indicators such as: • Stressed IR curves for the most relevant currencies • Stressed FX rates • Stressed values of EQ markets split by geographical region AND sector. • Stressed values of spread split by sector (e.g. Sovereign, Financials, Non-Financials). • Stressed IR Volatility surfaces for the most relevant currencies. • Stressed EQ volatility surfaces for the most relevant markets. It should be taken into account that the use of a scaling approach produces sensible results insofar as the underlying polynomials supporting regression techniques are not pushed beyond their range of validity. For the recalculation of the liabilities, a scaling approach could consist of factorising just the changes in the financial or underwriting variables subject to shock under the stress test into the valuation model, subject to the following assumptions: • The same/unchanged MVBS at the reference date is considered as a baseline for the stress test (without taking into account measures, actions or risk mitigating strategies that rely on taking future actions after the reference date),

		• The same/unchanged SCR framework is used to calculate the SCR post stress (without recalibrating risk factors, without re-fitting proxies, etc…).
Q.58.	In case of a full recalibration of the regression techniques against stressed conditions what are the parameters you may need as an input? Would the addition of other price categories in the list of asset shocks and the volatility surface reassessment under stressed situation be enough to re-calibrate your different tools?	From an asset perspective, a full recalibration would require a revaluation of the whole asset portfolio in the new stressed base case. The set of required information to perform such a repricing is the same as described in Q.57. In terms of liabilities proxy functions, such inputs could potentially not be sufficient to perform a full recalibration of the regression techniques against stressed conditions. In fact, the same set of input collected at the reference date in the context of the official internal methodologies and processes would be needed to perform a full recalibration.
Q.59.	What are your views on the extra resources required to achieve a full and complete recalibration? Please quantify the amount of days involved and how important the expert judgement is.	A full and complete recalibration of proxy functions would not be a viable solution for the time frame of the stress test.
Q.60.	What are your views on the proposed simplifications for the use of LTG and transitional measures post-stress?	The long-term guarantee (LTG) and transitional measures should be allowed for, in line with the Solvency II regime. This includes re-calculation of the TMTP, which reflects how this would be treated in practice under stress. A requirement to hold the TMTP at pre-stress levels would give a misleading indication of its impact on solvency. Additionally, the VA has to be recalculated and used in a consistent manner with the stress scenarios.
Q.61.	What are your views on the proposed simplifications for the calculation of the post-stress risk margin?	Given the high level of complexity involved in the calculation of the post-stress risk-margin, the insurer should be able choose an appropriate approximation method for their company. This should not be prescribed by EIOPA.
Q.62.	What are your views on the group consolidated based approach? Do you agree with the drawbacks presented on the group consolidated based approach? If not can you provide ideas on how to allow a proper validation of the results?	The insurance industry agrees with EIOPA's articulation of the problems associated with the model points group consolidated approach. It is important that EIOPA recognises that it is not feasible or practical to run stress tests of this nature, which replicate full actual reporting valuation and consolidation processes. The complexity of group exercises is significantly increased where group results are required at high levels

		of reporting granularity, such as was the case for EIOPA's 2018 stress testing exercise. Internal stress and scenario testing (SST) models are typically not designed, and do not need to be designed, to generate this level of granularity of output. As noted in the response to Q14, should group exercises be specified, there needs to be recognition that the use of simplifications and approximations will be required. The granularity of any reporting requirements should also be restricted facilitate the use of existing SST models.
Q.63.	What would be in your view a proper approach to define model points? (please provide concrete examples)	
Q.64.	What would be in your view a proper approach to validate the best estimate produced via model points? (please provide concrete examples)	
Q.65.	Do you envisage any other approach to simplify the consolidation at group level?	
	Do you have general comments, remarks, suggestion on Chapter 5?	

Chapter 6		
#	**Question**	**Answer**
Q.66.	What is your view on the overall approach of validation and the different types of validations?	The proposed four-level validation framework appears reasonable. However, the following points should be considered in the development of a validation framework. • It would be helpful if the Level 0 and Level 1 validations are made available to companies as completely as possible when the stress test specifications are published. • Mistakes in the calculations and reporting of numbers can be avoided by well written and clear technical specifications. • Early publication of the technical specifications and reporting templates would facilitate better planning of the exercise which would improve clarity. Adjustments or clarifications after the publication of the stress test scenarios lead to a repetition of a part of the work and should be avoided. • Requests for additional information relating to validation should not lead to an unjustified level of additional burden. For instance, in the EIOPA 2018 Stress Test undertakings needed to provide very detailed information on the cash flows values, which is a highly time- and resource-consuming exercise with significant practical issues and obstacles. We ask EIOPA to consider whether the significantly increased effort of some validation templates justifies the benefit. In some cases, for example, EIOPA could dispense with a detailed recalculation of the results.
Q.67.	What is your view on the approach used for the validation of the Best Estimate under stressed situation using cash flow values and their evolution under stressed situation? Which additional parameters would you suggest to improve the framework?	The change in cash flows from the baseline to the stressed situation is a highly non-linear process that depends on many factors, eg the precise terms of the underlying contracts. The suggested approach is a reasonable validation method but probably prone to judgement errors on the part of the validator (EIOPA) that potentially leads to many mistaken requests for resubmission.

		See also general comments to chapter 2.
Q.68.	What is your view on a common approach for the Risk Margin estimation even used in Baseline calculations? Which drawback would you envisage if a "Base RM" is used as a control variable?	The proposed Base RM should not be used in the baseline calculations. As detailed in the response to Q4, the baseline position should always be the insurer's Solvency II position at the relevant date. The additional work created from running a dual-calculation of the RM, pre and post-stress does not appear to be justified if EIOPA has previously made suitable validations of the change in the RM without this additional information.
Q.69.	Do you have any further considerations on validations which could improve the level playing field?	
	Do you have general comments, remarks, suggestion on Chapter 6?	The results of the stress test exercise should be restricted to any required supervisory assessment and any public disclosure should remain at an aggregate level. It is necessary to clarify the context of the exercise on whether the objective to assess the industry's resilience at micro or macro level has been met, in order to facilitate the correct interpretation of any results by the relevant stakeholders. Early engagement with industry and appropriate timelines are necessary to ensure a smooth execution of the process. This would help to reduce errors and improve consistent understanding and interpretation. Technical specifications and templates for the relevant stress scenarios should be circulated to companies well in advance of the delivery date. This would help to safeguard greater quality and meaningfulness of the output, as well as allowing development of the tools and processes needed to perform the exercise.