Response to EIOPA discussion paper on prudential treatment of sustainability risks

Our reference:	ECO-SLV-23-049	Date:	02-03-2023
Related documents:			
Contact person:	Prudential Team	E-mail:	prudential@insuranceeurope.eu
Pages:	19	Transparency Register ID no.:	33213703459-54

General Remarks

European insurers strongly support the drive towards sustainability and are ready to build on their current actions to contribute further to the transition to a more sustainable society.

The industry is **supportive of the European Insurance and Occupational Pensions Authority (EIOPA) receiving a mandate from the EC**, in the context of the Solvency II 2020 review, to determine if there is evidence, based on available data, to justify a differential prudential treatment of exposures related to environmental, social and governance (ESG) assets or activities. The industry wishes to **highlight the importance of pursuing a risk and evidence-based approach to fulfil the mandate in order to preserve Solvency II's risk-based nature.** Therefore, insurers welcome EIOPA's approach to ensure that the prudential perspective of insurance regulation addresses the influence of sustainability risks underlying the investment and underwriting activities from a risk-based perspective.

In the discussion paper, EIOPA puts forward valid questions. However, these questions are very challenging to answer, as data in this area is currently unstable, scarce and not sufficiently standardised. In particular, the isolation of the sustainability element from other economic and non-economic parameters and subjective influences is ambitious and will be difficult in the current constantly changing environment.

The industry suggests **being cautious and to avoid taking an overly theoretical and complex approach.** There are many uncertain aspects and the assumptions and approach chosen will heavily influence the obtained outcomes. Therefore, any results should be interpreted with the necessary caution, and care should be taken when drawing conclusions or taking any actions based on these results. Furthermore, any work in this area should also be proportionate and feasible for smaller, non-complex insurers.

Regarding the **first section, Asset and Transition Risk Exposures**, the industry notes the following:

- Solvency II capital requirements are determined on the basis of a 99.5% value-at-risk (VaR) measure over one year. Multi-year forward looking assessments, scenarios with a different confidence level or 'what-if' scenarios **are part of the ORSA and should remain so**, these scenarios are used to account for the transition risks/mitigations associated with climate change impacts on economies and societies, which are accompanied by significant uncertainties and limitations/immaturity in modelling techniques. Against this background**, the ORSA seems the best place for addressing transition risk concerns,** thereby ensuring the ORSA remains relevant for the company and conducive to a meaningful supervisory dialogue on transition risks.

Insurance Europe aisbl
Rue du Champ de Mars 23, B-1050 Brussels
Tel: +32 2 894 30 00
E-mail : info@insuranceeurope.eu
www.insuranceeurope.eu

© Insurance Europe. Confidential, internal document.
Not for distribution, all rights reserved.

- Any **transition risk assessment should also address the process dynamics involved.** Undertakings are not static, they adapt, and investors, policyholders and competition will ensure that undertakings transform/transition and as such the general perception will be evolving. In addition, mitigating circumstances, relevant for some sectors also need to be taken into account and the risk is expected to fade out eventually once the transition is completed.
- **EIOPA's approach should be robust.** While ESG comprises a broad spectrum of factors, the discussion paper focuses mainly on the energy infrastructure transition risk from fossil fuels to renewables in this discussion paper. There are also other relevant factors such as biodiversity loss, pollution, land use, water use that often interrelated with climate change and carbon usage.
- **Both a firm-level classification approach and a sector approach based on Nomenclature of Economic Activities (NACE) codes will have their advantages/shortcomings**. While using a sector average could potentially counteract the transition by overestimating the transition risk for well performing companies and supporting worse performing companies by underestimating their transition risk, the firm-level approach would be more difficult to apply in practice.

Regarding the **second section, Underwriting and Climate Change Adaptation,** the industry notes the following:

- The industry broadly agrees with EIOPA's stance on how adaptation measures could impact the SCR. Climate adaptation measures taken by insurers (eg through advice, incentives and other services to policyholders) or by measures taken by policyholders, eg through concrete construction measures for natural catastrophes, could potentially reduce risks.
- In addition to individual adaptation measures by policyholders, the industry suggests including publicly funded climate-related adaptation measures. Public authorities have a significant role to play when it comes to adaptation to climate change and, in turn, in terms of risk reduction. Therefore, the risk factors applied in the standard formula, based on existing evidence, should consider measures such as dikes, retention areas and avoidance of development in flood-prone areas.
- Using the Undertaking Specific Parameter (USP) methodology to assess a potential new calibration of non-life Solvency Capital Requirement (SCR) parameters for premium risk in the Standard Formula seems reasonable. However, the proposed methodology heavily relies upon the size, quality and representativeness of the sample data and, therefore, conclusions cannot be drawn from this analysis.

Regarding the **third section, Social Objectives and Social Risks from a Prudential Perspective',** the following is noted:

- For the time being, the analysis of social risks should remain at a prospective/identification stage. A meaningful quantification is not feasible, given the limited (standardised) data availability and studies on social risk and objectives.

I. Assets and Transition Risk Exposures

Q1: *Are there any specific data sources that might be useful for a historical analysis of transition risk for private and public equity and debt? How can EIOPA access them? Why are they relevant*

- Normally it would be expected that these risks are already incorporated into the price: for example, the bond ratings of rating agencies already consider transition risks and, as such, transition risk would be part of the ratings.
- However, there are a number of reasons why it could be problematic to use historical market data to assess transition risk:
    - Spreads and equity prices reflect average market expectations, while for solvency considerations one needs to consider tail end risk.
    - The portion of a bond's spreads attributable to transition risk cannot be distinguished from other risks in datasets. In other words, it is hard to isolate the impact of transition risks on

spread movements because they are intertwined with wider other trends. Additionally, transition risks are temporary and will subside as the climate transition advances and eventually fades.

- Time horizon is an issue, eg considering the average corporate bond with an average outstanding maturity, even if a company is facing long-term transition risk, this may not in any material way affect their ability to repay their bonds over the lifetime of the bond. Therefore, it would not be reflected in the spreads.

Q2: In case you are suggesting the use of historical "non-valuation data" like cash flows: How would the measurement of risk be commensurate with the definition under Solvency II (i.e. fluctuation of values in accordance with Article 75)?

N/A

Q3: Do you have comments on the outlined criteria for the selection of market indices?

- Please refer to the response to Q1.

Q4: Are there any equity indices not mentioned above that would be relevant to analyze? Why?

- It is unclear what information "green" indices (which are not available prior to 2007 as mentioned in para 52) with low transition risks provide for the actual question how high transition risks of "brown" assets are. For the analysis, "brown" indices would be needed.
- In para 59, EIOPA states that the MSCI is best aligned with the taxonomy. However, the taxonomy has been changed to reflect gas and nuclear activities.

Q5: Are there any equity indices which focus on companies with higher transition risk?

N/A

Q6: Would you have any suggestions how the effect of different levels of transition risk could be "isolated" when comparing the historical risk for a given index with the broad market?

- No, doing this would be highly complex and problematic.
- For example, there are many other factors, including behaviour, affecting the indices on top of the potential transition risk.
- There is also the effect of future transition risk that could appear as a consequence of the rules created following this type of analysis: ie a self-fulfilling prophecy. By assigning varying weights to investments based on a hypothetical transition risk, investment/risk teams may manage investments differently, distorting the market and creating a "transition risk" that wouldn't exist otherwise.

Q7: Are there any other bond indices suitable for the analysis? Why?

- Not to the industry's knowledge.

Q8: Are you aware of any indices which focus on companies with higher transition risk?

- Fossil fuel related indices could potentially be considered as having higher transition risk. However, as seen from recent stock market behaviour, it is not clear that this represents higher risk in practice. And, if so, it will depend on time horizons and the fact that individual companies within these indices may have different risk, depending on their existing business mix and their transition plan, in particular.
- It is noted that the transition risk will also vary depending on the top management behaviour, which is difficult to capture through any specific index.

Q9: Would you have any suggestions how the effect of different levels of transition risk could be "isolated" when comparing the historical risk for a given index with the broad market?

- *No.*
- There is a high probability that the data contains a high level of noise, non-linearities, which would make the isolation of the effect of different levels of potential transition risk challenging.
- See also the response to Q6.

Q10: Would you have any suggestions how to compare the risk of a given bond price index (i.e. no separate spread data for each rating class and maturity buckets available) with a "conventional" bond index taking into account possible differences in ratings and durations?

- Please refer to the responses to Q6 and Q9.

Q11: Do you see any other possible approach to classify stocks and bonds according to their transition risk exposure? What would be their advantages?

- To avoid a self-fulfilling prophecy scenario, there should be a prudent and cautious approach towards this issue.
- An approach could, for example, be to limit the requirement to Pillar 2, and insurers could describe how they assess the exposure of their investments to climate change related losses, taking into account the timing of these investments.

Q12: Would you have other ideas how to quantify transition risk per NACE code?

- See Q28 for comments on NACE codes.

Q13: Would you have suggestions for sector definitions other than by NACE code? What are their advantages? How does one quantify their transition risk?

- See Q28 for comments on NACE codes.

Q14: Do you agree that either the debt or equity shocks from recent stress test exercises should be used for measuring transition risk (resulting in one measure for both asset classes)? What advantages do you see in using equity or debt shocks respectively?

- No, the suggested approach implies circular reasoning, as stress tests presume a transition risk. Consequently, assumptions made in the context of the stress test would be considered as basis for transition risk assessment. Against this background, it is not recommended to use the transition risk shock, based on analyses in which these shocks were already part of the hypothesis.
- It is unclear how the shock will be applied by EIOPA in the standard formula. Overall, it should be clarified that any transition risk should not result in a new category of market risk, but could only lead to different risk factor calibrations within the existing submodules, if this was fully justified by an evidence-based assessment.

Q15: Do you have any comments on the company-specific transition risk measures set out in this chapter? Are there other ones? If so, what are their advantages?

N/A

Q16: Do you agree with focusing on greenhouse gas (GHG) emission intensities rather than on absolute GHG emissions? What is your view regarding the scope of emissions to be used (1, 2 or 3)?

- GHG emission intensity seems the most relevant, ideally related to turnover rather than enterprise value.
- Looking at absolute emissions would provide the wrong incentives: for example, it could promote investing in SMEs emitting individually a lot of GHGs.
- Taking into account Scope 3 could easily result in double counting. In addition, Scope 3-related data is mostly unavailable.

Q17: Do you see other approaches to define portfolios with companies subject to higher, medium and lower transition risk exposure based on their NACE codes? What are the advantages?

- See the response to Q28 for comments on NACE codes.

Q18: Do you consider it preferable to combine the CPRS classification (Battiston et al. (2017)) with the use of asset shocks (e.g. DNB stress test) to differentiate assets according to their transition risk exposure or should only the latter be used? Why?

- As noted in response to Q14, there is circularity in the idea of using assumptions from stress tests to justify a level of transition risk which is in itself an assumption made in the context of these stress tests. This is not technically robust and should be avoided.
- The qualification into higher, medium and low transition risk is political, subject to preferences and developments over time. The approaches taken appear to suggest that entities are not able to change from a high to a low category or vice versa. EIOPA is requested to clarify the correctness of this interpretation.
- The industry also wishes to highlight the fact that the DNB shocks are not targeted enough. For example, NACE code 07 has been allocated the most severe shock in the DNB stress test, while mining activities are essential to transition (like Neodymium for powerful magnets in windmills and Lithium for batteries). While mining may be energy intensive, it should be treated differently from carbon extraction.

Q19: If debt or equity stress test factors are used (e.g. DNB stress test), how should the thresholds to separate lower, medium and higher transition risk exposures be set?

- Cf. Q14 and Q18, stress test factors should not be used as such. Furthermore, thresholds will not remain meaningful over time and their level will have to be reconsidered.

Q20: Do you have any comments how to test the robustness of the sectoral classifications into higher, medium and lower transition risk exposure?

- It is recommended to use large classes with caution in regard to limit setting, so as to limit the risk of wrongfully affecting the market participants' behaviour.
- In fact, some past transition risk is reflected in the market risks, and it will be difficult to isolate this transition risk in historical data.

Q21: Would you have any suggestions how to derive a less granular definition of the higher transition risk sectors (e.g. based on 2nd digit NACE codes) based on the CPRS classification (Battiston et al. (2017)) in line with the granularity of the stress test exercises while preserving the risk sensitivity?

- See the response to Q28.

Q22: What is your view on the treatment of financial institutions regarding transition risk?

- The issue raised on financial institutions is relevant, and it is noted that stakeholders familiar with the business model and functioning of financial institutions suggest a neutral classification related to transition risk.

Q23: Would you have any suggestions for other portfolios that should be analysed (perhaps also portfolios with lower transition risk)? Why are these portfolios relevant?

- While it seems unlikely that a distinction between high or low transition risk at a sufficient granularity would be possible, it would appear reasonable to attempt to estimate a ("brown") high transition risk submarket and compare the results with the general market. However, when it comes to "green" assets, their low transition risks are not crucial for the 99.5% quantile related to the total of all their (downward) risks, so there is little effect on the calibration of risk factors.
- Both in Belgium and the Netherlands, insurers hold significant mortgage portfolios on their balance sheets making it important – when these portfolios would be considered - to examine transition risk on the property used as collateral, that would only become relevant in case of default. At the same time, however, it seems unlikely that a distinction between high or low transition risk at a sufficient granularity would be possible.

Q24: What is the minimum number of bonds/equities in a portfolio that ensures results are reliable?

- More decisive than the number of bonds/equities is the percentage of coverage of the total portfolio, because if the coverage is too low the categories will be artificial.

Q25: Do you see other approaches to define portfolios with companies subject to higher, medium and lower transition risk based on the company-specific approach? What are their advantages?

- The proposed methodologies are not objective and are too dependent on the portfolio itself.

Q26: How should the thresholds to separate lower, medium and higher transition risk sectors be chosen?

- Thresholds should allow for sufficient margins allowing a clear separation between the three categories. With the high uncertainty inherent to this topic, any study should really be cautious about allocating any company/sector to high or low transition risk.

Q27: Do you have any comments on how to test the robustness of the transition risk classifications?

- An issue is that transition risk would eventually be generated as a consequence of the study for the sectors rated as 'high' (because of the impact on investor behaviour on these sectors), which is worrying, as it prevents the ability to appropriately check the validity of the current work appropriately.
- Validating these classifications on the basis of past data seems difficult given the large number of uncertainties.

Q28: Do you have any comments on the advantages and disadvantages regarding both the sectoral and the firm-level classification approach?

- The following is noted **regarding the advantages/disadvantages of the sector approach/NACE codes**:
    - The NACE/sectoral approach **would only derive average results**, without appreciating the difference in status of the underlying companies. Insurers' investment policies are increasingly considering ESG factors and using a sector average could potentially counteract the transition by overestimating the transition risk for well performing

companies and supporting worse performing companies by underestimating their transition risk.

- **NACE codes do not always differentiate between green or brown industries and will as such be a flawed and simplified approach in estimating the exposure to transition risk.** Unless EIOPA could encourage Eurostat to update / further develop the NACE classification and improve granularity in certain areas in order to be able to better distinguish between sectors, the use of NACE codes will not be a fully appropriate tool to differentiate between green and brown sectors, as interdependencies between sectors won't be considered.
- NACE **codes were not designed with the aim of being able to identify transition risk per sector. While only a few NACE codes relate directly to fossil fuel extraction, transition risk may be low for certain energy-intensive sectors that are considered essential as there is no alternative available**, for example steel factories. For other sectors, the risk depends on the urgency and speed of change, which heavily influences the assessment. For instance, the EU will only allow new cars with zero CO2 emissions starting in 2035, meaning the car industry should transform, eliminating transition risk.
- It is possible that other sectors need more time to move to net zero carbon. However, within a sector, some companies may already operate fully on renewables while others still rely on fossil fuels. A concrete example is the 'fossil free steel company', which under the NACE sectoral approach would be considered as being risky.
- **NACE codes are often ambiguous**. A large company should be classified under the NACE reflecting its main business. But that could result in large risky activities hidden in the corporate NACE code misrepresenting its associated risk.
- NACE codes are free and link to the taxonomy.

- The following is noted **regarding the advantages/disadvantages of the firm-level classification approach**:
  - The approach would be able to capture the different risk profiles of each company and each undertaking is prone to transition risk to a different extent.
  - This approach may be more difficult to apply in practice due to insufficient data availability and granularity.

Q29: What approach should be preferred? Why?

- **Both a firm-level classification approach and a sector approach based on NACE codes will have their advantages/shortcomings**. While using a sector average could potentially counteract the transition by overestimating the transition risk for well performing companies and supporting worse performing companies by underestimating their transition risk, the firm-level approach would be more difficult to apply in practice.

Q30: Which equity index should be selected in terms of geography and size of the constituents to assess transition risk exposures? Why?

- Size cannot be seen a priori as a (statistically) discriminating criterion. For example, history has shown that small undertakings appear to be more agile and quick to adapt, while large players could acquire these successful small players and also direct their investments when it is part of their strategy.

Q31: What are your views on applying a constant or changing composition of constituents regarding the equity portfolios? How material would the deviation between the two approaches be?

- Theoretically, the equity portfolio should replicate what would happen in reality, which implies a changing composition of constituents. However, as the exercise in itself will already be subject to substantial uncertainty and biases, it does seem sensible to apply a constant composition of constituents.

Q32: Do you agree that a static measurement of transition risk is sufficient? If not, can you suggest relevant data sources to implement a dynamic measurement?

- In fact, a static measurement is not sufficient, but given the uncertainty linked to the exercise it seems the only viable option.

Q33: Do you consider it necessary to isolate the effect of transition risk materializing in the observed historical equity risk of firms from other risk drivers from a prudential perspective?

- No

Q34: Do you have any suggestions how to isolate the pure transition risk effect on equity risk?

- No

Q35: Do you have comments on the approach for treating missing data?

N/A

Q36: Are there specific issues with missing data for non-listed equities? How should they be solved?

N/A

Q37: Do you have comments on the proposals regarding calculating the equity portfolio's value?

- The analysis performed should be robust and taking an overly theoretical and complex approach should be avoided.
- It seems illogic to use USD as a reference for a study of the EU market.

Q38: Are there specific considerations that apply for non-listed equities?

- It is unlikely that there is sufficient data available.

Q39: Do you have comments on the selection of periods for assessing equity risk?

- Markets have been aware of the climate change issue for a long time and the prices reflect market anticipations, including upcoming events such as the Paris agreement. For example, when unemployment figures are shown it is not their level that translates into index prices variations, but the difference compared to what was expected and already included in the prices. Therefore, post 2015 data will show a mix of readjustment of past expectations on sustainability issues. As such, the effect is diluted over time and most probably the main price evolutions are not linked to these issues.

Q40: Do you have comments on the measurement of equity risk if no adjustment for transition risk is performed?

- In the past, the economy has known various transitions and these have affected the volatility of stock prices on an ongoing basis, and thus some kind of transition risk type events can be considered to already be part of the equity shock in the Solvency II Standard Formula.

Q41: What is your view on the merits of the absolute vs. relative approach? Why?

N/A

Q42: Which bond indices could be a suitable source for traded bonds? Why? Are there other relevant sources for traded debt?

- If the goal is to analyse the extent of transition risk for specific submarkets where increased transition risk seems plausible, the challenge is to get a bond index for a "brown" submarket.
- If, on the other hand, the question is whether capital markets as a whole are exposed to a high transition risk, a very broad bond index should be chosen, as has already been the case in the past when calibrating the standard formula.
- However, specific analyses for debt seem not to be necessary, because standard formula spread risk for corporate bonds depends on credit ratings which already account for future default risk including transition risk.

Q43: Do you have any comments on the considerations regarding maturities and credit ratings for the analysis of transition risk?

N/A

Q44: What could be suitable sources for data on non-traded debt?

N/A

Q45: Do you have comments on the use of spread data provided by index providers for the analysis?

N/A

Q46: Do you think that a simple or a market value weighted spread should be used? Why?

- A market value weighted spread seems more accurate.

Q47: Do you have comments on the selection of relevant time periods for the analysis?

- Please refer to the response to Q39.

Q48: Do you have any suggestions how the similarity of different portfolios in terms of modified duration could be measured?

- This does not seem relevant: however, if similarities in durations are to be studied, these should reflect broader economic views regarding the investment such as really short-term (no transition risk whatsoever expected), medium-term (some transition risk possible), and long-term (challenging to assess the level of transition risk, there could be an additional spread linked to the uncertainty on this matter more than to the actual risk evaluated).

Q49: What are the possibilities to account for the effect of duration/remaining maturity other than defining maturity/duration buckets? How would this work?

N/A

Q50: How could risk be measured for non-traded debt?

N/A

Q51: If there is a link between a building's energy efficiency and its market value, what are the economic drivers for this link?

- Improved energy efficiency and the adoption of low-carbon energy sources can lower the anticipated operational expenses for buildings and mitigate the need for significant investments due to regulatory compliance. As we move towards a decisive decarbonisation, these benefits may become even more significant. Conversely, buildings that have low energy efficiency and rely on high-emission energy sources could experience a decline in value during the transition.
- For example, the actualisation of heating costs cash flow reduction over time.

Q52: Do you have quantitative evidence on the potential link between a building's energy efficiency and its market value on EU housing markets?

- No. However, when assuming rational market participant behaviour, it could be expected that the housing value would take into account future energy consumption, which depends on the energy efficiency of the house, and/or potentially the cost of renovation to improve the energy efficiency and possibly subsidies for such a renovation.

Q53: Are Energy Performance Certificates (EPCs) an appropriate measure for transition risk on residential and commercial real estate markets?

- While EPCs could be a potential pragmatic way to (roughly) assess the transition risks associated with pricing differentials caused by low energy efficiency, the industry wishes to highlight the following shortcomings:
    - EPCs are not available in all countries for EIOPA's current analysis. They will become a standard in the EU following the review of the Energy Efficiency Directive 2012/27/EU which is still in the legislative process. Currently, as there is only a high-level harmonization at EU level, the interpretation of the labels and their potential impact on market price can vary considerably between member states. In Belgium, for example, EPC regulation diverges between regions (Flanders, Brussels and Wallonia).
    - While consistency in EPC approaches is key, certificates may not be allocated objectively in all markets as their rating influences the value. For example, in France and Belgium the appropriateness depends on the quality of the EPC, which can be affected by some low-quality rating companies. In addition, for both markets, EPCs are not an appropriate tool, as these differ according to the provider.
    - The data quality of EPCs is questionable and EPCs are, therefore, not suitable for performing risk analysis, especially for existing houses.
    - Estimated energy consumption - EPCs are based on standard parameters such as a standard level of consumption and indoor temperature, while actual energy consumption depends heavily on the energy efficiency of the occupants.
    - EPC content – Only energy saving measures for which there is an invoice are reflected in the EPC. For example, insulation without a certificate is not taken into account unless its presence can be physically proven. This issue particularly affects houses from the 1990s and 2000s where official paperwork is often lacking.
    - Renovations not taken into account in EPC - There is currently no incentive to update the EPC after renovations, therefore the official EPC list may be outdated and overestimate energy consumption.

- Financial institutions have no access to EPC databases for which they have either direct exposure or through mortgage loans. Without this access getting the required data on existing loans is not possible and retrieving the data directly from customers would require customer cooperation and would be very resource intensive.

- Therefore, risk analysis based on EPC data can paint an overly pessimistic picture. Additionally, the impact of EPC on the real estate value and how this impact can be estimated is not clear.
- Alternatively, Energy Demand Certificates (EDC) could be considered, as energy consumption is only partially related to the given characteristics of the building which are crucial for the extent of transition risk.
- In addition, energy usage is not the main risk driver because that energy might have been supplied by a zero-carbon infrastructure. In practice the true driver for transition risk estimates would be the amount of gas/coal/gasoline per volume per year.

Q54: Do you expect different findings regarding potential risk differentials for commercial and residential buildings? Why?

- There may be more obvious findings on commercial buildings: there is potentially more awareness by investors on these topics given the higher transaction prices of commercial property. Other aspects which could lead to different findings could be, for instance, the impact of regulation on commercial property and different energy pricing for large vs retail customers.

Q55: What are typical characteristics of commercial and residential buildings influencing their market values and therefore should be controlled for when constructing price indices?

- Location, surface area and interest rates.
- Residential: transportation means, crime rate, pollution, education, energy efficiency.
- Commercial: transportation/accessibility, energy efficiency.

Q56: What are the benefits or disadvantages constructing a price index on hedonic regression analysis or simple price averages for the purpose of studying potential risk differentials?

- Hedonic regression adds other sources of volatility or biases but seems able to capture mechanisms otherwise not visible when using a simple average.

Q57: What are potential data sources for the purpose of the study, i.e. data containing the market value of a building, a measure of its level of energy performance and further value driving characteristics?

- Internal credit risk models of large banks in the EU could be a potential data source, on the condition that it is possible to extract the data anonymously. Possibly the ECB could be able to provide such data.

Q58: What are the benefits or disadvantages using advertisement data for the purpose of this study?

- Given the lack of reliability of the data, advertisement prices could be biased. In some countries advertisement prices are typically too high whereas in other that price is more often overbid, in the Netherlands, for example.

Q59: Besides transition risk, climate-related physical risk exposures might also influence property risk. Do you have evidence in this regard and what data sources are available to study this potential link?

- It is noted that physical risk was excluded from EIOPA's assessment scope. MSCI model uses policy risk (mainly through carbon pricing), physical risk and opportunity as categories that are used for each entity / investment.

Q60: Do you have suggestions for other forward-looking assessments of transition risk that will help EIOPA in studying transition risk differentials? If yes, please provide these suggestions.

- The industry takes note of EIOPA's forward looking approach to assess transition risk to complement the analysis of historical data which might not be sufficiently informative about climate-related risks.

  At the same time, however, it is noted that the outcomes would be very dependent on the approach and assumptions chosen. Therefore, the results should be interpreted with the necessary caution, and care should be taken when drawing conclusions or taking any actions based on these results.

- In particular, no precedent should be set for new, non-evidence-based risk factors for any further risks.

Q61: Do you have comments on using the sectoral transition vulnerability factors (TVFs) introduced by DNB (2018) as a forward-looking measure regarding transition risk?

- DNB obtains MV-shocks of 100% for some sectors using its TVF-methodology, which is not credible and presumably incorrect.

Q62: Do you have comments on the parsimonious and pragmatic way to map the transition vulnerability factors (TVFs) onto the NGFS climate scenarios?

N/A

Q63: Do you agree that whether an activity is aligned or not with the (climate mitigation) taxonomy does not allow per se to draw conclusion on the vulnerability to transition risk? If not, please justify your view.

- Being in line with climate mitigation taxonomy may be an indicator for a rather low transition risk.
- On the other hand, not being in line with the taxonomy does not allow any statement as to whether the transition risk is in the average range or particularly high.

Q64: Do you agree with the proposed approach to express transition risk differentials for different economic activities in terms of 0.5% value at risk (VaR)? If not, please provide your suggestions to improve the proposed approach.

- This would add another layer of uncertainty to the methodology, as its circularity seems to derive the idea of evaluating the level of additional transition risk departing from the assumption that there is one.

Q65: Do you agree that the forward-looking assessment should also consider commercial and residential property based on energy efficiency labels? Please explain your answer.

- In case a forward-looking analysis was done, it would seem reasonable to base the assessment on the energy efficiency labels. More generally, a methodology that recognises impacts under transition scenarios due to energy savings, market demand etc, could be used.
- Energy efficiency is only relevant as long as the amount of renewable energy falls short. For example, housing that went off the grid because renewable supply is used are no longer risky from a transition risk perspective, irrespective of their energy efficiency label.

Q66: Do you have any suggestions that will help EIOPA in projecting forward-looking prices of commercial and residential property based on energy efficiency labels in different transition scenarios?

- Please refer to the response to Q65, which is not about transition risk as such, but the difficulty is to identify the parts of the transition risk that are not already reflected in the current prices.
- An example can be related to forward-looking prices of commercial and residential property based on "obsolescence" or the loss of value of an asset over the next years that is directly linked to its carbon emission and energy consumption – assuming no building improvement.

II. Underwriting and Climate Change Adaptation

Q67: Do you have comments on the expected conceptual impact of adaptation measures on premium, reserve and natural catastrophe risk in Solvency II?

- The industry broadly agrees with EIOPA's stance on how adaptation measures could impact the SCR. Climate adaptation measures taken by insurers (eg through advice, incentives and other services to policyholders) or by measures taken by policyholders, eg through concrete construction measures for natural catastrophes, could potentially reduce risks.
- It is important to **clearly differentiate non-life premium from catastrophe risk**. The non-life premium and reserve risk sub-module only takes into account losses that occur with a regular frequency, whereas rare extreme events should be taken into account in the catastrophe risk sub-module.
- **Publicly funded climate-related adaptation measures should also be included**. The risk factors for premium and natural catastrophe risk would reflect the real risk exposure. Studies[1] [2] provide evidence that publicly funded measures, as well as rules and measures favouring adaptation to climate change, reduce the risk materially. As a result, risk factors in the standard formula should reflect this evidence and include measures like dikes, retention areas and non-development of building in flood-prone areas. Individual adaptation measures by policyholders, as considered by EIOPA, should also be taken into account.
- **EIOPA should regularly check whether premium and natural catastrophe risk parameters appropriately reflect climate change (adaptation measures)**. This process should be adequate to capture risks correctly since physical risks of climate change and adaptation measures are expected to evolve gradually.
- **It is important to study the impacts on the high quantiles and not only on the standard deviation**. For example, looking at a flood-prone area of high-risk exposure, reduced volatility could be expected. As adaptation measures, such as water-resistant walls, reduce claims expectation for regularly occurring smaller flood events. However, for an extreme catastrophe event within the 99.5% quantile claims, adaptation measures such as the aforementioned would hardly affect expectations.
- Insurance premiums are not only based on the expected underwriting pool's claims (see para 255) but also on the capital risk costs. These costs can significantly contribute to premiums, especially for covers against natural perils.
- The industry agrees with EIOPA's statement that adaptation measures are not expected to have a material impact on the costs of settling claims that have already occurred in the past and are, therefore, not expected to have an impact on the standard deviation for reserve risk.
- In addition, the industry notes the following:
    - The fact that premiums could rise if the frequency/severity of climate-related claims increase is intrinsic to the mutualisation principle underlying insurance.
    - Concerning the reputational risk, the consequences of climate change on claims severity and frequency are known and can be explained and justified. As such, it can be expected that these are generally accepted by customers and, therefore, would not affect insurers' reputation.

[1] JRC, Peseta IV study: https://joint-research-centre.ec.europa.eu/system/files/2020-05/pesetaiv_summary_final_report.pdf

[2] GFZ-Potsdam, Kreibich et al, The challenge of unprecedented floods and droughts in risk management: https://doi.org/10.1038/s41586-022-04917-5

- In practice, adaptation measures' costs can, in specific cases, exceed the benefits gained in terms of a reduction in claims severity. Also, it is not clear whether customers would be willing to finance these adaptation measures themselves. However, if they are, the premium will decrease, which may be a motivation.
- The word "mitigation" can be confusing when it is interpreted as "reducing GHG emissions", since in Solvency II "risk mitigating" measures are used in the context of, for example, reinsurance. At the same time, this does not prevent one from using "adaptation measures" in the context of the specific actions aiming at lowering the exposures affected by climate related events (reducing physical risk).

Q68: For internal model users, is it correct that climate related adaptation measures are not explicitly taken into account in your Solvency II internal model calculations for non-life risks?
If no, please provide details on your **internal models results with and without taking into consideration climate-related adaptation measures.**

N/A

Q69: Do you have evidence on the impact of climate-related adaptation measures on premium risk?

- Measures such as programs on building safeguards against natural catastrophes can lower physical risks. Many of these safeguards were put in place in EU member states after the Solvency II Directive came into force – for example, dikes and sewage systems, which have significantly reduced flood risk in these countries. Consequently, the industry proposes that such adaptation measures should also be considered to recalibrate such risks for catastrophe models in the standard formula.
- Regarding the mispricing of climate related events, it should be noted that loss ratios are generally monitored and premiums levels are annually revised accordingly. Therefore, insurers will have the possibility to adapt their models and prices progressively, and the risk of inadequate risk pricing is not expected to increase materially.
- On the prudential consequences of such adaptations, if they would be broadly implemented, it would eventually lead to prices decreasing – or increasing less – in logical relation to the exposure component of the pricing. The loss ratio would then stabilise at levels comparable to today's levels and similar associated volatility. As mentioned above, there are also other ways to avoid an increase of the loss ratio.
- Regarding the financing of adaptation measures: it could happen that the insured concerned will not accept to bear the adaptation cost. The costs could also be funded via public financing or tax incentives. It should not be implied in the report, as could be interpreted by the wording in paragraph 250, that (re)insurance undertakings are responsible for the financing of the climate adaptation measures.. EIOPA should clarify that "climate adaptation measures taken by insurers" should be understood to be services, even though there may be specific circumstances, now or in the future, where some insurers may decide to facilitate the financing of climate adaptation measures.
- Regarding evidence, see answer to Q67.

Q70: Do you have comments on the proposed methodology to study the potential impact of climate-related adaptation measures on premium risk under Solvency II's Standard Formula?

- It seems reasonable to use the Undertaking Specific Parameter (USP) methodology to assess the potential for a new calibration of the non-life SCR parameters for premium risk in the Standard Formula.
- The proposed methodology heavily relies on the size, quality, and representativeness of the sample data. Therefore, the reliability of the sample data could be limited. It might, therefore, be difficult to deduce any conclusions from such results. Any change in standard deviation parameters must be guided by very careful considerations (eg by a thorough assessment of all participating insurance companies'

data quality) and not by straight-forward computations alone. The industry appreciates, however, that the proposed method has the merit of being consistent with the computation of USPs.

- Further, EIOPA should keep in mind the following effect, which might lead not only to limited but also to confusing results. It is likely that adaptation measures on buildings are not implemented evenly across the entire underwriting portfolio: for example, doors and windows secured against water pressure, dikes etc are probably implemented mainly near rivers, ie in flood-prone areas. Therefore, a conceivable outcome of the study could be that the loss burden and volatility in the building stock is higher with adaptation measures than without adaptation measures simply due to an anti-selection effect. Underwriting pools used for a direct comparison should be located in zones of the same geographical exposure.
- Assessing the impact of adaptation measures would require a sufficient volume of measures implemented plus some observed years of claims frequency and severity, which might not be available for all the measures foreseen to reduce climate change consequences.

III. Social Objectives and Social Risks from a Prudential Perspective

Q71: What do you consider to be areas where the prudential treatment of social risk and objectives should differ most from the treatment of climate risk and objectives?

- For the time being, the analysis of social risks should remain at a prospective/identification stage, and a meaningful quantification is not feasible, given that there is limited (standardised) data availability and studies on social risk and objectives. As such the assessment of social risks should be of a qualitative nature.
- Besides this, the industry highlights the following key areas where the prudential treatment of social risks and objectives may differ from the treatment of climate risks and objectives:
    - Definition and measurement: Assessing social risks and objectives may be even more complex and subjective compared to assessing climate risks and objectives.
    - Time horizon: Social risks and objectives may require a shorter-term response, whereas environmental risks may be longer-term.
    - Mitigation and adaptation strategies: Different strategies may be required for addressing social risks and objectives.
    - Regulation and supervision: Social risks and objectives will likely be interlinked with other, possibly broader regulatory and supervisory frameworks, such as those related to social welfare, labour laws, and human rights. At the same time, the multiplication of standards/regulations could be a source of confusion and/or overload for the entities subject to these regulations.

Q72: Do you have comments on the working definition of social objectives, which are generally referred to as 'social and employee matters, respect for human rights, and anti-corruption and bribery matters' and can be articulated further by referring to decent work, adequate living standards and inclusive communities? Do you consider that social objectives should include anti-corruption and bribery matters, or are these governance aspects?

- The working definition should be compatible with the definition of social factors used in other EU legal texts on sustainability: for example, the Corporate Sustainability Reporting Directive (CSRD) or the Taxonomy Regulation.
- Anti-corruption and anti-bribery matters may be more appropriately included in 'governance' aspects, but any additional measures must be compatible with existing measures.

Q73: Do you have comments on the mapping of social risks into prudential risks?

- The different risk modules of the SCR formula and the comprehensive assessment of all relevant risks in the ORSA (compare Q76) can be considered covering these kinds of risks already. The fact that they appear in the S of ESG now, and receive more publicity, raises awareness about them. However, they were already a risk in the past, and as such were managed and taken into account through the operational risk module.

Q74: Do you have additional examples of how social risks can translate into the Solvency II risk categories?

- Reputational risk may be present if the reputation level of various stakeholders (eg employees or customers) suffers due to a lack of consideration of social aspects.

Q75: Do you have comments on the proposal to start by integrating the treatment of social risks as part of Pillar II and III of Solvency II, covering governance, risk management and reporting/disclosure requirements?

- Social risks are already covered in the ORSA, and Pillar II and Pillar III as part of "other risks" or "reputational risk". In particular, social risks can already be included by the undertaking in the Solvency and Financial Condition Report (SFCR) section C Risk Profile.
- It is important that no quantification is required as difficulties in accessing data and methodologies complicate the integration of social risks into the risk management system. The regulations will have to take these complexities into account.

Q76: What do you consider good practices for addressing social risks as part of the ORSA?

- Social risks are not new, and, therefore, have already been implicitly in the scope since the inception of Solvency II. However, due to the lack of accurate statistical data, the analysis must remain qualitative for the time being.

Q77: Do you think that particular guidance would be helpful for addressing social risks as part of the ORSA?

N/A

Q78: What type of risk management actions are most relevant to address social risks?

- Examples of risk management actions could be to support corporate practices to safeguard social concerns and objectives; implementing mitigation/adaptation measures for investment and underwriting policies in socially non-sustainable activities/counterparties (eg for certain kind of industries or internationally agreed conventions).

Q79: How do social risks typically impact on business planning (3-5 years) or long-term strategy?

- Corporate strategies must consider the extended responsibility of companies regarding all relevant stakeholders and ensure a balance of interests. Sustainable corporate strategies increase the long-term success of companies and secure their existence. This requires the establishment of a governance model in which awareness for social risks is consistently anchored and continuously expanded in the executive and supervisory boards. By seeking solutions and committing to changing the status quo and achieving a higher level of understanding with key stakeholders and partners, social risks can be addressed more effectively.

Q80: The taxonomy regulation includes key international standards on social issues as minimum safeguards (Article 18) in order to prevent environmentally sustainable activities from harming fundamental human rights, workers' rights or principles of good governance (such as anti-bribery measures, for example). Would you agree that such minimum social safeguards could be used as guiding principles for implementing the prudent person principle requirement for investments with regards to social factors?

- Acting in the best interests of the insurer's clients should remain the goal of the prudent person principle (PPP). Solvency II gives insurers freedom of investments, as long as these are invested in accordance with the PPP.

Q81: Similarly to EIOPA's ongoing analysis on the integration of climate change adaptation into underwriting practices, do you see value in conducting further analysis on how insurers, through their underwriting activity, can include mitigation and adaptation measures for social risks in their underwriting strategy in an actuarial risk-based manner?

- For the time being, the analysis of social risks should remain at a prospective/identification stage, and **a meaningful quantification is not feasible**. Any such analysis would have to be based on sufficient data and performance indicators, which to date are not available.

Q82: What are your views on the potential role of - and potential prudential relevance of - corporate governance aspects, such as remuneration, board composition or ant-corruption & anti-bribery tools to reduce potential social risks?

- The governance aspects are important to ensure that social risks are adequate managed. The current requirements of the Solvency II regulation (see examples above and further requirements like internal controls, independent key functions like compliance and internal audit functions) are important and sufficient.

Insurance Europe is the European insurance and reinsurance federation. Through its 36 member bodies — the national insurance associations — it represents all types and sizes of insurance and reinsurance undertakings.

Insurance Europe, which is based in Brussels, represents undertakings that account for around 95% of total European premium income. Insurance makes a major contribution to Europe's economic growth and development. European insurers pay out over €1 000bn annually — or €2.8bn a day — in claims, directly employ more than 920 000 people and invest over €10.6trn in the economy.