

## AMICE Response

### EIOPA Consultation Paper – Prudential Treatment of Sustainability Risks

#### 1. General remarks

---

The drive towards improved sustainability is essential and top of mind and AMICE members do support this drive as sustainability is aligned with the core principles of the cooperative and mutual sector. We stand ready to work together with EIOPA and the other insurance industry associations on exploring this topic further.

It is important to remind that as a result of the recently changes to the Solvency 2 Delegated Regulation to take into account sustainability, undertakings are already required to consider in their system of governance, risk-management system and own risk and solvency assessment (ORSA) sustainability risks they face in the short and long term. Furthermore, different initiatives are imposing mandatory disclosures of sustainability risks including the Pillar III requirements of Solvency 2. However, introducing sustainability risks in the quantitative component of Solvency 2 is more difficult. The challenges when integrating sustainability risks within Pillar 1 requirements amongst others are the following:

- The capital requirements in Solvency 2 are calibrated based on a one-year time horizon, while sustainability risks are generally considered to be long-term risks. In particular, climate change-related risks are expected to emerge over a longer time horizon which presents practical challenges for integrating them in the current Pillar 1 capital requirements. Additionally, individual and public risk mitigation and adaptation measures would need to be duly taken into account. They have a high potential to reduce any medium to long term transition risk and even possibly counter-balance or even exceed the initial risks envisaged. On a one-year term horizon (short term) transition risk can be expected to be nil in all respects.
- There is also that future transition risk that could appear as a consequence of bias introduced by the new rules. By assigning varying weights to investments based on a hypothetical transition risk, investments may be managed differently and be conducive to creating a "transition risk" that would not exist otherwise.
- There is a lack of a database that would allow for the analysis of a long-term trend in transition risks. Reliable data to allow for a statistically robust calculation of any potential difference in risk is needed and such data is currently not available.
- Market prices are influenced by a broad variety of factors. The effect that sustainability risks and factors would have on the performance of a certain asset

class is generally difficult if not impossible to isolate. The corresponding value-at-risk (VaR) confidence level of 99.5 % over a one-year period cannot be calculated. The undertaking's system of governance, risk management system and the ORSA remain the most appropriate tools to assess whether climate change risk is deemed material.

- Due to the complex nature of transition risk, we believe that the main drivers should be related to political developments. Transition risk as defined by EIOPA will only occur if there is a sudden and disruptive event, mostly induced by political decisions.
- Regarding underwriting risk, climate-related adaptation measures could have some risk reducing effects in terms of natural catastrophe risk but we expect limited effects on premium and reserve risk. Furthermore, the underwriting risk module (i.e premium and reserve risk and catastrophe risk sub-modules) of the Solvency II standard formula is based on a factor based-approach which would impede the recognition of the effect of adaptation measures.

In order to address the challenges mentioned above, we suggest to follow a qualitative approach and any change in the manner in which the economic balance sheet or the solvency capital requirements are calculated should be aligned to the fundamental principles of Solvency II. Any approach taken should therefore be risk-based, no theoretical interventions in market information should be introduced and a level playing field across different market participants should be ensured.

## 2. 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 |**

There is not specific data apart from the historical data sources on financial markets during historical transition phases which are not really new to human kind as there have been quite a few resulting in reorganization of the economies. Over the last centuries, most companies have adapted their business models to survive and sometimes thrive even more. The notion of adapting one's business model to circumstances is a basic of business as it is shown by the fact that it is almost a generalized behavior for start-ups companies.

Furthermore, from an historical perspective it is difficult to find out when there was a « transition » and when there just was a correction of overheated markets i.e. crises 1929 or tulip crises in 1637.

In general terms, it is important to note that, from a theoretical perspective, market price fluctuations should reflect all the different sources of risk that could impact economic activities and incorporate all information available. Solvency 2 regulatory framework consistently embraces this theoretical premise: market risk is represented by a specific

risk module in the standard formula, and covers the “risk of loss or of adverse change in the financial situation resulting, directly or indirectly, from fluctuations in the level and in the volatility of market prices of assets, liabilities and financial instruments”. Specific market risk sub-modules are the equity risk and the spread risk sub-modules, that provide a single capital charge for the different asset classes considered. In this capital charge all sources of risks (including new emerging risks, which comprise transition risks but also, for example, risks related to technological change and digital evolution) are therefore included. Transition risk for listed equity and debt is therefore expected to be reflected in the development of the economic value on the market. This would be also the case for those instruments that use credit ratings as input to the valuation technique. And for other assets/instruments, transition risk would be reflected using expert judgement.

Hence, the idea of a new risk factor called “transition risk” that would be added on top of the other risks seems superfluous, and the only relevant way to effectively manage the climate change issue is by considering how this will affect differently the already modelled risk factors compared to how they have been taken into account historically, which is what risk analysts (be it on equities or bonds) do when assessing the qualitative value of investments.

**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 2 (i.e. fluctuation of values in accordance with Article 75)?**

We believe that cash flows or other historical “non-valuation” data should not be used. The target is already very ambitious to extract a “transition risk” from market data. It is sensible to consider that this risk is part of the other risks already included in the current market risk modelling.

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

We believe that it is fundamental that indices are selected on a “neutral” base rather than tailored to the target expected by the promoters of this study. Indeed, in case no additional risk shows in the results, we fear that the pressure to provide figures with some kind of transition risk would generate a bias in the data selection, even an involuntary bias. Furthermore, ESG indices are still in development and they may not help delivering explainable results in the short-term.

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

We propose that EIOPA refers to the activities which are not aligned with the taxonomy and it should also assess how they will have impact on the outcomes.

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

We believe that calibrating transition risk on an equity index which focuses on companies with higher transition risk will be a circular calculation; An equity index on companies with higher transition risk is not a suitable measure to assess whether transition risk exists or which investments have a higher transition risk.

**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?**

EIOPA seems to assume that an actual “isolation” of transition risk would be relevant. However, the standard method for isolating transition risks is a multivariate analysis that requires the identification of a limited set of predominant risk drivers and set up a statistical test. However, one should look for strong correlations beforehand. If there is no apparent level of concurrence between the suspected historical risk driver and the risk measure, it is highly unlikely that multivariate analysis yields statistically significant results.

From a theoretical point of view, as stated in Q1, we believe that market prices should reflect all possible sources of risk that could impact an economic activity; isolating transition risks from the broader category of market risk implies, logically, the need to recalibrate the ordinary capital charge for equity and bonds to avoid double counting.

In addition, the backward-looking approach may not be appropriate for assessing transition risk stemming from climate change due to the methodological difficulties involved in finding a robust procedure to isolate the effects of transition shocks (technology shocks and policy shocks) in recent years, where asset volatility has been driven primarily by other events, such as the COVID 19 crisis or the energy crisis.

Therefore, there are so many factors affecting the indices that isolating transition risk would be meaningless.

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

No comment.

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

Any potential transition risk would mainly vary depending on the company’s top management decisions; it is difficult to envisage capturing it through any specific index. Moreover, higher transition risk is not the only point as economic segments may differ in risk level (higher beta) but offer higher returns.

**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?**

As mentioned in our previous answers, there is a high probability of high-level “noise” in the data, as well as non-linearities that would make this goal non achievable; in general, we believe that market prices already reflect all possible risk sources, included transition risks. Moreover, the transition risk that may arise in the future will probably be caused by the rules created as a consequence of this kind of analysis. Indeed, assigning different weights to investments based on a hypothetical transition risk to be added to the current risk analyses performed by investment and risk teams will result in market players managing the investments differently and thus distorting the market and eventually cause a “transition risk” that would not have existed otherwise.

Therefore, this assessment could prove self-fulfilling in generating transition risk from data that did not have such risk.

**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?**

No comment.

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

The main task is to assess the transition risk of economic sectors and collect evidence on the drivers of transition risk. The identification of harmful activities, the CO2 footprint and the results of generalised (all sectors) climate stress tests could be used as indicators. However, we recommend to follow a cautious approach towards this issue. The most conservative method would be to limit the actions to require insurers to describe, as part of the Pillar II requirements, how they assess the exposure of their investments to climate change related losses, taking into account the timing of these investments. In particular, transition risk exposures should be better described in the ORSA report, where each insurer should conduct a comprehensive assessment of the risks inherent in its activities in order to better understand business risks from a strategic and holistic perspective.

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

EIOPA proposes to base the assessment on NACE codes which derive average results by only punishing the insurers that are already considering ESG factors in their investment strategy.

It is important to highlight that NACE codes have not been defined to identify transition risk per sector. The use of NACE codes to classify the intensity of transition risk exposures of different groups of economic activities may ignore relevant intra-industry differences as

it does not allow to carry out a more granular analysis to take into account differences among firms belonging to the same NACE sector (e.g., a company that produces electric cars in the automotive sector should not be valued as a company that produces cars with internal combustion engines). In our view, risk estimates should be calculated at the company level in order to adequately reflect its exposure to transition risk.

We therefore propose to abandon the idea of using NACE codes and look instead at the amount or intensity of GHG emissions as the basis for the assessment of transition risk. In particular, we emphasize the need to check whether firms have adopted plans to reduce their future GHG emissions. In general, all classifications of transition risk exposures (neither sector nor company-specific) should not be based on a static approach (i.e. analysing only transition risk exposure at a specific point in time) or use historical data only. In recent years, companies are converting their production by making greater use of green technologies and energy resulting in reductions in their greenhouse gas emissions in the medium to long term. These industrial conversions require the adoption of forward-looking GHG reduction plans and will take several years to be fully operative (in some cases decades). For this reason, relying only on information from a particular year or looking only at the dynamics of emission reductions in the past are not always a good proxy for fully capturing a company's decarbonization path, and there is a risk of penalizing those economic activities that have already planned to take these actions. We believe that the forward-looking variables identified by EIOPA in paragraph 89 could be used at this aim.

**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 our comments above.

**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?**

There is a kind of circular reasoning here. The stress tests assume that there is transition risk and the assumptions underlying the stress tests are in turn considered as the basis for the transition risk assessment. We wonder whether there has been any validation as to whether that assumption is a valid one. Even if the literature mentions a “transition risk” that “might affect some sectors”, it has not been proven that this new one would have a bigger impact than those that appeared in previous transition periods.

We are therefore of the opinion that it is not a sensible approach to base any type of transition risk shock on an analysis where those shocks were already assumptions. This is a syllogistic reasoning to state that the result the analysis wishes to find is true.

Furthermore, equity and debt should be subject to different/separate shocks as the risk

profile for these two assets classes is very different.

**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?**

There seems to be a confusion between the two sides of the double materiality concept. Indeed, the consequences of climate change on the performances of a specific asset can be derived from individual company reporting associated to the new regulations, however, including in this assessment the impact of climate change on assets would be meaningless.

We agree that, from a micro economic perspective and except for the reputation or litigation risk in the most severe cases, there is no direct link between an asset return and these considerations (even sometimes the correlation can be the other way round).

**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)?**

We believe that looking at absolute GHG emissions would promote investing in SMEs emitting individually a significant amount of GHGs rather than in single ETI emitting less in relative terms but more in absolute terms. Therefore, the absolute approach seems not relevant. We propose EIOPA starts with scope 1 (and 2) as the data on scope 3 is scarce.

**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?**

No.

**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?**

Same answer as above. There seems to be a kind of circular reference in the idea of using assumptions from stress tests to justify a transition risk which in reality would result from the assumptions made in these stress tests. Furthermore, the DNB shocks are not targeted enough and some shocks have been properly allocated to certain sectors.

**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. above, DNB stress test factors should not be used.

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

A back testing to be performed in a few years' time could provide an answer but it would be too late and also victim of the self-fulfilling effect as market participants would have to adjust their investment actions (thus prices and returns) to the rules as a result of these developments. Moreover, the so-called transition risk is actually disseminated through all market risks, it would be therefore very difficult to isolate in the historical data.

We recommend to use large classes and to carefully set the limits in order to reduce the risk of wrongfully affect the market participants behaviour.

**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?**

No, we do not. Risk estimates should be computed at company level in order to reflect appropriately its exposure to transition risk.

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

Experts believe that the business model and functioning of financial institutions should lead to recognition that these institutions are neutral to transition risk. Any so-called transition risk would mainly depend on the decision of the top management concerning their business, which for financial institutions is strongly "where to invest".

**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?**

No, we do not. For example, in the Netherlands, mortgage loans portfolios are relevant in the insurer's portfolio.

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

It would depend on the level of impact evaluated. If this level is small, it would require a higher number of equities in a portfolio. The actual number can normally be derived from statistical theory on confidence margins.

**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 Bank of France is planning to create a green index for its company rating (including SMEs etc.). A logical decision would be to use it as a basis for the research on climate change impact or at least to conduct a study on it.

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



The thresholds should be chosen with sufficient margins to allow a clear separation between the three categories. Given the high uncertainty linked to this topic, any study about allocating any company/sector to high or low transition risk should be very cautious, all the more so as it could prove harmful to the sector.

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

As mentioned previously, the main issue is that transition risk would eventually be generated as a consequence of the assessment for the sectors rated as 'high' because of the impact on investor behaviour on these sectors, which is worrying, as it prevents from assessing the validity of the current work.

Moreover, validating these classifications on the basis of past data seems difficult given the large number of uncertainties affecting this issue. We query whether the approach of adding a "transition risk" to the historical framework is really relevant.

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

The firm level classification approach should either remain under the companies' monitoring, or be based on factual analysis by sector experts and not on a statistical analysis. The sectoral approach runs the risk of missing the differences between companies having adapted their business models or currently planning to do it and those that have not.

**Q29: What approach should be preferred? Why?**

The sectoral approach seems to be more practicable but the results may not be reliable. The individual approach would be more relevant as it will provide sensible conclusions but it would be 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?**

Given that there will probably be a significant amount of "noise" in the data and given that GHG does not recognize any borders, the geography split might not be relevant. As far as size is concerned, history has taught that small undertakings are more agile and quick to adapt, but big players can acquire the successful small players and also invest a lot more when they put their mind into it. Therefore, the size cannot be seen a priori as a statistically discriminating criteria.

**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 real life i.e. a changing composition of constituents. However, as the task ahead is very uncertain and biases, the methodology should probably 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?**

A static measurement is not sufficient, but as it might be really difficult to measure, we believe that adding another layer of bias does not seem to be effective.

**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?**

Yes, as long as there is a transition risk to isolate. Indeed, that question assumes that there is an additional “transition risk” whereas it could be a “diffuse risk” inside the other components.

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

As stated in our previous answers, it seems very difficult as we do not believe that a “pure transition risk” effect is a relevant notion.

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

No comment.

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

No comment.

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

It seems counterintuitive to use USD as a reference for a European study.

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

For these the availability of sufficient data to perform the study seems compromised.

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

The idea that following the Paris agreement, transition risk would have materialized in the stock prices might seem logical at first glance, but after careful thinking we believe that the markets have been aware of climate change at least since year 2000.

Moreover, the prices reflect anticipations of the markets that include events such as the Paris agreement. As an example, when unemployment figures are released, it is not their level that it is being translated into index prices variations but rather the difference between what was expected and what was included in the prices. Therefore, the data post-year 2015 would have considered a mix of readjustments of past expectations on sustainability as well as the growing realization that oil supplies are not eternal; (which would temporarily

push the prices of oil companies upwards as a result of the anticipations of oil prices going up due to the demand/offer differential).

Therefore, the effect is diluted over time and most probably the main evolutions of prices are not linked to these events.

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

The measurement for equity risk already includes some form of weight for “transition risks”, even if the “transition” taken into account is not the climate related transition, at least it is not related to climate change only.

Indeed, there has always been some sort of transition from one state of the economy to the following and there is actually no equilibrium state in which the economy would have been for decades and then affected by a transition happening all of a sudden. On the contrary, the economy was affected by various transitions during the last century which had an impact on the volatility of stock prices; Therefore, transition risk can be considered as included in the equity shock of the Solvency 2 Standard Formula.

Thus, even if transition risk linked to climate change were material, it would have been considered in the shocks currently applied to equities as they integrate past transition risks.

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

As transition risk can be considered already integrated in the current Solvency 2 equity shock, applying a relative approach would assign an additional shock to some sectors under the assumption that they are more affected by that specific type of transition. Furthermore, this approach does not take into consideration that in reality the calibration is appropriate and that sectors less affected by transition risk should bear a lower shock. Therefore, only an absolute approach could show the reality of equity risk and its components.

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

No comment.

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

The ratings from rating agencies include already an analysis of the transition risk affecting each individual debt owner. Therefore, it is no relevant to assess an additional transition risk as it is already captured in the ratings.

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

We believe that it is very ambitious to try to capture transition risk on non-trade debts.

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

As the ratings already include a transition risk analysis, it is of second order; we query how transition risk can be isolated or even if it is really necessary to put so many resources in trying to isolate that risk.

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

Given that the exercise is of low relevance, there is no actual good choice to be made.

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

The same comments provided for equity plus the fact that as ratings include the transition risk assessment by the rating agencies, there is really no need to perform that analysis.

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

Cf. above, all this is not relevant. However, if similarities in durations are to be analysed, these should reflect broad economic views of the investments:

- short term: no transition risk is expected
- medium term: a slight transition risk possible and
- long term: difficult 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?**

There is no use in doing this.

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

The measurement is even less relevant than for traded debt.

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

The economic drivers underlying the prices of residential and other building categories are not necessarily and dominantly related to their energy efficiency; they are mostly related to the actual demand-supply equation in a country; Residents will accept more easily a low energy efficient building if the demand for housing is high and the offer is low.

Only if the market is in equilibrium, a link between the energy efficiency and the market value of a property can be made and the energy consumption could provide such a link. However, there are exceptions to this rule, for example historical, unique or monumental properties.

When assessing the issue from the ‘stranded perspective’ or inability to invest in this kind of property, one also has to consider the ‘S’ component of ESG. The inability to invest will result in an increase in house prices as the supply will decrease. We query whether that would be an acceptable societal consequence.

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

See answer to Q51. If there is a link, it is not evidenced by data series or reliable data. Historic time series may have been also impaired by changes in energy labels, changes in methodology, improvements in the energy consumption, etc. For that reason, it is difficult to calibrate any VaR measure for Solvency II purposes. However, the impact of savings on heating costs is quite straightforward even if other effects such as constraints by governments are not taken into account.

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

See also the answer to Q51.

The economic value of office or residential buildings is determined using valuation models when there is no active market. An example is the capitalisation method in which all cash flows with respect to a certain property are mapped and discounted; Any climate adaptation or energy efficiency measures are considered in these cashflows.

Regarding the question as to whether energy performance certificates are an appropriate measure, it would depend on the quality of those certificates which have been until now notoriously affected by some low-quality rating companies. That is why in order to be meaningful across the European Union, the certificates should be unambiguous and unbiased. Also, further guidance is needed for example as to how to jump from one notch grade of a certificate to the one either above or below; how much investment and what type of investments are needed; how do the costs of these measures vary over time, etc.

Furthermore, it can be observed in the various markets that any investment aiming at improving the energy efficiency of a property results in higher rents. Both effects will have an opposing impact on the economic value of a property.

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

More obvious findings may be revealed on commercial buildings as investors are potentially more familiar with these topics and there is less inertia on the prices.

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

In general:

- Demand/supply
- Legislation intervening on the markets.
- Residential: means of transportation, crime rate, pollution, education, energy efficiency, others (culture etc.), geographical location.
- Commercial: transportation/accessibility, energy efficiency, flexibility, technological innovations, consumer trends.

**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?**

The Hedonic regression analysis adds other sources of volatility or biases, but it seems to be able to capture mechanisms otherwise not visible with 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?**

We have no further suggestions about potential data sources for the purpose of the study. In general terms, we believe that any database to be used in this exercise should include all Euro area countries to be effectively representative of the European market and should be based on sufficiently long time-series in order to produce reliable results. In this regard, EIOPA refers to the “RWI-GEO-RED” data provided by the RWI – Leibniz Institute for Economic Research and ImmobilienScout24 as potential data set for the analysis. We note that the data covers only the German housing market, and, in our opinion, this sample could produce biased results given its scarce representativeness.

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

The data’s lack of reliability.

**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?**

Indeed, for flood or perhaps subsidence, there is no actual data available that proves or quantifies it.

**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.**

No comment.

**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?**

If those sectors were considered to be vulnerable, there have been already integrated in the market prices, and therefore the transition risk is already accounted for.

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

No comment.

**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.**

We agree. It seems legitimate.

**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.**

As previously indicated, the capital requirements in Solvency 2 are calibrated based on a one-year time horizon, while sustainability risks are generally considered to be long-term risks. In particular, climate change-related risks are expected to emerge over a long-time horizon which presents practical challenges for integrating them in the current Pillar 1 capital requirements. In our view, there is an inconsistency between the 12-month value at risk (VaR) and the transition risks that are expected to materialize over a long-term period of time. This would add another layer of uncertainty to a methodology which is already more than debatable; its circularity seems to derive from the idea that the need to evaluate the level of additional transition risk is based on the assumption that there is transition risk.

Furthermore, the EIOPA's attempt to modify the Monte Carlo simulation to take into account the annual probability of occurrence of a transition shock presents several problems, mainly related to the fact that there is not yet a broad consensus among experts on the likelihood with which these shocks will materialize in the future. Here the bootstrap method would increase the self-fulfilling and circular component of that assumption.

**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.**

Here also the markets should have already integrated that dimension in the prices, so there should not be that much transition risk left to consider in the future. However, in case some would remain not accounted for it seems relevant to base the assessment on the energy efficiency labels.

**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?**

Cf. above, the issue is that it is not the transition risk as such but the transition risk not already integrated in the current prices that would have to be identified, which seems really difficult.

### 3. 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 fact that premiums could rise if climate related claims frequency or severity increase is intrinsic to the mutualisation principle underlying insurance. Concerning the reputational risk, we understand that policyholders would not be happy to see prices increase but if they witness the consequences of climate change on claims severity and frequency, this should make the increase in premiums more acceptable to them and thus less damaging for the insurers' reputation as it would be explained and justified.

Concerning the adaptation measures, some of them are easily applicable and not expensive (i.e forecasting and warning systems to support the protection of goods against severe weather events) while others are really expensive with costs that could be far above the reduction in the claim's severity that can be achieved. And there, the clients might not be willing to finance those measures.

Moreover, the term "mitigation" can be confusing when it implies a "reduction in the GHG emissions" as in Solvency 2 this term is used when referring to reinsurance for example (i.e "risk mitigating measures such as reinsurance"). That does not prevent from using "adaptation measures" for the specific actions aiming at lowering the exposures affected by climate related events.

**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.**

No comment.

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

The evidence shows that some measures can indeed lower physical risks (for instance in subsidence) but that currently – and even for an increased frequency of the claims– the cost associated for most of them seem far higher than the actual claim reduction as the cost of the adaptation measures would be applied to the whole insurance portfolio.

As stated in Q67, some adaptation measures are easy to implement and can indeed lower the physical risks (for instance the early warning systems like the SMS to protect goods against severe weather events) but the effects of these are still at an early stage.

Indeed, the main actions to implement would be to stop building in highly risky areas and relocate some housings to less vulnerable locations, however, as stressed in EIOPA’s paper, these actions are politically sensitive. Adaptation measures can also have limited impact regarding some specific climate related hazards and public compensation schemes for natural catastrophes could substitute the effects of the adaptation measures on natural catastrophe risk sub-module of Solvency 2.

Concerning the reference to mispricing of climate related events, it is important to highlight that insurers would have the possibility to adapt their models and prices progressively as loss ratios are for the main part monitored over time and the premiums levels revised on annual basis; the risk of inadequate risk pricing should therefore not increase materially.

On the prudential consequences of such adaptations, we believe that if they are significantly applied, they would eventually lead to lower prices – or increase less – as a logical relation to the exposure component of the pricing. The loss ratio would be stabilized at comparable levels with today’s loss ratios and similar associated volatility.

More generally, we believe that climate-related adaptation measures could have some clear risk reducing effects in terms of natural catastrophe risk and we expect no or limited effects on premium and reserve risk. Furthermore, the premium, reserve risk and natural catastrophe risk sub-modules of the Solvency 2 standard formula are based on a factor based-approach which would not allow for the recognition of the effect of adaptation measures.

**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?**

We believe that there is no additional premium risk on a one-year, 99,5% basis. Additional premium risk would mean evidence that companies systematically underestimate the impact of climate change or are not aware of the trend; however, we do not see such evidence.

Furthermore, the data collection on adaptation measure effects appears to be at an early stage. The impact of adaptation measures would require a sufficient volume of measures implemented plus some observed years of claims frequency and severity which are not available for most of the measures designed to face the consequences of climate change. Therefore, it seems difficult if not impossible to measure the volatility of the impact as the impact itself is difficult to be assessed. In our opinion, the industry is not ready yet to implement the analysis due to a strong lack of data. However, we may agree conceptually on the potential positive effects of climate-related adaptation measures on underwriting risks from a prudential perspective.

#### 4. 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?**

This area should remain at a prospective/identification stage for the time being given that the maturity of data sources and studies on these topics is far lower than for climate related risk and the financial consequences far more difficult to assess.

**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?**

Anti-corruption and bribery should be part of the governance of the undertaking. The Corporate Sustainability Reporting Directive (CSRD) considers these two elements to be part of the undertaking’s system of governance and they are covered in the EFRAG ESRS Governance G1 standard. The scope should be limited to the undertaking itself, the partners the insurer is doing business with as stated in EFRAG Standards and the SFDR Principal Adverse Impact indicators (PAIs).

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

The fact that they appear in the “S of ESG and undergo more publicity than other risks help raising awareness but these risks existed already in the past and were managed by insurance undertakings.

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

No comment.

**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?**

We do not consider relevant to integrate social risks in the Pillar 1 requirements of Solvency II. Social risks are not risks for which accurate statistical data could be used efficiently to model under Solvency II. As a result, any assessment should be qualitative rather than quantitative.

**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 included in the scope of ORSA since the inception of Solvency 2. However, they are not risks for which accurate statistical data could be used efficiently to model under Solvency 2. The consequence of this is that any assessment should be qualitative rather than quantitative.

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

Yes. However, any guidance should take into account that the objective of the ORSA is to assess the own risk and solvency position over a period of 3-5 years, where the Board can take management actions if required. Furthermore, any scenario should give the Board (to whom the ORSA is addressed) the possibility to take any mitigation actions regarding social risks.

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

No comment.

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

We understand that some social risks are likely to materialize over a medium-time horizon; The longer the time horizon the uncertainty of the impact of social risks increases.

**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?**

The Article 275a of the Solvency 2 Delegated Regulation was amended so that insurers are requested to identify, measure, monitor, manage, control, report and assess the sustainability risks from their investments. The prudent person principle of Solvency 2 requires already to consider social factors.



It is important to highlight that the prudent person principle stipulates that investments as such are no longer restricted by external quantitative requirements. This is one of the underlying principles of the Solvency 2 framework. Any additional guidance should ensure that this assumption is not modified.

The EIOPA’s proposal to use the minimum safeguard principles of the taxonomy regulation as “guiding principles” for the prudent person principle should apply for those investments which are held directly and over which the undertaking holds a significant control.

An increasing number of insurers commit themselves to socially responsible investing which involves choosing or disqualifying investments based on specific ethical criteria. The different initiatives regarding sustainability public disclosure and reporting, namely the upcoming ESRS Standards, should help in this regard.

**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?**

The insurance industry in general and the mutual sector in particular plays an important role in social sustainability as complement to the public sector. The concept of impact underwriting/adaption measures is one of the tools regarding climate change and non-life insurance business. However, the role of impact underwriting, adaptation measures and/or risk prevention for social risks in pricing and underwriting has not been assessed yet. It is important to remind that many insurance policies can be re-priced on an annual basis and that the time horizon of Solvency 2 is one-year whereas any social measure would only have an impact in the medium and long-run.

**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?**

All those governance aspects are already considered in the Solvency 2 framework so we do not see the add any additional requirement.

XXXXXXXXXXXXXXXXXXXXX