

Public consultation on draft application paper on climate scenario analysis in the insurance sector

Survey response 1

Please provide your information:

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Do you agree with your responses being made public on the IAIS website?

Yes

General comments on draft application paper

General comments on draft application paper on climate risk scenario analysis in the insurance sector:

The draft paper seems to imply that static approaches to scenario analysis are appropriate for all business models, and that the same long-term horizons are appropriate for all business models. If this is the intent, then the IAA believes this should be changed for the reasons explained below.

In general, the appropriate time horizon and the associated use of static vs. dynamic assumptions should be dependent on the business model. Static assumptions implicitly assume that the current structure of an insurer's assets and liabilities is relatively rigid, with limited opportunity for adjustment. But where the business model allows for frequent management actions the current structure is not at all rigid.

As an analogy, consider the risk of drowning for someone lying on an ocean beach. Under a static assumption for a one-day time horizon, the risk of drowning would be 100% due to ocean tides, but that is clearly nonsensical and results in a useless scenario analysis. Similarly, where an insurer's existing policies cover only 12 month periods, with annual re-underwriting and re-pricing, and where the both the resulting liabilities and supporting assets roll off in 5 years, the use of a 25 year horizon with static assumptions assume an incompetent management. As seen with the underwriting of war risk in the Middle East, the underwriting and pricing of wildfire risk in California, and the underwriting of cyber risk in Lloyds, managements do react to a changing risk environment in a relatively timely manner. The draft application paper needs to recognize this in its discussion of static vs. dynamic assumptions and its discussion of time horizons.

Section 1 Introduction

General comments on section 1 Introduction:

In Para 1 the IAA suggests inserting "likely" so the third sentence reads "It will likely result...".

The paper considers the development of scenarios in places so the third sentences in Para 2 should be deleted.

In Para 6, it would be better to insert "foster" before "an international dialogue".

Section 2 Scenario analysis versus stress testing

Comments on section 2 Scenario analysis versus stress testing:

In paragraph 10, first sentence, the IAA suggests rewording the first sentence to “Climate change is a driver of many existing risks and is likely to give rise to new risks. Supervisors expect...” The current wording implies that all risks are impacted materially by climate change, but that is an overstatement. Counterexamples include pet insurance and bail bonds.

In para10 it says that “supervisors should ensure that scenarios are sufficiently forward-looking ...”. We suspect that some supervisors will not enter their position with sufficient expertise to accomplish this. Should this paper suggest ways that such expertise could be obtained?

Comments on section 2.1 Identifying and applying climate change risk drivers:

Para 11 suggests changing the first sentence to “Climate change is a driver of many existing as well as future risks.” The word “many” reflects the fact that not all risks are impacted by climate change (e.g., bail bond risks). The words “as well as future” reflects the fact that not all impacts of climate change are currently present. Various tipping points are discussed in the literature regarding climate change, and where those tipping points have yet to be reached the associated risks are not yet present.

Table 2 – the definition of climate-related risk should mention the risk of insurers being held liable. In the definition of Physical Risk, it may be clearer to start the definition with “The risk of direct damage to assets or property...”

It would be better to reword the second sentence in Para 13 as “For example, certain asset classes may present increased risks if they become...”.

In para 14 mention of non-life insurers, the IAA suggests also addressing the use of the scenario analysis tool for evaluating longer-term strategy. That is likely to be where non-life insurers will find value in this tool for longer time horizons, as longer time horizons (e.g., 25 years) are premature for use in current pricing and investment portfolio decisions.

The IAA suggests that para 15 should mention that an important outcome of climate litigation is damage to reputation.

In para 16, the first sentence, the IAA suggests changing the end of the sentence so it reads “which poses significant risks for many insurers”. The current wording implies that climate change poses significant risks for all insurers, but that is not true (e.g., pet insurance providers).

In para 16, last sentence, it says that insurers should also assess the need to adjust publicly available scenarios to meet their needs. The implication is that such publicly available scenarios can be adjusted to meet their needs. For some business models this would be problematic due to the need for far more granularity than is available in such publicly available scenarios. As a result, the IAA suggests some mention of the possibility that this may be problematic. (As an example of this need for greater granularity, some business models may entail writing only in certain areas not near coastlines or major rivers, and only in certain relatively small jurisdictions.) In addition, this para suggests that supervisors should be developing the scenarios rather than monitoring the scenarios used by insurers – it should be made clear what is intended here.

Para 17 says that climate scenario models can help insurers build resiliency in their business models for time periods spanning multiple decades. This is not realistic for a business model that allows for 12 month policies with re-underwriting, re-pricing, and the ability to change contract terms. Where the business model deals with insuring the risks from current technology, that technology changes significantly over multiple decades, making any business planning beyond a decade to be not reliable. The IAA suggests removing the term “spanning multiple decades”, or caveating that phrase. (For such business models, multiple decade scenarios may have some usefulness for broad strategic direction, but even then the underlying environment may change so much in even one decade that any reliance on multiple decade scenarios is likely to be limited.)

In Table 3, row for Non-life specific, it uses the phrase “NatCat perils on liabilities”. This is unclear for that industry sector, as existing balance sheet liabilities are not what is being discussed. Suggest changing “liabilities” to “incurred claims”. For short duration non-life business it is not the current balance sheet that is at risk, but future earnings and claim volume, as many claims are paid within one or two years such that while net assets are impacted there can be minimal impact on year-end liabilities.

In the Life specific row of Table 3, this should refer to Acute physical risks rather than “chronic”. In the Health specific row. “can” should replace “will”.

In para 19, first sentence, suggest changing “underwriting liabilities” to “underwriting results” or something similar. The term “liabilities” in the non-life context typically refers to a balance sheet, while what is being discussed here is potential future incurred losses or underwriting results. This current wording seems to imply a long-duration business bias that does not translate well to a short-duration business model. Climate change for a fast pay property insurance business impacts net assets far more than balance sheet liabilities.

Section 3 Scenario analysis objectives and scenario design (ICP 24 and 16)

Comments on section 3 Scenario analysis objectives and scenario design (ICP 24 and 16):

Comments on section 3.1 Objectives of climate-related scenario analysis exercise:

In para 23, suggest changing “liabilities” to “future claim activity” or something similar.

In Table 4, first row, the “design considerations” should include a caveat with regard to a static balance sheet approach. Such an approach is less useful to the extent that management action decision points are numerous during the time period being evaluated and there is a large degree of flexibility as to possible management actions. A static approach works best where such flexibility is limited (or non-existent) for a material portion of the business model and balance sheet, but can be less useful in the opposite situation. Where flexibility and opportunity for management actions is significant, a static approach may be viewed as more “precisely wrong” rather than approximately right.

In Table 4, third row (assets), there should be mention of the following considerations that are important to the scenario design:

- Duration of the fixed income assets. (A static approach over 20 years makes little sense for a bond portfolio with duration of, say, 5 years.)
- Liquidity of the assets. (Assets for which there is a robust secondary market should be treated differently than illiquid assets. For example, if an insurer’s investment guidelines limit its holdings of non-investment grade assets, then it will not hold an asset until default if that asset is being continually degraded.)

In Table 4, fifth row (long-term impact), this is missing a major consideration, namely whether the underlying business is long-term or short-term. For annual contracts, the number of management actions for projecting out even one decade make any detailed analysis very unreliable. For such business a long time horizon is only useful for broad strategic analysis, and even then such analysis is extremely uncertain. (Akin to evaluating college options for a newborn.)

In Table 4, transition risk row, there should also be mention of the product mix. Different products have different exposure to transition risk.

In Table 4, row discussing macroprudential risks for large insurers, consistency also requires consistent approaches for comparable product mixes. Size should not be the only consideration.

Comments on section 3.2 Scenario design:

In para 30, are these science-based scenarios of sufficient granularity to be of use in all supervisor efforts on climate change? Perhaps this concern could be added to the discussion.

In Table 5, Scenario design row, there is mention of data input not being sufficiently granular. Mention should also be made of considering whether data output is sufficiently granular. For example, if the output for a flood risk scenario is only at the province or state level, that output will not be helpful in evaluating risks restricted to areas of higher elevations within those provinces or states (or to buildings built with stricter building codes).

In Table 5, Time horizon row, this discussion is missing a major consideration in the time horizon selection. That missing consideration is the business model and the ability (or inability) of management to adjust to changes in the environment. For example, it did not take decades for property insurers in California to adjust to a change in wildfire risk, nor did it take decades for property insurers in Florida to adjust to changes in perceived hurricane risk. Some mention should be made in this section for the ability of management to adjust to changes in the environment during the chosen time horizon.

In general for this section, there should be more caveats with regard to the use (and limits) of static approaches for certain situations.

Static approaches have a high risk of error where the portfolio consists of relatively liquid (in a multi-year timeframe) assets or insurance products, as it assumes management takes no actions as the environment evolves. Such an assumption makes no sense, as it assumes absent management. The only value is to show that current practices need to change over time.

Section 4 Macroprudential considerations for supervisors (ICP 24)

Comments on section 4 Macroprudential considerations for supervisors (ICP 24):

Comments on section 4.1 Assessing systemic importance (ICP 24.3):

In para 37, the current wording is not clear for non-life insurers where the phrase “in terms of assets and liabilities” is used. The term “liabilities” for such insurers would imply a balance sheet value, while what is meant in the non-life context appears to be incurred losses.

In para 44, the current wording is not clear for non-life insurers where the phrase “underwriting liabilities” is used. The term “underwriting liabilities” for such insurers would imply a balance sheet value, while what is meant in the non-life context appears to be incurred losses. Alternatively, a phrase such as “claim exposures” could be used.

In para 44, last bullet point, last sentence, suggest changing “will have” to “may have”. The word “will” seems to be too strong for scenario analysis modelling in this case.

In Box 2, at the end of page 19, it says that “insurers could decide to reprice their products to reflect the change in risk”. The word “could” is too weak. An insurer that did not reprice its products to reflect a change in risk would be viewed as being mismanaged. Suggest at a minimum to change “could” to “will likely”.

Grammar – In Box 2 on page 20, third bullet under “Financial stability considerations”, “incur” should be “incurs”.

In Box 2, top of page 21, should there have been some mention of Insurance Linked Securities (e.g., Cat Bonds)?

In Box 2, bottom of page 21, suggest adding a definition of this term, as it appears to be a concept created in Europe but without an analog in some parts of the world. See <https://www.thomsonreuters.com/en-us/posts/investigation-fraud-and-risk/sec-double-materiality-climate/>

Comments on section 4.2 Supervisory response (ICP 24.4):

In para 46.a., discussion of “setting out preventive and corrective measures”, such work is a function of the time horizon. Assuming too long a time horizon in conjunction with static assumptions may result in inefficient measures, as such an approach may overstate risks to an individual insurer’s solvency given likely management responses to a changing environment.

Comments on section 4.3 Transparency (ICP 24.5)

The IAA believes that there should be some mention in this discussion with regard to protection of confidential and/or proprietary information for individual companies. Some scenario analysis for property insurers will entail understanding their underwriting guidelines and risk tolerance, which may include confidential and/or proprietary information.

Section 5 Scenario analysis to inform assessment of insurers’ risk management and governance(ICP 16)

Comments on section 5 Scenario analysis to inform assessment of insurers’ risk management and governance (ICP 16)

Comments on section 5.1 ERM framework review (ICP 16.16)

In para 65, the wording “may wish to consider taking a proportionate approach” seems to be inconsistent with prior IAIS publications that assume such an approach. Is the wording “may wish to consider” too weak in this case?

In the same paragraph, the phrase “using only size as a criteria for inclusion” seems to imply that size by itself is always a reasonable criterium. At a minimum we would recommend combining the business model in such a selection process, as not all large insurers will have exposure to the same risks. (E.g., large pet insurers.)

In paragraph 57, the phrase “having separate requirements for life vs property and casualty insurers” may result in groupings that are overly broad, as there may be a desire to focus on certain product lines or geographies

Comments on section 5.2 Investment policies (ICP 16.6)

Comments on section 5.3 Underwriting policies (ICP 16.7)

Comments on section 5.4 Insurer ORSAs (16.12) (16.14)

In para 64 it discusses the time horizon for an insurer's ORSA. The IAA has the following comments on this discussion:
 · The time horizon should also reflect the speed with which the climate-related exposures can be managed and exited or mitigated. This may be the same as "business planning" in this phrase, but it isn't clear if that was the authors' intent.
 · As a practical matter, it doesn't make sense to do business planning that extends beyond too many management action cycles. Such time horizons may be meaningful to long term strategic visions, but may not be very actionable for the short term.

In para 65, first bullet:

· The IAA suggests deleting the reference to 1-1000 year events, as such estimates are not reliable for virtually all models.
 · The term "liabilities" here is misleading from a non-life perspective, as potential impacts from future health events relates to future claims, and not current liabilities. In addition, where the payout is fast enough, there will never be a "liability" on a published financial report for such claims. The IAA suggests changing the reference to something like "exposure to future claims" and not "liabilities".

In para 67, the IAA suggests changing "impact on all insurers" to something like "impact on most insurers", as not all insurers will be materially impacted (e.g., pet insurers, bail bond insurers).

Observation. In Box 4 where it discusses EIOPA guidance, there is potentially an incomplete definition of catastrophe modelling. That definition only mentions the modelling of the physical characteristics of the catastrophe but omits mention of the damage module and the module that models the insurer impact. There is an IAA Risk Book chapter that discusses these other modules.

Comments on section 5.5 Integrating scenario analysis into risk policies (ICP 16.5, 16.6 & 16.7)

In para 70, discussion of appropriate frequency for reviewing investment policies, this probably is generic and not just related to climate change, as the investment markets are continually impacted by events in the region/sector/world. Suggest replacing the words "to determine the appropriate frequency for reviewing" with "in".

Note also that such reviews will be dependent on the duration of investments and liquidity of investments.

Comments on section 5.6 Risk appetite statement (ICP 16.4)

Comments on section 5.7 Board accountability (ICP 16.11)

In para 78, second bullet, the time horizon for this "long-term" analysis should be relevant to the business model. Applying the same time horizons to all business models would be a mistake.

In para 78, third bullet, management actions should not be overly descriptive and limited, to reflect the dynamic environment that insurers live in. As such, the IAA is concerned that the word "concrete" may restrict the ability of management to adapt to the evolving environment.

Additional questions

Does the draft application paper provide sufficient detail to be a useful tool for supervisors and insurers?

The IAA is concerned that the paper seems to ignore the differences in business models and how that relates to time horizon selections and the use of static vs. dynamic assumptions (as well as the needed granularity of the scenario analysis for some business models). The IAA believes that the guidance leans more towards a "one size fits all" approach.

Are the different dimensions of climate risk for insurers namely (i) transition (ii) physical and (iii) climate-related litigation risks effectively covered in the application paper to both sides of insurer balance sheets?

The IAA believes that this question has too much of a balance sheet focus. For fast pay non-life insurance, the issue is not "liabilities" but instead the potential for incurred claim impacts that impact net assets more than the liabilities of a year-end financial statement.

Are there concepts or approaches which should be added to the application paper?

There needs to be better discussion of granularity needs for certain business models.

Does the application paper cover all relevant issues for scenario analysis from a macroprudential perspective (see section 4)?

Does the application paper cover all relevant issues for scenario analysis related to Enterprise Risk Management and governance (see section 5)?

Is there any additional work the IAIS should be undertaking in the area of climate-related scenario analysis?