

13 June 2023

ECB-EIOPA

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ECB-EIOPA Discussion Paper/Policy options to reduce the climate insurance protection gap, April 2023

Actuarial Association of Europe comments, June 2023

The Actuarial Association of Europe (AAE) finds that the Discussion Paper ‘Policy options to reduce the climate insurance protection gap’ is excellent and that it addresses very important issues. We start with some general comments below, after which we will discuss specific areas of the Discussion Paper.

1. General remarks

Build Back Better: the report should explicitly mention concepts such as resilient reinstatement (e.g. rebuild damaged buildings in a new, safer location) and Build Back Better when talking about claims payment.

Taxonomy: an explicit link should also be made with EU Taxonomy and its technical screening criteria for re/insurance activities.

Other perils: there is a significant emphasis on floods in the Paper (34 mentions), comparatively less on wildfires (14 mentions), and other deadly perils such as landslides (1 mention) are mostly neglected. While flood is a material peril in many European countries, we recommend a more balanced approach to discussing, researching, and addressing climate-related perils.

Combined effects with Big Data/AI: The combination of worsening climate change and more granular data may decrease insurability, as too high and therefore uninsurable risks (e.g. houses affected by floods or subsidence) can be better identified and excluded in the underwriting process. Hence new insurance gaps may appear due to combined effects of AI/Big Data development and climate change (the EU AI Act may help to partly mitigate this issue)

Restoration and surety insurance: fighting climate change and its effects requires a green transition and significant new infrastructure (e.g. in renewable energy). Such new infrastructure projects will in turn have a finite lifetime and at some future point they will need to be shut down, decommissioned and the area will need to be restored to its original condition. This requires financial resources, but when the time comes the owning company may not be sufficiently solvent. Surety insurance and/or mandatory insurance pools could play an important role for financing the restoration (e.g., all wind farm operators need to pay when they are operational, and the collected funds are used to restore the plants that are shut down).

Additional references: The AAE has been following climate risk topics for a long time and we believe that actuaries can materially contribute to the related policy discussion (including by looking at data issues, quantitative models, and risk management methodologies). The AAE has notably discussed in different contexts the requirements of insurability. We would like to draw your attention to, e.g., our discussion paper on [Insurability and pandemic \(or more generally, shared resilience\) risk - Actuarial Association of Europe \(actuary.eu\)](#). Additionally we can say that environmentally oriented insurance protection gaps do not exist only in natural catastrophes. We would like to draw your attention to our discussion paper on how actuarial techniques can be used in the area of the [Environmental Liability Directive – Financial Security and the Polluter Pays Principle - Actuarial Association of Europe \(actuary.eu\)](#). In addition to papers published by the AAE, our global body the International Actuarial Association (IAA) has published several papers linked to topics addressed by your current Discussion Paper. IAA's most recent paper might be the one that is most relevant in the current context: [the climate change adaptation gap: an actuarial perspective](#).

2. Detailed remarks to specific points of the Discussion Paper

Cat bonds (page 3 + pages 20-24):

The Discussion Paper seems to be very favourable to the idea of cat bonds and securitisation. While we also support alternative risk-sharing initiatives, we note that:

- It is still a limited market (in terms of participants, volumes and liquidity), not yet commensurate with the additional capacity that would be needed to close the protection gap. We suggest putting this in perspective.
- It would be good to add more hard evidence on certain optimistic statements, like whether cat bonds and securitisation always lead to lower premiums in practice (the costs of structuring such insurance-linked securities can also be expensive).

Public-Private Partnerships (pages 3-4 + Section 2.3.2):

Other noteworthy roles of Public Private Partnership include:

- Boosting research and producing data and statistics, which will increase knowledge of risks and make them understandable to all stakeholders. By doing so, it will also create the prerequisites for greater insurability by the private sector. You may also mention in this context that EIOPA recently built an interface to facilitate the use of the open-source CLIMADA models from ETH Zurich.
- Clarifying the roles of the different stakeholders, thus leading to less externalities and moral hazard, hence ultimately creating a better framework for insurability.

Discussion of pooling (page 4 + section 2.4.):

The Paper seems to suggest that pooling reduces the economic costs, whereas in the strictest sense risk pooling techniques just create a way of sharing the costs (together with the pool's overheads the costs may even be higher than without pooling). If we talk however in a wider sense, then costs might indeed be reduced (e.g. if pooling results in faster recovery after a catastrophe then the ultimate costs can be lowered). Also, by increasing diversification, the

pooling can theoretically reduce the risk margin need in capital requirements, and in turn decrease how much capital has to be set aside. We suggest incorporating these elements with the aim to provide a more detailed and nuanced discussion of the pros and cons of pooling arrangements.

Target protection gap (pages 5-6):

The Discussion paper mentions that a quarter of climate-related damages is insured, with the figure being below 5 % in some countries. There should be a quick discussion of what could be the optimal level, which will most probably not be 100 % (full insurance is not always the optimal solution to all risks, and full insurance is impossible anyway due to deductibles and caps).

Financial transfer mechanisms (page 6 + throughout the Paper):

The share of insured losses differs a lot between EU member states (Chart 1). We note that to transfer and redistribute wealth between member states, private voluntary insurance can only be the solution to a limited extent. However, there could indeed be some new EU-wide pool acting as a material backstop for major climate-related catastrophes.

Role of the public sector vs. private insurance (page 7, page 17, page 25):

We think there should be more discussion on the pros and cons of public sector solutions, including:

- The role of governments to support prevention and recovery before and after extreme events.
- The risk that public sector actions might also out crowd private cover. This is conceptually similar to what the Paper mentioned earlier on moral hazard, i.e., if there is the expectation of a public sector intervention then individuals have less incentive in own actions. This might leads to less interest to take insurance, i.e., to the public sector out crowding private cover
- Public institutions can also fail. For instance, some additional severe protection gap could occur if some national health infrastructures fail.

Impact of catastrophes on GDP (pages 9-10):

We note that catastrophes can actually increase GDP in some instances, due to the spending on cleaning and reconstruction (for instance: [Oil Spill May End Up Lifting GDP Slightly - WSJ](#)). GDP is often an inadequate measure (Robert F. Kennedy's: "*GDP measures everything except that which is worthwhile*") and something like the UN's HDI (Human Development Index) would be a better reference metric.

Ladder approach (page 17):

Figure 1 on page 16 is very good. Private insurance is not a purely stand-alone economic activity, it is also part of a public policy spectrum that goes from direct government intervention to PPP to private insurance.

We suggest to also comment on how the ladder can be dynamically enhanced over time thanks to increased risk awareness and to research producing new knowledge and statistics. This can then lead to some risks falling to a lower layer as they become better understood and easier to forecast, quantify, and insure.

Premium incentives and impact underwriting (page 18):

Premium rebates with behavioural incentives that directly and immediately reduces the risks of the insured have a strong actuarial basis. The discussion is considerably more complex in areas where the causality is long-term, indirect and diluted (e.g. driving electric car -> reducing co2 emissions -> mitigating climate change -> less risks to your house). Premium incentives may also be used where causality is indirect if it provides long-term collective benefits (e.g. climate mitigation), but extra care needs to be taken to avoid inappropriate insurance structures.

We also note that Impact Underwriting as proposed by EIOPA suffers from a couple of problems:

- Misleading name: it does not actually refer to improving external impacts (in a double materiality context) but to decreasing financial risks, and
- Limited relevance: beyond a handful of flood-related examples, there seems to be few instances of such win-win situations.

Long-term non-life insurance contracts (page 19):

The non-life insurance market is mostly based on annual contracts. The reinsurance market is generally short-term as well, which means that primary insurers would require in turn multi-year reinsurance. If contracts were extended with a guaranteed price there would also be the trade-off that premiums would need to be higher (higher risk safety loadings for the risk that premiums could not be adjusted, higher capital requirements).

However, climate risk creates a new situation. If longer insurance contracts are not introduced, this is in favour of insurers (who can reprice or exclude, see for instance <https://www.theguardian.com/us-news/2023/may/27/state-farm-home-insurance-california-wildfires>) while leaving customers unprotected if they cannot find a new insurance provider. We also note that there are already a few examples of well-functioning multi-year non-life contracts (10-year construction insurance in France, fire insurance in Japan). In conclusion, multi-year non-life contracts with guaranteed price would be an important avenue to explore to protect society against climate change, and we need a more thorough discussion to see how a market for them could be created.

Parametric insurance (page 22):

Going forward, some climate risks may be better covered thanks to parametric insurance (supported by remote sensors and geo satellite imagery). However, a new insurance protection gap may also come from the basis risk associated with this risk management strategy.

Public risk management measures (pages 24-25):

While the public sector is heavily involved in the area of economic disaster risk management it has also other regulatory roles. For instance, the government dictates where you can build and gives also norms on how to build. These are key tools in risk prevention and risk reduction.

Mandatory insurance (page 26):

The discussion of mandatory insurance is overly negative and tilted against insurance mandates, whereas the pooling of good and bad risks is key to maintaining insurability. There can be a case for public policies forcing private insurance to do things they wouldn't do on a purely micro-economic basis, but that have society-wide benefits. The pros of mandatory insurance should be further explored in more details and with more balance.

Prudential buffers (page 37):

Micro- and macroprudential buffers are equally relevant and important to the insurance sector, not just the banking sector.