

SUSTAINABILITY RISKS AND CHALLENGES IN INSURANCE



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Main progresses expected from the Solvency II review on sustainability risks

In the context of the many works related to sustainability in insurance, the integration of sustainability considerations in Solvency II is certainly crucial. On the one side, the prudential regulatory framework should allow a satisfactory mitigation of the sustainability risks borne by the insurers (outside-in risks) and, on the other side, regulation itself could be a catalyst of the integration of sustainability considerations in the insurers' business model, and therefore a booster for insurers' positive impact on sustainability issues (inside out risks).

Even though at the moment the focus is almost exclusively on environmental risks, EIOPA, in the last few years, has produced a number of works in this area, starting from the (positive) assessment of

the capability of the overall framework to integrate sustainability risks and then covering all the three pillars.

The on-going review of Solvency II will provide, among other things, the opportunity to make any concrete adjustment to the Pillar 1 legal framework, based on the analysis done. The Commission's proposal includes two mandates for EIOPA: one on the periodic review of the calibration of NAT CAT capital charge and the other on the assessment of a possible dedicated prudential treatment of assets aligned with environmental objectives. EIOPA, on its own initiative, has also undertaken an assessment of the need for a differential treatment of insurance liabilities related to contracts that include climate-related adaptation measures.

Balancing quantitative evidence with grounded qualitative considerations will likely be critical

It is too early to discuss the expected results of these works. Certainly, EIOPA is facing challenges that could influence their outcome. Supervisors have always stated that capital requirements should be risk based and supported by clear evidence. Both criteria are difficult to apply in this case. The measurement of riskiness is challenged by the expected instability over time of sustainability risks; such instability limits the relevance of past evidence. At the same time, historical data are difficult to collect with enough accuracy, mainly due to the still incomplete implementation of the EU Taxonomy and the consequent lack of standardized reporting practices by companies.

More specifically, the work on NAT CAT consists in a new and – looking ahead – more frequent calibration of the parameters for this risk module, with the aim to consider the expected increase of the damages due to the climate change. Here the main challenge is to calibrate the parameters to capture the expected future dynamic of the frequency and intensity of the damages.

The analysis on assets faces the same type of problem, likely with increased complexity. Here there is the need to measure the expected risks (i.e. spread, equity and property risks) of the “green” (or alternatively “brown”) assets in the context of a very dynamic evolution of the market factors that can influence their value. For example, the financial characteristics of the markets where sustainable assets are traded could reasonably be expected to differ from the markets of other type of assets but, at the moment, it is probably difficult, if not impossible, to find clear evidence of that, as these markets could not yet be sufficiently defined and mature. In addition, the identification of the “green” assets itself is complex, due to the still persistent incompleteness and uncertainty of the taxonomy application.

The work on insurance liabilities aims at identifying the riskiness (i.e. the level of premium and reserve risk) of the subset of insurance contracts that include consideration of prevention measures in the definition of the contract performances. Here there is also the challenge to identify these contracts. A specific request has been addressed to the industry for this purpose.

Overall, the outcome of these works will be affected by the availability of data with sufficient quality to be used in the analysis as well as by the ability to properly extrapolate past data to predict a rapidly evolving future. The latter task will certainly leverage on advanced, forward looking model technics but, in my view, it will not be able to avoid supporting quantitative analysis with reasonable qualitative considerations, without abandoning the evidence-based approach.

Prudential regulation should remain risk based. However, balancing quantitative evidence with grounded qualitative considerations will likely be critical to design a prudential framework that supports sustainability risk protection, but also is conducive to the achievement of wider sustainability objectives. This also implies reviewing these considerations over time, in line with the evolutionary features of sustainability issues. As many other workstreams in the field of sustainability, also its integration in capital requirements is not a short term exercise.



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Embedding climate resilience into global insurance supervision

Climate change is a global challenge which must be tackled internationally. Moreover, from an insurance perspective, it poses risks to both sides of insurers' balance sheets, making it a doubly important focus of the IAIS' work.

A consistent global approach to addressing climate-related risk in the insurance sector is essential. The IAIS has been working on these issues for several years and supports its members as they assess and manage risks from climate change. Currently, the IAIS' work is focused on four pillars:

Risk analysis

It is essential to clearly understanding the risks to which the insurance sector is exposed. The IAIS' risk assessment framework, the annual Global Monitoring Exercise (GME), is crucial aid this understanding. The GME includes data from around 60 of the world's largest insurance groups and from supervisors in about 30 jurisdictions, covering over 90% of global gross written premiums. This allows us to have risk assessment

discussions that are grounded in evidence. The outcomes of the GME are published each year in our Global Insurance Market Report (GIMAR).

Last year we published the first global analysis of the climate-related risks posed to insurers' assets as a special chapter of our GIMAR. This provided a detailed analysis of the impact of different climate scenarios on insurers' solvency.

This year we added climate data elements to the GME, collected from supervisors, that will cover both the insurance sector's assets and liabilities. These elements will become a regular feature of our annual assessment of insurance sector risks and provide a global baseline of climate risk data for the insurance sector. This year's GIMAR will include an update on our climate-risk analysis based on this year's data.

Standard setting

We regard climate change as a driver of existing risks and therefore see the importance of integrating climate-related risks into existing processes and practices. While we have concluded that the Insurance Core Principles (ICPs), the global standard for insurance supervision, are sufficiently principles-based to cover climate risks, we will make some changes to ICP guidance to make it even more explicit that insurance supervisors should require insurers to incorporate climate-related risks into their day-to-day operations. In particular, supervisors should ensure that insurers' enterprise-wide risk management and governance, together with public disclosures incorporate climate risk.

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Supervisory practices

We are supporting our members to address practical challenges in responding to climate risk – in particular, guidance on good supervisory practices. We published initial guidance on this in 2018, which also fed into the Network for Greening the Financial System's supervisory handbook.

However, because our collective understanding of rapidly changing

climate-related risk is still evolving, next year, we will consult on new supporting material to help IAIS Members understand and supervise these risks. We will publish two consultations and plan to engage with stakeholders extensively. The first consultation in Q1 next year will look broadly at this issue, with a subsequent consultation in the second half of next year diving into more detail in particular areas, including market conduct issues and integration within enterprise-wide risk management.

Within the emerging field of climate scenario analysis, we are delivering capacity-building workshops. This provides a platform for peer learning so our Members can share their experience of developments with this important risk assessment tool.

Disclosure

At this stage, we have a watching brief on any changes to insurer disclosures. We are supportive of the work being taken forward by the International Sustainability Standards Board (ISSB) to develop climate disclosure standards. Once the ISSB's next steps are clear, we will consider whether there is any insurance-specific additional disclosure that is needed from a supervisory perspective. However, here we will be mindful that the ISSB already includes sector-specific guidance and that there will be a high bar for any additional disclosure.

Next steps

Next year, we expect to undertake further work to assess risks from emerging protection gaps in the insurance sector as part of our mandate to foster policyholder protection. This work is likely to have a particular focus on gaps in protection from climate-related risks, given emerging evidence of repricing and exclusions in the face of increasing natural catastrophe risk. Working as a community of supervisors, together with insurers, we can take the necessary action to maintain the resilience of the insurance sector in the face of increased climate risk.



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Evolving with climate change – Responding to risk

Climate change is one of the biggest issues for the insurance sector, and as supervisors, we must evolve with it to ensure we are capturing the risks and protecting our communities.

Recently, there have been many high-profile situations in the U.S. where climate change has affected the insurance market. Communities in the western U.S. facing drought and high heat have borne dangerous wildfires. In those areas, wildfire policies have become increasingly expensive, if they are offered at all, which places communities at risk as the coverage gap grows. Likewise, increased storms and flooding in the southeastern U.S. have created increasingly hard markets for homeowners, as insurers raise rates or remove services in affected areas.

U.S. state insurance supervisors see these effects and are enacting changes to address the current and future risks. Some actions, such as moratoriums on policy cancellation, are immediate, offering short-term solutions. Others are more subtle and will provide transparency and stability over time.

In April 2022, U.S. state insurance supervisors adopted a revised Climate Risk Disclosure Survey to provide a baseline supervisory tool to assess how climate-related risks may affect the insurance industry and to enhance transparency about how insurers are managing risks and opportunities. The new survey is aligned with the FSB's Taskforce on Climate-related Financial Disclosure, thus providing greater uniformity for insurers and comparability of the data. Disclosures are collected from nearly 80% of the market based on direct premium written in the U.S.

Also, U.S. state insurance supervisors recommended adding wildfires to their Risk-Based Capital (RBC) framework for catastrophe risk exposure, which will require companies to report their wildfire risk annually. While the data will be collected for informational purposes only, this helps ensure insurers are adequately reserving the capital necessary to remain solvent when wildfires occur. We are looking at other perils for inclusion in the RBC framework, including severe convective storm and flood. Changes to regulatory financial resources for examiners and analysts are being considered also, giving them tools and insights to better address climate risk in their interaction with insurers.

**Climate change will
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In addition to monitoring industry, educating consumers about risk and incentivizing them to reduce it is key so they can become more resilient to weather events. Last year, the NAIC created a list of pre-event mitigation measures that policyholders can take to reduce their risk of property loss. Combining that with state-specific information, the NAIC is planning to create a web-based resource with relevant materials and information regarding mitigation later this year.

Connecticut's insurance department is producing a regular climate progress report and is currently drafting guidance for its domestic insurers regarding managing climate-related financial risks. We are also taking action to build resilience to sea-level rise and inland flooding by promoting the increased uptake of flood insurance given the

state's amount of high-value real estate in exposed areas and the low percentage of property covered by flood insurance.

These initiatives will be helpful, but supervisors also must seek to innovate to have the right tools for our job and for our communities to have the right products and resources to stay protected. The NAIC is developing a Catastrophe Modeling Center of Excellence to provide state regulators with access to tools and information, as well as provide education and training opportunities and fund necessary research into mitigation and resiliency projects. Through our independent research division, the Center for Insurance Policy and Research, we will be looking at climate-related factors affecting physical infrastructure.

We are exploring new industry concepts, including how parametric products and microinsurance might be able to resolve issues with coverage gaps created by natural disasters. These products are finding an increasing role in established markets, especially in areas not traditionally served by insurance.

Also, we must continue to identify how public-private partnerships for risk mitigation and risk transfer can be used to reduce coverage gaps and increase the availability and affordability of coverage. For example, ongoing projects in the U.S. are addressing flood mitigation along our nation's rivers and coastal regions. Such efforts can help focus resilience measures on vulnerable communities.

Climate change will continue to evolve, and supervisors must continue to evolve with it. By refining traditional tools, and using innovation to develop new ones, we can address evolving risks and ensure our work remains relevant and responsive to the needs of policyholders and the insurance sector.



FAUSTO PARENTE

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Addressing the protection gap: challenges and opportunities for (re)insurers

The new EU strategy on adaptation to climate change^[1] highlights the fact that affordability and insurability of natural catastrophes insurance coverage is likely to become an increasing concern. Research shows that in the past only a quarter of the total losses caused by extreme weather and climate-related events across Europe were insured (EEA, 2022^[2]) indicating a large insurance protection gap in Europe. Improved climate projections provide further evidence that future climate change over the coming decades will increase climate-related extremes (e.g. heavy precipitation, droughts, flood...) and thus the related protection gap, if no measures are taken.

It is therefore key to understand the insurance protection gap and identify where it comes from. EIOPA's therefore developed a pilot dashboard which shows the insurance protection gaps for many natural catastrophes in Europe^[3]. The dashboard aims to represent the drivers of such climate-related gap in

order to identify measures that will enhance society's resilience in the event of natural catastrophes. At the same time, the pilot dashboard should also help increasing the awareness and promote a science-based approach.

Protection gaps cannot be addressed by increasing insurance penetration alone. It goes without saying that the best solution is to reduce the causes of climate change. More specifically many non-life products have short-term duration of contracts which allow them to re-price annually, which also means that they may be able to adjust the price if the risk changes. However, in light of the increasing frequency/intensity of some events, annual repricing may lead to insurance becoming unaffordable and might disincentivise consumers from taking up insurance thus increasing further the insurance protection gap^[4].

Pro-active measures on buildings vulnerability, localisation of exposure and optimised insurance coverage will be important elements of a resilient society. (Re)insurers, as society's risk managers, can contribute to reducing climate change risks. Some insurers are already doing so in multiple ways, for example by providing advices on adaptation measures to policyholders. In its concept of impact underwriting, EIOPA aims to capture the options for implementing climate change adaptation and/or mitigation through pricing and underwriting.

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Another important aspect to close the protection gap is addressing demand side issues for the uptake of insurance products. As consumers might not fully understand the coverage they buy, expectation gaps may arise. These expectation gaps can be detrimental to consumers and impact their trust in the insurance sector. EIOPA has issued a Supervisory Statement to promote contract simplicity but also to ensure a more customer-centric approach to the treatment of exclusions following large-scale events.^[5] Beyond exclusion-related issues, affordability is bound to be a significant barrier. Consumers tend to underestimate the losses and/or probability of a disaster, and therefore they might find the benefits of insurance cover unattractive relative to the premium/cost of the

policy. Hence, it is also important to raise awareness about the risks some consumers may face.

Finally, it is important to note that (re)insurers as underwriters and investors can be particularly impacted by climate change. EIOPA has therefore assessed the materiality of the insurance sector exposure to physical climate in its recently published report^[6]. The study reveals that in-sample insurers have been historically well placed for handling the ensuing claims. However, insurers expect all property-related lines of business to be impacted by physical climate change risk and that premiums are likely to increase.

Climate change is a growing risk for the insurance sector but also creates vast opportunities for insurers to be part of the solution to address climate change risks. In particular, they can play a valuable role in keeping cover affordable for policyholders. Indeed, with data, innovation and incentives, insurers are helping businesses and people prepare for the future risks.

[1] *EU Adaptation Strategy — Climate-ADAPT (europa.eu)*

[2] *Economic losses from climate-related extremes in Europe (europa.eu)*

[3] *The pilot dashboard on insurance protection gap for natural catastrophes | Eioipa (europa.eu)*

[4] *EIOPA Report on non-life underwriting and pricing in light of climate change | Eioipa (europa.eu)*

[5] *Consultation on the supervisory statement on exclusions in insurance products related to risks arising from systemic events | Eioipa (europa.eu)*

[6] *Discussion paper on physical climate change risks | Eioipa (europa.eu)*



RENAUD GUIDÉE

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The Net-Zero Insurance Alliance will deliver a real- world impact on climate change

The Lutine Bell at Lloyd's of London's historic underwriting room is traditionally struck once when a ship goes missing. In our fight against climate change, now is the time to raise the alarm bell and act decisively. With the Net-Zero Insurance Alliance (NZIA), there is an opportunity to ring the Lutine Bell twice – the sign of a ship recovered. We still have a chance to get climate change back in control. To achieve that ambition, we must have all hands on deck and we need to get many levers aligned. These include increased cross-industry collaboration, defining transparent ways of measurement and validated reduction goals, as well as enabling consistent policy and regulation.

A little over a year ago, insurers and reinsurers joined forces to open a new chapter in the fight against climate change, with the launch of the NZIA under the auspices of the United Nations. The NZIA will deliver real-world impact, by using insurance and reinsurance underwriting as a tool to help corporates transition their business model to net-zero. Each NZIA

member company has committed to reduce the emissions associated with their insurance and reinsurance portfolios to reach net zero by 2050.

The eight founding members – AXA, Allianz, Aviva, Generali, Munich Re, SCOR, Swiss Re and Zurich – have subsequently been joined by 20 others, including The Lloyd's Corporation, bringing together property & casualty risk carriers, life & health insurers, reinsurers, and insurance marketplaces, from all continents. Going forward, the NZIA aims to also include brokers to reflect the important role they play in advising commercial clients and building the risk capacity to support insured economic activities.

While NZIA members will resort to a range of decarbonization levers to shape their own transition pathway and achieve their goals – ranging from client engagement to risk capacity and advice, to support the new developments and technologies necessary for the net zero transition and sustainable claims management – it is foundational to build a common framework of metrics underpinning the commitment taken to measuring and disclosing emissions. What is not measured cannot be managed, let alone improved.

The NZIA spans all continents and aims at being as global as climate change. All insurance portfolios must be decarbonized.

At the time of the launch of the NZIA, work on ways to measure the carbon footprint or carbon intensity of underwriting portfolios was still in its infancy. The insurance community came forward to lend their expertise to the creation of the first-ever standard for associating insured emissions to insurers, as part of the collaboration of the NZIA with the Partnership for Carbon Accounting Financials. The progress report for the standard, released for public consultation in July 2022, details a body of work that no single insurer could have accomplished on a timeline of less than nine months. Collaboration of this scale will be needed for the development of the target-setting protocol of the NZIA. Transparency and accountability are two of the cornerstones of the NZIA, which is why each member company

will report on progress against their own targets on an annual basis.

But industry collaboration of this sort is not without challenges. Just as the economies of the world needed to all come together to commit to the Paris Agreement, the whole insurance ecosystem must be involved and actively contribute to the decarbonization of insurance underwriting portfolios to ensure a 1.5°C world. The NZIA should be joined by more insurers to bring their experience and expertise for achievement of the alliance objectives.

Reaching net-zero by 2050 requires a collective effort and needs to be translated in sound and credible transition plans. Not unlike other stakeholders in the financial sector, insurers and reinsurers are dependent on the data disclosed by their insured clients. In this respect, among the key actors who must play their part by supporting and promoting net-zero insurance, are the policymakers and regulators.

Corporate disclosure of robust data and credible targets together with transition plans informing on core business transformation are essential to achieve the overarching goal set by the Paris Agreement. It will demonstrate that companies follow a credible transition pathway and allow for a holistic assessment from both an investment and underwriting perspective. Access to reliable, comparable and transparent data is a prerequisite to perform such assessment.

Of equal importance is the need for a consistent and harmonized data reporting framework amongst various jurisdictions. Companies operating in multiple geographies will have to comply with different sets of regulation.

Corporates need policymakers and regulators to establish consistent legislative standards which define how transition should be assessed and measured, to avoid energy being wasted on reconciling frameworks having different designs despite a shared ultimate purpose – serving the objective of winning the fight against climate change.



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High-quality data is key to manage sustainability risks

Sustainability has put a new pair of lenses at the way we look at our business and consequently has revealed the presence of new risks. Although sustainability-related risks are managed by insurers through Solvency II as other types of risks, sustainability-related risks have three features that would suggest the enhancement of the framework. Those are:

- Double materiality, i.e., materiality of sustainability factors should be assessed considering both impacts to insurers caused by external environment and the impacts caused by insurers to the external environment: this latter being new for risk managers;
- Long time horizon, i.e., Impacts that sustainability factors have over a long time period, materializing with a slow progression with inevitable uncertainties growing over time;
- Interconnection, i.e. the occurrence of sustainability risks impacts and is influenced simultaneously by many other risk categories (sustainability and not).

The consideration of the double-materiality feature both into the risk

assessment and the business model has been relatively simple, e.g., the creation of new insurance products dedicated to increase the resilience of SMEs or the issuance of green bonds or even through the decarbonization of the insurance and investment portfolio with significant Net Zero targets to be pursued over time.

The assessment of climate-change related risks over a long time-horizon can already be captured; for instance, the climate scenario for physical risk contemplates impacts up to 2100, although it still requires accurate monitoring. Indeed, in many cases, the consequences of certain actions taken today are still unknown, due to the inertial effect embedded in the evolution of sustainability factors. Furthermore, tipping points can lead to rapid accelerations of an analyzed phenomena. This is particularly true for climate change where irreversible effects are expected over time.

The interconnection feature remains the most complex to understand and consequently manage, despite its importance as a source of a new potential accumulation of risks. When considering climate-change related scenarios, a number of social and economic variables must be considered with all their interdependencies, from economic growth, demographic variables, financial market trends, etc.

We need less data points, but higher quality data!

To properly manage such new risks, a key enabler is the availability of new and high-quality data: currently, the information available for a proper assessment is still relatively limited and fragmented. It is worth to note that both internal and external data from information providers should be improved, as confirmed by the increasing ESG data and rating market.

Regarding climate-related risks, which indeed is at a more mature stage, the data availability is more consolidated. However, for other types of nascent risks, there is a significant data gap, which could lead to misleading risk assessment and incomplete risk reporting.

Risk assessment based on a consistent data sets, such as for climate, can be instrumental in the decision-making process. The outcomes of sustainability risks assessments help in the setting up limits to maintain such risks within

the Risk Appetite Framework as well as to provide guidance to understand the future dynamic of market growth, indicating for which sectors / geographies / perils there will be more need for product adaptation.

The absence of data, hence of a proper risk assessment, might also have a knock-on effect on the quality of reporting.

A common challenge that it will be faced by the financial industry is the increasing reporting demand from regulators and other stakeholders. If the lack of data may lead to incomplete reporting, on the other hand, there may be an increasing risk of greenwashing, potentially causing an intensification of litigation risks.

Going forward, it is paramount that standard-setters, policymakers, regulators, industry, and data providers work together as a whole on the following:

- Identifying the relevant data points and the right level of quality of data;
- Avoiding over-prescriptiveness in the data production and data reporting;
- Asking for less data points but better quality of data;
- Agree on a phased-in, incremental approach over time.

The financial sector needs to converge at the same pace towards more meaningful, relevant disclosures regarding sustainability-related risks. Not only given the interconnectedness of our industries, but also to demonstrate our ability to manage and mitigate these risks, and hence instilling more trust from stakeholders in our industry's ability to meet the pressing urgency of the climate change.

Furthermore, insurers can play a relevant social role through their protection role, but also by supporting societies based on accurate knowledge of risks. By informing societies on future vulnerabilities, they can foster resilience.