Emerging risks in the insurance sector

This session brought together regulators, supervisors and industry representatives to examine the emerging risk landscape facing the insurance sector. Three themes structured the discussion: the interconnected nature of risks in a new era of polycrisis; the need to upgrade supervisory monitoring and risk management frameworks; and the contribution of new technologies, regulatory reform and alternative risk transfer mechanisms to building resilience.

1. A new era of polycrisis: interconnected risks amplifying each other demand integrated management frameworks

1.1 Macro and geopolitical shocks: cumulative vulnerabilities for a resilient but exposed industry

A regulator drew on the IAIS's Global Insurance Market Reports for 2024 and 2025, noting their continued relevance to understand the impact of the current geopolitical situation on the global insurance sector. The macroeconomic environment is one of the primary transmission channels for risk: market volatility, asset repricing, inflationary pressure, higher interest rates and slower growth affect insurers' investments and their capacity to reprice risk. Financial markets entered the current crisis with pre-existing vulnerabilities — elevated allocations to opaque asset classes, questions around asset pricing and high levels of debt. Despite this, the global insurance sector remains resilient, with sound solvency, liquidity and profitability indicators. Direct exposures to the Middle East crisis are reported as limited: war risk is typically excluded from standard policies, though specific cover is available for marine and aviation lines, and disruption to the Strait of Hormuz has raised risk for marine insurers. Additional challenges include energy sector vulnerabilities, trade credit impacts from sanctions and heightened cyber risk. The defining challenge lies in the cumulative and interconnected impact of these diverse risks. The IAIS has convened ad hoc meetings of its working groups and committees, reflecting the importance of international cooperation. The regulator stressed that medium- and long-term vulnerabilities must not be overlooked.

1.2 From energy and food cascades to cyber outages: polycrisis in practice and the end of siloed risk management

An industry representative highlighted the increasingly interconnected nature of risk, noting that 75% of experts surveyed now recognise this shift. The world no longer faces individual crises but a state of polycrisis — a network of mutually reinforcing and amplifying risks. The Middle East conflict illustrates this vividly: within days of its onset, maritime traffic through the Strait of Hormuz fell by over 95%, triggering a domino effect across industries. Brent crude exceeded $120 per barrel, with some experts calling it the greatest global energy security challenge in history. Two secondary cascades were highlighted. A fertiliser shock — with prices rising by up to 50% in a week due to natural gas dependency — threatens crop planting across the northern hemisphere and food security in Western and African economies, prompting UN concerns. A digital cascade saw data centres in the UAE and Bahrain struck twice in one month, causing banking outages, forcing cloud workload migrations, creating data residency compliance challenges and fuelling a surge in cyber incidents. The industry representative concluded that large companies can no longer treat these exposures in isolation: integrated risk management frameworks — combining AI, geospatial intelligence, cyber solutions and human expertise — are now indispensable to mirror the full complexity of the risk landscape.

1.3 Ultra-processed food, extreme heat: the emerging risks that will make tomorrow's headlines and must inform today's decisions

Another industry representative offered a longer-horizon perspective, defining emerging risks as those arising from today's reality whose timing and magnitude of impact remain uncertain — appearing in the news today but set to make headlines within months or years. Two examples were presented. The first concerns ultra-processed food (UPF): growing evidence links UPF consumption to type 2 diabetes, depression and cardiovascular disease, with implications for insurers' health and legal liability portfolios given the potential for future litigation against food companies. The second is extreme heat: 2024 was the hottest year on record; 76 heat waves were recorded in 90 countries between mid-2023 and mid-2024; and over six billion people experienced at least 31 days of extreme heat. This risk affects property portfolios through wildfire, specialty books through infrastructure damage, and life and health portfolios through increased morbidity and mortality.

The infustry representative emphasised that these insights must be embedded in business stress-testing. A regulator added that long-term health risks — driven by ageing populations, rising mental health pressures and climate impacts on food systems — equally demand attention, and that addressing the full web of interconnected risks will require entirely new analytical strategies.

2. Supervisory monitoring and risk management frameworks: critical upgrades in an increasingly volatile world

2.1 Sovereign debt sensitivity and balance sheet volatility: real-time monitoring and shorter supervisory horizons as the response

A supervisor described the challenges facing countries with high public debt sensitivity, using Italy as the central case. Geopolitical tensions, persistent inflationary pressure and abrupt market repricings transmit rapidly to insurers' balance sheets. Marginal movements in sovereign spreads generate significant valuation volatility, affecting Solvency II ratios and capital positions. IVASS analysis consistently identifies sovereign spread movements as the dominant transmission channel, in line with EIOPA's most recent Financial Stability Report. These dynamics require supervisors to intervene on materially shorter time horizons than in the past. IVASS has introduced a high-frequency monitoring framework tracking unrealised losses on sovereign securities in near real time, complemented by intensified follow-up during periods of market turbulence to mitigate procyclical reactions. Structural risk areas — concentration risk, interest rate risk and duration management — are monitored in parallel. Italian insurers have strengthened asset-liability management: their duration gap of approximately two years is the shortest in Europe, reducing interest rate mismatches and dampening the transmission of volatility to solvency ratios. The supervisor concluded that in high-debt environments, macrofinancial risks shape day-to-day supervisory priorities.

2.2 From ORSA and liquidity stress tests to an early warning monitor: macroprudential tools evolving to identify vulnerabilities earlier

A regulator described how the NAIC has progressively strengthened its macroprudential toolkit since the 2008–09 financial crisis. The Solvency Modernization Initiative (SMI) produced framework rules centred on annual confidential filings covering corporate governance, risk management and own risk and solvency assessment (ORSA), which have become core components of the NAIC's toolkit. In 2017, the Macroprudential Initiative (MPI) was launched to identify enhancements across four areas: liquidity risk, capital stress testing, recovery and resolution, and counterparty exposure and concentration. This led to improved product category reporting in life annual statements, enabling regulators to identify companies with higher-liquidity-risk product types. A formal Liquidity Stress Testing (LST) framework for large life insurers, finalised in 2021, captures the market-wide impacts of aggregate asset sales under stress and is conducted annually. The regulator noted that in 2026 the NAIC will deepen its capabilities as a data aggregator, analytical provider and early warning monitor, supporting proactive oversight, risk identification, peer review and policy insight. This reflects a broader ambition to move from reactive to anticipatory supervision, with data infrastructure as the central enabling tool.

2.3 Covid as a case study: indirect impacts missed and the imperative for interdisciplinary thinking

An industry representative drew on the Covid-19 pandemic as a case study in how multi-factor crises can defy established risk models. Whilst the insurance sector demonstrated resilience, with no major systemic failures, the crisis exposed significant gaps. Before the pandemic, their insurance group had identified pandemic risk as material but focused scenario work on direct mortality and healthcare impacts, overlooking the profound social transformation a major pandemic would trigger. The operational consequences, financial market effects and risk of business interruption were inadequately covered by underwriting frameworks. External consultants presented letter-shaped recovery scenarios but failed to identify the inflationary dynamics inherent in the shutdown-and-reopen cycle, driven by pent-up consumer demand — a failure of analytical framing as much as forecasting. The industry representative concluded that the fundamental requirement is strong interdisciplinary collaboration, drawing together professionals from different backgrounds to trace the full chain of consequences — direct and indirect — of any given risk. As with the litigation potential from ultra-processed food flagged by another industry representative, indirect effects can ultimately prove as consequential as the impacts initially modelled.

3. Complex investments, new technologies and market solutions: addressing regulatory gaps and the limits of traditional models

3.1 International coordination and harmonised standards are required to address cross-border asset-intensive reinsurance and possible regulatory arbitrage risks

A regulator identified two interconnected structural shifts in the life insurance sector: growing allocations to less liquid or harder-to-value alternative assets, and the increasing use of cross-border asset-intensive reinsurance. Whilst globally modest, these trends are concentrated in specific jurisdictions and reflect legitimate drivers, including the need to fund long-term liabilities and in some cases broaden insurers' asset access. However, they also carry a risk of exploiting jurisdictional differences to access more lenient reserve or capital requirements. Unlike group-level supervision, cross-border reinsurance arrangements do not automatically give rise to a supervisory college, making bilateral recognition agreements indispensable. The IAIS MMoU supports information exchange, whilst the Insurance Capital Standard (ICS) and Insurance Core Principles (ICPs 14 and 17) reduce jurisdictional inconsistencies. Enhanced disclosure of reinsurance arrangements and underlying assets is equally critical. Another regulator added that the NAIC's RBC Model Governance Task Force is conducting a gap analysis to address inconsistencies in how alternative assets, private equity structures and illiquid vehicles are captured, aiming to design a repeatable review process as new risk factors become reliably quantifiable.

3.2 Satellite imagery and forward-looking modelling: a gamechanger for wildfire and climate risk

An industry representative highlighted two structural challenges in managing emerging risks: the scarcity of historical data for new risk types, and the inadequacy of historical data alone for climate risks evolving faster than the record. Wildfire risk illustrates both. Following EIOPA's recently published white paper on satellite observation, A representative of the industry described satellite imagery as a genuine gamechanger for risk modelling. In real time, satellite data enables insurers to assess vegetation density, temperature and topography, supporting accurate exposure

scoring. The technology also generates direct client benefits: AXA DCP uses it to identify vegetation near insured buildings that should be cleared preventively. Once a fire ignites, satellite analysis can model potential propagation over 24, 48 and 72 hours to guide prevention efforts. During the 2025 Los Angeles wildfires, satellite observations enabled remote identification of destroyed buildings — critical information when on-ground access was restricted. The representative of the industry concluded that these technologies are transforming both risk modelling and the value insurers deliver through prevention and real-time crisis support, marking a shift from reactive indemnification towards proactive risk partnership with clients.

3.3 Shared datasets, harmonised methodologies and ILS markets: building collective responses when traditional approaches fall short

A supervisor stressed that climate and cyber risks both pose fundamental challenges to traditional supervisory tools and identified three priorities. First, promoting shared datasets, common taxonomies and harmonised incident definitions: cross-jurisdictional comparability is essential if reliable models are to be built and systemic patterns identified. Second, harmonising supervisory expectations — consistent governance standards, transparency around assumptions and unified approaches to scenario design and testing frequency. Third, developing forward-looking tools: high-resolution geospatial data and multi-hazard climate stress tests capturing tail dependencies; systemic cyber scenarios exploring ICT concentration risk and cross-sector contagion; and macroprudential indicators reflecting the growing interconnection between insurers and critical ICT providers. An industry representative added a market perspective: climate-related uncertainty has made reinsurance capacity more cautious, as shown by significant hail episodes in 2022 and 2025. Insurers such as Groupama have turned to the insurance-linked security (ILS) market, which has shown appetite for specific risk transfers. The industry representative noted that alternative risk transfer mechanisms offer essential additional routes for managing uncertainty, which is sometimes overestimated by market participants.