IAIS International Association of Insurance Supervisors

Global Insurance Market Report (GIMAR)

SPECIAL SECTION EXCERPT

Insurance adoption and governance of AI

December 2025

Acronyms and abbreviations

AI	Artificial intelligence
ALM	Asset-liability management
FSB	Financial Stability Board
GenAI	Generative artificial intelligence
GIMAR	Global Insurance Market Report
GME	Global Monitoring Exercise
IAIS	International Association of Insurance Supervisors
ICP	Insurance Core Principles
SWM	Sector-wide monitoring

About the GIMAR

This is an excerpt from the thirteenth issue of the Global Insurance Market Report (GIMAR). The GIMAR reports on the outcomes of the IAIS' Global Monitoring Exercise (GME). The GME is the IAIS' framework for monitoring risks and trends in the global insurance sector and assessing the possible build-up of systemic risk.

This document is available on the IAIS website (www.iais.org).

3.3 INSURERS' ADOPTION AND GOVERNANCE OF AI

The adoption of AI systems is accelerating globally and is expected to have an economy-wide impact. This section of the GIMAR explores how the trends in adoption and the ongoing evolution of AI may impact the insurance sector. For insurers, these developments offer commercial benefits across the insurance value chain, such as enhancing policyholder retention through personalised engagement, reducing costs via greater efficiency in policy administration and claims management, and leveraging AI capabilities to improve risk selection and pricing.[21] For consumers it could lead to faster underwriting decisions and more timely claims handling, thereby improving customer outcomes. However, with the adoption of AI comes risks that need to be effectively managed. These risks can be broadly divided into two categories:

- **Risks from insurers' own adoption of AI** include conduct risks, microprudential or even potential macroprudential risks – that may be created or increased – as insurers adopt AI across their business.
- **Balance sheet risks** arising from the broader economy's adoption of AI include:
  - **Underwriting**: insurers have started to provide insurance cover for AI liability risks. For instance, a professional liability policy could cover litigation costs arising from a corporate organisation's inappropriate use of AI. Given the growing use of AI in a wide range of activities, insurers may also be exposed to liabilities arising from non-affirmative cover.
  - **Investment**: given the economy-wide impacts of AI deployment, there may be an impact on insurers' investment returns.

The 2025 GME has considered both these dimensions through data provided in the SWM and the feedback loop and through several stakeholder engagements. Overall, initial SWM data suggested that supervisors do not have detailed information on AI use cases. In feedback loop responses, members stated that the predominant reason for not responding was a lack of data.

3.3.1 Insurers' adoption of AI

Risks of AI adoption

Supervisors reported that they are monitoring the following key risks as insurers adopt AI:

- **Algorithmic bias and unlawful discrimination**: AI models risk perpetuating biases in training data, leading to unfair outcomes in underwriting, pricing or claims handling. This has potential legal, regulatory and reputational consequences.
- **Cyber security and data privacy risks**: Increased reliance on AI may heighten exposure to cyber attacks, data breaches and misuse of sensitive information, necessitating robust data governance and security measures.
- **Model risk and lack of explainability**: Complex AI models can lack transparency, making it difficult to interpret AI-driven decisions, validate outputs and ensure compliance. This can erode consumer trust.
- **Third-party dependencies**: Reliance on external AI service providers may introduce risks related to limited transparency, concentration, data quality and operational control, which may need to be monitored.
- **Operational and governance risks**: Poor implementation, inadequate governance and over-reliance on AI without sufficient human oversight can lead to systemic errors, inefficiencies and reputational harm.

[21] Box 1 of the IAIS Application Paper on the supervision of AI outlines the significant benefits for insurers of AI adoption.

As part of the GME, supervisors were asked whether any risks from AI have already crystalised. Several members noted that they have observed some adverse societal outcomes, bias from AI use and third-party risk to a medium or limited extent. Similarly, they noted concerns about model risk explainability and intellectual property infringement. The biggest concern for supervisors relates to cyber security risks posed by increased use of AI.

Members generally expect a modest rise in risks over the next two years, with model risk and explainability expected to see the largest increase. Additional risk growth is also anticipated in areas such as cyber security and third-party risk.

Supervisors use various sources to understand the AI use cases insurers are adopting. These include surveys, supervisory knowledge, market intelligence and regular monitoring. However, several supervisors were unable to provide information on AI use cases. This may indicate: (i) limited supervisory capacity; (ii) early-stage digital transformation in a jurisdiction; and/or (iii) a lack of structured data collection for analysis of AI use cases.

GenAI adoption: risks and trends

While insurers have used forms of AI, such as supervised machine learning for a number of years, the adoption of GenAI[22] and eventually agentic AI is expected to increase risks due to the wider range of use cases it enables, as insurers seek to capitalise on its benefits. These risks could include increased complexity, hallucination risks (ie accuracy) and bias outcomes.[23] Insurers report that they face fierce competitive pressure to find AI use cases that have the potential to improve consumer outcomes, reduce costs and improve efficiency. However, in deploying new GenAI use cases, insurers need to mitigate risks by adapting their governance and risk management to its specific features to ensure their effectiveness.

Supervisors were asked to identify the GenAI adoption trends they observe across insurers' businesses. GenAI was the focus of inquiry given it is an emerging area and comes with the greatest risks. Members were asked to indicate whether they are seeing "limited" (ie perhaps in one insurer in their jurisdiction) or "widespread" (ie widespread adoption across their market) adoption. Members indicated that the adoption of GenAI is growing, but is "limited" (ie to a limited number of insurers) across a range of activities in most jurisdictions. However, supervisors expect a clear trend towards broader adoption across the insurance sector.

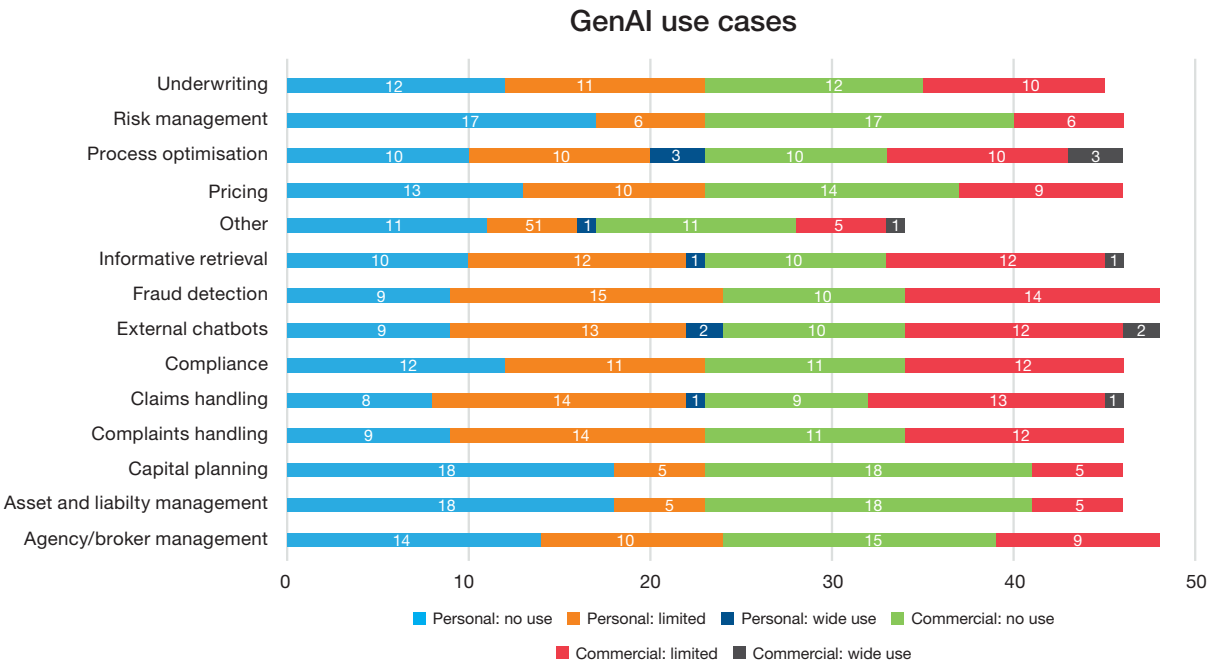
The leading use cases for GenAI adoption were for claims handling, external chatbots, fraud detection, process optimisation, complaints handling and information retrieval. Supervisors expect an expanded use of GenAI for these activities. Supervisors identified that analytical benefits and cost reduction were driving adoption of GenAI, with some indicating that consumer outcomes and competitive pressure were also drivers.

Supervisors are focusing on key risks of AI adoption, including algorithmic bias, cybersecurity data privacy, and model risk.

[22] A Generative AI (GenAI) system is an example of an AI system that combines the learning from two or more neural networks to understand and generate human-like text, graphics, sounds and videos, making these systems highly versatile for various tasks. An Agentic AI system is a GenAI system that is highly or fully autonomous.

[23] More information for supervision on how to manage AI risks is set out in the IAIS Application Paper on the supervision of artificial intelligence.

FIGURE 24



Source: IAIS SWM 2025
Note: Figure 24 reflects supervisory responses on how widespread AI uses cases are across personal and commercial lines.

GenAI is being used to a lesser extent in compliance, pricing and aspects of underwriting. While not as prevalent as the leading use cases, they are gaining traction across multiple business lines.

Supervisors indicated that they have observed a limited use of GenAI in ALM, capital planning and risk management (Figure 24). Adoption of self-learning autonomous AI in consumer-facing operations also remains low. Overall, the insurance sector seems to have adopted a cautious, controlled scaling approach to implementing autonomous AI systems in critical consumer touchpoints like pricing, underwriting and claims handling.

Potential third-party risk

Supervisors indicated that they are concerned about potential third-party risk arising from AI model providers. Concerns relate to the risks of vendor lock-in, concentration risk, operational dependency and limited competition. They also noted that outsourcing critical AI functions to third-party providers makes it difficult to ensure transparency, auditability and compliance with regulatory requirements, as providers do not commonly provide a comprehensive overview of the training and modelling techniques due to intellectual property constraints. Black-box models and limited oversight hinder accountability and effective risk management.[24] Similarly, supervisors noted concerns about the third-party risks associated with the use of cloud providers that support AI models. To mitigate

[24] To address this situation, some jurisdictions are passing legislation to ensure that providers of these tools comply with a number of requirements to ensure their responsible use. For example, in the European Union, the recently adopted AI Act requires providers of General-Purpose AI (GPAI) models to establish technical documentation, including training data summaries, implement a Union copyright law policy, and provide information to downstream users such as insurance undertakings.

such third-party risk, undertakings are implementing complementary governance measures, for instance, by including appropriate clauses in contracts and service level agreements, conducting external audits or performing due diligence testing and monitoring.

3.3.2 Governance and risk management responses

Supervisors report that insurers are increasingly integrating AI into their risk governance structures, although the level of maturity varies across different areas. Existing governance frameworks related to data privacy, cyber security and information technology risk also apply to AI use cases. Integrating it into existing regimes is proportionate and consistent with the approach set out in the IAIS' Application Paper on the supervision of artificial intelligence.

Supervisory actions

Supervisors' actions to respond to the growing use of AI in the insurance sector fall into three main categories:

- **Surveys and data collection**: Supervisory authorities have conducted, or are planning to conduct, structured surveys and questionnaires to understand AI adoption, including GenAI. These efforts look to identify use cases, challenges and emerging risks.
- **Supervisory frameworks**: Authorities are preparing guidance and governance frameworks to address AI-related risks, such as bias, transparency and data security, while aligning them with upcoming regulations. Efforts include industry consultations, thematic reviews and collaboration with other regulators.
- **Monitoring and dialogue**: Supervisors are engaging in bilateral meetings, industry roundtables, sandbox testing and supervisory reviews to assess AI deployment and governance. These activities aim to ensure responsible AI adoption, monitor emerging risks and refine supervisory approaches as technologies and practices evolve.

The IAIS supports its members in developing supervisory practices in several ways:

- In July 2025, the IAIS published an Application Paper on the supervision of AI. The paper reinforces the importance of the IAIS ICPs, outlining how existing expectations around governance and conduct remain essential considerations for supervisors and insurers related to the use of AI systems in insurance.
- Building on the paper, the IAIS is developing supervisory question banks[25] as a member-only resource to support supervisory engagement with insurers on AI use.

Supervisors are enhancing governance and risk management for AI adoption in insurance, focusing on data privacy, cybersecurity, and transparency.

[25] A question bank is sets of questions used by supervisors for engagement with insurers on specific topics. They provide supervisory teams with a consistent way of engaging with insurers and help supervisors to understand the level of knowledge across the sector on a particular issue.

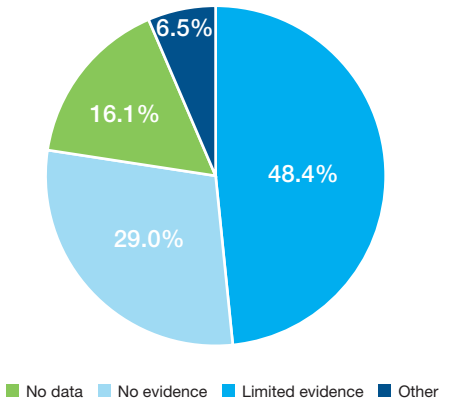
3.3.3 Balance sheet risk

In recent years the IAIS has focused on insurers' adoption of AI; however, with the 2025 GME, the IAIS has started to explore how insurers are addressing balance sheet risks associated with AI. Figure 25 explores the extent to which insurers monitor and report on AI-related underwriting risks.

Underwriting risks

FIGURE 25

Monitoring and reporting AI-related liability underwriting risks



Source: IAIS SWM 2025

While forms of machine learning have been used by corporations for many years, increased economy-wide adoption of AI, and in particular GenAI across a range of business activities, will lead to a significant change in exposure for policyholders. It is not only AI vendors that will be impacted by these risks but also companies using AI software. Risks include increased litigation for bias or unlawful discrimination, intellectual property infringement, data breaches and increased complexity in attributing risks (for instance whether a driver or manufacturer is liable for an accident in an autonomous vehicle).

It is important for insurers and supervisors to understand how these risks may evolve. Stakeholder engagement as part of the GME process highlighted several considerations in relation to potential balance sheet risks:

- **Scope**: exposure is likely to change across all business lines but at this stage it is too early to understand the likely impact.
- **Modelling**: GenAI exposures for insurers could be more difficult to model – firstly, because there is no historical data and secondly, because results from GenAI models change as new information is fed into the models. AI risks could evolve even during the term of an insurance contract. It will be important for insurers to understand the mechanisms that policyholders have adopted to mitigate risks.
- **Single points of failure**: insurers will need to consider the extent to which concentrations in the market for AI models may also present underwriting risks. There is the potential for numerous claims related to decisions taken by a few widely deployed models across a wide range of corporate actors from different sectors of the economy.
- **Legal uncertainty**: while existing legislation continues to apply to insurers' use of AI, at this stage there is considerable legal uncertainty about how risks will evolve, how courts will interpret legislation, definitions related to AI, and how legislative frameworks will evolve. There is a small but growing body of case law in this area which includes significant settlement costs.

It is likely that insurers will be able to leverage insights from their own adoption of AI to understand the risks their policyholders face and the mitigants that can be applied.

The market for AI liability risks is evolving. Some underwriters are offering standalone cover, others are offering wrappers with AI cover on top of existing cover and some insurers are considering updating existing insurance products to take account of AI risks. Updates might include new exclusions, new limits or changes to policy wording, similar to what was introduced in recent years to address "silent" coverage of cyber risks. Responses to the GME suggest that insurers are beginning to consider these risks despite the quickly evolving landscape and risks to which policyholders are exposed.

The GME data shows that according to supervisors, insurers in a relatively small number of jurisdictions (15) are monitoring and reporting AI-related underwriting risks. Given these risks, it is important for insurers to continue engaging with policyholders to gain a good understanding of AI use cases and how this impacts their exposure. It is equally important for supervisors to understand how insurers are managing their AI liability underwriting risk, both from a prudential and conduct perspective. They also want to determine the extent to which risks from non-affirmative cover are being managed. While there may be some parallels to the development of the cyber market and the way risks were managed, not all the issues will be analogous, given the breadth of expected AI use cases.

Investment risk

It is expected that over time AI will have a material impact across a range of different economic sectors. As a result, it is likely to have an impact on the investment returns in insurers' assets, creating both opportunities and challenges. The GME data suggests that only a few insurers or supervisors are currently considering the extent to which these risks may change. The IAIS will continue to explore these risks and engage with stakeholders to understand how the sector may be impacted in the medium to long term.

As a member of the Financial Stability Board (FSB), the IAIS will continue to support the FSB's efforts to monitor any financial stability risks that could emerge with the use of AI.[26]

The market for AI liability risks is evolving, marked by the introduction of new products, policy updates, and a heightened focus on underwriting considerations.

[26] The FSB has recently published an update to its report to assess any financial stability risks associated with the use of AI.

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