Commentary

Insurance Companies Increasingly Look to AI for Growth and Profitability

Morningstar DBRS
July 15, 2025

Key Highlights

- Investments in AI will continue to grow as they hold a lot of potential for insurance companies' growth and profitability.
- AI provides potential benefits to insurers across the value chain, by enhancing operational efficiency, customer experience, as well as providing support in core functions like underwriting and claims management.
- AI adoption also introduces new risks that, if not managed properly, could cause significant financial as well as reputational damage with negative credit rating implications.

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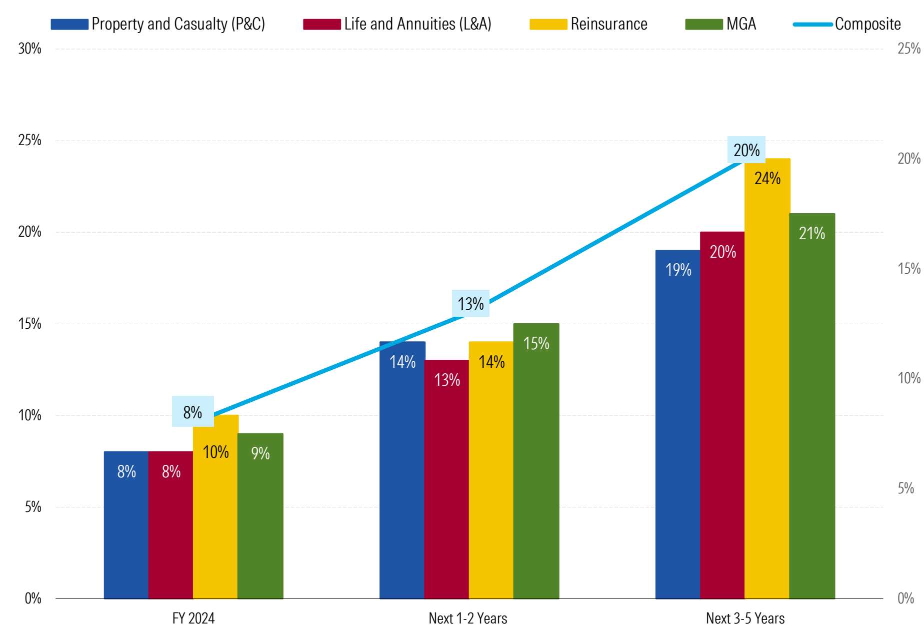
Overview

Investments in artificial intelligence (AI) hold a lot of potential for insurance companies' growth and profitability but also entail many risks. While machine learning, natural language processing and predictive analytics have long been part of sophisticated insurers' underwriting models, the adoption of these and other AI-powered technologies has become more widespread and essential to maintaining competitiveness. As a result, according to a survey by Wipro Limited (Wipro), North American insurers have increased the proportion of investment technology (IT) budgets allocated to AI technology to more than 20% in about three to five years, from 8% in the 2024[1] (Exhibit 1). In this commentary, we provide an overview of key areas of insurance value chain that stand to benefit from AI adoption. We also discuss the risks and challenges of AI adoption, which present an important part of our credit risk analysis, particularly through franchise and risk profile building blocks. Mitigating those risks by having appropriate governance risk structures is key to achieving benefits of AI while upholding the stability of credit ratings.

Exhibit 1 North American Insurers' Investments in AI (% of IT budget)



Source: Wipro Report "The AI Advantage: Building Tomorrow's Insurance Enterprise", March 2025.

1. Based on Wipro's survey of 100 North American insurance companies, with minimum annual revenue of $500 million conducted by Coleman Parkes Research.

AI Across the Insurance Value Chain

AI and large language models could be used for numerous client-facing and internal operational functions. For example, AI tools can take on simple but high-volume repetitive tasks such as generating policy templates, summarizing customer interactions, and extracting key information from large datasets, allowing employees to focus on more complex activities. As such, one of the key benefits of AI implementation is measured by increased efficiencies and reduced operational costs. Additionally, AI-powered tools can identify customer behavior, patterns, and preferences, helping to streamline sales and marketing efforts thereby reducing the overall customer acquisition costs. Many insurers have already reported cost reductions from similar efficiency and automation gains.

Moreover, Insurers have also introduced AI-powered chatbots and virtual assistants with potential benefits for both employees as well as customers. Buying an insurance policy can be a complicated and time-consuming process, so virtual assistants add value by recommending policies based on personal preferences or based on what others with similar profiles opted for. For life insurance and annuity providers, where there is an investment component to the policy, virtual assistants can make recommendations according to the reported risk tolerance. However, it should be noted that when chatbots are used for processes that need to be highly customized, such as specific claims settlement interactions, the customers' experience may sometimes be negative or the chatbot may introduce compliance-related challenges. Nonetheless, AI powered tools can still be effective if used appropriately, ultimately helping insurers handle larger claims volumes. Claims that do require human intervention can be flagged and passed on for further investigation.

Within the property and casualty insurance industry, AI can be used to assess damages to the vehicle/property using digital pictures and provide repair-cost estimates to the customer before the vehicle/property is even inspected. Another example where AI can be used is loss assessment during natural catastrophes. AI can assess company exposure to a particular catastrophic event in a relatively shorter time span.

Fraud is a major pain point for the insurance industry and is an area where AI can provide value, given that the industry loses billions of dollars to fraud every year. AI models can be trained to detect fraudulent claims using previously detected instances of fraud relying on company data or data from third-party providers. Flagging claims that appear to be fraudulent for further inspection will help insurers pay out legitimate claims faster. However, we would also note that companies using AI assessments to reject claims could be exposed to legal and reputational risk if those AI models turn out to be unreliable.

By synthesizing granular data and improving existing risk models, AI can complement human expertise in underwriting and provide valuable insights for risk selection and pricing. This may ultimately help insurers write more policies with consistent pricing for similar risk profiles. On the other hand, since underwriting decisions have a direct impact on profitability, AI models need to be carefully selected, trained and tested as otherwise mispriced policies could result in very serious reputational and financial implications.

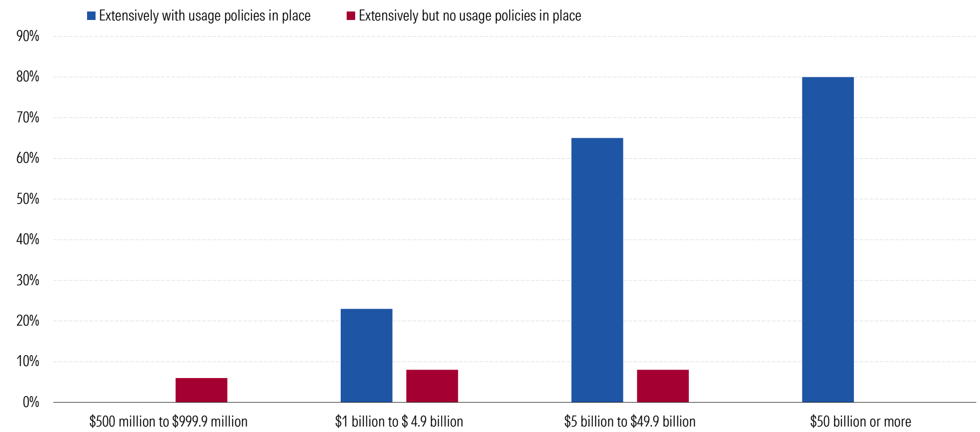
Taking Stock and Mitigating Risks

AI adoption by insurers has many applications, as described above, resulting in tangible benefits, efficiencies, and potential cost reductions, which have been publicly disclosed by some insurers with a return on investment of three years or more.

However, AI adoption also introduces new risks that, if not managed properly, could cause significant financial as well as reputational damage. We acknowledge that some activities are inherently less risky than others. For example, determining marketing leads based on AI recommendations is generally a low-risk proposition. At other times, benefits and risks are closely related such as in terms of how AI impacts customer experience. But, in our view one of the most serious challenges arises when AI is used extensively in underwriting and pricing of policies as those decisions are directly related to profitability. In those situations, the insurer could be subjected to various costly errors and biases (i.e., quoting unreasonably high/low premiums for characteristics that are not well represented in the data used in training AI models). Additionally, there could also be regulatory fines amid the evolving regulatory landscape. Equally concerning could be certain decisions related to claims processing. To that end, AI models could draw conclusions about which claims to reject based on flawed reasoning that could result in class action lawsuits, such as those seen against health insurance companies in the U.S. Last, but not least, working with vast amounts of data to price risk more accurately, also exposes insurers to increased cyber risk.

For most companies, risks are mitigated through strong enterprise risk management frameworks that include appropriate data governance, testing, and, ultimately, oversight by humans. But, for smaller companies, risk management capabilities may not be as well developed, resources may be constrained, and their data is much more restrictive, which introduces scope for errors in decision making. Notably, Wipro research shows that even extensive adoption of AI is not always accompanied by data usage policies, which is concerning. Moreover, the survey also shows that smaller companies are more likely to not have data policies even where their adoption of AI is considered extensive (Exhibit 2).

Exhibit 2 Extent of Adoption and Data Usage Policies (by size of insurer)



Source: Wipro Report "The AI Advantage: Building Tomorrow's Insurance Enterprise", March 2025

AI Investment Outlook and Credit Ratings

Although the insurance industry isn't typically the quickest adopter of leading-edge technologies, it does extensively leverage large datasets of information. So, it's not surprising that the industry is increasing investments in AI, enabling efficient processing of data from a variety of sources. Ultimately companies need to invest in AI to stay competitive; however, at the same time, they must not lose sight of the importance of having commensurate risk management frameworks. From a credit rating perspective, AI can both enhance and damage franchise strength by affecting customer experience. Moreover, while it may improve profitability through efficiency gains, it generally also contributes to higher operational risks, including legal and compliance risk.

Related Research

- *Middle East Tensions Add Underwriting and Investment Risks for Global Insurers and Reinsurers*, June 24, 2025
- *Reaching a Final Destination? High Court Rules in Favour of Lessors in Russian Aircraft Insurance Test Case*, June 16, 2025
- *Massive Power Blackout in Spain and Portugal: Implications for Insurance Companies*, April 29, 2025
- *From U.S. Trade Policy to Global Insurance Policies: Where Does It Matter and How Will Insurance Companies Respond*, April 24, 2025
- *Aftermath of Los Angeles Wildfires: A Wake-Up Call for Property & Casualty Insurers and Regulators*, April 7, 2025
- *Global P&C Reinsurers: Solid Earnings in 2024 but There Are Potential Headwinds in the Horizon for 2025*, April 3, 2025
- *Navigating Liability: Collision in the North Sea and Marine Insurance Fallout*, March 12, 2025
- *Los Angeles Area Wildfires Will Cause Record Insured Losses; Solutions to Address Insurability Are Needed*, January 15, 2025
- *Hurricane Milton Batters Florida; Likely to Boost Already-High Insurance Prices,* October 14, 2024
- *Insured Losses Expected to Be Moderate If Hurricane Helene Maintains Its Current Course,* September 26, 2024
- *Strong Earnings in H1 2024 Continue to Support Positive Outlook on Global P&C Reinsurers*, August 29, 2024
- *Losses From Recent UK Riots Expected to Have a Marginal Impact on the British Insurance Industry*, August 12, 2024
- *Raging Inferno in Western Canada: Implications for Canadian Property and Casualty Insurers*, July 26, 2024
- *Global IT Outage: Widespread Disruption to Corporates and Financial Services: Lasting Impact is Limited,* July 19, 2024
- *Beryl Opens the 2024 Atlantic Hurricane Season with a Bang but Insured Losses to Remain Relatively Minor for the Industry*, July 8, 2024

Note:
All figures are in U.S. dollars unless otherwise noted.

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