

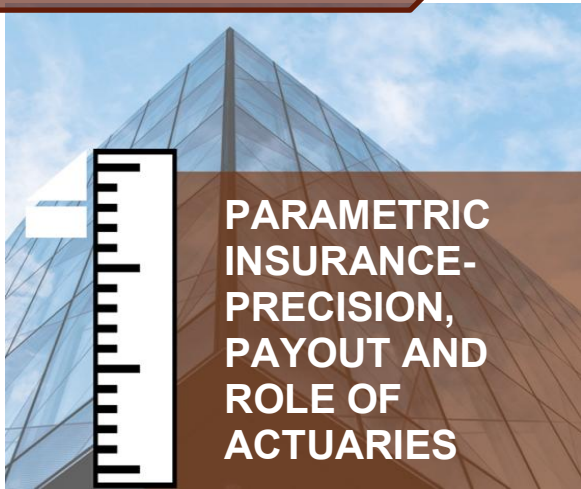
WeDapt

HELPING YOU ADAPT TO THE CHANGING DYNAMICS

The WeDapt Insurance Newsletter

Premier source for expert financial analysis, strategic solutions, and industry-leading actuarial advice.

FEATURED INSIDE



PARAMETRIC INSURANCE- PRECISION, PAYOUT AND ROLE OF ACTUARIES



LATEST INDUSTRY UPDATES & KPIs

1. Each year, floods, droughts, and cyclones disrupt lives and livelihoods across India, yet claim settlements often arrive too late to offer meaningful relief. The traditional insurance model relies on loss verification, struggles with speed, scalability, and trust. In rural and disaster-hit areas, where access and documentation are limited, the gaps are even wider. This is where parametric insurance steps in offering a fundamentally different approach to risk transfer.

2. Parametric insurance is applied in agriculture, disaster risk, travel disruption, and renewable energy, offering quick payouts based on environmental triggers.

3. In India, parametric insurance is mostly used in agriculture through schemes like Weather-Based Crop Insurance Scheme (WBCIS). Applications in disaster risk and microinsurance show potential, but regulatory clarity and data infrastructure remain key challenges.



PARAMETRIC INSURANCE

Precision, Payouts and Role of Actuaries

Introduction



KEY TAKEAWAYS:

- ❖ Faster payouts through trigger-based claim settlements.
- ❖ Useful for climate and disaster-related risk coverage.
- ❖ Minimizes claims disputes with objective payout triggers.
- ❖ Needs better data, regulation for wider adoption in India.

Parametric insurance is a type of insurance that pays a fixed amount when a pre-defined event or index (like rainfall, temperature, or earthquake magnitude) crosses a specified threshold. Unlike traditional insurance, it does not require assessment of actual loss to trigger a claim payout, and it simplifies claims processing. This model enables faster settlements and is ideal for weather-related and catastrophic risks.

Parametric insurance products are typically designed using historical event data, satellite imagery, or sensor-based monitoring to define objective, quantifiable triggers. It is an innovative risk transfer solution where payouts are linked to the occurrence of a specific event rather than the actual loss incurred. These products are especially valuable in regions where traditional claim verification is difficult due to infrastructure limitations or high administrative costs.

This approach is particularly effective for covering low-frequency, high-severity events like natural disasters, climate risks, and supply chain disruptions, especially in underserved or remote regions. In developing economies like India, parametric insurance can improve financial inclusion by offering affordable, accessible protection to vulnerable communities such as farmers, gig workers, and small businesses.

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b digitization better weather models

❖ **DATA LIMITATION AND AVAILABILITY:**

Parametric products depend heavily on high-quality, historical and real-time data (e.g., rainfall, windspeed, temperature, seismic activity). There are certain challenges with the data which can be used to implement parametric insurance. In India, weather station coverage and data digitization have improved but remain scarce in several regions.

There is a requirement of infrastructure with respect to the IT, weather-based radars, satellite system and claim payout infrastructure. However, these challenges can be solved with the help of the few data providers and partners.

The concept is still new in India and poorly understood outside niche areas like crop insurance. Significant investment in awareness and education is needed at both consumer and insurer's levels.

Choosing the right trigger (e.g., 20 mm rainfall over 5 days) and setting appropriate payout levels requires complex statistical and climatological modeling. In India weather varies significantly across districts and one-size triggers don't work. Poor calibration leads to excessive payouts or customer dissatisfaction due to missed triggers.

Unlike traditional insurance, there's no standardized actuarial approach for parametric pricing. It involves statistical modeling of events, not claims. Not many actuaries are equipped with event-based pricing, geospatial analytics or basis risk simulation.

Basis risk is the risk that a payout is not triggered despite the insured suffering a loss, or a payout occurs when there is little or no loss. This happens when the trigger does not perfectly correlate with the actual damage. This can lead to dissatisfaction or reputational risk for insurers. The image below, for example, shows rainfall across regions — but gaps or outdated records can lead to poor calibration of triggers. This directly increases basis risk.



IMPACT OF PARAMETRIC INSURANCE ON ACTUARIES

1. Redefining Actuarial Models

Traditional actuarial models rely on historical data related to claim frequency and severity. This changes significantly in parametric insurance where things like trigger probabilities, index volatility, correlation of index with actual losses, basis risk etc. are modelled.

Parametric insurance, by contrast, requires actuaries to estimate the probability distribution of trigger events, such as rainfall levels, temperature anomalies, windspeed thresholds, or seismic magnitudes.

Actuaries must use stochastic event simulation, Extreme Value Theory (EVT), or Copula-based dependency models to evaluate tail risks of trigger events.

2. Designing the trigger for claims

This is one of the most critical aspects for parametric insurance, if the trigger is too tight then the customer suffers losses but does not receive claim and if the trigger is too loose then the insurer overpays for smaller losses. This requires complex statistical models and modelling of the geospatial data.

It shifts the focus of actuarial work towards domains like climate modeling, alternate risk transfers, geospatial analysis, remote sensing analysis, etc.

It requires statistical models for simulations, climate modeling, basis risk modeling etc.

3. Capital and reinsurance implications:

It reduces claim volatility due to pre-agreed payouts. However, it brings high catastrophic exposure especially in larger covers. It aligns well with event indexed reinsurance treaties unlike the traditional reinsurance treaties.

Parametric treaties may lower reserve risk but increase non-hedgeable market or event volatility, impacting SCR (Solvency Capital Requirement) composition.

Parametric structures allow faster reinsurance recovery but require clear trigger definitions and robust historical hazard data to ensure pricing adequacy.

4. Insurance Company Operations:

The underwriting transitions from risk scoring to location and event-based underwriting, integrating meteorological, seismic, or agricultural data.

The claims become largely automated, and the focal area shifts from event monitoring rather than claim verification department.

The product development cycle becomes shorter, and the products are designed as per events. The actuaries must also support in real time pricing for parametric products especially for the bundled products.

CURRENT SITUATION IN INDIA:

Parametric insurance in India remains at a nascent stage but is emerging as a viable solution for covering low-frequency, high-severity risks — particularly in agriculture, disaster management, and climate resilience.

The Insurance Regulatory and Development Authority of India (IRDAI) has acknowledged the potential of such products and has facilitated limited experimentation through its Regulatory Sandbox. However, India currently lacks a dedicated regulatory framework tailored to parametric solutions, leading to operational ambiguity around pricing, reserving, capital requirements, and disclosures.

Parametric insurance has found its widest deployment in agriculture via the WBCIS, where payouts are linked to agro-meteorological indices. Insurers such as AIC of India, Bajaj Allianz General Insurance, and HDFC Ergo are actively involved. These products use district-level weather data from IMD or private weather stations, although basis risk remains a challenge due to spatial variability.

Outside agriculture, Tata AIG, in collaboration with the Nagaland State Disaster Management Authority, has launched a monsoon-index-based cover for infrastructure. New India Assurance and Bajaj Allianz have developed parametric products for cyclone and flood risk, particularly for commercial clients. Additionally, Insurtech like SafeTree and GramCover are leveraging parametric triggers for microinsurance pilots.

Parametric insurance is not a newer concept. It has been used for almost 25 years in large-scale transactions such as catastrophe bonds in both the private and public sector.

What is new, however, is the extension of parametric to the consumer level. Only now is data sufficiently available and technology adequately mature to enable the immediate, data-triggered payments of parametric insurance.



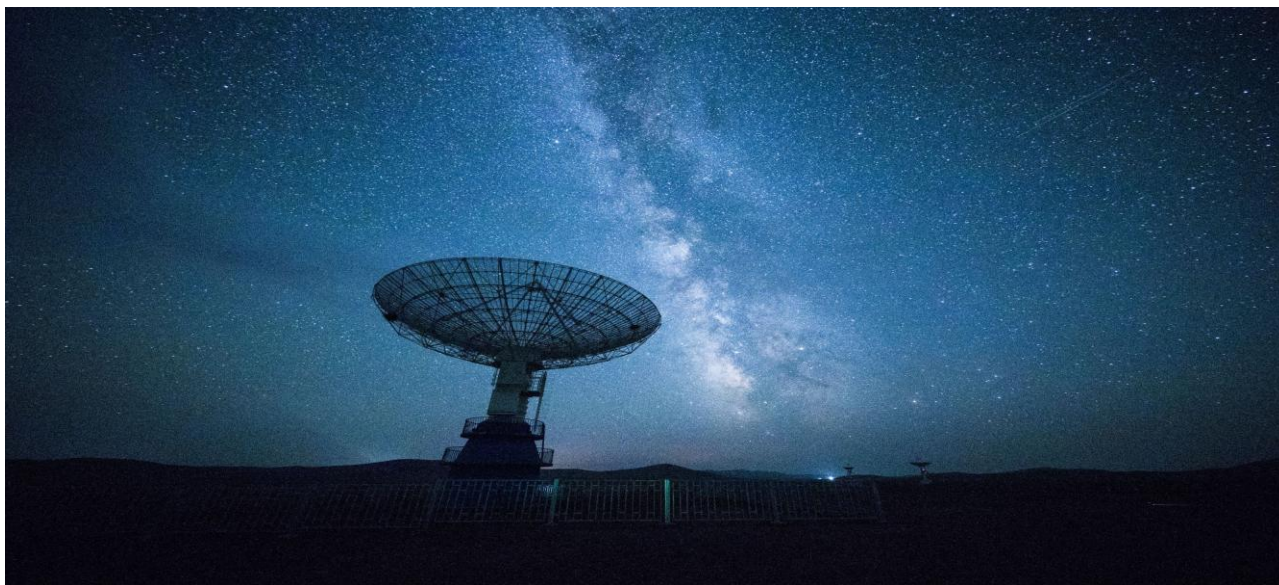
Globally, parametric insurance has been instrumental in strengthening financial resilience against natural disasters.

Caribbean Catastrophe Risk Insurance Facility (CCRIF) is a sovereign-level parametric program that provides hurricane and earthquake coverage to Caribbean nations. It has enabled quick disbursement of funds — often within 14 days — helping governments finance immediate relief without relying on donor aid.

African Risk Capacity (ARC) offers drought-triggered parametric insurance to African Union member states, using satellite-derived rainfall and vegetation indices. Payouts are structured to support government contingency plans, reducing reliance on ex-post humanitarian aid.

In Asia, the Philippines has deployed typhoon-triggered parametric insurance with support from the World Bank and reinsurers like Swiss Re. These programs show the importance of public-private partnerships, strong data infrastructure, and pre-agreed payout mechanisms.

India can learn from these models by strengthening regional disaster risk pools, standardizing index design, and integrating parametric insurance into state-level disaster resilience frameworks. Global case studies also highlight the need for high-trust data sources and scalable tech platforms to improve basis risk management and operational efficiency.



INDUSTRY UPDATES

Jio Financial and Allianz Announce Strategic Insurance Partnership

In a landmark move, **Jio Financial Services (JFS)** and **Allianz SE**, one of the world's leading insurers, have joined hands in a 50:50 reinsurance Joint Venture (JV) in India's fast-growing insurance market aiming a shared ambition to deliver innovative, accessible protection solutions for every Indian.

Why it matters: Allianz's global expertise in product innovation and risk management with Jio's unmatched digital reach across urban and rural India, making it possible to bring affordable protection products to millions of households who have traditionally been outside the insurance fold. The JV aims to address India's low insurance penetration by offering simpler and more accessible products.

GST on health, term insurance may be scrapped or cut to 5%

In a landmark move under the upcoming **GST 2.0 reforms**, the government is considering slashing Goods and Services Tax (GST) on health and term life insurance premiums from 18% to 5%—or even scrapping it altogether. Key highlights include:

- **Boosts Affordability:** Lower GST makes health and term plans cheaper for customers.
- **Encourages Protection:** More households may opt for essential insurance cover.
- **Simpler tax regime:** Two-slab GST plan cuts complexity, boosts transparency.
- **Investor confidence:** The announcement triggered a 5% surge in insurance stocks, reflecting optimism
- **Simpler compliance:** reduces administrative hurdles for insurers, enabling smoother operations.

Central Bank Acquires 25.18% Stake in Future Generali Insurance

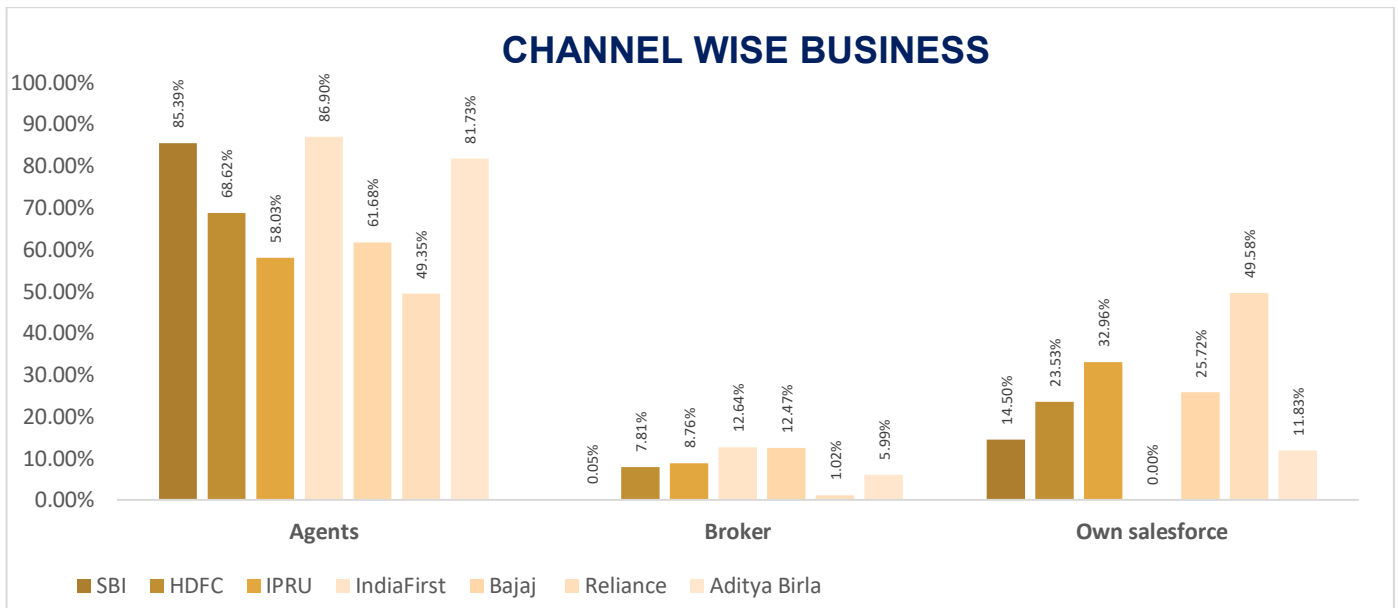
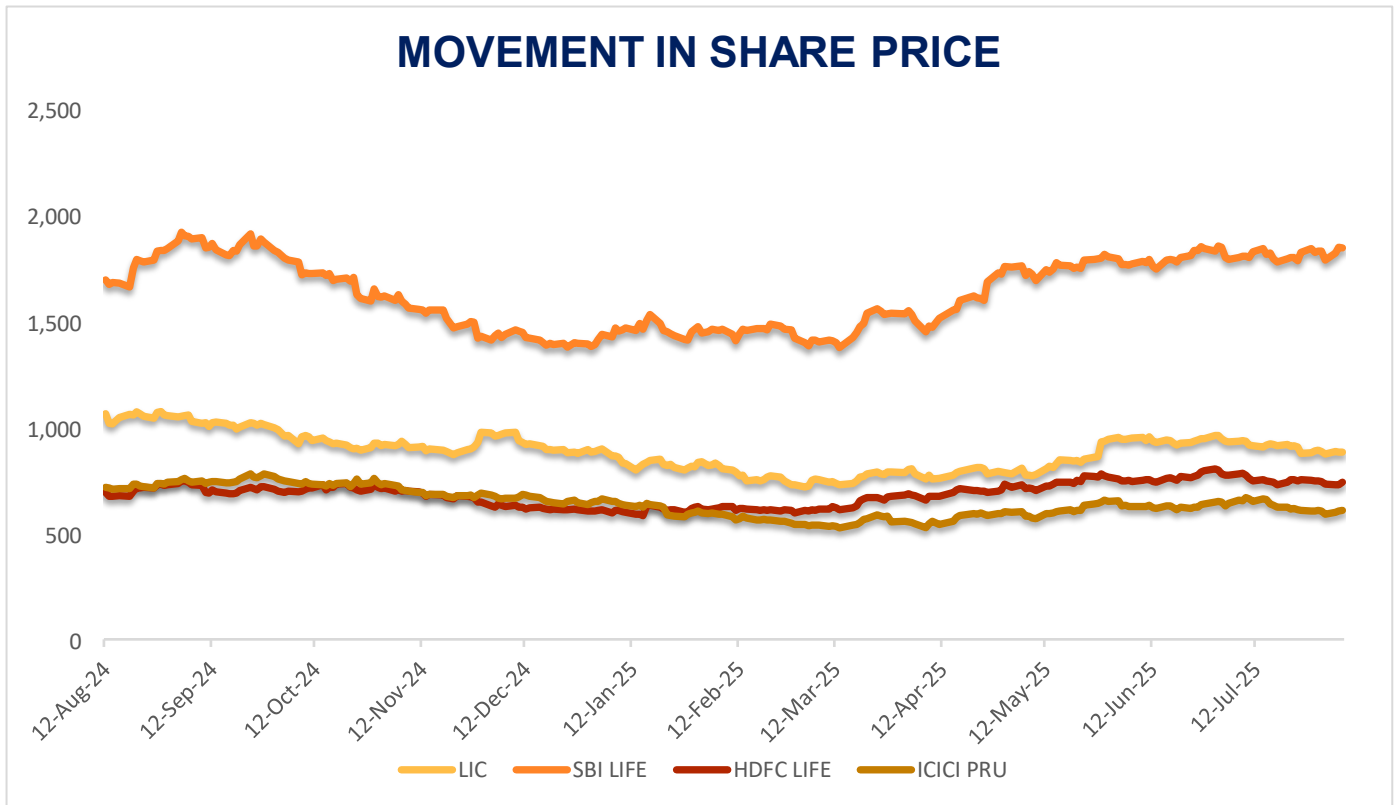
Central Bank of India has picked up a **25.18% stake** in **Future Generali India Life Insurance** for a cash consideration of Rs 57 crore as part of the insolvency process, strengthening its position in the fast-growing insurance sector.

The move underscores the growing trend of banks expanding their role from distributors to stakeholders in insurance companies, aiming to capture long-term value.

Key Takeaways:

- Strengthens Central Bank's presence in insurance.
- Underscores confidence in India's life insurance market.
- Reflects deepening bank-insurer partnerships.

KEY PERFORMANCE INDICATORS (LIFE)



Others include IMF, Common Service Centers, Point of Sales.

Company	VNB MARGINS Q1-FY2025	VNB MARGINS Q1-FY2026
HDFC LIFE	25.0%	25.1%
SBI LIFE	26.8%	27.4%
IPRU LIFE	22.8%	24.5%

A bar chart comparing the percentage of respondents for different insurance types across three categories: SBI, HDFC, and IPRU. The Y-axis represents the percentage from 0.0% to 50.0% in 5.0% increments. The X-axis lists five insurance types: Unit Linked, Non Linked, Protection, Annuity, and Group. For each insurance type, there are three bars representing SBI (yellow), HDFC (orange), and IPRU (red). The exact percentage values are labeled above each bar.

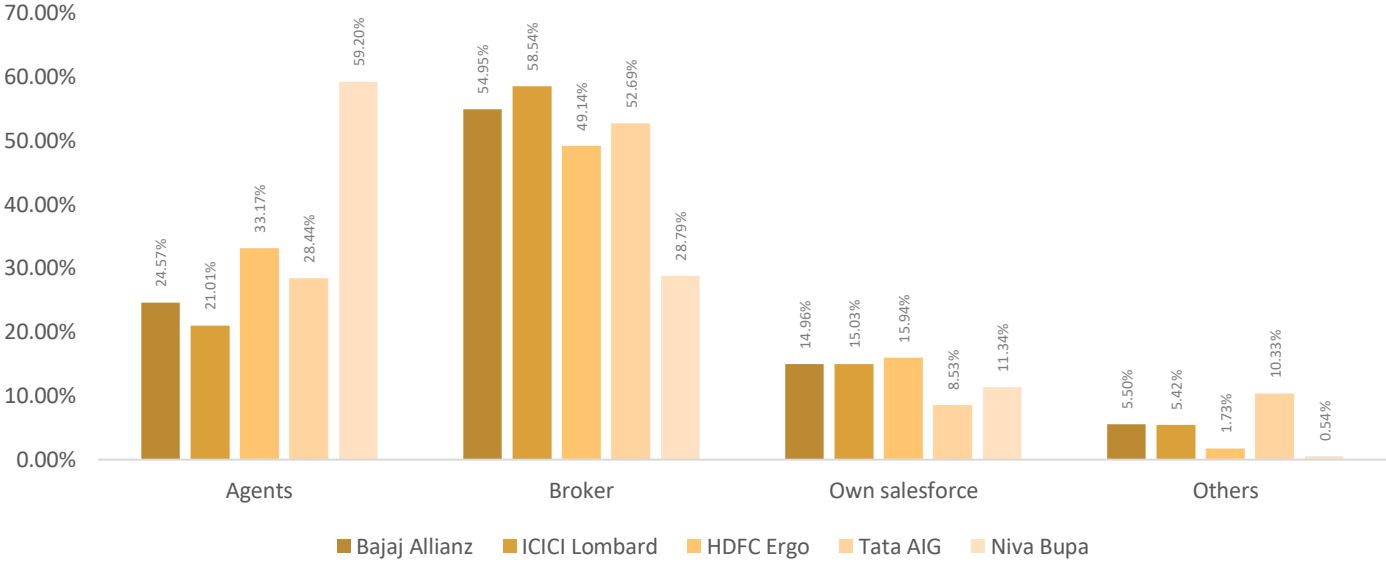
Insurance Type	SBI (%)	HDFC (%)	IPRU (%)
Unit Linked	38.0%	33.0%	47.0%
Non Linked	13.0%	44.0%	22.0%
Protection	13.0%	15.0%	22.0%
Annuity	17.0%	5.0%	5.0%
Group	19.0%	3.0%	4.0%

Abstract

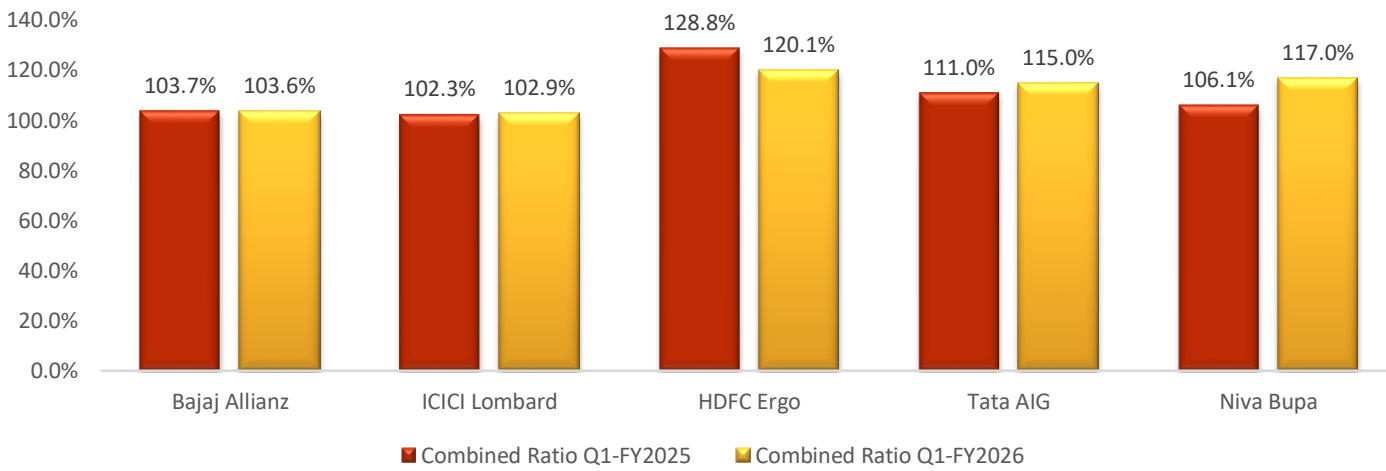
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KEY PERFORMANCE INDICATORS (GENERAL)

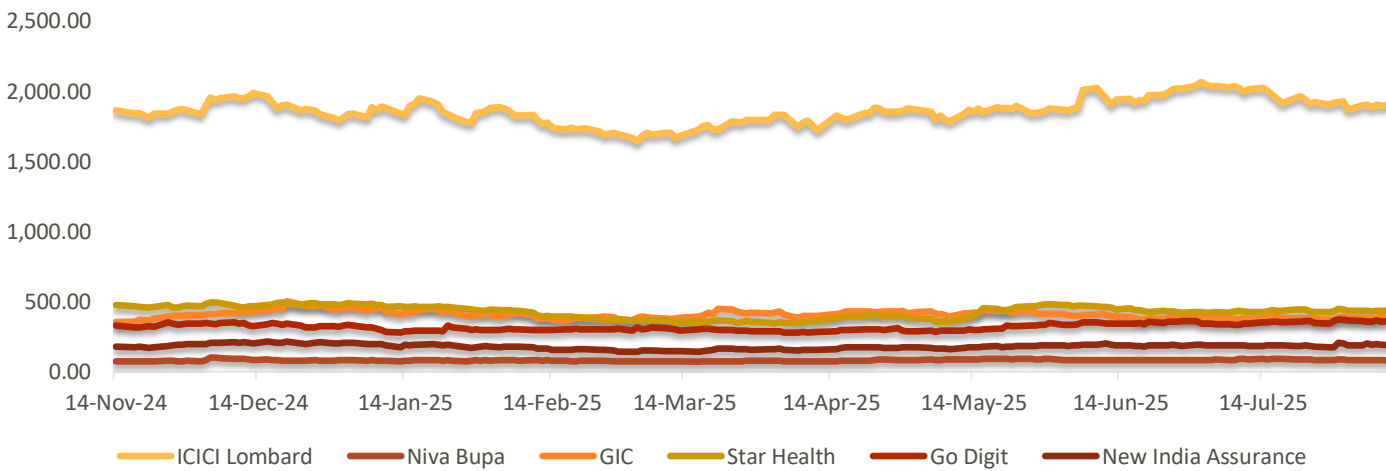
CHANNEL WISE BUSINESS



COMBINED RATIOS

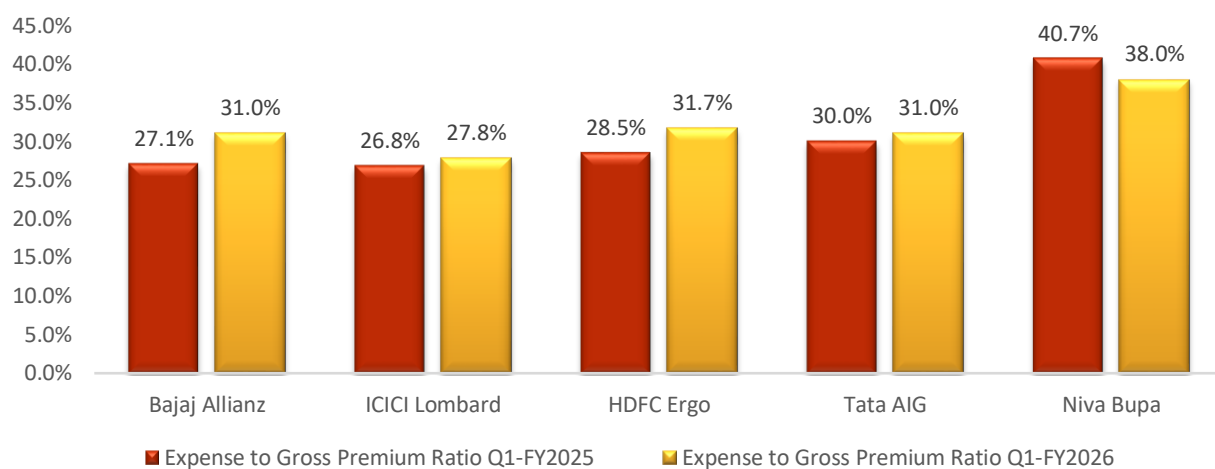


MOVEMENT IN SHARE PRICES



Data has been collected from publicly available sources, which include the companies' disclosures and business presentation, newspaper articles, IRDAI website, Central Board of Direct Taxes and other relevant public records.

EXPENSE TO GROSS PREMIUM RATIO



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Data has been collected from publicly available sources, which include the companies' disclosures and business presentation, newspaper articles, IRDAI website, Central Board of Direct Taxes and other relevant public records.



WeDapt as a firm has always focused upon a client centric approach wherein, we look to assist the clients in adapting to the ever-changing dynamic business environment. We aim to use our rich practical experience and technical expertise to bring effective & efficient solutions for our client.

VISIT US AT

WeDapt Services Pvt. Ltd.

316-317, Bestech Chambers, Sushant Lok 1,
Sector-27 Gurugram - 122009

+91 81301 32005

www.wedapt.in

www.linkedin.com/company/wedapt

THE AUTHORS



HIMANSHU AGGARWAL

Consultant at WeDapt | Himanshu.aggarwal@wedapt.in

He is a Part-Qualified Actuary (from IFoA) with a work experience of around four years in the General Insurance industry including reserving, actuarial audit, IFRS 17 reporting and product development.

DIPTI GOYAL

Actuarial Analyst at WeDapt | Dipti.goyal@wedapt.in

She is a Student Actuary with around one year of experience in the General Insurance Industry. Dipti has worked on reserving, pricing and is passionate about practical application of Actuarial concepts.



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