

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.*



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.

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.

BENEFITS OF PARAMETRIC INSURANCE

❖ SCALABLE AND TAILORED:

Parametric insurance is easily scalable in markets like agriculture and allied sector, renewable energy, gig workers, event organizers, working professionals etc. It can be easily tailored to meet the needs of the customer. The coverage can be extended to cover parameters like temperature, rainfall, humidity, drought etc.

❖ FASTER CLAIM SETTLEMENT:

In parametric insurance the payouts are faster without any delays that could happen due to loss surveys which can take several weeks in traditional insurance. This is because the payout is linked to an index and automatically triggered when the parameter is breached.

❖ ENHANCED TRANSPARENCY:

It is more streamlined and there is enhanced transparency due to set criteria for triggering the claim payouts. The payouts are often linked to public and verifiable data like Insurance Mediation Directive (IMD)'s data or any satellite imagery. It eliminates the need for proof of loss or damage assessment. There is also lesser ambiguity and disputes.

❖ SIMPLIFIED UNDERWRITING:

Fixed and capped payouts simplify underwriting process. Individual risks can be priced and selected solely on the probability of the trigger agreed with the customer. This accelerates policy turnaround time by reducing the amount of data and time required to quote and implement a policy.

❖ COST EFFECTIVE:

There are minimal claim handling costs due to less need for claim verification and claim handling. This makes it suitable for price sensitive markets and lower premium products. There is no need for claim verification teams, loss surveyors and needs lesser documentation. It improves insurer's profitability.

❖ SCOPE FOR INNOVATION:

Insurers can design custom triggers for specific risks such as excessive heat for gig workers, low windspeed for wind power producers, or flood levels for warehousing firms.

❖ DATA DRIVEN APPROACH:

With digitization, better weather models and mobile distribution, insurers can scale parametric insurance without heavy infrastructure. With rising smartphone penetration and UPI access, parametric policies can be bundled with financial services, digital wallets, mobile recharges etc.

CHALLENGES OF PARAMETRIC INSURANCE

❖ 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.

❖ INFRASTRUCTURAL REQUIREMENTS:

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.

❖ LOW AWARENESS:

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.

❖ TRIGGER CALIBRATION:

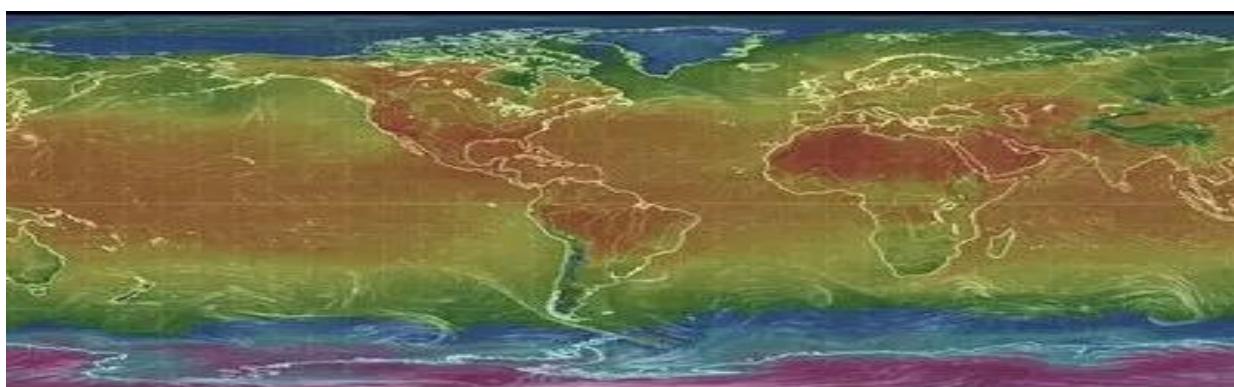
Choosing the right trigger (e.g., 20 mm rainfall over 5 days) and setting appropriate payout levels requires complex statistical and climatological modeling. In India weather varies significantly across districts and one-size triggers don't work. Poor calibration leads to excessive payouts or customer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

❖ LACK OF ACTUARIAL PRICING FRAMEWORKS:

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:

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.



Geospatial Rainfall Distribution Map

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.





GLOBAL CASE STUDIES

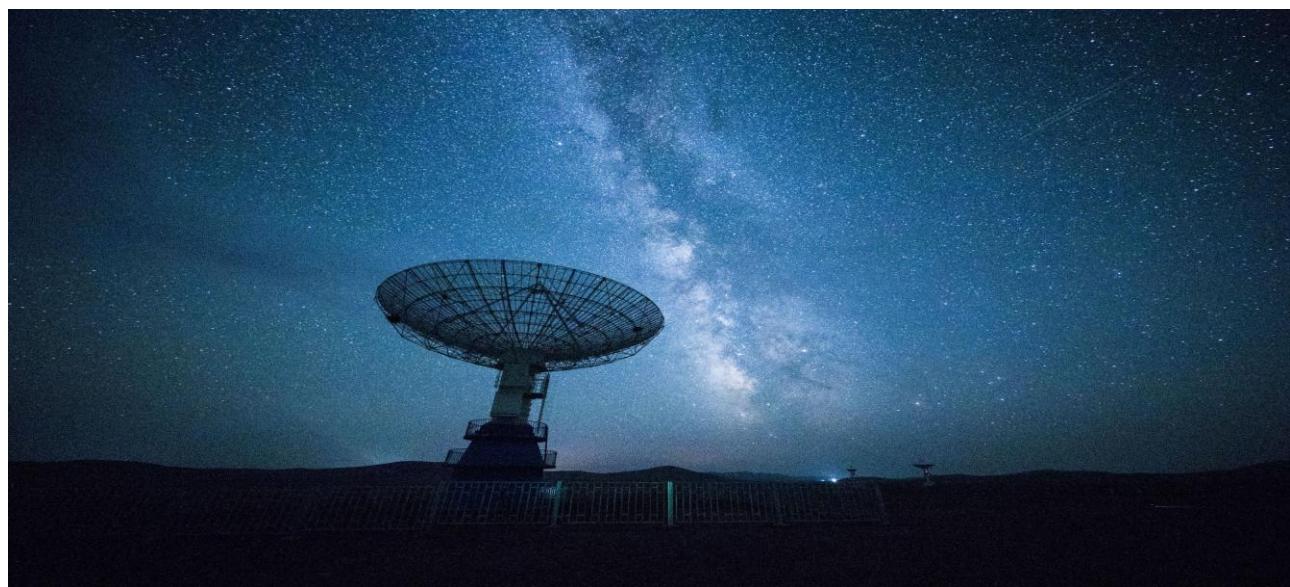
Globally, parametric insurance has been instrumental in strengthening financial resilience against natural disasters.

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.



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INDUSTRY UPDATES

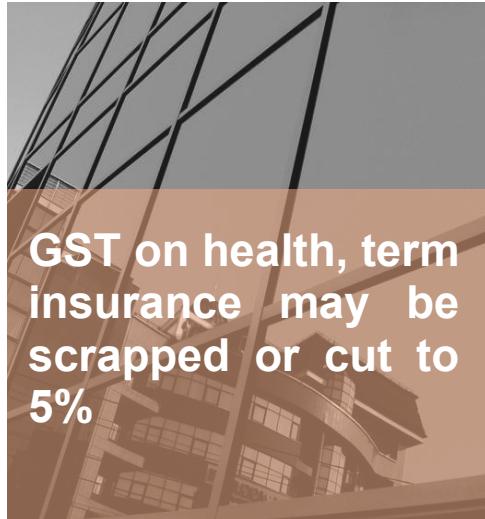


Jio Financial and Allianz Announce Strategic Insurance Partnership

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.

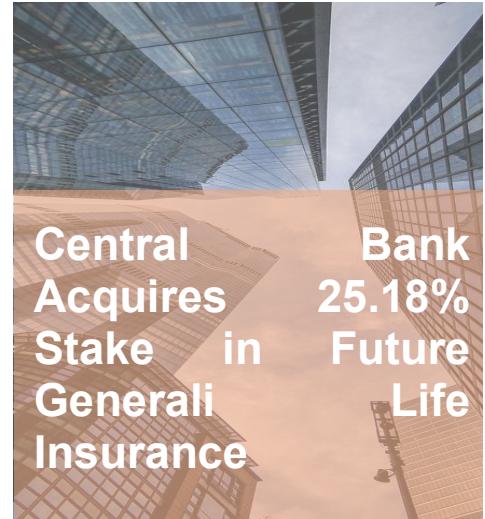
The JV aims to address India's low insurance penetration by offering simpler and more accessible products.



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 Stake in Future Life Insurance 25.18%

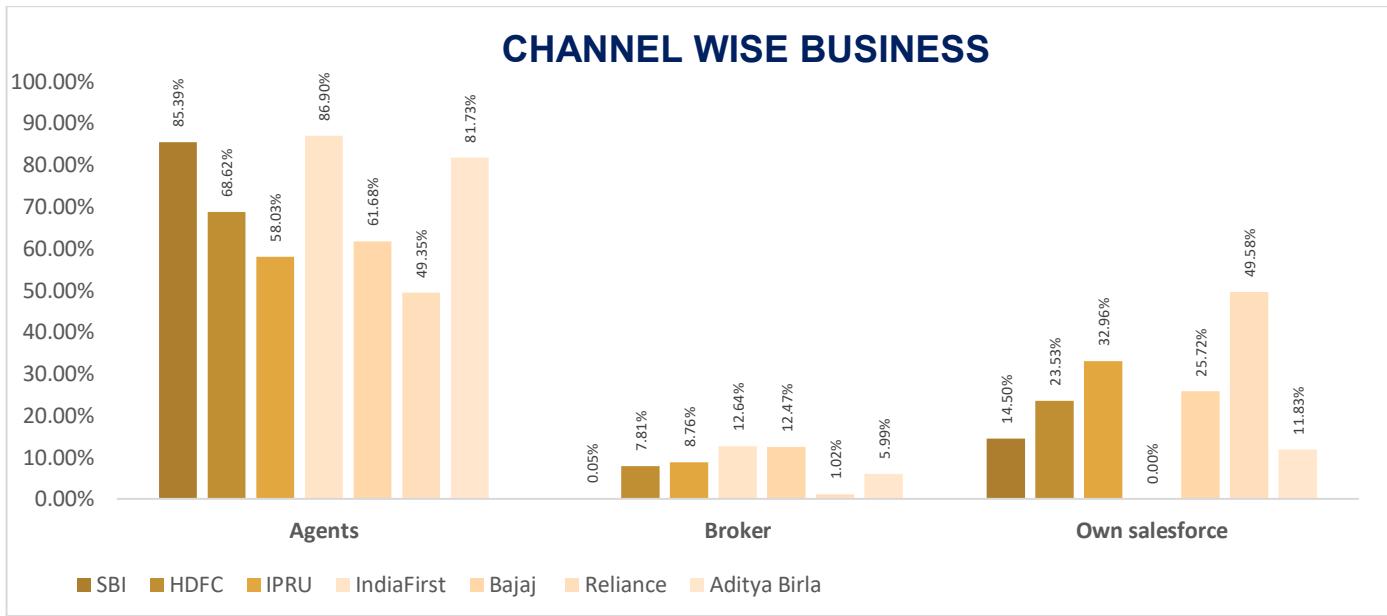
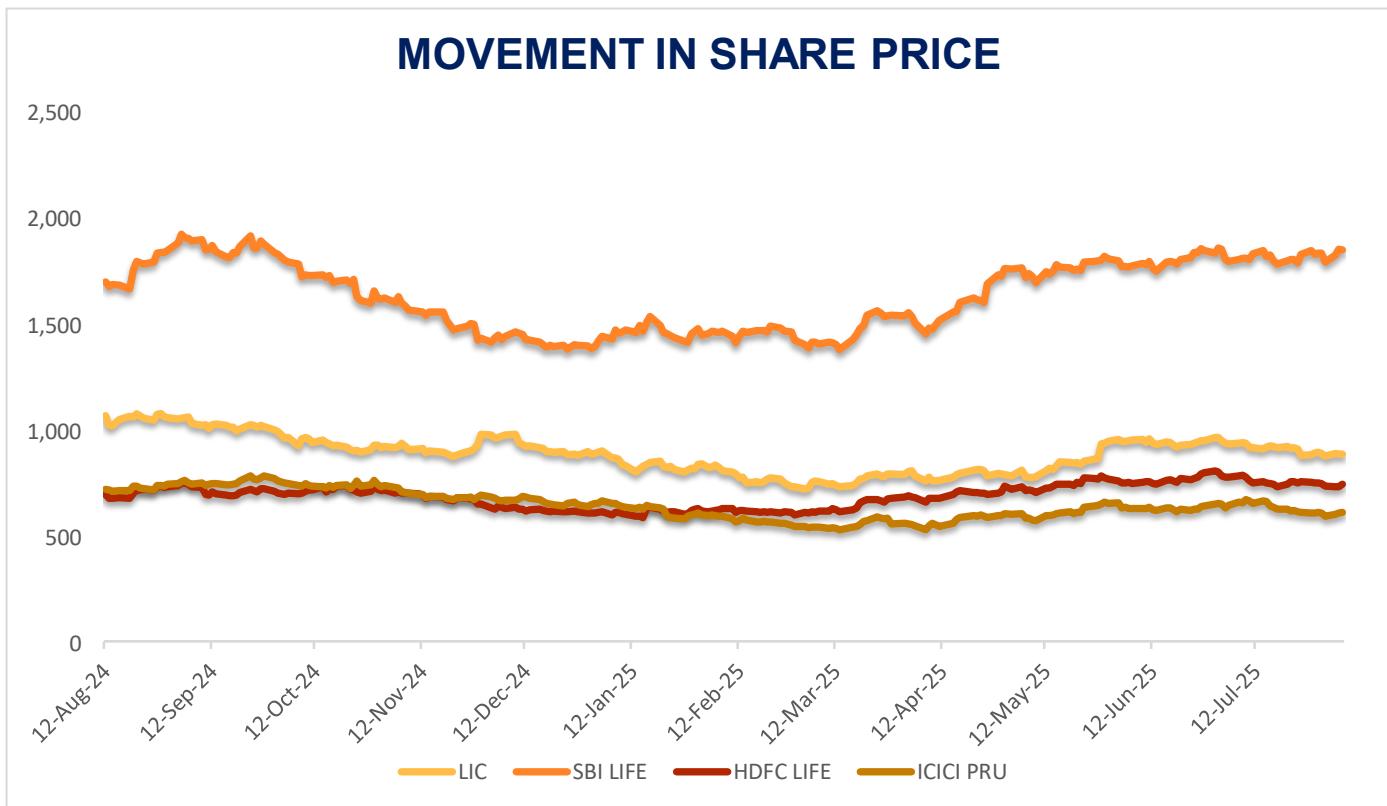
Central Bank of India has picked up a **25.18% stake** in **Future Generali India Life Insurance** for a cash consideration of Rs 57 crore as part of the insolvency process, strengthening its position in the fast-growing insurance sector.

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.

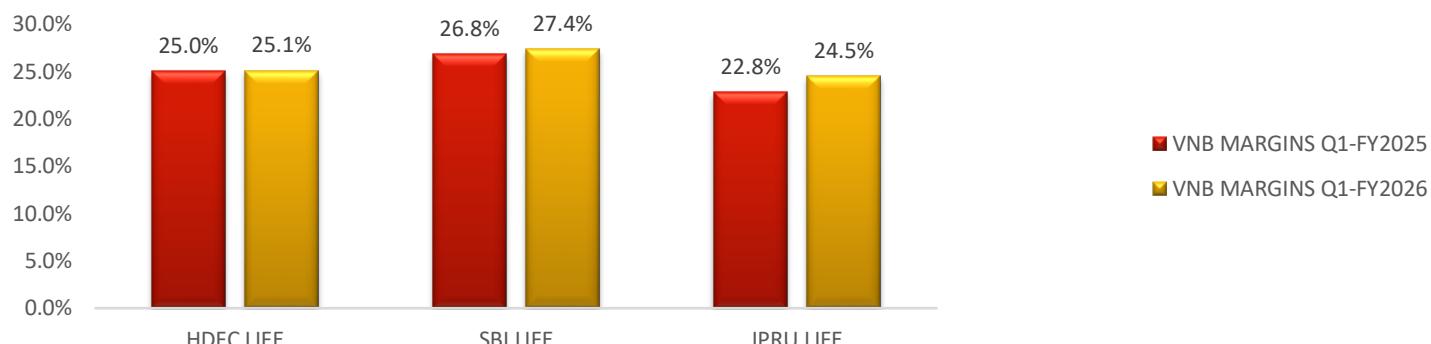
KEY PERFORMANCE INDICATORS (LIFE)



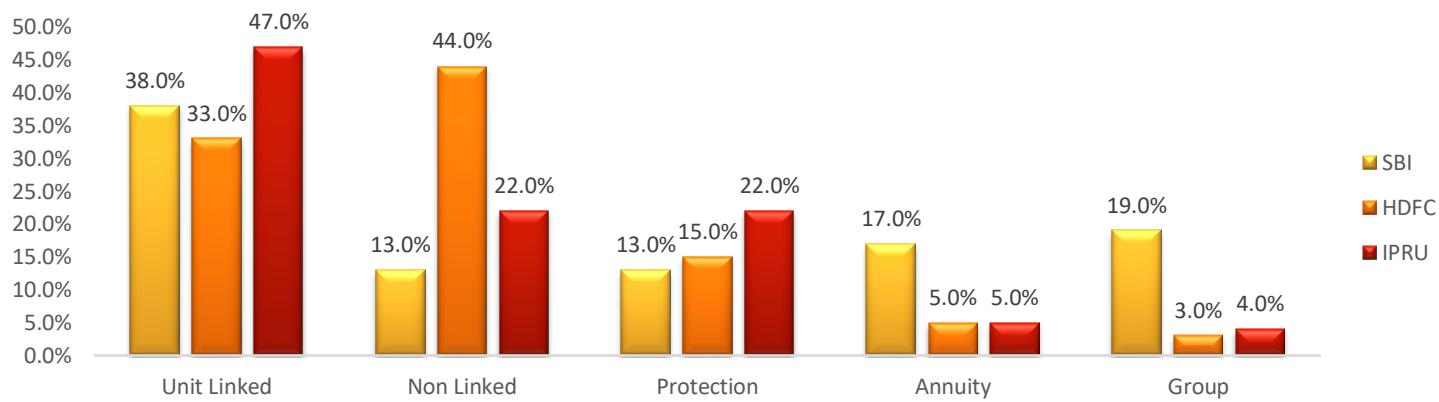
Others include IMF, Common Service Centers, Point of Sales.

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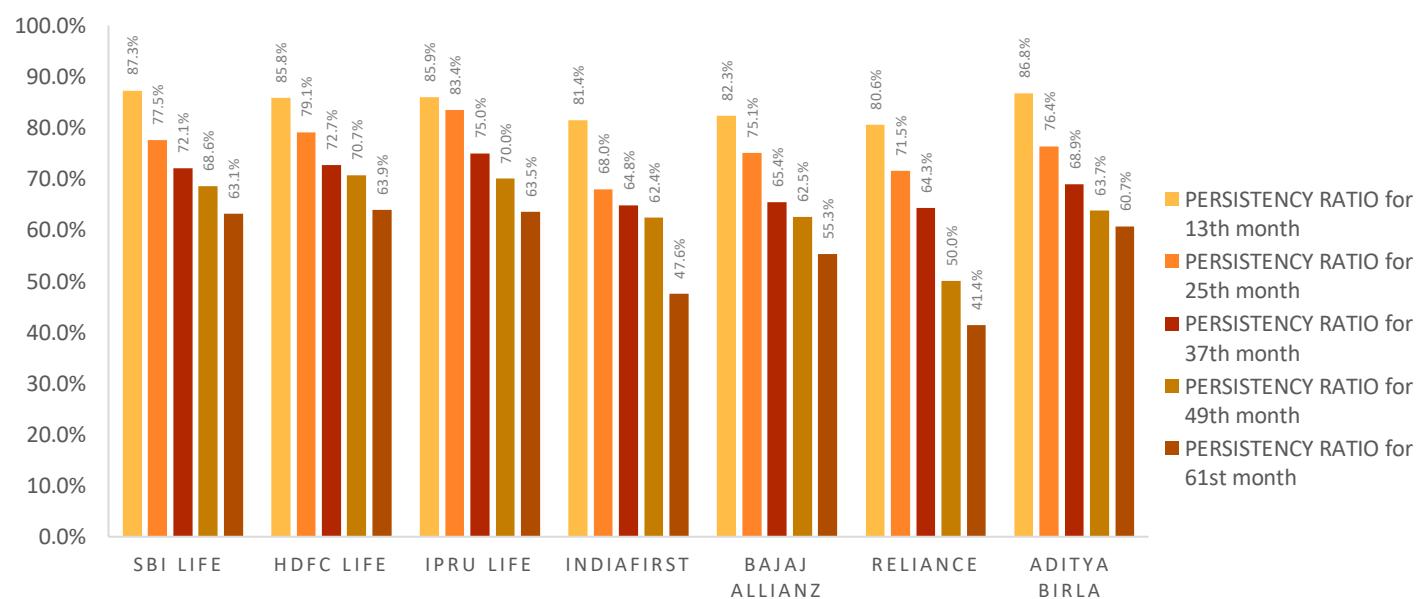
VNB MARGINS



PRODUCT MIX BY LOB



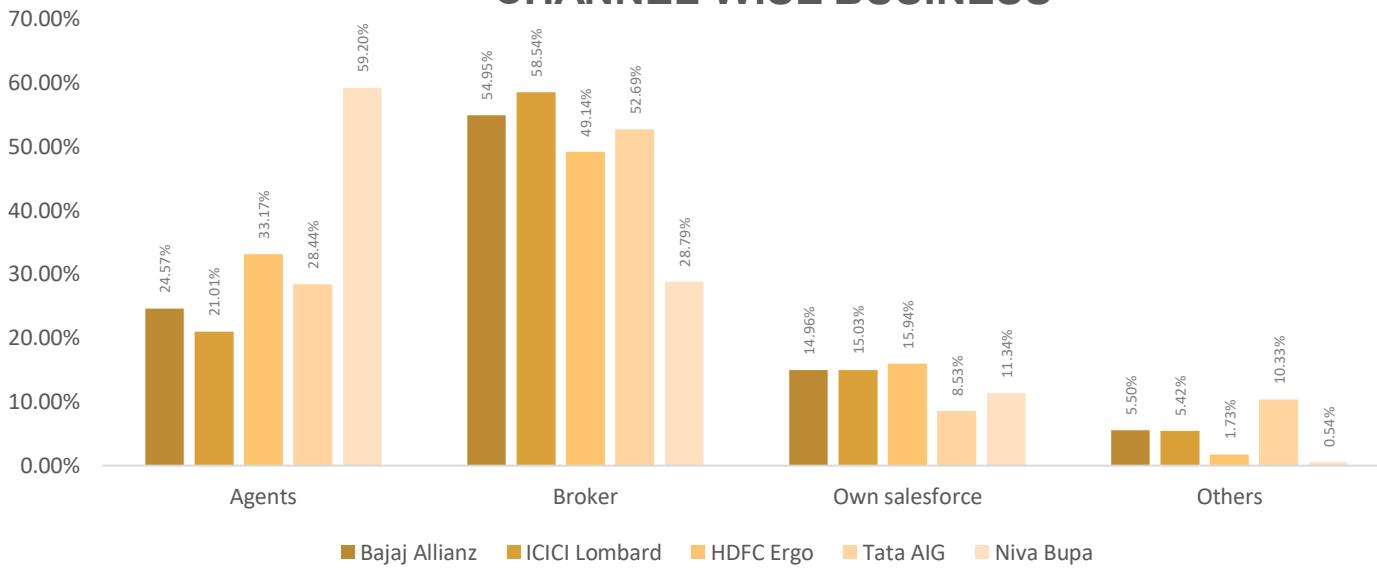
PERSISTENCY RATIO



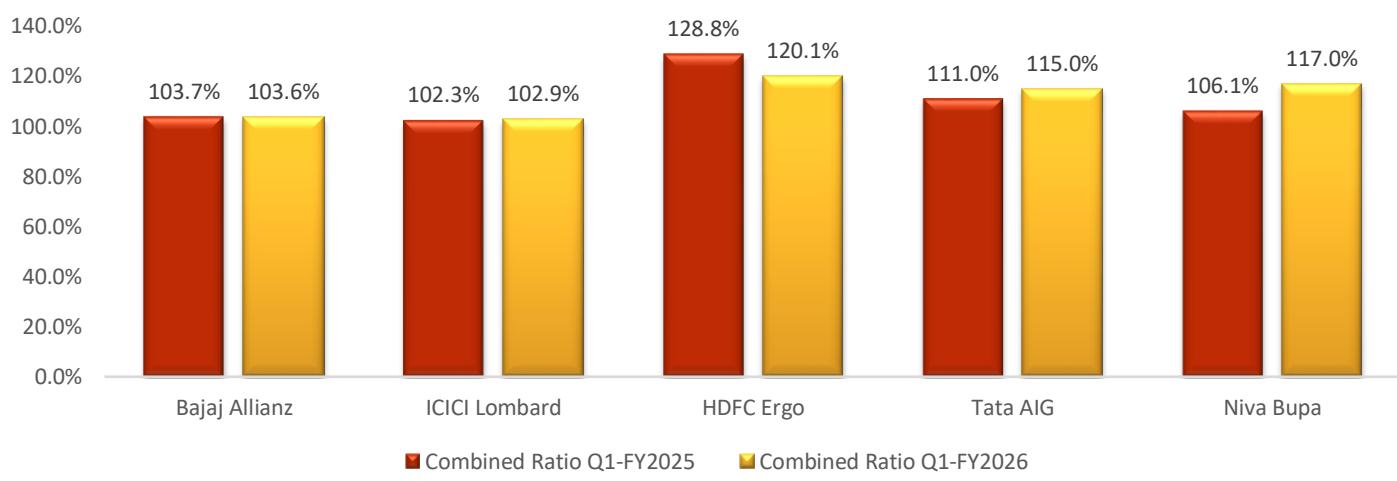
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KEY PERFORMANCE INDICATORS (GENERAL)

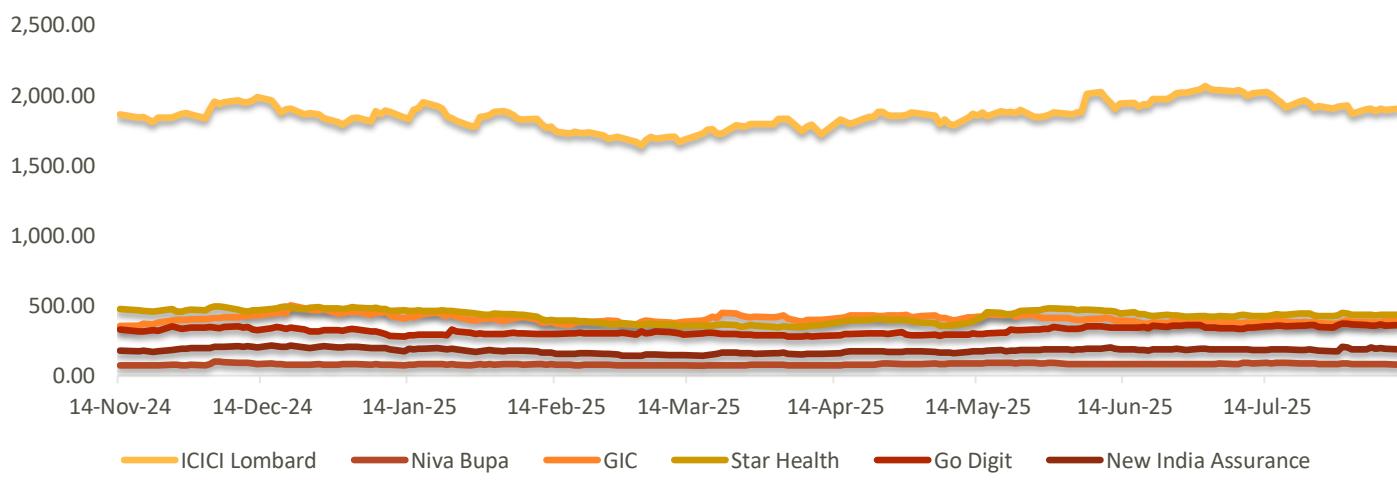
CHANNEL WISE BUSINESS



COMBINED RATIOS

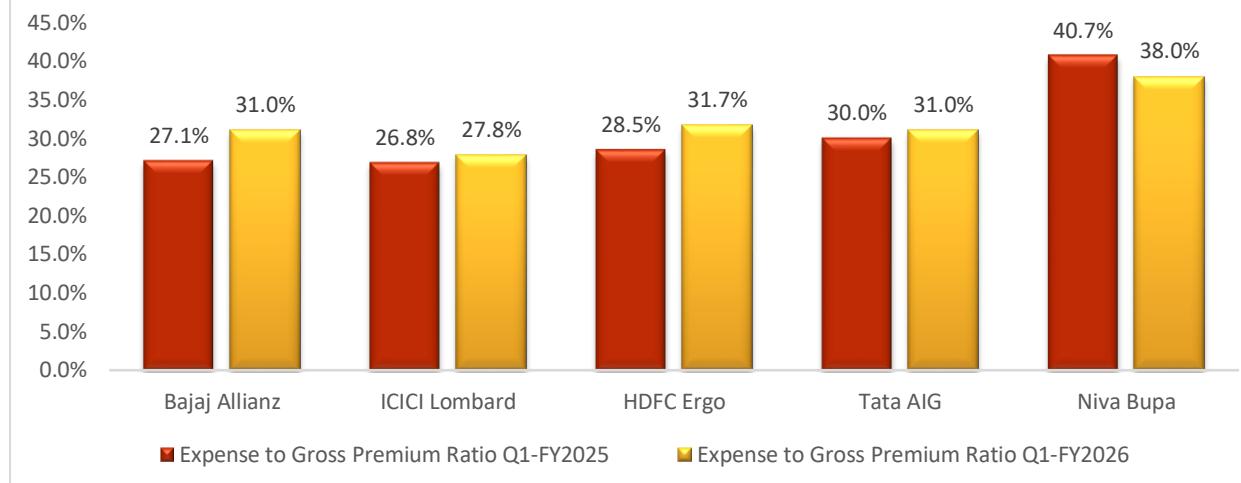


MOVEMENT IN SHARE PRICES



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EXPENSE TO GROSS PREMIUM RATIO



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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.

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