Gallagher Re

Asia Pacific Market Watch

OCTOBER 2023

Executive Summary

In Depth

Market Landscape Reports

A Diverse Collection of Markets

Asia Pacific is a collection of markets that accounted for approximately USD1.7T (or approximately 25%*) of global insurance premium in 2022. The region, however, is fragmented and subject to a diverse range of challenges (and opportunities).

Welcome to the first edition of Gallagher Re's Asia Pacific Market Watch covering insurance market insights, developmental themes and opinion from across the region.

The Asia Pacific (APAC) region is far from homogenous, and as such, this report aims to aid the understanding of the various jurisdiction-specific features along with the current headwinds and tailwinds shaping these markets.

APAC's physical and economic variety makes it challenging to take a generic view across the region. The primary challenge remains a lack of insurance coverage, with penetration rates in certain regions still less than half that of the US/Europe. A variety of socioeconomic issues contribute to this, and while the industry has become increasingly engaged in supporting both governmental and private sector programs across the area to close the protection gap, much work has to be done.

Nonetheless, despite the adverse economic situation, some developing markets in APAC displayed tremendous growth, outpacing many -if not most -established regions pre pandemic. In many respects, the problems of the protection gap serve to highlight the magnitude of the region's potential. The continuous shift of economic trade weight from West to East is well known, and Asia Pacific, which currently accounts for 25% of the global insurance sector, might yet live up to its reputation as the insurance industry's growth engine.

However, over the recent past, we have seen material shifts in market dynamics across APAC due to the impact of the pandemic and associated economic challenges, the increasing frequency of catastrophic events, and changing customer behaviour shaped by the interplay of demographics and technological development. This, coupled with intensifying regulatory compliance requirements and advancing accounting and sustainability standards has presented a set of challenges across the entire insurance value-chain.

The fast-moving emerging markets, that slowed during the pandemic, appear to be rebounding, while mature markets which benefited from governmental support and more robust economies, are in part, being fuelled by rate hardening on property and commercial lines (see Fig 2).

Product ranges and insurance services remain relatively uniform across the region, however, forward-thinking regulators have encouraged change; for example, the trend in de-tariffication of Motor and Fire products has resulted in product innovation and differentiation.

The additional challenge faced by the domestic (re)insurance markets in APAC is the wide range of climatic and tectonic hazards which makes writing a stable and diversified portfolio a challenging proposition. In response to this, the availability and granularity of the analytics offering across the region has grown exponentially in recent years. There are very few portfolios that don't now have access to primary (and often secondary) peril modelling to evaluate their exposure, and financial modelling is now an integral part of the reinsurance purchasing decision.

The enhancement of underlying data detail and consistency has also contributed to a far better understanding of individual portfolio characteristics. Where model gaps remain, these are progressively being filled by vendor or proprietary capacity, and Gallagher Re continues to play a significant role in their development throughout the area.

We hope this report provides useful information for readers who are interested in specific markets, as well as some of the broader themes experienced collectively across the APAC Non-Life insurance market. Our intention is that this Market Watch will be an annual publication, which we will enhance over subsequent iterations. We look forward to hearing your thoughts on this inaugural publication.

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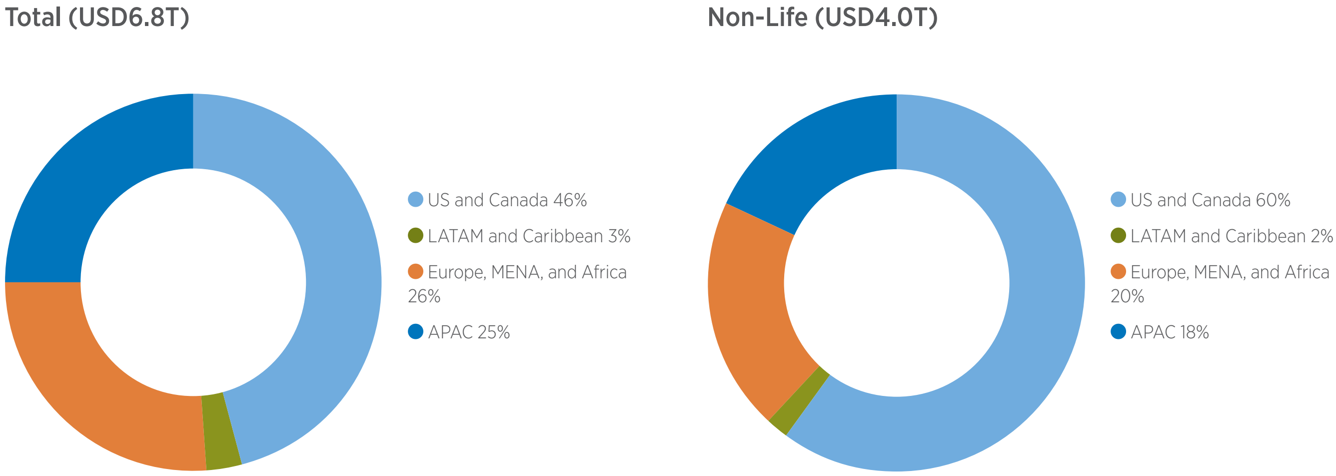
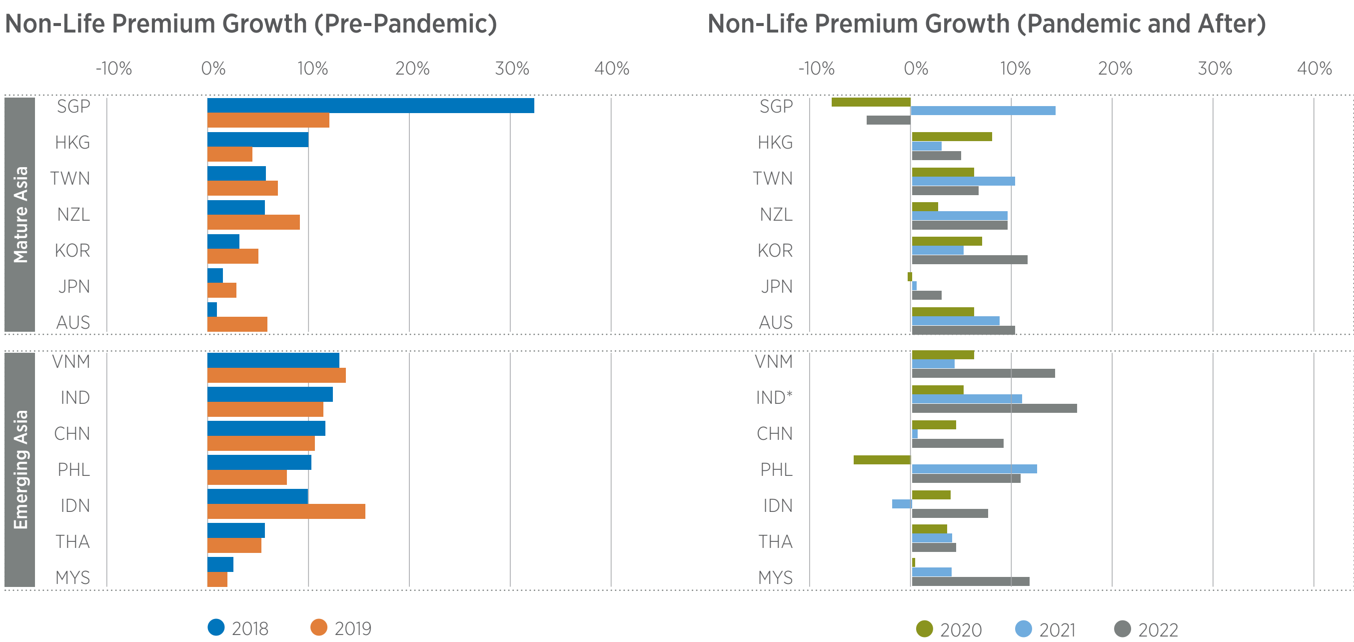
*Swiss Re Sigma Report 03-2023

Figure 1: World premium volume distribution (2022) and recent growth dynamics



Source: Swiss Re Sigma Report 03-2023

Figure 2: Non-Life premium growth (2018-2022)



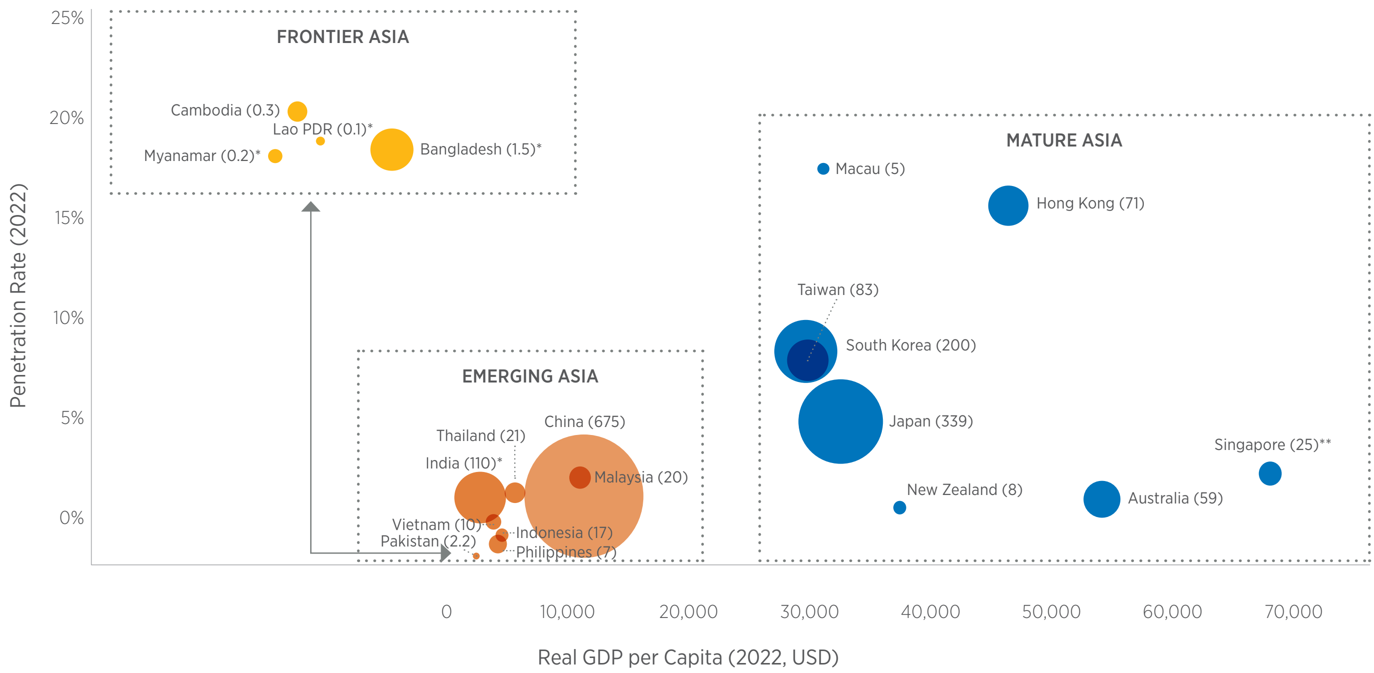
Source: Various insurance association and regulatory websites.
*India: FY2022 premium growth refers to premium for April 2022 to November 2022 compared to previous corresponding period in FY2021

APAC in Numbers

GDP, Production and Penetration

Insurance penetration in the region varies; the market can broadly be characterized as Frontier, Emerging and Mature Asia.

Figure 3: GPD per Capita vs Penetration Rate vs 2022 GWP (USD B)



*Insurance penetration rate for 2021 due to unavailability of 2022 GWP data

**Insurance penetration rate for Singapore includes Singapore Insurance Fund (SIF) business only

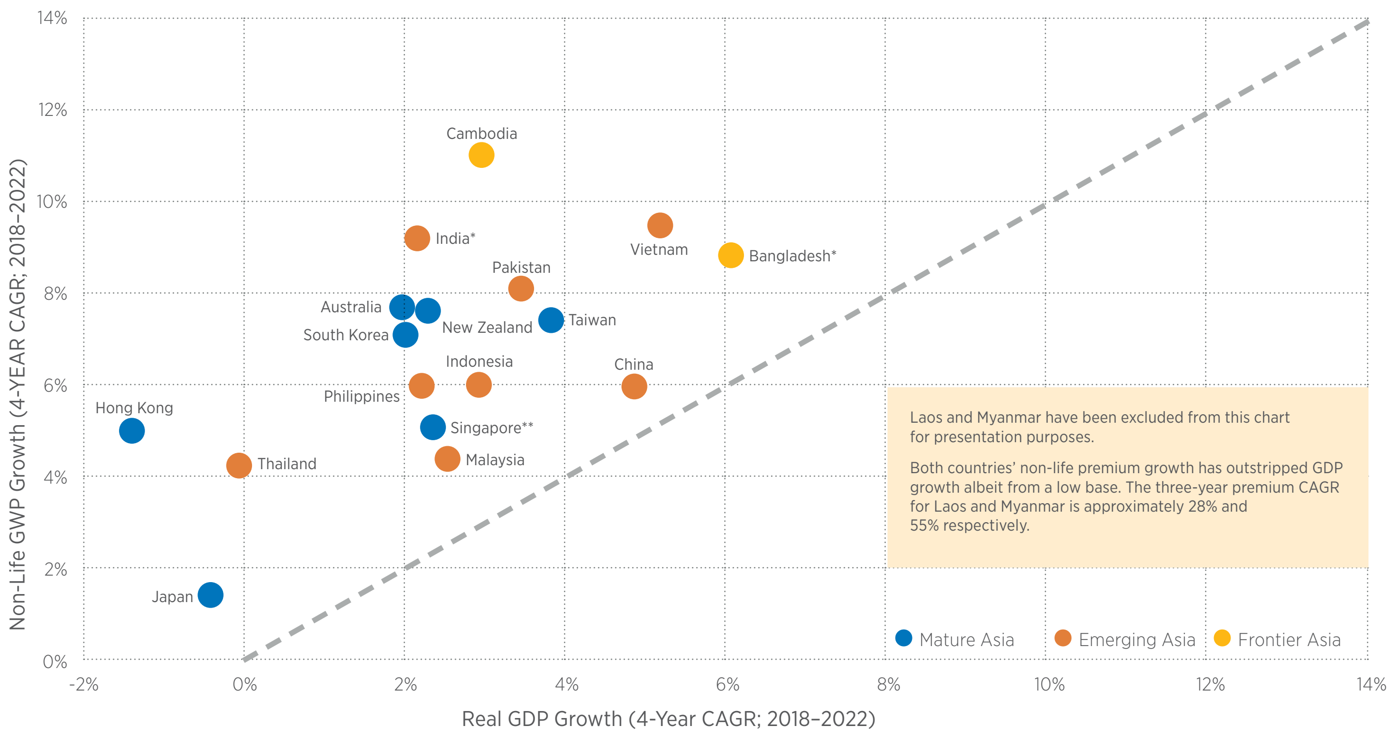
NB: All figures include both life and non-life insurance business; figures in parentheses represent the 2022 GWP in USD B (or 2021 GWP for countries where 2022 data is not yet made available)

Source: World Bank, various insurance association and regulatory websites

Growth

In terms of growth, for all countries in the region, non-life top line has outstripped GDP growth for the last four years. Economic recovery post-pandemic may boost production, but there are several factors that contribute to growth, not least the mix of business.

Figure 4: Non-Life GWP Growth vs Real GDP Growth

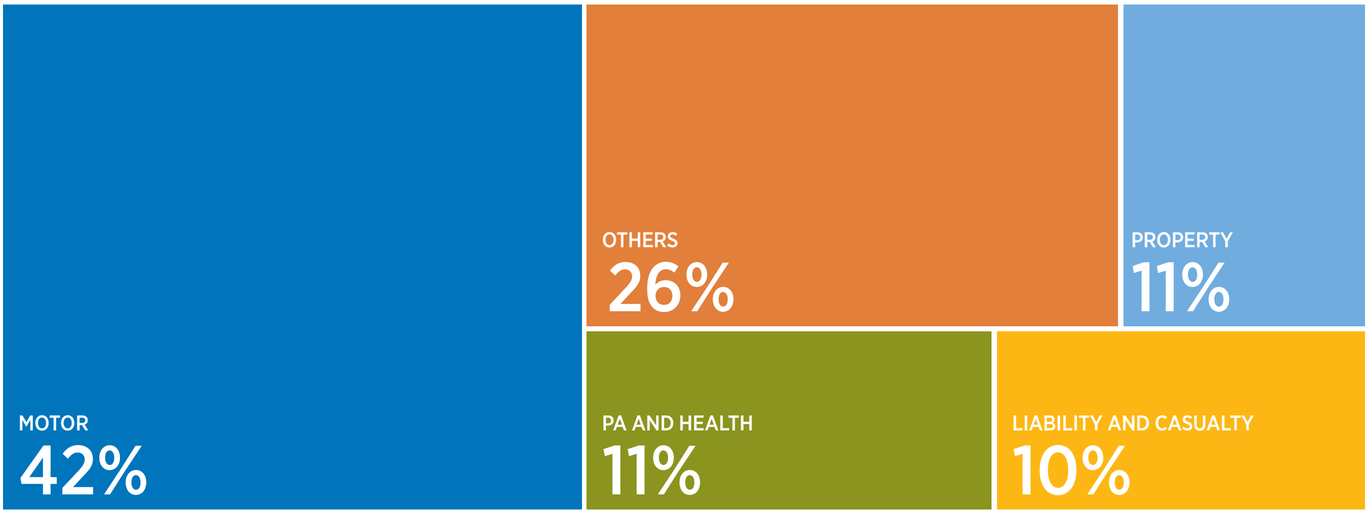


*Refers to 2021 non-life GWP growth and GDP growth due to unavailability of 2022 data

**Non-life GWP growth for Singapore includes Singapore Insurance Fund (SIF) business only

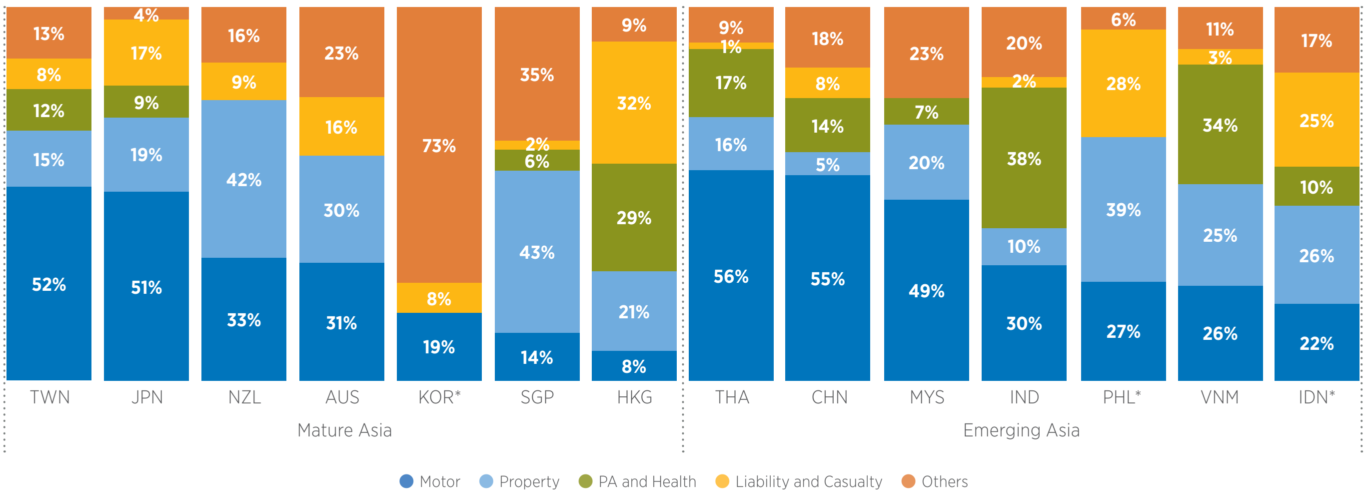
Source: World Bank, various insurance association and regulatory websites

Business Mix



Business mix based on data for Mature Asia (AUS, HKG, JPN, KOR, NZL, SGP, TWN) and Emerging Asia (CHN, IDN, IND, MYS, PHL, THA, VNM)

2022 APAC Gross Premium Mix



*Based on 2021 premium breakdown due to data unavailability

Motor is the dominant classes of non-life business in APAC, contributing to approximately 45% of total gross written premium (GWP). The only exception to this is Korea, where long-term health features in the non-life segment. Property is also sizeable in some countries, notably New Zealand, Australia, Singapore, and the Philippines.

Personal accident (PA) and health products have been drivers for growth in recent years (particularly in Vietnam and India), albeit with an overhang from COVID-19-related claims.

While the pandemic has raised awareness of protection and boosted the PA and health insurance business in the region, claims related to COVID-19 covers issued during the pandemic experienced severe claims deterioration (notably in Thailand and Taiwan), causing capital issues and market exits.

Other important lines for these countries include agriculture for China and India, and credit for Indonesia.

Comparison of Economic and Non-Life Indicators (2022)

Market	ECONOMIC INDICATORS (2022)						NON-LIFE				
	Population (M)	Real GDP per Capita (USD)	Real GDP Growth (4-year CAGR; 2018–2022)	GWP (USD M)	GWP Growth (4-year CAGR; 2018–2022)	Total Insurance Penetration	Non-Life Share of Wallet (SOW)	GWP Growth (4-year CAGR; 2018–2022)	Penetration	Loss Ratio	Combined Ratio
MATURE ASIA											
Singapore***	5.6	69,106	2.4%	24,773	-1.9%	5.2%	15%	5.2%	1%	54%	84%
Australia	26.0	56,539	2.0%	59,235	5.4%	3.8%	71%	7.8%	3%	62%	86%
Hong Kong	7.3	48,247	-1.4%	71,197	2.0%	19.7%	12%	5.0%	2%	55%	90%
New Zealand	5.1	38,492	2.3%	8,095	6.3%	3.4%	80%	7.7%	3%	63%	97%
Japan	125.1	33,289	-0.4%	339,321	3.2%	8.0%	22%	1.4%	2%	59%	92%
South Korea**	51.6	30,147	2.0%	200,252	5.8%	11.8%	48%	7.2%	6%	82%	103%
Taiwan**	23.3	30,349	3.8%	83,427	-8.7%	11.3%	9%	7.5%	1%	56%	93%
EMERGING ASIA											
China	1,411.8	10,353	4.9%	675,296	5.4%	3.9%	32%	6.0%	1%	61%	NA
Malaysia	33.0	10,087	2.5%	20,214	6.1%	5.0%	28%	4.3%	1%	55%	91%
Thailand	71.7	4,302	0.0%	20,629	-4.6%	4.1%	38%	4.3%	2%	89%	125%
Indonesia	275.5	2,710	2.9%	17,081	-0.6%	1.4%	37%	6.0%	1%	68%	96%
Vietnam	98.2	2,392	5.2%	10,412	16.6%	2.6%	27%	9.5%	1%	NA	NA
Philippines	115.6	3,100	2.2%	7,466	7.2%	1.9%	26%	6.1%	0%	40%	87%
India*	1,417.2	1,362	3.4%	110,407	10.5%	3.9%	24%	9.2%	1%	89%	116%

* Insurance statistics based on 2021 data due to incomplete FY2022 data
** Refers to 2021 loss ratio and combined ratio due to unavailability of 2022 data
*** GWP growth and penetration rate for Singapore include Singapore Insurance Fund (SIF) business only
Source: World Bank, various insurance association and regulatory websites

Underwriting results across the region in 2022 are varied, with combined ratios ranging between 84% and 125%, demonstrating the extent of differentiation across the region. Except for a few markets, life insurance is the primary driver of insurance penetration, suggesting opportunity to grow within non-life.

The Thailand loss experience in 2021 has been adversely affected by the lump-sum COVID-19 products that were issued during the first wave of the pandemic. Although still profitable overall, the Indonesian loss experience was similarly affected by claims on the credit class of business during the economic downturn following the pandemic.

The top-line growth seen in Taiwan over recent years is attributed to the growth in the motor segment as well as the takeup of pandemic insurance in 2021. It should be noted that the claims experience has worsened in 2022 (gross loss ratio deteriorated to 135%), driven by rising pandemic claims.

Regulatory Overview*

All markets within our mature Asia sample operate risk-based capital (RBC) solvency frameworks (except for Hong Kong, where solvency framework enhancements are still under development). Within emerging Asia, environmental, societal, and governance-related (ESG-related) compliance initiatives are advancing, mirroring the more mature markets across the region.

Mature Asia

Item	Singapore	Australia	Hong Kong	New Zealand	Japan	South Korea	Taiwan
Accounting framework	IFRS 17 (January 23)	IFRS 17 (January 23)	IFRS 17 (January 23)	IFRS 17 (January 23)	IFRS 17 (voluntary adoption)	IFRS 17 (January 23)	IFRS 17 (January 26)
Capital framework	RBC	RBC	Solvency I	RBC	RBC	RBC	RBC
Planned capital developments	—	New framework due in July 2023	HK RBC framework in development	Final standard due in 2024	Economic value-based framework due 2025	—	New framework due in 2026
ESG developments	MAS has incorporated long-term climate scenarios as part of the 2022 industrywide stress test exercise	APRA expects entities to incorporate climate risk into their risk management frameworks. The Australian government has started a consultation process in relation to climate-related financial disclosure. The mandatory climate-related disclosure requirements will be implemented in three stages based on the size of entity.	A climate reporting framework potentially aligned with the recommendations of the Task Force on Climate-Related Financial Disclosures, is anticipated to be released at some point in the near future.	Mandatory climate reporting for insurers with total assets more than NZD1B (approximately USD0.7B) or annual gross premium income more than NZD250B (approximately USD170.2B)	Mandatory annual ESG disclosures for public companies starting from fiscal year ending March 31, 2023	Phased approach to annual ESG disclosures for listed companies with mandatory disclosure for all listed companies from 2030 onward	Mandatory ESG disclosure for listed companies
Minimum capital requirement	General insurer: SGD10M (approximately USD7.4M) Short-term PA and health policies: SGD5M (approximately USD3.7M)	AUD5M (approximately USD3.6M)	General insurer: HKD10M (approximately USD1.3M) Composite insurer/ insurer writing statutory classes: HKD20M (approximately USD2.6M)	Short-term insurance (non captive): NZD3M (approximately USD2.0M) Long-term insurance contracts: NZD5M (approximately USD3.4M)	Domestic insurer: JPY1B (approximately USD8.9M) SASTI insurer: JPY10M capital (approximately USD0.1M) plus JPY10M (or more) deposit Foreign insurer: JPY200M deposit (approximately USD1.8M) plus requirements on asset holdings in Japan	Insurer: KRW30B (approximately USD24.2M) Foreign insurer: KRW3B (approximately USD2.4M) Small-sum short-term specialized insurer: KRW2B (approximately USD1.6M) NB: Minimum cap varies by line of business for insurers writing single-line business	Insurer: NTD2B (approximately USD65.9M) Foreign insurer: NTD50M (approximately USD1.6M) Foreign insurer in operation for less than three years: NTD2B (approximately USD65.9M) or meet the minimum credit rating requirements
Minimum solvency margin	100%	Capital in excess of the prudential capital requirement (PCR). PCR comprises separate charges for insurance risk, insurance concentration risk, asset risk, asset concentration risk, and operational risk, with diversification benefit.	Solvency I regime: solvency margin determined on either a premium income or a claim liability basis, whichever is greater.	80% on minimum cap	200%	100% (150% in practice)	200% (Insurers must also maintain a minimum net worth ratio of 3% in at least one of the last two periods.)
Allowance for cat	Yes	Yes	No	Yes	Yes	Yes	Yes

Based on Gallagher Re's understanding of the regulatory developments at the time of writing.
NB: FX rate as at January 1, 2023
Source: Various Insurance Association and Regulatory websites

Emerging Asia

Item	China	Malaysia	Thailand	Indonesia	Vietnam	Philippines	India
Accounting framework	IFRS 17 (January 23 for listed insurers; January 26 for all other insurers)	IFRS 17 (January 23)	IFRS 17 (January 24)	IFRS 17 (January 25)	IFRS 17 (voluntary from 2022; mandatory from 2026)	IFRS 17 (2025)	IFRS 17 (April 2024 or April 2025)
Capital framework	RBC	RBC	RBC	RBC	Solvency I	RBC	Solvency I
Planned capital developments	—	Enhancement due in 2024	Enhancement expected after IFRS 17 implementation	—	New framework due in 2028	General (re)insurers with GWP exceeding PHP2B are required to submit their first ORSA report covering FY2023 on or before Q4 2024	New RBC framework in development
ESG developments	CBIRC has issued sustainability standards for insurance companies and requires management to focus on ESG risks (including ESG considerations in their investment decisions)	Insurers are required to meet BM's governance, strategy, risk appetite, and risk management requirements by December 23, and scenario analysis, metrics, targets, and disclosure by December 24	No ESG guidelines specific to the insurance sector at the time of writing. However, it is expected that the OIC would prescribe ESG-related regulations and guidelines given that ESG sustainability and green insurance are advocated in the Fourth Insurance Development Plan	OJK issued ESG regulations requiring corporations to demonstrate their sustainability credentials annually	Publicly listed companies are required to disclose ESG performance in annual reports, which must be made public and submitted to the State Securities Commission of Vietnam and relevant stock exchange	Mandatory ESG reporting by 2023 following the Task Force on Climate-Related Financial Disclosures (TCFD) and Sustainability Accounting Standards Board (SASB) standards	Mandatory annual ESG disclosure from financial year 2022–23 for the top 1,000 listed companies; no specific climate risk/ ESG regulations for the insurance sector
Minimum capital requirement	Per business segment: RMB200M (approximately USD29.5M) Per branch RMB20M (approximately USD2.9M) Maximum capital for multiple branches: RMB500M (approximately USD73.7M)	General insurer: MYR100M (approximately USD23.1M)	General insurer: THB300M (approximately USD9.2M)	Insurer: IDR150B (approximately USD9.9M) Sharia insurer: IDR100B (approximately USD6.6M)	General insurer writing general and health insurer*: VND400B (approximately USD17.5M) General reinsurer writing general and health insurer: VND500B (approximately USD21.8M) • Different minimum capital applies to insurers writing aviation and/or satellite insurances	General insurer: PHP1.0B (approximately USD18.2M) Composite insurer: PHP2.0B (approximately USD36.4M) Microinsurer: PHP0.5B (approximately USD9.1M)	Insurer (local and foreign): INR1B (approximately USD13.4M)
Minimum solvency margin	100% (Core solvency ratio: 50%)	130%	140%	120%	25% of total retained premiums or 12.5% of total original GWP plus inward reinsurance premium, whichever is greater	100%	150%
Allowance for cat	Yes	No	No	Yes	No	Yes	No

Based on Gallagher Re's understanding of the regulatory developments at the time of writing.
NB: FX rate as at January 1, 2023
Source: Various Insurance Association and Regulatory websites

In Depth

Growth Ambitions: Recycling Capital for Better Returns

A tougher economic backdrop and a tightening of reinsurance capacity are prompting APAC insurers to look at optimizing their balance sheets and consider new operating models.

Key takeaways

- Reinsurance capacity has tightened relative to demand so far in 2023, particularly in the APAC region.
- With APAC insurers' comparatively high reliance on reinsurance, its rising cost has made balance sheet optimization a higher priority for cedants.
- Against this backdrop, retrospective solutions are gaining in popularity, as cedants look to divest noncore or legacy liabilities.
- Nevertheless, such transactions can be initially complex and time-consuming. Cedants will benefit from working with a specialist advisor to find the right partner for them.

Prolonged challenges for APAC insurers

Renewals in 2023 revealed a strong emphasis on price and contract conditions across all areas and lines of business. Although reinsurers are still well capitalized, rising interest rates have caused some to incur mark-to-market investment losses, leading to limitations on capital.

While the supply of capacity appeared adequate at renewals, there is a sense that supply dynamics will continue to be challenged into 2024, with no quick return to the historic oversupply. Although economic capital remains strong, globally we have seen reinsurers take a more disciplined and cautious approach in deploying their capital. This, in turn, has led to a tightening of capacity relative to demand.

The drive by reinsurers to generate better returns on deployed capital will put pressure on cedants to pass on price increases to the primary market and enhance their risk management practices, not least because of the expectation that reinsurance market hardening will continue. While there are a number of factors that contribute to this, the key point is the persistence of the underlying drivers.

The tightening supply of capital relative to demand could be particularly acute for APAC operators. One contributor to that supply/demand dynamic is inflation. While inflationary pressure across APAC was a less prominent topic compared to Europe or the US, the region was not entirely immune. Inflationary effects were seen in several countries following increases in food, energy, and commodity prices. In addition, APAC is experiencing the weakening of local currencies, while disruptions to supply chains arising from the COVID-19 pandemic have still not fully eased.

Furthermore, insurers in emerging markets in Asia have generally operated a highly leveraged insurance/reinsurance model—meaning there is generally a high reliance on reinsurance. This leads to a multiplier effect where a small reduction in reinsurance supply leads to a material impact on an insurer's results. In particular, proportional reinsurance has been the financial foundation of many carriers' capital management strategies, so any continued contraction of proportional reinsurance supply will be of concern.

These features, along with other headwinds, have contributed to continued rate increases in the reinsurance market, with price increases then reflected in the primary markets to an extent. Climate-related losses, for example, have resulted in outsize reinsurance losses in some markets, leading to reinsurers taking a conservative view of future trends and losses. This has led to the withdrawal of capacity (especially for higher-frequency events), coupled with higher pricing.

Asia has been a major contributor to the global growth engine with recent inflationary pressure further intensifying growing business needs. Additionally, there are a number of factors in the APAC market that potentially push the demand for capital solutions and resources.

- GDP growth/economic recovery post-pandemic, boosting the demand for insurance
- Increased claims inflation, leading to pricing revisions and increased solvency and capital requirements
- Governmental and social pressure to address the protection gap (under-insurance)
- Macroeconomic issues such as exchange rate and capital market volatility
- Tightened monetary policies, climate risk, regulatory solvency, and accounting regime changes
- Limitations on traditional capital, combined with higher costs of reinsurance and increasing retentions, which place pressure on solvency ratios and profit margins

As companies seek to optimize performance, there will be a trade-off between growth, profitability, and solvency. To better manage risk and capital, structured and customized solutions are gaining traction, with retrospective products increasing in popularity.

Retrospective solutions allow carriers to unlock reserve capital. This can lead to higher returns, as profit earned over the lifetime of a product (i.e., from inception to final settlement of ultimate claims) contracts faster than capital held over its lifetime. At a certain point, therefore, profit outstanding is small compared to meaningful capital requirements, so strategically it may be better to “cut off the tail” and release the capital for redeployment into more profitable opportunities.

Retrospective reinsurance also allows for potential exits of non-strategic classes of business, again freeing up capital to deploy elsewhere. This enables firms to focus on their core business strategies, and achieve a better balance between solvency and performance. Retrospective structures can be a cost-effective capital solution, especially as there are different market cycles for the prospective and retrospective market providers, that can be optimized for both existing and ongoing capital funding needs.

Capital recycling

Tougher economic and market conditions will keep pressure on margins and overall profitability, while the cost of capital remains high in the short to medium term. In Asia, developing regulation, which focuses on reserve adequacy and capital allocation, is also highlighting underperforming lines. This, in turn, is reshaping business strategies.

As regulators place greater pressure on carriers to strengthen reserves and the cost of financing capital goes up, capital-supporting reinsurance structures can be more cost-effective. This is particularly true of retrospective products in respect to incurred losses (e.g., a reserve quota share, or loss portfolio transfers) where there is no need to factor in the unearned risk and cat loadings inherent in prospective quota share arrangements. In practice, however, a combination of prospective and retrospective solutions is typically considered.

Consider the motor class of business, which dominates portfolios across APAC. Motor is a capital-intensive product that is often used to fuel growth in other lines of business via proportional treaties. The inclusion of retrospective structures (which invariably can be priced more keenly for the reasons mentioned above) within a company’s reinsurance program could make legacy business management a key component of the management toolkit.

In the US and Europe, retrospective solutions have become a standard approach for efficient capital management. Asian deals, however, tend to be more ad hoc, and it will take time to educate key stakeholders to encourage buy-in. There are significant execution risks if any party to a deal is unclear on the processes and requirements. Regulators also need to have confidence in the approach. The path to placement can be complex and timelines can be long. Nonetheless, there appears to be growing interest in this kind of transaction from cedants across the region, in combination with the emergence of legacy acquirers and capital as potential strategic partners.

With rapidly rising financing costs, insurers are coming to the realization that it makes sense for them to actively manage their demand for capital. The divestment of non-core liabilities creates opportunities to lower operational spending and financing costs. Optimization of reserve capital is increasingly seen as another capital management lever that can be deployed to support return-on-equity (ROE) enhancement and create significant value for shareholders.

In the current environment, cedants are likely to weigh the benefits of retrospective solutions against retaining assets to avoid crystallizing unrealized investment losses. An additional question to consider is whether the yield on retained reserve assets will stay ahead of claims inflation—in other words, is it better to retain investment control or minimize potential volatility by ceding to a third party?

As for the counterparties to such deals, there is wide variability in their risk appetite. This is dependent upon the line of business under consideration, the territorial scope of any deal, and the bandwidth of the acquisition team. This latter point has become more pertinent in the wake of COVID-19, as managements reassess their strategies.

Insurers looking to take advantage of a favorable rating environment, and release and/or reallocate capital to support their growth, should consider retrospective solutions as a vital addition to their capital management toolkit. And in doing so, they need to have confidence that they can find the correct acquirer—one not only with the appetite and ability to transact, but with the right partnership mindset.

This is where a broker can add considerable value. Cedants should consider those with a broad range of skill sets that can be deployed in support of their transaction (including actuarial, capital, accounting, claims, and project management capabilities). In addition, they should look for brokers with a high rate of deal-flow, which demonstrates strong relationships with the market's key legacy acquirers.

Gallagher Re: It's the *way* we do it.

- **Key deals:** 11 major transactions with USD4.5B of volume traded in the last 24 months
- **Fully-integrated:** Part of Gallagher Re's core offering, working closely with account managers and line of business experts
- **Global footprint:** 50 professionals with centers of excellence in London, New York, and Singapore
- **Breadth of services:** Our multi-disciplined and stable team

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APAC Inflation: Higher for Longer?

While inflation in APAC countries has been lower than that seen in other areas around the world, there may be prolonged challenges.

Key takeaways

- While economic inflation in Asia has been less severe compared with Europe and the US—and is currently showing signs of a slowdown—it is forecast to track at a higher baseline level over the short to medium term.
- Inflation has had complex effects on various aspects of the Asian non-life market, including underwriting, reinsurance, investment, and capital movement.
- However, decelerating inflation and rising interest rates have recently boosted investment earnings and equity returns, and insurers that have adopted proactive measures have been able to mitigate negative effects and maintain stability.

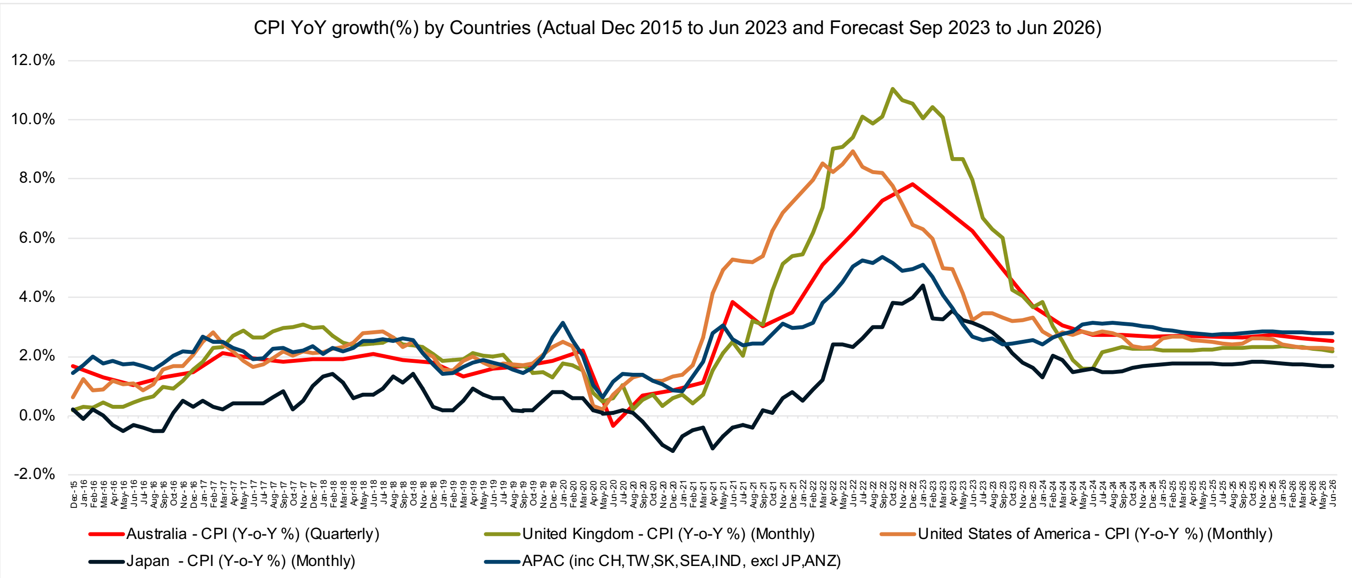
Economies in APAC experienced their highest rate of inflation in over a decade in 2022. The pace of rising prices has slowed somewhat in 2023, but insurers in the region are still feeling the effects across their businesses—and are developing strategies to mitigate them in response.

Different lines of insurance business experience inflation differently, so while decreases in the headline inflation rate experienced across the economy might be taken for a good thing, insurers still need to carefully manage their exposure to rising prices in certain specific areas—such as wage growth or rising legal costs.

The economic landscape in APAC

Most of the developed world has experienced a jump in inflation in the years following the COVID-19 pandemic, but it has been less pronounced in Asia than in Europe and the US. There are a number of reasons for this. Asian governments tended to deploy less fiscal stimulus during the pandemic, central banks have been more cautious, and labor supply has remained resilient. Economies in the region also have a closer proximity to manufacturing hubs.

Nonetheless, inflation in the region has risen over the past two years, reaching a peak in the second half of 2022. Recent figures suggest that core inflation has generally stabilized, notably in emerging markets such as Indonesia, Malaysia, the Philippines, and Thailand. However, headline rates in some countries remain above government targets, indicating that inflation is unlikely to return to pre-pandemic levels (approximately 2%) in the near future.



A nuanced picture: How rising inflation impacts on APAC insurers

While headline inflation (usually measured in terms of CPI) appears to be tracking down, it may not be the best metric for every line of insurance business. The appropriate index depends on underlying cost drivers and the dominant peril. Whilst CPI is broadly indicative of household prices, services, and transport, there are also wage, medical, and social inflation to consider, with varying impacts on property and liability, medical and health liability, and casualty claims, respectively. A notable dynamic is that inflation of global construction material costs is falling faster than that of construction labor costs. By extension, where wage inflation continues to be high, elevated costs for claims where wages are a core component are likely.

Notwithstanding the notable differences by line of business and tail, where longer-tailed lines should theoretically result in more significant pricing adjustments due to the relative inflation impact, inflation indices are nuanced across APAC, and cultural/societal dynamics also need to be well understood when formulating mitigation strategies—for example, jury awards and legal cost inflation are less problematic in APAC as they are in the US.

Furthermore, price regulations (tariffs) may reduce the ability to adjust prices for specific lines or markets. There is also keen competition between carriers in the APAC region, particularly in retail markets where policyholders regularly switch providers to secure better prices or even opt to cancel/reduce cover due to affordability challenges. This, again, hinders their ability to adjust pricing in line with inflation. This is particularly relevant for the APAC region, where economic dynamics and susceptibility to inflation vary, potentially intensifying insurance supply and demand dynamics.

The commercial lines sector has benefited from favorable adjustments in rates, which have been both early and robust. This is exemplified by higher rate increments in lines such as general liability (GL) and professional liability (PL) over several years. This makes for a sharp contrast with short-tail retail lines such as motor and household, where pricing has been largely reactionary. It should also be noted that various mitigants such as indexation andTSI/coverage adjustments have reduced the need for explicit pricing adjustments. More generally, since most portfolios in Asia are dominated by short-tail classes, the underlying drivers of inflation are more muted. This has made the topic less pertinent in renewal discussions.

A notable area of caution is property insurance, which is vulnerable to nat cat damage. Loss costs are impacted by the costs of materials and construction, which are linked to input prices such as the Producer Price Index (PPI). This is more pronounced when considering notable cat-related losses such as those seen in Australia and the Philippines, which have resulted in significant demand. However, it is challenging to isolate the impact of inflation from demand surge and the frequency of nat cat events.

Investment dynamics and capital

APAC central banks have raised interest rates to combat inflationary pressure, although some have maintained a longer-term accommodative monetary policy, (e.g., China, Japan, and Vietnam). Rising interest rates have helped boost investment income and somewhat counterbalance the underwriting results impacted by inflation. Some APAC central banks have slowed down increases and are expected to cut rates when consumer inflation moves to a target level, although this may take a while. As the US Federal Reserve hiked its policy rate aggressively, Asian currencies depreciated across the board against the US dollar between the end of 2021 and the third quarter of 2022. This had been an issue for companies with international business, where large currency movements resulted in capital volatility due to the mismatch. Loss reserve positions are dependent on the degree to which future rates are in excess of historical rates, the length of the claims patterns (i.e., the reserve duration), and the persistence of excess inflation into the future. This means policy reserves vary by line of business, with longer-tail classes being more sensitive to excess inflation. Gallagher Re analysis suggests that five percentage points of excess inflation can lead to a approximately 60% change in ultimate cost for 10-year liabilities, compared to a approximately 30% change for five-year liabilities.

Reported capital was impacted negatively by market movements in 2022 from unrealized investment losses. However, markets have rebounded in 2023, boosting earnings for many APAC insurers because of higher reinvestment yields. This has been reflected in both reported and regulatory capital models that are based on market-consistent balance sheets. But in the APAC region, where solvency frameworks are mostly risk-based capital (RBC) or Solvency I regimes, the application may be inconsistent.

For example, in some markets in APAC, insurers can choose whether to apply explicit inflation discounting when reserving. This may lead to asset/liability mismatches, if assets are valued on a market-consistent basis and liabilities are not. The adoption of IFRS 17 and the enhancement of RBC frameworks in several APAC markets, such as South Korea, Malaysia, and Singapore, are expected to alleviate these impacts.

Reinsurance challenges

Against this backdrop, the global (re)insurance market is grappling with cautious capacity and capital availability.

The non-life insurance markets in the APAC region have been impacted by escalating reinsurance costs and stricter coverage terms, particularly in areas impacted by meaningful natural catastrophe losses like Australia, the Philippines, and Malaysia. Whilst reinsurance rates have experienced risk-adjusted increases in both loss-free and loss-impacted portfolios, levels are more muted compared to the US and Europe, with inflation discussions also being less of a headline influence. Nevertheless, cedants have confronted rising reinsurance rates, diminished proportional capacity, lower reinsurance commissions, increased retentions, and more restrictive terms during renewals. Additionally, expense ratios have trended higher due to increased acquisition costs and reduced commission income from reinsurance.

Strategies to navigate the challenges of inflation

Insurers with strong risk management and nimble strategies have weathered inflationary pressures more effectively. Comprehensive risk management includes stress testing claims against inflation scenarios, assessing economic impacts, regular monitoring and pricing, reserve adjustments, and adjusting reinsurance coverage to current needs.

Also, the contract design for original policies needs to respond to inflationary pressure, with some insurers adopting innovative underwriting practices and refined policy responses such as percentage deductibles and updated total insured values (TIVs) to allow for more precise pricing.

To manage reinsurance costs, increased retention levels, and inflation uncertainty, prudent insurers have adopted several proactive measures; including structured reinsurance and multiyear arrangements, which capture the benefits of time diversification. Retrospective solutions like loss portfolio transfers and adverse development covers, particularly on long-tail classes, are also effective in managing inflation uncertainty or boosting solvency levels.

Exploring both traditional and alternative risk transfer solutions can mitigate the issue of limited appetite in some markets, particularly related to frequency activity. Certain types of financial and insurance products directly address the impacts of inflation risk (e.g., indexed property policies), offering options to adjust coverage limits based on inflation indices, while inflation-linked bonds provide returns linked to inflation rates.

Globally, cat bonds and parametric (re)insurance have gained traction, not necessarily due to their explicit coverage of inflation, but rather in response to capacity withdrawal and shifts in reinsurer appetite. Parametric (re)insurance in particular, which pays out based on predefined event triggers (e.g., magnitude of an earthquake), removes inflation uncertainty from capacity providers.

Given the expectations for stickier inflation dynamics, cedants should consider tailored reinsurance solutions, both traditional and nontraditional, to help proactively manage inflation risks. Partnering with firms that have extensive market coverage, data-driven insights, and customized strategies can assist with this.

Gallagher Re's structured reinsurance capabilities

Structured reinsurance is designed to meet insurers' need for capital efficiency, reduce earnings volatility, and improve their profitability.

With inflation generating higher uncertainty, intuitively insurers would be looking to at least maintain coverage. However, this can be challenging, given the higher attachment points in today's hardening market, with pressure on retentions leading to prohibitive pricing or capacity withdrawal from the traditional reinsurance space. One potential solution is a structured multi-year excess of loss program, targeted at working layers.

There are two key features of such transactions, the first being the multiyear duration, which leverages time diversification to reduce volatility for more efficient risk transfer, and the second being a profit commission (PC) feature.

With such a transaction, the client is often able to maintain the desired attachment point, benefit from stability in pricing and capacity over a multiyear horizon, and potentially be rewarded for good experience via the PC (versus simply accepting hardening traditional terms).

Gallagher Re: It's the *Way* We Do It

- **Leader in Asia:** We are Asia's leading structured reinsurance broker.
- **Simplicity in approach:** We improve simplicity, drive competitive pricing, and create flexibility for our clients.
- **Key deals:** We have over 60 placements in the region, the majority since 2014.
- **Strong relationships:** We have a strong transactional relationship with market leaders.
- **Established framework:** We have an established framework for broking and evaluation.

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Uncoupling Seasonal Climate Variability From Climate Change

The El Niño—Southern Oscillation (ENSO) is an established climate pattern, and its impact should not be disproportionately attributed to climate change.

Key takeaways

- Climate change is not a new phenomenon, and its impact on annual expected insured losses, while trending upward, is not fluctuating wildly—contrary to some perceptions in the market.
- As an industry, we should adjust to the idea of thinking about climate change as a systemic risk and not overreacting to weather-related events in the short term.
- The near-term impact of seasonal climate variability—as driven by scientifically recognized weather patterns—should not be conflated with climate change.
- Historically, El Niño years tend to see lower insured losses compared to La Niña years, globally and for APAC.
- (Re)insurers can identify, assess, and manage impacted risk exposures by working closely with catastrophe and climate specialists.

Climate change—referring to long-term shifts in temperatures and weather patterns—has become a core focus of the (re)insurance industry in recent years, as carriers seek to better understand the impact of increased volatility around weather-driven natural catastrophe events.

All territories in APAC are experiencing changes in exposure at risk, and the main driver of increased natural catastrophe losses continues to be increased property values in at-risk locations. It may surprise readers to learn that, after accounting for this growth in exposure, increased buying of insurance, and inflation, there has been no definitive upward trend in nat cat-related losses that is correlated with climate change.

Instead, closer examination of the data reveals that the surge in loss frequency seen over the past few years is attributed, at least in part, to the well-recognized, recurring pattern of climate variability known as La Niña.

The "triple-dip" La Niña

La Niña conditions are historically associated with higher climate-related insured losses, as the Gallagher Re loss database indicates (see Figure 2). From 2020 to 2022, there was an unusually prolonged phase of three consecutive northern hemisphere winter years of La Niña—the so called 'triple-dip'. Other 'triple-dip' La Niña phases occurred in 1998–2001, 1973–1976, and 1954–1956.

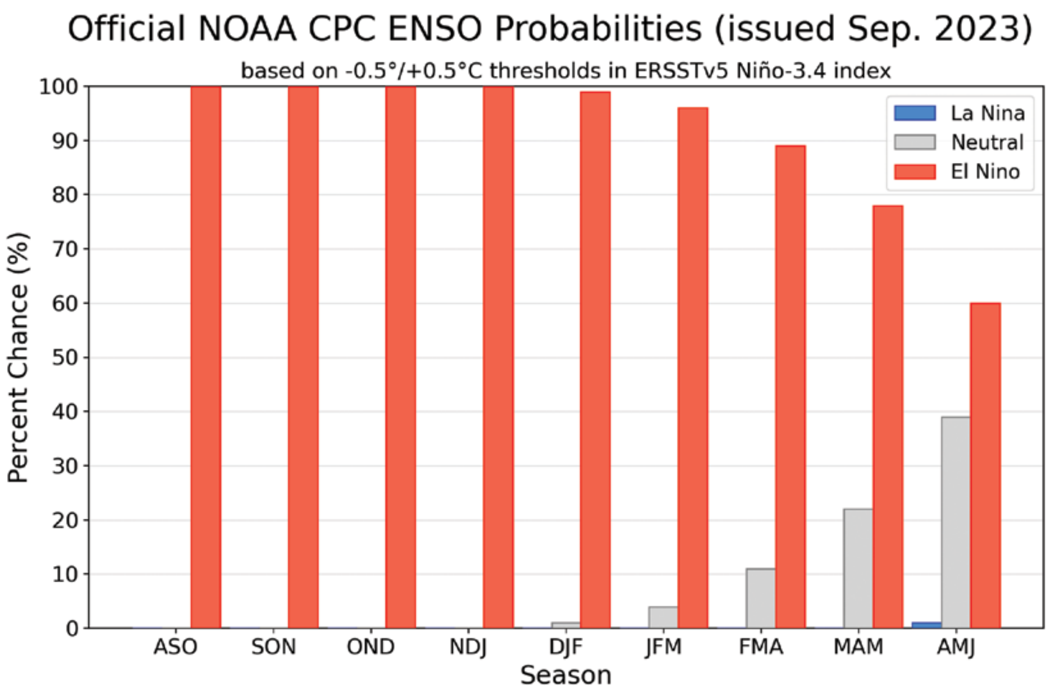
Whilst climate change is fundamentally long term in nature with modest impact year on year, seasonal climate variability driven by patterns such as ENSO, the Indian Ocean Dipole (IOD), and the Madden-Julian Oscillation (MJO) (see boxouts) have meaningful immediate and near-term effects. The risk landscape is complex and evolving, and long-term climate change's compounding results notwithstanding, we believe immediate reinsurance discussions should be more focused on existing seasonal weather patterns that have varying impacts across perils and geographies.

It may surprise readers to learn that, after accounting for this growth in exposure, increased buying of insurance, and inflation, there has been no definitive upward trend in nat cat-related losses that is correlated with climate change.

El Niño is already here

In recent months, we have experienced the beginnings of a shift from La Niña to El Niño, as the previously weak El Niño conditions in the central-eastern equatorial Pacific have gradually strengthened to a weak-to-moderate El Niño.

The National Oceanic and Atmospheric Administration (NOAA) Climate Prediction Center (CPC) issued an El Niño advisory in August 2023, indicating the presence of the warm phase of the ENSO. The CPC forecast indicates a greater than 95% chance that El Niño conditions will persist through the northern hemisphere autumn and winter, while weakening during the northern hemisphere spring of 2024.



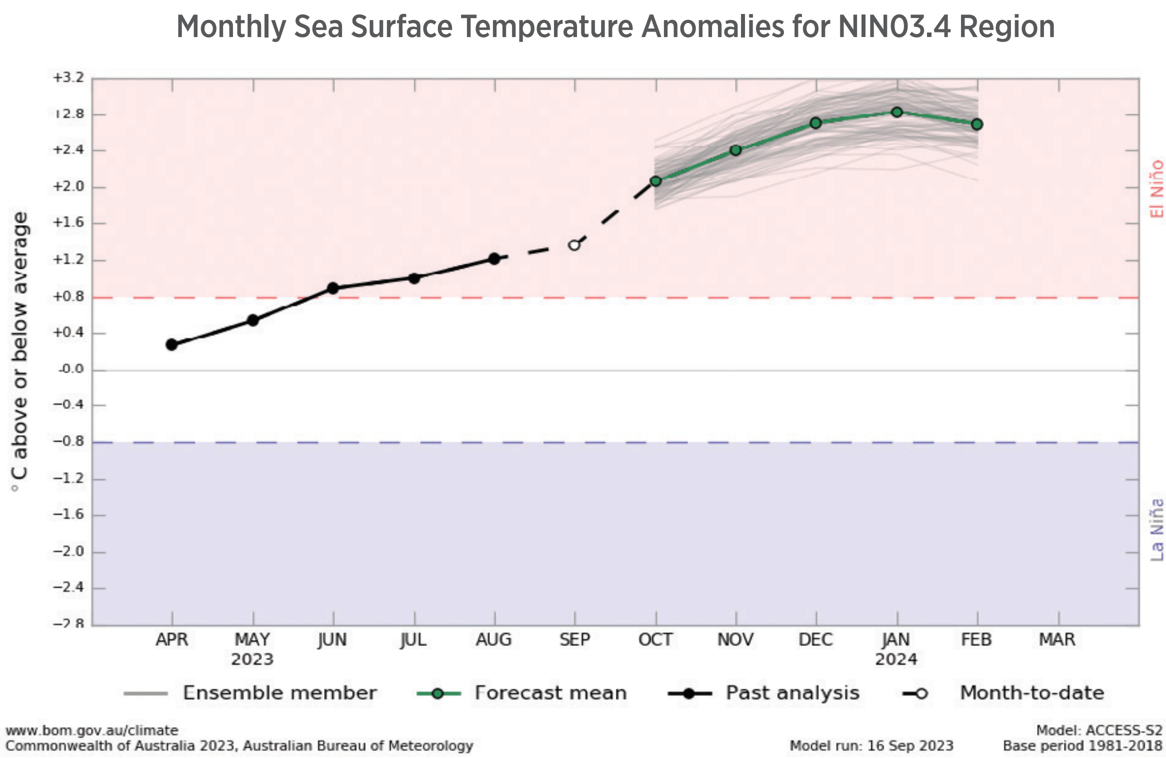


Figure 1: (Top) The CPC ENSO probabilistic forecast (September 14, 2023) showing that El Niño conditions have developed and are forecast to continue throughout the northern hemisphere winter. Source: NOAA (Bottom) Monthly sea surface temperature anomalies for NINO3.4 region. Model run September 16, 2023. Source: Australia Bureau of Meteorology

Sea surface temperatures (SSTs) in the tropical Pacific are exceeding El Niño thresholds, with climate models indicating this is likely to continue through to at least the end of the year. Overall, there are signs that the atmosphere is responding to the pattern of SSTs in the tropical Pacific, and coupling of the ocean and atmosphere has started to occur, which is a characteristic of an El Niño event. A positive IOD is also underway.

Losses are likely to reduce

In terms of global temperature, El Niño represents a release of heat energy stored in the ocean into space via the atmosphere, while La Niña represents an increase of heat storage by the oceans.

El Niño years are therefore typically the hottest years in the warming global temperature trend and often fuel record-breaking extreme heat events on land, such as those we saw in the 2023 Northern Hemisphere summer. El Niño also brings a pivot in terms of physical loss, given the shift in rainfall patterns and general reduction in rainfall across the wider region.

Based on Gallagher Re's database of insured losses between 1980–2022, climate-related peril losses during El Niño years are lower when compared with La Niña years and neutral years. This is true both at a global level and for APAC.

La Niña years have historically generated elevated losses for the reinsurance industry, principally due to amplified impacts in developed nations, where more high-value insured assets are at risk. These include a greater frequency of Atlantic tropical cyclones, southern US severe convective storms, and Australian floods, among others.

While not always the case, a rapid swing from La Niña to El Niño can be quite uncertain as regional weather patterns abruptly change from one extreme to another.

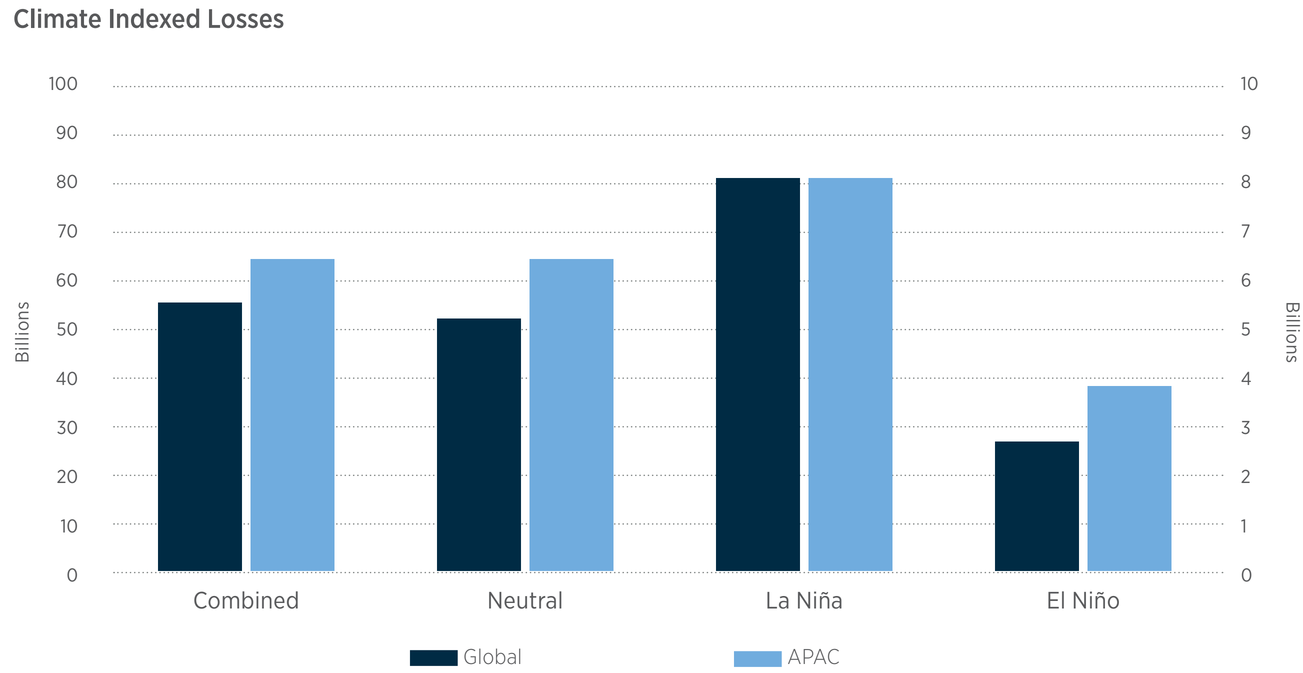


Figure 2: Chart illustrating average climate related indexed losses only across 1980-2022 for Neutral (21), La Niña (13), and El Niño (9) years with numbers in brackets indicate count. The Global losses are on the left-hand y-axis while the APAC losses are on the right-hand y-axis. Source: Arthur J. Gallagher & Co. Data Classification: Calendar Year Average ENSO Phase

What is ENSO?

ENSO is a recurring pattern of climate variability of the tropical Pacific that has worldwide effects on seasonal weather and climate. It is split into three phases: El Niño (warm phase), neutral, and La Niña (cool phase). ENSO arises from interactions between the atmosphere and the ocean across the Pacific, and results in one of Earth's largest and most influential natural climate patterns.

In El Niño conditions, SSTs in the eastern equatorial Pacific Ocean are warmer and the equatorial trade winds are weaker, while the reverse is true for La Niña conditions. In neutral conditions, the temperatures, winds, convection, and rainfall across the tropical Pacific are near their long-term averages. The Southern Oscillation refers primarily to the atmospheric component of the combined system and is typically measured through air pressure anomalies. The ENSO footprint historically has had the greatest influence during the months of December to March and is most strongly felt in regions close to the Pacific Ocean.

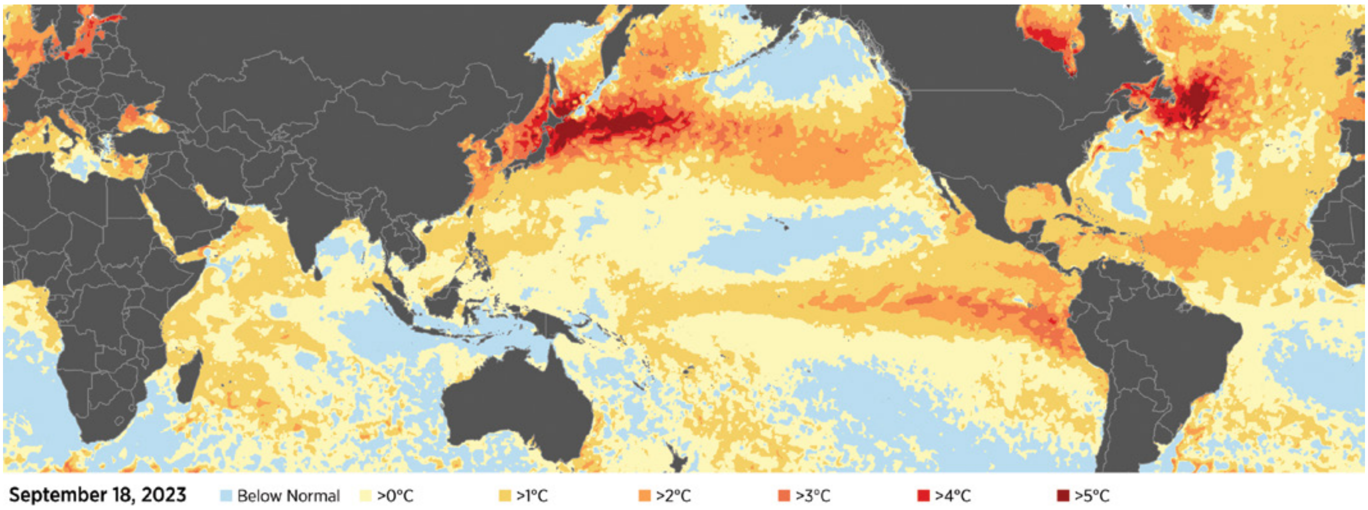


Figure 1: Sea surface temperature anomalies on September 18, 2023, showing El Niño conditions in the Pacific Ocean and warm waters in the Atlantic Ocean. Data: NOAA Graphic: Arthur J. Gallagher & Co.

During La Niña, the cooler SSTs in the central and eastern tropical Pacific Ocean strengthen the easterly trade winds along the equator, while the already-warm SSTs to the north of Australia get warmer still. During El Niño the opposite is true. SSTs in the central and eastern tropical Pacific Ocean become substantially warmer than average, causing the prevailing east-to-west equatorial trade winds to weaken or even reverse. This results in conditions in the central and eastern Pacific area that are more favorable for tropical rainfall and cloud development.

NOAA defines neutral ENSO conditions as being when three-monthly average SST anomalies in the eastern equatorial Pacific (specifically, in the Niño-3.4 region[1]) are between -0.5°C and +0.5°C, with El Niño and La Niña conditions defined as being above and below this range, respectively.

But there are different ENSO definitions in other regions, with organizations such as the Australian Bureau of Meteorology (BoM) also including atmospheric Southern Oscillation components within its criteria for declaring whether El Niño or La Niña is in progress.

Niño 3.4 (5°N-5°S, 120°W-170°W)

Sea Surface Temperature Anomalies

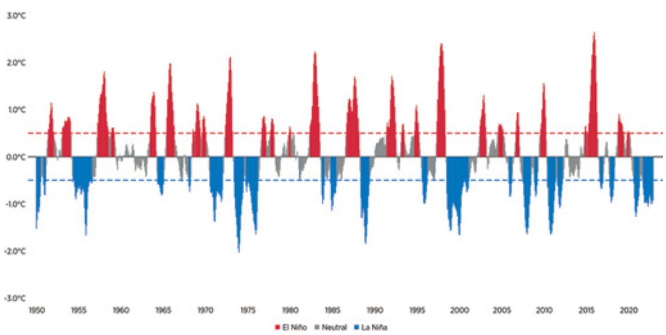


Figure 2: Monthly Sea surface temperature anomalies in the Pacific Ocean's Niño-3.4 region dating from 1950 to 2022. Source: NOAA CPC

[1]Niño 3.4 Index and Sea Surface Temperature Anomaly Timeline: 1982-2017, NASA

What is IOD and MJO?

The IOD and the MJO are two other weather patterns that have meaningful immediate and near-term effects on particular regions.

The IOD, also known as the Indian Niño, can be very influential for countries bordering the Indian Ocean, such as Australia, India, and Southeast Asia. As with ENSO, it has three phases: warmer (positive), neutral, and cooler (negative). Broadly speaking, the positive phase sees greater-than-average SSTs and greater precipitation in the western Indian Ocean region, with a corresponding cooling of waters in the eastern Indian Ocean—which tends to cause droughts in adjacent land areas of Indonesia and Australia. The negative phase of the IOD brings about the opposite conditions, with warmer water and greater precipitation in the eastern Indian Ocean, and cooler and drier conditions in the west.

The MJO, a global-scale feature of the tropical atmosphere, is an eastward-moving disturbance of clouds, rainfall, and winds between Singapore and Canton Island (an atoll in the South Pacific roughly halfway between Hawaii and Fiji). This disturbance is characterized by an eastward spread of large regions of enhanced and suppressed tropical rainfall, mainly observed over the Indian and Pacific Ocean.

The enhanced rainfall phase of the MJO can also bring the onset of monsoon seasons around the globe. Conversely, the suppressed convection phase can delay the onset of the monsoon season.

There is evidence that the MJO influences the ENSO cycle. While it does not cause El Niño or La Niña, it can contribute to the speed of development and intensity of El Niño and La Niña episodes. The MJO appears to be more active during neutral and weak ENSO years.

Effects across APAC

Figure 3 highlights observed weather patterns globally during El Niño and La Niña phases. Outcomes vary, depending on the intensity of the phase, the time of year it develops, and the interaction with other climate patterns.

Broadly speaking, for APAC, La Niña is often associated with wet conditions in eastern Australia, and with heavy rainfall in Indonesia, the Philippines and Thailand.

El Niño is often associated with warm and dry conditions in southern and eastern inland areas of Australia, as well as Indonesia; the Philippines; Malaysia; and Pacific islands such as Fiji, Tonga, and Papua New Guinea. During the northern hemisphere summer season, the Indian monsoon rainfall generally tends to be less than normal in El Niño phases.

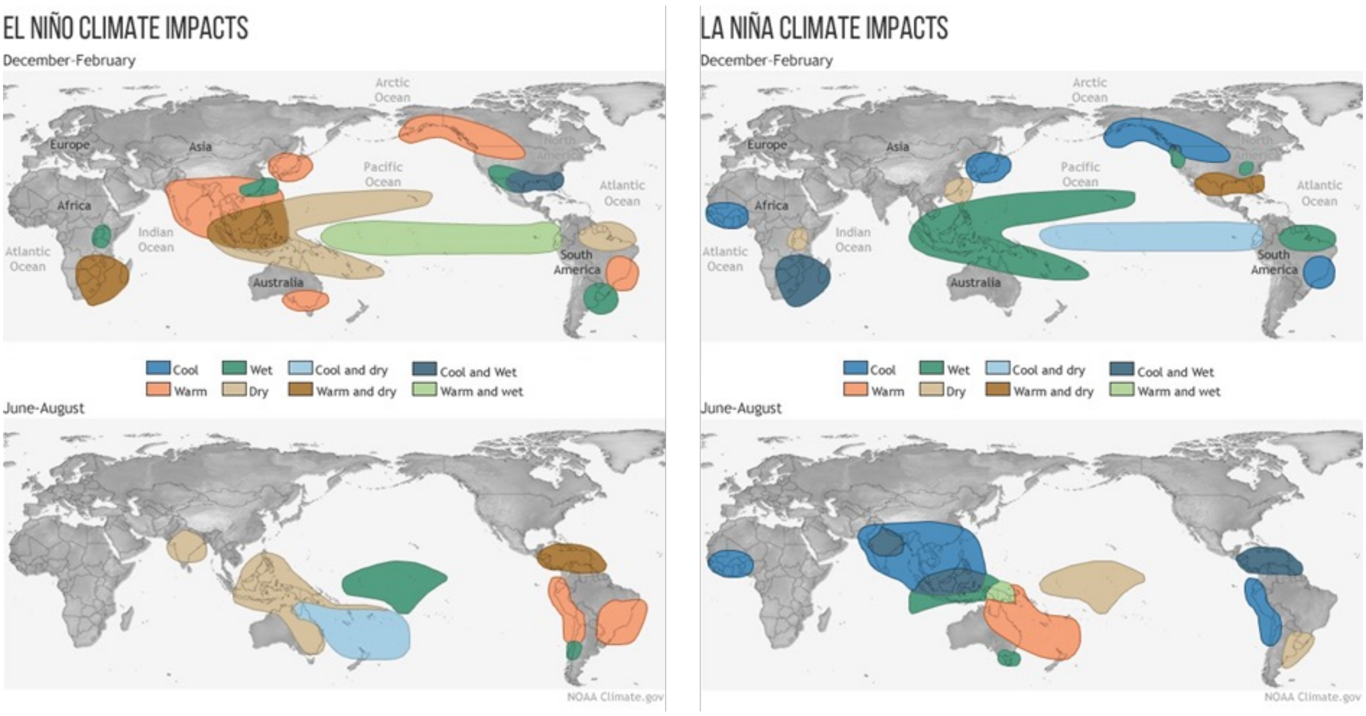


Figure 3: Maps illustrating how ENSO commonly affects Northern Hemisphere winter and summer climate patterns around the globe. Source: NOAA

Information regarding regional and country-specific rainfall relationships with ENSO phases are detailed briefly in the table, and in more detail in the following text. There is a complex interplay between the various climatic patterns, and it is important to identify their various phases to understand any offsetting effects.

Region	El Niño	La Niña	IOD Phase
West North Pacific basin	Tropical Cyclones (TCs) form more south-easterly	TCs form more north-westerly	Positive: North Asia affected by TCs
Australia	Reduced rainfall, possible droughts leading to increased risk of bush fires	Increased rainfall, possibility of flood events	Positive: Reduced rainfall, increase risk of bush fires Negative: Increased rainfall
India	Reduced rainfall during monsoon season	Above average rainfall during summer monsoon	Positive: Increased rainfall Negative: Reduced rainfall
China	Increased rainfall in southern China and reduced in northern China	Reduced rainfall in southern China and increased in northern China	Asymmetric influence
Japan	Increased rainfall in western Japan during summer	Increased rainfall in Southwest Islands during summer	
Southeast Asia (Malaysia, Indonesia, Philippines, Vietnam, Thailand, and Singapore)	Reduced rainfall	Increased rainfall	Positive: Reduced rainfall in Indonesia. Increased rainfall in Vietnam Negative: Increased rainfall in Indonesia
South Korea	Increased rainfall	Reduced rainfall	No

Western North Pacific Typhoon

- In the Western North Pacific, El Niño phases correlate with higher typhoon frequencies across much of the basin. In general, the frequency of landfalling typhoons in the Northwest Pacific is less correlated with the ENSO cycle than with Atlantic landfalling hurricanes. However, in El Niño phases, storms form more frequently in the seas east of the central Pacific island of Guam, with increased incidence of recurved tracks toward the part of the basin closest to Japan.
- El Niño conditions favor longer-lived and more intense storms compared with La Niña conditions.
- The IOD is currently in a positive phase, which is expected to last during the rest of the Western North Pacific Basin typhoon season. Historically, a positive IOD has tended to lead to a recurving northeastward track or a westward path south of 15°N, leading to more tropical cyclones impacting Japan, South Korea, or South Vietnam.

Australia

- During La Niña events, rainfall north of Australia increases, as does the chance of above-average rainfall for eastern, central and northern parts of the country. Insured losses are typically higher for La Niña than El Niño in Australia.
- During El Niño, the opposite is true. Rainfall is usually reduced through winter and spring in Australia, especially across eastern and northern areas.
- Meanwhile, the chances of strong drought or fire-weather conditions in Australia during the El Niño phase are dependent upon two other drivers: the IOD and the Southern Annular Mode. These are sometimes more important than ENSO: 2019–2020 was ENSO-neutral, yet Australia had record-breaking extreme fire weather and months of major fire events largely due to the other drivers.

India

- ENSO impacts the arrival and strength of the southwest Indian monsoon, in part due to modification of the Walker Circulation—a Pacific-wide zonal circulation in tropical latitudes that affects convection over the equatorial Indian Ocean and, consequently, rainfall over continental India. El Niño generally suppresses the southwest summer monsoon rainfall in India, whereas it is often enhanced by La Niña. As a result, previous El Niño conditions have often coincided with droughts (e.g., 2002), whilst La Niña conditions have often coincided with above-average southwest monsoon rainfall, enhancing the potential for flood events.
- A Gallagher Re investigation of available data indicates there is increased probability of hail occurrence in northeast India during the positive phase of ENSO (La Niña). In northeast India, 86% of hail events between 1981 and 2015 occurred during periods with a positive ENSO index.
- A positive IOD creates a conducive environment for tropical cyclones to form in the Indian Ocean.

China

- **Southern and East-Central China:** There is a positive correlation between the ENSO phase and the autumn/winter rainfall in southern China. This positive correlation typically migrates eastward during the mature ENSO phase (often in winter) into southeastern China, and then into east-central China during the spring. This means that El Niño events often coincide with above-average autumn/winter rainfall in southern and southeastern China, and above-average spring rainfall in east-central China.
- **Northern China:** There is a negative correlation between the ENSO phase and the rainfall in northern China during the summer and autumn of the ENSO onset year. This means that El Niño events often coincide with below-average rainfall in northern China during the early stages of the El Niño phase, with limited correlation during El Niño decay.
- **Hong Kong:** In the El Niño phase, there is a a generally wetter winter (December through February) and spring (March-May). This makes it unlikely that tropical cyclones will affect Hong Kong before June.

Rest of APAC

- For Japan, the El Niño effect leads to greater rainfall in the summer, concentrated in western Japan and the southwest islands. In 2023, the Japan Meteorological Agency predicted average to high rainfall in both western and eastern Japan between July and September. There is also a generally cooler summer during El Niño years, and hotter summers during La Niña years.
- For Southeast Asia, El Niño events tend to reduce overall rainfall, while La Niña years see increased rainfall in most regions. A positive IOD is associated with depressed rainfall.
- For South Korea, El Niño leads to increased rainfall mainly in the southern region of the Korean peninsula.

Managing the risks of climate variability

As outlined in the paper, the switch from La Niña to El Niño brings a pivot in terms of physical loss, since it correlates to warmer surface conditions. El Niño is associated with higher intensity of temperature extremes, shift in rainfall patterns and general reduction in rainfall across the wider region. And as explained above, El Niño years tend to be lower in insured losses, compared with neutral and La Niña years.

Whilst climate change is leading to variability in climate conditions and natural catastrophe events, this impact is not pronounced in the next year or in the immediate future, but over the longer term.

In a changing world, being equipped with functional risk solutions to assess and quantify catastrophe risk is paramount. Gallagher Re's team of catastrophe and climate specialists have best-in-class insight and understanding of the current and coming impacts of climate variability on the (re)insurance industry.

Working closely with the Gallagher Research Centre, our experts deploy the latest analytical expertise to identify and assess risk exposures in helping (re)insurers to manage them. With our presence across the APAC region, we harness our firsthand global and local knowledge whilst leveraging our academic partners to help clients navigate through weather and climate uncertainty.

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Market Landscape Reports

Australia Market Overview

Economic snapshot

Australia had experienced decades of consistent growth, sustaining 29 years without recession until June 2020, when COVID-19 started to have a material economic impact. However, economic activity has regained momentum, with GDP growing by 3.7% throughout 2022, driven by higher commodity prices, growth in private consumption, and investment.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	25.69	55,184	+ 2.2%
2022	26.00	56,539	+ 3.7%

Source: World Bank

Inflation has picked up markedly since the middle of 2021 and reached 7.8% in Q4 2022. Underlying inflation has also risen strongly, reflecting supply bottlenecks both domestically and abroad, but this is expected to moderate over time. Headline inflation has declined to 6% in the June 2023 quarter and is forecast to reduce to 4.5% by the end of 2023. Meanwhile, underlying inflation is forecast to return to the top of the 2%–3% target range by December 2024.

Market snapshot

As of June 2022, there were 90 private sector insurers in the Australian non-life insurance market, 10 of which have reinsurance-only licenses. The personal lines market is the largest at around 45%, followed by commercial lines at 30%, with other insurers (including reinsurers) accounting for the remaining 25%. There is a mix of international and local insurance players, with the top four companies (IAG, Suncorp, QBE, and Allianz) having a combined market share of around 60%.

2022 PENETRATION		2022 GWP (USD M)		2022 NON-LIFE		
All Insurance	Non-Life Only	All Insurance	Non-Life Only	Loss Ratio	Combined Ratio	Growth Rate
3.8%	2.7%	59,235	42,001	61.9%	85.6%	+ 10.3%

Source: World Bank, Australian Bureau of Statistics (ABS), Australian Prudential Regulation Authority (APRA)

Following three years of consecutive growth in ROE leading to a high of around 15% in FY2018, the industry has witnessed continued reductions in ROE from 13% in FY2019, to around 4% in FY2020, a record low 3% in FY2021, and a slight improvement in 2022 to 3.1%. In FY2022, ROE was supported by better underwriting results, offset by a decline in investment returns (large unrealized losses from mark-to-market investment assets). As the rating environment continued to improve in 2022, commercial lines (e.g., property and liability) experienced lower loss ratios and improved underwriting performance. Motor lines deteriorated however, driven by higher frequency (reassumed economic activities) and severity (claims and economic inflation).

Looking ahead, insurers are facing a combination of challenges, including claims cost inflation in home insurance, limited margin improvement available in motor insurance due to competition, lower reserve releases, and weather-related claims uncertainty.

The risk environment

Following on from the devastating bush fires in 2019/2020 that resulted in some AUD5B (USD3.5B) of losses, moderate to strong La Nina conditions over much of 2021 and 2022 have resulted in significantly higher rainfall than usual and higher loss activity, further exacerbating inflationary pressures. The most significant peril was the flooding event in March 2022 across southeast Queensland and New South Wales that resulted in insured losses of nearly AUD6.5B (USD4.5B), placing it as the most expensive natural disaster in Australia's history.

Three other weather-related secondary perils occurred in March 2021, October 2021, and October 2022, which resulted in more than AUD0.5B incurred losses each. The Australian insurance industry in total incurred a three-year weather bill exceeding AUD12B. Rising reinsurance costs and high natural disaster claims put an upward pressure on insurance premiums by about 10%, but overall retention rates remained high. Losses from floods and severe convective storms were expected to dampen this year with ENSO easing into neutral conditions, with the scale tipping to increased risks of bush fire for the rest of 2023.

Against this backdrop of more frequent loss events, insurance affordability continues to be an acute issue. The Northern Australia Insurance Inquiry report by the Australian Competition and Consumer Commission (ACCC) identified a range of factors contributing to under-insurance as well as measures that may help improve insurance availability and affordability. One such measure considered was government reinsurance pools. In May 2021, the federal government announced the establishment of a reinsurance pool to cover residential (including strata) and SME business properties (up to AUD5M sum insured) against cyclones and related flood damage, backed by an AUD10B federal government guarantee. The pool commenced on July 1, 2022, and whilst it will operate Australia-wide, support is targeted toward medium- and high-risk cyclone-prone areas. Participation is mandatory, and insurers will have until December 31, 2024 (or December 31, 2023, for large insurers), to reinsure all eligible cyclone risks with the Australian Reinsurance Pool Corporation (ARPC).

Headwinds

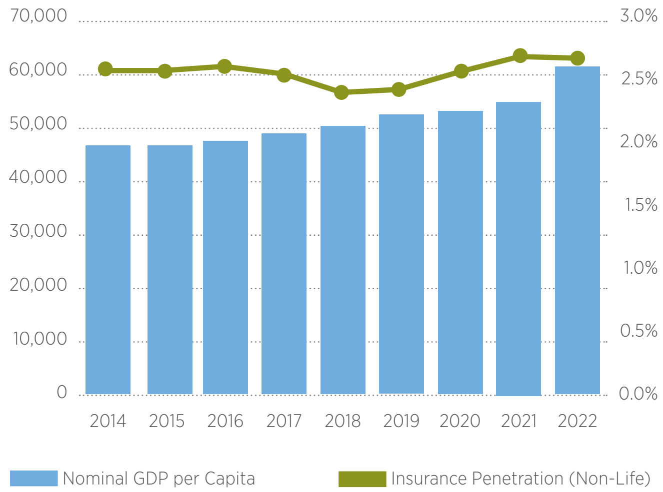
- → Persistent inflation and risk of stagflation
- → Climate change and cat experience
- → Hardening of reinsurance market
- → Insurance affordability

Tailwinds

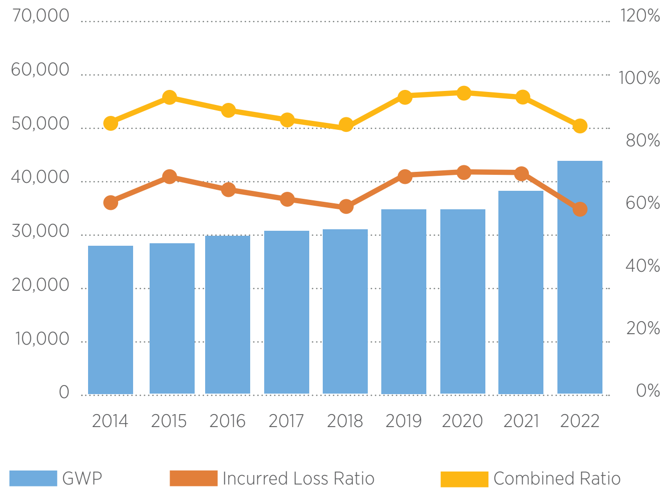
- → Positive pricing trends with focus on underwriting discipline
- → Reduced uncertainty around COVID-19 losses
- → High interest rates
- → Leap toward digitalization and market modernization

Australia In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

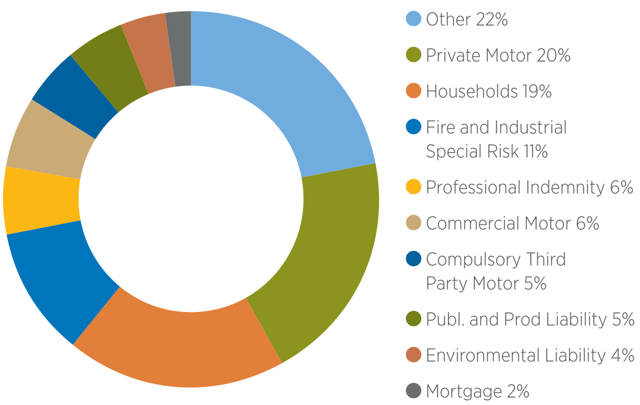


Non-Life Premium and Claims (USD M)



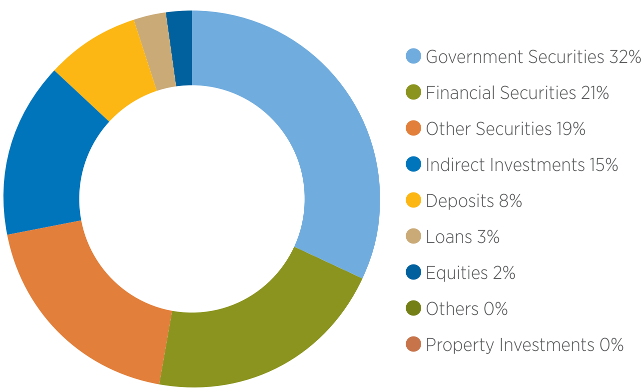
NB: The time period corresponds to a twelve-month period from July 1 to June 30 (eg FY2022 runs from July 1, 2021 to June 30, 2022)

2022 Total GWP: USD42M



P&C exclude health for Australia; Other includes reinsurance.

2022 Total Investment: USD55M



Key features

The market has experienced strong premium growth in 2021 and 2022 post-COVID-19. In 2022, non-life GWP grew by 11% vs rate changes of 12%. Commercial insurance (e.g., property and liability) rates hardened as insurers sought to remedy years of historical underpricing, and respond to significant natural catastrophe losses, diminishing investment returns, and a deteriorating legal environment. In FY2022, the market's net loss ratio was 10% better than FY2021. Commercial lines benefited from strong premium rate increases and COVID-19 business interruption reserve releases for commercial property. Personal lines experienced strong growth in premiums in response to claims inflation. Higher discount rates reduced the valuation of liabilities. However, operating earnings was offset by a decline in investment performance due to the challenging economic environment. Higher interest rates also resulted in large unrealized losses.

Source: World Bank, Australian Bureau of Statistics (ABS), Australian Prudential Regulation Authority (APRA)

Non-Life Regulation

The regulator: overview

Australian Prudential Regulatory Authority (APRA) is the financial regulator for the insurance industry, with the Australian Securities and Investments Commissions (ASIC) providing consumer protection regulation.

Item	Approach
Accounting framework	IFRS equivalent
IFRS 17 implementation	January 2023
Capital framework	Quantitative: Risk-based capital (RBC) framework Qualitative: Internal Capital Adequacy Assessment Process (ICAAP)
Climate/ESG:	APRA released 'Prudential Practice Guide CPG 229 Climate Change Financial Risks' in 04/2021 and expects entities to incorporate climate risk into organizations' risk management framework

Planned developments

- On September 27, 2022, APRA finalized changes to the capital and reporting frameworks for insurance in response to the introduction of the new accounting standard Australian Accounting Standards Board 17 Insurance Contracts (AASB 17). The revised prudential and reporting standards will come into effect from July 1, 2023.
- The Australian government has started a consultation process in relation to climate-related financial disclosure. The mandatory climate-related disclosure requirements will be implemented in three stages based on the size of entity.

Capital requirements

Minimum capital required		Minimum solvency margin
General insurer	AUD5M (approximately USD3.6M)	Insurers must maintain capital base in excess of the PCR determined using APRA Standard Method or Internal Model-based Method approved by APRA
Reinsurer	AUD5M (approximately USD3.6M)	

Exchange rate (as at January 1, 2023): AUD1.47 = USD1.00
Source: Australian Prudential Regulation Authority (APRA)

Solvency framework overview

Prudential Capital Requirement (PCR)

Risk Category	Comments
Insurance risk	Sum of risk charge for each of the two components: (1) outstanding claims risk; and (2) premium liability risk Direct insurance business lines are grouped by three categories. For inwards reinsurance business, the three categories are further split by proportional and non-proportional. Each category is assigned a different risk capital factor for outstanding claims risk and premium liability risk separately
Insurance concentration risk	Relates to the risk of an adverse movement in the capital base due to a single large loss or a series of losses The overall risk charge is the greater of: • The natural perils vertical requirement • The natural perils horizontal requirement • The other accumulations vertical requirement • Where applicable, the lenders mortgage insurance concentration
Asset risk	Considers the impact of a range of stresses on the capital base. Stresses include: (1) real interest rates; (2) inflation; (3) currency; (4) equity; (5) property; (6) credit spreads; (7) default
Asset concentration risk	Considers both reinsurance and non-reinsurance exposures For reinsurance exposures, no capital charge for reinsurers with a minimum rating of A- (S&P)
Operational risk	For direct insurance business: 3% of the greater of last year's GWP or the central estimate of net insurance liabilities as at the last balance data (adjusted for GWP growth over the year before) The risk capital factor is 2% for inwards reinsurance business

NB: Explicit allowance for diversification between asset risk and the sum of insurance risk and insurance concentration risk. APRA may also require adjustments to the prescribed capital amount which will be included in the PCR calculation.

Other

There are no material foreign ownership restrictions. Foreign acquisitions above a certain size require approval of the Foreign Investment Review Board (FIRB).

Source: APRA

Catastrophe, Pooling and Reinsurance

Catastrophe risk

Under the current RBC framework, the insurance concentration risk capital charge is determined as the greater of the following:

- Natural perils vertical requirement: The probable maximum loss (PML) for a one-in-200-year single event on a -hole of portfolio basis, including an allowance for non-modeled perils
- Natural perils horizontal requirement, which is the PML for the greater of the following
  > Three times the gross loss from a one-in-10-year event on a whole of portfolio basis, less aggregate reinsurance recoverables
  > Four times the gross loss from a one-in-six-year event on a whole of portfolio basis, less aggregate reinsurance recoverables
- Other accumulations vertical requirement: The PML for an accumulation of losses arising from a common dependent source or non-natural perils, calibrated to a one-in-200-year return period

The natural perils horizontal requirement also allows for a reduction to the premium liability offset—i.e., the annualized net central estimate of the net premiums liability, plus its risk margin and insurance risk charge arising from accumulations of exposures to catastrophic losses. This is to ensure there is no double counting.

Reinsurance

APRA has published GPS 230 Reinsurance Management, which sets out requirements on reinsurance management. It requires insurers to maintain a specific reinsurance management framework as part of their overall risk management framework.

There is no statutory requirement on maximum reinsurance cession. However, as outlined in GPG 245 Reinsurance Management Strategy, APRA expects general insurers to cede no more than 60% of their total written premium in any 12-month period.

Under the current RBC framework, the risk capital factor for reinsurance exposure (i.e., considered within asset concentration risk component) varies depending on the counterparty grade of the respective reinsurer.

Pooling arrangements

Terrorism (Re)insurance Pool	The ARPC is a public financial corporation established by the Terrorism Insurance Act 2003 The terrorism reinsurance scheme is administered by the ARPC, providing primary insurers with reinsurance for Commercial Property and associated business interruption losses arising from a declared terrorist incident
Cyclone Reinsurance Pool	In May 2021, the Federal Government announced the establishment of the reinsurance pool to cover residential (including Strata) & SME business properties (up to AUD5M sum insured) against cyclones and related flood damage The pool is backed by an AUD10B (approximately USD7.3B) Federal Government guarantee The pool has commenced in July 2022 and is administered by the ARPC

Source: APRA

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models/ Probabilistic Models	Underwriting Capability	Climate Change Adjustment/ Projections
Earthquake	Australia experiences minor to moderate earthquake risk from intra-plate seismic events. Recent events include the 2021 Mw 5.9 Victoria earthquake which caused light shaking in Melbourne CBD. Geoscience Australia reduced the view of hazard across the country in 2018 which caused a significant decrease in expected losses. Another reduction in the national hazard map is being reviewed at the moment	✓	✓ For RMS & AIR			
Tropical Cyclone/ Typhoon (Flood & Surge)	Australia is located in a region of high tropical cyclone (TC) activity with cyclones originating in the South Pacific and South Indian oceans. On average, the Australian region receives about 15 cyclones annually. Northern, western and eastern parts of Australia are prone to TC encounters, with the north-western region receiving a relatively higher number of TCs	✓			✓ F&S based on 50k cyclone climatology	✓ Adjustments for various RCPs
Flood	Flood is one of the key perils in Australia. The dominant cause of flooding in Australia is rainfall associated with low pressure systems and tropical cyclones			✓ GRe probabilistic flood model	✓ Both frequency and severity	✓ Adjustments for various RCPs
Other: Severe Convection Storm: Hail	Almost all losses from severe convective storms in Australia emerge from hail and flash floods. Large hailstones can cause damage to the roofing, windows and cladding of buildings, as well as hull damage to automobiles, trains, planes and boats	✓		✓ Hail footprint for accumulation risk	✓ Risk relativity measure	
Other: Bush fire	Bush fires are common throughout Australia and have caused loss of life and significant damage to property	✓		✓ Historical event footprint overlay to estimate exposure and/ or loss Stress testing accumulation risk	✓ Bush fire attack level and fuel load	✓ Adjustments for various RCPs

NB: Global Solutions are available to facilitate scenario modeling capability for flood and terrorism, and underwriting capability for earthquake and flood.

Australia specific

China Market Overview

Economic snapshot

In 2021, GDP growth rebounded by 8.4% as the economy recovered from the pandemic, demonstrating the resilience of the world's second-largest economy.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	1,412.60	10,051	+ 8.4%
2022	1,411.75	10,353	+ 3.0%

Source: World Bank

However, the impact of China-US trade and political tension, and the undertaking of long-standing zero-COVID strategy resulted in the real GDP growth for full year 2022 hitting 3%, significantly missing the government target. The Chinese government expects growth to rebound in 2023 to around 5% as the easing of zero-COVID policies helps to support growth.

Market snapshot

The non-life market growth in China has slowed down in recent years to high single-digit percentages. This is mainly due to the removal of motor tarrifs, which significantly impacted the market sector that accounts for 55% of market premium. Agriculture, liability, and accident and health are the fastest-growing lines of business, reporting 20%–30% annual growth. Non-motor business continues to lead the development and growth of the market, but this performance is under pressure due to the lack of pricing adequacy in a competitive market.

2022 PENETRATION		2022 GWP (USD M)		2022 NON-LIFE		
All Insurance	Non-Life Only	All Insurance	Non-Life Only	Gross Loss Ratio	Combined Ratio	Growth Rate
3.9%	1.2%	675,296	213,797	61.1%	NA	+ 8.7%

Source: World Bank, National Bureau of Statistics of China, China Banking and Insurance Regulatory Commission (CBIRC), Insurance Association of China (IAC)

In 2022, despite the slowdown in economic growth, the non-life insurance market growth rebounded by around 9% and the direct loss ratio improved by around 4%, compared with 2021. The underwriting improvement was attributed to relatively low nat cat activities and a lower accident rate, driven by a slowdown in economic activities amid strict COVID-19 controls. However, investment returns lagged historical levels due to weaker equity and fixed-income performance.

State-owned companies remain the main players in the Chinese market, with the 'Big 3' of PICC, Ping An, and China Pacific accounting for 65% market share (out of 84 primary insurers). Foreign investors can fully own subsidiaries in China, but market shares remain low at less than 5%. C-ROSS, China's Solvency II system, has pushed insurers to optimize their capital, underwriting, and risk management.

The risk environment

For the next Five-Year-Plan (2021–2025)—China's 14th—the country is committed to transform from rapid development to high-quality development, by enhancing the opening-up of sectors, strengthening the top-layer design, and rolling out overall regulation measures to balance the market demands.

Standardized market mechanisms and effective supervision are expected to help the insurance market develop in a sustained manner. The China Banking and Insurance Regulatory Commission (CBIRC) stressed it will relentlessly prevent and control financial risks, and enhance the service capabilities and financial strength of the insurance industry. On March 1, 2021, the set of rules for Phase 2 of the China Risk Oriented Solvency System II (C-ROSS II) started to take effect, which strengthens solvency supervision and protects companies from operational, strategic, and liquidity risk with its three-pillar framework.

Meanwhile, China is seeking to accelerate the development of its reinsurance market. The CBIRC released a number of revised rules in relation to its reinsurance regulatory regime, aimed at enhancing risk prevention and control and keeping pace with the evolution of the insurance market. For the first time, the significance of reinsurance has been highlighted at a strategic level to the insurance industry. The new reinsurance regulation regime has been effective since December 1, 2021, and highlights the importance of direct insurance companies considering reinsurance business plans within overall management strategies. Furthermore, it clarifies the definition between treaty and facultative business, and restricts the requirements for direct insurance companies to do inward business. The implementation would further strengthen the governance of insurance and reinsurance companies to better serve national economic and social development.

Headwinds

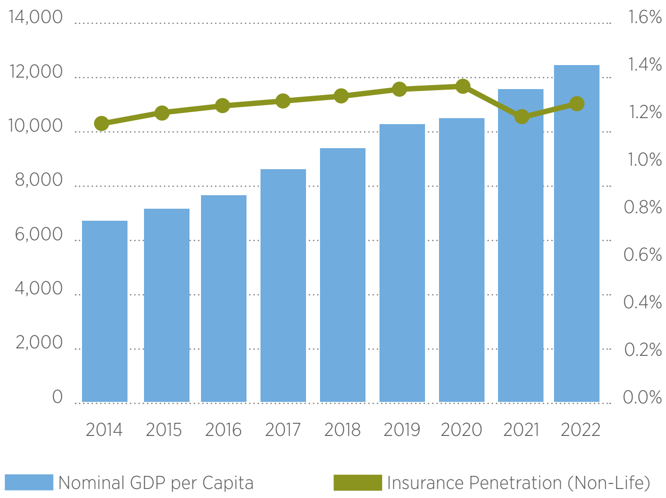
- Uncertainty around economic and regulatory development (e.g., CBIRC replaced by National Financial Regulatory Administration)
- The impact of motor reform (e.g., a decline in average premium, competition, decline in profit margin)
- Continued slowdown in non-life insurance market premium growth

Tailwinds

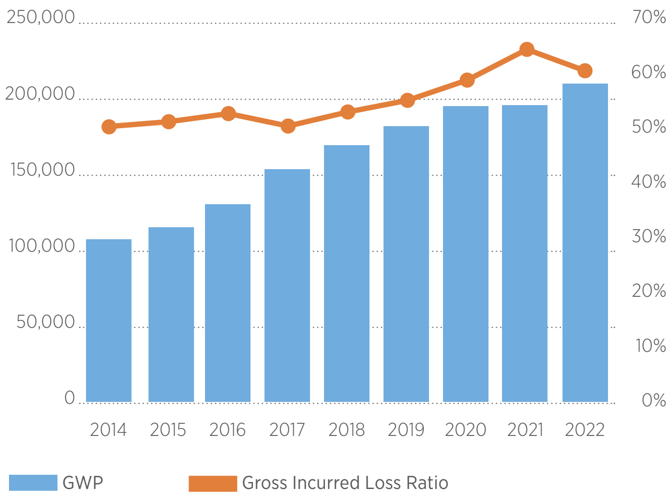
- Easing of zero-COVID policy boosting economic and market recovery
- Improved underwriting and investment environment supported by government and regulatory policies
- Agriculture, liability, and accident and health business driving market growth

China In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

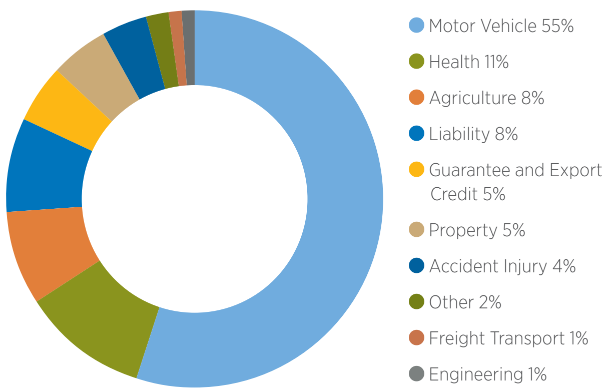


Non-Life Premium and Claims (USD M)

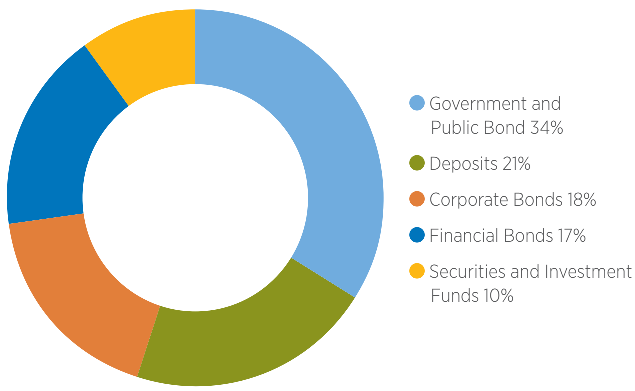


NB: The time period corresponds to a 12-month period from January 1 to December 31 each year

2022 Total GWP: USD214B



2021 Total Investment: USD1.8T



Key features

The non-life insurance market consistently recorded double-digit premium growth prior to 2020. The market slowdown experienced since 2020 is due to the impact of motor reform and the COVID-19 pandemic. The contribution of motor business to the overall market premium has declined by about 6% since the introduction of the motor reform in 2019. Meanwhile, agriculture and liability business have achieved strong growth driven by government support and regulation.

Source: World Bank, China Banking and Insurance Regulatory Commission (CBIRC), Insurance Association of China (IAC)

Non-Life Regulation

The regulator: overview

On March 10, 2023, the National Administration of Financial Regulation (NAFR) was officially established to replace the China Banking and Insurance Regulatory Commission (CBIRC) as the insurance regulator for China.

Item	Approach
Accounting framework:	IFRS equivalent—the Chinese Accounting Standards (CAS) has a high degree of alignment with IFRS 4 and will be replaced by a version of IFRS 17 (specific to China)
IFRS 17 implementation:	The mandatory effective date is staggered over two phases: January 1, 2023 for all Chinese listed insurers, and January 1, 2026 for all other insurers. (Announced in Dec 2020)
Capital framework:	China Risk-Oriented Solvency System (C-ROSS II), a Solvency II risk-based approach Solvency-Aligned Risk Management Requirements and Assessment (SARMRA), equivalent to Own Risk and Solvency Assessment (ORSA)
Climate/ESG:	The 'Guidance for Enterprise ESG Disclosure' published by the China Enterprise Reform and Development Society (CERDS) came into effect on June 1, 2022 CBIRC has issued sustainability standards for insurance companies and require managements to focus on ESG risks (including ESG considerations in their investment decisions)

Capital requirements

Minimum capital required		Minimum solvency margin
Per business segment*	RMB200M (approximately USD29.5M)	Insurers must maintain a minimum comprehensive solvency ratio of 100% and a minimum core solvency ratio of 50%
Per branch	RMB20M (approximately USD2.9M)	
Max capital for multiple branches	RMB500M (approximately USD73.7M)	

*There are five business segments: (1) Motor; (2) Enterprise/Household Property and Engineering; (3) Liability; (4) Marine Hull/Cargo; and (5) Short-Term Health/Accident Injury
Exchange rate (as at January 1, 2023): RMB6.95 = USD1.00

Source: China Banking and Insurance Regulatory Commission (CBIRC)

Solvency framework overview

Pillar I: Quantitative capital requirement

Risk Category	Comments
Insurance risk	Sub-modules include: (1) premium risk; (2) reserve risk; and (3) catastrophe risk Premium risk capital charge is based on the NWP for the 12 months preceding the valuation date while reserve risk capital charge is based on net loss reserves Premium and reserve risk factors vary by line of business Catastrophe risk capital charge is based on a 1-in-200 year return period
Market risk	Sub-modules include: (1) interest rate; (2) equity; (3) real estate; (4) overseas asset; and (5) currency
Credit risk	Sub-modules include: (1) credit spread; and (2) counterparty default The credit risk charge on reinsurance recoverables varies depending on onshore or offshore cessions, with non-collaterized transactions with offshore reinsurers being subject to the highest risk charge
Macro-prudential	Relates to pro-cyclical risk and systemic risk
Supervisory capital adjustments	Temporary prudential adjustments to the capital requirements of specified business lines or specified insurance companies in response to evolving market conditions

NB: Allowance for correlation of risks included

Pillar II: Quantitative supervisory requirement

Operational, strategic, reputational, and liquidity risks are considered in Pillar II as unquantifiable risks.

Other

There are no material foreign ownership restrictions. However, foreign-funded insurance company (i.e., an insurer with more than 25% foreign investment) are subject to different regulations than locally funded insurers.

Foreign insurance companies looking to apply for a foreign-funded insurance company (up to 100% stake) must meet the following requirements: (1) at least one main shareholder is an insurance company in normal operation (i.e., not only a holding entity or group company without underwriting), (2) they must undertake a five-year commitment to not transfer the stake, (3) they must not withdraw operational capital, and (4) they must submit three years of audited annual reports and a certificate of solvency issued by the regulator of the applicant.

Source: China Banking and Insurance Regulatory Commission (CBIRC)

Catastrophe, Pooling and Reinsurance

Catastrophe risk

Under the current capital framework, catastrophe insurance risk is based on a one-in-200-year return period for earthquake and typhoon (including typhoon-induced flood).

Reinsurance

The mandatory local cession of 20% to China Re and the priority cession to domestic reinsurers were abolished in 2005 and 2009 respectively. Following the establishment of the state-backed agriculture reinsurer (i.e., China Agriculture Reinsurance Corporation) in 2020, the reinsurer will write 20% cession of all agriculture insurance business.

For all lines of business (other than aviation, aerospace, nuclear, oil, and credit), cession to a single reinsurer must not exceed 80% of the sum insured on any one insurance policy. The CBIRC has announced the extension of the preferential treatment of Hong Kong reinsurers to June 30, 2022, whereby a reduced counterparty credit risk capital charge is applicable for cedants reinsuring with qualifying Hong Kong-based reinsurers. Qualifying reinsurers are those licensed by the Insurance Authority (IA—i.e., Hong Kong insurance regulator) that meet the Hong Kong solvency standard and have a minimum credit rating of A-.

Pooling arrangements

China Nuclear Insurance Pool (CNIP)	Established in 1999 to provide insurance coverage and risk management services for the nuclear power industry. Coverage includes material damage and third-party risks The pool comprises of 29 domestic and foreign (re)insurance companies and is managed by China Re P&C All premiums written by individual members are ceded to the pool, which are retroceded to each member according to their respective non-life insurance market share
China Residential Earthquake Insurance Pool (CREIP)	Established in 2015 to provide household earthquake insurance The pool comprises of 45 insurance companies, with China Re P&C acting as the sole reinsurance observer to the pool China Re P&C is responsible for assessing the pool's earthquake risks, designing insurance products, premium rating as well as arranging risk diversification for the pool
China Belt & Road Reinsurance Pool	Established in 2020 to facilitate the placement of special risks arising from "Belt & Road Initiative" projects, including delayed start-up (DSU) and political violence The pool comprises of 11 (re)insurance companies and is managed by China Re P&C
China Agricultural Reinsurance Pool (CARP)	Established in 2014 and was administered by China Re P&C The pool went into run-off on January 1, 2021 following the establishment of the state-owned reinsurer, China Agriculture Reinsurance Corporation

Source: CBIRC, China Re P&C

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models/ Probabilistic Models	Underwriting Capability
Earthquake	China is one of the seismic prone countries. Historical data shows that Western China is more active than Eastern China. In China, the tectonic condition is driven by the ongoing collision of the Indian-Australian plate into the Eurasian plate. Tsunami risk is low as coastal provinces are with low earthquake risk	✓		✓	
Tropical Cyclone/ Typhoon (Flood & Surge)	China encounters about seven tropical cyclones (TC) on average a year. Southeast China is relatively more vulnerable to TC risk. The superposition of the Asian monsoon and cyclone season, along with the large river basins like Pearl, Yangtze and Yellow river, make eastern China provinces highly vulnerable to TC induced flood risk	✓			
Flood	China is flood prone and destructive floods frequently affect the country with almost two-thirds of territory suffering from the threat of flooding. This is due to influence of seasonal monsoon and complex terrain together with large river basins like Pearl, Yangtze, and Yellow rivers, leading to high economic losses	✓	✓ For RMS		
Other: Agriculture	China is the world's largest agricultural economy and a major importer of agriculture commodities. China is second largest market for agriculture insurance	Gallagher Re Agriculture View of Risk is a blended approach based on clients' historical performance, market results and vendor models. Combined with historical yields and weather data, the various approaches help generate a set of PML curves where the sensitivity to assumptions is tested. The final step of the risk assessment is a PML curve included within a range that considers the assumptions used			

NB: Global Solutions are available to facilitate scenario modeling capability for flood and terrorism, and underwriting capability for earthquake and flood.

Hong Kong Market Overview

Economic snapshot

Following a visible expansion in 2021, the Hong Kong economy contracted by 3.5% in 2022 as strict COVID-19 restrictions and a deteriorating external environment dampened economic activity. Hong Kong's economy outlook is expected to show signs of improvement, with growth of 3.5%–5.5% in 2023 following the removal of quarantine requirements for inbound visitors. Overall inflation is expected to face some upward pressure as the economy recovers but would likely remain relatively low at 2.5% for the year.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	7.41	49,533	+ 6.4%
2022	7.35	48,247	- 3.5%

Source: World Bank

Market snapshot

The Hong Kong non-life insurance market recorded a growth of 2.9% in 2021 amid challenges brought on by COVID-19. The growth was mainly driven by the pecuniary loss and property businesses, which grew by 25% and 8.1% respectively in 2021. The growth in pecuniary loss was attributed to a change in the maximum property values under the Mortgage Insurance Program.

2022 PENETRATION		2022 GWP (USD M)		2022 NON-LIFE		
All Insurance	Non-Life Only	All Insurance	Non-Life Only	Loss Ratio	Combined Ratio	Growth Rate
19.7%	2.3%	71,197	8,275	55.2%	89.8%	+ 4.9%

Source: World Bank, Insurance Authority (IA), Hong Kong Census and Statistics Department

Non-life GWP grew by 4.9% in 2022. According to the IA, the growth was primarily attributed to the accident and health and general liability businesses, thanks to rate hardening and new business, while pecuniary loss decreased due to lower loan drawdowns under the Mortgage Insurance Program.

As of December 2022, there were 89 non-life insurers and 19 composite insurers in Hong Kong. The Hong Kong non-life insurance market is fragmented, with the top 20 players accounting for approximately 62% of the market share.

The risk environment

Accident and health is the largest non-life insurance segment in Hong Kong, followed by liability and property. Looking ahead, the accident and health business is expected to recover from the pandemic-led decline following the relaxation of COVID-19 restrictions. Rising cybersecurity risks amid the shift to hybrid/remote working may present growth opportunities for the liability segment, while increased real estate and construction activity is expected to drive growth in the property segment.

There has been a growing focus on cross-border collaboration, particularly with the planned implementation of the Insurance Connect scheme, which will allow Hong Kong-authorized insurers to market certain products in the Greater Bay Area (GBA). For insurers, particularly the larger players in the market, this creates new opportunities for business expansion and product propositions. For customers, this may translate to a more favorable market environment due to the rising level of competition.

There have been developments in the market since the announcement of the proposal: Insurers (including the local branch of Ping An Insurance and China Taiping Insurance) are said to be working on new one-stop motor insurance policies that will provide comprehensive coverage in both Hong Kong and GBA.

Digitalization has been—and will continue to be—a focus in 2023 and beyond. The domestic digital insurance market has been growing in recent years with the emergence of Hong Kong-based virtual insurers and the development of digital insurance products such as on-demand products.

Lastly, ESG issues are expected to gain prominence in the coming years, and insurers will likely face greater pressure to manage ESG risk factors and embed ESG into business operations. There are currently no ESG-related regulations in place for the Hong Kong insurance industry.

Headwinds

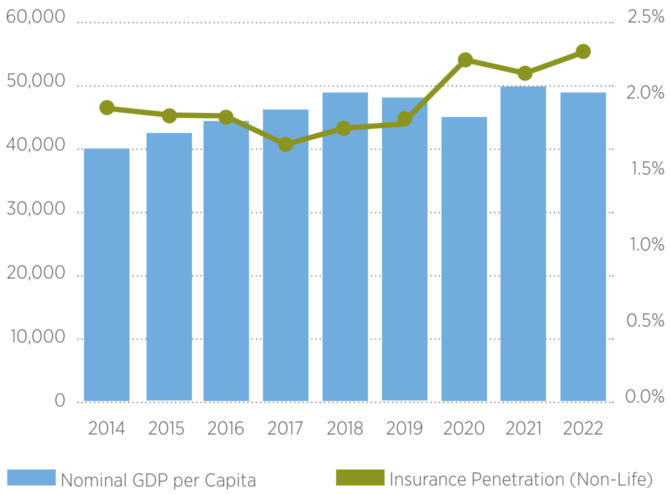
- → The economy contracted in 2022.
- → Concerns abound regarding a perceived brain drain in the insurance industry due to a recent migration wave.

Tailwinds

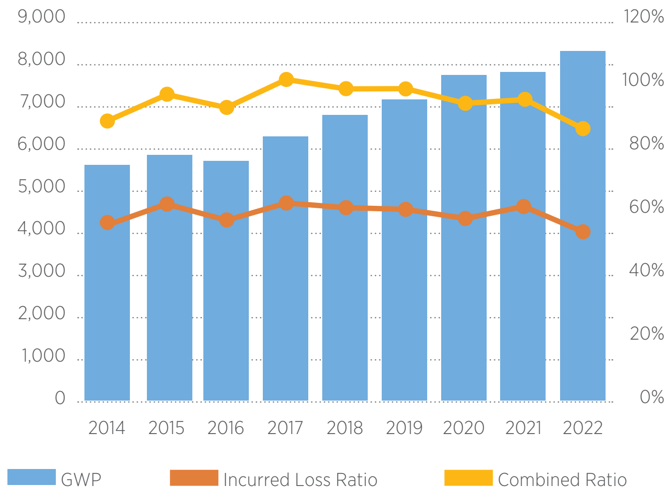
- → A cross-border insurance collaboration between HK and GBA could present new opportunities (e.g., new motor insurance covering risks in HK and GBA).
- → The HK government's sizable investment in the InsurTech space is expected to be a positive for the industry.

Hong Kong In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

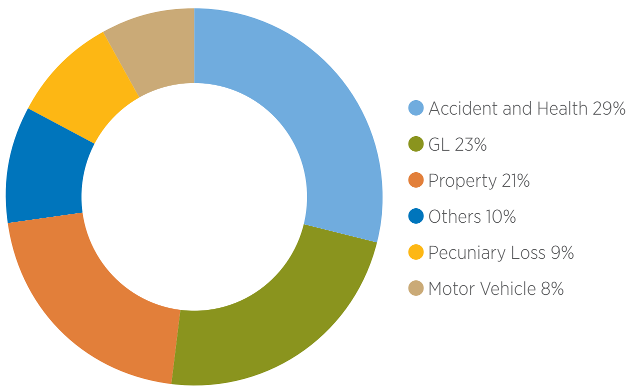


Non-Life Premium and Claims (USD M)

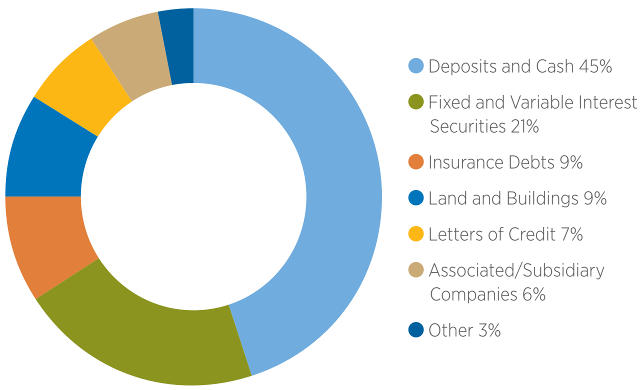


NB: The time period corresponds to a twelve-month period from January 1 to December 31 each year

2022 Total GWP: USD8.3B



2021 Total Asset: USD12.9B



Key features

The non-life GWP growth is primarily attributed to the accident and health, and GL businesses as a result of rate hardening and new business. Unlike other markets in the region, HK has a much smaller share of motor business.

Source: World Bank, Insurance Authority (IA)

Non-Life Regulation

The regulator: overview

The Insurance Authority (IA) is the insurance regulator for Hong Kong. There are two Insurance Advisory Committees (IACs), one for long-term business and one for general, to advise the IA on industry-related issues.

Item	Approach
Accounting framework	IFRS equivalent
IFRS 17 implementation	January 2023
Capital framework	Solvency I Own Risk and Solvency Assessment (ORSA)
Climate/ESG	No climate risk/ESG guidelines specific for the insurance sector

Planned developments

The IA is developing a RBC framework consistent with core principles published by the International Association of Insurance Supervisors (IAIS). The IA has conducted industrywide quantitative impact studies and is in the process of finalizing the framework, which is targeted to be implemented in the first half of 2024. Specific implementation details have not been officially announced.

The IA, alongside the Task Force on Green Insurance established by the Hong Kong Federation of Insurers (HKFI), is focusing efforts on 'green insurance' and disclosure guidelines. A climate reporting framework potentially aligned with the recommendations of the Task Force on Climate-Related Financial Disclosures is anticipated to be released soon.

Capital requirements

Minimum capital required		Minimum solvency margin
General insurer	HKD10M (approximately USD1.3M)	Insurers must maintain capital in excess of the required solvency margin, subject to a minimum of HKD10M (or HKD20M for insurers writing statutory classes)
Composite insurer or insurer writing statutory classes	HKD20M (approximately USD2.6M)	
Captive	HKD2M (approximately USD0.3M)	

Note: Non-life insurers are required to maintain assets in Hong Kong equivalent to the aggregate of 80% of their net liabilities and solvency margin applicable to their Hong Kong domestic business.
Exchange rate (as at January 1, 2023): HKD7.81 = USD1.00

Source: IA

Solvency framework overview

Under the current capital adequacy framework, the required solvency margin is determined on a premium income or a claims outstanding basis whereby premium income is defined as the greater of 50% of GWP or 100% of GWP less reinsurance. Meanwhile, claims outstanding is defined as the greater of 50% gross claims outstanding or 100% of gross claims outstanding less reinsurance recoverable, plus the unexpired risk reserve.

The solvency margin formula is the greater of:

- 20% of relevant premium income up to HKD200M (USD25.6M), plus 10% of the amount by which the relevant premium income exceeds HKD200M
- 20% of relevant claims outstanding up to HKD200M, plus 10% of the amount by which the relevant claims outstanding exceeds HKD200M

The above is subject to a minimum of HKD10M, or HKD20M in the case of insurers carrying on statutory classes of insurance business.

Other

There are no foreign ownership restrictions provided insurers can meet the authorization criteria. The Hong Kong regulator has issued guidance on reinsurance arrangements, but there are no specific requirements on reinsurance placements. It advises insurers to conduct due diligence during reinsurance placements, covering reinsurers' reputation, financial strength, professionalism, and credit risk.

Source: IA

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models/ Probabilistic Models	Underwriting Capability
Earthquake	Hong Kong lies within the Eurasian Plate. The seismicity of Hong Kong is low to moderate. Historical records suggest that Hong Kong does not experience frequent, large magnitude earthquakes	✓		✓	
Tropical Cyclone/ Typhoon (Flood & Surge)	Typhoon is the main natural peril in Hong Kong, however, typhoon risk is considered medium which can be explained by the location and the size of the territory. An average of 1-2 typhoons every year come across/close to Hong Kong	✓			
Flood	Hong Kong is at risk of urban flooding	✓	✓ For RMS		

NB: Global Solutions are available to facilitate scenario modeling capability for Flood & Terrorism and Underwriting capability for Earthquake & Flood.

India Market Overview

Economic snapshot

According to the World Bank, the Indian economy grew at an annual rate of 7.0% in 2022–2023, compared with 9.1% recorded in FY2021–2022. Despite external headwinds, the World Bank has forecasted the Indian economy to grow at a rate of 6.6% in FY2023–2024 owing to the country's sizeable domestic market and relatively low exposure to international trade flows.

According to the Reserve Bank of India (RBI), the overall inflation for FY2023–2024 is expected to moderate from 6.5% to 5.3% for FY2022–2023. However, there is an element of uncertainty in the inflation outlook given the increased challenges in the global economic environment.

It is worth noting that the Monetary Policy Committee of the RBI, established in 2016, is tasked with maintaining inflation within the target range of 4% +/–2%.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	1,407.56	1,282	+ 9.1%
2022	1,417.17	1,362	+ 7.0%

Source: World Bank

Market snapshot

The Indian non-life insurance market recorded a growth of 11% in FY2021–2022, with growth in gross direct premium income (GDPI)—which refers to business within India only—observed across all lines of business except for crop insurance, which experienced a 5% reduction in GDPI. Health and motor continue to be the top two largest non-life insurance segments, each accounting for more than 30% of the total GDPI respectively in FY2021–2022.

2021 PENETRATION		2021 GDPI (USD M)		2021 NON-LIFE (INCLUDING HEALTH)		
All Insurance	Non-Life (Incl. Health)	All Insurance	Non-Life (Incl. Health)	Loss Ratio	Combined Ratio	Growth Rate
3.9%	0.9%	110,407	26,686	89.1%	115.5%	+ 11.1%

NB: GDPI figures refer to business within India only.
Source: World Bank, Insurance Regulatory and Development Authority (IRDAI)

As of November 2022, the non-life GDPI recorded a growth of 17% as compared to the same corresponding period in 2021. All lines of business recorded a growth, in particular, health, motor, and fire segments, which recorded double-digit growth of 22%, 17%, and 11% respectively.

As of November 2022, there were 31 players in the Indian non-life insurance market (i.e., four public sector general insurers, 20 private sector general insurers, two specialized insurers, and five stand-alone health insurers). The top 10 players (including all four public sector general insurers) dominate the market, accounting for 69% of market share.

The risk environment

The Indian non-life insurance market is anticipated to continue its growth trajectory thanks to supportive regulations and the growing economy. The Insurance Regulatory and Development Authority of India (IRDAI) has implemented various reforms in recent years with the goal of achieving its mission of "Insurance for all by 2047". Some notable reforms include:

- Relaxation of foreign ownership restrictions, raising the limit on foreign investment to 74% from 49%, following which the market is expected see the entry of new players as well as an uptick in merger and acquisition activity as foreign-owned insurers seek to buy out their local joint-venture (JV) partners; a recent example is Generali's acquisition of a 25% stake in Future Generali India Insurance (FGII) from Future Enterprises Limited, resulting in a 74% stake in FGII
- Relaxation of solvency margin requirement for crop insurance with the goal of reducing the capital burden on insurers and facilitating effective use of capital to increase insurance penetration
- Launch of the use and file approach such that non-life insurers can go to market without prior approval from the regulator
- Introduction of technology-enabled covers (i.e., pay-as-you-drive or pay-how-you-drive cover can now be offered as an add-on to motor insurance policies)

Digitization has been and will continue to be a key focus for the industry. For instance, IRDAI is currently working on a new all-in-one insurance platform, BIMA SUGAM, to facilitate the distribution of affordable health insurance cover, which it is hoped will increase insurance penetration in the country.

Headwinds

→ Trust and awareness remain the biggest hurdle to improving sales, alongside insurance's acceptability as a financial tool.

→ The government's protectionist approach also slows down the growth as sources of capital (including reinsurance) are underutilized.

Tailwinds

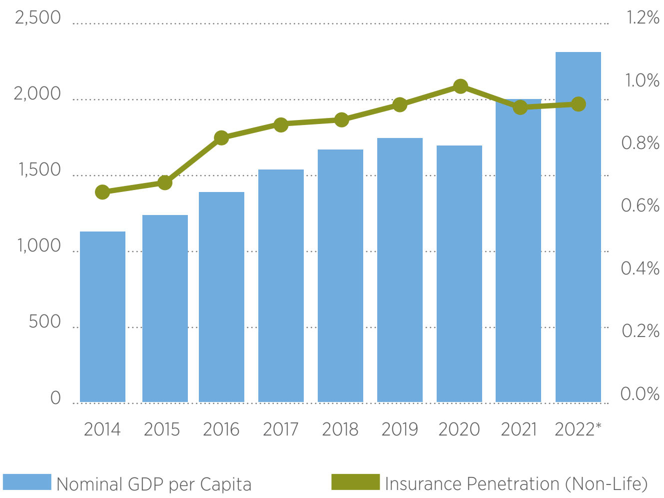
→ Rapid economic growth and infrastructure development is fueling the growth of the industry.

→ Regulatory pushes to increase insurance penetration and the government's drive of financial inclusion is providing further impetus.

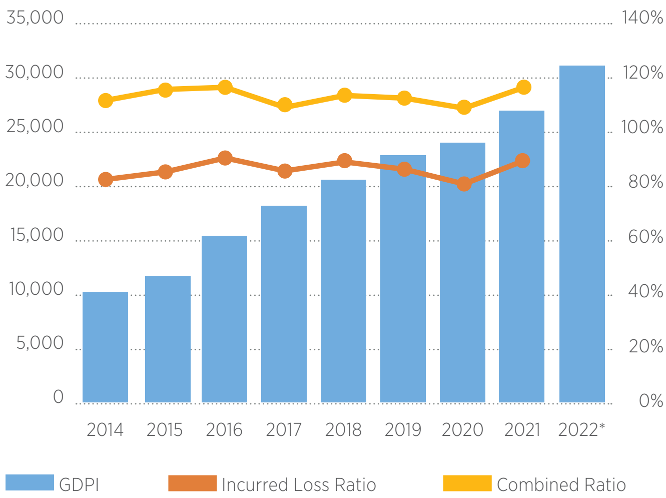
→ Technology is making insurance more accessible and affordable, and improving customer experience significantly.

India In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

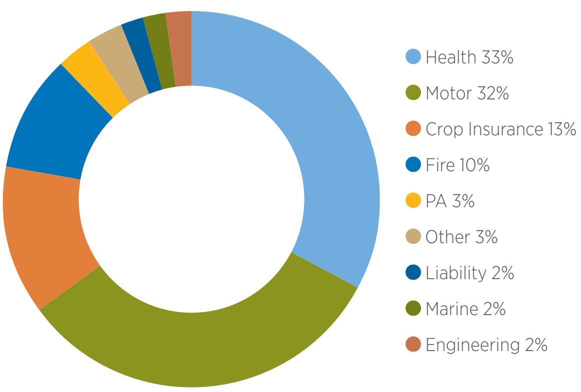


Non-Life Premium and Claims (USD M)

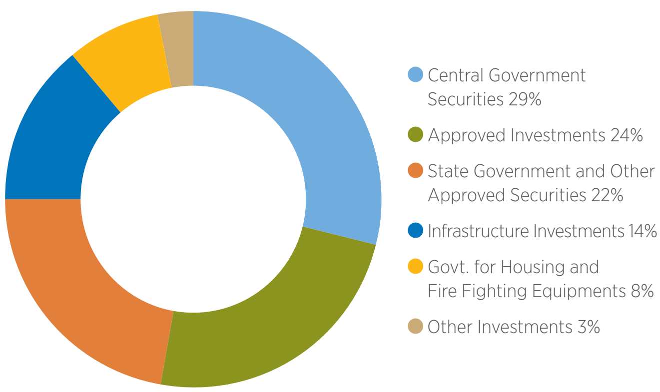


*Estimated FY2022 premium based on data published as of November 2022
NB: The time period corresponds to a 12-month period from April 1 to March 31 (eg FY2022 runs from April 1, 2022 to March 31, 2023)

2021 Total GDPI (Within India): USD26.7B



2021 Total Investment:USD58.5B



Key features

India's non-life insurance penetration rate is 0.9% on average. The insurance penetration is on a growth trajectory with the government's financial inclusion initiatives for poor and vulnerable households, as well as increasing disposable income in the country. Loss ratios are driven by both catastrophe and fire losses.

Source: World Bank, Insurance Regulatory and Development Authority (IRDAI)

Non-Life Regulation

The regulator: overview

The Insurance Regulatory and Development Authority of India (IRDAI) is the insurance regulator for India.

Item	Approach
Accounting framework	Indian Accounting Standards (IFRS equivalent)
IFRS 17 implementation	April 1, 2024 or April 1, 2025
Capital framework	Solvency I
Climate/ESG	Mandatory annual ESG disclosure from financial year 2022-23 for the top 1,000 listed companies No specific climate risk/ESG regulations for the insurance sector

Planned developments

The IRDAI is planning to introduce a RBC framework. According to previous reports, the IRDAI has formed a 10-member steering committee to assist in the implementation of the new RBC framework by March 2021. However, at the time of writing, neither the exact framework nor the implementation details had been officially announced.

Capital requirements

Minimum capital required		Minimum solvency margin
Insurer (local & foreign)	INR1B (approximately USD13.4M)	(Re)insurers must maintain a minimum solvency ratio of 150%
Reinsurer (local & foreign)	INR2B (approximately USD26.8M)	

Exchange rate (as at January 1, 2023): INR82.73 = USD1.00

Solvency framework overview

The solvency ratio is calculated by assessing the ratio of the Available Solvency Margin (ASM) against the Required Solvency Margin (RSM).

Under the current principle-based framework, the ASM is determined as the excess of allowable asset over liabilities, while the RSM is the greater of the RSM 1 (based on premiums) and RSM 2 (based on incurred claims) determined for each line of business separately.

- RSM 1 = 20% x max [net premiums, prescribed solvency factor x gross premiums]
- RSM 2 = 30% x max [net incurred claims, prescribed solvency factor x gross incurred claims]

The prescribed solvency factor varies from 0.5 to 0.75 depending on the line of business.

Other

There is a foreign ownership limit of 74% for insurance companies.

Source: IRDAI

Catastrophe, Pooling and Reinsurance

Catastrophe risk

There are currently no minimum catastrophe reinsurance coverage requirements for local insurers. However, under the current regulations, insurers are required to submit a catastrophe modeling report used to determine the board-approved catastrophe protection program for the forthcoming financial year.

Reinsurance

The IRDAI reviews the requirements on compulsory cession to state-owned reinsurer General Insurance Corporation of India (GIC Re) on an annual basis. The IRDAI issued a notification on January 30, 2023, confirming that the mandatory cession rate of 4% on each and every policy will remain in effect for FY2023–2024 (i.e., April 1, 2023, to March 31, 2024).

Under the IRDAI Reinsurance Regulations 2018:

- Cedants must seek terms from (1) all Indian reinsurers who are registered with the IRDAI and have been transacting reinsurance business in the past three years with a minimum credit rating of A- and (2) a minimum of four foreign reinsurance branches (FRBs) with a minimum credit rating of A-.
- Cedants must offer the best terms for participation in the prescribed order of preference. The first category of preference is GIC Re, followed by category one branches, other Indian reinsurers or category two branches, FRBs in special economic zones, other Indian insurers (facultative), and cross-border reinsurers (CBRs).
- Cross-border cession limits vary depending on the CBRs' credit ratings: 20% (A+ or higher), 15% (BBB+ to A+), and 10% (BBB–to BBB+).
- All FRBs must retain a minimum of 50% of their Indian reinsurance business.

In the fourth quarter of 2022, the IRDAI published two exposure drafts outlining the proposed key changes to the IRDAI Reinsurance Regulations 2018. If notified, the amended regulations will come into effect on April 1, 2023. Some notable proposed changes include:

- A revised order of preference for reinsurance placements to remove preferential treatment to GIC Re and the three FRBs meeting the minimum credit rating requirement
- Increased cession limits of cedants for cross-border reinsurance placements

Source: IRDAI

Pooling arrangements

Indian Nuclear Insurance Pool (INIP)	The INIP was established in 2015 by the state-owned reinsurer GIC Re and several other Non-Life insurers GIC Re is the Manager of the pool while the New India Assurance Company (NIAC) is responsible for issuing policies and administering claims on behalf of the pool The INIP provides capacity to cover Nuclear Operators Liabilities under section six of the Civil Liability of Nuclear Damage Act (CLNDA) 2010 It currently only covers risks in cold zones (ie outside the reactor) with plans to extend its coverage to areas within the reactor
Indian Market Terrorism Risk Insurance Pool (IMTRIP)	The IMTRIP was established in 2002 by all non-life insurers in India as an initiative to create domestic capacity for providing terrorism insurance cover, following the withdrawal of coverage by international reinsurers as a result of the 9/11 attacks The Pool Underwriting Committee is responsible for determining the premium rates. Funding of the pool is entirely dependent on premiums as the state has no direct involvement 100% of terrorism risks underwritten by any insurer is ceded to the IMTRIP GIC Re is the Manager of the IMTRIP and is responsible for arranging reinsurance protection for the pool. The net risk is retroceded back to the members in proportion to their individual subscription
Indian Fertilizer Insurance Pool	The pool was established in 2022 to provide coverage for fertilizer shipments from Russia and Belarus, as European reinsurers are unwilling to provide reinsurance support due to the Ukraine-Russia conflict GIC Re is said to contribute majority of the pool funds, with contributions also coming from other multi-line non-life insurers Recent reports indicate that the pool is likely to be extended to cover oil and gas imports
Natural Catastrophe (Nat Cat) Insurance Pool	A natural catastrophe pool to protect property and dwellings from floods, earthquakes, cyclones and landslides was first proposed in 2013 but has not been set up due to a lack of consensus on the structure of the pool However, reports indicate that the Indian government is revisiting the idea of establishing a natural catastrophe pool following Cyclone Amphan (2020)

Source: IRDAI

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models / Probabilistic Models	Underwriting Capability
Earthquake	Earthquake risk is a major peril for the Indian market, with probabilistic models available from most of the major vendors. Gallagher Re has evaluated vendor models to establish our Own View of Risk	✓	✓ For RMS		
Tropical Cyclone/ Typhoon (Flood & Surge)	Tropical cyclone risk is a relatively low-risk peril for India. Gallagher Re has evaluated this model to establish our Own View of Risk	✓			
Flood	Flooding is one of the key perils for the Indian market. Flooding can occur from two key sources, namely, precipitation induced flooding from Tropical Cyclone (TC) and flood from Non-TC sources. Gallagher Re has evaluated the available vendor model for flood hazard in India	✓		✓ GRe scenario and probabilistic flood model	

NB: Global Solutions are available to facilitate scenario modeling capability for Flood & Terrorism and Underwriting capability for Earthquake & Flood.

Indonesia Market Overview

Economic snapshot

The Indonesia economy is the largest economy in Southeast Asia. The country recorded an annual growth rate of 3.7% in 2021 followed by a growth of 5.3% in 2022 (the highest posted in the past nine years) as the country regained its momentum after COVID-19 setbacks. According to Bank Indonesia (BI), the economic growth is projected to be in the range of 4.5%–5.3% on the back of increasing household consumption and investment.

The overall inflation rate for 2022 was 5.5%, and BI is targeting an overall inflation rate between 2% and 4% for 2023. On January 19, 2023, BI raised its key policy rate by 25 basis points and indicated that the current monetary tightening cycle is coming to an end.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	273.75	2,590	+ 3.7%
2022	275.50	2,710	+ 5.3%

Source: World Bank

Market snapshot

In 2021, the Indonesian non-life insurance market contracted by 2% in terms of gross premium income (GPI) because of the pandemic. Property and motor continue to be the top two largest non-life insurance segments, accounting for 26% and 22% of the total GDPI respectively in 2021. Meanwhile, the third-largest segment, credit and suretyship, accounted for 21% of the GDPI in 2021.

2022 PENETRATION		2022 GPI (USD M)		2022 NON-LIFE		
All Insurance	Non-Life Only	All Insurance	Non-Life Only	Loss Ratio	Combined Ratio	Growth Rate
1.4%	0.5%	17,081	6,246	68.2%	96.1%	+ 7.6%

Source: World Bank, Otoritas Jasa Keuangan (OJK), Asosiasi Asuransi Umum Indonesia (AAUI)

Based on data published by the Indonesian General Insurance Association (AAUI) in 2022, the non-life market grew across all lines of business except for energy onshore and suretyship. Both property and motor experienced double-digit growth, with the growth in motor driven by increased vehicle sales and tax incentives for luxury vehicles.

The Indonesian non-life insurance market is fragmented. As of December 2021, there were 71 players in the Indonesian non-life insurance market (52 national insurers and 19 joint ventures), with the top 10 players accounting for approximately 53% of GDPI in 2021.

The risk environment

The top three segments (i.e., property, motor, and credit insurance) are expected to be the key drivers of the non-life insurance market in the near term. This is because of:

- The government's continued commitment to offer credit to the public, particularly to encourage development of micro, small, and medium enterprises (MSMEs). This is anticipated to fuel the credit insurance segment.
- Initiatives to promote the use of eco-friendly vehicles (including the possible launch of a subsidy program for EVs), which could open up new business opportunities for the motor insurance industry.
- The government is in the process of moving Indonesia's capital city from Jakarta to the island of Borneo. Engineering, surety and construction projects, including movement of civil servants and their families to the new capital, could present possibilities for insurance growth.

The Indonesian property and motor segments are governed by tariff-based pricing regime, and the tariff rates have remained unchanged since the issuance of the Circular Letter No. 6/SEOJK.05/2017 by the Otoritas Jasa Keuangan (OJK) in 2017. The OJK announced in October 2022 that it is currently reviewing the premium pricing, particularly the motor insurance premium rates.

Despite the country's high mobile internet penetration rate, the insurance penetration rate remains low. Digitalization will be a driving force to unlock untapped potential in the domestic insurance market, as evidenced by the establishment of various InsurTechs in the domestic market in recent years. One of the top priorities of the OJK's Indonesian Financial Services Sector Master Plan 2021-2025 is the acceleration the insurance industry's digital transformation. Recent reports indicate that OJK is developing regulations on the marketing of insurance products through digital platforms or InsurTechs.

Given that Indonesia is a catastrophe-prone country, climate risk will continue to be a major focus in 2023 and beyond. A disaster pooling fund, or Pooling Fund Bencana (PFB), was introduced in August 2021 to cover disaster risk losses. While the fund is still in its early stages, this initiative is expected to contribute to the growth in the property insurance segment as local governments seek to insure their assets via the state property insurance scheme.

Headwinds

→ Credit insurance losses caused by COVID-19 impacted financial results and solvency of some (re)insurers.

→ Multiple large losses combined with the financial issues of local reinsurers resulted in some placement shortfalls.

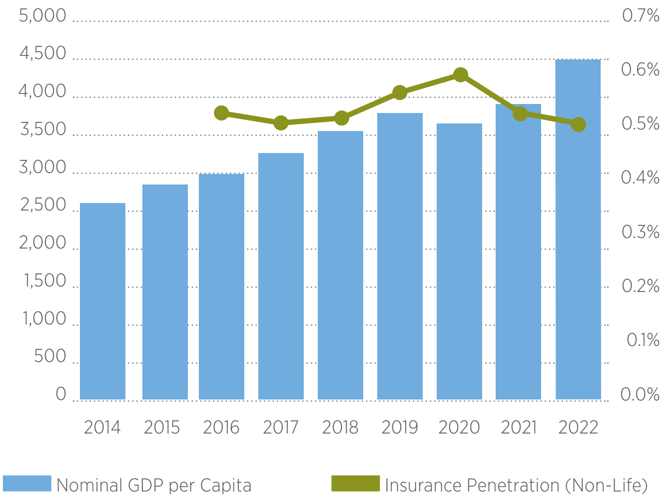
→ Consistently high direct acquisition costs are affecting net profits and ROEs.

Tailwinds

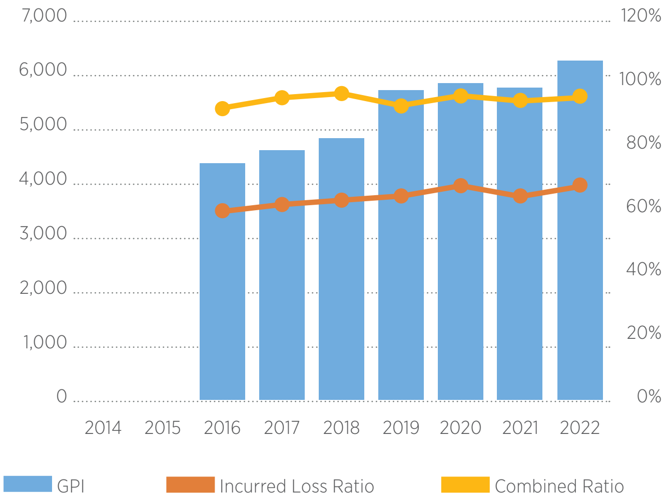
→ Growth in InsurTech (although this is still nascent)

Indonesia In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

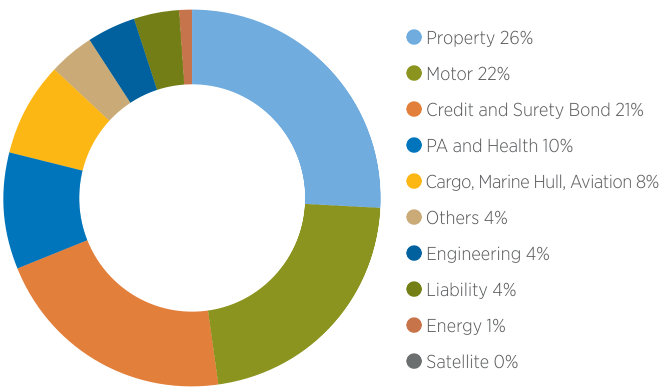


Non-Life Premium and Claims (USD M)

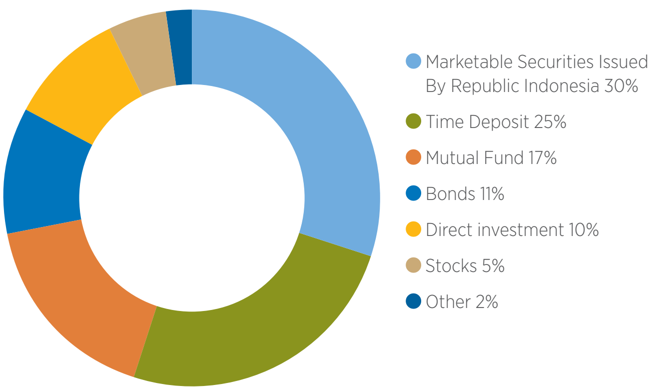


NB: The time period corresponds to a twelve-month period from January 1 to December 31 each year

2021 Total GDPI: USD5.8B



2022 Total Investment: USD5.9B



Key features

Indonesia's non-life insurance penetration rate is 0.5% on average, well below the regional average. Under current regulations, non-life (re)insurers must invest a minimum of 20% of their total investments in Indonesian state bonds. The market was recently hit by some large risk and credit insurance losses.

Source: World Bank, Otoritas Jasa Keuangan(OJK), Asosiasi Asuransi Umum Indonesia (AAUI)

Non-Life Regulation

The regulator: overview

The Financial Services Authority or Otoritas Jasa Keuangan (OJK) is the insurance regulator for Indonesia.

Item	Approach
Accounting framework	IFRS equivalent
IFRS 17 implementation	January 1, 2025
Capital framework	RBC framework
Climate/ESG	OJK issued ESG regulations requiring corporations to demonstrate their sustainability credentials annually (POJK No. 51/POJK.03/2017) and laid out standards for green bond issuance (POJK No. 60/POJK.04/2017)

Planned developments

The OJK was given a new role to investigate criminal acts in the financial-service sector after the Law of Financial Sector Development and Strengthening, or P2SK, was approved in December 2022. The regulator has also formulated new regulations to raise the minimum paid-up capital requirement for:

- Insurance companies to IDR500B (USD32.9M) by 2026 and IDR1T (USD65.9M) by 2028
- Reinsurance companies to IDR1T by 2026 and IDR2T by 2028
- Sharia insurance companies to IDR250B by 2026 and IDR500B by 2028
- Sharia reinsurance companies to IDR500B by 2026 and IDR1T by 2028

Capital requirements

Minimum capital required		Minimum solvency margin
Insurer	IDR150B (approximately USD9.9M)	Insurers must maintain a solvency margin in excess of the minimum RBC ratio of 120%
Sharia insurer	IDR100B (approximately USD6.6M)	
Reinsurer	IDR300B (approximately USD19.8M)	
Sharia reinsurer	IDR175B (approximately USD11.5M)	

Exchange rate (as at January 1, 2023): IDR15,685.69 = USD1.00
Source: OJK

Source: World Bank, Otoritas Jasa Keuangan(OJK), Asosiasi Asuransi Umum Indonesia (AAUI)

Solvency framework overview

Total available capital:

- Tier 1 + Tier 2 – Deductions

Total required capital

Risk Category			Comments
Insurance risk	Premium liabilities risk	✓	
	Claims liabilities risk	✓	
Market risk	Interest rate risk	✓	
	Equity risk	✓	
	Non-default spread risk	✗	
	Currency risk	✓	
	Property risk	✓	
	Asset concentration risk	✓	
Credit risk		✓	
Catastrophe risk		✓	Accounted for under 'Insurance Risk whereby additional catastrophic provision (as standalone reserve) needs to be established if catastrophic risks are not reinsured and/or the existing catastrophe reinsurance is deemed insufficient
Liquidity risk		✓	
Operational risk		✓	

NB: No allowance for risk correlations under the current RBC framework.

Other

There is a foreign ownership limit of 80% for (re)insurance companies. The limit does not apply to companies that had more than 80% foreign ownership at the time the 2018 Regulation was enacted.

Source: OJK

Catastrophe, Pooling and Reinsurance

Catastrophe risk

The mandatory premium tariff for catastrophe perils is as follows.

- Premium tariff for earthquake insurance is set for five risk zones, based on occupancy code and construction type. No discounts are allowed.
- Premium tariff for flood insurance is divided into two areas: (1) Jakarta, Banten, and West Java, and (2) areas outside Jakarta, Banten, and West Java. For each area, premium tariff is set for four risk zones, based on flood inundation level from past events.
- OJK mandates that all non-life insurers and reinsurers acquire protection for a 1-in-250-year catastrophe loss event. (Re)insurers that have established a catastrophe reserve based on a minimum 250-year return period may be exempted from this requirement.

Reinsurance

There are mandatory requirements to cede a percentage of every property earthquake risk to PT Reasuransi Maipark Indonesia (MAIPARK). Risks within the western part of Java require a mandatory cession of 10% (up to IDR100B) to MAIPARK on every property earthquake risk underwritten, while risks outside the western part of Java require a mandatory cession of 25% (up to IDR100B).

On June 18, 2020, the OJK issued a new regulation (POJK No.39/2020) that outlines changes to requirement on self-retention and domestic reinsurance support. In particular:

- Foreign reinsurers must have a minimum rating of BBB (or the equivalent).
- Starting January 1, 2021, cedants can place up to 100% of "simple risks" [1] with reinsurers residing in countries with a bilateral agreement with the Indonesian government in place.
- Starting January 1, 2023, the mandatory minimum cession of 25% to domestic reinsurers for non-simple risks (including property) will no longer be applicable, provided it is placed with reinsurers residing in countries with a bilateral agreement with the Indonesian government.

Under the current RBC framework, the credit risk charge on reinsurance recoverables varies depending on the nationality and credit rating of the respective reinsurer. Domestic reinsurers are subject to a flat credit risk charge regardless of credit rating, whereas foreign reinsurers are subject to tiered credit risk charge.

[1] "Simple risks" includes Motor, Health, Personal Accident, Credit, Life and Surety business
Source: OJK, AAUI

Pooling arrangements

Indonesian Terrorism and Sabotage Insurance Pool (PATS)	PATS was established in 2001 to provide protection for property damage due to acts of terrorism and sabotage, and was extended to cover business interruption following the 2018 Surabaya bombings The pool consists of members of Konsorsium Pengembangan Industri Asuransi Indonesia Terorisme-Sabotase (KPIAI-TS). Participation in the pool is entirely voluntary
Pool Reasuransi Gempa Bumi Indonesia (PRGBI) (i.e., Indonesian Earthquake Reinsurance Pool)	PRGBI began operations on January 1, 2003 to provide reinsurance for property earthquake risk PRGBI was replaced by a public liability company, PT Reasuransi MAIPARK Indonesia (MAIPARK), in 2004 with mandatory participation from all Inodnesia non-life insurers and reinsurers Mandatory cession of 10% (within western part of Java) or 25% (outside western part of Java) on each and every property catastrophe risk, subject to a maximum of IDR100B
Pool Kerjasama Surety dan Custom Bond Indonesia (PKSCBI) (i.e., Indonesian Surety and Custom Bond Pool)	The state-owned reinsurer, PT Reasuransi Indonesia Utama (Indonesia Re), is the Manager of the pool Voluntary cession of 10% to PKSCBI on each and every surety bond policy issued, for a maximum sum insured of IDR1B
Konsorsium Barang Milik Negara (KABMN) (i.e., State Property Insurance Consortium)	KABMN was established by the AAUI in 2019 to protect national assets against disaster risks MAIPARK is the Administrator of the pool while PT Asuransi Jasa Indonesia (Jasindo) is responsible for the issuance of policies KABMN provides protection against disaster risk for Ministry of Finance offices, training facilities and healthcare facilities. The scope of KABMN is expected to be expanded to include other asset such as roads, bridges and other infrastructure
Konsorsium Asuransi Risiko Khusus (KARK) (i.e., Special Risk Insurance Consortium)	KARK created Konsorsium Asuransi Pasar (KAPAS) to cover property risks relating to pasars (ie markets) as pasars were deemed an unfavourable risk due to the high loss potential KARK also manages Konsorsium Asuransi Mikro (KOSMIK) which distributes the standard micro insurance products issued by the AAUI At the time of writing, KARK's official website indicates that the membership comprises of 63 non-life insurers and reinsurers

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models/ Probabilistic Models	Underwriting Capability
Earthquake	Earthquake and associated Tsunami risk is significant and considered the major peril in Indonesia. All major vendor model companies offer an Indonesia EQ Model as part of their Asia EQ model suite. Tsunami is as a sub peril in all the vendor EQ models	✓ Tsunami hazard maps covering parts of East and West Java and Bali		✓ Scenario Model using GEM	
Tropical Cyclone/ Typhoon (Flood & Surge)	N/A				
Flood	Flood is prevalent, with Jakarta particularly susceptible to major floods during monsoon season, exacerbated by an aging water management system	✓		✓ GRe Indonesia flood model	
Volcano	Indonesia has one of the world's highest concentrations of active volcanism with around 36 volcanoes within 500 km of Jakarta. Volcano is a secondary peril with no models available in market			✓ 1883 Krakatau eruption and Volcano Radius scenario	

NB: Global Solutions are available to facilitate scenario modeling capability for Flood & Terrorism and Underwriting capability for Earthquake & Flood.

Japan Market Overview

Economic snapshot

Japan is the world's third-largest economy and Asia's second-largest economy by nominal GDP.

The Japanese economy recorded an annual growth rate of 2.1% in 2021, followed by a growth of 1.0% in 2022 as the nation recovered from the COVID-19 pandemic. According to the government's December forecast, economic growth in FY2023 is expected to be 1.5%/2.1% (in real/nominal terms) supported by the new economic policy package announced in October 2022, which is expected to drive private consumption and investment.

Due in part to accelerated high import costs brought on by the weak Japanese yen, whilst still exceptionally low by global standards, the country in FY2022 experienced its highest inflation rate in the past 41 years. Rising food and energy prices are expected to keep inflation elevated above long-term averages in FY2023. However, it is anticipated that the new economic policy package will help alleviate inflationary pressures.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	125.68	32,804	+ 2.1%
2022	125.12	33,289	+ 1.0%

Source: World Bank

Market snapshot

The Japanese domestic non-life insurance market recorded a slight growth of 3% in FY2021, mainly driven by the growth observed in fire and miscellaneous casualty segments. The motor segment remains the largest non-life segment, accounting for 51% of the non-life direct premium written (DPW) in FY2022.

2022 PENETRATION		2022 DWP (USD M)		2022 NON-LIFE		
All Insurance	Non-Life Only	All Insurance	Non-Life Only	Loss Ratio	Combined Ratio	Growth Rate
8.0%	1.8%	339,321	76,015	59.0%	91.5%	+ 3.0%

Source: World Bank, Financial Services Agency (FSA), General Insurance Association of Japan (GIAJ), Foreign Non-Life Insurance Association of Japan (FNLIA), Life Insurance Association of Japan (LIAJ)
NB: The above figures are for members of the General Insurance Association of Japan (GIAJ) only and includes direct premiums written abroad

There are 55 non-life insurers (33 domestic and 22 foreign insurers) and over 100 small-amount and short-term insurers (SASTI) operating in Japan. However, the Japanese non-life insurance market is an oligopoly. It is dominated by three Japanese insurance groups (Sompo Holdings, Tokio Marine Holdings, and MS&AD Insurance Group Holdings), accounting for more than 80% of market share.

The risk environment

It is anticipated that the motor segment will continue to be the key driver of growth for the Japanese non-life insurance industry, while large-scale infrastructure projects and the proliferation of digital technology are also expected to present growth opportunities for the industry.

Nonetheless, downside risks exist, with natural catastrophe being one of the key volatility factors affecting insurers' earnings. Non-life insurers are anticipated to further increase the premium rates on their residential fire policies in response to rising lost costs in recent years. Since mid-2022, non-life insurers have lowered the maximum policy term on their residential fire policies from 10 to five years, which would allow more flexibility in terms of rate adjustments.

Macroeconomic and geopolitical uncertainty continues to pose challenge for insurers. In particular, global inflation and the low interest rate environment in Japan could negatively impact the operating performance of insurers. External geopolitical turmoil (e.g., the ballooning US-China tension and the Russia-Ukraine war) adds to the uncertainty, as the country seeks to safeguard both its security and economic interests.

Digitalization has been, and will continue to be at the forefront of business development for insurers. In recent years, the industry has witnessed digital transformation across the insurance value chain including product development (e.g., telematics motor products) and claims management initiatives (e.g., the use of mobile devices for remote claims assessment, the use of drones for damage evaluation, and the use of robotic process automation for claims handling and processing).

ESG topics are expected to be one of the industry's primary areas of focus, especially with the recent introduction of mandatory annual disclosure requirements for public companies. It is worth noting that the three major non-life insurers have started to integrate ESG risk assessments into their business operating models (e.g., sustainability-focused underwriting and investment).

Headwinds

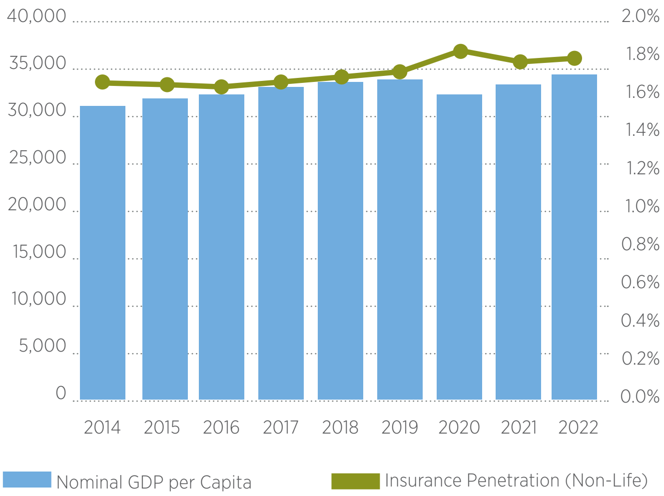
- Volatility from natural catastrophe events
- Geopolitical uncertainty
- Global inflation

Tailwinds

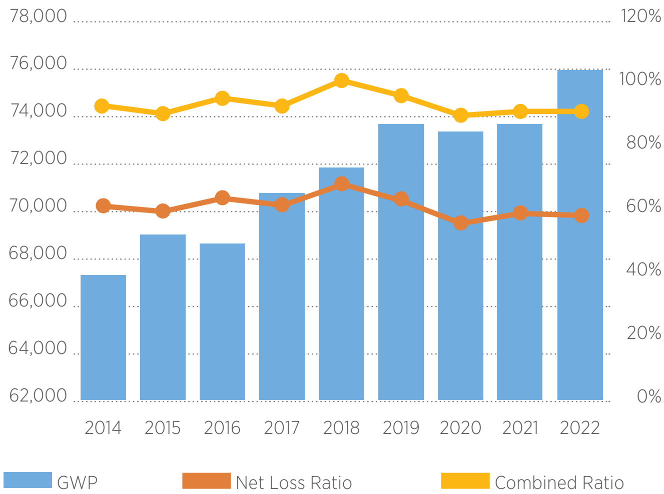
- Digitalization
- Advancing infrastructure projects
- Improving rates for fire insurance policies

Japan In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

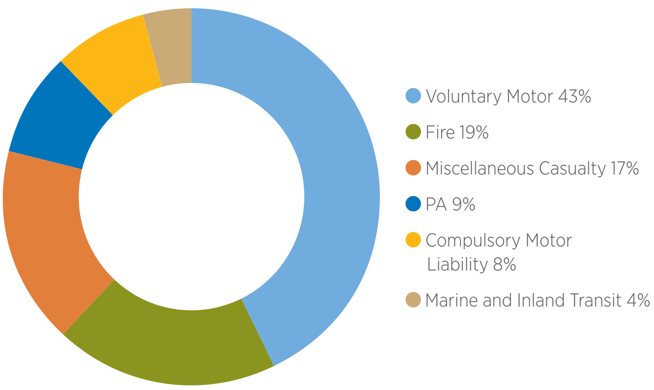


Non-Life Premium and Claims (USD M)

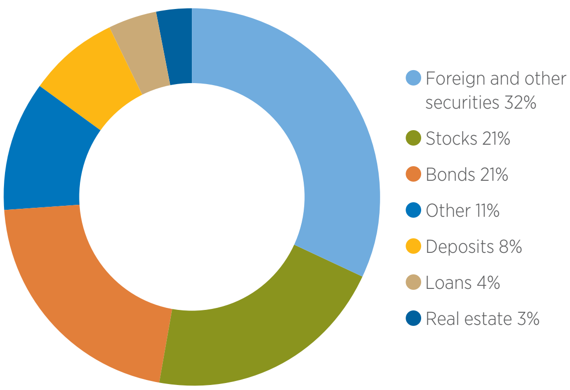


NB: The time period corresponds to a twelve-month period from April 1 to March 31 (eg FY2022 runs from April 1, 2022 to March 31, 2023)

2022 Total GWP: USD76B



2021 Total Asset: USD249B



Key features

Japan is one of the world's top 10 markets in terms of non-life insurance premium, but it lags in terms of insurance penetration. The rise in both claims frequency and severity led to an increase in premiums for fire insurance policies and contributed to fluctuations in combined ratios in the past couple of years. In addition, the utilization of pricier car components has led to an escalation in claims costs for motor insurance policies.

Source: World Bank, Financial Services Agency (FSA), General Insurance Association of Japan (GIAJ), Foreign Non-Life Insurance Association of Japan (FNLIA), Life Insurance Association of Japan (LIAJ)
The above figures are for members of the General Insurance Association of Japan (GIAJ) only and includes direct premiums written abroad

Non-Life Regulation

The regulator: Overview

Under the Insurance Business Act (IBA), the Prime Minister of Japan is the insurance regulator for Japan. However, most authority has been delegated to the Japan Financial Services Agency (JFSA), with the exception of a few significant powers (e.g., granting and revoking insurance business licenses).

Item	Approach
Accounting framework:	Japanese GAAP (JGAAP)
IFRS 17 implementation:	Voluntary adoption
Capital framework:	Quantitative: RBC framework Qualitative: Own Risk and Solvency Assessment (ORSA)
Climate/ ESG:	Mandatory annual ESG disclosures for public companies starting from fiscal year ending March 31, 2023

Planned Developments

The JFSA is in the process of finalizing its economic value-based solvency framework and has conducted multiple field tests since June 2010. The target implementation date of the new framework is April 2025, with calculations based on the new framework to start at the end of March 2026

Capital requirements

Minimum capital required		Minimum solvency margin
Licensed insurer	JPY1B capital (approximately USD8.9M)	Insurers must maintain a solvency margin ratio in excess of the regulatory minimum of 200%
Small amount and short-term insurance (SASTI) insurer	JPY10M capital (approximately USD0.1M) plus JPY10M (or more) deposit	
Licensed foreign insurer	JPY 200M deposit (approximately USD1.8M)*	

*Licensed foreign insurers must maintain assets in Japan equivalent to their combined underwriting reserves and outstanding loss reserves
Exchange rate (as at January 1, 2023): JPY131.02 = USD1.00

Source: FSA, GIAJ

Solvency framework overview

$$\text{Solvency Margin Ratio} = \frac{\text{Total amount of solvency margin (incl. capital and reserves)}}{0.5 \times \text{Total risk amount which exceeds usual estimates}} \times 100$$

Solvency margin: Surplus of admissible assets over insurance liabilities (catastrophe reserves is considered as admissible assets)

Risk amount which exceeds usual estimates:

Risk Category	Comments
General insurance risk	Risk amount is calculated for each line of business (LOB), except for residential earthquake and Compulsory Automobile Liability Insurance (CALI) Risk amount is defined as the greater of: (1) net earned premium x prescribed risk factor; and (2) net incurred claims x prescribed risk factor Overall risk amount is the risk amounts for each LOB aggregated by assuming a correlation of 5%
Assumed interest rate risk	Risk amount based on the expected difference between assumed and actual investment income earned
Asset management risk	Sub-risk modules including: (1) price fluctuation risk; (2) credit risk for loans, bonds and deposits; (3) subsidiaries risk; (4) derivative risk; and (5) reinsurance and reinsurance recoverable risks
Catastrophe risk	Overall risk amount is the greater of the risk amount of: An earthquake, calibrated to 1-in-200 year return period (equivalent to the Great Kanto Earthquake) A windstorm, calibrated to 1-in-70 year return period (equivalent to Typhoon Isewan, also known as Vera)
Business management risk	Calculated as a percentage of the total of all other risks. The prescribed percentage varies depending on the category of the company

NB: Some allowance for correlation of risks is allowed

Other

There are no foreign ownership restrictions for insurance companies.

Source: FSA, GIAJ

Catastrophe, Pooling and Reinsurance

Catastrophe risk

The maximum policy period for residential earthquake insurance is five years. The sum insured for residential earthquake risk must be between 30%–50% of the sum insured of the principal residential fire policy, subject to a maximum of JPY50M (USD0.4M) for buildings and JPY10M (USD0.1M) for contents.

The General Insurance Rating Organization of Japan (GIROJ) determines and files the standard rates of residential earthquake insurance with the JFSA. The rates are set for four risk zones based on the building structure (i.e., wooden or not wooden).

Depending on the building age or its earthquake-resistance level, discounts ranging from 10%–50% can be applied to the standard rates. However, these discounts cannot be stacked.

For each group of business except residential earthquake insurance and compulsory motor liability insurance (CALI), insurers are required to set aside catastrophe loss reserves that will be used to reimburse catastrophe losses. The release of catastrophe loss reserves is triggered when the annual loss ratio exceeds the predefined threshold.

There are currently no minimum catastrophe reinsurance coverage requirements for local insurers. Typically, insurers purchase protection for a minimum of one-in-70-year return period loss to comply with the RBC framework.

Reinsurance

The JFSA has issued guidance on reinsurance arrangements, but there are no specific requirements on reinsurance cessions. It advises insurers to conduct due diligence during reinsurance placements, covering reinsurers' reputation, financial strength, professionalism, and credit risk.

The JFSA places requirements on cedants in terms of managing the risks related to their reinsurance arrangements, consistent with IAIS Insurance Core Principle 13 on reinsurance and other forms of risk transfer. These include the development of a reinsurance program that situates reinsurance arrangements within the insurer's risk appetite and risk management framework, and related internal controls and monitoring.

Under the current RBC framework, the risk coefficient for reinsurance risk (i.e., sub-risk module under asset management risk) ranges from 1% to 30% depending on the rating category of the respective reinsurer.

Source: FSA, GIAJ, GIROJ

Pooling arrangements

Japan Residential Earthquake Reinsurance Pool	Japan Earthquake Reinsurance Company (JER) was established in 1966 to provide residential earthquake protection 100% of residential earthquake risks underwritten by any member insurance company is ceded to JER. JER is responsible for arranging reinsurance with the Government via an excess of loss (XOL) structure. The net risk is retroceded back to the member companies according to a prescribed ratio and further reinsurance is not permitted The earthquake coverage provided by cooperative insurers are not required to be ceded to JER
Japan Atomic Energy Insurance Pool (JAEIP)	JAEIP was established in 1960 to provide mandatory Property and Liability insurance to Japanese nuclear plan operators. However, JAEIP does not offer utilities coverage for damage from earthquake or tsunami, or business interruptions
Japan Aviation Insurance Pool (JAIP)	100% of aviation insurance underwritten by any member insurance company is ceded to JAIP and allocated to each member according to a prescribed ratio JAIP determines the insurance premium payable to ensure that the premium would not vary from one underwriter to another JAIP is responsible for arranging reinsurance for the pool
Mutual Pool for Compulsory Automobile Liability Insurance (CALI) & Compulsory Automobile Liability Mutual Aid (CALMA)	100% of compulsory automobile liability risks underwritten by insurers participating in the CALI and CALMA schemes is ceded to the mutual pool. The risks are then redistributed to each insurer in the pool
Residential Buildings Defects Liability Insurance Pool	100% of housing defect warranty insurance by any member insurance company is ceded to the pool
Marine Cargo Reinsurance Pool	Cargo policies meeting certain criteria are ceded to the pool
Marine Hull Reinsurance Pool	Hull policies meeting certain criteria are ceded to the pool

Source: Financial Services Agency (FSA), General Insurance Association of Japan (GIAJ), GIROJ

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models/ Probabilistic Models	Underwriting Capability
Earthquake	Japan is located on the Pacific Ring of Fire, a subduction-driven region that extends from Chile along South, Central and North America. Earthquake risk is one of the most important perils for the Japanese market, with probabilistic models available from all major vendors	✓	✓	✓ Deterministic & probabilistic Tsunami model	
Tropical Cyclone/ Typhoon (Flood & Surge)	Typhoons provide a significant natural hazard to Japanese communities, representing the most frequent cause of property loss to residential, commercial and industrial portfolios. A normal year in terms of tropical cyclone (TC) activity would see between 25 and 30 TCs in the Western North Pacific (WNP), with around 2 to 3 typhoons making landfall in Japan	✓	✓	✓ Wind scenarios for Typhoon via Kinetic Corp	
Flood	Floods occur frequently in Japan and have caused significant damage in the past. Rivers are generally short and steep as the country is mountainous, resulting in rapid flow of rainfall waters. About 70% of Japanese citizens live within river basins and in coastal areas which are heavily defended	✓			

NB: Global Solutions are available to facilitate scenario modeling capability for Flood & Terrorism and Underwriting capability for Earthquake & Flood.

Malaysia Market Overview

Economic snapshot

The Malaysian economy recorded an annual growth rate of 3.1% in 2021 followed by a growth of 8.7% in 2022 (the highest it has posted in the past 22 years) as the country regained its momentum from the pandemic-induced shock. For 2023, the Malaysian economy is expected to expand at a more moderate pace considering external headwinds—including weaker global demand and potential tightening of monetary policy.

Overall inflation is expected to moderate to 2.5%–3.0% in 2023 compared with the 3.3% recorded in 2022. The inflation outlook is highly dependent on changes in domestic policy and movements in global commodity pricing. However, it is expected that Malaysia's existing blanket fuel subsidies and price controls will continue to limit the extent of inflationary pressures.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	32.60	9,381	+ 3.1%
2022	33.00	10,087	+ 8.7%

Source: World Bank

Market snapshot

The Malaysian non-life insurance market recorded a growth of 4% in 2021, mainly driven by the general takaful (a type of Islamic insurance wherein members contribute money into a pool system to guarantee each other against loss or damage) business, which recorded a growth of 11%. Motor and fire continue to be the top two largest non-life insurance segments, accounting for 49% and 20% of non-life GWP respectively in 2021.

2022 PENETRATION		2022 GWP (USD M)		2022 NON-LIFE (INCL. TAKAFUL)		
All Insurance	Non-Life Only (Incl. Takaful)	All Insurance	Non-Life Only (Incl. Takaful)	Loss Ratio	Combined Ratio	Growth Rate
5.0%	1.4%	20,214	5,572	55.1%	91.5%	+ 11.7%

Source: World Bank, Bank Negara Malaysia (BNM), ISM Insurance Services Malaysia Berhad, Life Insurance Association of Malaysia (LIAM)

In 2022, the overall non-life GWP recorded a growth of 12%, as the general takaful business continues to grow at a double-digit rate. In particular, the PA segment recorded a significant growth of 38% driven by the Perlindungan Tenang Voucher (PTV) Program (an initiative by the Government of Malaysia to expand the social protection for the lower-income group—see below).

As of December 2022, there were 25 non-life insurers and takaful operators (ITOs) in Malaysia (made up of 21 insurers and four takaful operators). Among the 21 non-life insurers, the top five players account for 46% of market share in 2022. Meanwhile, the non-life takaful sector is dominated by Etiqa General Takaful, accounting for 46% of total gross direct contribution in 2022.

Following the completion of two consolidations on April 1, 2023 (the acquisition of AXA Affin General Insurance by Generali Group and the acquisition of AmGeneral Insurance by Liberty Insurance), the number of non-life insurers has reduced to 19 and the market share of the top five players is estimated to have increased to more than 53%.

The risk environment

The motor and fire businesses will continue to be the key drivers of the non-life insurance market. The acceleration of major infrastructure projects and increased consumer awareness following the December 2021 Peninsular Flood event are expected to fuel market growth. The government has also taken an active role in raising insurance penetration in the country by launching initiatives:

- In September 2021, the PTV Program was launched to enhance social protection for the lower-income group and subsequently, contribute to the growth of the PA insurance segment in 2022.
- In November 2022, Bank Negara Malaysia (BNM) published an exposure draft on the Licensing and Regulatory Framework for Digital Insurance and Takaful Operators (DITOs) to promote the adoption of digitalization.
- An index-based, government-backed agriculture insurance will be offered to rice farmers, with expectation of gradual expansion to include fisheries and other sub-sectors of the food industry.

The ongoing phased removal of tariffs from the motor and fire segments provides greater pricing flexibility for insurers but may result in elevated competition in those sectors. Phase 2A of the phased liberalization began in the third quarter of 2022, followed by Phase 2B which took effect from July 1, 2023.

Macroeconomic headwinds may also pose a challenge to the domestic insurance market. In particular, rising claims costs as a result of inflation may translate into hardening rates, while equity market volatility may erode investment returns and increase capital volatility for insurers.

On ESG, BNM has issued guidance and mandatory requirements on climate risk management with full implementation by December 2024. This could encourage insurers to manage their climate risk exposures more effectively by embedding ESG considerations into their business operating models.

Headwinds

→ The market's post-flood correction has resulted in stringent terms being implemented on treaty reinsurance and a significant rise in excess of loss cost.

→ There are concerns around motor claims costs that inflation may erode insurers' profitability.

Tailwinds

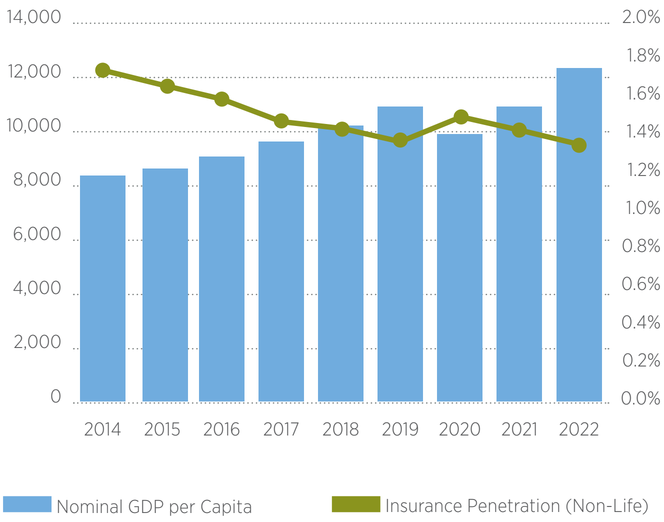
→ New car sales are increasing—up 30% in first two months of 2023 year on year. This could drive growth in the motor insurance segment.

→ The post-pandemic catch-up on infrastructure projects could create opportunities for the insurance industry.

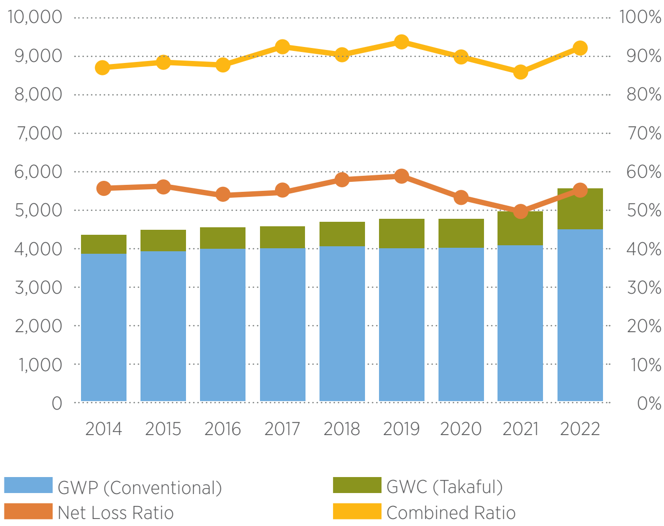
→ Phased liberalization of motor and fire will provide greater pricing flexibility and promote innovation.

Malaysia In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

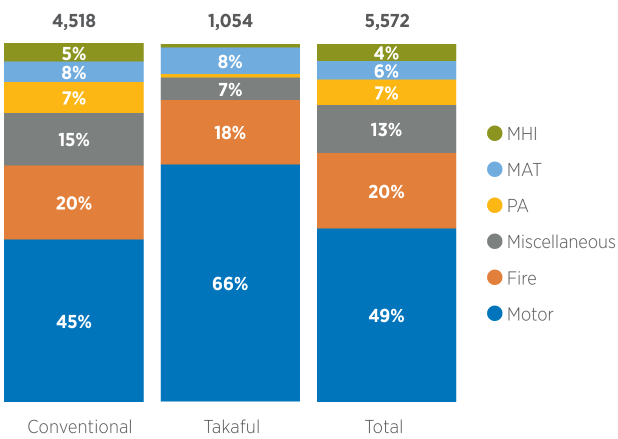


Non-Life Premium and Claims (USD M)

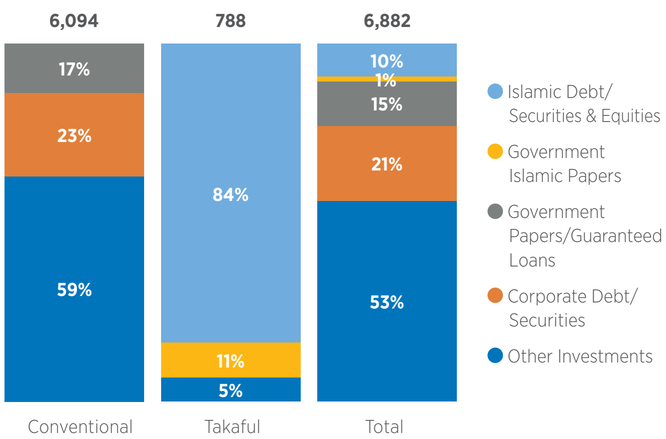


NB: The time period corresponds to a twelve-month period from January 1 to December 31 each year

2022 Non-Life GWP (USD M)



2022 Investment Mix (USD M)



Key features

The motor and fire businesses will continue to be the key drivers of the non-life insurance market. The acceleration of major infrastructure projects and increased consumer awareness following the December 2021 peninsular flood event are expected to fuel market growth.

Source: World Bank, ISM Insurance Services Malaysia Berhad, Life Insurance Association of Malaysia (LIAM)

Non-Life Regulation

The regulator: Overview

Bank Negara Malaysia (BNM) is the insurance regulator for Malaysia.

Item	Approach
Accounting framework	IFRS equivalent
IFRS 17 implementation	January 2023
Capital framework	Quantitative: RBC framework Qualitative: Internal Capital Adequacy Assessment Process (ICAAP)
Climate/ESG	BNM's Climate Risk Management & Scenario Analysis Policy Document (BNM/RH/PD 028-124) came into effect on November 30, 2022. Effective dates for the main climate-related requirements: By Dec 2023: Governance, strategy, risk appetite and risk management requirements By Dec 2024: Scenario analysis, metrics and targets and disclosure

Planned developments

On June 30, 2021, BNM issued a discussion paper on the RBC framework (BNM/RH/DP 029-3) that outlined proposals to enhance the current framework for ITOs. BNM has subsequently issued an exposure draft as well as quantitative impact studies in 2022 and is expected to carry out parallel runs in 2023. The target implementation date is 2024.

Capital requirements

Minimum capital required		Minimum solvency margin
General insurer	MYR100M (approximately USD23.1M)	Insurers must maintain a solvency margin in excess of the Supervisory Target Capital Level (STCL) of 130%
Local reinsurer	MYR100M (approximately USD23.1M)	
Licensed foreign reinsurer	MYR20M (approximately USD4.6M)*	

*Minimum surplus assets over liabilities
Exchange rate (as at January 1, 2023): MYR4.40 = USD1.00

Source: BNM

Solvency framework overview

Total available capital

- Tier 1 + Tier 2 – Deductions

Total required capital

Risk category			Comments
Insurance risk	Premium liabilities risk	✓	Net Unexpired Risk Reserve (URR) at the 75%ile level of confidence
	Claims liabilities risk	✓	Net Claim Liability at the 75%ile level of confidence
	Expense liabilities risk	✓	Applicable to takaful operators only
Market risk	Interest rate risk	✓	
	Equity risk	✓	
	Non-default spread risk	✗	As outlined in the recent DP, BNM is considering to add a non-default spread risk component
	Currency risk	✓	
	Property risk	✓	
	Asset concentration risk	✓	
Credit risk		✓	
Catastrophe risk		✗	As outlined in the recent DP, BNM is considering to add a catastrophe risk component
Operational risk		✓	1% of total assets

NB: No allowance for risk correlations under the current RBC framework but allowed under ICAAP.

Other

There is a foreign ownership limit of 70% for insurance companies. BNM has mandated that foreign insurers reduce their stakes to a maximum of 70% or contribute to the national health insurance program (B40 Health Protection Fund) by the end of 2023.

Source: BNM

Catastrophe, Pooling and Reinsurance

Catastrophe risk

There are currently no minimum catastrophe reinsurance coverage requirements for local insurers. Typically, insurers purchase between the one-in-200-year and one-in-250-year return periods based on the outputs of flood models.

According to the RBC Framework Discussion Paper issued in 2021, BNM is exploring potential enhancements to the risk components of the total capital required calculation. The inclusion of a new catastrophe risk component is one of the proposed enhancements.

Reinsurance

BNM reviews the requirements on voluntary cession (VC) to the national reinsurer Malaysian Reinsurance Berhad (Malaysian Re) on a regular basis. The VC arrangement has been extended until the end of 2024 (with effect from January 1, 2022) and, as a result, 2.5% of all non-life conventional insurance business (except energy and aviation) must be ceded to Malaysian Re on a quota share basis.

The Malaysian reinsurance system is tier based. All local direct insurers are required by BNM to cede business to local reinsurers (first tier) first and Labuan-based reinsurers (second tier) before offering to “offshore” or third-tier reinsurers.

BNM has guidelines that limit the amount insurers can cede to third-tier offshore reinsurers, and this is subject to board member approval.

Furthermore, Malaysian Re must be offered:

- Up to 15% of both proportional and nonproportional treaty reinsurance (excluding aviation, energy, and Directors & Officers)
- Up to 15% of MYR5M on a total sum insured basis, with the PML monetary limit being MYR1.5M for facultative and engineering reinsurance

Under the current RBC framework, the credit risk charge on exposures to reinsurers varies depending on the rating category of the respective reinsurer.

Pooling arrangements

Malaysian Motor Insurance Pool (MMIP)	MMIP was jointly established by the local insurance companies in 1992 with the objective to provide Motor insurance to vehicle owners who struggle to obtain insurance protection in the traditional commercial insurance market MMIP Service Sdn Bhd (MSSB), a subsidiary of MNRB Holdings Berhad, is the Administration Manager of the pool
Malaysian Energy Risks Consortium (MERIC)	MERIC was established in 1995 with the objective to maximize national retention, promote wider interest and develop underwriting skills in the specialized class of energy business Malaysian Re is the Secretariat to MERIC The business written is primarily Malaysian risks and Malaysian interests abroad The pool has been discontinued as of 1 March 2023
Malaysian Aviation Pool (MAP)	Malaysian Re is the Manager of the pool The business written by the pool is primarily Malaysian risks and Malaysian interests abroad
Malaysian Flood Pool	BNM and Malaysia’s National Disaster Management Agency are reportedly working with the market to develop a flood pool that will offer insurance to vulnerable population groups who cannot afford insurance protection but are exposed to flood risk Flood insurance is currently available as an add-on to comprehensive motor and fire policies for an additional premium

Source: BNM, Malaysian Reinsurance Berhad

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models/ Probabilistic Models	Underwriting Capability	Climate Change Adjustment/ Projections
Earthquake	Earthquake risk is a minor peril for the Malaysian market, with probabilistic models available from most of the major vendors. Gallagher Re has evaluated vendor models to establish an Own View of Risk	✓				
Tropical Cyclone/ Typhoon (Flood & Surge)	N/A					
Flood	Flooding is the major peril in Malaysia in terms of event frequency, spatial extent and damage. Gallagher Re has developed a probabilistic model for flood hazard in Malaysia	✓		✓ Scenario modeling via KatRisk flood hazard layers	✓ Via KatRisk flood hazard layers	✓ Adjustments for various RCPs

NB: Global Solutions are available to facilitate scenario modeling capability for Flood & Terrorism and Underwriting capability for Earthquake & Flood.

New Zealand Market Overview

Economic snapshot

New Zealand has experienced consistent GDP growth in the past few decades. However, with a heavy reliance on tourism and international trade, the COVID-19 pandemic sent the country into a shallow recession during 2020. In response, the government introduced fiscal packages totaling NZD62B (USD42B)—equivalent to 19% of the 2020 GDP—to buffer the impact of COVID-19.

The economy has since grown, by 5.2% and 2.2% in 2021 and 2022 respectively, as the country saw a rebound in the construction, services, and tourism sectors following the gradual easing of COVID-19 restrictions globally. Despite the growth, the country's economy has slipped into a technical recession (defined as two consecutive quarters of contraction) in June 2023.

The overall inflation rate for 2022 was 7.2% (the highest posted in the country since the 1980s) with rising prices for construction and rental being major contributors. On May 24, 2023, the Reserve Bank of New Zealand (RBNZ) raised its interest rates—known as the official cash rate (OCR)—to the highest level in more than 14 years at 5.5%. The RBNZ has stated that the OCR will now be on hold until mid-2024 to ensure that inflation recovers to the 1% to 3% target range.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	5.11	37,772	+ 5.2%
2022	5.13	38,492	+ 2.2%

Source: World Bank

Market snapshot

The New Zealand non-life insurance market recorded a growth of 10% in 2021 and 2022. Among the general insurance segments, motor and domestic buildings and contents remain the top two largest segments, accounting for approximately 33% and 27% of the non-life GWP respectively.

2022 PENETRATION		2022 GEP (USD M)		2022 NON-LIFE (Incl. Health)		
All Insurance	Non-Life (Incl. Health)	All Insurance	Non-Life (Incl. Health)	Loss Ratio	Combined Ratio	Growth Rate
3.4%	2.7%	8,095	6,478	62.8%	97.1%	+ 9.5%

Source: World Bank, Reserve Bank of New Zealand (RBNZ), Insurance Council of New Zealand (ICNZ)

Quarter-on-quarter rate increases were observed across all lines except compulsory third party. Increased competition may see rate increases flatten for commercial lines.

According to the RBNZ, there are 89 licensed insurers operating in New Zealand, of which 55% are foreign-owned. The market is dominated by several large multinational insurers and several 'challenger' brands in the personal lines area. It is estimated that IAG and Suncorp hold a combined market share of more than 50%.

The risk environment

The New Zealand economy has enjoyed a decade of growth and has recovered well from the major earthquakes in Canterbury (2010 & 2011) and Kaikoura (2016). However, the growth is diminished as the country saw two of the most expensive weather events in its history in the first quarter of 2023, namely the Auckland Anniversary Weekend Flood and Cyclone Gabrielle. According to the treasury, the total damage from these events is estimated to be between NZD9B and NZD14.5B (including both insured and uninsured damage).

The government plays a number of unique roles in the insurance industry, specifically taking a community approach to risk through the Accident and Compensation Commission (ACC) and Toka Tū Ake EQC, also known as the Earthquake Commission (EQC). The former New Zealand Prime Minister John Key described New Zealand as the "last bus stop on the planet." While it is not the first place for capacity providers to deploy their capital, demand from private and state buyers remains high (driven by regulated one-in-1,000-year return period capital requirements), and reinsurers still consider NZ to be a positive diversifier.

The New Zealand Building Code does not explicitly consider the cost of building utility post-event. It exists primarily to save lives and limit injuries. However, there are increasing calls for building stock to be made more resilient and to be capable of withstanding moderate-sized events. Insurers have largely footed the bill for expensive rebuild costs, which in turn continue to be passed on to consumers.

Alongside earthquakes, increasing storm frequency and a greater propensity for tropical cyclones (and subsequent weather systems) to track further south has seen weather perils take on greater significance when it comes to deploying third-party capital—perils that have been largely overlooked until recently.

Headwinds

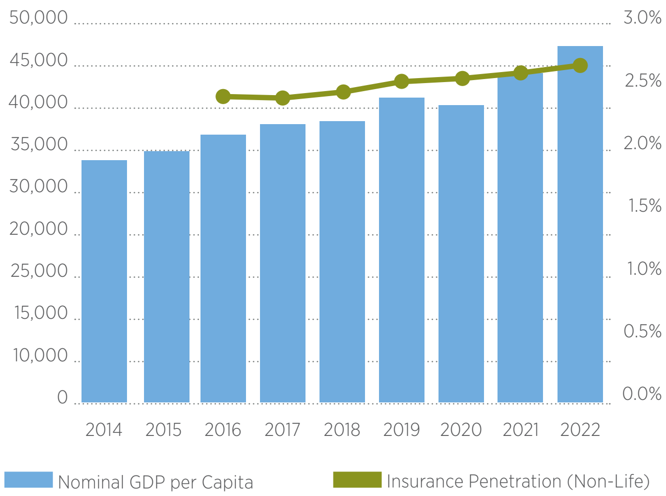
- Persistent inflation
- Supply shortages leading to increased claim costs
- Rising frequency of natural catastrophes and increasing weather-related claims amounts

Tailwinds

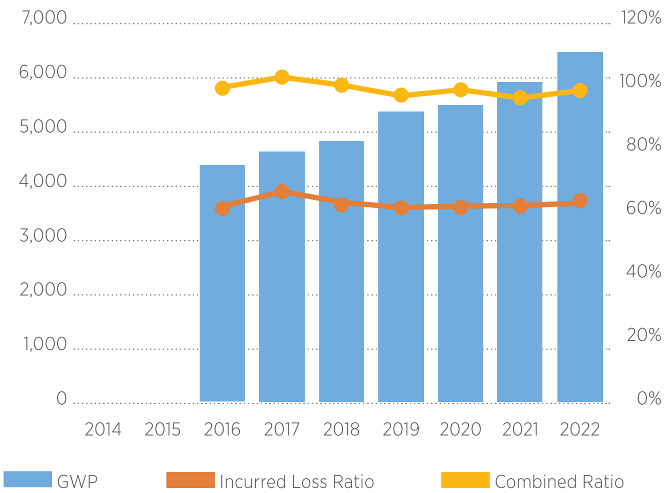
- Large infrastructure projects and housing initiatives under the Housing Acceleration Fund could drive growth in the property insurance segment
- Rising interest rates could have positive impact on insurers' investment results

New Zealand In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

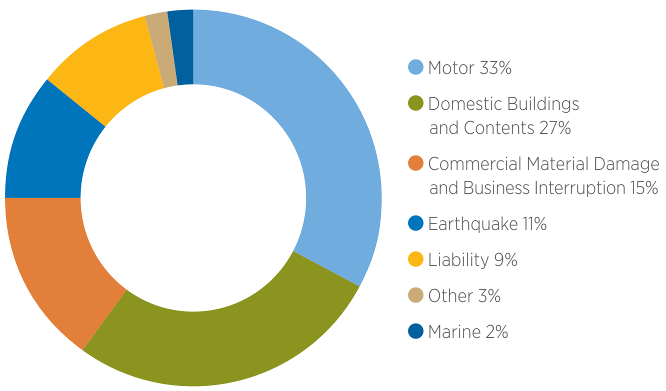


Non-Life Premium and Claims (USD M)

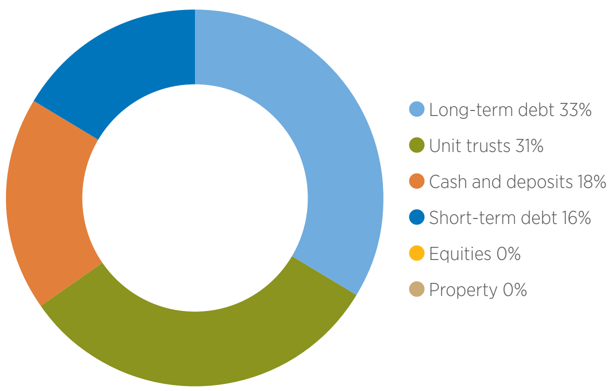


NB: The time period corresponds to a twelve-month period from January 1 to December 31 each year

2022 Total GWP (Est General Only): USD6.5B



2022 Total Investment (Non-Life): USD9.7B



Key features

Until recently, New Zealand had avoided any major loss-making events with the non-life insurance market combined ratio consistently below 100% since 2019. However, the Auckland flood event in late January 2023 (latest industry loss estimate of NZD2.0B) closely followed by Cyclone Gabrielle in early February 2023 (latest industry loss estimate of NZD1.9B) will have a significant impact on insurers' 2023 financial performance and refocus attention on non-earthquake periods in New Zealand.

Source: World Bank, Reserve Bank of New Zealand (RBNZ), Insurance Council of New Zealand (ICNZ)

Non-Life Regulation

The regulator: Overview

The Reserve Bank of New Zealand (RBNZ) is the prudential regulator for the New Zealand insurance sector.

Item	Approach
Accounting framework:	IFRS equivalent
IFRS 17 implementation:	January 2023
Capital framework:	Quantitative: RBC framework Qualitative: Internal Capital Adequacy Assessment Process (ICAAP)
Climate/ ESG:	Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act 2021: Mandatory climate reporting for insurers with more than NZD1B (total assets) or NZD250B (annual GPI) from financial year starting January 1, 2023 onwards

Planned developments

On October 3, 2022, the RBNZ published its final Interim Solvency Standard (ISS), which subsequently came into effect on January 1, 2023. A final solvency standard is expected to supersede the ISS 2023 following the planned Insurance Prudential Supervision Act 2010 (IPSA) amendment in 2024.

The Markets Conduct of Institutions Amendment Act 2022 (CoFI) was enacted into law in June 2022, and its full implementation is anticipated to take place in early 2025. Under CoFi, insurers will be required to hold a conduct licence issued by the Financial Markets Authority (FMA).

Capital requirements

Minimum capital required		Minimum solvency margin
Short-term insurance (captive)	NZD 1M (approximately USD0.7M)	The Minimum Capital Requirement (MCR) is 80% of the Prescribed Capital Requirement (PCR) The Adjusted Minimum Capital Requirement (AMCR) is 80% of the Adjusted Prescribed Capital Requirement (APCR)
Short-term insurance (non-captive)	NZD 3M (approximately USD2.0M)	
Long-term insurance contracts	NZD 5M (approximatelyUSD3.4M)	

Exchange rate (as at January 1, 2023): NZD1.57 = USD1.00
Source: RBNZ

Solvency framework overview

Prescribed Capital Requirement (PCR)

- The PCR is subject to a minimum of the fixed capital amount

Risk Category	Comments
Insurance risk	For licensed insurers other than captive insurers, this is the sum of capital charges for: (1) underwriting risk (short-term contracts); (2) claims run-off risk (short-term contracts); (3) long-term insurance risk; and (4) catastrophe risk
Market risk	Sum of capital charges for: (1) interest rate risk; (2) equity risk; (3) property risk; (4) currency risk; and (5) derivative instruments
Credit risk	Sum of capital charges for: (1) reinsurance recovery risk; and (2) other credit risk Reinsurance recovery risk capital charge is defined as the sum of capital charges for: • Reinsurance recoveries in disputes: A risk factor of 50% is to be applied to the difference between the asset value in the financial statement and that agreed by the reinsurer • Reinsurance credit risk: The risk factor varies depending on the credit rating of the respective reinsurance counterparty
Operational risk	The new risk capital charge will be implemented gradually over a three-year period, with the 3% charge not becoming effective until 2026 and later Insurers with an annual insurance revenue growth of more than 20% will be subject to a higher risk charge
Other risk	Sum of capital charges for: (1) contingency items; (2) distressed wind-up; (3) asset concentration; (4) business run-off

NB: No explicit allowance for risk correlations under the ISS 2023. However, the ISS 2023 highlighted that capital charges will be recalibrated to take into account diversification in the final solvency standard

Adjusted Prescribed Capital Requirement (APCR)

If the solvency license condition is expressed as a minimum solvency margin, then the APCR is determined by adding the minimum dollar amount to the PCR

Other

There is a foreign ownership limit of 25% for an entity worth more than NZD 100M—foreign ownership above the threshold would require government consent

Source: RBNZ

Catastrophe, Pooling and Reinsurance

Catastrophe risk

Under the current framework, the catastrophe risk capital charge is determined as the greater of the capital charge for the following.

- Seismic risk: A single seismic event calibrated to one-in-1,000 year, including allowance for one reinstatement of any applicable reinsurance cover
- Pandemic mortality risk: Zero for insurers that do not insure against mortality risk
- Other event risk: non-earthquake and non-pandemic extreme events calibrated to one-in-200 year
- Default catastrophe risk: For insurers who do not write property business, calculated as two times the largest per-risk retention of the insurer plus the cost of one reinstatement of the catastrophe reinsurance program (if any)

Reinsurance

There are no statutory restrictions on retention levels in New Zealand. Under the current framework, the reinsurance recovery risk capital charge is defined as the sum of reinsurance disputes capital charge and the reinsurance credit risk capital charge. The reinsurance credit risk factor varies depending on the credit rating of the respective reinsurance counterparty.

Pooling arrangements

Accident Compensation Corporation (ACC)	A no-fault accident compensation scheme established in 1974 under the Accident Compensation Act 2001 The ACC provides compulsory personal injury insurance for all New Zealanders, including citizens, residents and visitors The scheme is funded by compulsory levies paid by all New Zealanders. The levy rates are reviewed on a biennial basis and vary depending on whether a person is an employer, a self-employed person, a motor vehicle user or a purchaser of fuel for motor vehicles
Toka Tū Ake EQC (Earthquake Commission)	A state-run scheme which provides automatic coverage of residential dwellings from natural disaster risks, provided there is a private fire insurance contract in place The scheme is funded by levies collected by the private insurers Effective for policies renewing or incepting after October 1, 2022: • The maximum cover per event is NZD 300k + GST (vs. NZD 150k + GST previously) • The levy is 16c per NZD 100 of sum insured, up to a maximum of NZD 552 including GST (vs. 20c per NZD 100 of sum insured, up to a maximum of NZD 345 including GST)

Source: RBNZ

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models/ Probabilistic Models	Underwriting Capability
Earthquake	New Zealand has a high level of seismicity with the Kaikoura and Christchurch earthquakes causing catastrophic damage. Earthquake vendor models are plentiful and regularly updated, hence detailed model evaluation and comparison is imperative in choosing the right view of risk	✓	✓ Vulnerability model adjustment	✓ Historical events & realistic disaster scenario	✓ Technical premium, frequency & severity
Tropical Cyclone/ Typhoon (Flood & Surge)	New Zealand is frequently hit by transitional storms, remnant of tropical cyclones crossing the Tasman. These systems often bring heavy precipitation and associated flooding (e.g., Cyclone Gabrielle in early 2023)				
Flood	New Zealand is subject to frequent flood events, with potential for large event losses. Surprisingly, there were no flood loss models available until recently. RMS have released the first NZ HD Flood model. Gallagher Re have done extensive evaluation of this model and we found the it to be fit for purpose	✓		✓ Extent and depth information for historical events; MetPerils loss model	✓ Kat Risk FL hazard layers available
Other: Severe Convection Storm: Hail, Snow/ Frost, Flood	Whilst earthquake is the key PML driver in New Zealand, an array of weather perils have caused significant claims in New Zealand, with damage from flood, hail and freeze			✓ MetPerils loss model	✓ Frequency & severity

NB: Global Solutions are available to facilitate scenario modeling capability for Flood & Terrorism and Underwriting capability for Earthquake & Flood.

Philippines Market Overview

Economic snapshot

The Philippine economy recorded an annual growth rate of 5.7% in 2021 followed by a growth of 7.6% in 2022 (the highest posted in the past 40 years) as the country regained its momentum from the pandemic-induced shock. Despite external headwinds, the Philippines' central bank has forecasted the economy to grow at 6%–7% in 2023, driven by pent-up demand.

The Philippines' central bank raised its 2023 overall inflation forecast to 6.1%, up from the 5.8% recorded in 2022, following the 14-year high inflation of 8.7% observed in January 2023. Soaring inflation could lead to higher-for-longer monetary tightening cycle by the central bank to curb inflationary pressures.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	113.88	2,924	+ 5.7%
2022	115.56	3,100	+ 7.6%

Source: World Bank

Market snapshot

The Philippines non-life insurance market recorded a growth of 12.5% in 2021, mainly driven by the fire and casualty businesses. Fire and motor continue to be the top two largest non-life insurance segments in the Philippines, accounting for 39% and 27% of non-life GWP respectively in 2021.

2022 PENETRATION		2022 GWP (USD M)		2022 NON-LIFE		
All Insurance	Non-Life Only	All Insurance	Non-Life Only	Loss Ratio	Combined Ratio	Growth Rate
1.9%	0.5%	7,466	1,919	39.8%	87.3%	+ 10.8%

Source: World Bank, Insurance Commission (IC), Philippine Insurers and Reinsurers Association (PIRA)

As of December 2022, the non-life GWP segment recorded a growth of 11% compared with the same corresponding period in 2021. The Insurance Commission (IC) reported that the micro-insurance segment saw premium growth in the first nine months of 2022 despite the pandemic, signaling improved consumer awareness toward insurance.

The non-life insurance market is fragmented. As of December 2022, there were 56 non-life insurers and five composite insurers in the Philippines, with the top 20 players accounting for approximately 75% of market share.

The risk environment

The non-life insurance market is expected to continue to grow alongside economic recovery. Micro-insurance is expected to play an important role in supporting non-life market growth by filling the protection gap, while the government's "Build, Build, Build" infrastructure program is anticipated to bolster the long-term growth of the fire, construction, and engineering segments.

The fire, motor, and surety bond insurance rates are currently defined by tariffs. Although the non-life insurance market has expressed interest in a free market regime, it is unclear whether the IC has any plans to liberalize the market.

Climate and disaster risks will continue to be a focus given the country's susceptibility to natural disasters, including earthquakes, typhoons, and volcanic eruptions.

In October 2021, the Philippines' central bank launched the sustainable finance road map, which included strategic plans to embed sustainability into the risk management of the insurance sector, such as supervisory expectations or climate stress tests.

And in July 2022, the IC issued a circular letter on the minimum catastrophe rates for all insurance policies covering earthquake, typhoon, and flood risks, except for risks rated under the motor tariff. The requirement was later suspended in December 2022 due to the potential impact on policyholders in the face of inflationary pressure.

As a result of the increased capital requirement by the end of 2022, several non-life insurers have either been placed under conservatorship by the IC or have voluntarily surrendered licenses to operate as insurance companies. Notwithstanding that, the market has also seen an increase in merger and acquisition activity, as well as the emergence of new entrants. This includes the entry of SeaInsure and the joint venture of Oona Philippines with Mapfre Insular, just to name a few.

Headwinds

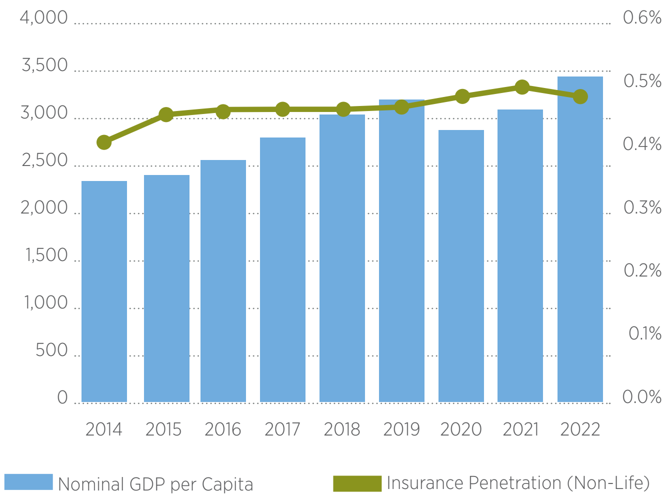
- Increased capital requirements
- Tariffed premium structure for fire, motor, and surety bond

Tailwinds

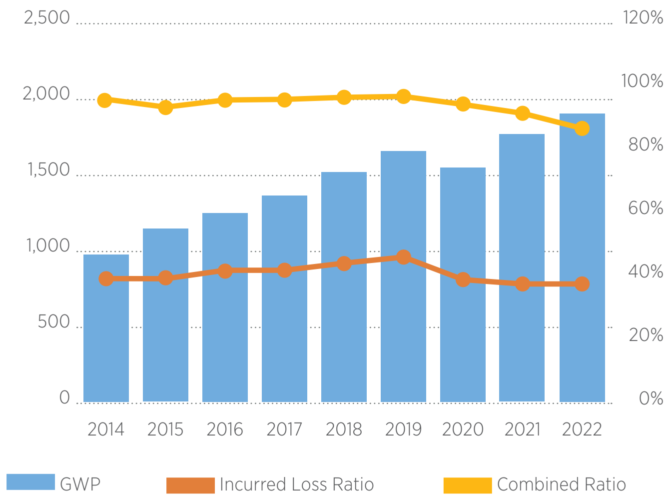
- The "Build, Build, Build" infrastructure program should act as a key driver of long-term market growth

Philippines In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

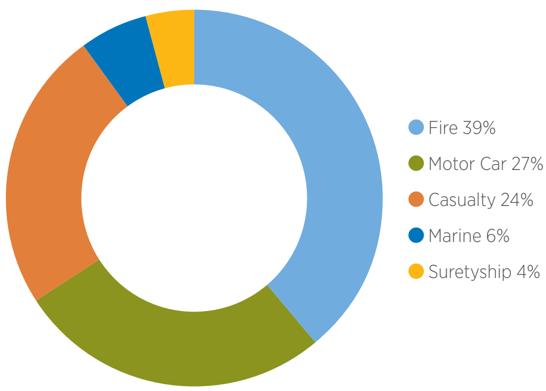


Non-Life Premium and Claims (USD M)



NB: The time period corresponds to a twelve-month period from January 1 to December 31 each year

2021 Total GWP: USD1.7B



Key features

Micro-insurance is expected to play an important role in supporting the non-life market growth by filling the protection gap, while the government's "Build, Build, Build" infrastructure program is anticipated to bolster the long-term growth of the fire, construction, and engineering segments.

Source: World Bank, IC, PIRA

Non-Life Regulation

The regulator: Overview

The Insurance Commissioner (IC) is the insurance regulator for the Philippines. The IC is a government agency under the Department of Finance.

Item	Approach
Accounting framework	IFRS equivalent
IFRS 17 implementation	2025
Capital framework	Risk-based capital framework (RBC2)
Climate/ ESG	Mandatory ESG reporting by 2023 following the Task Force on Climate-Related Financial Disclosures (TCFD) and Sustainability Accounting Standards Board (SASB) standards

Planned developments

On August 25, 2022, the IC issued Circular Letter 2022-41 requiring (re)insurance companies to adopt and implement the Own Risk and Solvency Assessment (ORSA) framework. General (re)insurers with GWP income exceeding PHP2B are required to submit their first report covering FY2023 on or before the fourth quarter of 2024.

Capital requirements

<table>
<tr><th colspan="2">Minimum capital required</th><th>Minimum solvency margin</th></tr>
<tr><td>General insurer</td><td>PHP 1.3B (approximately USD23.6M)</td><td rowspan="3">Insurers must maintain a minimum solvency ratio of 100%</td></tr>
<tr><td>Composite insurer</td><td>PHP 1.3B net worth requirement must be complied for each of its life and non-life units</td></tr>
<tr><td>Microinsurer</td><td>PHP 0.5B (approximately USD9.1M)</td></tr>
</table>

*The IC may also require a minimum of PHP 0.1B (USD1.8M) in cash assets in addition to the paid-up capital stock.
Exchange rate (as at January 1, 2023): PHP55.68 = USD1.00

Non-Life Regulation

Solvency framework overview

Total available capital

- Tier 1 + Tier 2 – Deductions

Total required capital

Risk Category			Comments
Insurance risk	Premium liabilities risk	✓	Net Unexpired Risk Reserve (URR) at the 75%ile level of confidence
	Claims liabilities risk	✓	Net Claim Liability at the 75%ile level of confidence
Market risk	Interest rate risk	✓	
	Equity risk	✓	
	Non-default spread risk	✓	
	Currency risk	✓	
	Property risk	✓	
	Asset concentration risk	✗	
Credit risk		✓	
Catastrophe risk		✓	The greater of: (i) the 1-in-200 return period retained aggregated losses from Earthquake; (ii) the 1-in-200 return period retained aggregated losses from Windstorm; (iii) 60% of the combined 1-in-200 return period retained aggregate losses from both the Earthquake and Windstorm
Operational risk		✓	1% on the greater of GWP or net policy liability, subject to a cap of 10% of the total risk requirements

Other

There are currently no foreign ownership limitations for insurance companies

Source: IC

Catastrophe, Pooling and Reinsurance

Catastrophe risk

There is a minimum amount of catastrophe excess of loss protection, equivalent to 5% of aggregate net retained insured values against earthquake, typhoon, and flood under Zone A or Zone B (whichever is higher).

Gallagher Re's observation in most cases is close to one-in-200-year return period modeled loss (2005).

Reinsurance

There is a mandatory local cession of 10% of every outward reinsurance treaty and facultative placement to the domestic reinsurer, National Reinsurance Corporation of the Philippines (Nat Re).

Facultative placements of marine hull, aviation, money, securities, payroll, and robbery risks must be offered to two local direct companies, one foreign authorized company, and one domestic professional reinsurer. Only if the placements are unsuccessful may the business be offered to unauthorized foreign companies.

All other facultative placements must be offered to at least five local direct companies, three foreign authorized companies, and one domestic professional reinsurer. Only if the placements are unsuccessful may the business be offered to unauthorized foreign companies.

Under the current RBC framework, the credit risk charge on reinsurance recoverables varies depending on the credit rating of the respective reinsurer.

Pooling arrangements

Philippine Catastrophe Insurance Facility (PCIF)	The Insurance Commissioner (IC) is in charge of managing the facility The PCIF aims to increase the industry's ability to retain catastrophe risks, allowing Non-Life insurers to cede their catastrophe risks to the facility. Currently, domestic insurers who offer catastrophic coverage seek reinsurance coverage overseas The Memorandum of Understanding (MOU) signed among the Insurance Commissioner (IC), the Philippine Insurers and Reinsurers' Association (PIRA) and the National Reinsurance Corp. of the Philippines (Nat Re) provides the general framework of the PCIF which include the review of the current catastrophe insurance rates and rating structure to one that is more risk-appropriate and sustainable **PCIF 1:** The IC issued a circular letter on the adoption of revised minimum catastrophe rates for catastrophe insurance products starting July 2022. This has been temporary suspended and is expected to be established upon completion of public consultations **PCIF 2:** The Technical Working Group (TWG) presented the product design and emphasized that there should be no barriers to future improvements and expansion of the offering. PCIF is expected to begin operations within 2023

Source: IC

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models/ Probabilistic Models	Underwriting Capability
Earthquake	Earthquake risk is classified as high for the Philippines. Probabilistic models are available from all major vendors	✓	✓		
Tropical Cyclone/ Typhoon (Flood & Surge)	Philippines is located in a region of high typhoon activity, receiving around 19 tropical cyclones (TCs) annually with 6-9 on average making landfall. The country is susceptible to both wind and flood risk	✓			
Flood	Philippines is prone to flooding due to heavy rainfall during monsoon season from June to November	✓		✓ Ondoy (Ketsana) flood scenario	
Other: Volcano	The Philippines has one of the world's highest concentrations of active volcanism with around 23 volcanoes. Many volcanoes have the potential to produce explosive eruptions; hence ash fall is a prominent risk. Volcano is a secondary peril with no models available in market	Volcano Risk Analysis for the Philippines			

NB: Global Solutions are available to facilitate scenario modeling capability for Flood & Terrorism and Underwriting capability for Earthquake & Flood.

Singapore Market Overview

Economic snapshot

Singapore is one of the richest countries in the world and its GDP per capita ranks first in Southeast Asia. It has attracted a high degree of foreign direct investment due to the country's open markets and stable political climate. Singapore's economy was negatively impacted by COVID-19, with 2020 GDP growth showing a reduction of 4.1%. The economy expanded by 3.6% overall in 2022, which was less than the 8.9% expansion in 2021.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	5.45	92,355	+ 8.9%
2022	5.64	92,608	+ 3.6%

Source: World Bank

Market snapshot

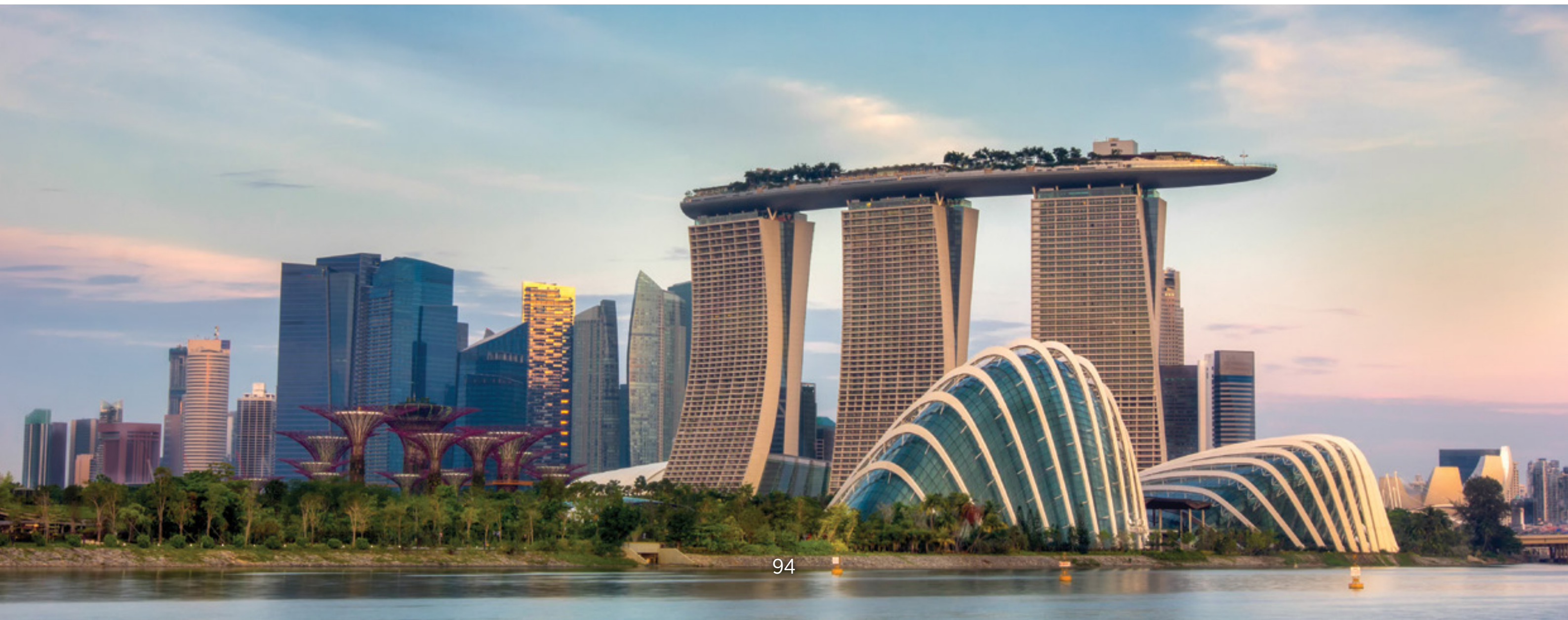
Singapore is an established (re)insurance hub with the participation of many global (re)insurers, captives, and brokers. It has a well-regulated financial system, governed by the Monetary Authority of Singapore (MAS). An enhanced valuation and capital framework (RBC 2) was finalized by MAS in 2020.

2022 PENETRATION		2022 GWP (USD M)		2022 NON-LIFE (Incl. OIF)		
All Insurance (Incl. OIF)	Non-Life (Incl. OIF)	All Insurance (Incl. OIF)	Non-Life (Incl. OIF)	Loss Ratio	Combined Ratio	Growth Rate
12.2%	2.9%	58,777	14,132	54.0%	84.2%	- 4.4%

Source: World Bank, MAS

In 2021, 60 direct insurers were licensed to write onshore Singapore Insurance Fund (SIF) business, the majority being locally incorporated subsidiaries of multinational insurers, plus 22 syndicates under the Lloyd's Asia Scheme. Offshore (OIF) business remains more than three times that of the SIF, the majority derived from reinsurance income across the APAC region. Compulsory cessions to Singapore Re were abolished in 2004.

Underwriting results for OIF were more volatile than for the SIF segment partially due to the impact of cat events across the APAC region. Profits for SIF were deteriorating as soft rates continued from 2019. In 2020, non-life results improved and generated profits—albeit marginally. During the pandemic, the credit and surety classes experienced significant claims activity; however, motor results showed a significant improvement. The government did an exceptional job of handling the COVID-19 situation, and also to help tide over businesses during the difficult period by offering various incentives. In 2021 and 2022, the market combined ratios dropped to below 90%—a significant improvement reflecting the impact of lower economic activity and hardening rates for property and commercial lines.



The risk environment

Singapore is considered one of the most developed markets in APAC, along with Australia, Hong Kong, Japan, South Korea, and Taiwan. Ease of doing business (official language in English), capable talent pool, allure of tax regime, and easy access to markets have all contributed to it gaining the top spot as the Asian hub of choice. While certain areas of the service sector might be split, when it comes to the (re)insurance industry, Singapore undoubtedly retains its upper hand.

Singapore's (re)insurance industry has continued a steady growth trajectory over the last 15 years, not only in terms of premium income, but also the number of participants, as the MAS has sought to cement its position as one of the most respected regulators in the region.

Striking a balance between firm hand and light touch, the MAS has provided an enabling infrastructure that has attracted a significant pool of foreign players, including Lloyd's syndicates operating under the Lloyd's Asia platform. Singapore attracts many large international companies to devote resources to innovation and developing advanced insurance covers (e.g., insurance-linked securities and special purpose vehicles).

In the future, Singapore's non-life segment faces similar challenges as most mature markets, such as high inflation, macroeconomic uncertainties, higher cost of reinsurance, etc. As property and casualty lines dominate in the whole market, rate hardening on these lines will continue to benefit the growth and underwriting results.

Headwinds

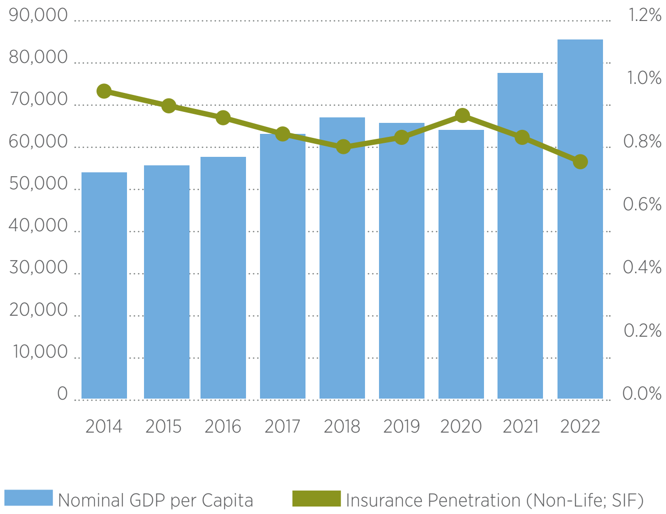
- The limited domestic insurance market size
- Macroeconomic challenges (e.g., inflation, capital market volatilities, and global economic slowdown)
- The relative higher cost of reinsurance and cost of capital

Tailwinds

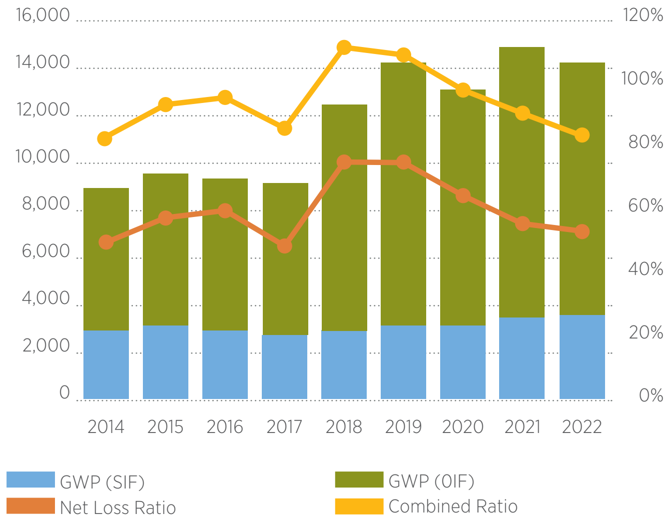
- Singapore is the leading hub for innovation, and has a growing insurtech community and resource
- It also has a stable political regulatory and financial environment that supports long-term sustainable development of the market

Singapore In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

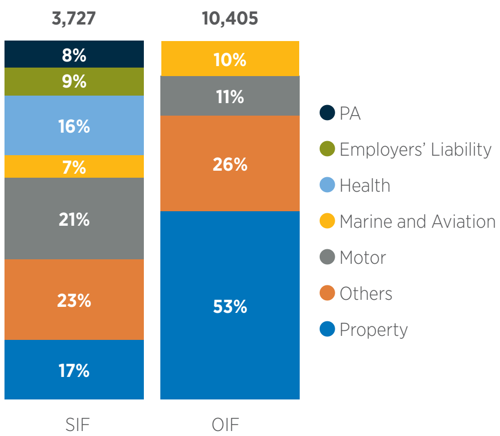


Non-Life Premium and Claims (USD M)

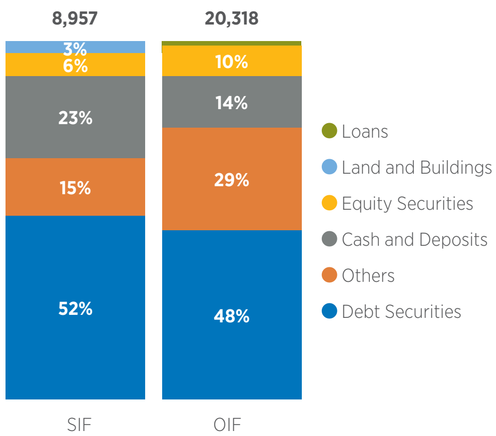


NB: The time period corresponds to a twelve-month period from January 1 to December 31 each year

2022 Total GWP (USD M)



2022 Total Asset (USD M)



Key features

The non-life market growth over recent years was largely driven by the OIF due to the limited size of domestic market.

Source: World Bank, MAS

Non-Life Regulation

The regulator: Overview

The Monetary Authority of Singapore (MAS) is the central bank of Singapore. It is responsible for the licensing, authorization, and supervision of (re)insurance activities in Singapore.

Item	Approach
Accounting framework	IFRS equivalent
IFRS 17 implementation	January 2023
Capital framework	Risk-based capital framework (RBC2) Own Risk and Solvency Assessment (ORSA)
Climate/ESG	MAS has issued ESG guidelines for insurers, outlining its expectations for insurers' approaches to implementing environmental risk management MAS has incorporated long-term climate scenarios as part of the 2022 industry-wide stress test exercise

Planned developments

N/A

Capital requirements

Minimum capital required		Minimum solvency margin
Licensed insurer	SGD10M (approximately USD7.4M)	Insurers must maintain a minimum solvency ratio of 100% at both the adjusted fund level and the company level
Licensed insurer writing short-term PA and Health business	SGD5M (approximately USD3.7M)	
Licensed reinsurer	SGD25M (approximately USD18.5M)	

Exchange rate (as at January 1, 2023): SGD1.34 = USD1.00
Source: MAS

Solvency framework overview

Financial resources: Tier 1 + Tier 2 + Regulatory adjustment

Total risk requirement (TRR): Must be determined for each of adjusted fund as well as at the company level. For each adjusted fund in respect of general insurance business, the total risk requirement is the sum of RR for each category below

Risk Category	Comments
Insurance risk	For general insurers, this is the sum of RR for: (1) premium liability risk; (2) claim liability risk; and (3) insurance catastrophe risk Each line of business is assigned a volatility category (ie low, medium, high) and corresponding risk factors
Asset portfolio risk	Separate RR must be determined for: • Market risk, which includes: (1) interest rate mismatch; (2) equity investment; (3) credit spread; (4) property investment; and (5) foreign currency mismatch • Counterparty default risk • Miscellaneous risk Allowance for correlations between market risk sub-modules Miscellaneous risk relates to assets for which no market risk or counterparty risk requirement has been calculated. The standard method for calculating the RR is the asset value multiplied by the risk factor of 8% Overall asset portfolio RR is the sum of the RR for each component above, with an allowance for correlations between market risk and counterparty default risk
Operational risk	For each insurance fund within the adjusted fund, the operational RR is the greater of: • 4% of GP1 + Max(0, 4% x ((GP1 - GP0) - 20% x GP0)) – GP1 : GWP for the 12 months preceding the valuation date – GP0 : GWP for the 12 months preceding GP1 • 0.5% of gross policy liability Overall operational RR for the adjusted fund is cupped at zero and is the lower of: (1) the sum of operational RR for each insurance fund; and (2) 10% of the sum of insurance risk and asset portfolio risk RR, with allowance for diversification benefits

Other

- An insurer must maintain separate register for Singapore Insurance Fund (SIF) and Offshore Insurance Fund (OIF), which must be filed quarterly with MAS
- There are no foreign ownership limitations for insurance companies

Source: MAS

Catastrophe, Pooling and Reinsurance

Catastrophe risk

There are currently no minimum catastrophe reinsurance coverage requirements for local insurers.

Reinsurance

MAS has published Notice 114 Reinsurance Management, which sets out requirements on the management of outward reinsurance arrangements. It requires insurers to submit annual returns pertaining to their outward reinsurance arrangements and exposures to their top 10 reinsurance counterparts in respect to SIF and OIF business.

Insurers are also required to maintain a reinsurance management framework as part of their overall underwriting and risk management framework.

There are no statutory requirements on local cessions, minimum retention levels, or overseas reinsurance placements in local legislation. There is also no statutory minimum rating for reinsurers, though it is believed that the MAS expects a minimum rating of A-.

Pooling arrangements

There are no official pooling arrangements specific to the local market at the time of writing. However, Singapore is a member of the Southeast Asian Disaster Risk Insurance Facility (SEADRIF) alongside several member countries of the Association of Southeast Asian Nations (ASEAN).

SEADRIF is a regional catastrophe risk facility established by ASEAN member states to provide disaster risk management and insurance financing solutions for ASEAN members, as well as China, South Korea, and Japan via SEADRIF Insurance Company.

SEADRIF Insurance Company was launched and licensed as a general insurer in October 2019. Its first product provides insurance to Lao PDR against climate shocks and natural disasters.

Source: MAS, SEADRIF

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models/ Probabilistic Models	Underwriting Capability
Earthquake	Singapore is a country of very low seismicity, located on a stable continental environment	✓	✓	✓ GRe earthquake scenario	
Tropical Cyclone/ Typhoon (Flood & Surge)	NA				
Flood	Singapore is prone to flooding given heavy precipitation, though the risk is alleviated as PUB (Singapore's national water agency) has taken measures to mitigate the risk	✓		✓ Scenario modeling via KatRisk flood hazard layers	

NB: Global Solutions are available to facilitate scenario modeling capability for Flood & Terrorism and Underwriting capability for Earthquake & Flood.

South Korea Market Overview

Economic snapshot

Following the economic contraction in 2020 (the first contraction posted in the past 22 years), the South Korean economy recorded an annual growth rate of 4.1% and 2.6% in 2021 and 2022 respectively, as the country rebounded from the pandemic. The growth was mainly driven by the recovery in export and consumer spending fueled by pent-up demand. The South Korean economy is expected to grow at a slower pace in 2023 amid weakening global demand, as evidenced by a drop in exports in the fourth quarter of 2022.

The overall inflation rate for 2022 was 5.1% (highest posted in the past 24 years), with rising electricity, gas, and water prices being major contributors. The country may see moderation in inflation in 2023 in view of possible price stabilization due to declining consumer expenditure.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	51.74	29,328	+ 4.1%
2022	51.63	30,147	+ 2.6%

Source: World Bank

Market snapshot

The South Korean non-life insurance market recorded a growth of 5.3% in FY2021, mainly driven by growth in long-term, casualty, and motor segments. Long-term insurance and motor insurance remain the top two largest non-life segments, accounting for 55% and 20% of the non-life direct written premium (DWP) respectively in FY2021.

2021 PENETRATION		2021 DPW (USD M)		2021 NON-LIFE		
All Insurance	Non-Life Only	All Insurance	Non-Life Only	Gross Loss Ratio	Combined Ratio	Growth Rate
10.9%	5.2%	179,453	85,305	82.1%	102.6%	+ 5.3%

Source: World Bank, General Insurance Association of Korea (GIAK), Korea Insurance Research Institute (KIRI), Korea Life Insurance Association (KLIA)

As of December 2022, the non-Life DWP recorded a growth of 11.6% as compared to the same corresponding period in 2021. In particular, the general insurance and annuity segments recorded double-digit growth rates with retirement annuity being the contributor to the growth in annuity.

As of December 2022, there were 13 domestic non-life insurers and seven foreign subsidiaries or branches in South Korea, with the top four players (Samsung Fire & Marine Insurance, DB Insurance, Hyundai Marine & Fire Insurance, and KB Insurance) accounting for more than 65% of market share.

The top four companies are all originally associated with leading industrial conglomerates or chaebols.

The risk environment

The country's growing aging population could drive demand for retirement annuity products but may also lead to reduced demand for other non-life products. Meanwhile, the mandatory liability insurance requirement for medical device manufacturers and importers could support growth in the casualty market.

The year 2023 is set to be a pivotal moment for the South Korean insurance industry, as major regulatory reforms come into force. Some of the main regulatory changes include:

- Implementation of IFRS 17 as well as the new RBC regime Korean Insurance Capital Standard (K-ICS) starting January 1, 2023.
- Relaxation of the insurance licensing regulation with the intention to give insurers more flexibility to innovate in an increasingly digital-centric market environment. The easing of regulation means that each insurance group can now hold more than one life or non-life insurance business license, enabling subsidiaries of existing insurers to operate as mono-line or small-sum short-term insurers specializing in insurance products not handled by their parent companies. This may lead to an uptick in the adoption of digital channels by existing players as well as entry of new digital-only insurers.

The local insurance market is still in its early stages of ESG management, but ESG topics are likely to gain traction as climate concerns intensify. Most recently, Korean Re has announced that it will cease to provide reinsurance cover for new coal mining or power plant construction starting from January 1, 2023.

Headwinds

→ Rate reductions expected for motor insurance

→ Aging population may lead to reduced insurance demand in the longer term

→ Rising frequency of typhoon events

Tailwinds

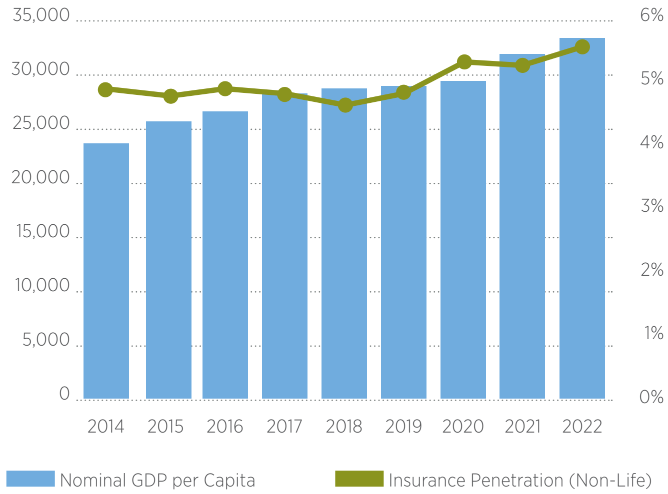
→ The introduction of insurance deregulation plans

→ The relaxation of licensing regulation to promote ease of doing business

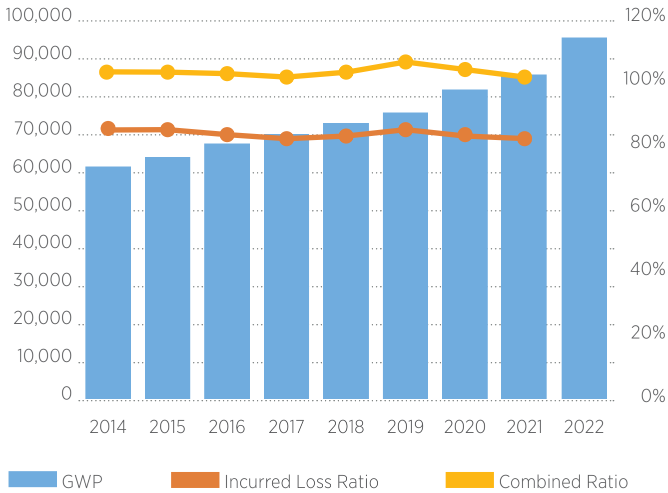
→ Compulsory liability insurance for medical device manufacturers and importers (effective from July 2022 onward) could support growth in the casualty segment

South Korea In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

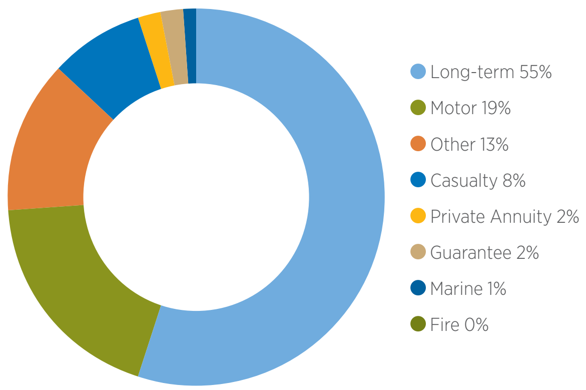


Non-Life Premium and Claims (USD M)

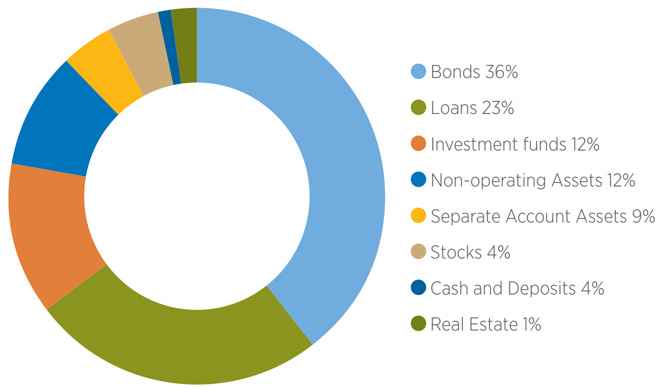


NB: The time period corresponds to a twelve-month period from January 1 to December 31 each year

2021 Total GWP: USD85.3B



2022 Total Asset: USD294.5B



Key features

South Korea's non-life insurance penetration rate is 5.0% on average, the highest in the APAC region. Business lines are experiencing increasing loss ratios, particularly in the commercial segment. The industry witnessed an increase in large-loss events in 2020 and 2021, including the explosion at Lotte Chemical plant (March 2020) and the fire at Coupang's warehouse (June 2021).

Source: World Bank, GIAK, KIRI, KLIA

Non-Life Regulation

The regulator: Overview

The Financial Services Commission (FSC) and its executive arm, the Financial Supervisory Services (FSS), are the insurance regulators for South Korea.

The FSC is responsible for regulating the development and amendment of legislation and regulations pertaining to insurance, as well as the granting of insurance business licenses. The FSS is responsible for the day-to-day supervision of the (re)insurance industry.

Item	Approach
Accounting framework	Korean International Financial Reporting Standard (K-IFRS)
IFRS 17 implementation	January 2023
Capital framework	Quantitative: Korean Insurance Capital Standard (K-ICS), a RBC framework Qualitative: Own Risk and Solvency Assessment (ORSA)
Climate/ESG	Phased approach to annual ESG disclosures for listed companies with mandatory disclosure for all listed companies from 2030 onwards

Planned developments

In November 2022, the FSC announced its insurance deregulation plans, which included the relaxation of regulations for insurers that are introducing new online license products.

There is currently no separate licence or regulation for reinsurance business. On June 10, 2020, the FSC announced its plan to review the regulatory framework for reinsurance business with one of the key agendas being the establishment of reinsurance as a stand-alone industry (i.e., separate from general insurance).

Capital requirements

Minimum capital required		Minimum solvency margin
Insurer	KRW 30B (approximately USD24.2M)	Insurers must maintain a solvency margin ratio of at least 100% The FSS recommends maintaining a solvency margin ratio of 150%
Reinsurer	KRW 30B (approximately USD24.2M)	
Branch of foreign insurer	KRW 3B (approximately USD2.4M)	
Small-sum, short-term specialised insurer	KRW 2B (approximately USD1.6M)	
Single line business		
Fire	KRW 10B (approximately USD8.1M)	
Marine	KRW 15B (approximately USD12.1M)	
Motor	KRW 20B (approximately USD16.1M)	

Exchange rate (as at January 1, 2023): KRW1,262.37 = USD1.00

Source: GIAK, KIRI

Solvency framework overview

Total available capital:

- Tier 1 + Tier 2 – Deductions

Total required capital

Risk Category			Comments
Insurance risk	Premium liabilities risk	✓	
	Claims liabilities risk	✓	
Market risk	Interest rate risk	✓	
	Equity risk	✓	
	Non-default spread risk	✓	
	Currency risk	✓	
	Property risk	✗	
	Asset concentration risk	✓	New subcategory following the implementation of Korean Insurance Capital Standard (K-ICS) 2.0 on January 1, 2023
Credit risk		✓	
Catastrophe risk		✓	This is included as a subcategory within insurance risk following the implementation of Korean Insurance Capital Standard (K-ICS) 2.0 on January 1, 2023
Operational risk		✓	1% of GPI in the preceding year

NB: Allowance for risk correlations except for operational risk

Other

There are no foreign ownership restrictions for insurance companies. Both life and non-life insurers are allowed to write third-sector insurance business (e.g., accident insurance, sickness insurance, and long-term care).

Source: GIAK, KIRI

Catastrophe, Pooling and Reinsurance

Catastrophe risk

There are currently no minimum catastrophe reinsurance coverage requirements for local insurers. Typically, insurers purchase protection for a minimum of one-in-200-year or one-in-250-year return period loss.

Reinsurance

Domestic insurers can conduct business with qualified reinsurers only. Qualified reinsurers are listed in a system managed by the KIDI, and should meet a certain set of solvency and credit rating requirements.

As per internal risk management guidelines, most domestic insurers arrange reinsurance placements with reinsurers rated at least "A-" from Standard & Poor's (or the equivalent from A.M. Best, Fitch or Moody's).

Under the current RBC framework:

- The reinsurance credit risk charge varies depending on the credit rating of the respective reinsurer.
- Reinsurance cessions exceeding 50% of GWP cannot be considered when determining solvency.

Pooling arrangements

Korea Atomic Energy Insurance Pool (KAEIP)	KAEIP was established with the objective to provide insurance coverage for the nuclear industry Participation in the pool is voluntary Korean Re is the Manager of the KAEIP
Assigned Insurance Plan (AIP)	Provides Automobile insurance for: • Special risks (ie commercial vehicles such as hire cars, tourist coaches, express busses) • Individuals with poor claim history who find it hard to secure coverage in the traditional market Mandatory participation in the pool is required Korean Re is the Manager of the pool while the KIDI sets the premium rates for the pool
Compulsory Pollution Liability Pool	Provides compulsory pollution liability insurance for pollution-emitting companies Members of the pool include NongHyup, DB and AIG

Source: GIAK, Korean Re

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models/ Probabilistic Models	Underwriting Capability
Earthquake	Earthquake risk is one of the perils considered for the South Korean market	✓		✓	
Tropical Cyclone/ Typhoon (Flood & Surge)	Typhoon is a major peril in South Korea with the country located in a region of moderate-to-high typhoon activity, with an average landfall of one storm per year	✓	✓		
Flood	N/A				

NB: Global Solutions are available to facilitate scenario modeling capability for Flood & Terrorism and Underwriting capability for Earthquake & Flood.

Taiwan Market Overview

Economic snapshot

Over the past two years, Taiwanese capital is flowing back to the market and is being invested into various industries—especially semiconductor equipment—due to increased tension between the US and China.

Further, the government has been increasingly supportive and encouraging of the green energy industry (e.g., solar panels and windmills), which has increased domestic demand and boosted the economy.

Despite the impact of COVID-19, Taiwan's economy recorded an annual growth rate of 3.4% in 2020, followed by a growth of 6.5% in 2021. In 2022, GDP growth has slowed and is estimated to be 2.5% impacted by the global slowdown.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	23.47	29,435	+ 6.5%
2022	23.32	30,349	+ 2.5%

Source: World Bank

Market snapshot

Since 2016, Taiwan's non-life insurance market has expanded steadily, averaging 7% yearly growth. The growth was mainly driven by the increasing demand from motor and casualty lines coupled, with the increase in premium rates.

2021 PENETRATION		2021 GWP (USD M)		2021 NON-LIFE		
All Insurance	Non-Life Only	All Insurance	Non-Life Only	Loss Ratio	Combined Ratio	Growth Rate
14.6%	1.0%	103,765	6,772	55.7%	92.5%	+ 10.3%

Source: World Bank, Financial Supervisory Commission (FSC), Taiwan Insurance Institute (TII)

As of December 2022, the non-life insurance market recorded a growth of 6.6% as compared to the corresponding period in 2021. This was attributed to the continuous growth in the motor segment, as well as the takeup of pandemic insurance.

As of December 2022, there were 23 non-life insurers in the domestic market (17 local companies and six branches of foreign companies). MSIG MingTai and Tokio Marine Newa are the only active foreign capital players in the local market. Meanwhile, recent reports suggest that Chubb is expanding its business in the commercial space. Several other foreign players remain in the Taiwanese market (e.g., AIG and Asia Insurance).

The risk environment

The insurance sector in 2022 has continued to grow in line with the wider economy. Despite the growth, insurers selling lump-sum COVID-19-related policies suffered significant underwriting losses in 2022 as infections spread throughout Taiwan. The investment earnings of insurers were further impacted by the challenging investment environment and volatile capital market, while the capital for the overall industry declined by around 40%. However, companies' exposure to pandemic claims and the resulting loss impact varied. Capital injections from shareholders have helped some companies sustain the shock.

Nonpandemic-related lines of business have continued to generate earnings and are expected to support the long-term growth and stability of the industry. In particular, rising demand for new green energy (wind and solar) and energy storage insurance could boost the fire and engineering insurance segments. The implementation of the Compulsory Motor Liability Insurance Act for all mini electric two-wheel vehicles (effective November 30, 2022) could also drive growth in the motor insurance segment.

Local insurance regulation is tracking toward a more refined risk-based framework, with the FSC mandating the adoption of IFRS 17 and the new solvency regime by 2026. A key aspect of the new solvency regime is the expected adoption of IFRS 17 accounting under insurance contracts to ensure companies' readiness for anticipated global standards. The resultant requirements for insurers to measure assets and liabilities at fair value every six months will therefore represent a major shift from the current far less prescriptive approach to valuation. It is hoped that more consistent and stringent requirements will help strengthen insurer resilience and ensure a more transparent regulatory environment.

As well as supporting the regulator's chief aim of tightening policyholders' protection, it is hoped that the adoption of globally recognized standards will enable Taiwan's insurers to take a more competitive position in the international marketplace, an area where Taiwan could be said to be lagging when compared to similarly developed peers in the region.

Headwinds

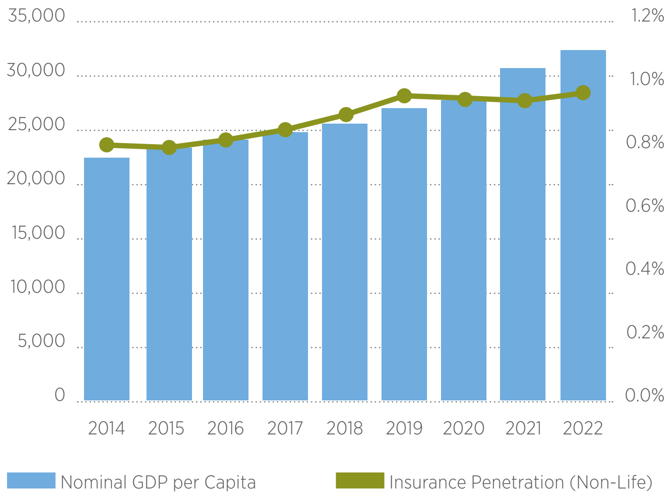
- Challenging macroeconomic landscape—interest rate hikes could impact market volatility and dampen returns on investments.
- Mounting losses from pandemic related claims creating capital pressure for some insurers.
- Regulatory changes—i.e., IFRS 17 and new solvency regime implementation.

Tailwinds

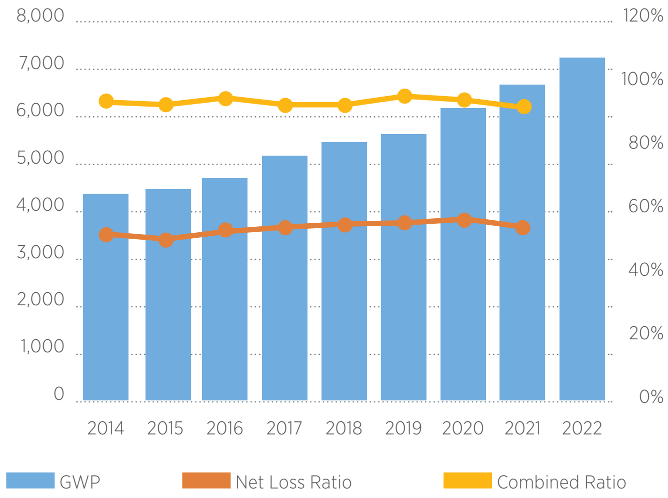
- Nonpandemic-related business continues to be favorable and boost underwriting earnings.
- Rising demand for new green energy and energy storage insurance.
- Implementation of Compulsory Automobile Liability Insurance Act for mini electric two-wheel vehicles.
- Parental support and historical strong capital generation capability to help industry withstand shocks.

Taiwan In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

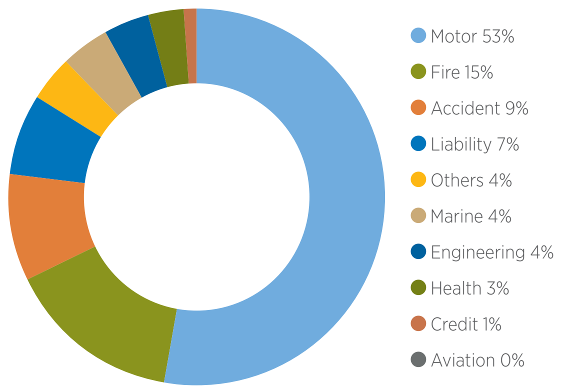


Non-Life Premium and Claims (USD M)

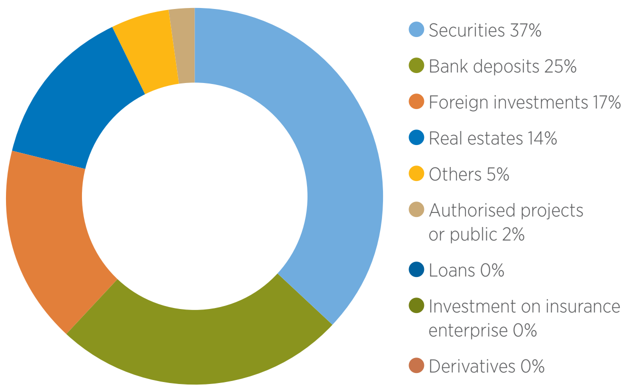


NB: The time period corresponds to a twelve-month period from January 1 to December 31 each year.

2022 Total GWP: USD7.2B



2022 Total Investment: USD8.8B



Key features

The motor segment is the main driver of GWP.

Despite a 6.6% annual GWP growth in 2022, the gross loss ratio has exceeded 100% due to uncertainties around the mounting claims arising from pandemic insurance. Overall, the industry recorded a net loss of NTD169B (USD5.6B) in 2022.

According to a recent announcement from Taiwan Ratings, the surge in COVID-19 claims will put an end to Taiwan's insurers' 21-year profit streak and cause them to post an overall underwriting loss in 2022.

Source: World Bank, FSC, TII

Non-Life Regulation

The regulator: Overview

The Financial Supervisory Commission (FSC) is the insurance regulator for Taiwan. The non-life insurance market is overseen by the non-life insurance supervision division of the FSC.

Item	Approach
Accounting framework	IFRS equivalent
IFRS 17 implementation	January 2026
Capital framework	Quantitative: RBC framework Qualitative: Own Risk and Solvency Assessment (ORSA)
Climate/ESG	Mandatory ESG disclosure for listed companies

Planned developments

The New Generation Insurance Solvency Regime is scheduled for adoption in 2026, which will align more closely with the ICS issued by the IAIS.

Capital requirements

<table>
<tr><th colspan="2">Minimum capital required</th><th>Minimum solvency margin</th></tr>
<tr><td>Insurer</td><td>NTD2B (approximately USD65.9M), 20% to be paid in tat the time of application</td><td rowspan="2">Insurers must maintain a minimum capital adequacy ratio of 200%

Insurers must also maintain a minimum net worth ratio of 3% in at least one of the last two periods</td></tr>
<tr><td>Branch of foreign insurer</td><td>NTD50M (approximately USD1.6M)

For foreign insurer that has been in operation for less than three years: NTD2B (approximately USD65.9M) or meet the minimum credit rating requirements</td></tr>
<tr><td colspan="3">An insurance enterprise must deposit a bond at the national treasury in an amount equal to 15% to the total amount of its paid-in-capital or paid-in-fund.</td></tr>
</table>

Exchange rate (as at January 1, 2023): NTD30.63 = USD1.00
Source: FSC

Solvency framework overview

Capitala dequacy ratio: Ratio of adjusted net capital to risk based capital

Adjusted net capital: Total allowable capital minus Adjustments

Risk based capital

Risk Category	Comments
Asset risk	Related party asset risk considers: (1) exchange rate risk; and (2) other than exchange rate risk Non-related party asset risk considers: (1) equity risk; (2) exchange rate risk; and (3) other than equity and exchange rate risks
Credit risk	Sum of risk capital amount for various risk items including: • Reinsurance assets, which measures reinsurers' inability to fulfill reinsurance obligations before the loss occurs • Natural disaster credit risk, which measures the non-recoverable reinsurance amount under a hypothetical natural disaster scenario
Insurance risk	Sum of risk capital amount for: (1) underwriting risk—reserve risk; (2) underwriting risk—premium risk; and (3) natural disaster risk
Asset-liability allocation risk	Considers external risks, including changes in interest rates, policies, laws and catastrophes The risk capital amount is calculated by multiplying the interest rate difference with the claim reserve or unearned premium reserve
Other risk	Other risks in addition to the four major risks above and mainly includes operational risk and market solicitation risk Additional risk capital amount requirement for companies that fall in the bottom 20% of the rankings based on the principle of fair hospitality

NB: Allowance for correlations between insurance risk and asset risk.

Other

There are no foreign ownership restrictions for insurance companies.

Source: FSC

Catastrophe, Pooling and Reinsurance

Catastrophe risk

There is a mandatory cession of 100% to the Taiwan Residential Earthquake Insurance Fund (TREIF) on every residential earthquake risk underwritten by insurers, subject to a sum insured limit of NTD1.5M (USD49,000).

Insurers must have in place excess of loss arrangements to protect their net exposures in relation to natural catastrophes. Under the current framework, the natural disaster credit risk capital amount is determined based on a 1-in-200-year earthquake and a 1-in-200-year typhoon event.

Reinsurance

Minimum credit rating requirement from any of the following credit rating agencies:

- Standard & Poor's: BBB or higher
- A.M. Best Company: B++ or higher
- Moody's Investors Service: Baa2 or higher
- Fitch Group: BBB or higher
- Taiwan Ratings Corporation: twA+ or higher

An equivalent rating from any other rating agency recognized by the competent authority. Under the current RBC framework, the reinsurance asset credit risk charge varies depending on the credit rating of the respective reinsurer.

Pooling arrangements

Compulsory Automobile Liability Pool (CALI)	The pool was established in 1998 with the objective to provide basic coverage for victims in traffic accidents Mandatory participation in the pool for all authorised Automobile insurers Mandatory cession of 40% on each and every motor policy issued The pool has in place a two-tier risk spreading mechanism. tier 1 is distributed equally among the members, while tier 2 is distributed based on market share
Taiwan Residential Earthquake Insurance Fund (TREIF)	In response to the 921 Chi-Chi earthquake in 1999, the Taiwanese government created the pool which started providing homeowners with basic earthquake insurance coverage in April 2002 All residential fire insurance policies come with an automatic inclusion of the basic earthquake protection offered by TREIF. Additional coverage for earthquake risk can be obtained from private insurers The annual flat premium is NTD1,350 (approximately USD44) based on a sum insured of NTD1.5M (approximately USD49k) The pool has in place a two-tier risk spreading mechanism • Tier 1 liabilities: NTD4.2B (approximately USD138M) assumed by the earthquake coinsurance pool • Tier 2 liabilities: NTD95.8B (approximately USD3.2B) assumed by TREIF, which will be spread between TREIF, the Taiwanese government, as well as domestic and/or overseas reinsurance markets and/or capital markets
Nuclear Energy Insurance Pool of the Republic of China	The pool was established in 1974 to provide coverage for the nuclear energy risk of Taiwan Power and to accept risks from overseas nuclear insurance associations Chung Kuo is the manager of the pool
Engineering Insurance Association (EIA)	The EIA manages separate pools for: (1) CAR, EAR, contractors' plant and machinery, boiler and pressure vessel, machinery breakdown, and electronic equipment; (2) employers' liability; (3) vibration risks
Grain Cargo Pool	Provides coverage for shipments of soya bean, corn, wheat, barley, and sorghum The Non-Life Insurance Association (NLIA) is the manager of the pool The risks are shared among the members according to a prescribed ratio
Other pools	Agriculture Insurance Fund, Fishing Vessel Pool, PA Insurance Terrorism Pool, Political Risk Pool

Source: Financial Supervisory Commission (FSC), Taiwan Insurance Institute (TII), Compulsory Automobile Liability Pool (CALI), Taiwan Residential Earthquake Insurance Fund (TREIF)

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models/ Probabilistic Models	Underwriting Capability
Earthquake	Earthquake is one of the main perils in Taiwan. Taiwan is located on a compressive tectonic boundary between the Eurasian Plate and the Philippine Sea Plate. Seismicity and rate of crustal motion is among the highest in the world with plate collision rate of > 7cm/yr	✓	✓		
Tropical Cyclone/ Typhoon (Flood and Surge)	Taiwan is situated in the most active basin in terms of tropical cyclone activity, with a high level of hazard in the region	✓			
Flood	N/A				

NB: Global Solutions are available to facilitate scenario modeling capability for Flood & Terrorism and Underwriting capability for Earthquake & Flood.

Thailand Market Overview

Economic snapshot

Thailand's economy recorded an annual growth rate of 1.5% in 2021 followed by a growth of 2.6% in 2022 as the country recovered from the COVID-19 pandemic. The Office of the National Economic and Social Development Council (NESDC) has forecasted that the economy will grow 2.7%–3.7% in 2023 boosted by further recovery in tourism and private consumption amid declining exports.

Overall inflation is expected to range between 2.5%–3.5% in 2023 as forecasted by the NESDC, down from the 6.1% recorded in 2022 (the highest level posted in the past 24 years, mainly driven by rising energy prices). Notwithstanding the lower forecast inflation in 2023, the Bank of Thailand (BOT) is expected to continue with gradual monetary tightening.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	71.60	4,199	+ 1.5%
2022	71.70	4,302	+ 2.6%

Source: World Bank

Market snapshot

The Thailand non-life insurance market recorded a growth of 4.0% in 2021 followed by a growth of 4.4% in 2022. Growth in direct premium was observed across all lines of business except for the fire and health segments. Motor (both voluntary and compulsory) continues to be the largest non-life insurance segment in Thailand, accounting for 57% of non-life direct premium in 2022.

2022 PENETRATION		2022 DIRECT PREMIUM (USD M)		2022 NON-LIFE		
All Insurance	Non-Life Only	All Insurance	Non-Life Only	Loss Ratio	Combined Ratio	Growth Rate
4.1%	1.6%	20,629	7,919	88.5%	125.0%	+ 4.4%

Source: World Bank, Office of Insurance Commission (OIC), Thai General Insurance Association (TGIA)

Over the last couple of years, four non-life insurers have been forced to shut down or have their licenses revoked due to liquidity issues caused by COVID-19 insurance claims. At the time of writing, there were 51 non-life insurers in Thailand with the top ten players accounting for approximately 65% of market share.

The risk environment

The non-life insurance market is expected to grow alongside economic recovery. The motor segment is expected to remain the primary driver of growth, while increased government infrastructure investment and rising demand for health insurance driven by an aging population are also expected to support market growth.

The OIC's Insurance Development Plan has four volumes, the most recent of which aims to digitally transform the insurance industry while ensuring effective consumer protection. Among the notable updates to the plan's major activities are:

- In response to the aging population, the OIC has introduced changes to the health insurance regulations. For instance, all health insurance policies issued from July 1, 2022, onward must include a guarantee of renewal until at least age 69.
- The OIC has formed a task force to study digital insurance licensing. Recent reports suggest that the OIC may issue two types of licenses: one for fully digital new entrants and one for existing insurers wishing to switch to purely digital sales.

ESG topics are also gaining traction. In particular, the favorable regulatory environment for electric vehicles (EV) in Thailand (e.g., new incentives package including tax cuts and subsidies) is expected to accelerate the development of electric vehicle production and the associated value chain, which could present new business opportunities to insurers. In fact, several insurers have rolled out motor insurance products tailored for EVs in Thailand.

Given the government's policy of encouraging market consolidation and not issuing new insurance business licenses, M&A transactions are expected to increase in the market. Several M&A deals were announced in 2022, including the acquisition of Aetna Thailand by Allianz Ayudhya Capital PCL and the acquisition of FPG Thailand Starr Insurance.

Headwinds

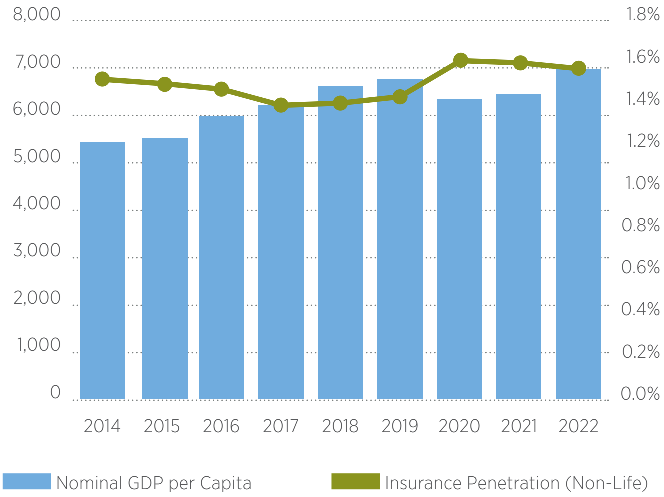
- → Implementation of IFRS 17
- → Pressure to maintain solvency ratio given stiff competition in the market
- → Tightening of reinsurance terms

Tailwinds

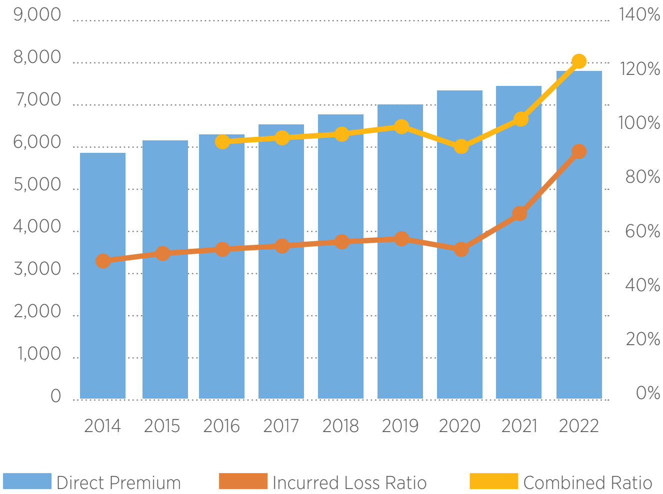
- → Recovery following two years of COVID-19-related policies and losses
- → Some improvements in primary market terms
- → Regulatory focus on digitization and electric vehicles

Thailand In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

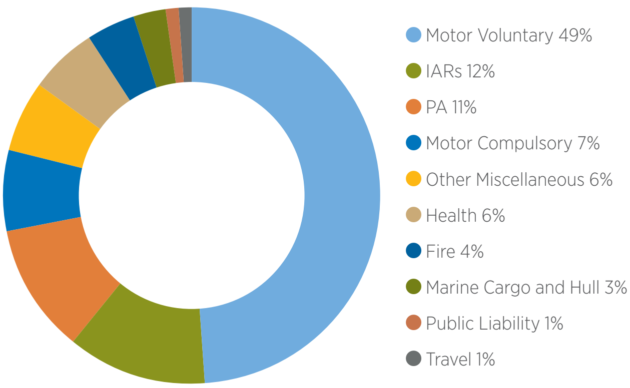


Non-Life Premium and Claims (USD M)

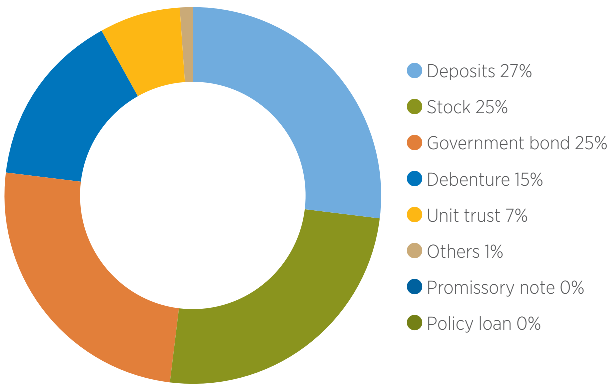


NB: The time period corresponds to a 12-month period from January 1 to December 31 each year.

2022 Total Direct Premium: USD7.9B



2021 Total Investment: USD9.8B



Key features

The industry has experienced consistent rising loss ratios since 2021. The increase was attributed to unfavorable claims experience from COVID-19 insurance policies, which were compounded by insurance fraud during the period.

Source: World Bank, OIC, TGIA

Non-Life Regulation

The regulator: Overview

The OIC is the insurance regulator for Thailand and is under the supervision of the Ministry of Finance (MOF).

Item	Approach
Accounting framework	IFRS equivalent
IFRS 17 implementation	January 2024
Capital framework	Quantitative: RBC framework (RBC2) Qualitative: Own Risk and Solvency Assessment (ORSA)
Climate/ESG	No climate risk/ESG guidelines specific for the insurance sector

Planned developments

The OIC may increase the RBC calibration confidence levels from 95% to 99% value at risk (VaR) over a one-year time horizon once IFRS 17 has been implemented.

Given that ESG sustainability and green insurance are advocated in the OIC's Fourth Insurance Development Plan, it is expected that the OIC would prescribe ESG-related regulations and guidelines in the near future

Capital requirements

Minimum capital required		Minimum solvency margin
General insurer	THB300M (USD9.2M)	Insurers must maintain a minimum solvency ratio of 140%
General reinsurer	THB300M (USD9.2M)	

Exchange rate (as at January 1, 2023): THB34.63 = USD1.00
Source: OIC

Solvency framework overview

Total available capital:

- Tier 1 + Tier 2 – Deductions

Total required capital

Risk Category			Comments
Insurance risk	Premium liabilities risk	✓	
	Claims liabilities risk	✓	
Market risk	Interest rate risk	✓	
	Equity risk	✓	
	Non-default spread risk	✓	
	Currency risk	✓	
	Property risk	✓	
	Asset concentration risk	✓	
Credit risk		✓	
Catastrophe risk		✗	
Operational risk		✓	

NB: Allowance for correlations between insurance risk, market risk and credit risk.

Other

There is a foreign ownership limit of 25% for insurance companies. The OIC, however, has the authority to approve foreign investors to hold up to 49%. Foreign ownership of more than 49% is subject to a case-by-case review by the MOF.

Source: OIC

Catastrophe, Pooling and Reinsurance

Catastrophe risk

There are currently no minimum catastrophe reinsurance coverage requirements for local insurers.

Reinsurance

Mandatory local cession to Thai Reinsurance (Thai Re) is no longer applicable.

As of September 1, 2018, insurers must adhere to the minimum credit rating requirements for overseas reinsurance placements.

Overseas reinsurance placements can only be made with a reinsurer with a credit rating of 'BBB' from Standard & Poor's (or the equivalent from A.M. Best, Fitch or Moody's).

An insurer may cede up to 100% of the total premium of any given risk with a reinsurer with a rating 'A-' or above (or the equivalent), or a maximum of 50% with a reinsurer with a rating of 'BBB' (or the equivalent).

Pooling arrangements/subsidized schemes

Thai National Crop Insurance Scheme (TNCIS)	The scheme is a joint effort between the OIC, MOF, TGIA, the Department of Agriculture Extension (DOAE) and the state-owned Bank for Agriculture and Agriculture Cooperatives (BAAC) The scheme is managed by the TGIA on behalf of a coinsurance pool of a number of local insurers The scheme provides damage-based named peril crop insurance cover for rice (since 2011) and maize (since 2019), and and is intended to supplement any compensation received by farmers from the Thai government's Disaster Relief Program The scheme may undergo changes post-election under the new government
National Catastrophe Insurance Fund (NCIF)	The fund was developed by the government following the 2011 Thailand floods to provide protection against floods, windstorms and earthquakes at appropriate premiums Insurers were required to bear a minimum risk of 0.5%-1% and the remaining risk were reinsured by the NCIF The government revoked the fund after three years in view of the normalization of insurance premiums
It is worth noting that there is a specialist insurance company owned and funded jointly by most licensed insurers in Thailand—i.e. Road Accident Victims' Protection Company (RVP). RVP serves as the vehicle through which its shareholders write compulsory motor liability insurance for motorcycles.	

Source: OIC, Thai General Insurance Association (TGIA)

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models/ Probabilistic Models	Underwriting Capability
Earthquake	Earthquake risk is a minor peril in Thailand	✓		✓	
Tropical Cyclone / Typhoon (Flood & Surge)	Thailand is considered to have a low risk to tropical cyclones (TCs) compared to neighboring countries to the east due to significant inland decay of cyclone wind speed	✓		✓ Scenario model	
Flood	Flood is a major peril in Thailand caused by both tropical cyclones and seasonal monsoons. The potential for significant flood damage in Thailand has been demonstrated by several events including the 2011 Thailand floods	✓		✓ Scenario modeling via KatRisk flood hazard layers	

NB: Global Solutions are available to facilitate scenario modeling capability for Flood & Terrorism and Underwriting capability for Earthquake & Flood.

Vietnam Market Overview

Economic snapshot

The Vietnamese economy recorded an annual growth rate of 2.6% in 2021 and 8.0% in 2022, the highest annual growth posted since 1997, as the country recovered from the COVID-19 pandemic.

The significant growth in 2022 was driven by private consumption and export recovery. The country is expected to benefit from further recovery in tourism and foreign direct investments (FDI) in 2023.

However, economic growth was projected to slow to 6%–6.5% in 2023 amid weakening global demand. Vietnam's economy grew 3.7% in the first half of 2023, which is below the forecast. This implies that the country will need to average more than 8% growth for the rest of the year to meet its initial growth target.

Overall inflation was contained at 3.2% in 2022 because of overcapacity in the market, price controls and fuel price stabilization. The National Assembly (NA) has set an inflation target of 4.5% for 2023.

Year	Population (M)	Real GDP per Capita (USD)	Real GDP (Growth Annual)
2021	97.47	2,231	+ 2.6%
2022	98.19	2,392	+ 8.0%

Source: World Bank

Market snapshot

The Vietnamese non-life insurance market recorded a growth of 4.3% in 2021, mainly driven by the growth observed in health and fire and explosion segments. Health and motor continue to be the top two largest non-life insurance segments in Vietnam, accounting for 32% and 27% of non-life GWP respectively in 2021.

2022 PENETRATION		2022 GWP (USD M)		2022 NON-LIFE		
All Insurance	Non-Life Only	All Insurance	Non-Life Only	Loss Ratio	Combined Ratio	Growth Rate
2.6%	0.7%	10,412	2,863	NA	NA	+ 14.3%

Source: World Bank, MOF

As of December 2022, non-life GWP recorded a 14% growth against the corresponding period in 2021. Data from the Vietnam Insurance Association relating to the first half of 2023 stated that non-life GWP is VND34,910B (USD1.5B) in the first half of 2023, up 1.3% from the same corresponding period in 2022.

There are 32 non-life insurers and a branch of a foreign non-life insurer in Vietnam, with the top five players (including four state-owned or state-controlled insurers) accounting for approximately 53% of market share.

The risk environment

The Vietnamese non-life insurance market has ample room for growth given the country's demographic profile (young population and growing middle-class) and low penetration rate of less than 1%. The government has also formulated the Strategy for the Development of Vietnam's Insurance Market to 2030, demonstrating its commitment to developing the domestic insurance market.

With more than 65M registered motorcycles (equivalent to roughly two-thirds of the Vietnamese population), the motor segment is anticipated to be a key driver of non-life insurance market growth–especially since motor third-party liability insurance is mandatory in Vietnam.

In addition, various decrees have been issued in recent years that are expected to support market growth. Decree No.97/2021/ND-CP on compulsory fire and explosion insurance, for example, is expected to stimulate the purchase of such policies, while Decree No.20/2022/ND-CP on compulsory insurance in construction investment activities is expected to drive top-line growth in liability insurance.

The Vietnamese insurance market has undergone reform with the implementation of the new Insurance Business Law on January 1, 2023. The new law made some notable changes to the previous legislative framework and is expected to have a positive long-term impact on the market's development. In particular, the removal of foreign ownership limitations could lead to increased foreign capital inflow and promote competition over time.

The market has also seen an increased emphasis on digitalization, with one example being the gradual legalization of electronic insurance certificates for motor and fire insurance products. In terms of ESG, the government has put in place a decarbonization and energy transition plan, which could present new business opportunities for insurers in the future.

According to the current regulations, insurers must deposit at least 70% of their capital in banks or purchase government bonds to ensure capital safety. Considering the current high interest rate environment, insurers may experience higher investment returns, which would improve their operating performance..

Headwinds

→ Uncertainty in the economic environment (i.e., global inflation/depression and considerable deterioration in the USD/VND exchange rate)

Tailwinds

→ Despite the slow FDI and public investment disbursement in the first half of 2023, the Central Bank's expansionary monetary policy (four rate cuts in the first half of 2023), large public investment budget and increase in registered FDI are expected to drive economic growth in the second half of 2023.

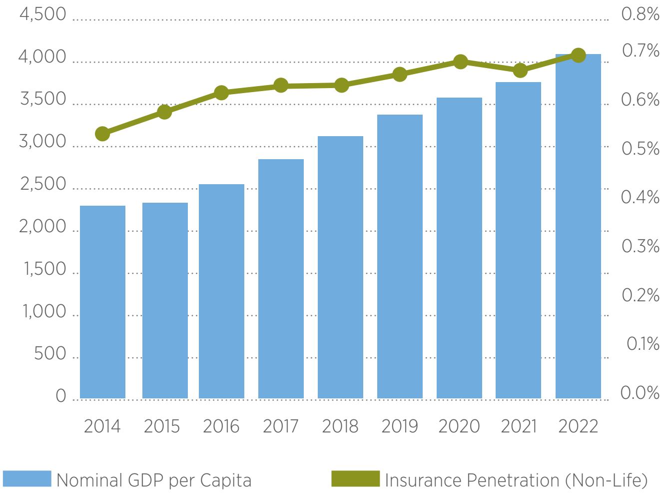
→ The government has also planned for investment into various infrastructure projects (USD122B, mostly for FY2023–25).

→ There is growth potential for retail products (i.e., motor, health) due to low penetration rate and a growing middle class.

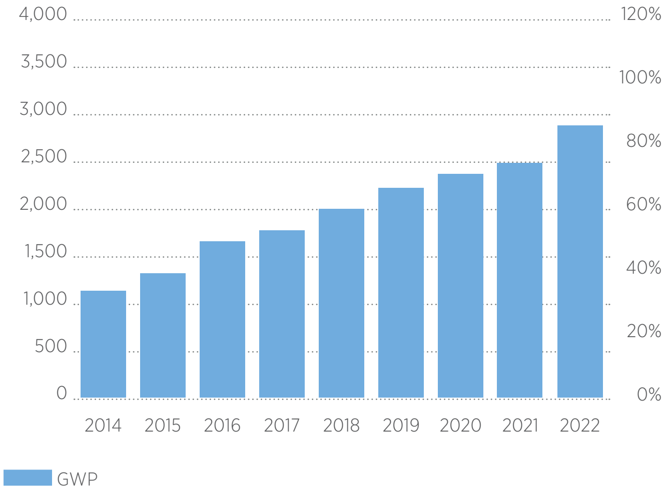
→ Solar power plants and wind farms are expected to contribute 31%–39% of the country power supply by 2030, as part of the country's energy transition plans.

Vietnam In Numbers

GDP per Capita vs. Non-Life Insurance Penetration (USD)

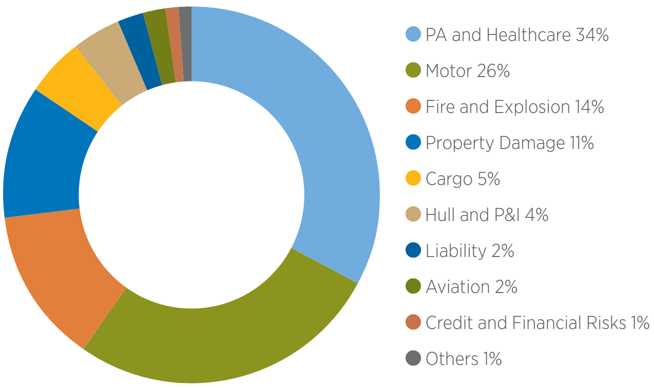


Non-Life Premium and Claims (USD M)

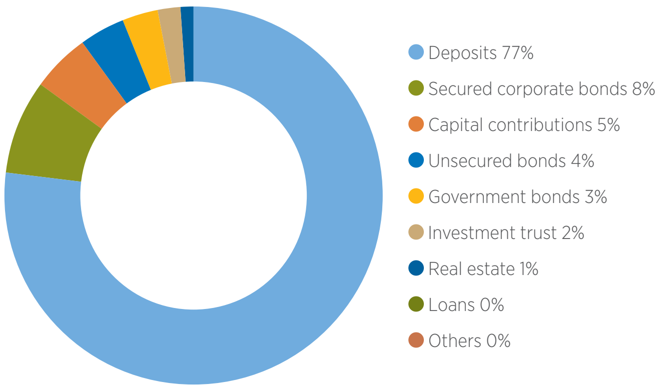


There are no official incurred loss ratio/combined ratio data published for the Vietnamese non-life insurance market.
NB: The time period corresponds to a 12-month period from January 1 to December 31 each year.

2022 Total GWP: USD2.9B



2021 Total Investment: USD2.7B



Key features

There is growth potential for retail products (i.e., motor, health) due to the low penetration rate and a growing middle class.

There was a spike in loss ratio for retail lines in underwriting year 2022 driven by post-pandemic activities, inflation, and supply chain disruptions, which resulted in underwriting losses for many insurers.

Source: World Bank, MOF

Non-Life Regulation

The regulator: Overview

The MOF is the insurance regulator for Vietnam and the Insurance Supervisory Authority (ISA) assists the MOF in supervising the Vietnamese insurance market.

Item	Approach
Accounting framework	Local Vietnamese Accounting Standards (VAS)
IFRS 17 implementation	Begins on a voluntary basis from 2022, with mandatory application in 2026
Capital framework	Solvency I
Climate/ESG	Public listed companies are required to disclose ESG performance in annual reports, which must be made public and submitted to the State Securities Commission of Vietnam and relevant Stock Exchange No climate risk / ESG guidelines specific for the insurance sector

Planned developments

The new Insurance Business Law for the Vietnamese insurance market went into effect on January 1, 2023. The provisions on RBC and early intervention measures will, however, take effect on January 1, 2028, and (re)insurers will be required to adhere to the prescribed minimum CAR. The CAR will be calculated based on the size and quantitative assessment of the impacts of the four risk categories (insurance risk, market risk, operational risk, and other risks).

According to the proposed framework, (re)insurers will be required to maintain an RBC ratio greater than 200%, below which various levels of supervisory intervention will be applicable.

Elsewhere, Decree No. 46/2023/ND-CP was issued on July 1, 2023, providing further guidance on the implementation of the new Insurance Business Law. At the time of writing, the MOF is working on a circular to provide further guidance on some clauses in the Law & Decree.

Capital requirements

Minimum capital required		Minimum solvency margin
General insurer writing general insurance and health insurance	VND400B (approximately USD17.5M)	Insurers must establish a mandatory reserve fund to ensure solvency Annual contribution = 5% of profit after tax (PAT), up to a maximum of 10% of charter capital (or allocated capital of a foreign insurer branch)
General insurer writing general insurance, health insurance and either aviation or satellite insurance	VND450B (approximately USD19.6M)	
General insurer writing general insurance, health insurance, aviation insurance and satellite insurance	VND500B (approximately USD21.8M)	
Health insurer	VND400B (approximately USD17.5M)	
General reinsurer writing general insurance and/or health insurance	VND500B (approximately USD21.8M)	

Exchange rate (as at January 1, 2023): VND23,614.99 = USD1.00
Source: MOF

Solvency framework overview

Under the current capital framework, the minimum solvency margin for a non-life insurer or a branch of a foreign insurer is determined as the greater of:

- 25.0% of the total retained premiums
- 12.5% of the total primary insurance premiums plus reinsurance premiums

Other

Following the implementation of the new Insurance Business Law, the foreign ownership cap has been removed. Foreign companies are now permitted full ownership of their operations in Vietnam.

Source: MOF

Catastrophe, Pooling and Reinsurance

Catastrophe risk

There are currently no minimum catastrophe reinsurance coverage requirements for local insurers. There has been ongoing discussions on natural catastrophe protection (including on a parametric basis) for state-owned assets. However, nothing has materialized so far.

Reinsurance

There is no maximum cession percentage, except for fronting arrangements where the maximum fronting cession is 90% of the insured's insurance liability. A reinsurer may only retain a maximum liability amount on each risk or individual loss that does not exceed 10% of its own equity capital.

The lead reinsurer and reinsurer(s) receiving 10% or more of the total liability on each reinsurance policy must have a minimum rating of 'BBB' by Standard & Poor's or Fitch, 'B++' by A.M. Best, 'Baa1' by Moody's (or the equivalent), with no history of having a different rating in the most recent fiscal year than at the time the reinsurance contract was signed.

In the case of reinsurance to an overseas parent company or companies in the same group without a credit rating as prescribed above, the document from the foreign insurance regulatory body where the reinsurance company is registered and operated must be submitted by the insurer, reinsurer, or foreign branch to the MOF as proof that the overseas reinsurer complied with the solvency requirement in the most recent fiscal year when the reinsurance contract was bound.

Pooling arrangements

There is no official news on pooling arrangements in Vietnam. However, there is a scheme governed and subsidized by the government—the agriculture insurance scheme. The government initially ran an agriculture rice insurance pilot program from 2011 to 2013 and subsequently implemented the agriculture insurance scheme through Decision No. 22/2019/QD-TTg in June 2019.

The scheme provides premium subsidies to farmers for five agriculture products: rice, cattle, water buffalo, black tiger shrimp, and white-leg shrimp. Premium subsidies vary according to farmers' income levels and ability to pay for insurance premiums, falling into the two following categories:

- Premium subsidy of 20% for non-poor farming households
- Premium subsidy of 90% for poor farming households

Source: MOF

Gallagher Re's View of Risk

Natural Peril	Overview	Vendor Model Evaluation Report & Evaluation Matrix	Vendor Model Adjustment	Gallagher Re Scenario Models/ Probabilistic Models	Underwriting Capability
Earthquake	Vietnam is known as a country with relatively low seismic hazard risk	✓	✓		
Tropical Cyclone/ Typhoon (Flood & Surge)	Typhoon and associated flooding risk is a major peril for Vietnam	✓		✓ Scenario modeling via KatRisk flood hazard layers	
Flood	Flooding occurs in the rainy season from June to November which is influenced by the tropical monsoon			✓ Scenario modeling via KatRisk flood hazard layers	

NB: Global Solutions are available to facilitate scenario modeling capability for Flood & Terrorism and Underwriting capability for Earthquake & Flood.

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