4 June 2025

Insurance Authority's Review of Actuarial Reports on Reinsurance, Investment & Solvency for Year 2024

The year 2024 was the fifth consecutive year of insurance companies submitting actuarial reports under the Actuarial Work Rules (AWR) issued in March 2020. The primary objective of those Rules is to enhance the role and responsibilities of actuaries in the insurance sector in order to facilitate informed decision-making by management and to provide greater technical support to the business as the market sophistication continues to grow in the Kingdom.

Under the above Rules, an Appointed Actuary is obligated to perform a number of actuarial analyses, at least, annually, and convey to the Senior Management, Board of Directors and the Insurance Authority (IA) the outcome of those analyses in the form of an actuarial report, prepared separately on each individual topic.

This document encompasses IA's observations from its review of the following actuarial reports, including a concluding section on the contribution of Internal Actuarial Functions in producing these reports:

1. Reinsurance Adequacy Report 2024 (pages 2-15)
2. Investment and Asset Liability Management Report 2024 (pages 16-23)
3. Solvency and Capital Report 2024 (pages 24-31)
4. Actuarial Function's Contribution (pages 32-34)

A number of important observations emerged from our review. We would like to share those observations with the Company's management, together with our expectations in respect of those observations, in anticipation that management will consider each of those observations and recommendations diligently, internal discussions will be held at the Board of Directors' level and with all relevant functions, and appropriate actions will be taken by management.

Furthermore, similar to last year, a separate brief document accompanies this letter that summarizes IA's expectations on each topic mentioned in this letter.

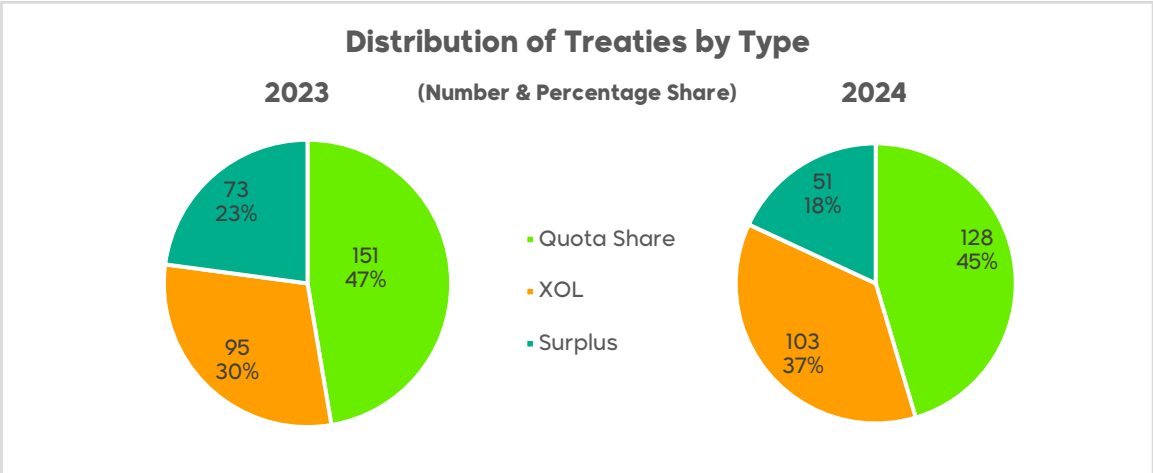
1. Reinsurance Adequacy Report 2024

For Property & Casualty insurance, the majority of insurers in Saudi Arabia rely heavily on reinsurance companies as a large proportion of business is ceded to them. It is therefore important that each insurance company assesses its reinsurance requirements using sound technical basis, and with due regard to its risk appetite.

The Actuarial Work Rules 2020 require an annual report from the Appointed Actuary, assessing the appropriateness of the Company's reinsurance arrangements and risk retention levels for each line of business. The Appointed Actuary is also required to make recommendations for an optimal reinsurance arrangement to the Board of Directors and Senior Management. The task requires application of sophisticated actuarial modelling techniques and is commensurate with the IA's objective to raise the standards of actuarial practice in the Kingdom.

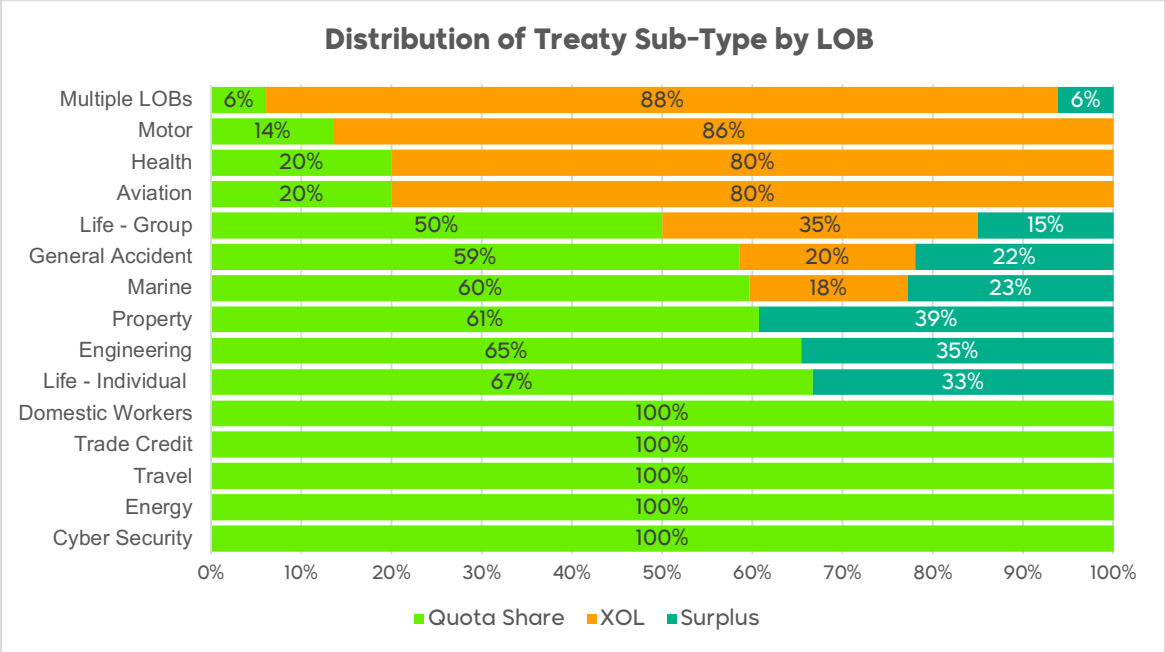
1.1 Treaty-Type Composition

The graph below shows the distribution of treaties by their type, purchased by insurance companies in 2024 compared to those purchased in 2023.



It can be seen that while proportional treaties, particularly Quota-Share, continue to dominate the reinsurance market, there is a marked reduction in the total number of such treaties. On the other hand, both the proportion and number of Excess of Loss treaties have increased in 2024, which is desirable in order for insurance companies to develop stronger underwriting capabilities and have greater risk tolerance.

The graph below shows the distribution of existing treaties in 2024 by type and by line of business.



For Motor and Health, while majority of the treaties are of Excess-of-Loss type, there remains a considerable percentage of companies using proportional structures, in particular of Quota share type, which may seem somewhat counterintuitive given the '*high frequency and low severity*' nature of these LOBs and the wealth of historical data available to insurance companies. It is also noted that some of these proportional arrangements could be driven by capital relief considerations for smaller companies. Moreover, we note that the share of proportional treaties has reduced compared to last year, which is in line with our expectations.

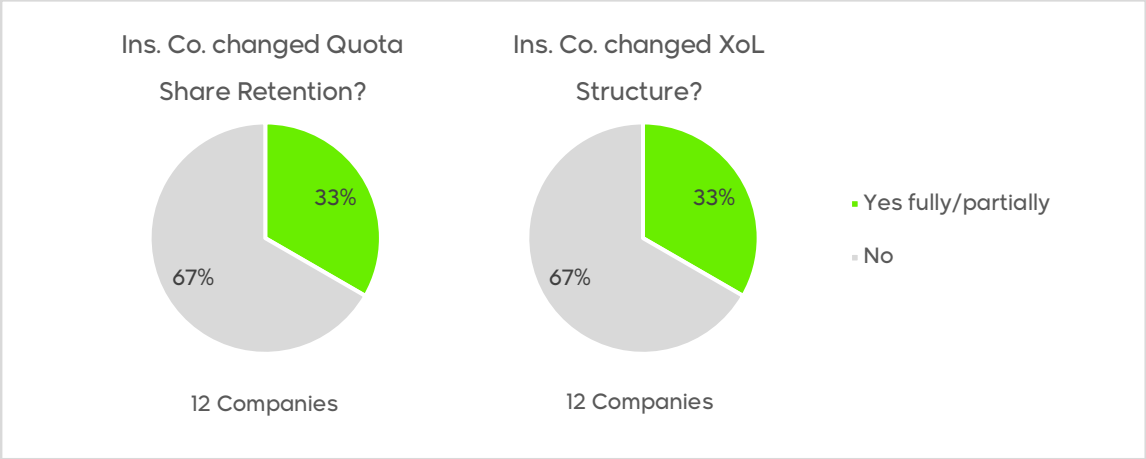
For P&C lines, it can be seen that proportional arrangements, in particular of Quota Share type, dominate the treaties purchased by insurance companies, indicating less underwriting sophistication and low risk tolerance among

insurance companies for these risks. On the other hand, the share of Excess-of-loss treaties has increased considerably for Aviation (80% v 40% last year), followed by General Accident (20% v 10% last year).

The IA expects the Company's management to carefully consider the treaty type most appropriate for its portfolio, and make sure it is aligned with the Company's risk appetite, financial objectives, and market conditions.

1.2 Management's Response to the Appointed Actuary's Recommendations from Previous Exercise

The graph below assesses how the Board of Directors responded to the Appointed Actuary's recommendation for improvements to the reinsurance arrangements made in the previous year's Reinsurance Optimization Report.

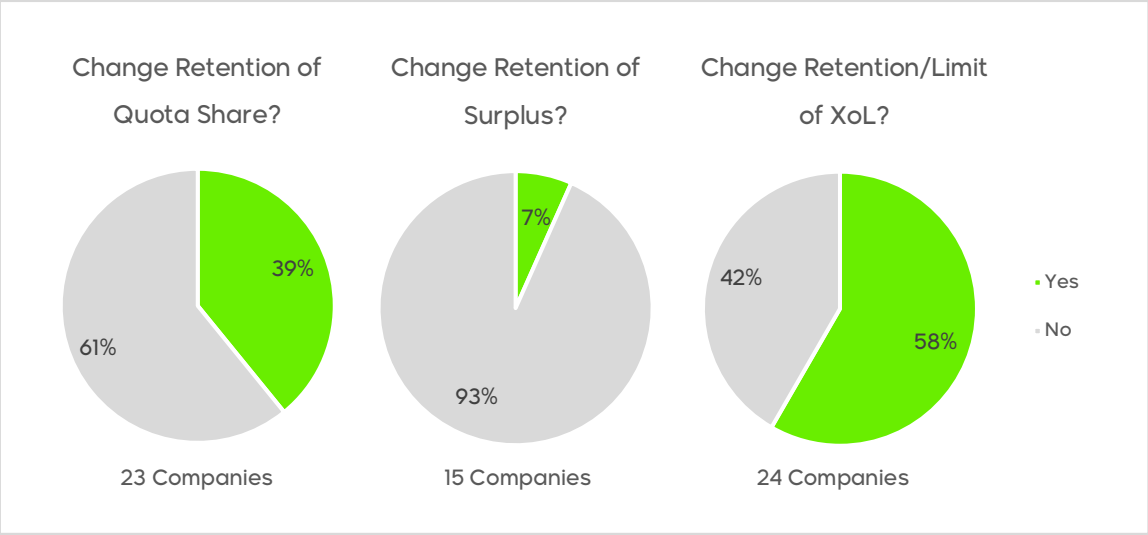


It can be seen that for both Quota-Share and Excess of Loss treaties, one-third of Boards accepted the recommendation from their Appointed Actuary to change the structure and management went ahead with making those changes, in part or in full. Compared to last year, this proportion has seen slight reduction, which is not totally unexpected given the improvements to treaty arrangements made year on year, but it also highlights potentially large room for improvement that still remains. Moreover, these treaty amendments remain significant considering that an Appointed Actuary usually forms his recommendations without taking into consideration the reinsurance market conditions.

When making reinsurance purchase decisions, the IA expects the Board of Directors and Senior Management to actively consider the recommendations of their Appointed Actuary, with due input from Underwriting and Reinsurance functions.

1.3 Changes Recommended for Treaties in Reinsurance Optimization Report 2024

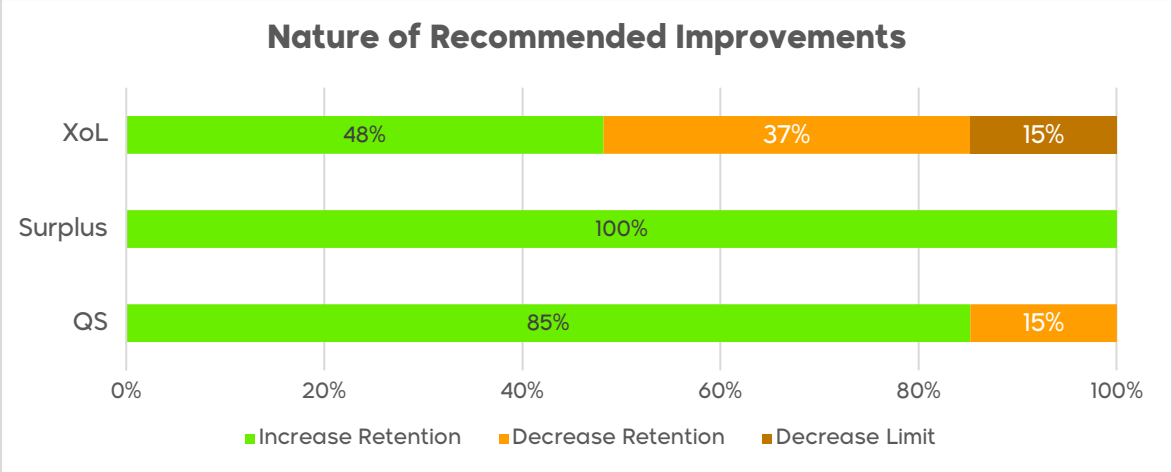
The graph below shows the outcome of the actuarial analysis performed in year 2024 and recommendations made by Appointed Actuaries as a result.



It can be observed that Appointed Actuaries have identified inefficiencies in more than half of the current Excess of Loss arrangements purchased by insurance companies, with Quota Share arrangements not far behind. In contrast, very few recommendations were made for the existing Surplus arrangements, suggesting that either those are relatively more efficient, or those have received less attention from Appointed Actuaries given their smaller numbers and/or lesser materiality compared to the other two types.

Furthermore, compared with last year's recommendations as reported in last year's market feedback, the number of recommendations for changes to XoL arrangements have increased. On one hand, this is somewhat surprising considering that a number of recommendations made last year were already addressed by management as noted in Section 1.2. On the other hand, it could be an indicator of improvements in the sophistication and rigor of actuarial analysis performed by Appointed Actuaries compared to last year.

The graph below illustrates the nature of recommended changes for each treaty type.

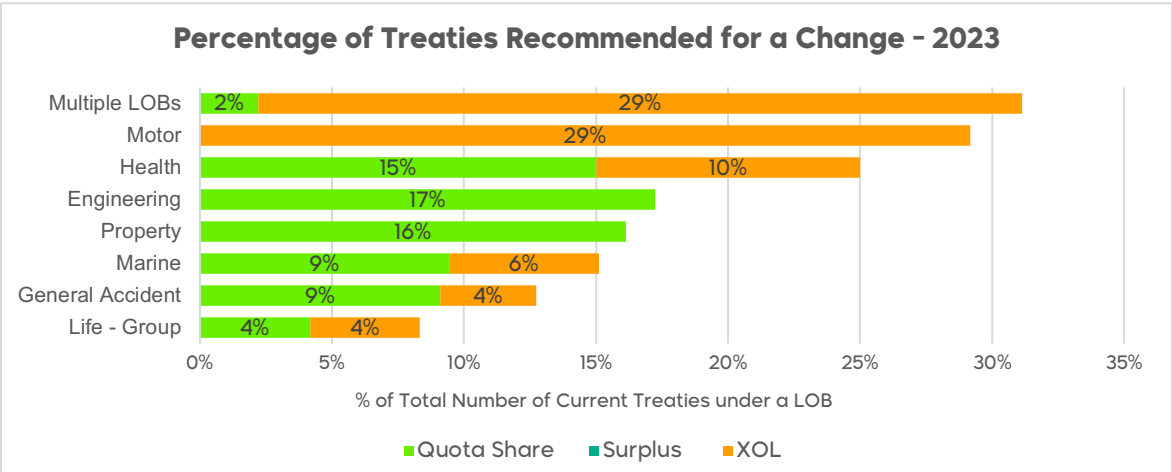


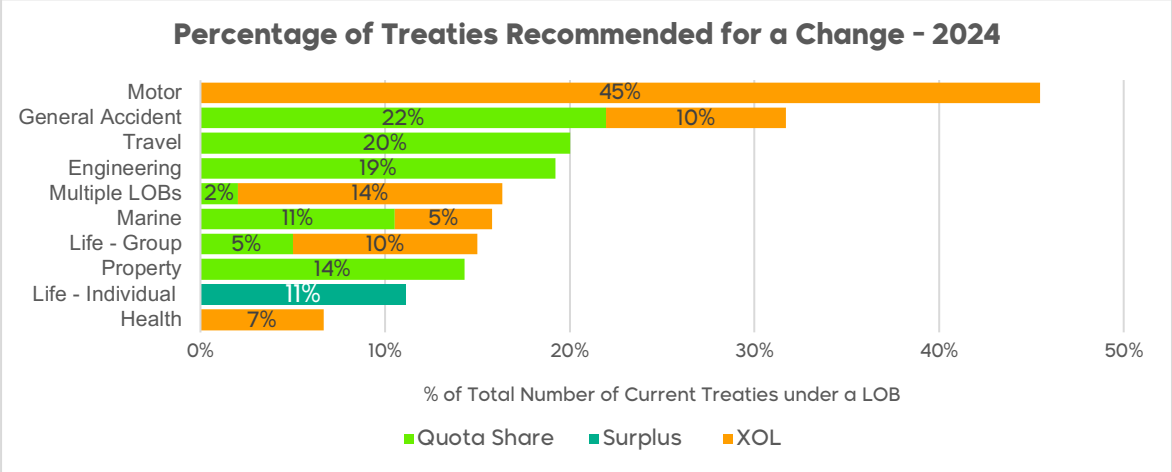
It can be observed that the majority of recommendations across all treaty types suggest increasing the retention. However, a notable proportion of XoL recommendations also suggest a decrease in retention.

The IA expects the Board of Directors to seek to fully understand the rationale behind the recommendations of its Appointed Actuary, including impact of any changes to actuarial models and methodologies used, and actively consider those recommendations, with due consideration of the reinsurance market conditions, and the Company's own risk appetite.

1.4 Percentage of Treaties Recommended for a Change by Line of Business

The graphs below show the percentage of treaties recommended for a change by type for each LOB, comparing 2024 to the previous year.





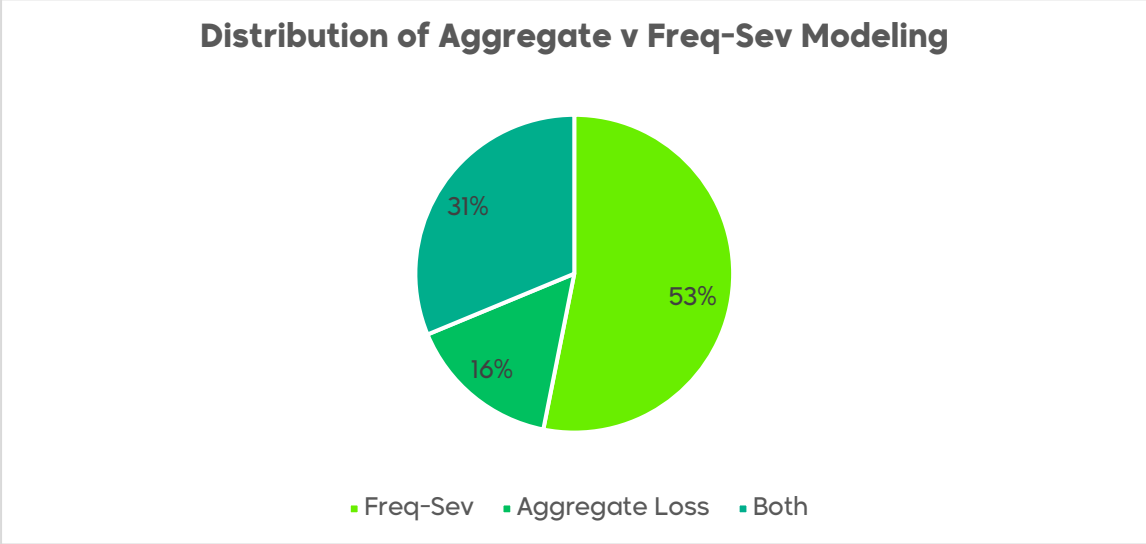
It is evident that in 2024, Motor and General Accident have the highest proportion of sub-optimal treaties, as identified by Appointed Actuaries, compared to last year when treaties covering multiple LOBs had the highest proportion of treaties recommended for change, which were followed by Motor and Health. Interestingly, for Health business, there is a marked reduction in the recommendations for changes, and that too now pertains to Excess of Loss arrangements only unlike last year. It can also be observed that for Motor and General Accident portfolios, the percentage of treaties deemed 'sub-optimal' by Appointed Actuaries this year has gone up compared to the prior year.

In Motor, similar to last year, all treaties deemed sub-optimal in the latest analysis were of Excess of Loss in nature. Under other lines of business, however, Quota Share agreements also formed a noticeable proportion of the treaty structures that were identified as needing improvements, with the exceptions of Individual Life & Health treaties.

The IA expects management to consider the optimal treaty structure for each line of business individually so that any decision around purchasing a bouquet of-treaties can be taken from an informed position.

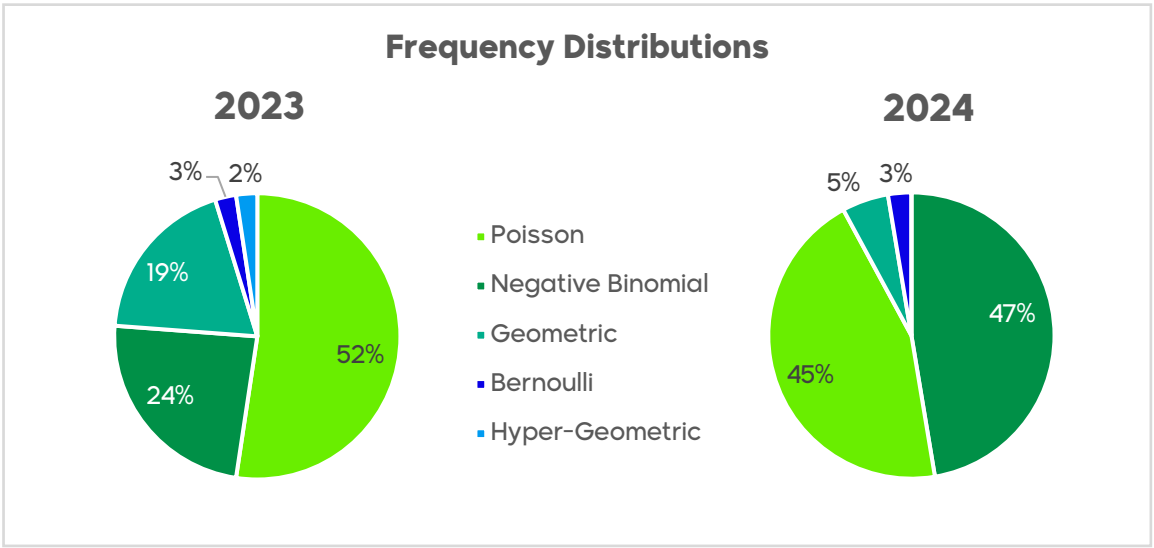
1.5 Distribution of Frequency, Severity, and Aggregate Loss

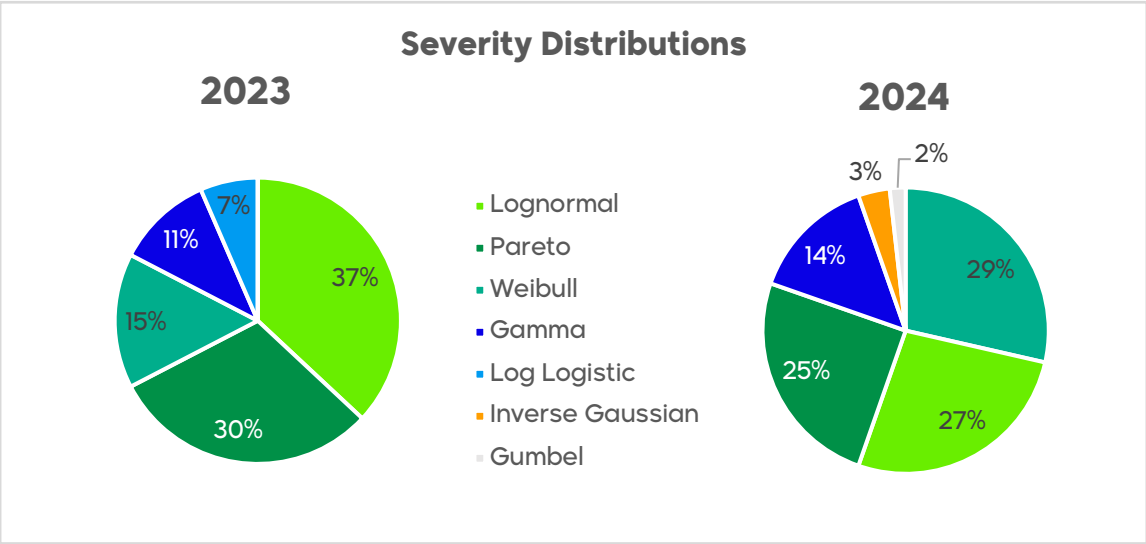
The IA continues to encourage Appointed Actuaries to enhance the sophistication of modelling techniques when performing the reinsurance optimization analysis. The graph below shows the distribution of the modelling approaches used by actuaries.



It can be seen that the majority of actuaries adopt the frequency-severity approach. Additionally, around one-third apply both the frequency-severity and aggregate loss approaches for the same LOB. This indicates that some actuaries are leveraging multiple methods to enhance modeling accuracy or to cross-validate results.

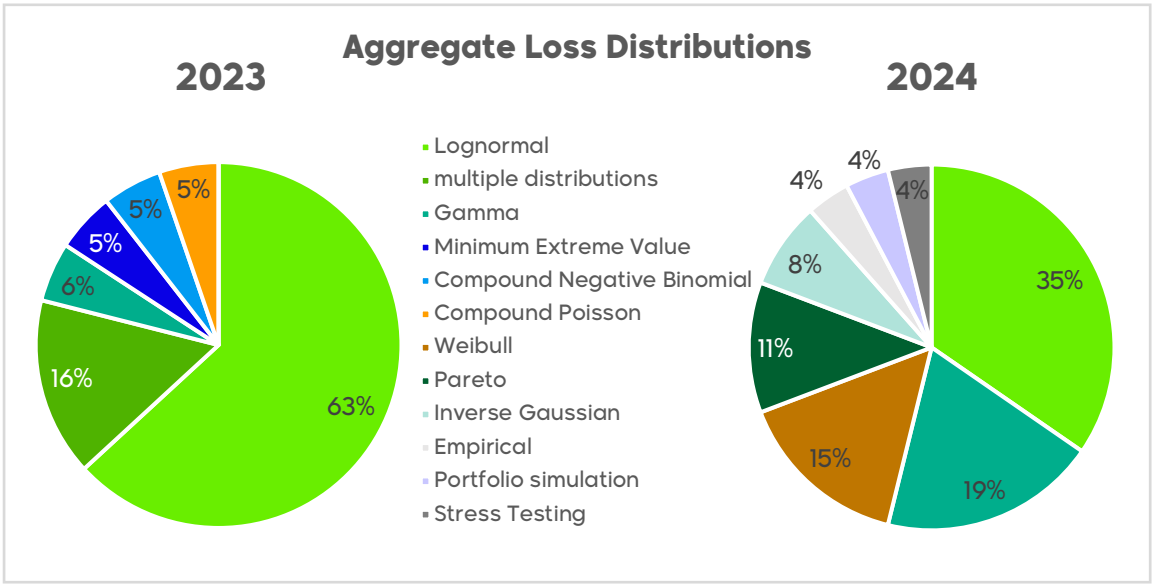
The graph below shows the range of statistical distributions used by Appointed Actuaries for modelling the frequency and severity of claims, along with their comparison with approaches used last year.





For Frequency modelling, unlike last year, Negative Binomial was the most commonly used distribution, followed closely by Poisson. For Severity modelling, yet again unlike last year Weibull was the distribution of choice for many, closely followed by Lognormal distribution. Moreover, some new distributions have been explored this year, for example, Inverse Gaussian, Gumbel.

The graph below shows the range of statistical distributions used by Appointed Actuaries for modelling aggregate losses and compares it with the status last year.

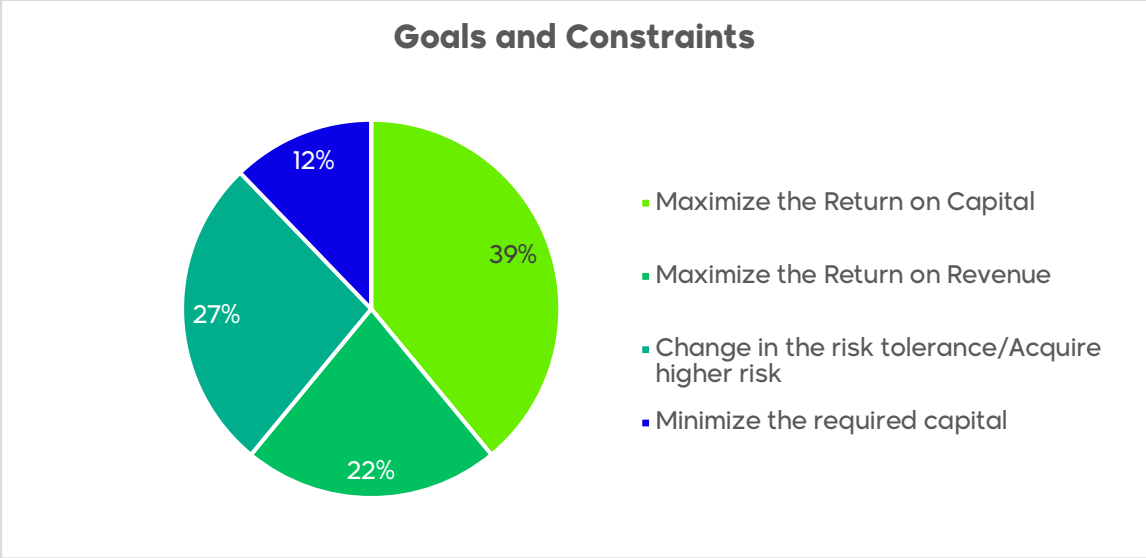


In 2024, similar to last year, the Lognormal distribution was the most commonly used, though its share has reduced, followed by Gamma and Weibull distributions. Notably, the range of distributions has shifted significantly compared to last year, with greater variety now being deployed, indicating a more rigorous analysis by Appointed Actuaries.

The IA expects each Appointed Actuary to remain abreast of the latest professional developments in the area of reinsurance optimization and continue to explore and implement more sophisticated modelling techniques.

1.6 Goals and Constraints

In order to perform the actuarial analysis for treaty optimization, it is important for the Board of Directors and Senior Management to set a clear goal for the Appointed Actuary. The graph below shows the distribution of goals and constraints used by Appointed Actuaries to guide their analysis.

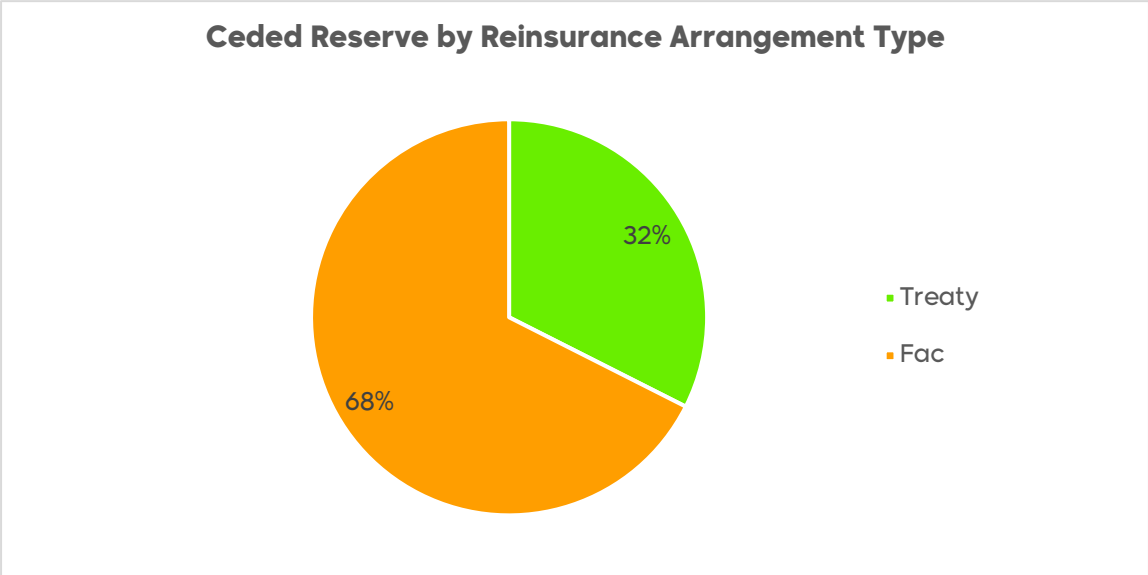


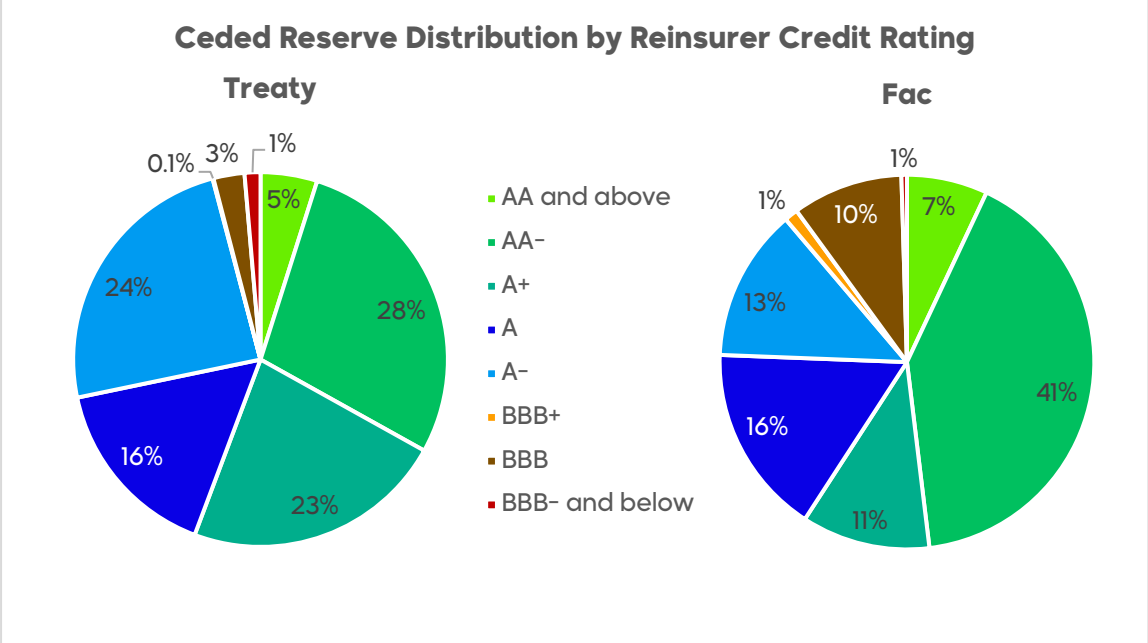
Similar to the last year's submissions, it can be observed that the majority of Appointed Actuaries aimed to maximize the return on capital, followed by revising risk appetite of insurance companies and maximizing the return on revenue, as the goals for their reinsurance optimization analysis.

The IA expects the Board of Directors and Senior Management to set clear goal(s) for the Appointed Actuary so that the output generated is in line with the expectations and business requirements of management.

1.7 Reinsurers' Credit Rating – Treaty & Facultative

The graphs below show the split of reinsurance reserves between treaty and fac arrangement, and the distribution of reserves by the credit rating of reinsurers for each arrangement-type. The credit ratings shown follow the S&P rating scale.





Similar to that noted last year, it can be observed that insurance companies cede the bulk of the reserves (IBNR + Case Reserves) to high-grade reinsurers for both treaty and fac arrangements, thus reducing their default risk.

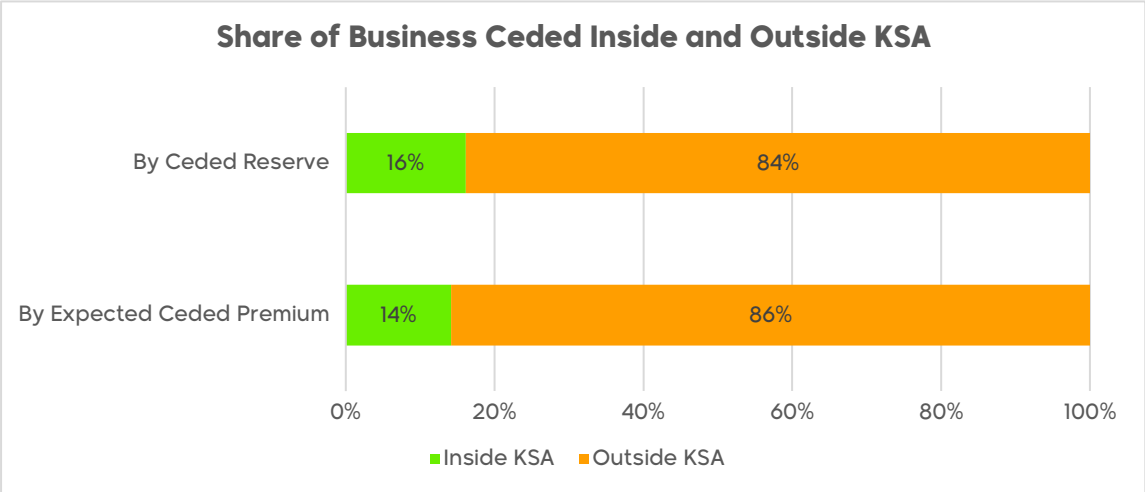
This is an important consideration under IFRS 17 where an insurance company must make allowance for the risk of non-performance by its reinsurer(s) when estimating the reinsurance contract assets.

Moreover, last year we had observed that the share of ceded reserves to 'AA- or higher' rated reinsurers was markedly lower under facultative than treaty arrangements, potentially implying insurance companies applying relatively relaxed criterion when placing risks on a facultative basis. Interestingly, the above graph negates this observation this year, possibly due to insurance companies taking note of the IA's observations and expectations from last year, data corrections by insurance companies or alternatively due to some large losses ceded recently under facultative arrangements with high-rated reinsurers, thus increasing their share in the overall ceded reserves.

The IA expects the Board of Directors and Senior Management to seek to understand the impact of credit rating of its reinsurers on the reinsurance contract assets under IFRS 17, and ensure that its selection of reinsurers considers the attractiveness of the terms & conditions as well as the financial strength of the reinsurer, while also complying with the relevant IA regulations in this regard.

1.8 Share of Business Ceded Inside and Outside KSA

The graph below shows the distribution of the ceded business between domestic and international reinsurers.



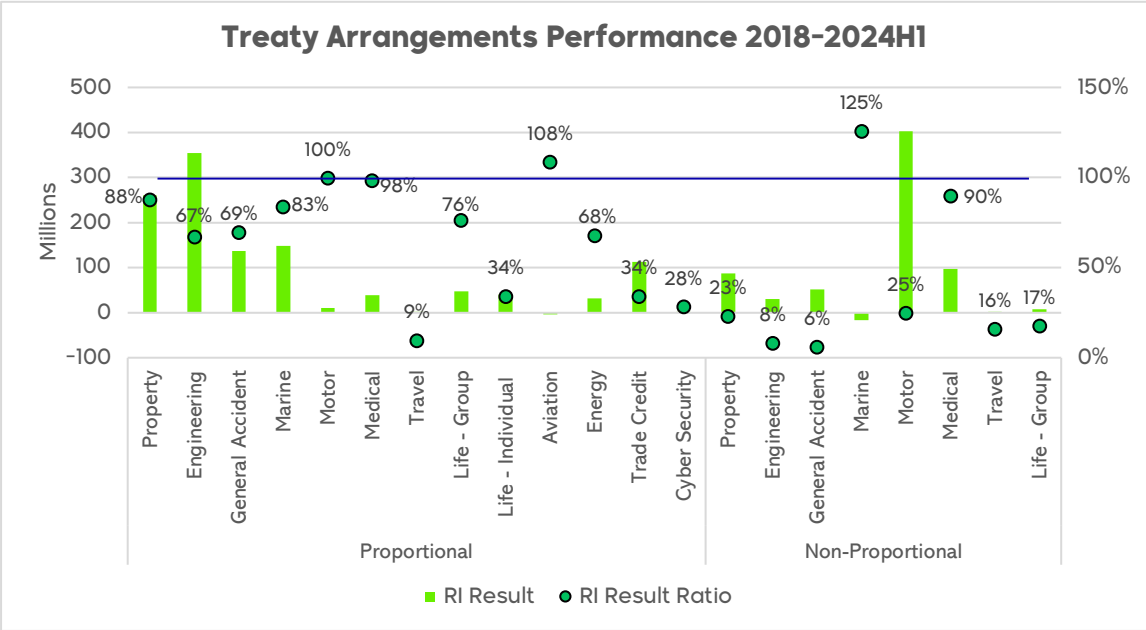
On both ceded premium and ceded reserves bases, less than one-fifth share is retained within KSA, showing a heavy reliance on international reinsurance market.

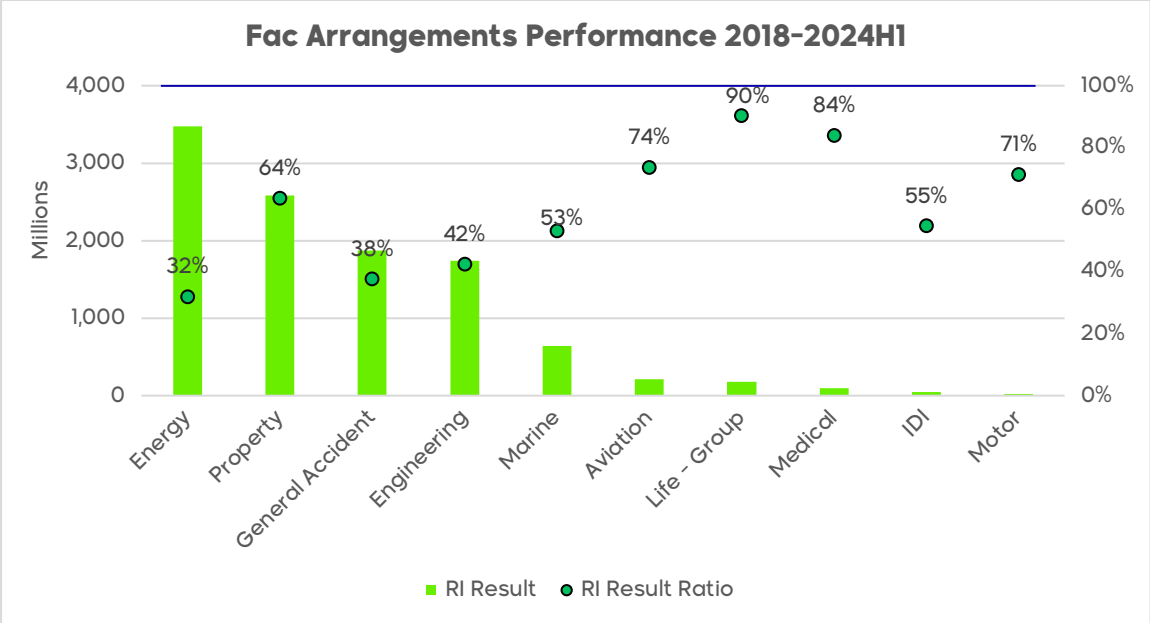
With the recent issuance of IA instructions to insurance companies in Q4 2024, requiring them to offer at least 30% of both treaty and facultative reinsurance business to domestic reinsurers, it is expected that domestic reinsurers will seek to benefit from this opportunity on technically-reliable and financially-sound basis, and the share of reinsurance business retained within the kingdom will grow over time.

The IA encourages companies to explore opportunities to strengthen the domestic reinsurance market and retain more business within the Kingdom, while ensuring they diversify their reinsurance book to mitigate the accumulation risk as well as counterparty default risk, and maintain a balanced approach to risk management.

1.9 Performance of Treaty and Facultative Reinsurance Arrangements

The graphs below show the performance under treaty and facultative arrangements for the period 2018 to 2024H1, as reported by Appointed Actuaries in their Reinsurance Optimization reports.





Note:

RI Result = RI Premium Ceded – RI Claims – RI Commission

RI Result Ratio = (RI Claims + RI Commission) / RI Premium Ceded

For treaty arrangements, the positive RI results under the majority of portfolios suggest that significant profits have been ceded to reinsurers over the last six- and one-half years, particularly under Property and Engineering proportional treaties and Motor non-proportional treaties. Between proportional and non-proportional treaty arrangements, reinsurance result ratios tend to be higher for proportional structures compared to non-proportional structures across most lines of business with the exception of Marine and Travel insurance. Notably, the reinsurance result ratio reaches or exceed 100% for Motor and Aviation lines under proportional treaties, and for Marine under non-proportional treaties. In the case of Aviation, the ratio rose sharply from 45% last year to 108%, a change primarily driven by adverse claims development.

For facultative arrangements, the volume of profits ceded to reinsures over the same period far exceeds that observed under treaty arrangements. The profits ceded under Energy facultative alone are almost double the total profits ceded under all treaties combined over the last six and one-half years. The reinsurance result ratio for each line of business remains below 100%, with Energy having the lowest reinsurance result ratio, while Group Life has the highest. Notably, the reinsurance result increased by more than one billion compared to last year. Upon follow-up with the relevant companies, this was found to be driven by a combination of prior year claims development and an allocation issue with last year's results.

It is worth noting that the above performance summary does not account for the savings in capital that insurance companies achieved due to those reinsurance arrangements.

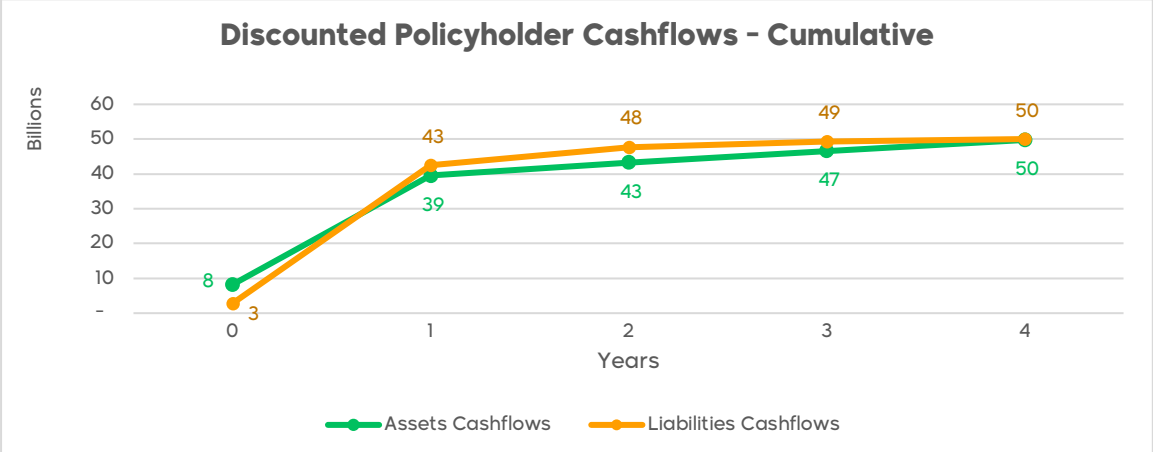
The IA expects management to put in place robust processes for providing underwriting, risk and actuarial support in aid to the reinsurance purchase decisions, thus ensuring that placement of risks under treaty and facultative arrangements is done at optimal terms for the Company.

2. Investment and Asset Liability Management Report 2024

Under the Actuarial Work Rules 2020, an Appointed Actuary is required to coordinate with the Investment Committee and investment manager of the insurance company and provide recommendations to the Company's Senior Management and Board of Directors regarding the Company's investment policy and asset liability management strategy, keeping in view the nature and timing of assets and liabilities and the availability of appropriate assets.

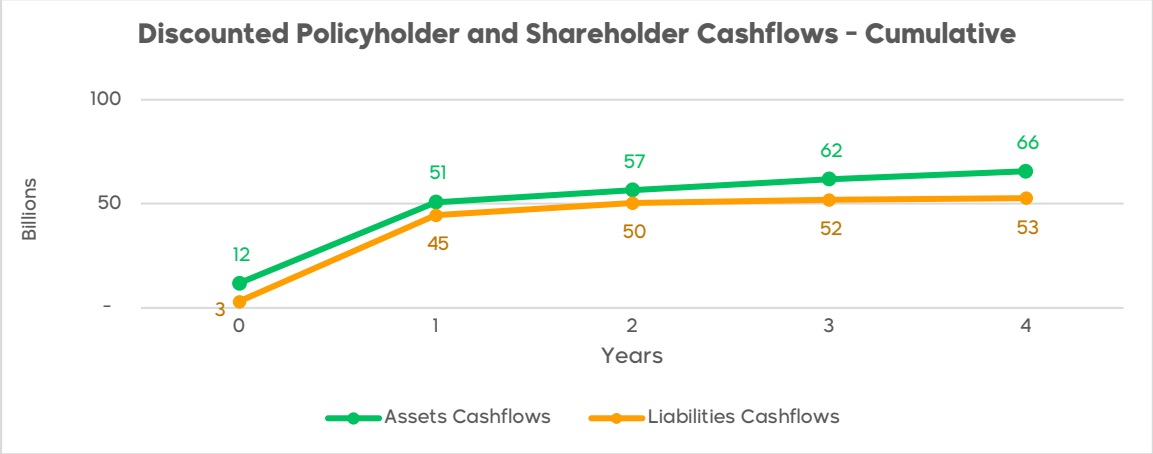
2.1 Asset-Liability Discounted Cashflows

The graph below illustrates the discounted cumulative cashflows for policyholder assets and policyholder liabilities, in aggregate for all insurance companies, over a 4-year period as projected by appointed actuaries in the above reports.



It can be seen above that asset cashflows are higher than liabilities at very early durations, implying relatively high liquidity, thus generating lower yields, and potentially, also exposing to some reinvestment risk.

For both policyholder and shareholder funds combined, the graph below shows that asset cashflows remain higher than of liabilities throughout the entire period shown, with the excess driven by the addition of shareholders' equity.

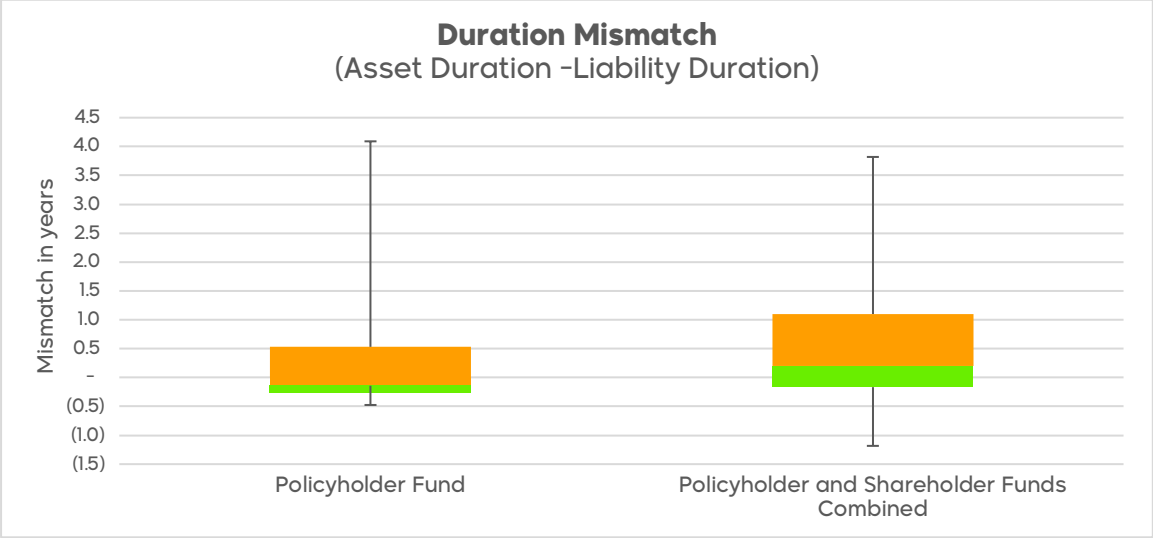


A similar observation regarding the opportunity cost of excessive liquidity can be made here too.

Together, these graphs emphasize the importance and need of effective asset-liability management practices by the insurance sector as a whole.

2.2 Asset-Liability Duration Mismatch

The graph below shows the extent of mismatch between the asset and liability durations, separately for the policyholder fund and for the policyholder and shareholder funds combined, depicting the median, inter-quartile range, and minimum and maximum values for each category.



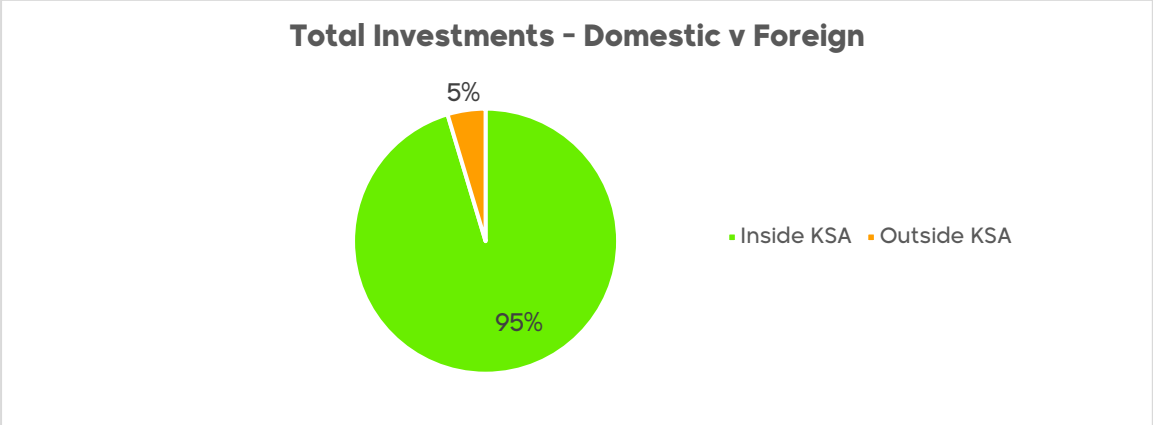
The assets and liabilities of the policyholder fund are generally well-aligned, as evidenced by the median being just above zero and a narrow interquartile range. This suggests that insurance companies effectively match their

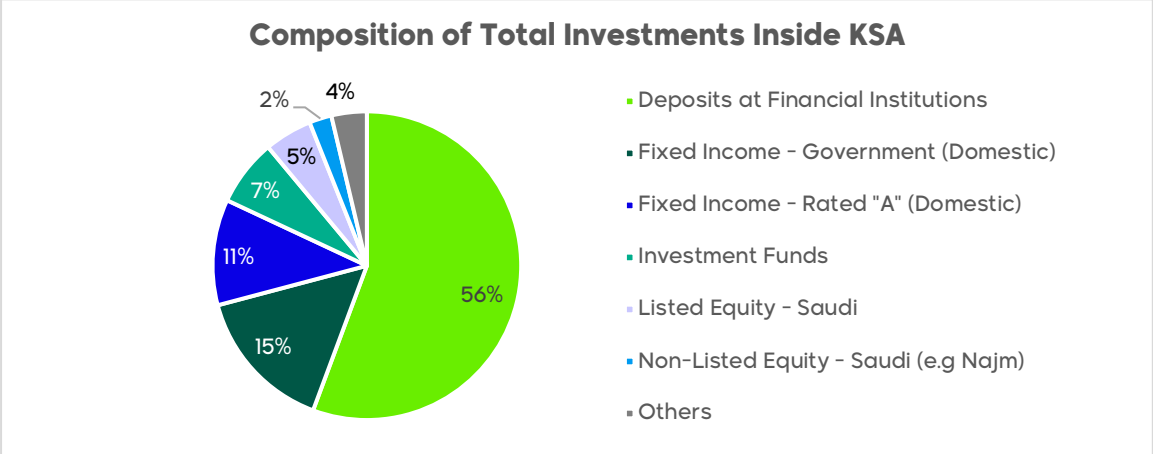
investments with the duration of their liabilities. However, when considering both the policyholder and shareholder funds combined, compared to last year, a wider interquartile range is observed this year, indicating that insurance companies are increasingly willing to take on additional risk with shareholder funds in order to achieve higher investment returns.

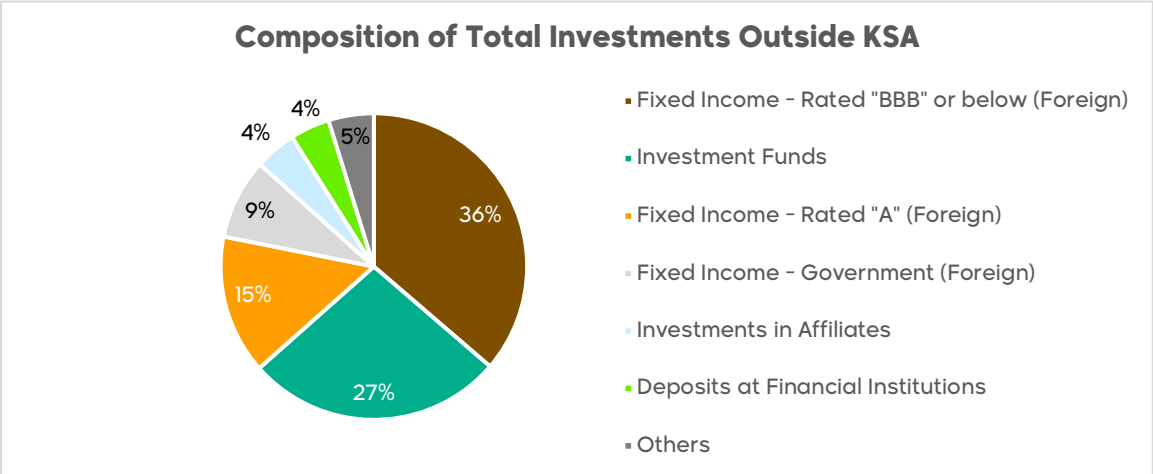
Additionally, there is at least one insurance company where the duration of policyholder assets exceeds the duration of policyholder liabilities by more than four years, potentially exposing the policyholder fund to material liquidity risk, or alternatively, requiring substantial liquidity support from the shareholder fund. It is expected that the relevant Company's Risk Function and relevant controls will investigate this issue more thoroughly.

2.3 Investments Inside versus Outside the Country

The graphs below show the split of total investments by insurance companies into domestic and foreign investments, the composition of those investments by type, as well as the split of those foreign investments by country and currency.



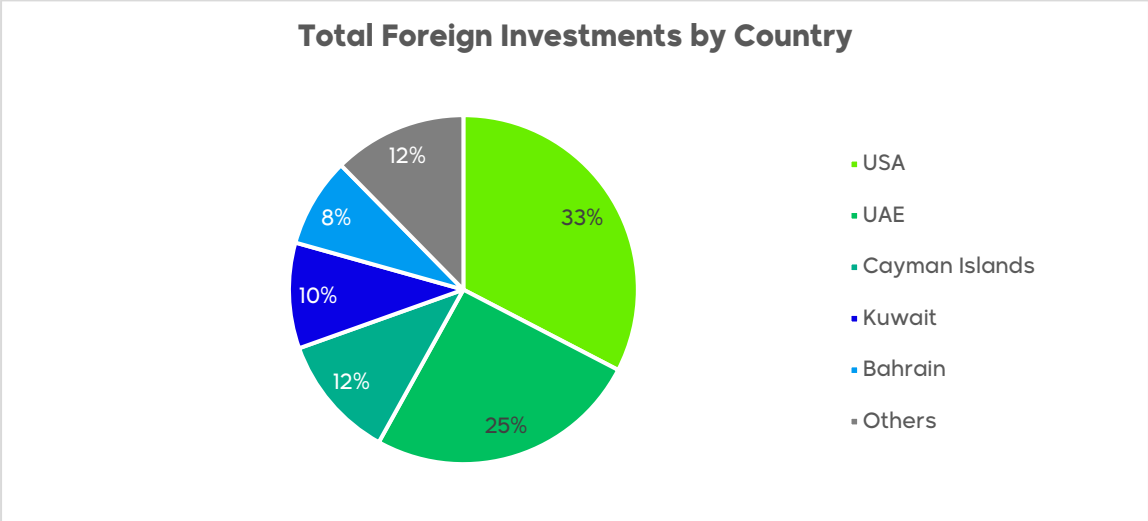


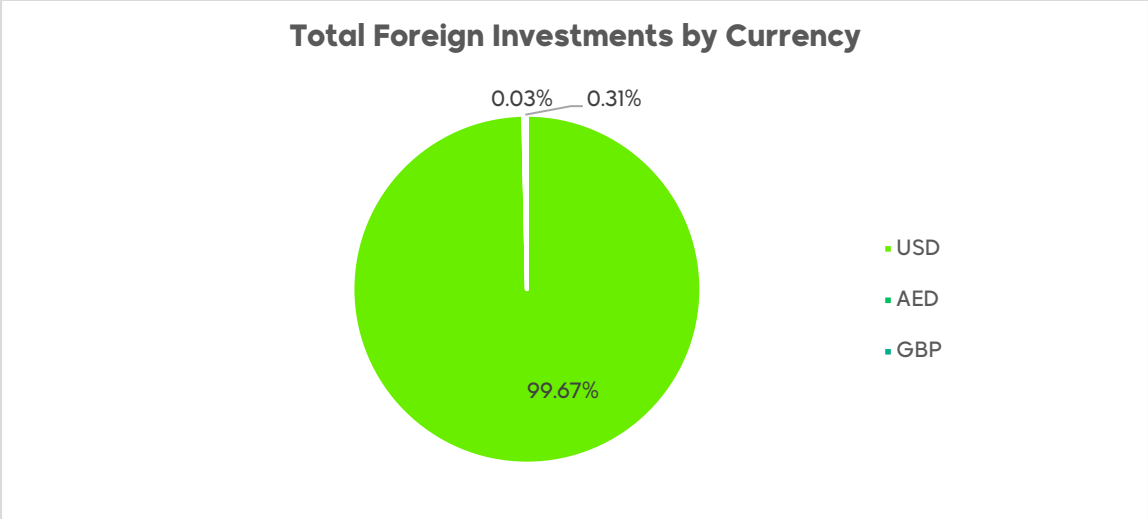


When investing domestically, deposits at financial institutions continue to be the first choice for insurance companies, which is probably a combination of liquidity needs commensurate with short term liabilities of insurance companies, limited availability of sophisticated investment instruments within KSA, and restrictions imposed by the IA regulations.

When investing internationally, which represents 5% of total investments only, 'fixed income – rated "BBB" or below' instruments have the largest share this year, followed by investment funds, which were the leading investment category outside KSA last year. While the BBB or below rated bonds can offer higher yields, these also require careful assessment of the associated relatively high risks. On the other hand, investment funds, the second largest category of foreign investments by insurance companies, provide the potential to enhance returns, manage risk, and benefit from professional expertise of fund managers based in possibly more sophisticated economies.

The graphs below show the distribution, by country and by currency, of foreign investments by Saudi insurance companies.

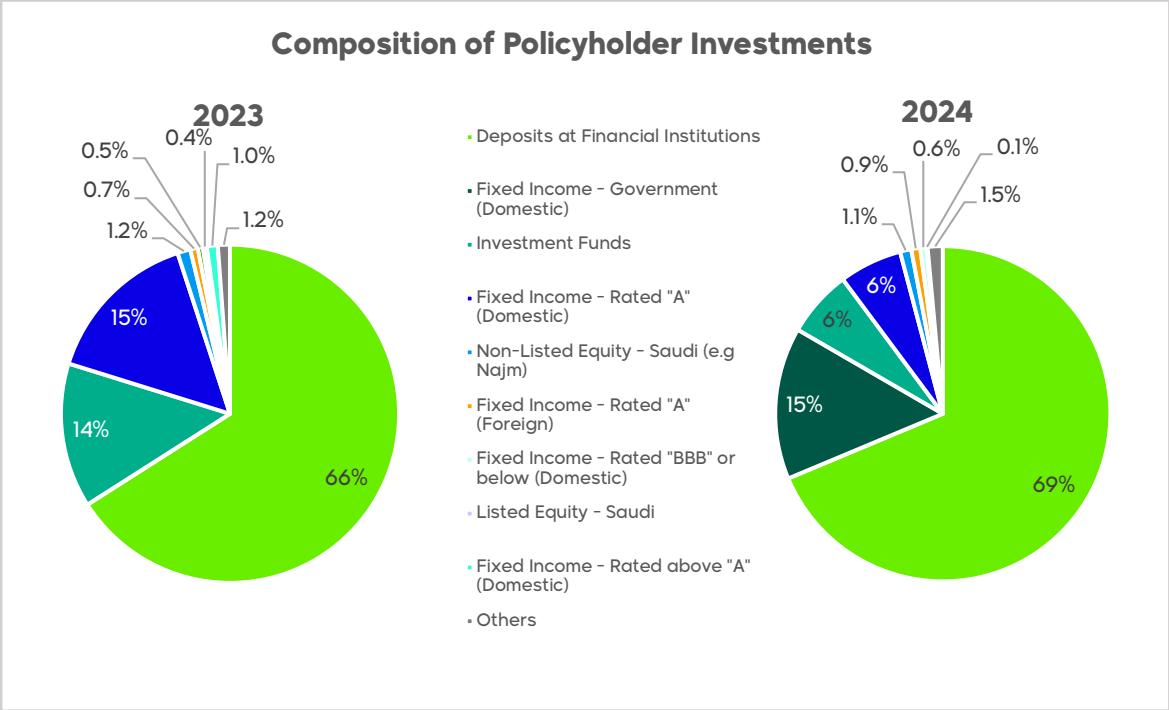




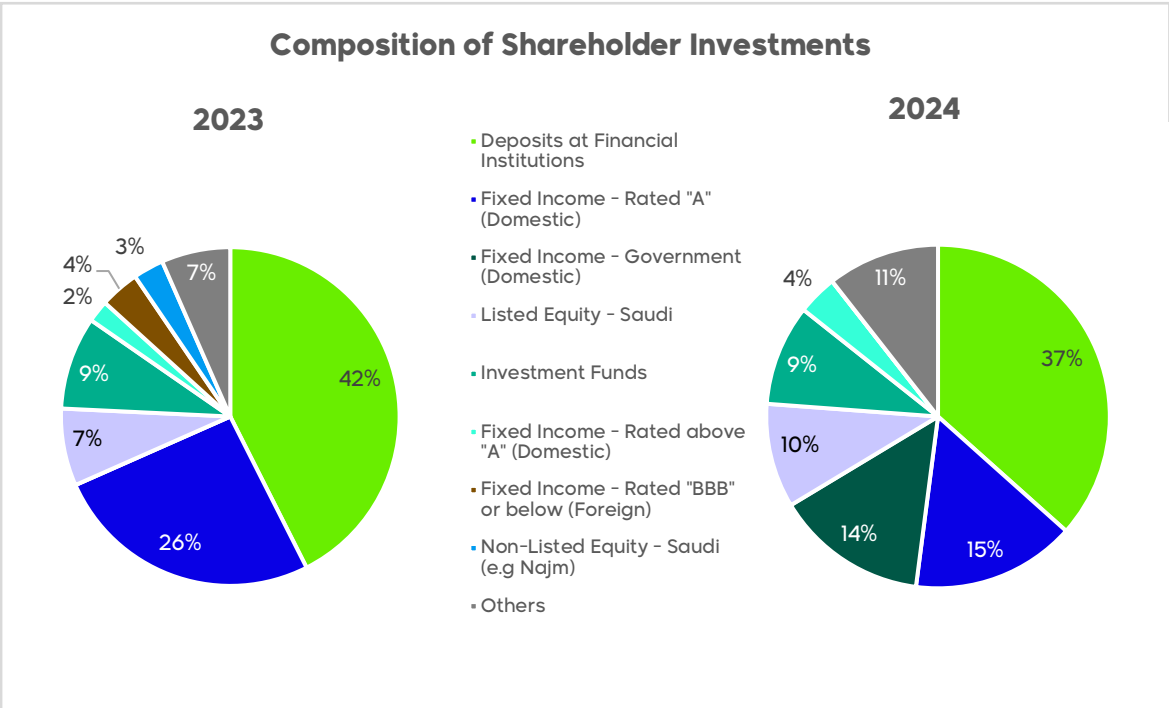
As observed above, the majority of these investments are located in the USA, followed by UAE and Cayman Islands. In terms of the currency mix, the US Dollar is by far the leading foreign currency of investments, implying that insurance companies are also mindful of managing the currency risk effectively, given the pegging of Saudi Riyal to US dollar.

2.4 Composition of Investments of Policyholder Fund versus Shareholder Fund

The graphs below show the difference in the composition of investments between policyholder fund and shareholder fund for all insurance companies in aggregate.



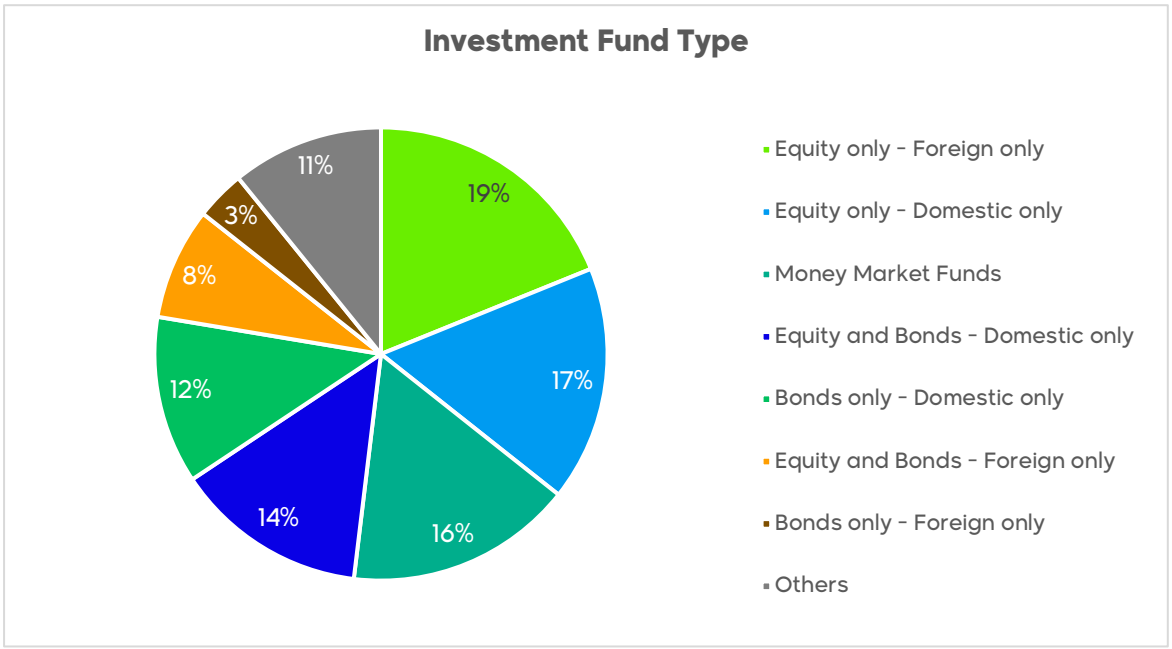
Note: Fixed Income – Government (Domestic) is a new category added in 2024.



For policyholder funds, it can be observed that deposits with financial institutions constituted the biggest share of investments in 2023, and this share went up even further during 2024. This is followed by high quality bond investments, split this year between government and corporate bonds (v aggregate reporting last year), whose share has gone up compared to last year. On the other hand, the share of listed equities is minimal only, implying a prudent investment strategy in respect of policyholder funds.

For shareholder funds too, the largest share of investments is in the form of deposits with financial institutions, though their share has reduced this year. High quality bonds, like for policyholder funds, form the second biggest category of investments, split into corporate and government bonds this year, with their share increasing this year. When compared to policyholder funds, the share of equities is materially higher for shareholder funds and the share has increased this year, reflecting greater tolerance for volatility in search for higher returns.

The graph below shows the composition of underlying investment instruments within investment funds of insurance companies.



Equities have a much higher share within investment funds than observed for direct equity investments. Moreover, Money market funds and short-term deposits have a large share of underlying investment instruments.

The IA expects,

- **the Appointed Actuary to perform thorough analysis and provide clear recommendations to the investment team and Senior Management that are insightful and assist in informed decision-making in the process of making suitable investment choices.**
- **the investment team, Senior Management and Board of Directors to seek to understand the recommendations made by the Appointed Actuary, including implications of the current investment choices and alternatives available, on the Company's ability to meet its liabilities with sufficient confidence and in a timely manner.**
- **the Control functions within the Company to assess the Company's position against the market benchmarks above and where the Company is an outlier, seek justification or corrective action from the investment team, as appropriate.**

3. Solvency & Capital Report 2024

The Actuarial Work Rules mandate an Appointed Actuary to investigate and advise the Company on its solvency position and identify all major risks using a range of actuarial techniques. Initially, in 2020, the IA introduced a Stress & Scenario Test (SST) framework to assist the Appointed Actuary in meeting this requirement.

Since its introduction, this framework evolved in in both scope and sophistication year on year with the objective of making rapid progress towards a risk-based capital regime in a measured manner. The results of this annual exercise by the Appointed Actuary are aimed at providing insurance companies with early insights into the likely impact of transition to a risk-based capital regime.

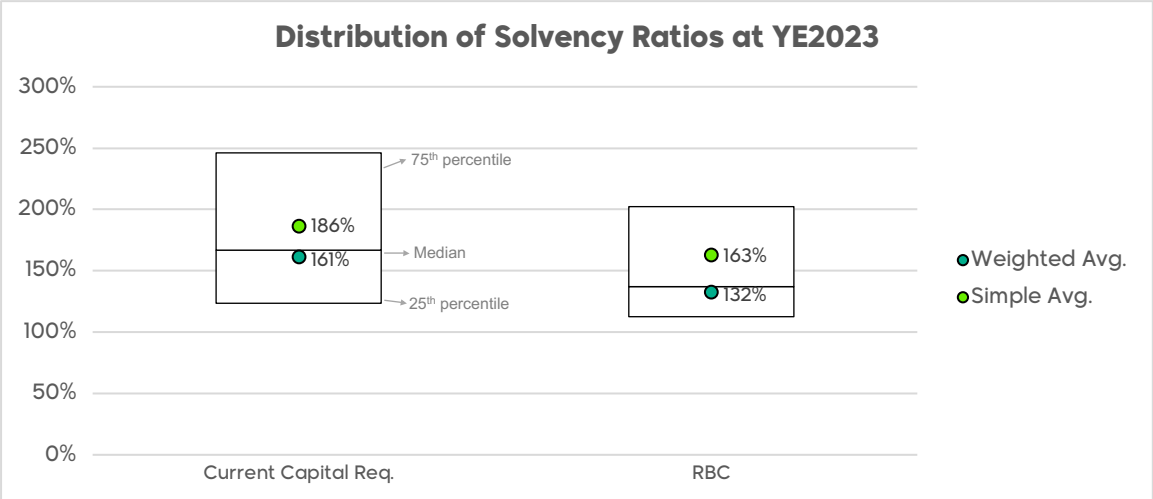
Through multiple iterations since 2020, management of insurance companies were provided with the opportunity to understand the link between business strategy and risk-based capital requirements, with the expectation that each insurance company will gradually embed a culture of risk-based decision-making in its day-to-day operations. These annual studies since 2020 also offered valuable insights to the IA regarding the vulnerabilities of insurance companies to various risks.

The latest version of the framework, released in 2025, is currently undergoing testing by the sector and the results produced by insurance companies are being reviewed by the IA.

As it has been the case throughout this journey, the IA will continue to maintain active engagement with the sector as we get closer to the implementation stage, ensuring that insurers remain fully onboard in the final refinements and the roll-out process of the new risk-based capital regime.

3.1 Current Capital Requirement v Risk-Based Capital

The graph below shows the distribution of solvency ratios for insurance companies under the current capital requirement rules and compares it with the solvency ratio calculated using the risk-based capital (RBC) framework design (as applicable for the 2024 run).

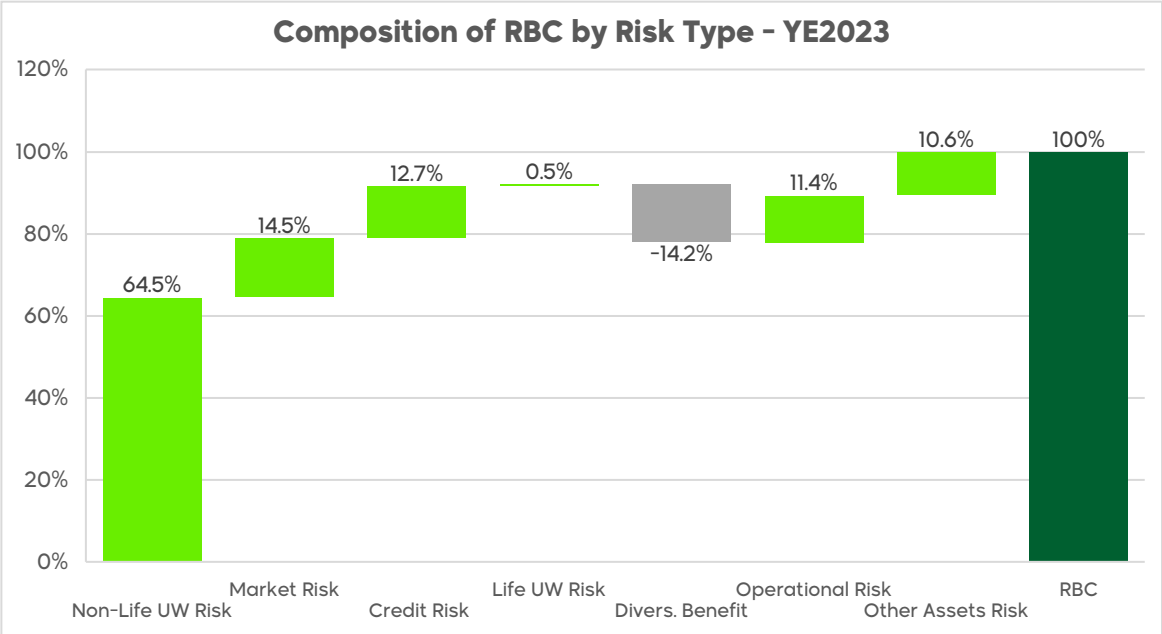


It can be observed that the average solvency ratio under RBC, both on simple and weighted average bases, is lower than the corresponding ratio under the current regime with a SAR 100 million minimum capital requirement, which is not unexpected given the comprehensiveness and strength of the proposed RBC framework.

Based on the individual companies' RBC results, we observed that while some companies improved their solvency ratio, it is also important to note that some companies, deemed solvent under the current regime, would fall below the 100% solvency ratio mark.

3.2 Composition of Risk-Based Capital

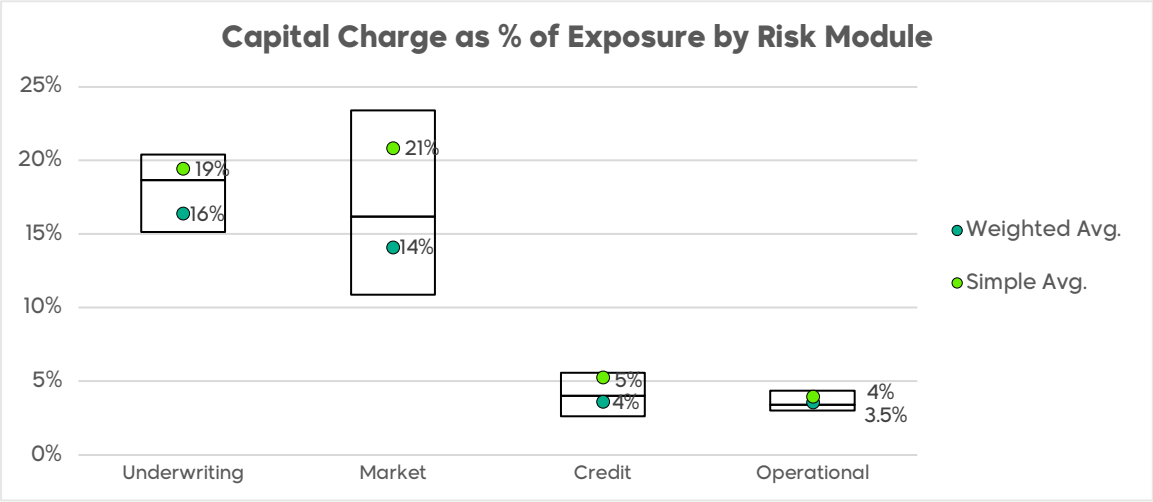
The graph below shows the share of each risk category and the benefit of diversification in deriving the risk-based capital for the insurance sector in aggregate.



Given the skewed distribution of business towards non-life classes, the Non-life Underwriting risk (i.e., premium, reserve and catastrophe risk) is identified as the most significant risk for the insurance sector, followed by the Market and Counterparty Default risks. The risk diversification among major categories serves to lower the overall capital requirements and is on top of the diversification benefit implicit within each risk category. The risk charge for Other Assets accounts for those assets that may be assigned reduced or nil values on the Balance Sheet once the Own Fund rules under RBC framework are defined, e.g., for goodwill, intangibles, etc.

3.3 RBC Breakdown by Risk Exposure Type

The graph below shows the capital charge as a percentage of exposure for each risk type.



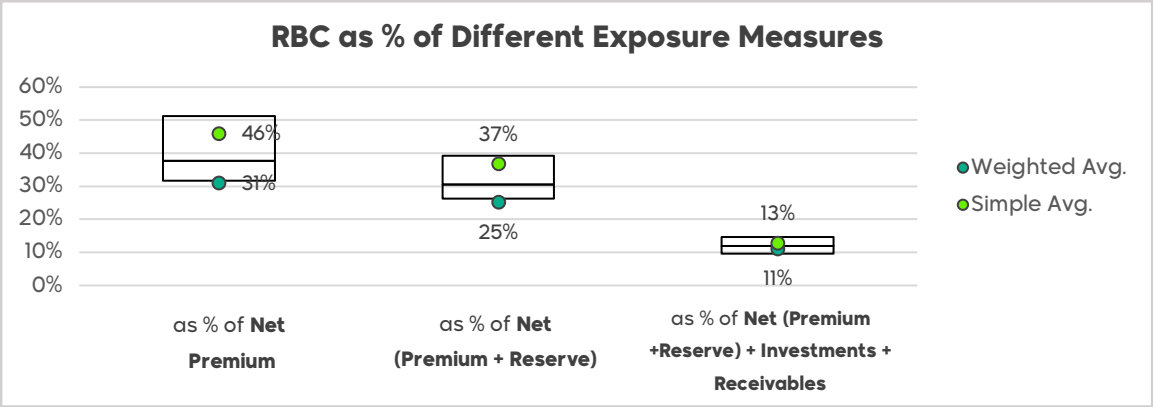
It can be observed that, for all risk categories except for Operational risk, capital charge as a percentage of underlying exposure is lower on a weighted average basis than on a simple average basis, implying more balanced exposure distribution by larger insurance companies than smaller players.

For Underwriting risk, which is the biggest risk category, the Underwriting risk charge as a percentage of 'premiums and reserves combined' varies among insurance companies within a relatively narrow interquartile range. On the other hand, Market risk charge expressed as a percentage of underlying investment exposure, displays wide disparity among insurance companies, reflecting differences in investment strategies and appetite for investment risk-v-reward. Credit risk, based on receivables, has the most stable distribution, indicating uniformity in assessment practices. Operational risk, measured against premium exposure, also shows limited variation, with average values closely aligned, pointing to consistent capital requirements across the industry, partly attributable to the design of the calibration of risk charge for this category.

3.4 Overall RBC Expressed as a Percentage of Different Exposure Measures

An easy-to-understand and simplified way to explain the results of RBC calculation is to express it as a percentage of commonly known measures in the insurance sector. This can also assist insurance companies in getting a sense of projected capital requirements when preparing their business plans or exploring alternative business strategies.

The graph below shows the RBC as a percentage of different types of exposure measures.

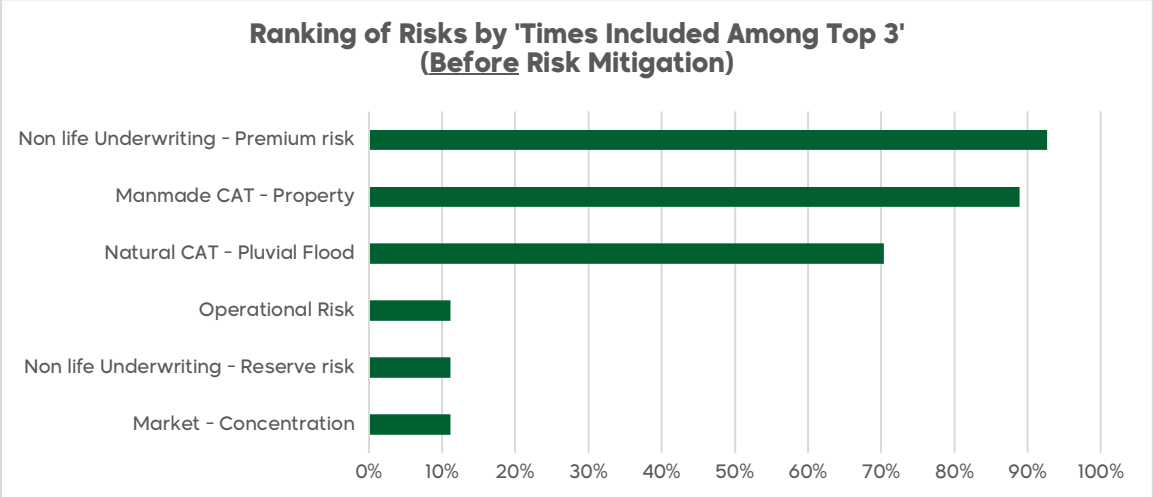


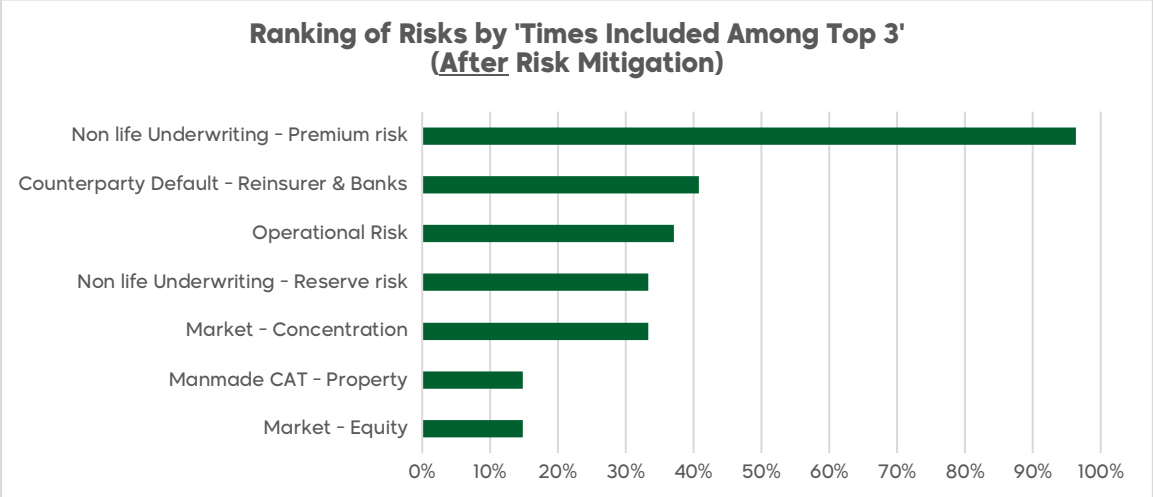
It can be observed that, as a percentage of net earned premium, insurance companies are required to set aside in aggregate circa one third of that premium as the risk-based capital charge in respect of all risk categories covered under the RBC framework. On a simple average basis, the value is close to one half of the net earned premium, highlighting the need for more effective risk management by smaller insurance companies.

For all major exposure categories combined, the risk-capital charge in aggregate worked out to just above one tenth of the combined exposure value.

3.5 Top risks for Insurance Companies

The graphs below show instances of each risk being counted among the top three risks by insurance companies, both before and after the impact of risk mitigation (i.e., reinsurance & hedges).





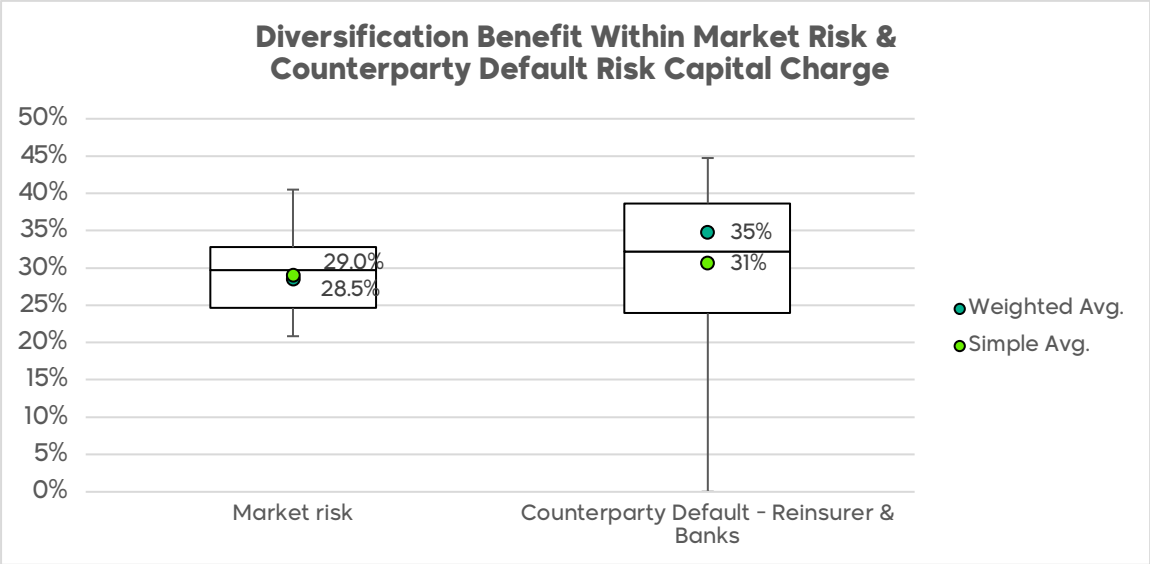
Premium risk (i.e., risk of experiencing a higher loss ratio than that assumed in pricing) ranked as the most significant risk for insurance companies, maintaining the top position both before and after accounting for risk mitigations. In previous years, Flood risk happened to top the ranking (before risk mitigation effect), however, significant calibration improvements made this year with the assistance of and insights from leading reinsurers has led to a material reduction in the capital charge for this natural catastrophe.

Notably, property man-made catastrophe risk, which ranked second before allowing for risk mitigation effect, dropped to sixth place after the effect of risk mitigation is considered, thus highlighting the importance of having adequate protection against large losses in reinsurance treaties.

After allowing for reinsurance recoveries and risk-hedging activities, Counterparty default risk of reinsurers and banks ranked second after Premium risk, followed by Operational risk.

3.6 Diversification benefit within Risk Types

The graph below shows the range of diversification benefits achieved by insurance companies for the Market and Counterparty Default risks for their respective books.

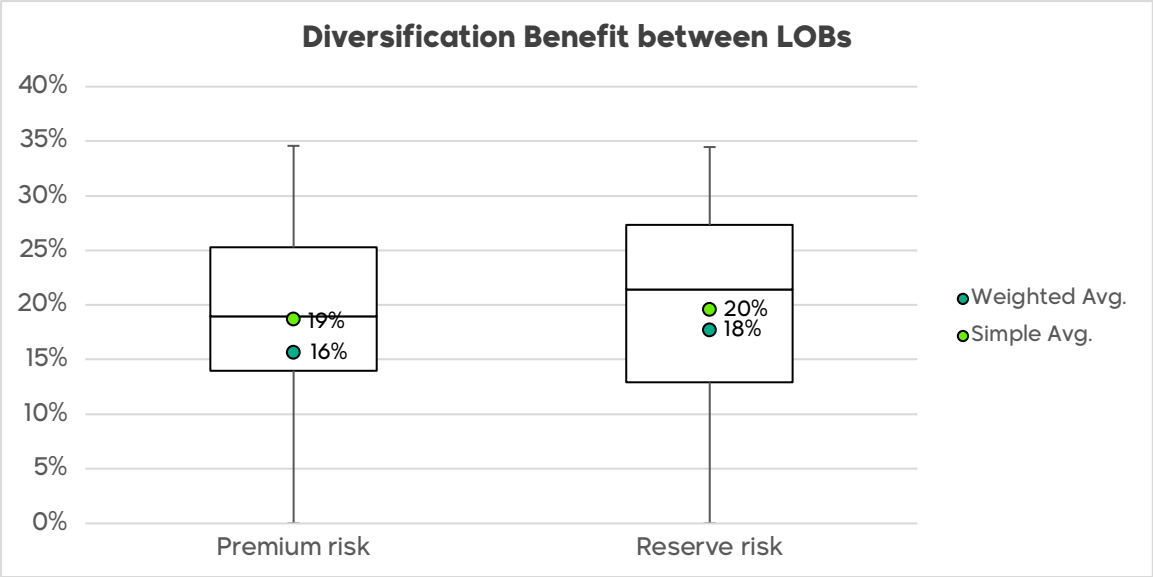


It can be observed that a well-diversified portfolio of investment holdings and a balanced reinsurance panel can substantially reduce the required capital for Market and Counterparty Default risks. For Market Risk, the range observed indicates that some companies have implemented more effective investment diversification strategies than others.

A similar pattern is seen for Counterparty Default Risk. The wide interquartile range implies varying levels of risk diversification across companies, making it a possible area of improvement for some insurance companies.

Moreover, similar values for weighted average and simple average diversification benefits above imply that larger companies have not been able to use their size advantage to diversify their books more effectively than smaller players.

The graph below shows the diversification benefits between lines of business for the Premium and Reserve risks.



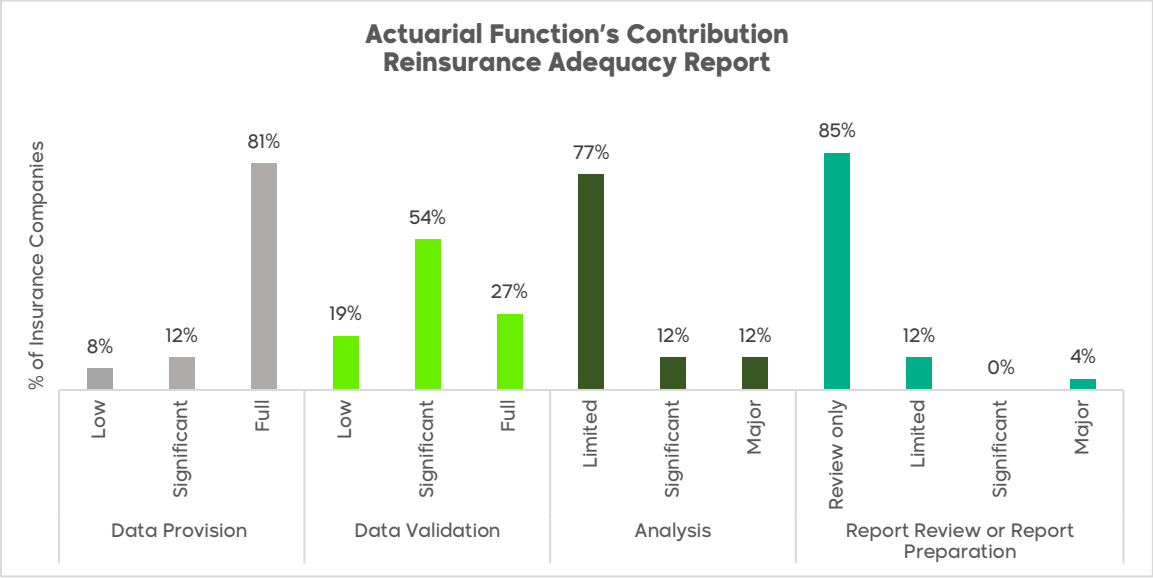
It can be seen above that insurance companies can achieve significant reduction in the risk-based capital, both for the Premium and Reserve risks, by underwriting a well-balanced book of business, whereas for mono-line companies, this benefit reduces to 'nil'.

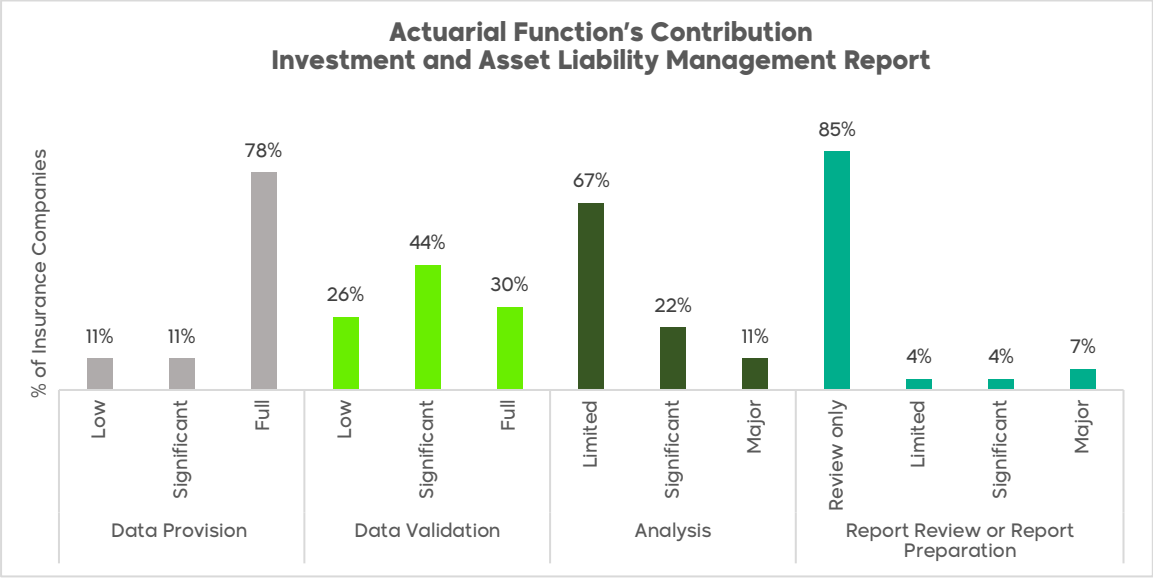
The IA expects the Company management to:

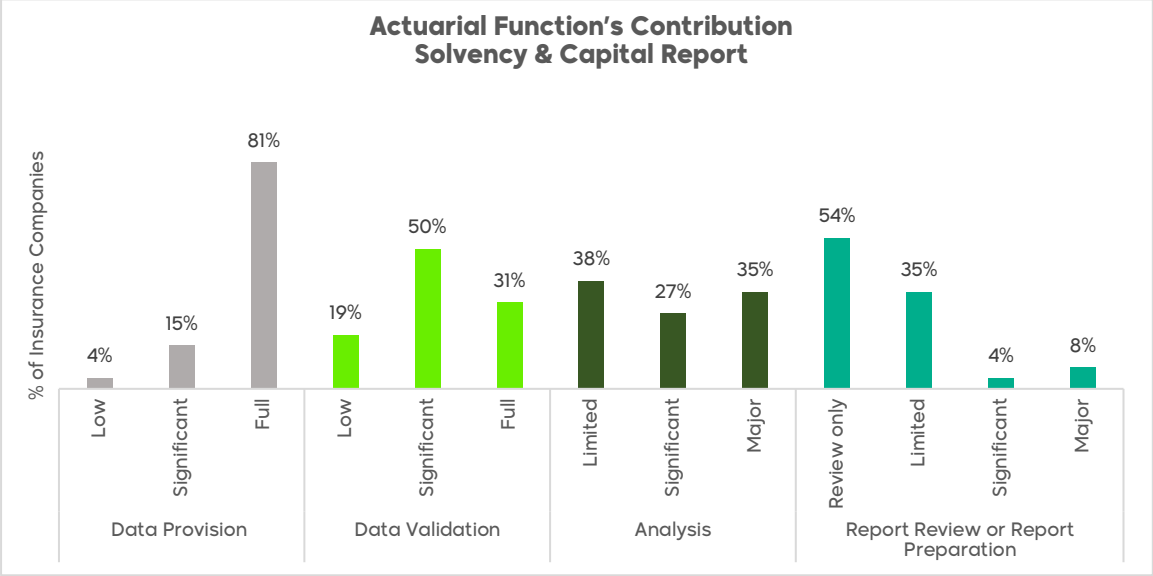
- **Based on the results of the latest exercise, where required, start identifying and weighing the options for raising capital to not only meet the current risk-based capital requirements but also those associated with the Company's growth strategy and business plan for the foreseeable future.**
- **Inculcate a culture of 'risk v reward' within the Company for deployment in day-to-day decision-making.**
- **Fully understand the drivers of the latest iteration of risk-based capital calculation in liaison with its Appointed Actuary and Head of Actuarial Function.**
- **Use the results of the latest exercise to inform and refine long term business strategy and risk mitigation approaches.**

4. Actuarial Function's Contribution

The graphs below show the contribution of the actuarial functions of insurance companies at each of the four major steps involved in preparing the Reinsurance adequacy, Investment and Asset Liability Management, and Solvency & Capital Reports. namely, data provision, data validation, analysis, and report preparation & review.







The graphs illustrate varying levels of responsibility and contribution across each step of the process. For Data Provision, across all three reports, the majority of internal actuarial functions retained full responsibility. For Data Validation, a similar trend is observed, with the majority of internal actuarial functions assuming either full or significant responsibility.

When it comes to the core Analysis step, for the Reinsurance Adequacy Report, the majority of internal actuarial functions are reported to have played a limited role only in performing the analysis. A similar pattern is observed in the Asset Liability Management Report. However, in the Solvency & Capital Report, the level of contribution varies across different degrees of responsibility, with nearly two-thirds playing a significant or major role in performing the analysis.

Likewise, as regards documenting the analysis and its results and preparing the actuarial report, for both the Reinsurance Adequacy Report and the Investment & Asset Liability Management Report, the majority of internal actuarial functions remained confined to reviewing the reports prepared by their appointed actuaries. For the Solvency & Capital Report, while about half of the internal actuarial functions also remained confined to a review-only role, compared to the other two reports a noticeably higher proportion of internal

actuarial functions played at least a limited role in documenting the analysis and preparing the Solvency & Capital Report.

On an overall basis, the actuarial functions' contribution reported above is not in line with the IA's expectations, particularly given that unlike in the past, now almost all internal actuarial functions are headed/supported by qualified fellow actuaries.

The IA expects the contribution of the Actuarial Function of each insurance company to increase over time in all areas, such that the overall contribution leading to the production of each actuarial report is deemed significant. In particular, the IA expects to see all internal actuarial functions playing an active role in the Analysis step, followed by an increase in their role in preparing the actuarial reports. The Insurance Authority sees this active participation as an essential tool for the professional development of the internal actuarial function of the Company, in particular of actuarial candidates working within those actuarial functions.

The IA expects the Company management to provide adequate resources (human and technological) to the internal actuarial function, thus enabling it to play a significant role in producing the above statutory reports.

Copy to:

- Appointed Actuaries
- Heads of Actuarial Functions