

MILLIMAN REPORT

Analysis of HKRBC: Life insurance industry solvency ratio as at year- end 2024

October 2025

Lammy Tsang
Julian Man
Clement Bonnet



Contents

INTRODUCTION.....	1
ANALYSIS OF HKRBC LIFE INDUSTRY SOLVENCY RATIO	2
ANALYSIS OF AVAILABLE CAPITAL	3
ANALYSIS OF CAPITAL REQUIREMENT	8
KEY TAKEAWAYS.....	10

Introduction

REGULATORY BACKGROUND

In early 2025, the Insurance Authority (IA) released draft proposals for the Insurance Public Disclosure Rules (Disclosure Rules), including requirements for reporting risk-based capital (RBC) results, and subsequently published its conclusions on the draft Disclosure Rules in August 2025. These rules specify detailed requirements under Pillar 3 of the Hong Kong Risk-Based Capital (HKRBC) regime regarding the type of information insurers must disclose to the public, as well as the manner and timing of such disclosures.

Required disclosures cover areas such as company profile, corporate governance framework, financial position, investments, insurance liabilities, financial performance, capital adequacy and risk management.

Although the full Disclosure Rules are expected to take effect in 2026, the IA requires insurers to disclose quantitative information for the first financial year under the HKRBC regime, applicable to financial years starting on or after 1 January 2024.

ANALYSIS AND CONSTRUCTION OF THE INDUSTRY SOLVENCY RATIO

The HKRBC life industry solvency ratio (Industry Solvency Ratio) is constructed using public disclosures from the 10 largest life insurance companies in Hong Kong, with the top 10 being selected based on in-force premium as at year-end 2024 (after excluding two large insurers that are not disclosing HKRBC results as at year-end 2024).

For these insurers, the Industry Solvency Ratio aggregates the prescribed capital amount and available capital figures, as disclosed by the various companies. The Industry Solvency Ratio is then calculated by dividing: (i) the sum of the available capital; by (ii) the sum of the prescribed capital amount across these top 10 selected insurers.

FIGURE 1: INDUSTRY SOLVENCY RATIO CALCULATION

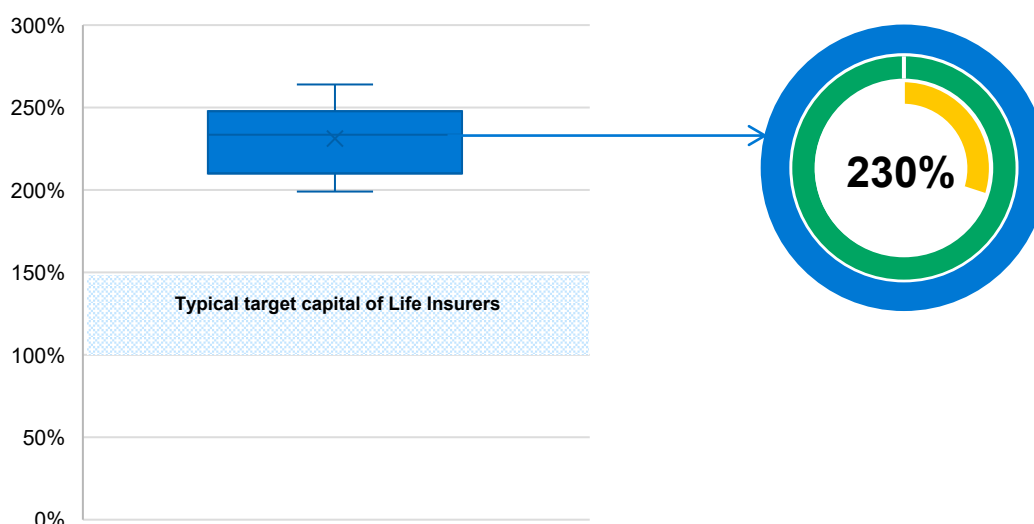
$$\text{Industry Solvency Ratio} = \frac{\text{Aggregate available capital of the top ten life insurers}}{\text{Aggregate prescribed capital amount of the top ten life insurers}}$$

The analysis presented in this report is based on these aggregated amounts as at 2024 year-end, providing a proxy for the analysis of the Hong Kong life insurance industry capital adequacy.

Analysis of HKRBC life industry solvency ratio

The Industry Solvency Ratio encompasses Hong Kong life insurance companies that collectively represent a substantial portion of the market, over 80% of total in-force premium as at year-end 2024.

FIGURE 2: THE INDUSTRY SOLVENCY RATIO AND DISTRIBUTION OF COMPANY-LEVEL SOLVENCY RATIOS



ANALYSIS OF AGGREGATE RESULT

Based on our analysis, the HKRBC Industry Solvency Ratio is at 230%, providing a reasonable buffer above the minimum capital requirement of 100% and the target capital requirement typically considered by life insurers, which is in the range of 100% to 150%.¹ This indicates that the major players in the life insurance industry in Hong Kong are generally maintaining capital levels that adequately support regulatory requirements and internal operational targets, ensuring proper business continuity.

ANALYSIS OF INDIVIDUAL RESULTS

Among the top 10 selected life insurers considered in this analysis, solvency ratios range from 199% to 264%, with half of these companies reporting levels above the Industry Solvency Ratio of 230%. The box plot in Figure 2 illustrates the distribution of company-level solvency ratios, showing the minimum, 25th percentile, median, 75th percentile, and maximum, and reveals that most of the top 10 selected insurers' ratios are clustered between 210% and 250%. This shows that all insurers maintain a prudent buffer above the target capital requirement. Nevertheless, the magnitude of this buffer is shaped by each insurer's strategic priorities and risk appetite, and is particularly influenced by their individual risk management frameworks.

1. Payne, R., Bonnet, C., & Lu, C. (3 May 2023). Survey of Hong Kong life and general insurers: Embedding RBC, Target Capital and ERM. Milliman. Retrieved 27 October 2025 from <https://www.milliman.com/en/insight/survey-hong-kong-insurers-rbc-target-capital-erm>.

Analysis of available capital

ASSETS

The asset side of the balance sheet for the top 10 selected life insurers in Hong Kong as at year-end 2024 is primarily comprised of financial instruments. The breakdown of assets by business segment and by type of assets is shown in Figures 3 and 4 while Figures 5 highlights several key observations. Note that unit-linked assets are captured under the 'long term business - non-participating business' segment.

FIGURE 3: ASSET ALLOCATION BY BUSINESS SEGMENT AS AT 2024 YEAR-END

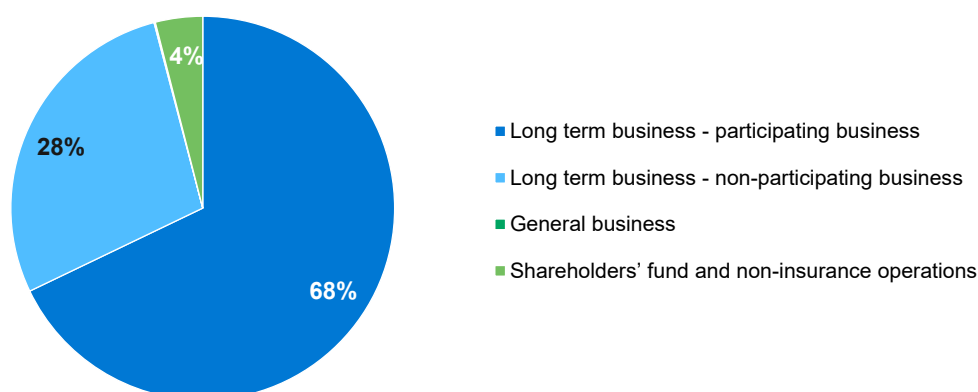
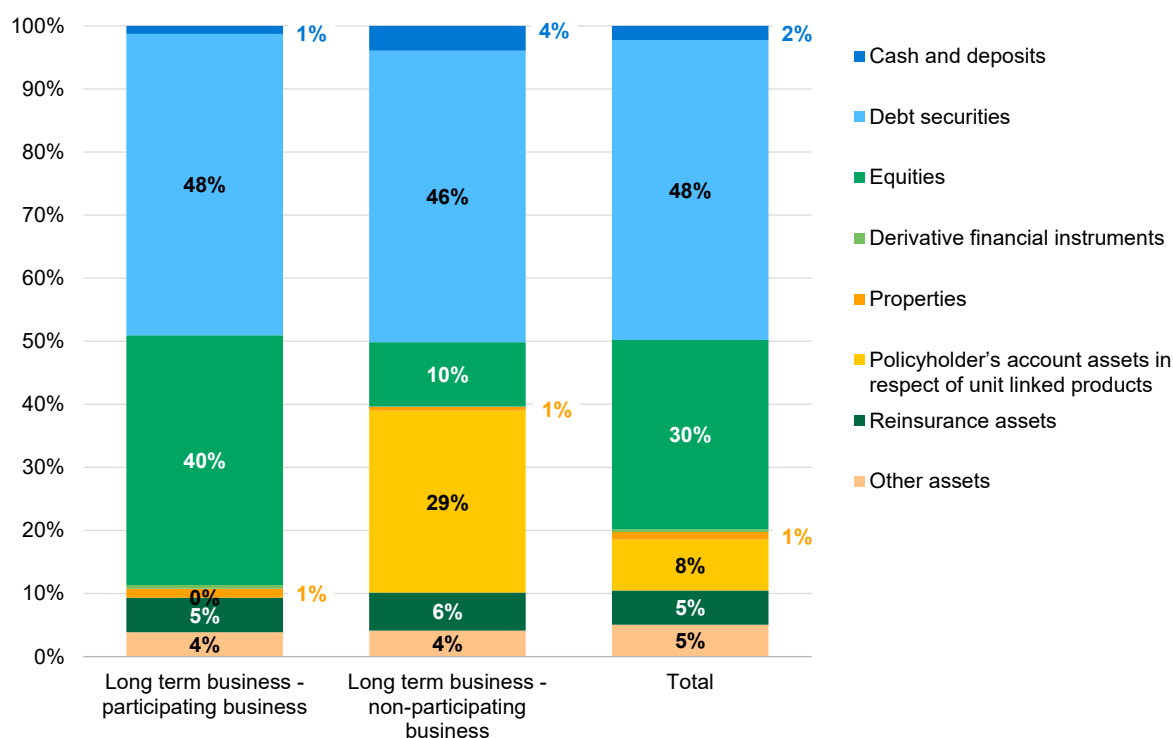


FIGURE 4: ASSET ALLOCATION BY KEY CATEGORIES AS AT 2024 YEAR-END



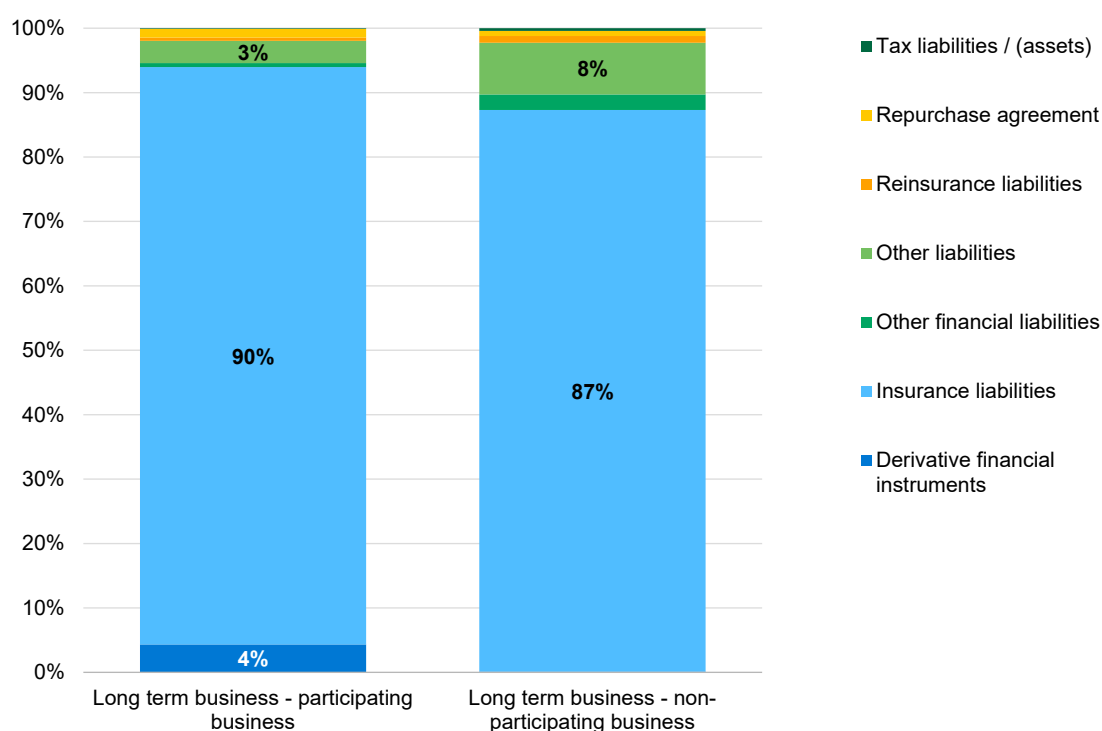
Note: The category of 'equities' includes portfolio investments. In this report, 'other assets' refer to all asset categories not explicitly listed in Figure 4. This classification encompasses any remaining asset items that are not individually identified or specified within Figure 4.

FIGURE 5: PARTICIPATING LONG-TERM BUSINESS VS. NON-PARTICIPATING LONG-TERM BUSINESS

PARTICIPATING LONG-TERM BUSINESS	NON-PARTICIPATING LONG-TERM BUSINESS
Limited proportion of debt securities: Debt securities are used to match guaranteed liabilities, which are typically set at a low level for participating products in Hong Kong. High equity backing ratio: Equities provide the potential for higher returns, thereby enhancing the value of policyholder bonuses and dividends over time. The equity backing ratio, defined as the proportion of equities to total assets, ranges from 23% to 55% across the top 10 selected life insurers. The proportion of equities has grown over time and will most likely continue to grow given the high equity backing ratio of more recently launched participating products.	Dominance of debt securities: The bulk of assets are allocated to debt securities, such as government and high-quality corporate bonds, providing stable and predictable income to meet guaranteed obligations. More limited exposure to equities: A smaller portion of assets is allocated to equities, with the equity backing ratio ranging from 2% to 20% among the selected insurers (the equity backing ratio excludes other assets, unit-linked assets and reinsurance assets). This more prudent allocation reflects a balanced approach, aiming to achieve moderate growth while mitigating market risk.

LIABILITIES

Liabilities for the top 10 selected life insurers in Hong Kong as at year-end 2024 are primarily comprised of insurance liabilities. The breakdowns of total liabilities by business segment are shown in Figure 6.

FIGURE 6: LONG-TERM BUSINESS LIABILITY STRUCTURE AS AT 2024 YEAR-END

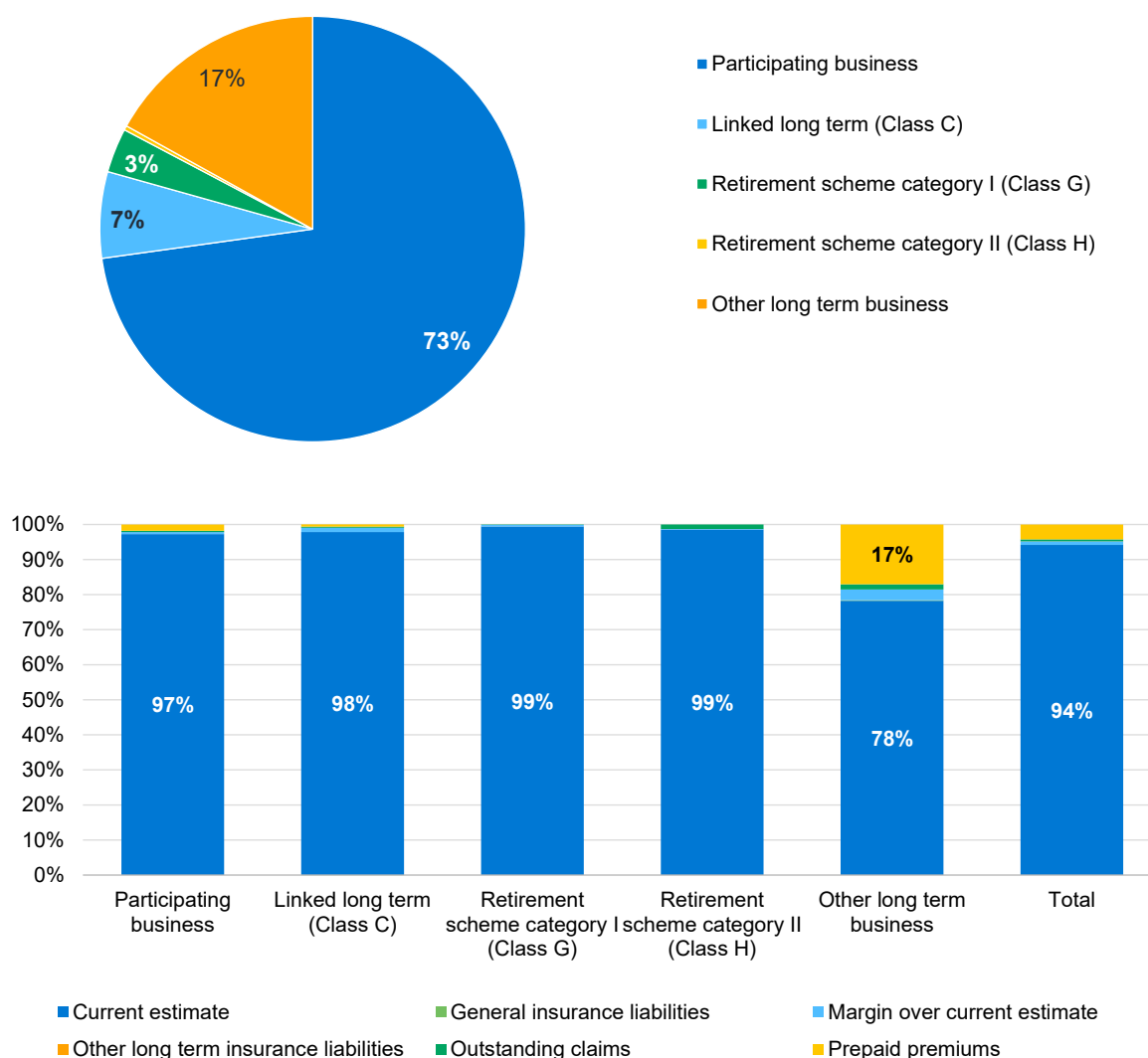
Note: The figures presented for 'long term business - non-participating business' have been derived by subtracting the value of 'long term business - participating business' from the total 'long term business.'

As expected, the insurance liabilities constitute the majority of total liabilities for both participating and non-participating business, with a detailed breakdown provided in Figure 7. Liabilities related to derivative financial instruments are primarily associated with the participating business, where they represent the second-largest category of total liabilities. In contrast, these liabilities are negligible within the non-participating business. For non-participating business, other liabilities constitute the second-largest group. Reinsurance liabilities remain insignificant compared to insurance liabilities, accounting for less than 1% of the latter.

LONG-TERM BUSINESS INSURANCE LIABILITIES BREAKDOWN

The disclosures require a breakdown of insurance liabilities across five business segments, with the participating business accounting for the largest portion, representing nearly three-quarters of the total insurance liabilities for the top 10 selected life insurers in Hong Kong as at year-end 2024.

FIGURE 7: INSURANCE LIABILITIES BY BUSINESS SEGMENT AS AT 2024 YEAR-END



Note: Insurance liabilities refer to 'Total insurance liabilities (gross of reinsurance)' in Table 3 of the disclosure statement template prescribed by the IA.²

The disclosures require a detailed breakdown of the components of insurance liabilities for each of the five business segments. As anticipated, the current estimates represent the main component of insurance liabilities across all business segments, with the margin over current estimate (MOCE) contributing only approximately 1%.

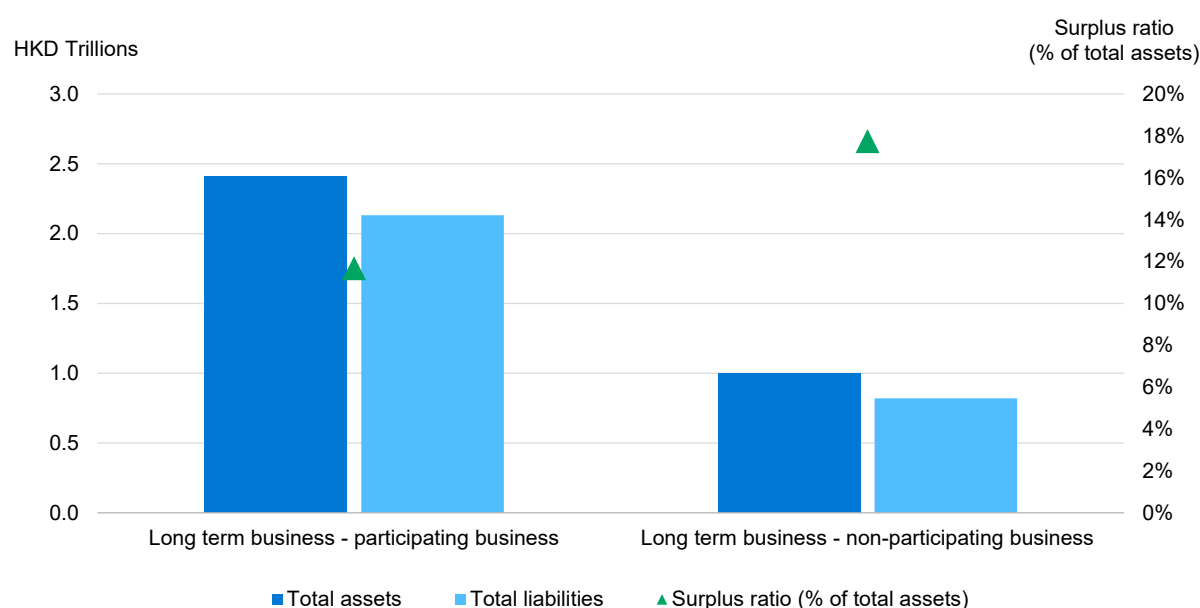
Within the 'other long term business' segment, the MOCE increases to 4%, which is somewhat unexpected given that underlying products typically have a higher exposure to insurance risks. In addition, a higher level of prepaid premium liability has been identified within this segment, which is likely attributable to advance premium payments made through the use of dividends, bonuses or maturity proceeds, as well as cases in which customers choose to pay premiums in full prior to the commencement of the coverage period.

2. Insurance Authority. (8 August 2025). Annex 1 Disclosure Statement Template. Retrieved 27 October 2025 from https://www.ia.org.hk/en/legislative_framework/circulars/reg_matters/files/Circular_20250808_Annex_1.pdf.

HKRBC SURPLUS

As shown in Figure 8, the combined total asset value for participating funds of the top 10 selected life insurers in Hong Kong as at year-end 2024 amounts to HKD 2.4 trillion, which is 2.4 times greater than that of the non-participating funds. This reflects the historical product trend in Hong Kong, where participating products have grown materially and have been the most popular product offerings over the past 10 years. Public disclosures also indicate that both participating and non-participating business segments hold total assets that exceed their total liabilities, thereby maintaining a positive surplus position.

FIGURE 8: ASSETS, LIABILITIES AND SURPLUS BY KEY BUSINESS SEGMENTS AS AT 2024 YEAR-END



Note: The figures presented for 'long term business - non-participating business' have been derived by subtracting the value of 'long term business - participating business' from the total 'long term business.'

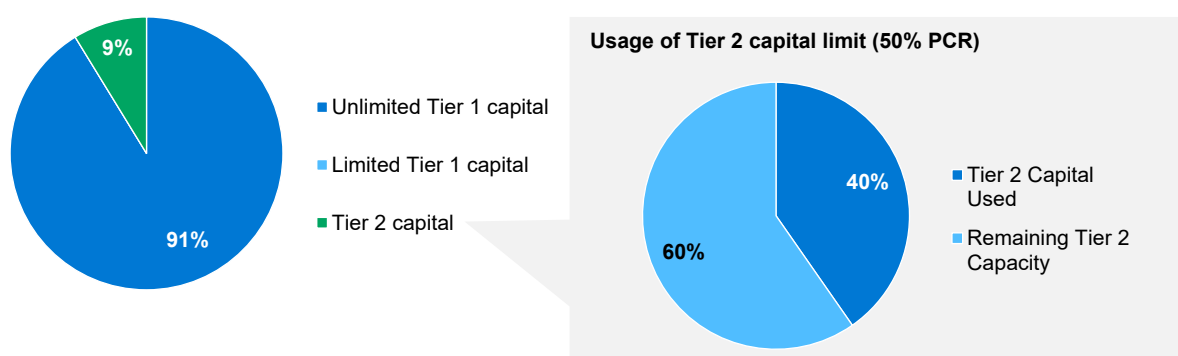
- **Participating business segment:** The surplus, calculated as the difference between total assets and liabilities, accounts for roughly 12% of the total assets backing participating business. With the introduction of the Guideline on Establishment and Maintenance of Fund(s) in Respect of Participating Business (GL34) in 2024, alongside the HKRBC framework, insurers are now required to separate the assets backing the participating business from the rest of their assets. As a result, the total asset value within the participating fund should be a reflection of the policyholder benefits, the shareholders' portion of the profits and any remaining assets allocated to support fund maintenance, such as the cost of smoothing associated with the management of the participating business.
- **Non-participating business segment:** The surplus accounts for 18% of the total non-participating assets. Since non-participating policies do not have profit-sharing features, surplus is used to manage future risks associated within the underlying non-participating business. Differences in surplus exist between insurers as a result of differences in product design and product mix.

TIERING OF CAPITAL

Capital resources are divided into two tiers: Tier 1 capital resources that absorb losses on a going-concern basis and in winding-up, and Tier 2 capital resources that absorb losses only in winding-up. Tier 1 includes ordinary shares, retained earnings, accumulated other comprehensive instruments and Tier 1 financial instruments that satisfy the relevant qualifying criteria. Tier 1 capital is further split into Unlimited Tier 1 and Limited Tier 1 capital resources. Tier 2 capital represents a supplementary category of eligible capital resources for insurers. It comprises Tier 2 capital instruments and their associated share premiums, certain deferred tax assets, excess encumbered assets, negative reserves and restricted capital components exceeding prescribed amounts, as well as Limited Tier 1 capital in excess of regulatory thresholds. In accordance with the Insurance (Valuation and Capital) Rules, an insurer's Tier 2 capital must not exceed 50% of the Prescribed Capital Requirement (PCR).

As illustrated in Figure 9, the capital resources for the top 10 selected life insurers are primarily made up of Tier 1 capital, while Tier 2 capital accounts for approximately 9% of the total capital base. Additionally, Tier 2 capital represents about 20% of the PCR, which is well below the regulatory limit of 50%. Put differently, only 40% of the allowable Tier 2 capacity is currently utilised.

FIGURE 9: AGGREGATED CAPITAL BASE BREAKDOWN AND THE USAGE OF TIER 2 CAPITAL LIMIT AS AT 2024 YEAR-END

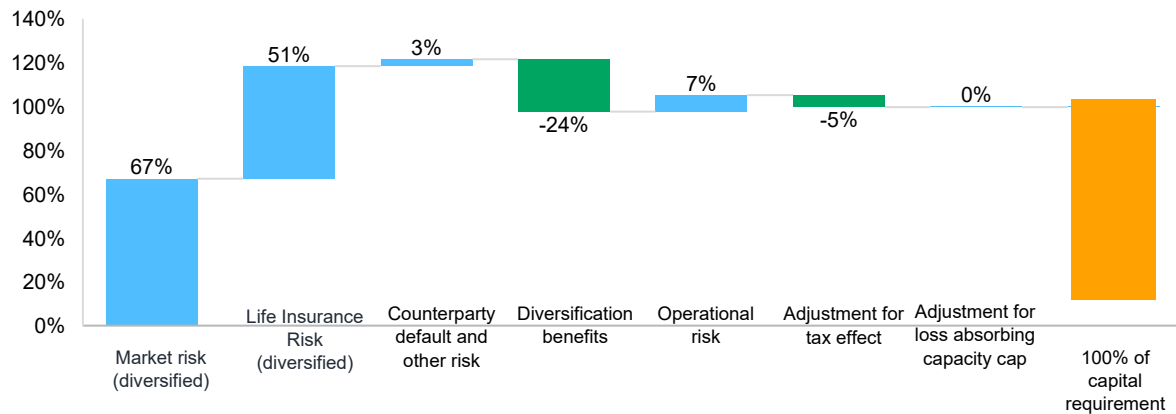


Analysis of capital requirement

CAPITAL REQUIREMENT BREAKDOWN

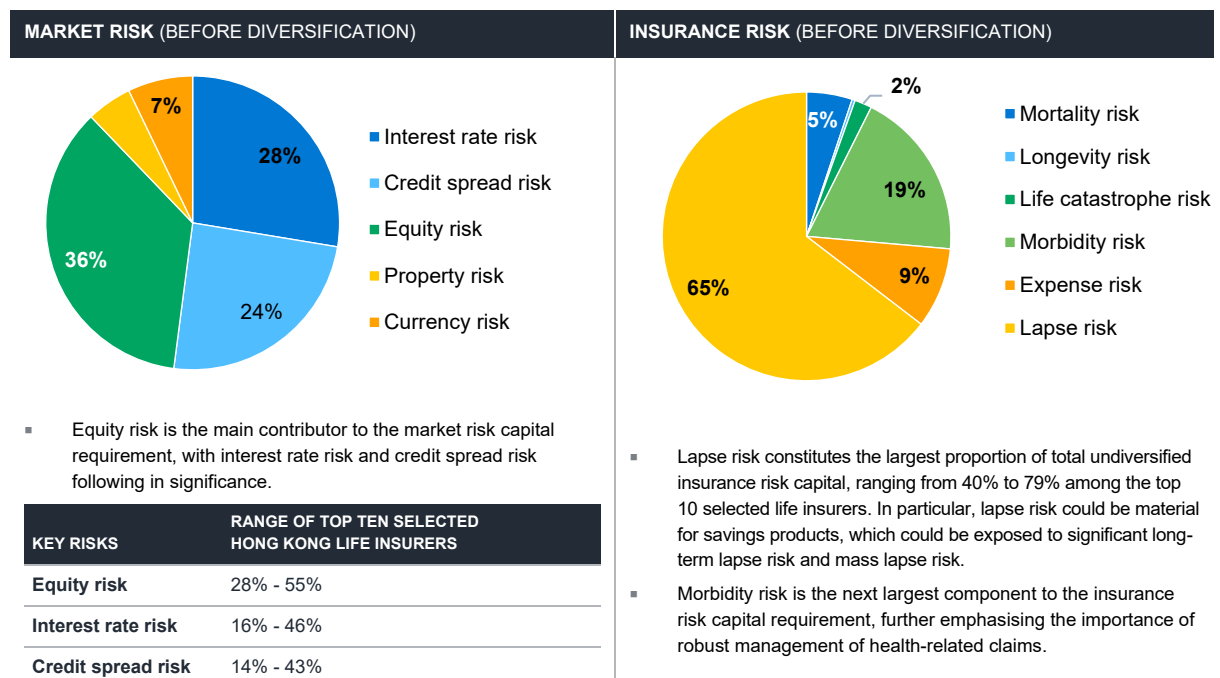
The waterfall chart in Figure 10 provides a visual breakdown of the aggregated capital requirement for the top 10 selected life insurers (assuming 100% of capital requirement):

FIGURE 10: BREAKDOWN OF AGGREGATED CAPITAL REQUIREMENT AS AT 2024 YEAR-END



Market life insurance risks are the predominant contributors to the overall capital requirement for the top 10 selected life insurers. Diversification benefits are significant, reducing the total risk capital by approximately one quarter. It is noteworthy that the adjustment for loss absorbing capacity is zero for all companies as none reach the loss absorbing capacity cap.

FIGURE 11: MARKET RISK VS. INSURANCE RISK



CAPITAL REQUIREMENT RATIOS

Figure 12 shows market risk and insurance risk capital ratios and their breakdowns for the top 10 selected life insurers as at 2024 year-end.

FIGURE 12: MARKET RISK AND LIFE INSURANCE RISK CAPITAL RATIOS BREAKDOWNS

MARKET RISK (DIVERSIFIED CAPITAL REQUIREMENT) AS PERCENTAGE OF TOTAL ASSETS		5.32%
Interest rate risk capital requirement		2.08%
Credit spread risk capital requirement		1.84%
Equity risk capital requirement		2.69%
Property risk capital requirement		0.38%
Currency risk capital requirement		0.54%
Diversification benefits within market risk		-2.20%
LIFE INSURANCE RISK (DIVERSIFIED CAPITAL REQUIREMENT) AS PERCENTAGE OF TOTAL LIABILITIES		4.94%
Mortality risk capital requirement		0.34%
Longevity risk capital requirement		0.02%
Life catastrophe risk capital requirement		0.13%
Morbidity risk capital requirement		1.25%
Expense risk capital requirement		0.59%
Lapse risk capital requirement		4.24%
Diversification benefits within life insurance risk		-1.62%

Key takeaways

The top 10 selected life insurers in Hong Kong disclosed healthy solvency ratios as at year-end 2024, with an average solvency ratio of 230%. None of the 10 insurers had a solvency ratio of less than 199% as at that date.

Participating business is the main product category in Hong Kong, representing more than 70% of life insurance liabilities. The equity backing ratio for participating business is relatively high, at 40%, and may continue to grow in the future.

The most significant risks to Hong Kong life insurers are market risk (e.g., equity, interest rate and credit spread risks) and insurance risks (e.g. lapse risk and, to a lesser extent, disability risk). However the overall market risk capital requirements remain relatively low (approximately 5% of total assets) due to the significant impact of the loss absorbing capacity of reserves for participating business in Hong Kong.

We hope you find our report useful and would welcome any feedback you may have on the report content and format. If you would like to discuss HKRBC in more detail, please contact one of the Milliman consultants listed below.

Solutions for a world at risk™

Milliman leverages deep expertise, actuarial rigor, and advanced technology to develop solutions for a world at risk. We help clients in the public and private sectors navigate urgent, complex challenges—from extreme weather and market volatility to financial insecurity and rising health costs—so they can meet their business, financial, and social objectives. Our solutions encompass insurance, financial services, healthcare, life sciences, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

milliman.com

CONTACT

Julian Man
julian.man@milliman.com

Clement Bonnet
clement.bonnet@milliman.com

Lammy Tsang
lammy.tsang@milliman.com

