MILLIMAN REPORT

2023 embedded value results: Asia

General increase in EV and VNB reflecting the bounce back of many economies

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Opening remarks

Thank you for taking the time to read the latest edition of Milliman's Asian embedded value (EV) report.

In 2023, EV increased by 7.2% overall with notable increases in EV for India, Japan and Taiwan of 24.1%, 17.9% and 15.4% respectively. Some other markets showed a decline, with Indonesia reporting a decrease of 17.7%. Also, there was an increase in the overall value of new business (VNB) of 9.9%. There was a particularly sharp increase in VNB in Hong Kong due to the easing of COVID-19 restrictions and the return of mainland Chinese visitors.

In line with global trends, bond yields decreased during 2023 in most of the Asian markets, which led Chinese insurers to decrease their investment return and discount rate assumptions for 2023 with mixed responses in other markets.

Our report compares and contrasts the various approaches taken to EV reporting across Asian markets and insurers. A report on shareholder value reporting in Europe will be available in Autumn of 2024.

Once again, we would appreciate any feedback you have on our report content and format.

Best regards,

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Executive summary

EMBEDDED VALUE RESULTS AND ASSUMPTIONS

Overall, the growth in reported EV in 2023 was positive. India (+24.1%), Taiwan (+15.4%) and Japan (+17.9%) reported a steep increase in EV; Hong Kong (+4.4%) and Singapore (+4.2%) reported more modest increases, while EV results in China (-0.4%), Thailand (+1.0%), Malaysia (-1.1%) and Vietnam (+1.1%) were broadly flat, and Indonesia (-17.7%) reported a significant decline in EV.

India's growth was led by an unwind of the discount rate curve (India's yields are relatively high in an Asian context), a robust equity market and contributions from new business. In Taiwan, the increase in EV was mainly caused by an increase in the adjusted net worth (ANW) attributable to unrealised capital gains on fixed income assets.

The growth in reported EV for multinational companies (MNCs) varied between (-6.3%) and +6.9%. There was also significant variance within specific markets. For example, the reported EV in Japan varied between (-24.3%) and +41.9%.

Given the general decrease in bond yields throughout the region, we have seen a general increase in the adjusted net worth (ANW) of insurers, due to an increase in the market value of bonds.

Reported value in force (VIF) grew for most Asian markets, except for China, Malaysia, Singapore and Vietnam. Japan posted the highest growth in VIF of 36.4%.

NEW BUSINESS MARGINS AND PROFITABILITY

VNB in Asia increased overall by 9.9%. Hong Kong reported a sharp growth in reported VNB of 102.8%, aided by the return of Mainland Chinese visitors following full resumption of normal travel in February 2023. In Thailand, Indonesia and China, VNB increased by 17.1%, 13.6% and 6.5% respectively, whereas Vietnam and Japan registered falls of 66.7% and 4.1% respectively due to a sharp reduction in sales volumes and a fall in new business margin respectively.

New business margin (NBM) expressed as a percentage of annualized premium equivalent (APE) generally contracted in 2023, with Taiwan showing an absolute decrease of 6.2% in NBM on account of a shift towards products[1] with longer premium payment term, while Hong Kong reported an absolute decline in NBM of 9.4% due to changes in product mix.

EV METHODOLOGY AND METRICS

Price-to-embedded-value ratios continue to be well below 100%, with the exception of AIA and private sector Indian life insurers.

The return on embedded value (ROEV) measure is mainly reported by insurers in India. The ROEV for Indian life insurers generally reduced significantly in 2023, driven largely by the growth in EV.

The EV methodologies used in the region remain varied and include, traditional embedded value (TEV), European embedded value (EEV), market-consistent embedded value (MCEV)[2] and Indian embedded value (IEV). Insurers in China and Taiwan continue to report on a TEV basis whereas insurers in Japan adopt MCEV or a market-consistent EEV (MC-EEV) approach or their own internal model approach (which we have termed as modified MCEV in this report), which is described by them as being broadly consistent with the Japan Economic Solvency Ratio methodology which is market-consistent in nature. In India, the vast majority of companies[3] that currently report EV now do so on an IEV/MCEV basis.

The implementation of international financial reporting standards (IFRS 17) from 1 January 2023 in certain markets has impacted EV reporting. European MNC's (AXA and Generali) no longer report EV results for their Asian subsidiaries.

[1] Insurers in Taiwan generally disclose their new business margin on the basis of first-year premium equivalent (FYPE) instead of APE. FYPE = 10% single & flexible premium + 20% x 2-year premium payment term + … + 50% 5-year premium payment term + 100% 6-year or more premium payment term.

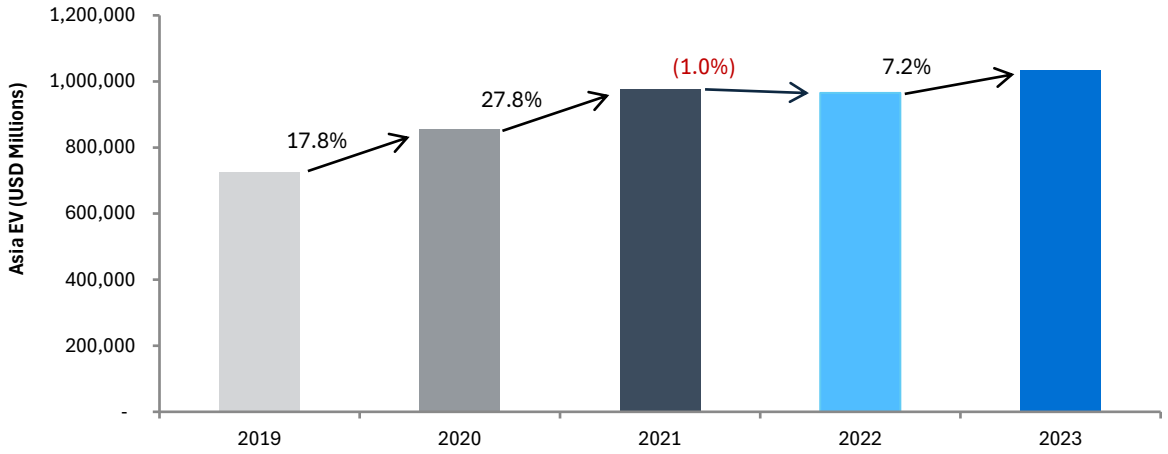
[2] The MCEV principles are a copyright of the Stichting CFO Forum Foundation 2008.

[3] Companies covered under this report only.

Introduction and background

Comparing only insurers that have reported 2019 to 2023 EV figures[4],Asian life insurance EV[5] increased by 7.2% in 2023, in contrast to the decrease of 1.0%[6] recorded in 2022.

FIGURE 1: REPORTED COMPARABLE ASIA LIFE INSURANCE COVERED EV, 2019 TO 2023



Overall gross written premium (GWP)[7] increased by 4.6% from USD 1,147.8 billion in 2022 to USD 1,200.3 billion in 2023.

China saw the largest increase in GWP in 2023 both in percentage terms, growing by 9.3%, and in absolute terms with an increase of USD 49.9 billion. This increase was mainly due to an increase in the sales of savings insurance products against the backdrop of capital market volatility and declining bank deposit rates. Japan's growth in GWP of 8.8% can be attributed to an increase in single-premium insurance denominated in yen currency because of rising domestic interest rates.

South Korea reported the largest fall of 15.3% in GWP due to a decline in savings-type and retirement pension insurance, followed by Vietnam (-12.0%), where the fall in GWP is due to economic difficulties and further restrictions on the bancassurance channel. Indonesia (-7.5%) also recorded a fall driven by lower investment-linked insurance product sales amid global financial uncertainties.

EV results by their nature are typically impacted by recent changes in insurance regulations, which are set out in Appendix A.

[4] Companies that have not yet disclosed their 2023 EV results have also been excluded from previous years to provide an appropriate year-to-year comparison. To provide comparability, the EV figures for this chart have been calculated on a constant currency basis, using the FX rate as at each company's 2023 reporting date.

[5] Asian life insurance EV is defined as the EV of covered businesses attributed to Asia (i.e., excluding the net asset value portions of non-covered businesses such as general insurance portfolios). While every effort has been made to strictly use figures relating solely to this definition, some companies report their Asian EV figures as part of a larger reporting unit. Where we have deemed the EV to be driven mostly by the Asian region, the total EV has been reported.

[6] Reported 2022 number is different from Milliman's 2022 Asian Embedded Value report due to additional disclosures after the cut-off date of the previous report.

[7] To provide comparability, the GWP figures have been calculated on a constant currency basis, using the FX rate as at each company's 2023 reporting date.

FIGURE 2: LIFE INSURANCE GROSS WRITTEN PREMIUMS IN ASIA[8 9]

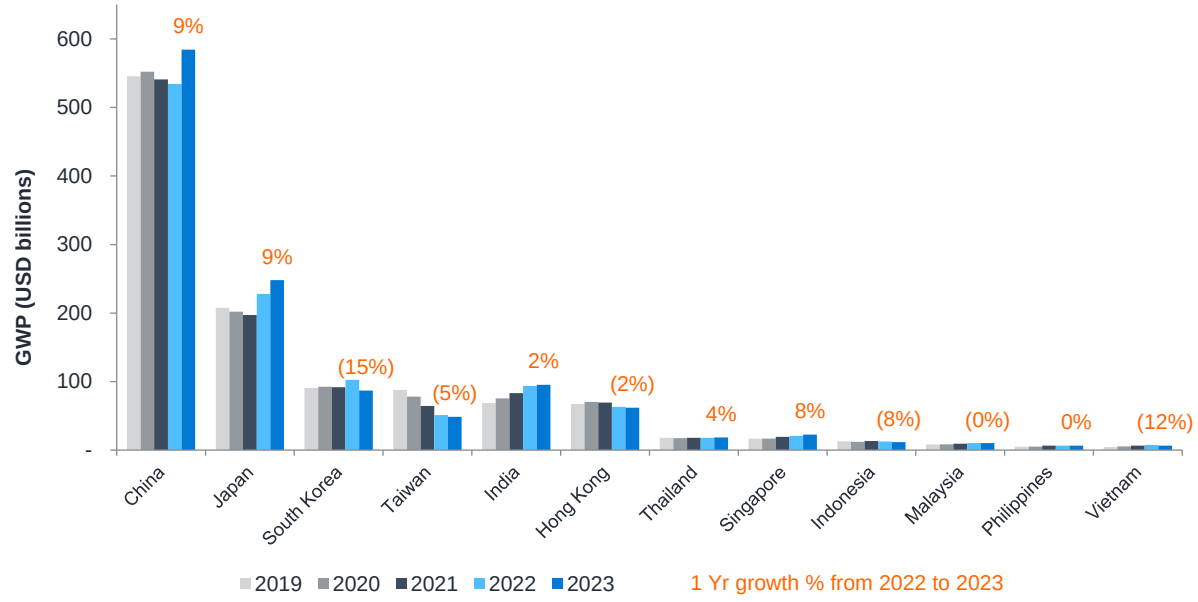
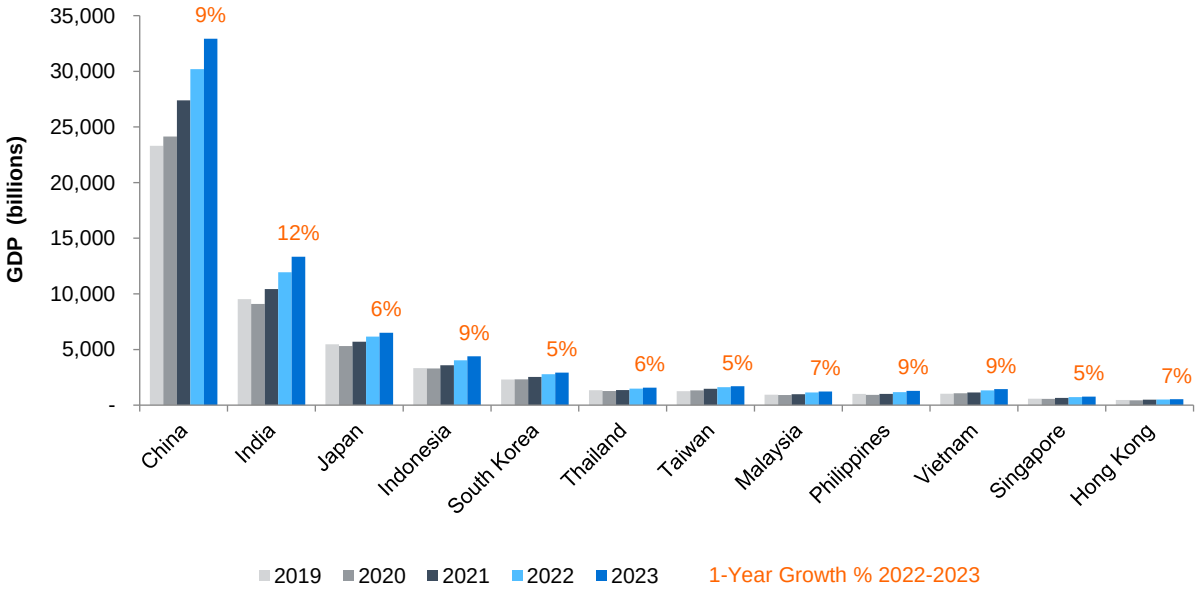


FIGURE 3: GDP (PURCHASING POWER PARITY)[10] OF IN-SCOPE ASIAN MARKETS, 2019 TO 2023



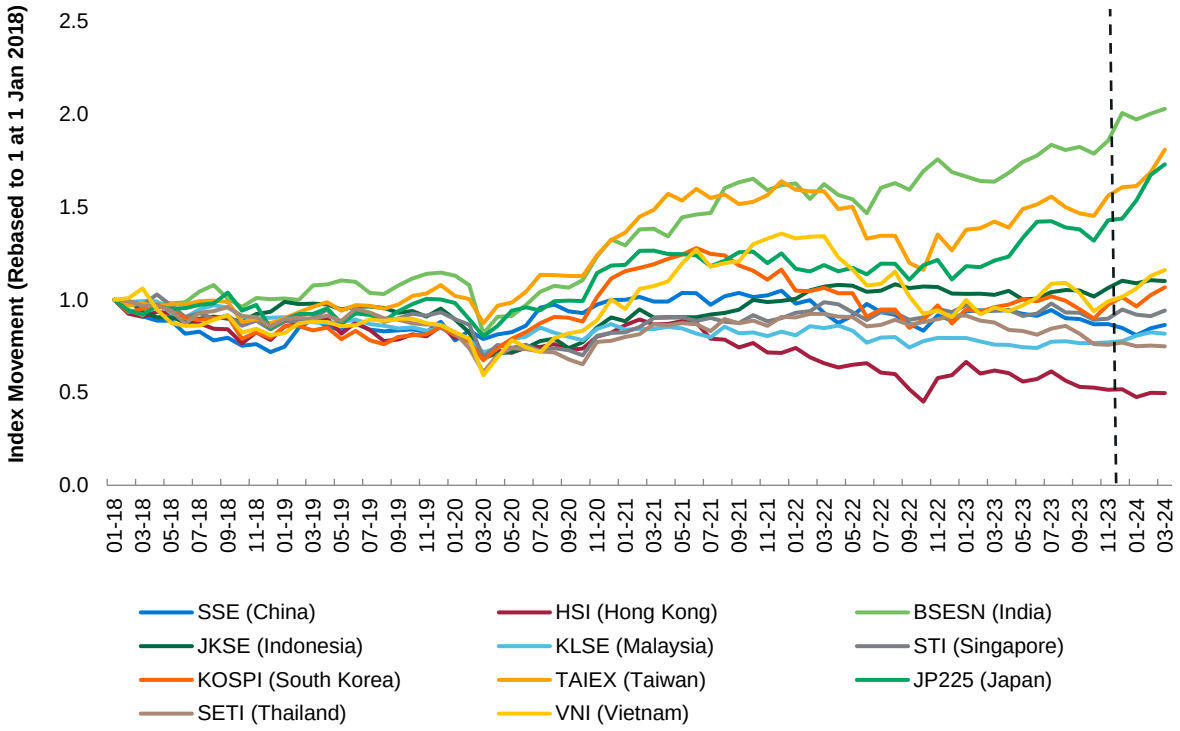
GDP (gross domestic product) increased in all the covered Asian markets. India reported the highest increase in GDP of 11.8% mainly driven by strong growth in the manufacturing sector while Singapore reported the lowest increase of 4.8% mainly due to weak exports, fall in domestic demand and reduction in the manufacturing sector. China and Hong Kong reported increases of 9.1% and 7.0% respectively due to lifting of COVID-19 restrictions at the beginning of 2023.

[8] Sources: Various life insurance associations and insurance regulators.

[9] 2021, 2022 and 2023 GWP for Philippines is based on unaudited quarterly statistics.

[10] Source: International Monetary Fund, World Economic Outlook Database, April 2024

FIGURE 4: RECENT EQUITY MARKET PERFORMANCE: GROWTH OF MAJOR EQUITY INDICES[11] [12]
(FROM 1 JANUARY 2018 TO 31 MARCH 2024)

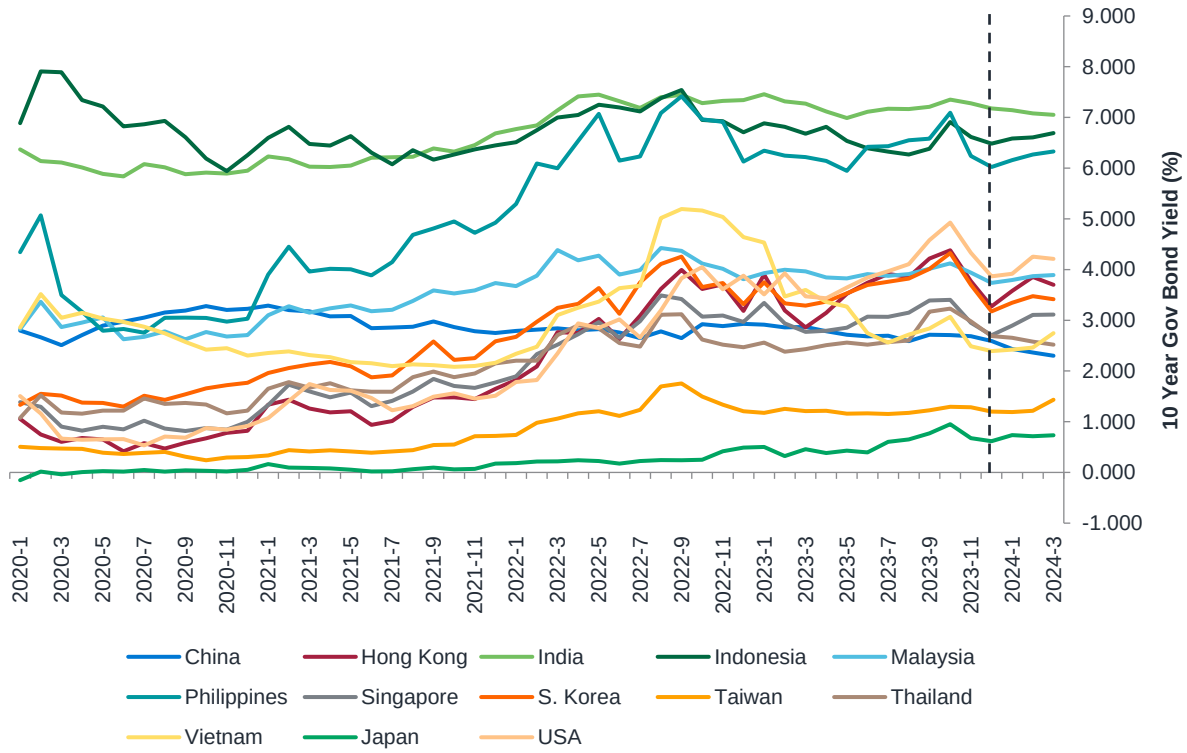


Many Asian equity markets ended 2023 on a positive note, experiencing reduced volatility during the year (see Figure 4), as economies stabilized post a period of high inflation. Japan and Taiwan recorded the highest gains, on the back of investments in automobile, semiconductor and technology sectors. The Indian equity market also performed strongly in 2023, continuing the positive trend from 2022. Thai markets fell due to heavy selling by foreign investors amid concerns over a rise in government debt to fund the country's stimulus program. In China, woes over the property sector and a crackdown on the technology sector led to the decline in its equity market. Dampened market confidence amid the US regional banking crisis and concerns over China's economy caused Hong Kong's equity market to decline, with interest rate hikes exacerbating the impact.

[11] The following stock indices have been used for each market: China: Shanghai Stock Exchange Composite Index, Hong Kong: Hang Seng Index, India: Bombay Stock Exchange Sensitive Index (BSE Sensex), Indonesia: Jakarta Composite, Japan: Nikkei 225, Malaysia: Kuala Lumpur Stock Exchange Composite Index, Singapore: Straits Times Index, South Korea: Korea Composite Stock Price Index, Thailand: Stock Exchange of Thailand Index, Taiwan: Taiwan Weighted Index, Vietnam: Ho Chi Minh Stock Index.

[12] Source: Investing.com.

FIGURE 5: 10-YEAR SOVEREIGN BOND YIELDS,[13] 2019 TO FY 2023[14]



Most Asian markets saw a decline in bond yields during 2023. During the first half of 2023, bond yields in most Asian markets fell as the Federal Reserve (Fed) slowed the pace of its monetary tightening. During the third quarter of 2023, bond yields rose for all covered markets except Indonesia, mainly due to a sell-off in the bond market, bolstered by the outcome of Federal Open Market Committee (FOMC) meeting in September 2023. The yields fell in the final quarter of 2023 as the Fed decided to maintain its federal funds rate.

EV IN ASIA

EV continues to be widely used as a performance measurement tool and an external financial disclosure metric for insurers operating in Asia. EV is also commonly used as an internal financial performance metric and can be included as a component of management long-term incentive plans. Broadly speaking, subsidiaries of MNCs, especially European insurers, utilise more advanced EEV and MCEV methodologies for their EV reporting, compared with local and regional insurers that almost entirely use TEV. In Japan and India, however, there has been a convergence towards market-consistent methodologies, with most companies in India adopting the IEV approach which is conceptually very similar to MCEV. As at 1 January 2023, South Korea implemented the new IFRS 17, with domestic South Korean insurance companies no longer reporting EV. AIA still computes EV for its South Korean operations, although this is not separately disclosed. Therefore, no Asian EV was reported for South Korea. Further explanation of the various methodologies can be found in Appendix B.

A summary of EV methodologies adopted by life insurers across Asia is shown in Figure 6.

[13] Source: Investing.com.

[14] FY 2023 refers to year ending 31 March 2024.

FIGURE 6: EMBEDDED VALUE REPORTING STATISTICS BY DOMICILE OF INSURANCE GROUP

GROUP DOMICILE	TEV	EEV	MCEV/IEV	MC-EEV	MODIFIED MCEV	TOTAL
Asian MNC	3	-	-	-	-	3
European MNC	-	1	-	-	-	1
North American MNC	1	-	-	-	-	1
China	6	-	-	-	-	6
India	-	-	11	-	-	11
Japan	-	-	5	6	5	16
Malaysia	1	-	-	-	-	1
Singapore	1	-	-	-	-	1
Taiwan[15]	6	-	-	-	-	6
Thailand	2	-	-	-	-	2
Total	**20**	**1**	**16**	**6**	**5**	**48**

The only companies in Asia that report using IEV or MCEV bases are Indian and Japanese insurers. Several insurers in India, including the Life Insurance Corporation of India (LICI), ICICI Prudential Life, SBI Life, and HDFC Life, first adopted IEV as part of their respective initial public offerings (IPOs), and have since continued to publish annual EV market disclosures based on the IEV methodology. All other insurers in India who have disclosed the EV methodology adopted have started to publish their EVs either on an MCEV or an IEV basis.

In Japan, Dai-ichi Life Group, Meiji Yasuda Life and Sony Life have been classified as modified MCEV. Modified MCEV is based on the insurer's own internal model approach, which is described by them as being broadly consistent with the Japan Economic Solvency Ratio (ESR) methodology which is market-consistent in nature and which is to be implemented from March 2026. Dai-ichi Life, Dai-ichi Frontier Life, Neo First Life and Sony Life have changed the methodology from FY2023 (i.e., as at March 2024), with Meiji Yasuda planning to make further changes next year. It should be noted that modified MCEV is not a formal embedded value standard and there are differences in methodology amongst the players who have been classified under the modified MCEV methodology.

A majority of insurers in the rest of the Asian region still use a TEV methodology. The prevalence of several different EV reporting methodologies across Asia brings with it major challenges in comparing EV results, and thus, obtaining a good understanding of the differences between the methodologies becomes critical.

[15] One of the six companies in Taiwan (Shin Kong Life) has not disclosed their EV results this year.

Embedded value results

This section presents EV results under two different lenses:

1. Asia-wide
2. Company by company

A summary of changes in EV/VNB disclosures across the region since 1 June 2023 (the cut-off date for the previous year's report) is included in this section.

The values presented in this section relate to EV results for life insurance and other long-term insurance operations in Asia. Due to the manner certain companies segment their business, Asian operations are sometimes included in 'international' or 'emerging markets' business units, which may include non-Asian operations.

For these 'segmented' business units (i.e., those that include Asian and non-Asian operations), the total value has been included in this report, provided that a significant part of the value is generated in Asia.

RECENT UPDATES ON REPORTED DISCLOSURES

A summary of the changes in company-level disclosures in each market over the past year is provided below:

MARKET	
SINGAPORE	Singlife has been added to the analysis this year.
INDIA	Edelweiss Tokio Life has been added to the analysis this year.
MNC	AXA has not disclosed EV results this year and has been excluded from the analysis.
TAIWAN	Shin Kong Life has not disclosed EV results this year.
INDONESIA	BRI Life has been added to the analysis this year.

EV IN ASIA

This report examines the EV results published by MNCs and domestic life insurers operating in Asia.[16]

The scope of this report is limited to EV results directly related solely, or predominantly, to Asian operations. All figures in this section of the report are on a comparable basis, i.e., comparing the results only for those companies that have reported 2019, 2020, 2021, 2022 and 2023 EV results for Asia.

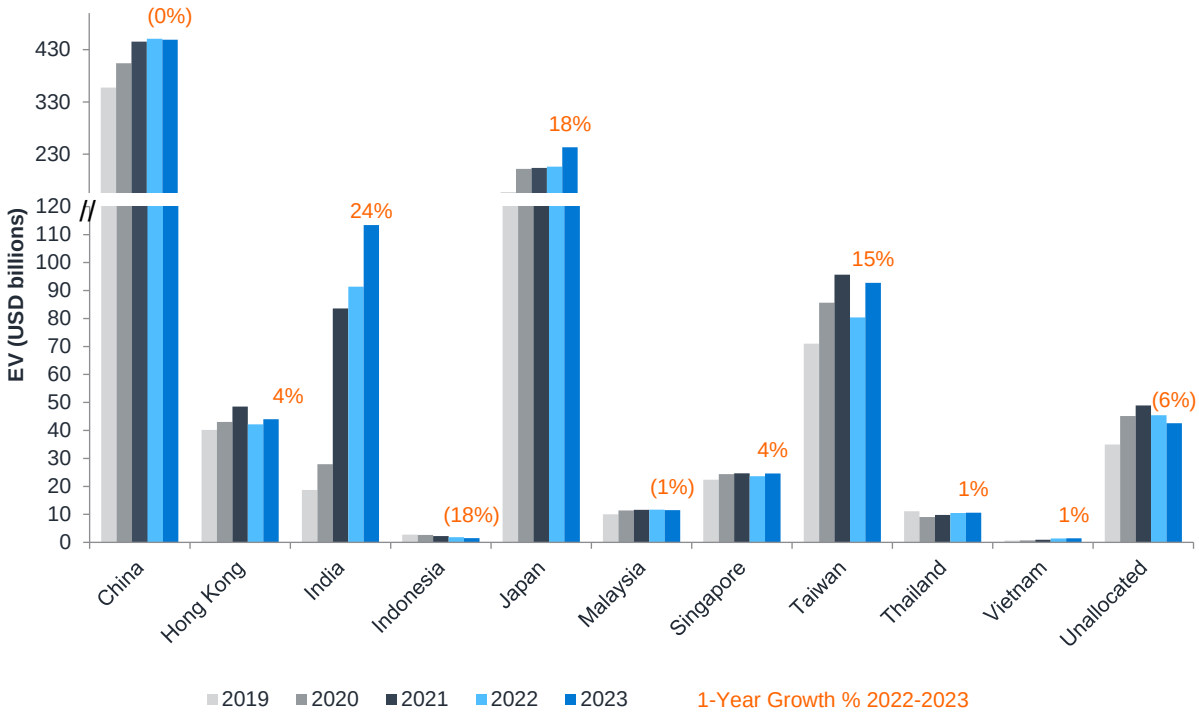
In 2023, total reported Asian EV grew by 7.2% on a comparable basis[17] to USD 1034.5 billion, up from USD 965.3 billion in 2022. The companies reporting the largest Asian EV are China Life, Ping An Life and LICI, at USD 177.6 billion, USD 117.1 billion and USD 87.3 billion respectively. Figure 7 sets out the total EV growth by market (to the extent that such a breakdown has been disclosed by the companies).

It should be noted that the results in all the figures under this section are based on converting results in local currency to USD using prevailing exchange rates at the same reporting date (financial year-end 2023) for all years, i.e., using a constant currency basis. In contrast, the results shown in Appendix C later in the report are based on exchange rates as at the respective valuation dates, and hence may differ in value.

[16] For the avoidance of doubt, Asia does not include Australia or New Zealand.

[17] 'Comparable basis' refers to comparing the results only for those companies that have reported 2019, 2020, 2021, 2022 and 2023 EV results for Asia.

FIGURE 7: COMPARABLE ASIAN LIFE INSURANCE COVERED EV,[18] [19] 2019 TO 2023



In 2023, India experienced the highest growth in EV of 24.1%, which was largely dominated by the LICI, which accounted for 76.9% of the EV of the Indian life insurers as at 31 March 2024. The increase was primarily driven by the unwind of the discount rate and higher-than-expected investment returns largely due to the strong performance of the equity market. Taiwan recorded an increase of 15.4% in EV driven primarily by an increase in ANW due to an increase in unrealised gains on fixed income assets, following a change in interest rates.

On the other hand, in absolute terms, Chinese insurers faced the largest decline of USD 1.9 billion in EV, largely driven by Ping An. This is mainly due to lower returns than the assumed investment return. Indonesia also saw a 17.7% decrease in EV.

[18] To provide comparability and eliminate FX effects, results for all years have been converted to USD using the prevailing FX rate as at the 2023 reporting date.

[19] 'Unallocated' indicates EV figures that are reported by insurers to relate to their Asian operations but have not been allocated to specific markets.

FIGURE 8: COMPARABLE ASIAN LIFE INSURANCE COVERED ANW, 2019 TO 2023

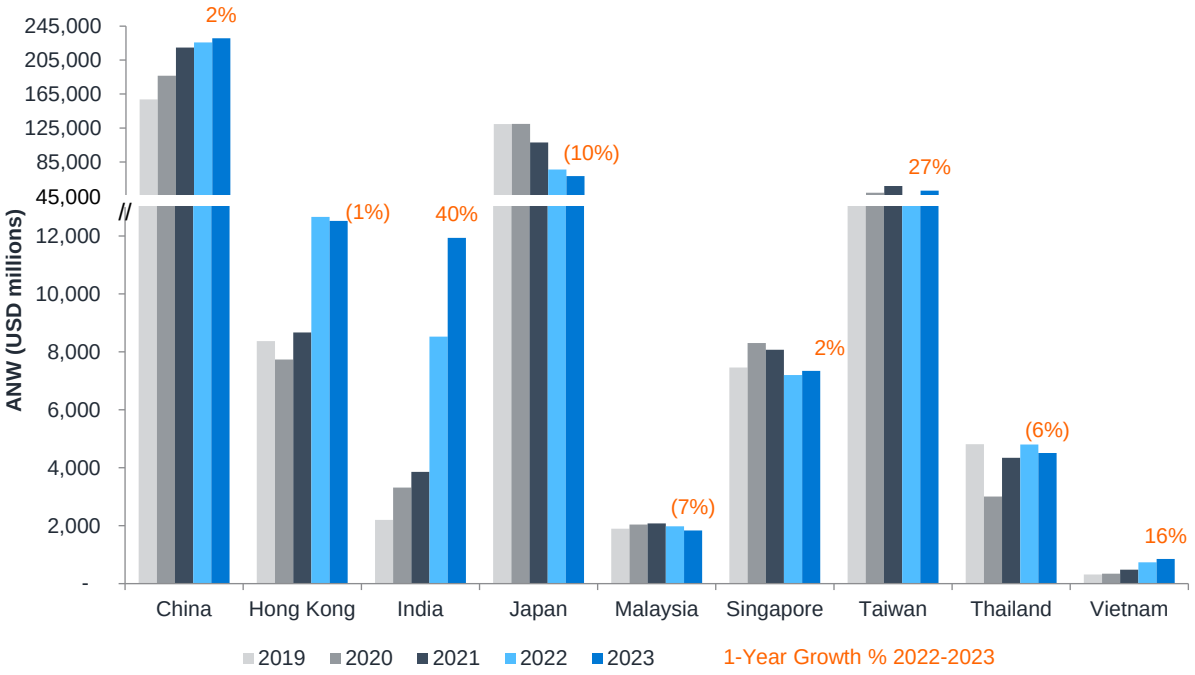
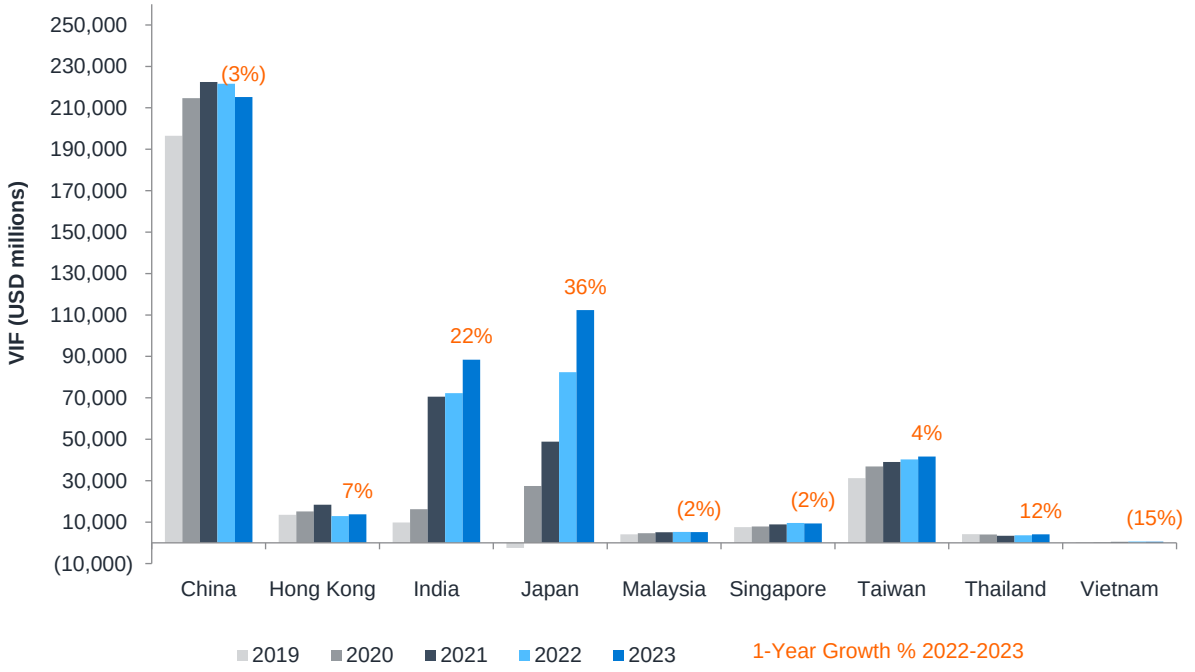


FIGURE 9: COMPARABLE ASIAN LIFE INSURANCE COVERED VIF, 2019 TO 2023



The reported ANW for the Asian life insurance sector increased in 2023 by 2.3%, with India, Taiwan and Vietnam reporting double-digit percentage increases in ANW due to strong performance of equity markets and favourable change in fixed-income asset value (in Taiwan). Japan reported a 10.1% decline in ANW due to a decrease in the market value of domestic bonds as a result of the rising interest rate environment which has also led to an increase in VIF (+36.4%). Malaysia (-7.3%) and Thailand (-6.2%) also recorded a decline in ANW.

India witnessed an increase of 22.3% in VIF largely due to an increase in VIF of LICI on account of strong equity market performance. Thailand (+11.8%) and Hong Kong (+6.6%) also recorded an increase in VIF. China recorded a fall in VIF of 2.9% while Vietnam recorded a fall of 15.3% in VIF.

A certain amount of caution must be exercised when evaluating Japanese company embedded values and their ANW/VIF components, especially when comparisons are made across Asia, as Japanese companies typically report on a market-consistent basis. In addition, many companies manage large blocks of legacy policies with relatively high investment guarantees (in some cases, in excess of 5% p.a.). As a result of these two factors, some companies may look to have a relatively small VIF compared to the size of their in-force block. On a percentage basis, the VIF is very sensitive to changes in the interest rate environment. However, due to the use of a market-consistent approach and asset-liability management, changes in VIF are usually substantially offset by changes in ANW. As a result, overall EV, though sensitive to changing market yields, is far less sensitive than the individual VIF and ANW components.

EV BY COMPANY

FIGURE 10: ASIAN LIFE INSURANCE COVERED BUSINESS EV BY COMPANY[20 21 22] 2019 TO 2023

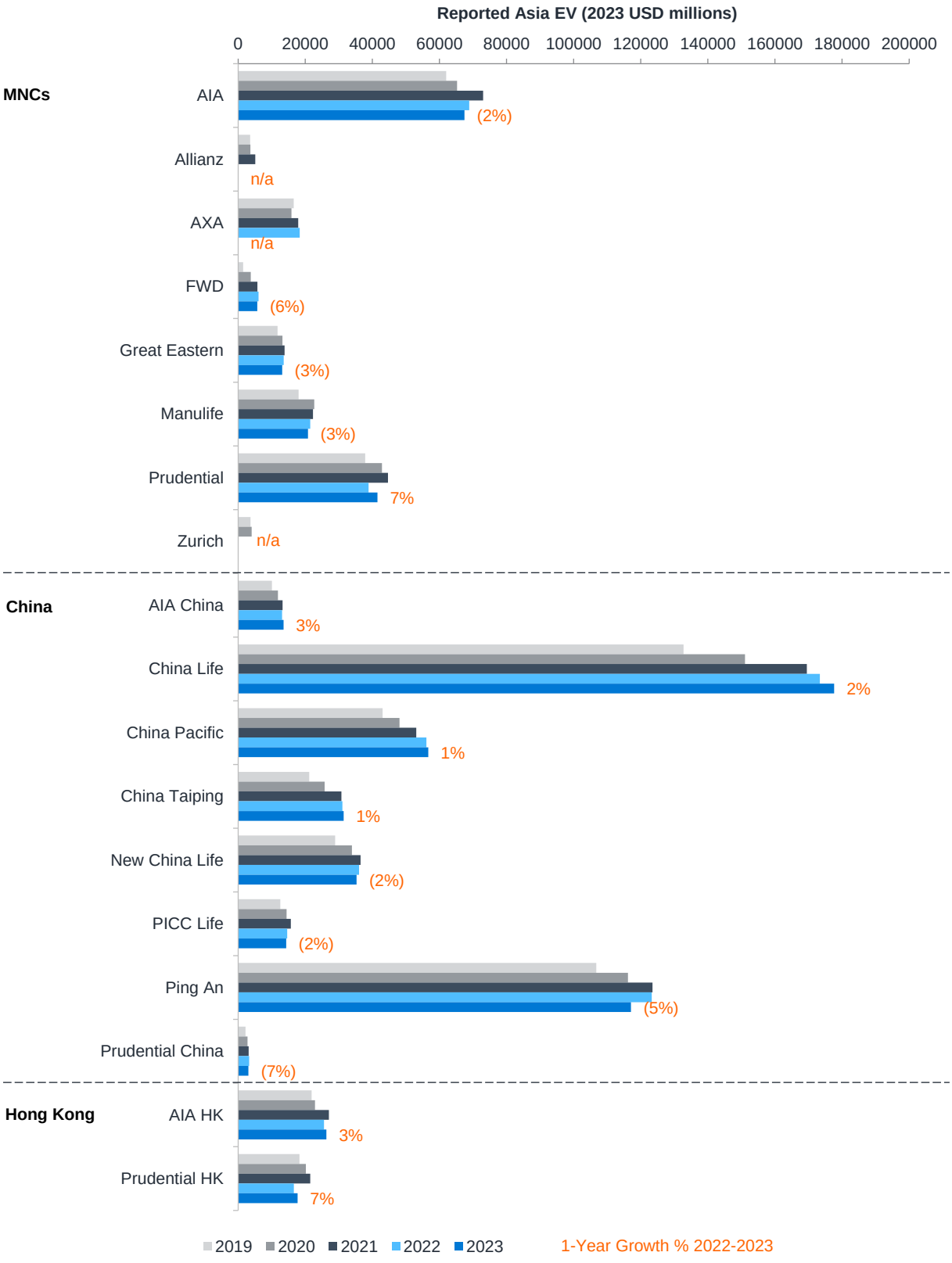
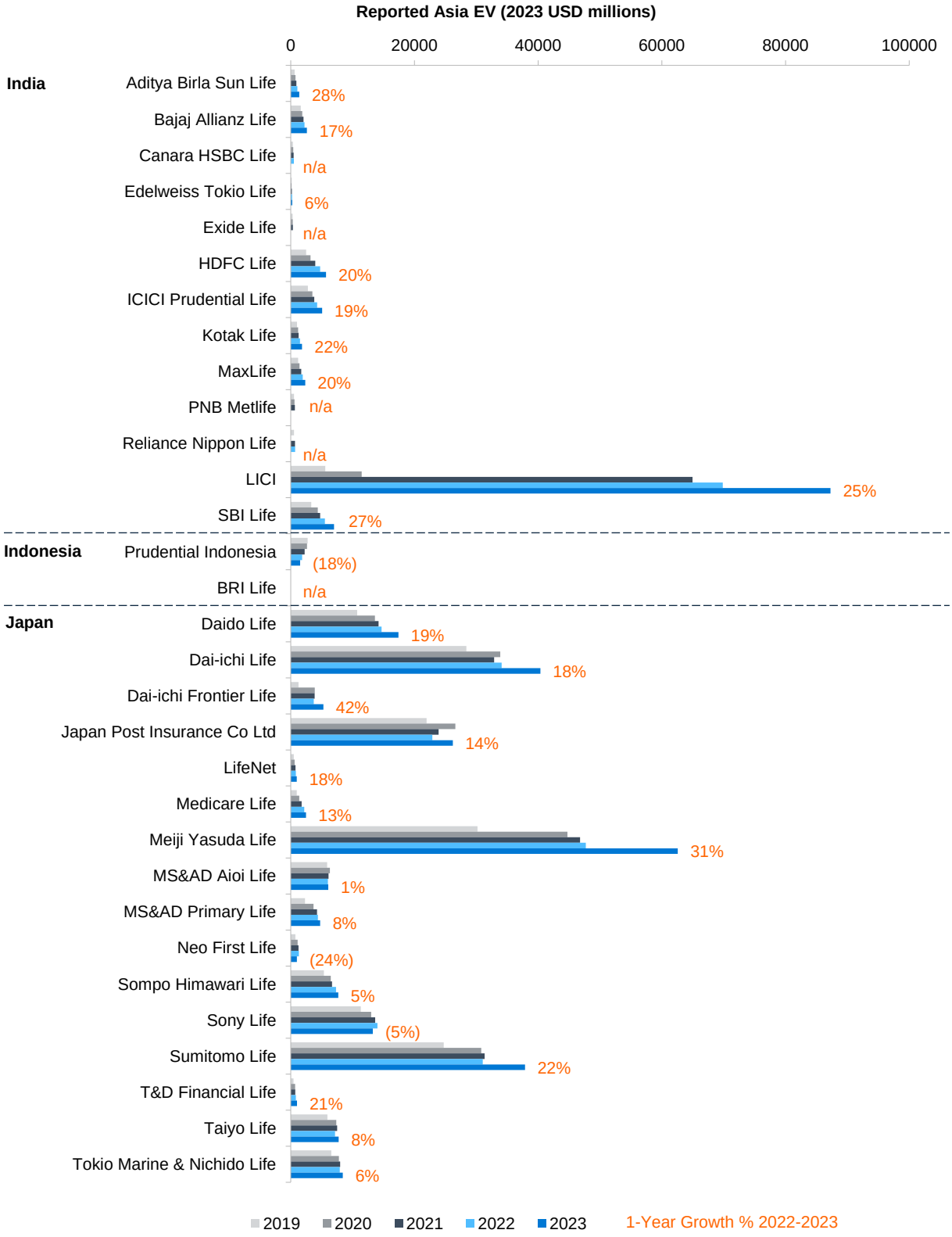


FIGURE 10: ASIAN LIFE INSURANCE COVERED BUSINESS EV BY COMPANY, 2019 TO 2023 (CONTINUED)



[20] To provide comparability and eliminate FX effects, results for all years have been converted to USD using the prevailing FX rate as at the 2023 reporting date.

[21] Note that some companies have not yet disclosed their 2023 EV results as at the data cutoff date of this report. The 2023 results for these companies have consequently been left blank. The insurers that have not yet published their 2023 results as at the data cutoff date include Canara HSBC Life, PNB MetLife, Reliance Nippon Life, BRI Life and Shin Kong Life.

[22] Please note that Exide Life was removed from the analysis in the Milliman's "2022 Embedded Value results: Asia" report, as it was merged with HDFC Life. For HDFC Life, we have used the EV after its merger with Exide Life.

FIGURE 10: ASIAN LIFE INSURANCE COVERED BUSINESS EV BY COMPANY, 2019 TO 2023 (CONTINUED)

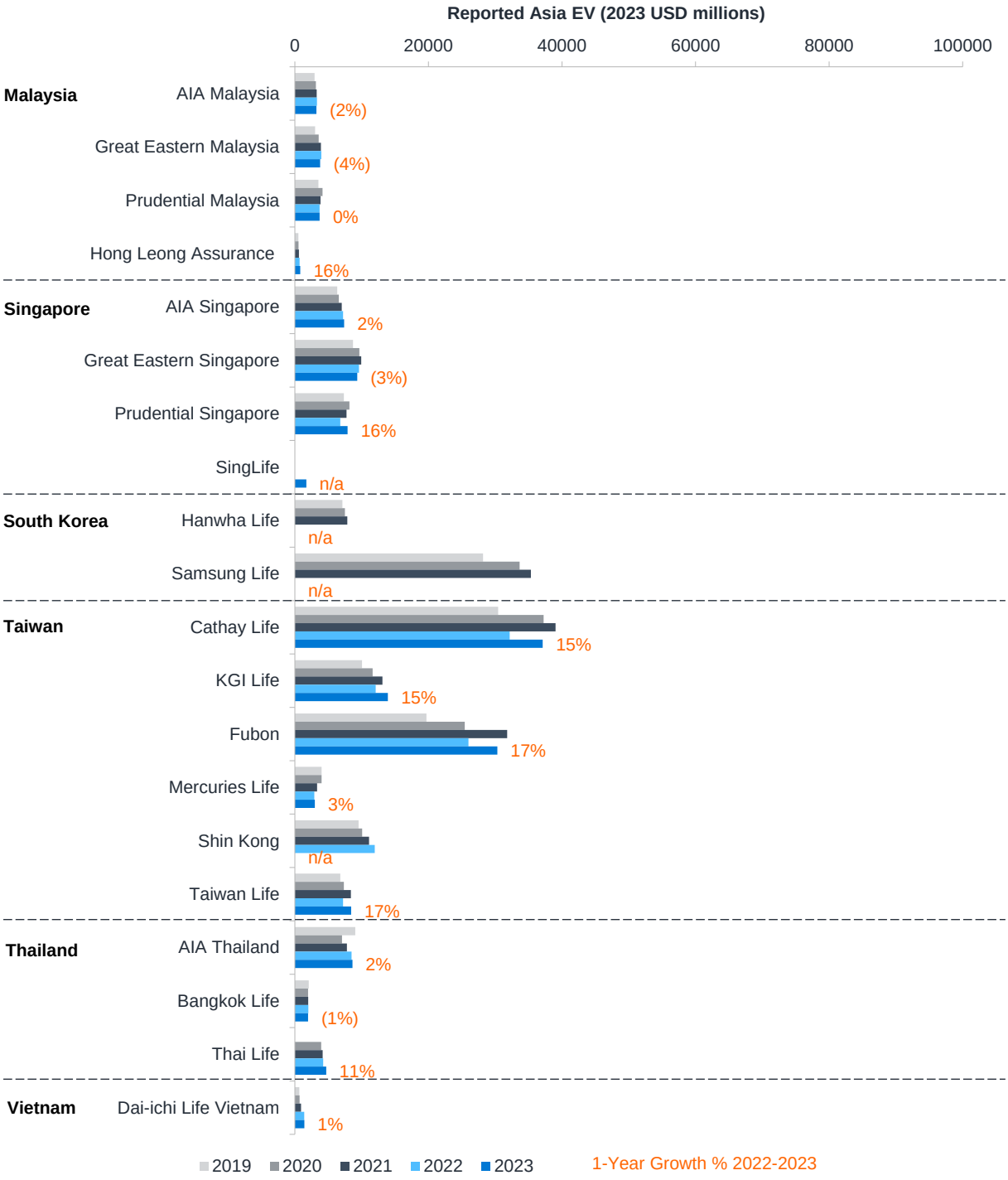


Figure 10 shows the growth in EV by individual company. Dai-ichi Frontier Life achieved the highest EV growth of 41.9%, primarily driven by higher interest rates and yen depreciation. Meiji Yasuda Life from Japan and Aditya Birla Sun Life from India followed, with a 31.2% and 28.0% growth in EV respectively. Additionally, several other Indian insurers aside from LICI (whose growth in EV has been discussed above) demonstrated strong EV growth: namely, SBI Life (+26.5%), Kotak Life (+21.8%), Max Life (+19.9%) and HDFC Life (+20.1%). This growth was largely due to profitable new business coupled with strong investment returns in certain cases. Neo First Life of Japan recorded the highest decline in EV of 24.3%, followed by Prudential Indonesia and Prudential China of 17.7% and 6.8% respectively. In China, Ping An recorded a fall of 5.0% due to negative economic variances and a change in investment return assumptions. Insurers in Taiwan reported a growth in EV, with most of the companies reporting a double-digit percentage growth driven by unrealised gains on the fixed-income assets. In Thailand, Thai Life recorded an increase of 10.6% due to an increase in the value of new business written in 2023.

FIGURE 11: SPLIT OF 2023 ASIAN LIFE INSURANCE EV BETWEEN IF AND ANW BY COMPANY[23]

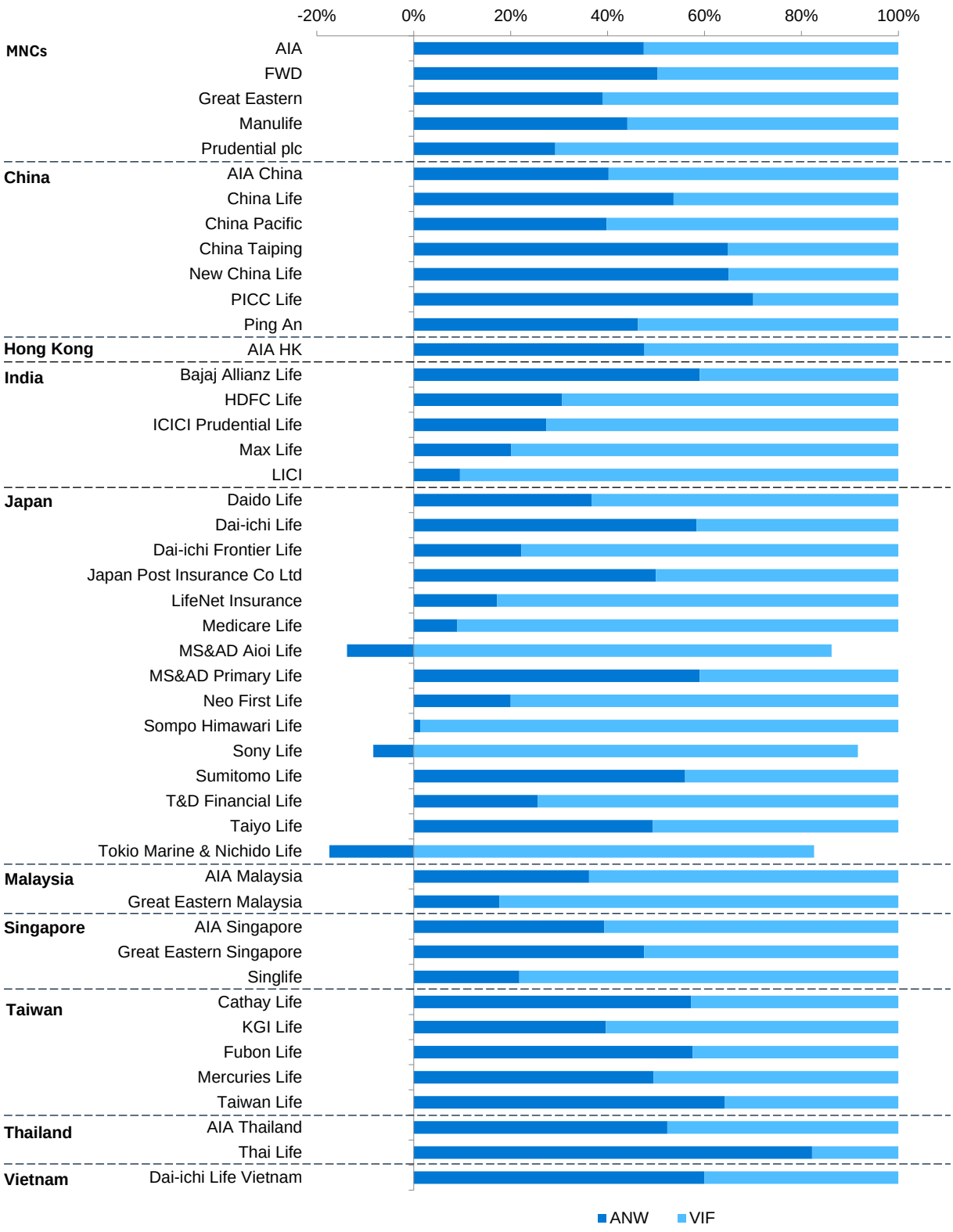


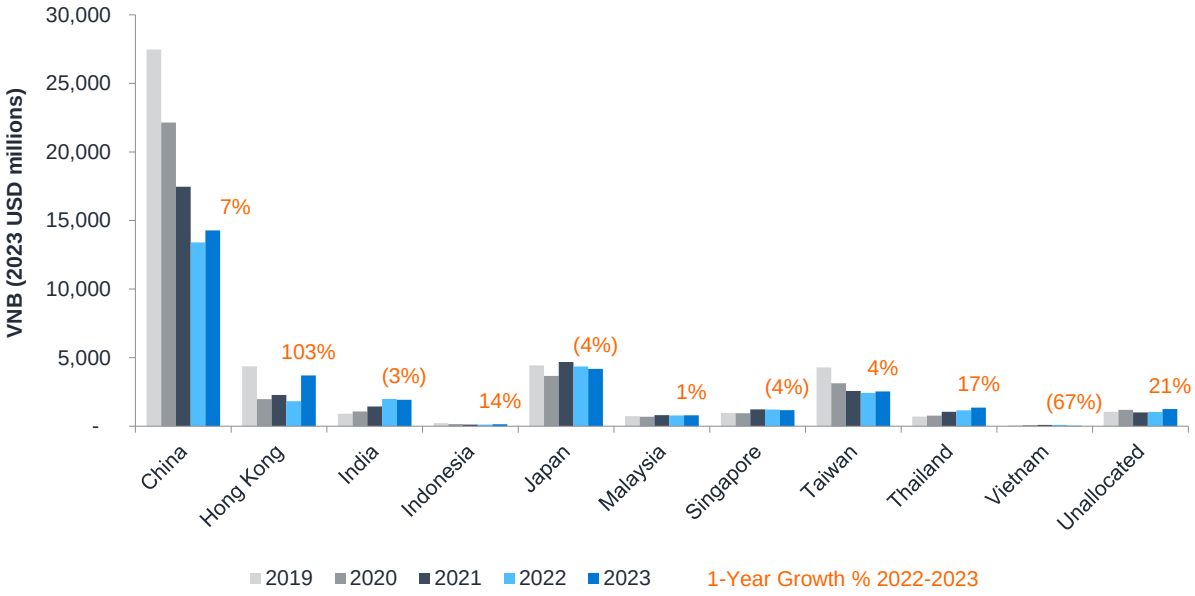
Figure 11 breaks down reported EV for 2023 into the VIF and ANW components by company in each market. In general, most of the markets show a higher proportion of EV coming from VIF. China Life, China Taiping, New China Life, PICC Life, Dai-ichi Life, Sumitomo Life, Dai-ichi Life Vietnam, MS&AD Primary Life, Taiwan Life and Thai Life show a significant portion of EV coming from ANW.

[23] The companies which do not disclose the split of EV between ANW and VIF have been excluded from this graph.

VNB IN ASIA

Total reported VNB for Asia stood at USD 31.7 billion in 2023, compared with USD 28.9[24] billion in 2022, representing an increase of 9.9%.[25] Figure 12 provides a market-by-market comparison of VNB growth based on converting results in local currency to USD using prevailing exchange rates at the same reporting date (financial year-end 2023) for all years, i.e., using a constant currency basis.

FIGURE 12: REPORTED VNB OF ASIAN OPERATIONS ON A COMPARABLE BASIS,[26] 2019 TO 2023



In 2023, the reported growth in VNB varied significantly across various markets in Asia.

Hong Kong experienced a sharp increase in VNB of 102.8%, nearly reaching pre-pandemic levels from 2019. This growth was supported by the reopening of borders with China in early 2023, with strong demand from both the domestic market and Mainland Chinese visitors. Indonesia's VNB grew by 13.6%, primarily driven by an increase in agency sales. Thailand saw a 17.1% rise in VNB, primarily due to higher sales through agency and bancassurance channels. China also witnessed a 6.5% increase in VNB, largely attributed to an increase in sales volumes. In Taiwan, VNB increased by 4.5% on the back of a favourable change in product mix.

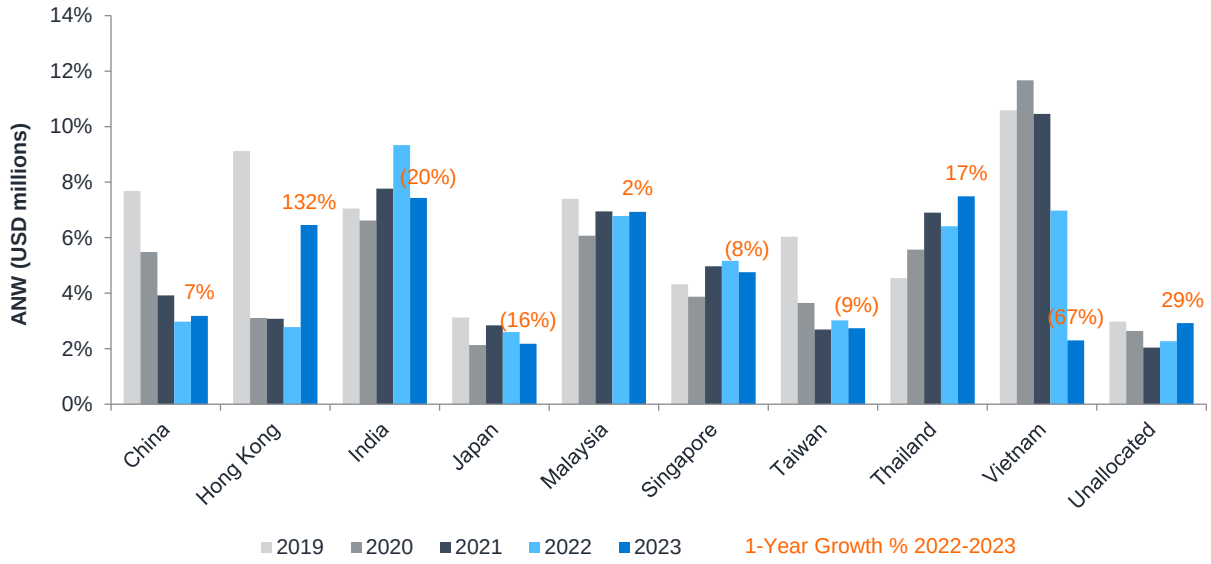
Conversely, Vietnam reported the largest reduction in VNB, mainly attributed to sluggish sales in the bancassurance channel. Singapore also reported a 4.1% decline in VNB, largely due to reduced sales of high-margin single-premium participating products, as a result of rising interest rates. Further, Japan (-4.1%) and India (-3.1%) also experienced a decline in VNB with reducing new business margins being a contributory factor.

[24] Reported 2022 number is different from the Milliman 2022 Asian Embedded Value report due to additional disclosures after cutoff date of the previous report.

[25] This percentage has been calculated on a comparable basis, i.e., only those companies that have disclosed a full set of 2019, 2020, 2021, 2022 and 2023 numbers have been included here.

[26] As at the data cutoff date, some insurers have not yet disclosed their 2023 VNB figures. Hence, this chart and subsequent commentary only includes insurers that have a complete set of 2019, 2020, 2021, 2022 and 2023 EV figures. The missing companies include Canara HSBC Life, Edelweiss Tokio Life, PNB MetLife, Reliance Nippon Life, Singlife, BRI Life, Meiji Yasuda Life and Shin Kong Life

FIGURE 13: VNB/EV RATIO,[27] 2019 TO 2023



Similar to 2022, there was a mixed picture in terms of movement in the VNB/EV ratio in 2023. Hong Kong recorded the highest absolute increase in VNB/EV ratio of 3.7% (from 2.8% to 6.5%), mainly due to a significant increase in its VNB, aided by the reopening of borders with China in early 2023 and the strong demand by domestic and Mainland Chinese visitors. Thailand reported an increase in VNB/EV ratio of 1.1% (from 6.4% to 7.5%), aided by a strong increase in VNB. Vietnam saw a steep decline in the VNB/EV ratio of (-4.7%) (from 7.0% to 2.3%), mainly driven by fall in VNB. India's VNB/EV ratio declined by 1.9% (from 9.3% to 7.4%), primarily driven by an increase in LICI's VIF, driven in part by robust equity markets.

Japan and Taiwan reported a decrease in VNB/EV ratio of 0.4% (from 2.6% to 2.2%) and 0.3% (from 3.0% to 2.7%) respectively. The decrease observed in Japan is due to an increase in EV and a fall in VNB, while the decrease observed in Taiwan is due to the EV increasing, being driven by the unrealised gains on the fixed-income assets. China witnessed an increase of 0.2% (from 3.0% to 3.2%) in the VNB/EV ratio due to a small fall in EV and an increase in its VNB, while Singapore witnessed a decrease of 0.4% (from 5.2% to 4.8%) due to an increase in EV and a fall in VNB.

[27] This ratio has been calculated on a constant currency basis, using the EV and VNB figures of insurers that have reported both EV and VNB during those periods. Companies that only report EV or VNB have been excluded from this analysis.

VNB BY COMPANY

Figure 14 presents each individual company's VNB from 2019 to 2023.

FIGURE 14: ASIAN VNB BY COMPANY, 2019 TO 2023

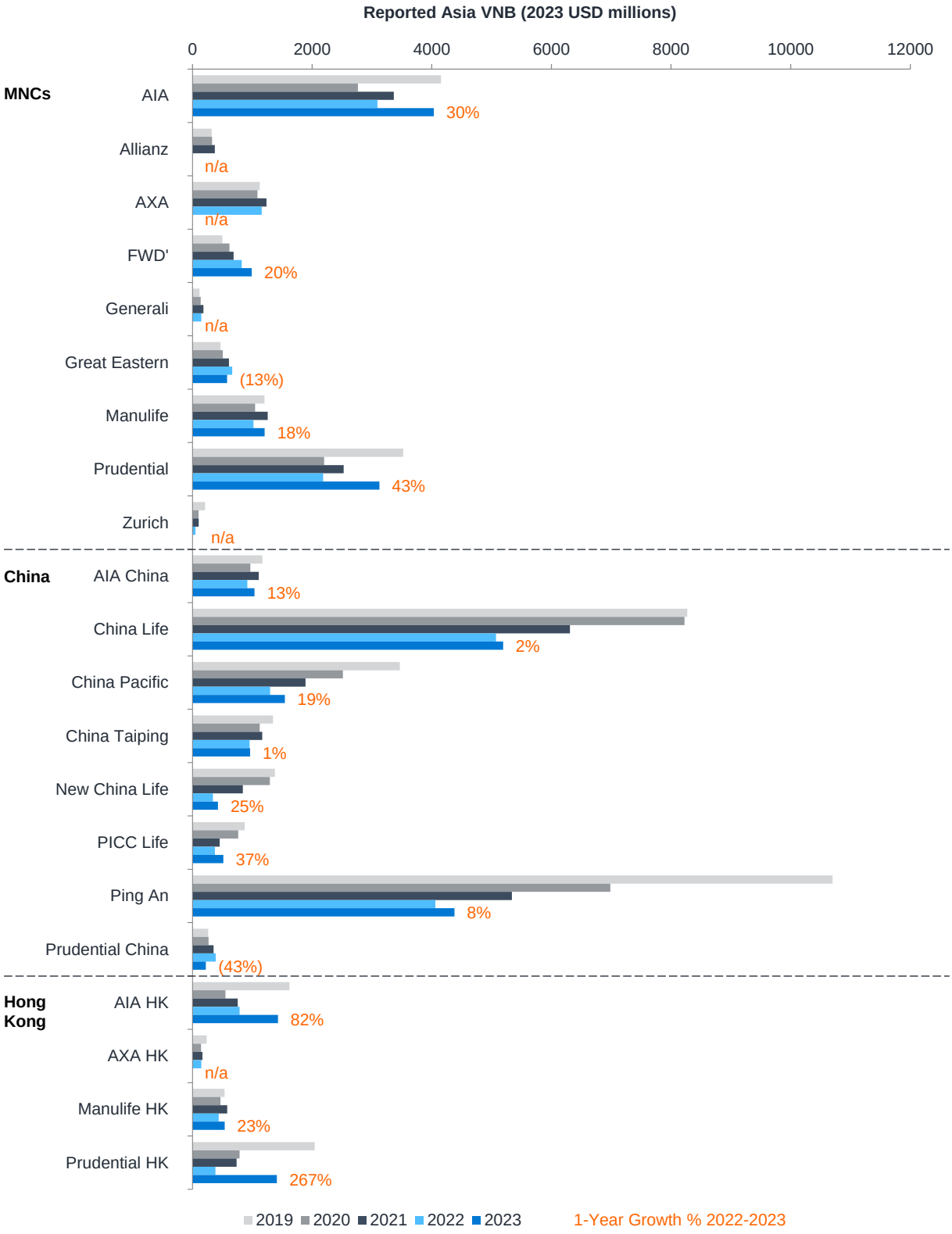


FIGURE 14: ASIAN VNB BY COMPANY, 2019 TO 2023 (CONTINUED)

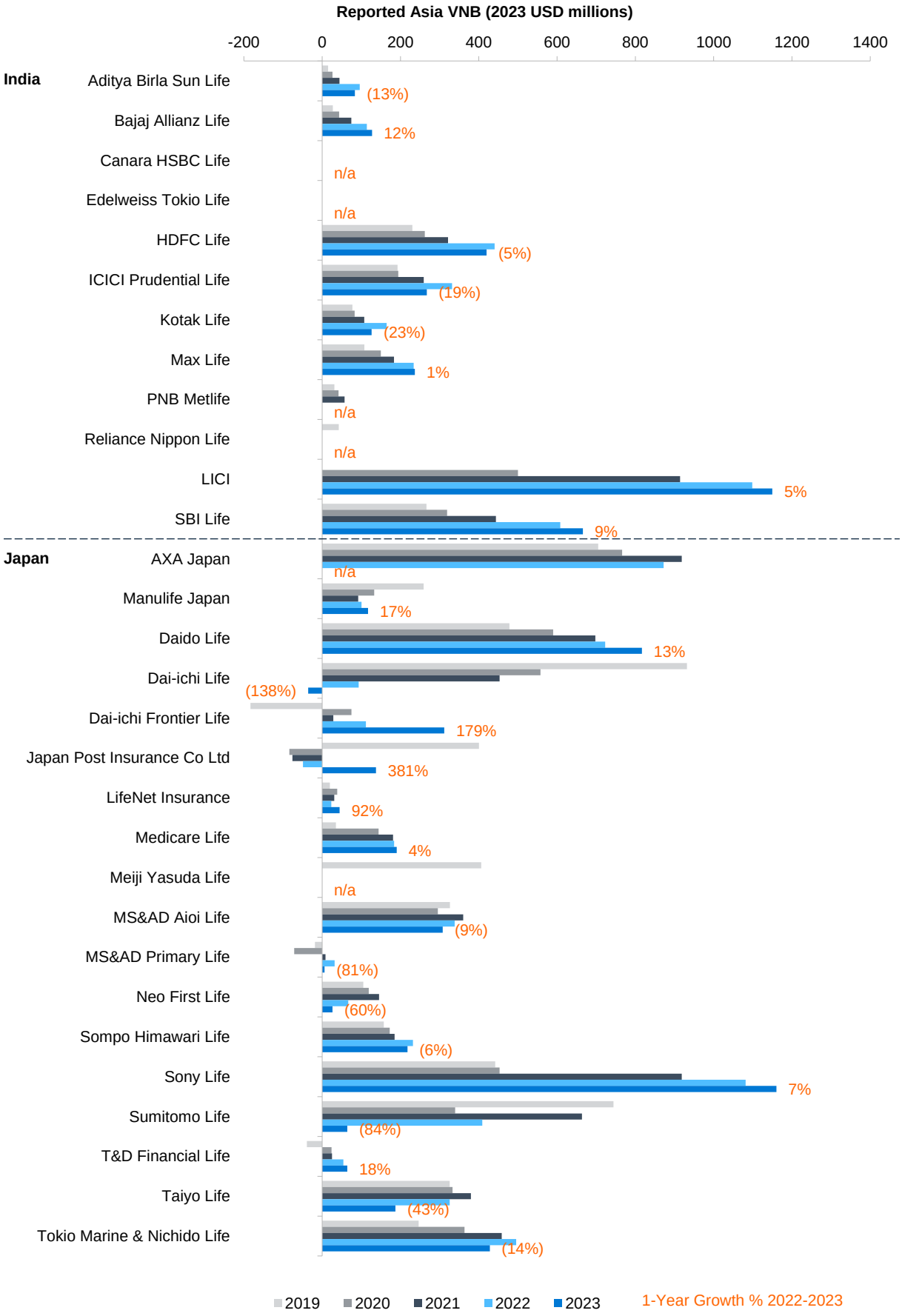
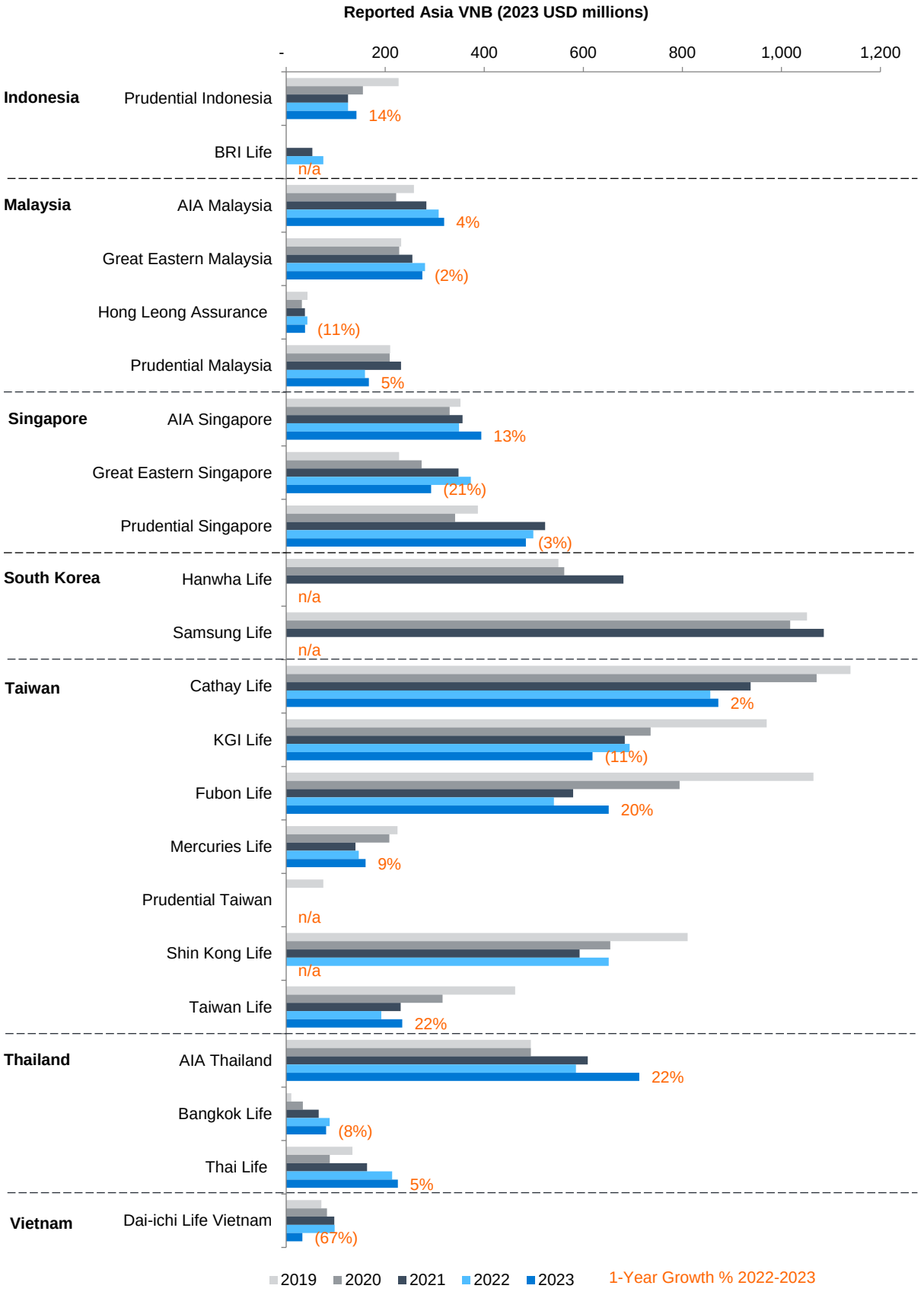


FIGURE 14: ASIAN VNB BY COMPANY, 2019 TO 2023 (CONTINUED)



Comparable Asia VNB increased by 9.9% in 2023, generally reflecting higher sales volumes across the region. Amongst the MNCs, AIA and Prudential showed increases in VNB of 30.5% and 43.1% respectively, driven by increased agency sales, removal of COVID-19 restrictions and the subsequent reopening of the border between Hong Kong and Mainland China. In China, all insurers except Prudential China reported higher VNB attributed to the easing of COVID-19 restrictions. Prudential China experienced a 42.6% decline, driven by reduced sales via the bancassurance channel due to the early implementation of regulatory controls on distribution fees to banks as well as adverse economic impacts.

In Hong Kong, all insurers witnessed an increase in VNB as the market has picked up following the removal of COVID-19 restrictions and the opening of the border with mainland China. In India, VNB growth has been mixed across insurers, varying from (-23.3%) for Kotak Life to 11.7% for Bajaj Allianz Life. VNB growth in India was constrained by both a high 2022 base (impending tax restrictions led to a surge in sales in 2022) and strong equity markets in 2023, which led to a shift in product mix towards lower-margin unit-linked products. In Japan, VNB results were mixed, with Japan Post Insurance reporting a substantial 381.1% increase and Dai-ichi Life experiencing a 138.3% decline.

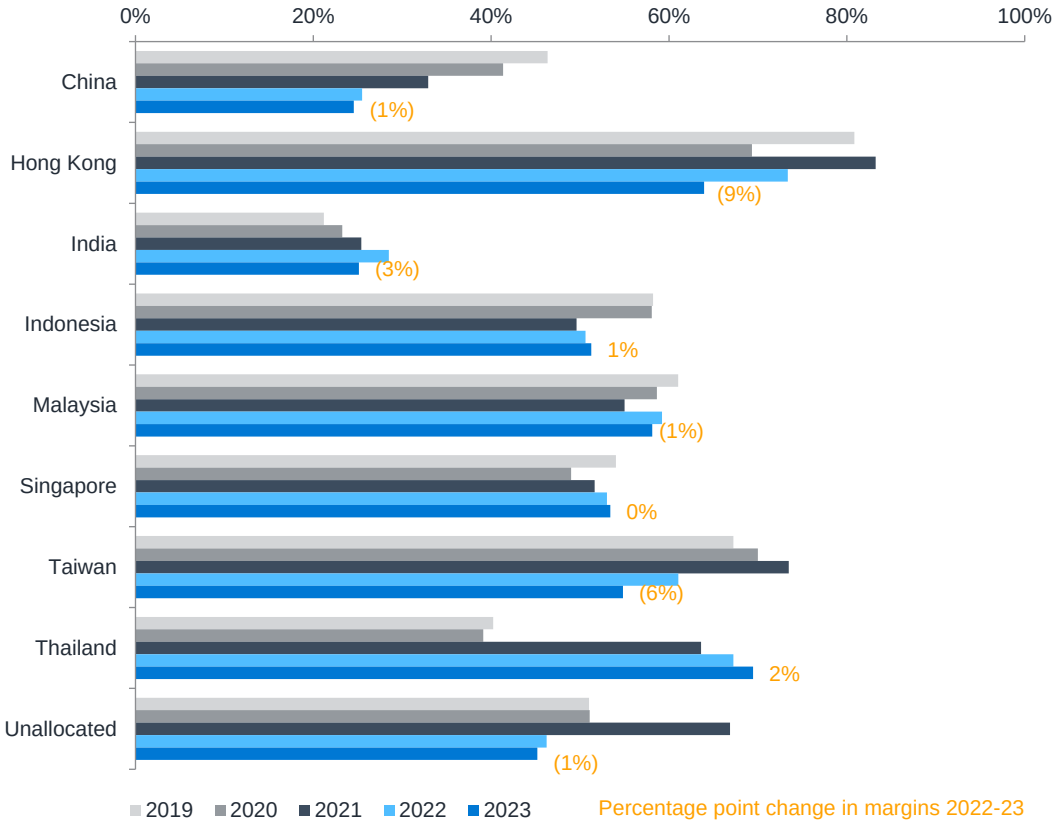
In Malaysia, AIA and Prudential reported an increase in VNB due to higher sales by agency and bancassurance channels respectively while Hong Leong Assurance reported a decline due to lower sales. In Thailand, AIA Thailand and Thai Life reported increases in VNB due to an increase in margins, which was mainly driven by a shift in product mix. Bangkok Life's VNB fell by 8.2% due to lower profitability of health insurance contracts.

In Singapore, Prudential and Great Eastern reported a decline in VNB driven by a decline in overall sales while AIA reported an increase due to a shift in product mix to protection business.

In Taiwan, Cathay Life, Fubon Life, Mercuries Life and Taiwan Life witnessed an increase in their VNB due to a favourable change in the product mix.

NEW BUSINESS MARGINS[28] IN ASIA

FIGURE 15: IMPLIED NEW BUSINESS MARGINS[29] BY MARKET, 2019 TO 2023



Except for Indonesia, Singapore and Thailand, NBM has decreased across all markets in Asia. In Taiwan, NBM decreased by 6.2% due to a shift towards products with longer premium payment term. In Hong Kong, the NBM fell by 9.4% due to a shift in business mix towards lower margin savings products sold to mainland Chinese visitors. In India, NBM fell by 3.4% due to a shift towards lower-margin unit-linked products. In Thailand, AIA and Thai Life reported an increase in NBM mainly due to a growth in protection business.

MARKET-WISE ANALYSIS

Appendix C shows comparisons of companies in each market.

In order to provide a clearer picture of each market's performance, all EV and VNB results set out in Appendix C have been converted to the respective local currency, using the prevailing exchange rate as at each insurer's reporting date for each year (2019, 2020, 2021, 2022 and 2023).[30] This contrasts with the previous sections' figures, where the EV and VNB results were converted to USD using the prevailing exchange rate at each insurer's reporting date for 2023. As a result of exchange rate differences, the 2023 growth rates for each MNC's subsidiary may not be consistent with the previous sections.

[28] New business margin has been defined as the ratio of VNB and new business APE as commonly used in Asia, except for Japanese companies that report new business margins as the ratio of VNB to the PVNBP, as defined by the MCEV principles. Japan and Vietnam are excluded from this graph, since Japanese insurers and Dai-ichi Life Vietnam disclose PVNBP numbers instead of APE.

[29] This chart has been calculated by taking the sum of all disclosed VNB in each market besides Japan and Vietnam, divided by the commensurate APE figure sold by the company in the market. As such, the reliability of this chart will increase depending on the actual number of companies (and their collective market share) disclosing information by geography. This means that for markets with very few disclosures, such as Indonesia, Malaysia, Singapore, Thailand and Taiwan, this analysis may not reflect profitability across the whole market.

[30] Please note that not all the financial years of insurers coincide with calendar years. In this report, we have defined 2023 results to be the financial year results that contain the majority of 2023 calendar year results. Results for Indian and Japanese insurers that have a March financial year-end date correspond to the financial results for the year ending 31 March 2024. Hence, when referring to Indian and Japanese insurers, 2023 refers to the year ending 31 March 2024.

EV methodology and assumptions

As illustrated in Figure 6, within Asia, there are two groups of companies publicly reporting EV: 1) those reporting TEV, and 2) the remaining reporting EEV, IEV or MCEV. The latter tend to be Indian or Japanese insurers or subsidiaries or joint ventures of European and Japanese insurers. Some Japanese insurers have started (Dai-ichi and Sony Life in 2023 and Meiji Yasuda in 2020) to adopt their own internal model approach, which has been described by them as being broadly consistent with the Japan Economic Solvency Ratio (ESR) methodology which is market-consistent in nature and is to be implemented from March 2026.

In determining EV, companies in Asia adopt varied approaches on the following key aspects:

- The selection and construction of the appropriate RDR
- The selection of appropriate investment rate assumptions
- The question of how to explicitly or implicitly allow for the CoC
- Calculation of TVOG

CONSTRUCTION OF RDR

The selection of RDR is one of the most important considerations for EV calculations. Broadly, there are three main methodologies behind discount rate derivation:

1. A single discount rate applied to all periods, calculated using a benchmark risk-free rate plus risk margin or adjusted using an assumed investment return.
2. A ‘top-down’ approach, whereby a discount rate or curve is constructed by adjusting the expected portfolio returns by considering the risks that the company is exposed to and in turn applying the constructed discount rate or curve to each cash flow.
3. A ‘bottom-up’ approach, whereby a risk-free rate plus risk margin curve is constructed for each cash flow or group of cash flows, with due consideration to the risk exposure of each cash flow. Where cash flows have an equivalent liquid and listed asset, the discount rate will be set to the implied yield of the asset. In IEV and MCEV, the risk margin typically only includes the illiquidity premium.

These three methods approximately correspond to the TEV, EEV and IEV/MCEV approaches, although the majority of companies reporting using EEV also now adopt a ‘bottom-up’ approach.

In addition to the above-mentioned methodology, there are three further major considerations with respect to the construction of the RDR:

1. The underlying basis for the RDR
2. The inclusion of any illiquidity premium
3. The interpolation and extrapolation method used to construct a discount curve (typically applicable only to EEV and IEV/MCEV companies)

The three considerations described above generally only apply to firms using EEV, IEV and MCEV reporting. For firms reporting on TEV, the generally accepted approach is to use an underlying risk-free rate (such as a long-dated government bond) with an additional risk margin. A popular subset of this approach includes the capital asset pricing model (CAPM). The main consideration for firms reporting TEV is the calculation of the risk margin, which is meant to encompass factors which are explicitly accounted for in EEV, IEV and MCEV—that is, the cost of capital and TVOG.

INVESTMENT RETURN ASSUMPTIONS

Unlike insurers reporting under IEV/MCEV, companies reporting TEV and EEV results need to make assumptions about future investment returns earned on reserves and required capital. Within the MCEV framework, assets are assumed to earn returns that are, on average, equal to the risk-free reference rate (typically swaps plus adjustments). The major investment assumptions for MCEV are embedded in the stochastic asset model and the calibration of those models, including correlation assumptions.

Insurers reporting under TEV and EEV tend to specify investment returns at the asset-class level. However, some insurers choose to disclose (and potentially use) investment assumptions at a fund or company level instead.

In general, the investment return assumptions used by insurers tend to be within a tight band in most markets. Quite often, greater variation in equity return assumptions were observed compared to the government bond yield assumptions.

There have been a mixture of responses within markets to the changing interest rate environment over 2023 in terms of changes to investment return assumptions. The main exception has been China, where insurers have generally reduced investment return assumptions.

The key for any investor is to compare the investment return assumptions against available government bond yields to assess whether the implied risk premiums are reasonable.

Appendix D summarises the RDR and investment return assumptions by market as well as illustrating the risk margin embedded within the RDR.

COST OF CAPITAL

Cost of capital (CoC) is typically calculated as a deduction from the PVFP to reflect the fact that assets backing the required capital are held within an insurance company and, therefore, cannot be distributed to shareholders immediately. Additional frictional costs may arise from investing in assets via an insurance company, such as additional taxation and investment expenses. CoC may also arise in respect of asymmetric non-hedgeable risks that may not have been reflected in the PVFP and reflects the potential additional cost and risk to shareholders. The split into frictional cost of capital (FCoC) and cost of residual non-hedgeable risk (CRNHR) is a requirement of the MCEV and IEV reporting principles.

Under TEV, CoC reflects the cost to shareholders of demanding to hold the required capital, which will earn the after-tax investment rate of return instead of the RDR. The CRNHR is generally implicit in the choice of the RDR assumption; hence, it is not disclosed separately. Asian insurers reporting TEV usually include the impact of the CoC as part of the EV report, although a few companies do not.

Companies reporting under MCEV principles typically allow for FCoC within the investment income on assets backing the required capital by:

- Projecting investment returns using the reference rate net of tax and investment management expenses
- Discounting using the reference rate gross of tax and investment management expenses

Companies may also adopt such an approach under the EEV principles, especially if they use a market-consistent basis. Alternatively, the CoC may be calculated based on the difference between the real-world investment return assumptions and the RDR, similar to the approach for TEV.

The majority of companies reporting MCEV calculate the CoC using the frictional cost approach, which is the approach required under MCEV principles. However, the definition of required capital differs among companies. As at financial year-end 2023, almost all companies disclosed their required capital with reference to domestic regulatory requirements, with MNCs such as Prudential plc also taking into consideration the results from their internal models.

An important assumption behind EV calculations is the level of solvency margin (SM) assumed to be held in the future. Given the nature of EV calculations, the primary impact of capital assumptions is the effect of the timing of cash flows. Capital is provided by shareholders to support the writing of new business and is eventually returned to shareholders as profit emerges.

Appendix E summarises the required SM assumed by insurers for their Asian operations. EV-reporting insurers generally use similar assumptions, opting to use the level of SM at which they believe regulatory intervention will occur. The exceptions to this are as follows:

- In Singapore, where AIA use 135% while FWD and Manulife uses 114% and 120% respectively
- In Malaysia, where AIA uses 170%, FWD uses 195% and Manulife uses 160%
- In Taiwan, where AIA uses 250% compared with the 200% used by all domestic insurers

Having mentioned the importance of the SM, it is interesting to note that a few companies notably do not disclose their required SM assumptions.

TIME VALUE OF OPTIONS AND GUARANTEES

The impact of financial options and guarantees can be split into two components. The first is the effect on the PVFP with respect to the intrinsic value[31] of such financial options and guarantees. The second is the TVOG, representing the difference between the total value of the options or guarantees and the intrinsic value. It is effectively the value of the 'optionality' bestowed on the policyholder for the duration of the insurance contract.

The reporting of TVOG is mandatory for insurers reporting on EEV, MCEV and IEV bases. The TVOG primarily corresponds to the asymmetry of the impact over a range of scenarios on the distributable earnings to shareholders. For example, for the case of participating contracts, profits are shared between shareholders and policyholders. Losses, however, are only shared up to a certain point, after which shareholders bear all the subsequent losses. This can be further exacerbated by the actions of policyholders (dynamic policyholder behaviour).

The features of products that generally give rise to an assessment of TVOG can include interest rate guarantees on traditional products, profit-sharing features such as bonuses or levels of credited rates, and guaranteed benefits on linked products and guaranteed annuity options. Other features such as 'return of premiums' are also considered a form of a guarantee.

As noted, EEV-, MCEV- and IEV-reporting insurers are required to assess the TVOG using stochastic techniques. Closed-form solutions can also be used where they lead to sufficiently accurate results but may not be suitable in valuing certain guarantees. The stochastic models must be appropriately calibrated and internally consistent with the rest of the modelling methodologies and approaches. Management actions can be allowed for, including those relating to crediting rates, bonus rates, charges to asset shares and investment strategies. These management actions are reflected in the company performance if such actions are consistent with the insurer's normal governance and approval processes and are consistent with the operating environment of the company.

Dynamic policyholder behaviour is included in many companies' assessments of TVOG. In particular, a number of companies recognise the impact of dynamic policyholder behaviour under certain economic scenarios.

Appendix F shows the companies that disclosed the number of scenarios used, and it is noteworthy to mention that the majority applied 5,000 economic scenarios on a market-consistent basis.

[31] In the example of a financial call option, the intrinsic value is the positive difference between the current underlying asset price and the strike price.

Disclosures

Analysts have frequently commented that the drive towards greater consistency, through improved guidance and developments in EV reporting, has helped to improve their understanding of the inherent values and strengths within companies. The richness of disclosures has been particularly helpful, as they allow analysts to compare and contrast performances across insurers.

Similarly, EV reporting continues to provide rating agencies with valuable information on their credit assessments. For example, Standard & Poor's (S&P) states that return on embedded value (ROEV) is one of the factors considered in determining life insurers' ratings. Additional disclosures, and the component nature with which the analysis is presented, assist rating agencies in drilling down into the underlying key risk drivers, the areas of a company that are most important and/or where the ability to generate value is most at risk.

The most developed EV disclosure requirements are set out in the EEV and MCEV principles from the European Insurance CFO Forum, which cover methodology, assumptions, sensitivities and analyses. APS10 standard disclosures for IEV in India require similar levels of detail (but in the context of IPO only; for other non IPO or voluntary circumstances the level of disclosure is optional). However, the prevalence of TEV in Asia (outside India and Japan), with the associated lack of any disclosure standards or requirements, makes it more difficult to use EV results for comparison and evaluation purposes.

The quality of EV disclosures tends to be closely correlated with the nature of the insurance operations. MNCs (whether they are Asian, European or North American) tend to provide more disclosure than insurers focusing on one or two core markets. For the single-market operations, typical disclosures include only group EV and VNB, and some companies do not disclose key assumptions, such as RDR and investment return.

The table in Figure 16 summarises the available disclosures of insurers operating in Asia.

Note: Figure 16 should not and cannot be taken as endorsement or verification of any kind on the part of Milliman that the disclosures of specific sections by specific companies meet, in part or in full, the requirements laid out by the EEV or MCEV principles.

FIGURE 16: SUMMARY OF DISCLOSURES IN 2023[32]

TYPE	COMPANY	EV PRINCIPLE	EVIDENCE OF INDEPENDENT REVIEW OF EV RESULTS	ANALYSIS OF EV MOVEMENT	RECONCILIATION OF ANW TO IFRS NET ASSETS	COST OF CAPITAL/ REQUIRED CAPITAL	RDR ASSUMPTIONS	INVESTMENT RETURN ASSUMPTIONS	EXPENSE INFLATION ASSUMPTIONS	NEW BUSINESS MARGIN INFORMATION	EV AND VNB SENSITIVITIES
MNC	AIA	TEV[33]	✓	✓	✓	✓	✓	✓	✓	✓	✓
	AXA	SII/EEV	✓	✓	✓	✓	✓	✓	✓	✓	✓
	FWD	TEV	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Generali	MCEV		✓		✓	✓	✓	✓	✓	✓
	Great Eastern	TEV	✓	✓			✓			✓	✓
	Manulife	TEV	✓	✓	✓	✓	✓	✓		✓	✓
	Prudential plc	EEV	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Zurich	MCEV	✓	✓	✓	✓	✓	✓	✓	✓	✓
CHINA[34]	China Life	TEV	✓	✓		✓	✓	✓		✓	✓
	China Pacific	TEV	✓	✓		✓	✓	✓	✓	✓	✓
	China Taiping	TEV	✓	✓		✓	✓	✓		✓	✓

[32] Blue-shaded entries indicate that the 2023 EV results have not yet been disclosed, and that the assessment has been based on 2022 disclosures instead.

[33] For TATA AIA Life, AIA used IEV methodology as EV principle.

[34] Insurers in China except Ping An have disclosed VNB sensitivities only.

TYPE	COMPANY	EV PRINCIPLE	EVIDENCE OF INDEPENDENT REVIEW OF EV RESULTS	ANALYSIS OF EV MOVEMENT	RECONCILIATION OF ANW TO IFRS NET ASSETS	COST OF CAPITAL/ REQUIRED CAPITAL	RDR ASSUMPTIONS	INVESTMENT RETURN ASSUMPTIONS	EXPENSE INFLATION ASSUMPTIONS	NEW BUSINESS MARGIN INFORMATION	EV AND VNB SENSITIVITIES
CHINA (continued)	New China Life	TEV	✓	✓		✓	✓	✓	✓	✓	✓
	PICC Life	TEV	✓	✓		✓	✓	✓	✓		✓
	Ping An	TEV	✓	✓		✓	✓	✓	✓	✓	✓
INDIA	Bajaj Allianz Life	IEV		✓			✓	✓		✓	
	Aditya Birla Sun Life	MCEV	✓	✓			✓	✓		✓	
	HDFC Life	IEV	✓	✓			✓	✓	✓	✓	✓
	ICICI Prudential Life	IEV	✓	✓		✓	✓	✓	✓	✓	✓
	Kotak Life	IEV	✓				✓	✓		✓	
	Max Life	MCEV		✓		✓	✓	✓	✓	✓	✓
	PNB MetLife	IEV	✓	✓		✓	✓	✓		✓	✓
	Reliance Nippon Life	Not Disclosed									
	LICI	IEV	✓	✓		✓	✓	✓	✓	✓	✓
	SBI Life	IEV	✓	✓			✓	✓		✓	✓
JAPAN	Daido Life	MCEV	✓	✓		✓	✓	✓	✓	✓	✓
	Dai-ichi Life	Modified MCEV									
	Dai-ichi Frontier Life	Modified MCEV									
	Japan Post Insurance Co Ltd	MC-EEV	✓	✓		✓	✓	✓	✓	✓	✓
	LifeNet Insurance	MC-EEV	✓	✓		✓	✓	✓	✓	✓	✓
	Medicare Life	MC-EEV		✓		✓	✓	✓	✓	✓	✓
	Meiji Yasuda Life	Modified MCEV		✓		✓	✓		✓		✓
	MS&AD Aioi Life	MC-EEV	✓	✓		✓	✓	✓	✓	✓	✓
	MS&AD Primary Life	MC-EEV	✓	✓		✓	✓	✓	✓	✓	✓
	Neo First Life	Modified MCEV									
	Sompo Japan Nipponkoa Himawari Life	MCEV	✓	✓		✓	✓	✓	✓	✓	✓
	Sony Life	Modified MCEV		✓		✓	✓	✓	✓	✓	✓
	Sumitomo Life	MC-EEV		✓		✓	✓	✓	✓	✓	✓
	T&D Financial Life	MCEV	✓	✓		✓	✓	✓	✓	✓	✓
	Taiyo Life	MCEV	✓	✓		✓	✓	✓	✓	✓	✓
	Tokio Marine & Nichido Life	MCEV	✓	✓		✓	✓	✓	✓	✓	✓
TAIWAN	Cathay Life	TEV	✓	✓		✓	✓	✓		✓	✓
	KGI Life[35]	TEV	✓		✓	✓	✓	✓		✓	✓
	Fubon Life	TEV	✓	✓	✓	✓	✓	✓		✓	✓
	Mercuries Life	TEV	✓	✓	✓	✓	✓	✓			✓

[35] KGI Life has only disclosed EV sensitivities and not VONB sensitivities.

TYPE	COMPANY	EV PRINCIPLE	EVIDENCE OF INDEPENDENT REVIEW OF EV RESULTS	ANALYSIS OF EV MOVEMENT	RECONCILIATION OF ANW TO IFRS NET ASSETS	COST OF CAPITAL/ REQUIRED CAPITAL	RDR ASSUMPTIONS	INVESTMENT RETURN ASSUMPTIONS	EXPENSE INFLATION ASSUMPTIONS	NEW BUSINESS MARGIN INFORMATION	EV AND VNB SENSITIVITIES
TAIWAN (continued)	Shin Kong Life	TEV	✓	✓		✓	✓	✓			✓
	Taiwan Life	TEV	✓	✓		✓	✓	✓			✓
THAILAND	Bangkok Life	TEV	✓				✓	✓			
	Thai Life[36]	TEV	✓	✓	✓	✓	✓	✓	✓	✓	✓
VIETNAM	Dai-ichi Life Vietnam	TEV	✓	✓			✓	✓		✓	

*Dai-ichi Life Group, Meiji Yasuda Life and Sony Life have been classified as modified MCEV. Modified MCEV is based on the insurer's own internal model approach, which is described by them as being broadly consistent with the Japan Economic Solvency Ratio (ESR) methodology which is market-consistent in nature and is to be implemented from March 2026. It should be noted that modified MCEV is not a formal embedded value standard and there are differences in methodology amongst the players who have been classified under the modified MCEV methodology.

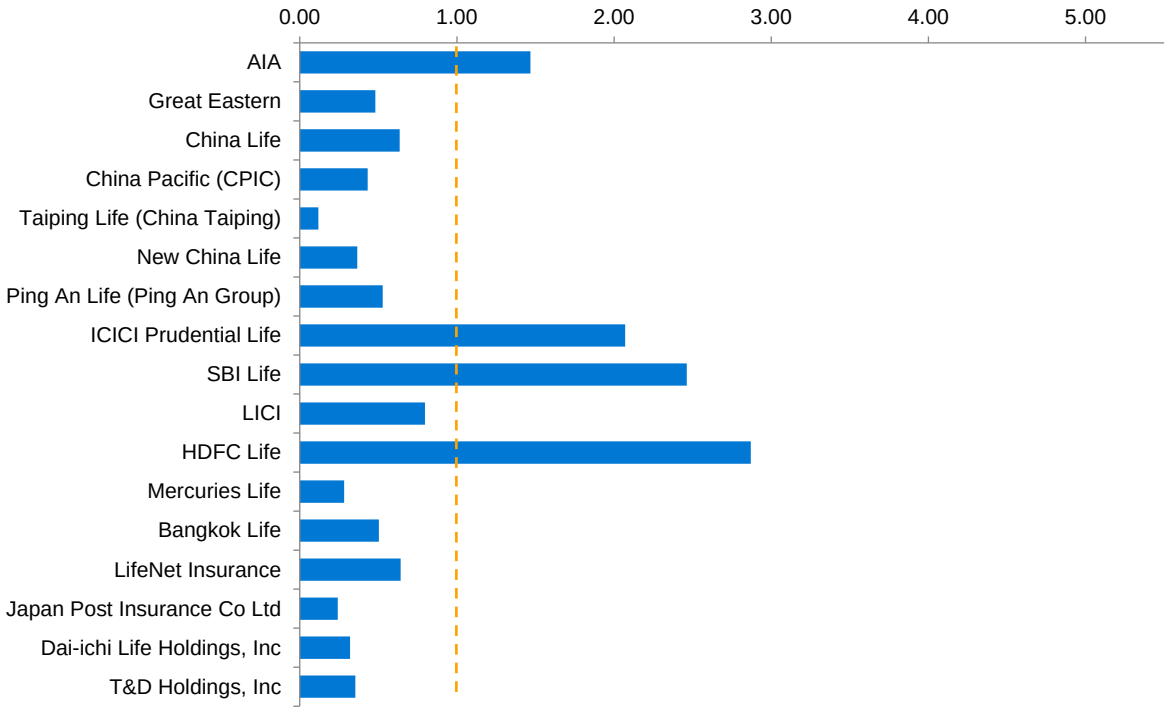
[36] Thai Life has disclosed reconciliation of ANW to TFRS net assets.

Other measures of value

MARKET CAPITALISATION

Figure 17 gives the price/EV (P/EV) ratios for listed insurers.

FIGURE 17: MARKET CAPITALISATION TO EMBEDDED VALUE RATIOS AS AT 2023 REPORTING DATES



* For Chinese insurance groups, P/EV ratios are based on disclosed group EVs. We have also chosen to exclude listed companies which are not predominantly involved in life insurance business. Excluded companies include: PICC Life (PICC Group), Cathay Life (Cathay FHC), Fubon Life (Fubon FHC), Shin Kong Life (Shin Kong FHC), KGI Life (CDF holdings) and Taiwan Life (CTBC FHC).

For Japanese insurance groups, we have excluded Sony Life 100%, which is owned by Sony Financial Group, in the graph.

All P/EV ratios have been calculated either using 'share price/EV per share' or 'market capitalisation/EV' as at the reporting date of EV results.

The standard treatment for including non-covered business is to add the net assets (analogous to ANW in the EV world), thereby excluding the assets' equivalent of the VIF. As a result, there is a tendency for composites and groups with large banking or investment businesses to differ from the industry average based on the P/EV metric.

RETURN ON EMBEDDED VALUE

The return on embedded value represents the post-tax operating profit, expressed as a percentage of the opening EV. For clarity, this metric typically excludes any impact of changes in the economic environment. The key components of ROEV include the expected return earned on the opening EV, the value added by new business and variance in actual experience from expected experience. In markets like India, where this metric is widely reported, the metric is commonly used by analysts to compare a company's performance against its peers. Operating ROEV is calculated as the EV operating profit for the year expressed as a percentage of opening EV.

Figure 18 tabulates the ROEV disclosed by selected companies in Asia for 2022 and 2023.

FIGURE 18: ROEV FOR 2022 AND 2023

COMPANY TYPE	COMPANY	EV METHODOLOGY	ROEV (2022)	ROEV (2023)
MNC	AIA	TEV	9.4%	12.9%
	Prudential plc	EEV	9.0%	10.0%
China	Ping An	TEV	11.0%	11.2%
India	Bajaj Allianz Life	IEV	14.4%	14.5%
	Aditya Birla Sun Life	MCEV	22.6%	18.8%
	HDFC Life	IEV	19.7%	17.5%
	ICICI Prudential Life	IEV	17.4%	14.1%
	Max Life	MCEV	22.1%	20.2%
	SBI Life	IEV	22.8%	21.8%

IFRS 17

The preparation of accounts on an IFRS basis gives rise to a different interpretation and timing of profit and loss compared with an EV basis. Reconciliation of these different measures helps to reveal different features of insurers' underlying performance.

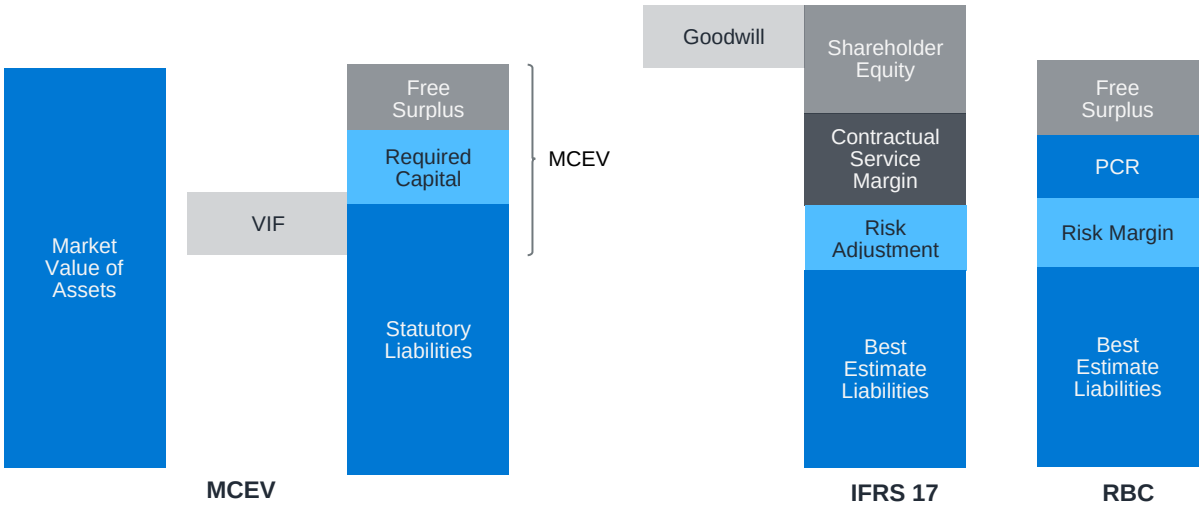
Globally, IFRS 17 became effective on 1 January 2023. For some Asian markets such as China, Japan, South Korea, Hong Kong, Singapore and Malaysia, the standard also became effective from the same date, while the application in many other markets such as India, Taiwan, Thailand and Indonesia has been deferred. The standard is directed at insurance contracts rather than insurance entities, and aims for consistent accounting for all insurance contracts and increased transparency in financial information reported by insurance companies.

In summary, the IFRS 17 standard requires an assessment of the profitability of insurance contracts when they are first issued and, if positive, recognition of profit over the lifetime of the contracts in a manner that reflects the timing of the insurance services provided by the insurer. Specifically, the main features of the new accounting model for insurance contracts include:

- A market-consistent valuation of future expected cash flows, incorporating an explicit risk adjustment. Assumptions used in the projection need to be the current best estimate, and the discount rate should be set to ensure that the net finance results reflect changes in economic conditions. The discount rates can be derived using two different approaches, referred to as 'top-down' or 'bottom-up.'
- A contractual service margin (CSM), which represents the unearned profits of the insurance contract to be recognised in profit as service, is provided over the coverage period (any loss is recognised immediately). The CSM is calculated at the inception of the contract and then released over the coverage period of the contract in a systematic way that best reflects the transfer of services provided under the contract. The CSM cannot be negative, so losses from unprofitable contracts are immediately booked in the profit and loss (P&L) statements.
- Companies are required to identify contracts that are onerous (loss-making) at inception and group them separately from non-onerous contracts. Companies are also required to group contracts written one year apart, although exemptions exist in some jurisdictions and due to mutualisation effects across insurance contracts.
- Compared to the previous IFRS 4 framework (called Phase 1, implemented in 2014), the presentation of results in the income statement and balance sheet has changed significantly. In particular, the key drivers of profit are shown in the P&L with the presentation of insurance revenue and insurance service expenses in the statement of comprehensive income based on the concept of services provided during the period.

A comparison of an IFRS 17 balance sheet with MCEV and risk-based capital (RBC) regimes is illustrated in Figure 19.

FIGURE 19: MCEV VS. IFRS 17 VS. RBC



Despite recent developments in financial reporting, including the implementation of RBC regimes across Asia and the introduction of IFRS 17, EV remains an important metric to showcase insurers' financial performance in terms of value creation and free cash flow generation and is ultimately key to showcasing the impact of business strategy to investors, analysts and customers.

However, over time, insurers are expected to be increasingly focused on IFRS 17 and RBC-related metrics, and as a result, it remains uncertain whether EV will continue to be seen as a useful metric.

Appendix A: Recent and upcoming regulatory changes

Figure 20 provides a summary of some of the major recent or upcoming regulatory changes in the region.

FIGURE 20: SUMMARY OF RECENT AND UPCOMING MAJOR REGULATIONS BY JURISDICTION

JURISDICTION	REGULATION	DESCRIPTION
China	**Rating of life insurance companies**	The National Financial Regulatory Administration (NFRA) has issued a set of regulations titled 'Measures for the Supervision and Rating of Life Insurance Companies,' for grading the risk level of life insurance companies. The risk assessment system considers six dimensions, namely corporate governance, business operation, investment, ALM, solvency and others. The rating aims to strengthen the institutional supervision of life insurance companies.
	Pension insurance	The NFRA has issued a circular allowing insurance companies to develop and offer exclusive commercial pension insurance products, with the intention of promoting commercial pensions within China. The circular prescribes requirements on insurance companies, including their solvency adequacy ratio and liability reserve coverage ratio. The NFRA has also issued a notice regarding Interim Measures for the Supervision and Administration of Pension Insurance Companies. The measures guide pension insurers to focus on the core business of pension finance and strictly separate insurance business and pension fund management.
	Revised capital rules	The NFRA has revised the China Risk-Oriented Solvency System (C-ROSS) to reduce the capital burden on insurers. The revision bases minimum capital requirement on insurers' operating scale, lowering capital requirements for small and medium insurers. Also, the capital recognition rules have been revised to guide insurance companies to focus on protection products. Besides, risk factors for Insurtech, REITS, and national strategic industries have been lowered to attract insurance capital investment in these industries.
	Bancassurance	The NFRA has administered new rules to curb excessive bancassurance fees, leading to major banks terminating contracts with insurance companies. Bancassurance fees are expected to plunge by 50% or more.
	Life to LTC conversion pilot program	The China Banking and Insurance Regulatory Commission (CBIRC) has issued a notice on Launching the Pilot of Converting Life Insurance Benefits to Long-term Care Insurance Coverage
Hong Kong	**The RBC regime**	The Insurance (Amendment) Ordinance 2023 (the Amendment Ordinance) has replaced the rule-based capital adequacy regime with the new RBC regime, which (i) sets out prescribed and minimum capital requirements and rules on eligible capital resources, separation of accounts for long-term insurance business and public disclosure requirements in relation to solvency and financial position, and (ii) enhances intervention powers for the IA (Insurance Authority). The RBC rules came into effect as of 1 July 2024, although a few life insurers have obtained permission from the IA for early adoption of the new RBC regime.
	Maintenance and separation of funds and accounts	The Amendment Ordinance amends the rules in relation to the separate funds and accounts that (i) life insurers, (ii) general insurers, (iii) certain composite insurers, and (iv) life/certain general insurers that are not Hong Kong incorporated must maintain. For life insurers, a separate account and a separate fund must be maintained for Class C (unit-linked), Class G (retirement I), Class H (retirement II) and the remaining classes of long-term business. Within the fund maintained, insurers must maintain at least one separate account and one separate sub-fund for their participating business. A separate guideline on participating business management (with the latest draft rules still at a consultation stage) is expected to be effective in the second half of 2024, which is expected to set out new requirements around participating fund segregation, minimum asset requirement at a participating fund level post segregation, allocation of expenses and charges to the participating fund, requirements for external review, etc.
	Regulatory and intervention powers of the IA	Under the Amendment Ordinance, certain key regulatory powers of the IA (such as the power to vary or relax insurers' capital requirements or to require an insurer to provide the IA with a report and/or appoint a person to produce such report in respect of any matter relating to an insurer) may now be exercised if it is of the opinion that this is 'desirable for mitigating or controlling the risks posed to or by the business of the insurer.'
	Amendment to the Inland Revenue Ordinance	The Amendment Ordinance amends the Inland Revenue Ordinance to allow spreading tax liabilities of a one-off transitional adjustment upon the adoption of the RBC regime over five years to relieve the resulting cash-flow burden.

<table>
<tr><th>JURISDICTION</th><th>REGULATION</th><th>DESCRIPTION</th></tr>
<tr><td>India</td><td>Surrender values</td><td>The IRDAI has announced a finalised set of rules on surrender values to take effect from 1 April 2024 which were then further elaborated in a subsequent circular issued on 12 June 2024.
The key points of the circular are as follows:
▪ Surrender value would be payable on non-linked products after the first policy year, provided that one full year's premium had been paid. For policies with a limited premium payment term of less than five years and for single-premium policies, the surrender value becomes payable immediately after receipt of the first full year's premium or single premium, as applicable.
▪ The surrender value calculation is based on the (notional) asset share where the accumulation rate of interest cannot be less than the pricing interest rate less 50 basis points, subject to a floor based on the expected present value of:
(a) The paid-up sum assured for all covered contingencies
(b) The paid-up future benefits (such as income benefits), if any
(c) The accrued/vested benefits, while accounting for any survival benefits already paid, regardless of their names
▪ The interest rate used to calculate the expected present value must not exceed the prevailing yield on a 10-year G-Sec plus a spread of up to 50 basis points.
▪ Free look period, which provides time to review the policy terms and conditions has been extended to 30 days.
▪ The facility of policy loans is now mandatory for all non-linked life insurance savings products.
▪ Annuity products now have a payout option with payments linked to publicly available benchmarks.
▪ Health product premium rates have to be fully guaranteed throughout the term of the contract.
▪ The minimum sum assured for regular premium and limited premium products is seven times the annualised premium for age less than 50 years and five times the annualised premium for age 50 years and above, while for single-premium products minimum sum assured is 1.25 times the single premium for age less than 50 years and 1.1 times of single premium for age 50 years and above.
▪ Index-linked products are formally permitted under unit-linked platform.
▪ Existing products which insurers wish to continue to sell must be modified in line with the circular and new regulations by 30 September 2024.</td></tr>
<tr><td></td><td>Expenses of management of insurers</td><td>The IRDAI has updated its regulation on expenses of management of insurers, which requires a board approved policy/business plan and a limit for expenses of management. The business plan produced on an annual basis has to include expenses of management as well as commissions to be paid to insurance agents. The limit of expenses of management for life insurers is set at 5% to 14% of single premiums received, depending on the type of product.</td></tr>
<tr><td>Indonesia</td><td>Minimum equity requirements</td><td>The Indonesian Financial Services Authority (OJK) has significantly increased the minimum equity requirements for insurance companies. This will be implemented in two phases, and by 2028 the regulator plans to establish two tiers of minimum equity requirements.
Companies in Tier 1, authorised to sell only simple life insurance products, will face lower minimum equity requirements. Meanwhile, those in Tier 2, providing the full range of insurance products and services, will have higher minimum equity requirements. The minimum equity requirements are set out in the table below:
<table><tr><th></th><th>Phase I (to come into effect on 31 Dec 2026)</th><th>Phase II (to come into effect on 31 Dec 2028)</th></tr><tr><td>Conventional insurers</td><td>250</td><td>Tier 1 – 500
Tier 2 – 1000</td></tr><tr><td>Conventional reinsurers</td><td>500</td><td>Tier 1 – 1000
Tier 2 – 2000</td></tr><tr><td>Syariah insurers</td><td>100</td><td>Tier 1 – 200
Tier 2 – 500</td></tr><tr><td>Syariah reinsurers</td><td>200</td><td>Tier 1 – 400
Tier 2 – 1000</td></tr></table>Figures are in IDR billions
It is anticipated that the significant increase in minimum equity requirements, in addition to the effort required to implement IFRS17, may lead to market consolidation and M&A activities in Indonesia, especially for smaller domestic companies.</td></tr>
</table>

JURISDICTION	REGULATION	DESCRIPTION
Japan	**Economic value-based solvency regulations**	Life insurance companies in Japan are preparing for the plans by the Financial Services Agency (FSA) of Japan to shift from the current solvency margin regulations to an economic-value-based solvency margin regime from the end of FY2025.
Malaysia	**Management of participating life business**	BNM (Bank Negara Malaysia) has set out updated requirements for the effective management of participating life business (MPB) to promote the sustainability of the business and the protection of policy owners' interest. This update largely builds on existing MPB guidelines (implemented in July 2016), with additional focus on requirements related to the uses of the estate in the participating fund, including the need for regular assessments of the estate and a requirement to distribute 'excess estate,' management of small or shrinking participating funds and submission requirements of proposed bonus revisions. The updated regulations also explicitly require insurers to conduct an independent review of asset shares every three years, in addition to the current requirements for an independent review of the insurer's management of participating business.
	Management of insurance funds	BNM has updated the requirements on management of insurance funds to allow consistency with the changes introduced in the MPB guidelines (e.g., on distribution of excess estate).
	Climate risk stress testing	BNM has published a policy document titled "2024 Climate Risk Stress Testing Exercise – Methodology Paper" (Methodology Paper), outlining the scope, approach and requirements of the first industry-wide climate risk stress testing (CRST) exercise. BNM has categorised insurers into two cohorts, based on size, potential portfolio exposure to climate-related risks and internal state of readiness. Insurers in Cohort 1 are required to submit their results by 30 June 2025, while insurers in Cohort 2 are granted an additional six months to prepare, with the submission deadline being extended to 31 December 2025.
	Investment-linked business	BNM has released an updated policy document on investment-linked business. The policy document aims to ensure professional and proper conduct in the sale, marketing and management of investment-linked products, as well as to enhance product transparency to policyholders.
	Fair treatment of vulnerable consumers	BNM has released an exposure draft on the Fair Treatment of Vulnerable Consumers, aimed at ensuring vulnerable consumers (e.g., those with disabilities or who are illiterate, senior citizens, those with low ability to withstand financial shocks, in financial distress, etc.) are treated fairly and equitably
	Liquidity facility to licensed insurers and Takaful operators	BNM has published a policy document which extends a liquidity facility to all insurers and Takaful operators, given the importance of liquidity and recognising the role of BNM as a lender of last resort.
Singapore	**Domestic systemically important insurers**	The MAS has published its framework for designating domestic systemically important insurers (D-SIIs) with an inaugural list of four companies which include AIA Singapore, Income Insurance, Prudential Assurance, and Great Eastern Life Assurance. The D-SII framework which came into effect on 1 January 2024 aimed to formalise and update an existing framework to facilitate the annual impact assessment of insurers based on their size, interconnectedness, substitutability and complexity. Under the D-SII framework, a 25% capital add-on applies from 1 January 2024 to D-SIIs, increasing its higher and lower supervisory intervention levels, as well as Common Equity Tier 1 and Tier 1 capital requirements. This add-on will replace the 25% high-impact surcharge that is applicable to the four D-SIIs under the current framework.
	Determination of illiquidity premium	The MAS has revised the illiquidity premium that insurers apply for corporate debt securities from 65 basis points to 50 basis points, effective 31 December 2023. This has been further revised downwards to 35 basis points with effect from 30 June 2024.
	Submission related to assets and liabilities	Insurers are required to make submissions relating to information on their assets and liabilities to MAS within two months from last day of reporting quarter for quarterly submission and within three months from the last day of reporting accounting period for the annual submission.
	Recovery and resolution planning	The MAS has issued a new notice on recovery and resolution planning (RRP) for insurers, which will primarily apply to DSIIs. The notice requires insurers to prepare a recovery plan with specific triggers, regularly test the plan's feasibility and effectiveness and ensure that their critical functions can be maintained during crisis situations.
	Valuation and Capital Framework	The MAS has released a directive applicable to designated financial holding companies (FHC) that have a subsidiary that is a licensed insurer incorporated, formed or established in Singapore which outlines the valuation and capital requirements under the RBC 2 consolidation approach. It refines the interest rate mismatch risk requirement and the FHC group's scope in the capital adequacy calculation. This regulation came into effect from 1 January 2024.
South Korea	**New policyholder dividend system**	Provisions related to implementing a new policyholder dividend system have been revised in compliance with IFRS17. The revisions include modification of calculation standards for participating policies' profit and loss and establishment of calculation standards considering reasonable distribution and dividend stability in proportion to the contribution of participating/nonparticipating policyholders.

JURISDICTION	REGULATION	DESCRIPTION
South Korea (continued)	**Health insurance for military personnel**	A suspension/resumption system has been introduced for indemnity health insurance of military personnel. Military service members can now suspend their premium payments to prevent unnecessary insurance premiums to be paid out during the military service period.
	Additional suspension (re-inspection)	The meaning of additional tests is clarified to prevent cases where contracts are terminated due to failure to disclose regular health check-ups and follow-up without changes in disease or special treatment.
Taiwan	**Widening of funding sources**	The Financial Supervisory Commission (FSC) has allowed Taiwanese insurers to issue bonds that count towards capital through setting up SPVs overseas, diversifying capital-raising channels in light of the domestic bond market's limited capacity, with an objective to ease the capital pressure under the more stringent requirements from the localised Insurance Capital Standards (TW-ICS) being implemented in 2026. The funds for establishing the SPV and the amount of overseas bonds issued will be included in insurers' overseas investment limit of 45%. If an insurer's overseas investment has reached the upper limit of 45%, it will not be allowed to issue bonds abroad.
	Taiwan Insurance Capital Standard (TW-ICS) and IFRS 17	TW-ICS and IFRS 17 will come into effect simultaneously on 1 January 2026. The FSC has been supporting the insurance sector to ensure a smooth transition to the new solvency framework over a 15-year transition period by reducing the capital charges on several asset categories and including adjustments and transitional measures for several risk categories. The Insurance Bureau (IB) has announced various localisation adjustments and transitional measures for TW-ICS in three rounds during 2023 to 2024. The measures include several reductions in risk factors (e.g., TW equity risk factor reduced from 48% to 35%), gradual recognition of several risk categories (e.g., interest rate risk, and all the newly introduced risks relative to the existing RBC regime such as lapse and expense), additional illiquidity premium for high-guaranteed-rate policies, allowing callable bonds to be included in eligible assets under illiquidity premium calculation and also a net asset transitional measure for specific blocks of businesses.
Thailand	**Hedging instrument guideline on Thailand's RBC 2 framework**	The Office of Insurance Commission (OIC) has released a derivative and hedging instrument guidelines for Thailand's RBC 2 reporting. As per the guidelines, companies must have a risk management policy regarding the allocation of investment portfolios in mutual funds intended to mitigate risks. The value of underlying assets of the hedging portfolio must be at least 95% of the investment portfolio being hedged. Companies which use hedging instruments are also required to perform regression analysis between monthly investment return of hedging instrument and the monthly return of the underlying assets.
	Loosening of the financial and finite reinsurance rules	The OIC has loosened the financial and finite reinsurance rules. Previously, financial and finite reinsurance arrangements were not permitted. This change aims to define the requirements of using financial and finite reinsurance as a risk mitigation tool.
	IFRS17 on insurance contracts	The OIC has announced the new IFRS17 accounting standard in Thailand will be effective from 1 January 2025. To help the industry get ready for the new standard, the OIC has assigned a parallel run period of 2023-2024 and has drafted guidelines for companies to follow. The guidelines request that companies self-assess their IFRS 17 readiness and perform corresponding disclosures.
Vietnam	**Insurance law**	Following the implementation of the new Law on Insurance Business effective from 1 January 2023, the Vietnam government has issued the new Decree No. 46 on 1 July 2023 which supplemented several articles of the new law, with key changes as follows: Provides detailed product lines classifications for life, non-life and health insurance respectively Sets out new thresholds regarding the minimum charter capital (legal capital) with transitional period allowed for insurers, reinsurers and insurance broking companies licensed before 1 January 2023 to follow the new thresholds from 1 January 2028 Allows all foreign-invested companies to use insurance services provided from offshore providers on a cross-border basis, rather than limited to only those with more than 49% of foreign ownership Imposes additional and stricter conditions on organisational insurance agencies and stricter requirements for the actuaries of insurers The MOF subsequently issued Circular No. 67 effective from 2 November 2023 detailing several provisions of the new Law on Insurance Business and new Decree No. 46. The circular sets out (i) the requirements of the distribution and sale of insurance products and services via online channels, (ii) insurance agency activities and insurers' responsibilities in connection with the distributions of investment-linked products via agents, (iii) requirements on insurance documentation provided to policyholders (including having acknowledgement of policyholders in illustration materials) and (iv) new lower caps on commissions, bonuses and incentives for agencies. The National Assembly subsequently adopted the new Law on Credit Institutions No. 32/2024/QH15 on 18 January 2024, which has come into effect on 1 July 2024. The new law explicitly prohibits credit institutions from bundling insurance together with banking services and provides a clear legal basis for the State Bank of Vietnam to control bancassurance, though it is also expected to negatively affect bancassurance revenue in the future.

Appendix B: Comparison of EV methodologies

Figure 21 summarises the main differences between TEV, EEV, and MCEV for each component of EV.

FIGURE 21: COMPARISON OF TEV, EEV AND MCEV

ITEM	TEV	EEV	MCEV
PVFP	Projection of future profits using real-world investment return assumptions, discounted using subjective RDR.	Projection of future profits using real-world investment return assumptions, discounted using a curve based on risk-free rates, adjusted using a risk margin, which reflects any risks not allowed for elsewhere in the valuation. Some EEV reporting firms also opt to use a market-consistent approach, which entails using risk-free rates in the certainty equivalent approach.	Projection of future profits using market-consistent risk-neutral investment return assumptions, discounted using a curve based on risk-free rates. Discount rates can be adjusted to include an illiquidity premium.
TVOG	Not explicitly allowed for, although companies may argue that the cost is implicitly included through the use of a risk-adjusted discount rate.	Mandatory calculation using stochastic models for material guarantees. While both risk-neutral and real-world models are theoretically allowed, most insurers will use risk-neutral models, for ease of calculation.	Consistent with PVFP methodology, a market-consistent risk-neutral calculation using stochastic models.
CoC	There is no standardisation of this, but CoC is included by virtually every insurer. Typical practice is to explicitly model the cost in the cash flow projections and present it as an adjustment to the EV figure.	Mandatory, calculated as the difference between required capital held at the valuation date and the present value of the projected releases of the required capital, allowing for future investment return on that capital. Disclosed as part of required capital.	Mandatory split into FCoC and CRNHR.
Discount rate	Subjective assumption, typically calculated as a risk-free rate plus a margin, or the portfolio investment return plus a margin. A single discount rate is typical; using a curve is rare.	Two possible approaches: 'Top-down' with one discount curve used for all cash flows based on risks faced by the entire organisation. 'Bottom-up' where each cash flow is discounted using a risk-free rate plus the risk margin, based on the exposed risks.	A bottom-up approach is mandatory, and the curve is typically on swap rates, with adjustments for illiquidity and the risk margin.
Expenses	No standardisation, but typically based on current or recent and expected ongoing experience. Where expense overruns exist, insurers will typically provide both pre- and post-overrun EV/VNB figures.	Future expenses such as renewal and maintenance expenses must reflect expected ongoing operating expenses, including investment in systems to support the business, and allowing for future inflation. Overheads and holding company expenses must be allocated in a manner consistent with current and historical practice. Expense overruns must be allowed for.	Similar to EEV principles, with additional guidance. Favourable changes in unit costs such as productivity gains should not normally be included, if they have not been achieved by the end of the reporting period. However, for start-up operations, allowing for improvements in unit costs in a defined period may be allowed, so long as there is sufficient evidence to justify it. Exceptional development and one-off costs that have an impact on shareholder value must be disclosed separately, with a description of their nature. Company pension scheme deficits must be allocated to the covered business expense assumptions in an appropriate manner.
Investment returns	Typical practice is to use a risk-free rate plus risk-premium approach for main asset classes, where the risk-premium assumptions differ by asset class.	Some insurers opt to use a risk-neutral approach, while others use a risk-free rate plus a risk-premium approach.	A risk-neutral approach is typically used, where assets are assumed to earn returns based on a risk-free curve. Where swap rates are not available or liquid enough, government bond rates are used as a proxy for the risk-free rate.

TEV VS. EEV VS. MCEV

The primary advantage that EEV and MCEV approaches have over TEV is the greater standardisation (and less subjectivity) of assumptions, methodologies and disclosures, leading to better comparability from an investor's viewpoint. For example, MCEV assumes that assets earn the risk-free rate of return. This approach avoids the use of actual risk-weighted yields or management's view of future market directions in EV calculations, as is the case with TEV (and some EEV) reporting.

Insurers reporting on EEV or MCEV bases will typically experience greater volatility in EV results, especially if a market-consistent basis is used. This can complicate reporting and investor disclosures and is one of the reasons often cited by industry insiders as to why most Asian companies have not yet moved from TEV to EEV or MCEV. Another key reason put forward is the increased capabilities required to fully implement EEV or MCEV reporting. For example, the implementation of proper TVOG calculations requires the use of stochastic models to value embedded policy options and guarantees. This inevitably means using specialised economic scenario generator (ESG) software. This will add to financial reporting lead times. In addition, it is difficult to calibrate the ESG for Asian capital markets, which are in general not as deep or liquid as those in the US or Europe. Given this, it is understandable that Asian insurers are not prioritising moving from TEV, which is itself already a useful metric for managing their businesses, so long as it is calculated robustly and consistently. However, in a region where long-term guarantees are so prevalent and yield curves can often be close to the level of guarantees offered, not explicitly allowing for TVOG is an obvious and significant flaw in companies' TEV financial reporting. Since IEV does not have a material difference from MCEV, we can state that conceptually IEV is similar to MCEV.

Appendix C: Market analysis

CHINA

FIGURE 22: REPORTED EV OF CHINESE INSURANCE OPERATIONS, 2019-2023

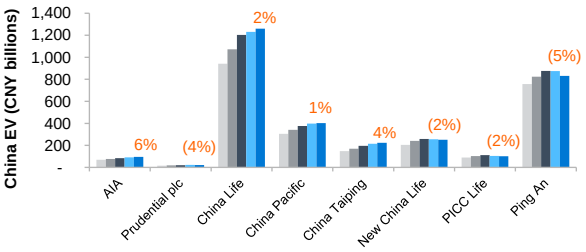


FIGURE 23: REPORTED ANW OF CHINESE INSURANCE OPERATIONS, 2019-2023

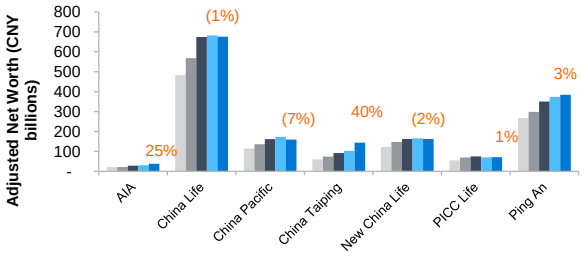


FIGURE 24: REPORTED VIF OF CHINESE INSURANCE OPERATIONS, 2019-2023

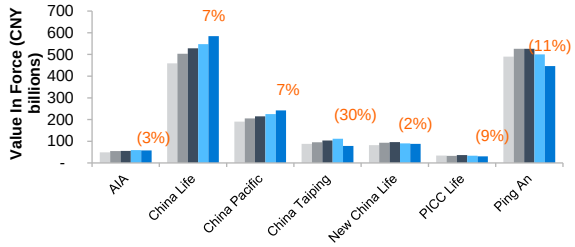


FIGURE 25: REPORTED VIF/ANW SPLIT OF CHINESE INSURANCE OPERATIONS, 2023

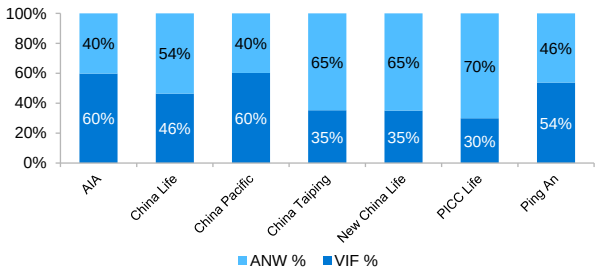


FIGURE 26: REPORTED VNB OF CHINESE INSURANCE OPERATIONS, 2019-2023

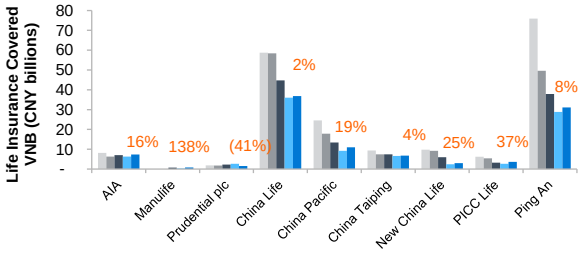


FIGURE 27: REPORTED APE[37] [38] OF CHINESE INSURANCE OPERATIONS, 2019-2023

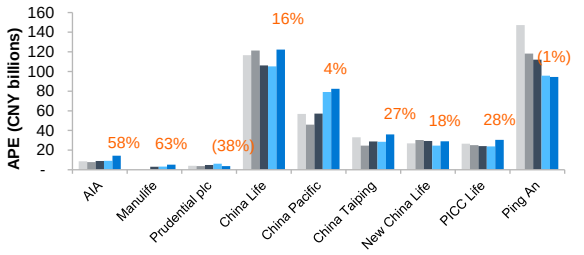
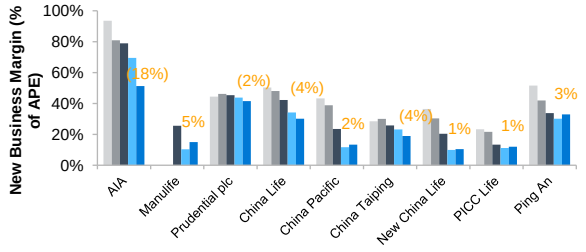


FIGURE 28: REPORTED NEW BUSINESS MARGIN[39] OF CHINESE INSURANCE OPERATIONS, 2019-2023



1-Year Growth % 2022-2023

Percentage point change in margins 2022-2023

[37] APE figures, where they are not disclosed explicitly by the company, are calculated by Milliman based on disclosed regular premium and single-premium new business figures and may not represent actual APE of the respective companies. Additionally for Ping An, APE has been calculated using disclosed VNB and new business margins on an APE basis.

[38] APE figures include short-term insurance premiums as life insurers write both short-term and long-term business for both life and health insurance.

[39] Note that the margins are calculated as the disclosed VNB divided by the calculated APE in Figure 28 and may not represent actual margin of the respective companies.

HONG KONG

FIGURE 29: REPORTED EV OF HONG KONG INSURANCE OPERATIONS, 2019-2023[40]

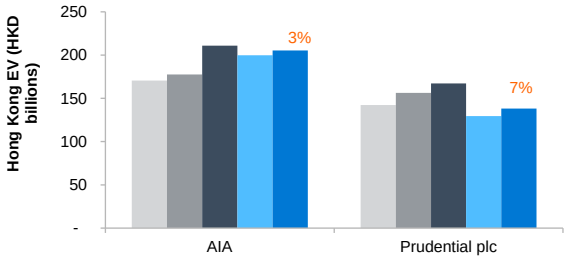


FIGURE 30: REPORTED ANW OF HONG KONG INSURANCE OPERATIONS, 2019-2023

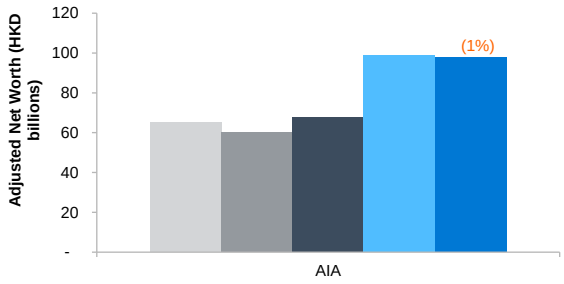


FIGURE 31: REPORTED VIF OF HONG KONG INSURANCE OPERATIONS, 2019-2023

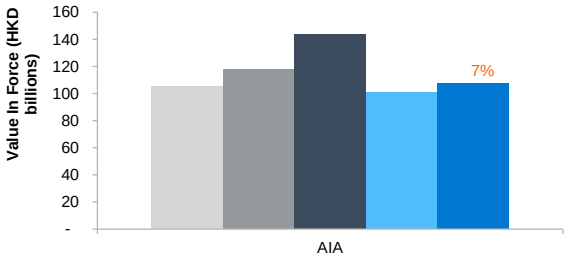


FIGURE 32: REPORTED VIF/ANW SPLIT OF HONG KONG INSURANCE OPERATIONS, 2023

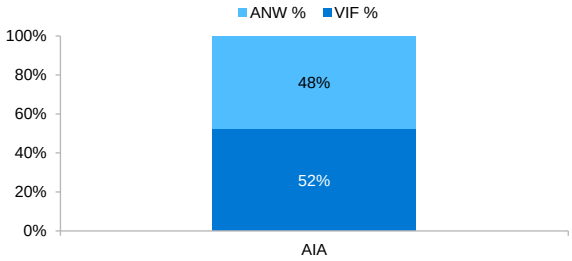


FIGURE 33: REPORTED VNB OF HONG KONG INSURANCE OPERATIONS, 2019-2023

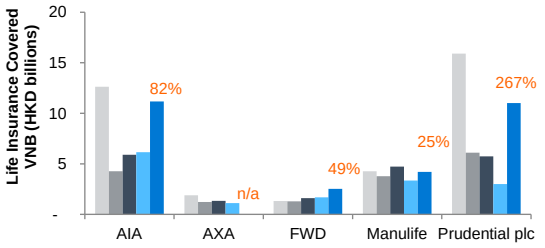


FIGURE 34: APE OF HONG KONG INSURANCE OPERATIONS, 2019-2023

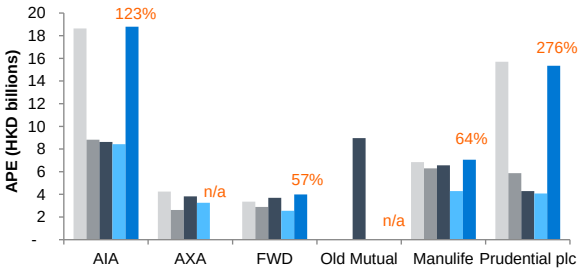
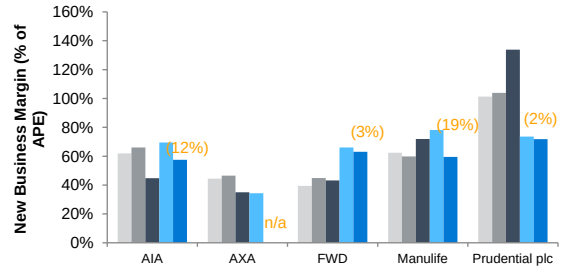


FIGURE 35: REPORTED NEW BUSINESS MARGIN (% OF APE) OF HONG KONG INSURANCE OPERATIONS, 2019-2023



1-Year Growth % 2022-2023

Percentage point change in margins 2022-2023

[40] The FX rates used for conversion to local currency (for all charts) are listed in Appendix H.

INDIA

FIGURE 36: REPORTED EV[41] OF INDIAN INSURANCE OPERATIONS, 2019-2023[42] [43]

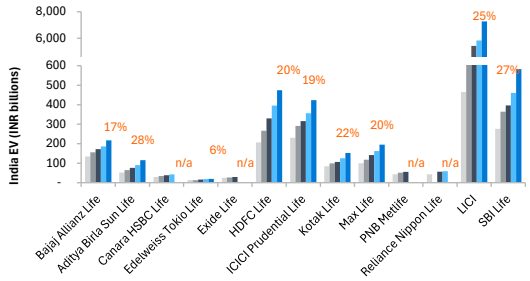


FIGURE 37: REPORTED ANW OF INDIAN INSURANCE OPERATIONS, 2019-2023[44]

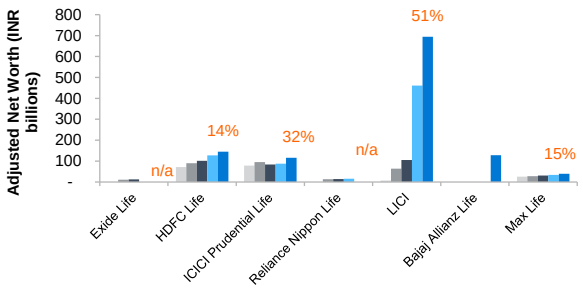


FIGURE 38: REPORTED VIF OF INDIAN INSURANCE OPERATIONS, 2019-2023

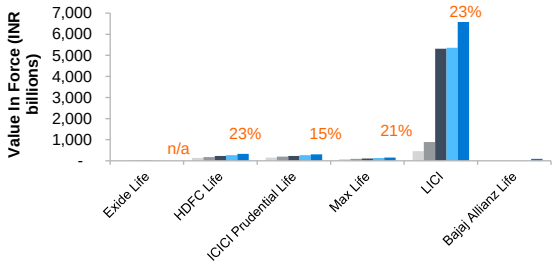


FIGURE 39: REPORTED VIF/ANW SPLIT OF INDIAN INSURANCE OPERATIONS, 2023

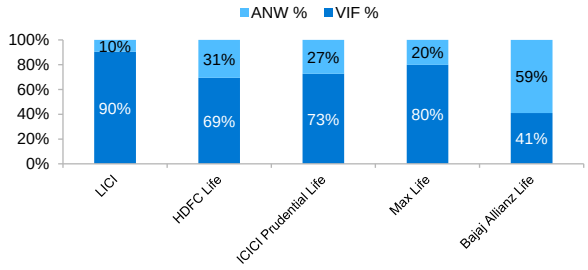


FIGURE 40: REPORTED VNB[45] OF INDIAN INSURANCE OPERATIONS, 2019-2023

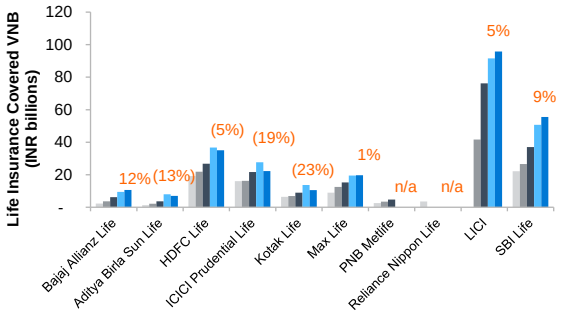


FIGURE 41: REPORTED APE[46] OF INDIAN INSURANCE OPERATIONS, 2019-2023

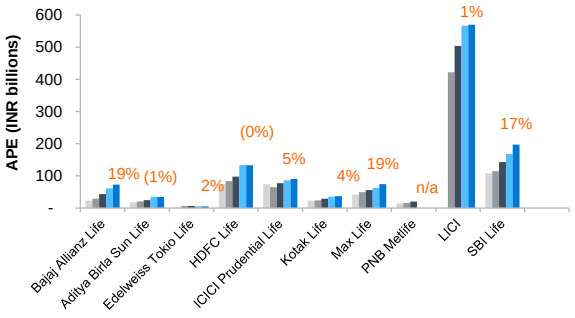
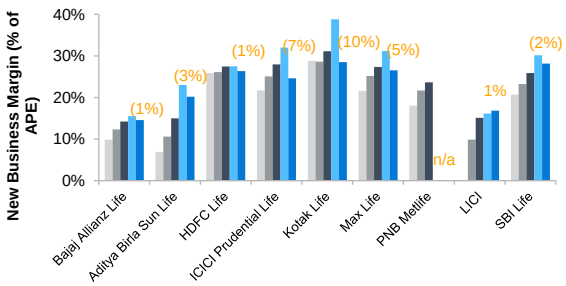


FIGURE 42: REPORTED NEW BUSINESS MARGIN OF INDIAN INSURANCE OPERATIONS, 2019-2023



[41] Exide Life has been merged with HDFC Life, so it has been excluded from the analysis.

[42] For the purposes of this report, 2023 for India insurers represents the financial year ending 31 March 2024.

[43] PNB MetLife, Canara HSBC Life and Reliance Nippon Life have not disclosed their 2023 results before the cutoff date for this report, i.e., 31 May 2024.

[44] In Figures 37, 38, and 39, Aditya Birla Sun Life, SBI Life, Edelweiss Tokio Life, Canara HSBC Life insurance, PNB Metlife and Kotak Life have been excluded, as their split of EV for 2023 has not been disclosed.

[45] For comparability, the VNB and new business margin figures are after the impact of expense overruns.

[46] For Aditya Birla Sun Life and Kotak Life, APE has been calculated using disclosed VNB and new business margins on an APE basis.

INDONESIA

FIGURE 43: REPORTED EV OF INDONESIAN INSURANCE OPERATIONS, 2019-2023

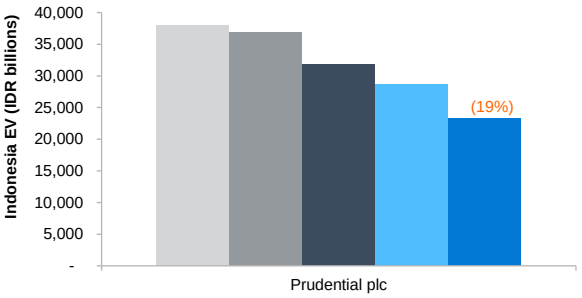


FIGURE 44: REPORTED VNB[47] OF INDONESIAN INSURANCE OPERATIONS, 2019-2023[48]

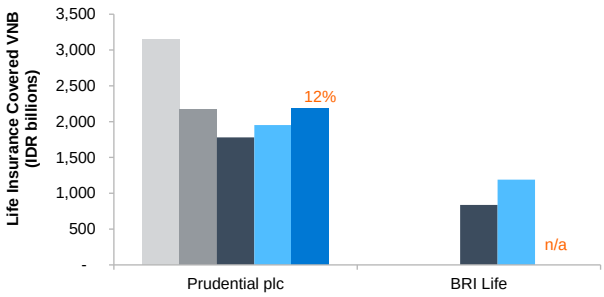


FIGURE 45: REPORTED APE[49] OF INDONESIAN INSURANCE OPERATIONS, 2019-2023

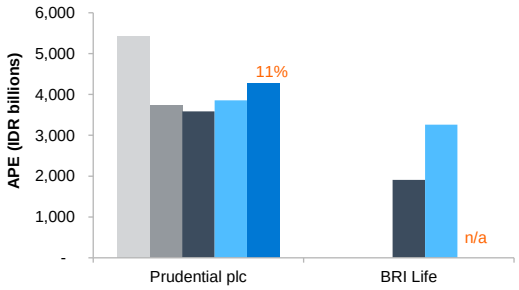
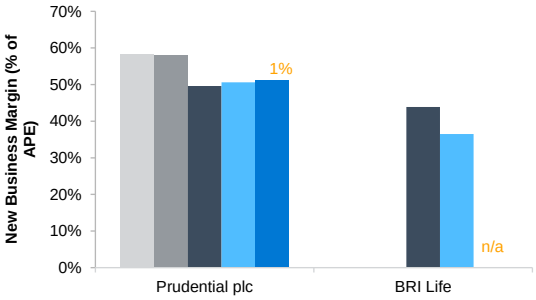
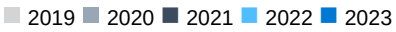


FIGURE 46: REPORTED NEW BUSINESS MARGIN OF INDONESIAN INSURANCE OPERATIONS, 2019-2023





1-Year Growth % 2022-2023

Percentage point change in margins 2022-2023

[47] VNB and APE throughout this section have been converted to local currency using the prevailing exchange rates applicable at each reporting date (2019, 2020, 2021, 2022 and 2023). These figures are different to the disclosed VNB/APE in local currency terms due to exchange rate differences, as VNB/APE presented in EV disclosures have been converted based on average exchange rates rather than the prevailing exchange rate applicable at the reporting date.

[48] The FX rates used for conversion to local currency (for all charts) are listed in Appendix H.

[49] Ibid.

JAPAN

FIGURE 47: REPORTED EV OF JAPANESE INSURANCE OPERATIONS, 2019-2023[50]

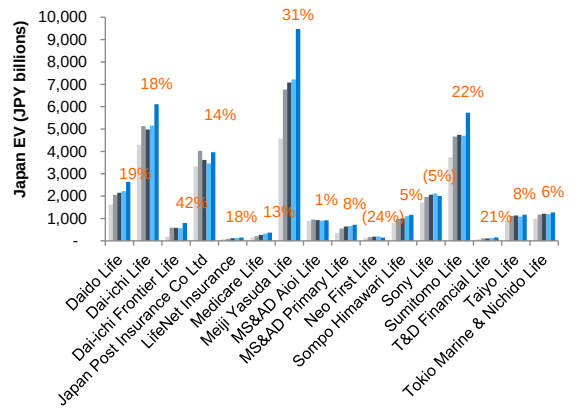


FIGURE 48: REPORTED ANW[51] OF JAPANESE INSURANCE OPERATIONS, 2019-2023

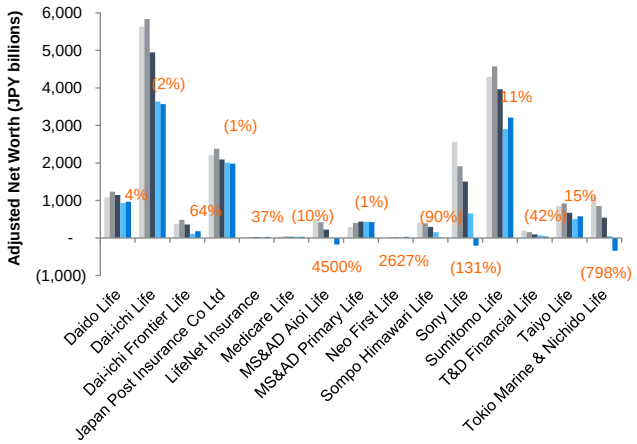


FIGURE 49: REPORTED VIF[52] OF JAPANESE INSURANCE OPERATIONS, 2019-2023

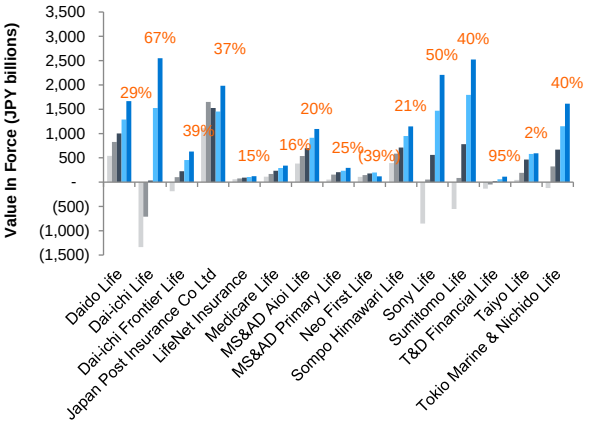


FIGURE 50: REPORTED VIF/ANW SPLIT OF JAPANESE INSURANCE OPERATIONS, 2023

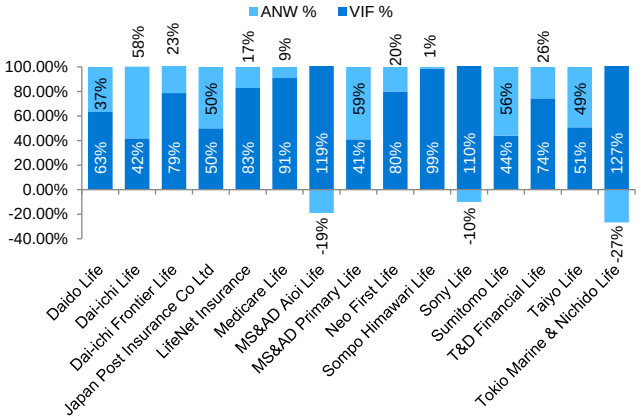


FIGURE 51: REPORTED VNB OF JAPANESE INSURANCE OPERATIONS, 2019-2023

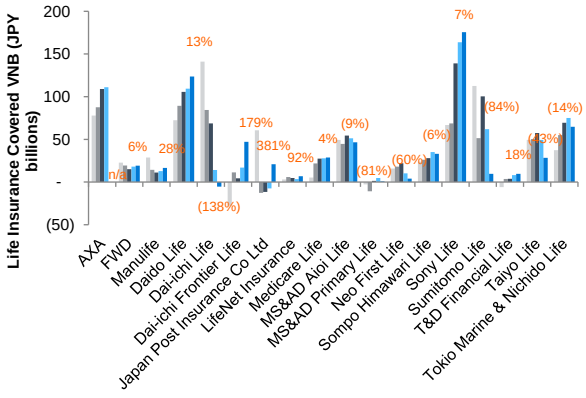
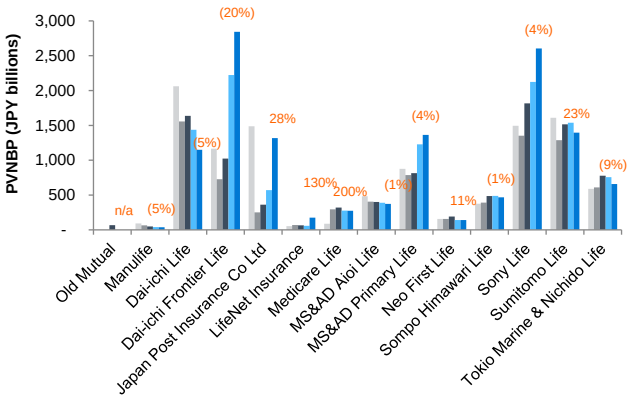


FIGURE 52: REPORTED PVNBP[53] OF JAPANESE INSURANCE OPERATIONS, 2019-2023



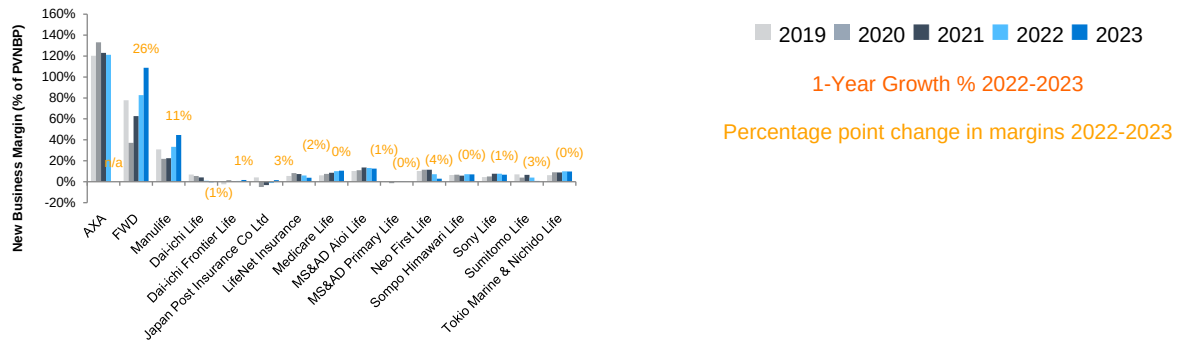
[50] Meiji Yasuda Life has replaced EEV with a new indicator Group Surplus, hence the number in the chart is group surplus for the company.

[51] In 2023, Japan Post Insurance Co Ltd and MS&AD Primary Life have included unrealised gains on assets backing liabilities in VIF, instead of ANW.

[52] Ibid.

[53] AXA and Manulife have been excluded from this graph, as they do not disclose PVNBP numbers.

FIGURE 53: REPORTED NEW BUSINESS MARGIN OF JAPANESE INSURANCE OPERATIONS, 2019-2023



MALAYSIA

FIGURE 54: REPORTED EV OF MALAYSIAN INSURANCE OPERATIONS, 2019-2023[54,55,56]

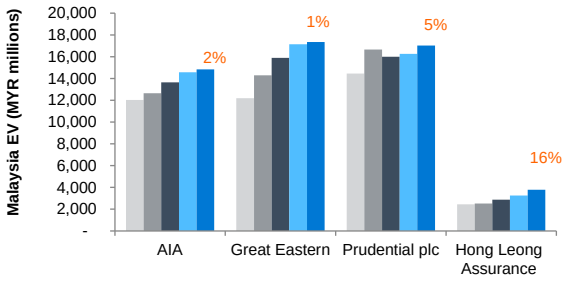


FIGURE 55: REPORTED ANW OF MALAYSIAN INSURANCE OPERATIONS, 2019-2023

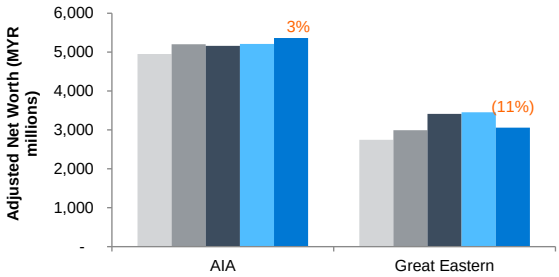


FIGURE 56: REPORTED VIF OF MALAYSIAN INSURANCE OPERATIONS, 2019-2023

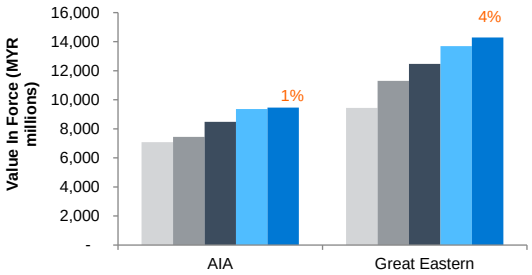


FIGURE 57: REPORTED VIF/ANW SPLIT OF MALAYSIAN INSURANCE OPERATIONS, 2023

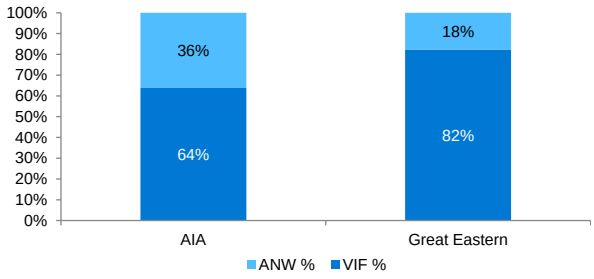


FIGURE 58: REPORTED VNB[57] OF MALAYSIAN INSURANCE OPERATIONS, 2019-2023[58]

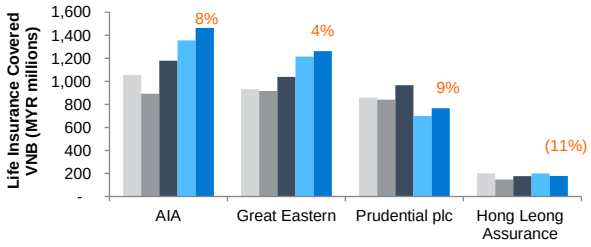


FIGURE 59: REPORTED APE[59] OF MALAYSIAN INSURANCE OPERATIONS, 2019-2023

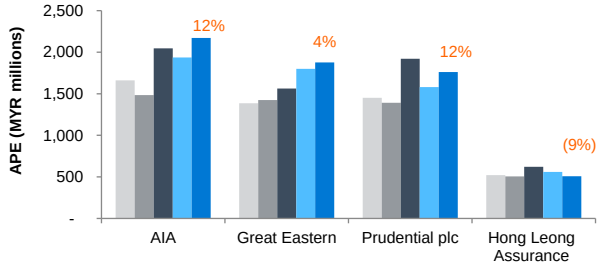
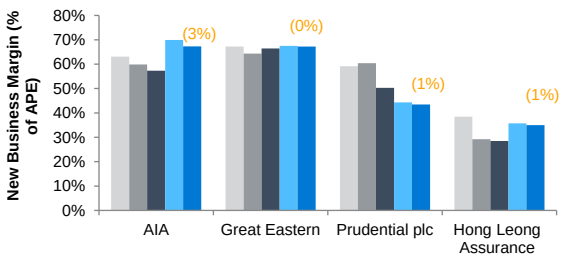


FIGURE 60: REPORTED NEW BUSINESS MARGIN OF MALAYSIAN INSURANCE OPERATIONS, 2019-2023



[54] Great Eastern Malaysia's EV (ANW plus VIF) figure includes Great Eastern Takaful Berhad (GETB).

[55] The FX rates used for conversion to local currency (for all charts) are listed in Appendix H.

[56] FY2023 for Hong Leong Assurance (HLA) Malaysia represents the financial year ending 30 June 2023.

[57] AIA's VNB and APE figures exclude pension business. For HLA, APE has been calculated.

[58] Great Eastern Malaysia's VNB figure included GETB.

[59] The values have been determined based on APE reported in EV disclosure converted to local currency using the prevailing exchange rate applicable at each reporting date (2019, 2020, 2021, 2022 and 2023). These figures are different from the disclosed APE for AIA and Great Eastern Malaysia in local currency terms due to exchange rate differences, as APE presented in EV disclosures have been converted based on average exchange rates rather than the prevailing exchange rate applicable at the reporting date.

SINGAPORE

FIGURE 61: REPORTED EV OF SINGAPOREAN INSURANCE OPERATIONS, 2019-2023[60]

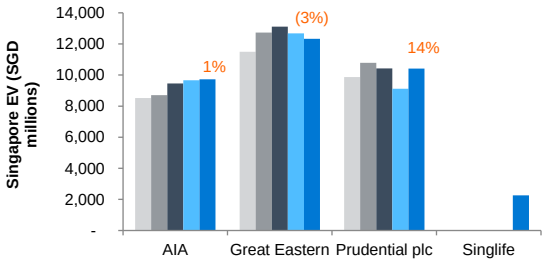


FIGURE 62: REPORTED ANW OF SINGAPOREAN INSURANCE OPERATIONS, 2019-2023[61]

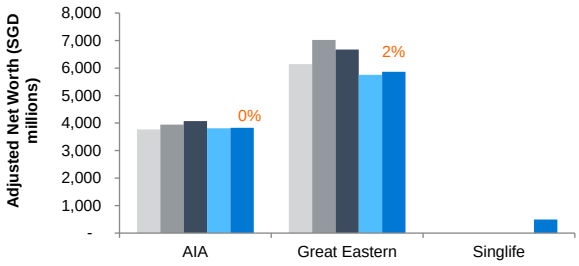


FIGURE 63: REPORTED VIF OF SINGAPOREAN INSURANCE OPERATIONS, 2019-2023

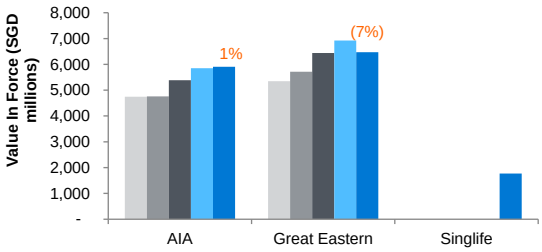


FIGURE 64: REPORTED VIF/ANW SPLIT OF SINGAPOREAN INSURANCE OPERATIONS, 2023

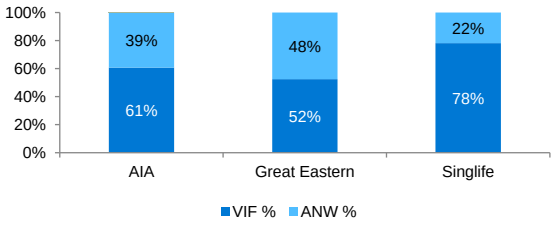


FIGURE 65: REPORTED VNB OF SINGAPOREAN INSURANCE OPERATIONS, 2019-2023

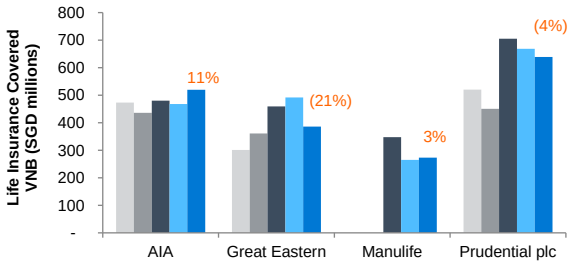


FIGURE 66: REPORTED APE[62] OF SINGAPOREAN INSURANCE OPERATIONS, 2019-2023

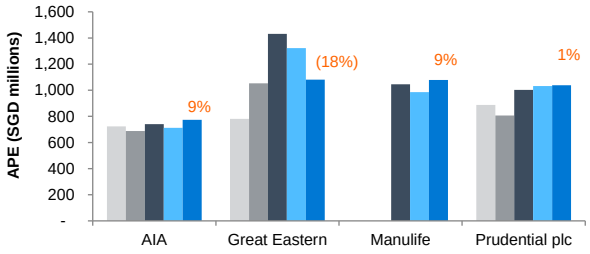
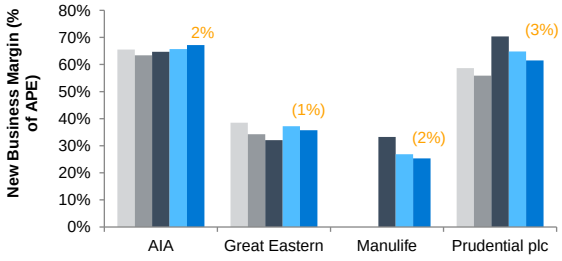


FIGURE 67: REPORTED NEW BUSINESS MARGIN OF SINGAPOREAN INSURANCE OPERATIONS, 2019-2023



[60] Great Eastern Singapore's EV includes its businesses in Brunei, Hong Kong and Indonesia.

[61] Great Eastern Singapore's ANW includes its businesses in Brunei, Hong Kong and Indonesia.

[62] The values shown in Figure 66 have been determined based on APE reported in EV disclosure converted to local currency using the prevailing exchange rate applicable at each reporting date (2019, 2020, 2021, 2022 and 2023). These figures are different from the disclosed APE for Prudential and AIA Singapore in local currency terms due to exchange rate differences, as APE presented in EV disclosures have been converted based on average exchange rates rather than the prevailing exchange rate applicable at the reporting date.

TAIWAN

FIGURE 68: REPORTED EV[63] OF TAIWANESE INSURANCE OPERATIONS, 2019-2023[64]

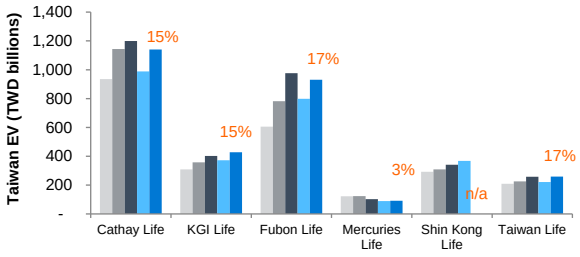


FIGURE 69: REPORTED ANW OF TAIWANESE INSURANCE OPERATIONS, 2019-2023

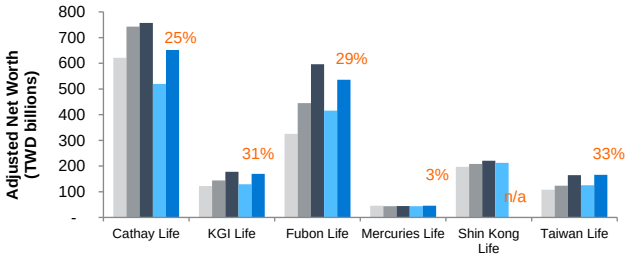


FIGURE 70: REPORTED VIF OF TAIWANESE INSURANCE OPERATIONS, 2019-2023

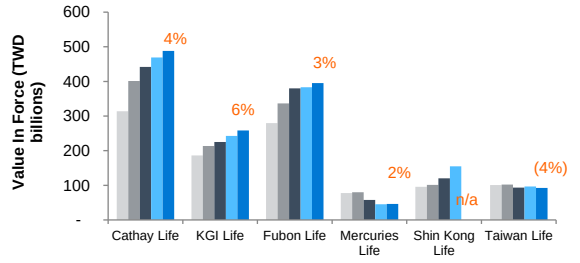


FIGURE 71: REPORTED VIF/ANW SPLIT OF TAIWANESE INSURANCE OPERATIONS, 2023

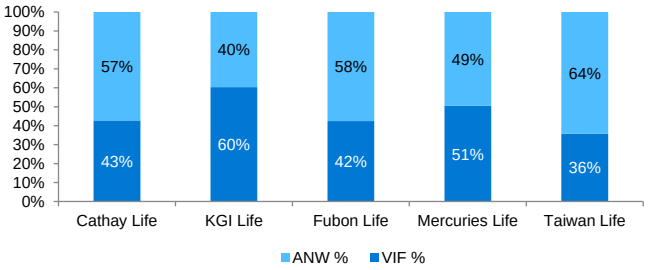


FIGURE 72: REPORTED VNB OF TAIWANESE INSURANCE OPERATIONS, 2019-2023[65]

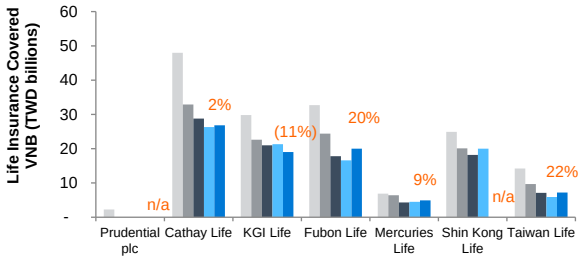


FIGURE 73: REPORTED APE[66] OF TAIWANESE INSURANCE OPERATIONS, 2019-2023

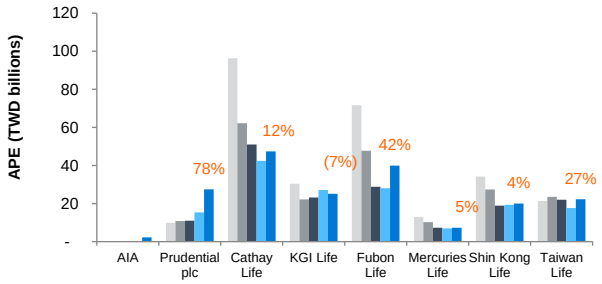
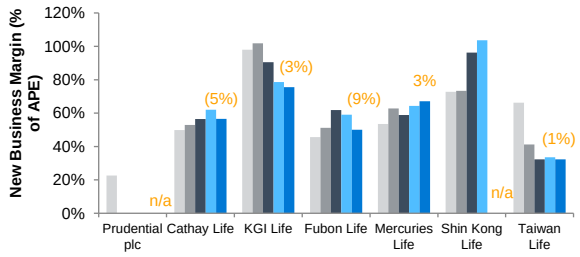


FIGURE 74: REPORTED NEW BUSINESS MARGIN[67] OF TAIWANESE INSURANCE OPERATIONS, 2019-2023



[63] EV, VNB, and APE throughout this section have been converted to local currency using the prevailing exchange rates applicable at each reporting date (2019, 2020, 2021, 2022 and 2023).

[64] The FX rates used for conversion to local currency (for all charts) are listed in Appendix H.

[65] Prudential plc has not disclosed VNB results for Taiwan for 2020, 2021, 2022 and 2023.

[66] For Cathay Life, KGI Life, Fubon Life, Shin Kong Life, Mercuries Life, and Taiwan Life, the figures disclosed are based on first-year premium equivalent (FYPE) instead of APE. FYPE = 10% single & flexible premium + 20% x 2-year premium payment term + … + 50% five-year premium payment term + 100% six-year or more premium payment term.

[67] For Cathay Life, KGI Life, Fubon Life, Taiwan Life, and Mercuries Life, the NBM is calculated as VNB/FYPE.

THAILAND

FIGURE 75: REPORTED EV[68] OF THAILAND INSURANCE OPERATIONS, 2019-2023[69]

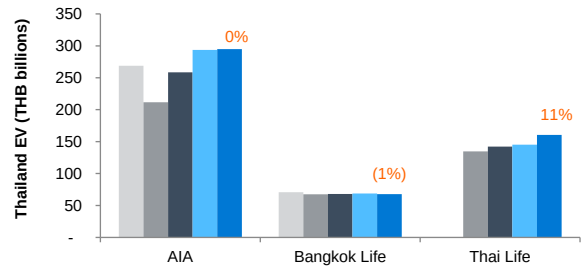


FIGURE 76: REPORTED ANW OF THAILAND INSURANCE OPERATIONS, 2019-2023

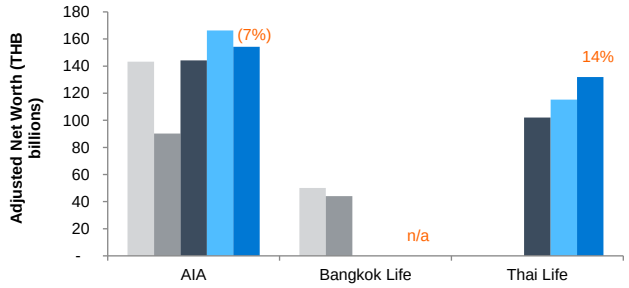


FIGURE 77: REPORTED VIF OF THAILAND INSURANCE OPERATIONS, 2019-2023

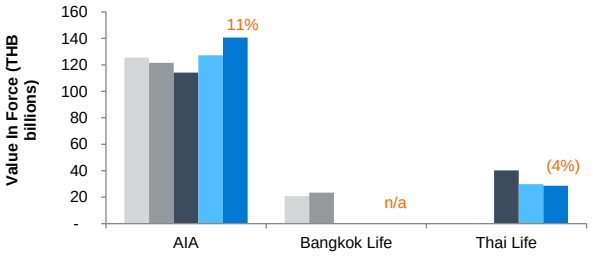


FIGURE 78: REPORTED VIF/ANW SPLIT OF THAILAND INSURANCE OPERATIONS, 2023

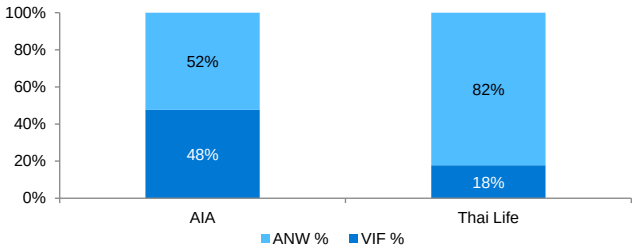


FIGURE 79: REPORTED VNB OF THAILAND INSURANCE OPERATIONS, 2019-2023

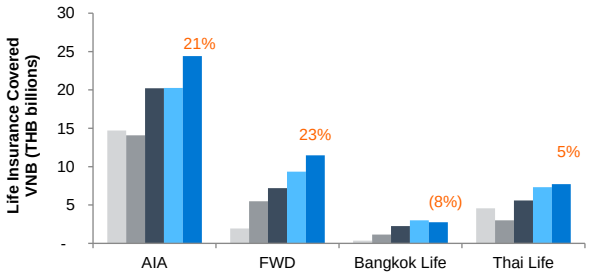


FIGURE 80: REPORTED APE OF THAILAND INSURANCE OPERATIONS, 2019-2023[70]

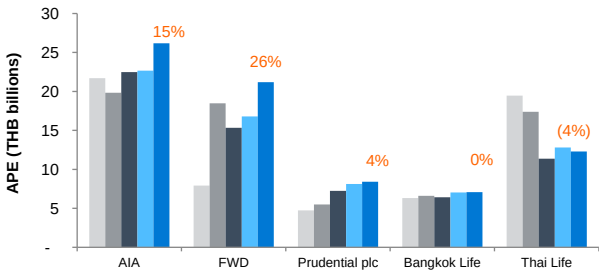
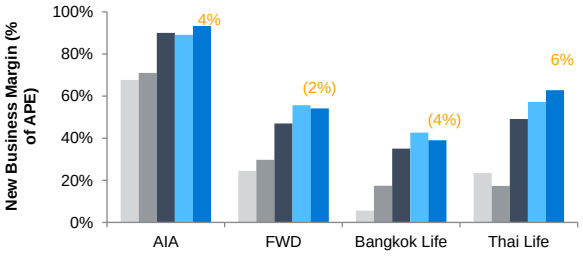


FIGURE 81: REPORTED NEW BUSINESS MARGIN OF THAILAND INSURANCE OPERATIONS, 2019-2023



[68] EV, VNB, and APE throughout this section have been converted to local currency using the prevailing exchange rates applicable at each reporting date (2019, 2020, 2021, 2022 and 2023).

[69] The FX rates used for conversion to local currency (for all charts) are listed in Appendix H.

[70] Prudential plc only discloses APE for its Thailand operations.

VIETNAM

FIGURE 82: REPORTED EV OF VIETNAM INSURANCE OPERATIONS, 2019-2023

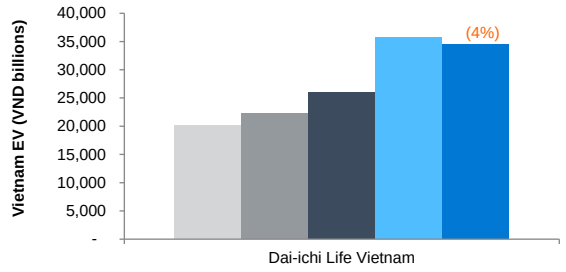


FIGURE 83: REPORTED ANW OF VIETNAM INSURANCE OPERATIONS, 2019-2023

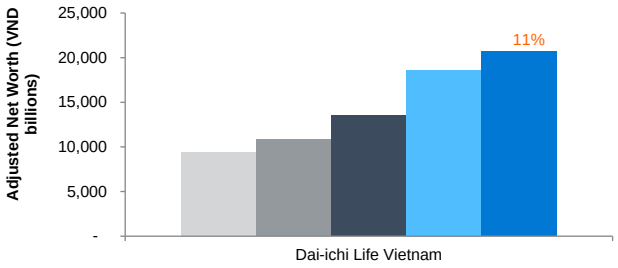


FIGURE 84: REPORTED VIF OF VIETNAM INSURANCE OPERATIONS, 2019-2023

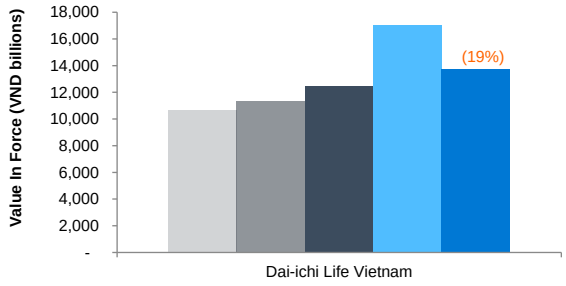


FIGURE 85: REPORTED VIF/ANW SPLIT OF VIETNAM INSURANCE OPERATIONS, 2023

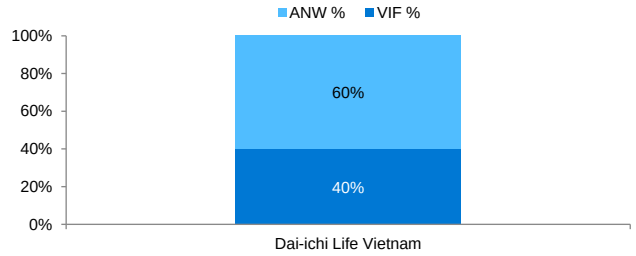


FIGURE 86: REPORTED VNB OF VIETNAM INSURANCE OPERATIONS, 2019-2023

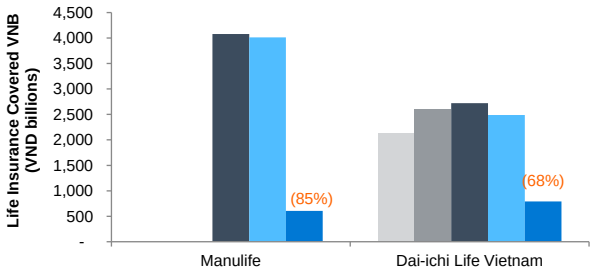


FIGURE 87: REPORTED APE[71] OF VIETNAM INSURANCE OPERATIONS, 2019-2023

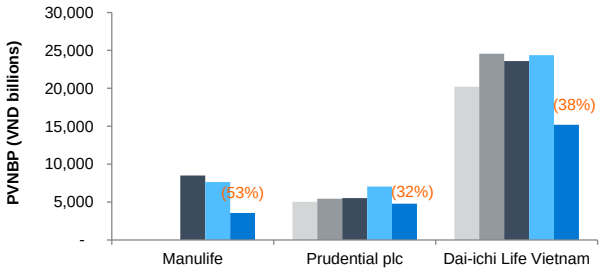
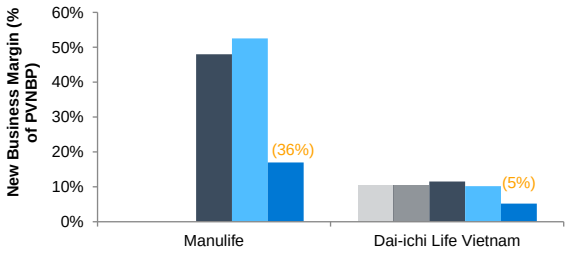


FIGURE 88: REPORTED NEW BUSINESS MARGIN[72] OF VIETNAM INSURANCE OPERATIONS, 2019-2023



[71] For Dai-ichi Life Vietnam, APE has been calculated using disclosed VNB and new business margins.

[72] Dai-ichi Life Vietnam discloses new business margins on a PVNBP basis rather than on an APE basis.

Appendix D: RDR and investment return assumptions

FIGURE 89: RDR AND INVESTMENT RETURN ASSUMPTIONS OF MNCS[73]

COMPANY	EV PRINCIPLE	RDR	INVESTMENT RETURNS
AIA	TEV	China: 9.16% Hong Kong: 7.97% Indonesia: 13.17% South Korea: 8.81% Malaysia: 8.80% Philippines (Philam Life): 12.10% Singapore: 7.38% Sri Lanka: 14.70% Taiwan: 7.62% Thailand: 7.81% Vietnam: 9.54%.	China: Equities 8.80%, 10Y gov't bonds 3.50% Hong Kong: Equities 8.00%, 10Y gov't bonds 3.50% Indonesia: Equities 12.00%, 10Y gov't bonds 7.50% South Korea: Equities 7.30%, 10Y gov't bonds 3.00% Malaysia: Equities 9.10%, 10Y gov't bonds 4.50% Philippines (Philam Life): Equities 10.80%, 10Y gov't bonds 6.00% Singapore: Equities 7.60%, 10Y gov't bonds 3.10% Sri Lanka: Equities 12.00%, 10Y gov't bonds 10.00% Taiwan: Equities 6.10%, 10Y gov't bonds 1.50% Thailand: Equities 8.10%, 10Y gov't bonds 3.40% Vietnam: Equities 9.30%, 10Y gov't bonds 4.00%
AXA	EEV	Risk-free interest rate curves, allowing for credit risk adjustment and volatility adjustment.	Risk-free interest rate curves, allowing for credit risk adjustment and volatility adjustment.
FWD	TEV	Hong Kong: 7.80% Japan: 6.25% Indonesia: 13.75% Malaysia: 9.15% Philippines: 12.75% Singapore: 7.55% Thailand: 8.75% Vietnam: 10.75%	Hong Kong: Equities 8.00%, 10Y gov't bonds 3.00% (USD), 2.75% (HKD) Japan: 10Y gov't bonds 0.5% Indonesia: Equities 11.25%, 10Y gov't bonds 7.25% Malaysia: Equities 8.79%, 10Y gov't bonds 4.15% Philippines: Equities 11.62%, 10Y gov't bonds 5.75% Singapore: Equities 7.00%, 10Y gov't bonds 2.80% Thailand: Equities 8.75%, 10Y gov't bonds 3.20% Vietnam: Equities 9.30%, 10Y gov't bonds 4.00%
GENERALI	MCEV	Risk-free interest rate curves, allowing for credit risk adjustment and volatility adjustment.	Risk-free interest rate curves, allowing for credit risk adjustment and volatility adjustment.
GREAT EASTERN	TEV	Singapore: 6.25% Malaysia: 8.00% Indonesia: 12.50%	Not disclosed.
MANULIFE	TEV	Japan: 7.00% Hong Kong: 9.75%	Japan: Equities 6.00%, 10Y gov't bonds (immediate to 10 years and beyond in future reinvestment rate): 0.62% to 1.5% Hong Kong: Equities 9.50%, 10Y gov't bonds (immediate to 10 years and beyond in future reinvestment rate): 3.19% to 2.85%"

[73] Entries shaded in blue indicate that the 2023 RDR and investment assumptions have not yet been disclosed, and that the assessment has been based on 2022 disclosures instead.

COMPANY	EV PRINCIPLE	RDR	INVESTMENT RETURNS
PRUDENTIAL PLC	EEV	China: 7.10% (NB), 7.10% (IF) Hong Kong: 4.70% (NB), 5.50% (IF) Indonesia: 9.00% (NB), 9.90% (IF) Malaysia: 5.60% (NB), 6.20% (IF) Philippines: 12.30% (NB), 12.30% (IF) Singapore: 4.60% (NB), 4.80% (IF) Taiwan: 3.30% (NB), 4.20% (IF) Thailand: 10.00% (NB), 10.00% (IF) Vietnam: 3.70% (NB), 4.10% (IF)	China: Equities 6.60%, 10Y gov't bonds 2.60%. Hong Kong: Equities 7.40%, 10Y gov't bonds 3.90%. Indonesia: Equities 11.00%, 10Y gov't bonds 6.70%. Malaysia: Equities 7.30%, 10Y gov't bonds 3.80%. Philippines: Equities 10.30%, 10Y gov't bonds 6.10%. Singapore: Equities 6.20%, 10Y gov't bonds 2.70%. Taiwan: Equities 5.30%, 10Y gov't bonds 1.30%. Thailand: Equities 7.00%, 10Y gov't bonds 2.80%. Vietnam: Equities 6.60%, 10Y gov't bonds 2.30%.
ZURICH	MCEV	Risk-free interest rate curves, allowing for volatility adjustment.	Risk-free interest rate curves, allowing for volatility adjustment.

There is a clear divide between the MNCs and domestic insurers when it comes to disclosing long-term investment return assumptions. MNCs typically disclose investment return assumptions on an asset-class basis. In contrast, domestic insurers disclose investment returns mostly on a portfolio basis, without much information on the assumed asset mix (although this can often be inferred from their regulatory returns).

FIGURE 90: RDR AND INVESTMENT ASSUMPTIONS OF INSURERS BY MARKET[74] [75]

MARKET	COMPANY	EV PRINCIPLE	RDR	INVESTMENT RETURNS
CHINA	**Chinese 10-year government bond yield at 31 December 2023: 2.592%**			
	AIA	TEV	9.16%.	Equities 8.80%, 10Y gov't bonds 3.50%.
	China Life	TEV	8.00%.	4.50%.
	China Pacific	TEV	9.00%.	Long-term business: 4.50%. Short-term business: based on the latest one-year bank deposit base rate.
	China Taiping	TEV	9.00%.	Assumed to be 4.50%
	New China Life	TEV	9.00%.	Non-unit-linked insurance funds: 4.50% Unit-linked: 6.00%
	PICC Life	TEV	9.00%.	Others: 4.5% Par % UL: 4.75%
	Ping An	TEV	9.50%.	Non-investment-linked: 4.50% Investment-linked: slightly higher than non-investment-linked
	Prudential plc	EEV	China: 7.10% (NB), 7.10% (IF).	Equities 6.60%, 10Y gov't bonds 2.60%.
HONG KONG	**Hong Kong 10-year government bond yield at 31 December 2023: 3.272%**			
	AIA	TEV	7.97%.	Equities 8.00%, 10Y gov't bonds 3.50%
	AXA	EEV	Risk-free interest rate curves, allowing for credit risk adjustment and volatility adjustment.	Risk-free interest rate curves, allowing for credit risk adjustment and volatility adjustment.
	FWD	TEV	7.8%	Hong Kong: Equities 8.00%, 10Y gov't bonds 3.00% (USD), 2.75% (HKD)

[74] Entries shaded in blue indicate that the 2023 RDR and investment assumptions have not yet been disclosed, and that the assessment has been based on 2022 disclosures instead.

[75] Source for the 10-year government bond yields for all markets is https://www.investing.com, and yields may differ from those shown in EV disclosures of specific companies.

MARKET	COMPANY	EV PRINCIPLE	RDR	INVESTMENT RETURNS
HONG KONG (continued)	Manulife	TEV	9.75%	Equities 9.50%, 10Y gov't bonds (immediate and ultimate reinvestment rate): 3.19% and 2.85%
	Prudential plc	EEV	4.70% (NB), 5.50% (IF)	Equities 7.40%, 10Y gov't bonds 3.90%
INDIA	**Indian 10-year government bond yield at 31 March 2024: 7.052%**			
	Bajaj Allianz Life	IEV	Risk-free yield curve.	Risk-free yield curve.
	Aditya Birla Sun Life	MCEV	Not disclosed (although expected to be risk-free yield curve given the valuation methodology).	Not disclosed (although expected to be risk-free yield curve given the valuation methodology).
	HDFC Life	IEV	Risk-free yield curve extrapolated beyond 40 years using suitable methodology and adjusted to allow for liquidity premium in case of annuities.	Risk-free yield curve extrapolated beyond 40 years using suitable methodology and adjusted to allow for liquidity premium in case of annuities.
	ICICI Prudential Life	IEV	Risk-free yield curve.	Risk-free yield curve.
	Kotak Life	IEV	Not disclosed (although expected to be risk-free yield curve given the valuation methodology).	Not disclosed (although expected to be risk-free yield curve given the valuation methodology).
	Max Life	MCEV	Risk-free yield curve.	Risk-free yield curve.
	PNB MetLife	IEV	Risk-free yield curve.	Risk-free yield curve.
	Reliance Nippon Life	Not Disclosed	Not disclosed.	Not disclosed.
	LICI	IEV	Not disclosed (although expected to be risk-free yield curve given the valuation methodology).	Not disclosed (although expected to be risk-free yield curve given the valuation methodology).
	SBI Life	IEV	Risk-free yield curve.	Risk-free yield curve.
INDONESIA	**Indonesian 10-year government bond yield at 31 December 2023: 6.482%**			
	AIA	TEV	13.17%	Indonesia: Equities 12.00%, 10Y gov't bonds 7.50%
	FWD	TEV	13.75%	Indonesia: Equities 11.25%, 10Y gov't bonds 7.25%
	Great Eastern	TEV	12.50%	Not disclosed
	Prudential plc	EEV	NB: 9.00% , IF: 9.90%	Equities 11.00%, 10Y gov't bonds 6.70%
JAPAN	**Japanese 10-year government bond yield at 31 March 2024: 0.732%**			
	AXA	MCEEV	Risk-free interest rate curves, allowing for credit risk adjustment and volatility adjustment.	Risk-free interest rate curves, allowing for credit risk adjustment and volatility adjustment.
	FWD	TEV	6.25%.	10Y gov't bonds 0.5%.
	Manulife	TEV	7.00%.	Equities 6.00% 10Y gov't bonds (immediate to ultimate reinvestment rate): 0.62% to 1.5%.
	Daido Life	MCEV	Risk-free rate (JPY): Based on Japanese government bond (JGB) and ultimate forward rates (UFRs). Risk-free rate (foreign currencies): Based on government bond yields.	Risk-free interest rate curves.
	Dai-ichi Life	Modified MCEV	Not disclosed.	Not disclosed.
	Dai-ichi Frontier Life	Modified MCEV	Not disclosed.	Not disclosed.
	Japan Post Insurance Co Ltd	MC-EEV	Risk-free rate (based on JGB and UFRs).	Risk-free interest rate curves.
	LifeNet Insurance	MC-EEV	Risk-free rate (based on JGB and UFRs).	Risk-free interest rate curves.
	Medicare Life	MC-EEV	Risk-free rate (Based on Japanese, US, and Australian government bond and UFRs).	Risk-free interest rate curves.

MARKET	COMPANY	EV PRINCIPLE	RDR	INVESTMENT RETURNS
JAPAN (continued)	Meiji Yasuda Life	Modified MCEV	Total of risk-free rate (based on Japanese, US and Australian government bond and UFRs) and expected return on investment (based on the ICS under consideration by IAIS).	Not disclosed.
	MS&AD Aioi Life	MC-EEV	Risk-free rate: Based on JGB and extrapolated by assuming forward rates in the 41st year and beyond were equal to those in the 40th year.	Risk-free interest rate curves.
	MS&AD Primary Life	MC-EEV	JPY swap rates extrapolated by assuming that forward rates in the 41st year and beyond were equal to those in the 40th year. Fixed insurance product (JPY, USD and AUD): Total of swap rates (JPY, USD and AUD) and spread that exceeds risk-free rate considering the assets held.	Risk-free interest rate curves. Fixed insurance product (JPY, USD and AUD): Total of Risk-free interest rate curves and spread that exceeds risk-free rate considering the assets held.
	Neo First Life	Modified MCEV	Not disclosed.	Not disclosed.
	Sompo Himawari Life	MCEV	Risk-free rate (Based on JGB and UFRs).	Risk-free interest rate curves.
	Sony Life	Modified MCEV	Risk-free rate (Based on Japanese, US, and Australian government bond and UFRs).	Risk-free interest rate curves.
	Sumitomo Life	MC-EEV	Risk-free rate (Based on Japanese, US, and Australian government bond and UFRs).	Risk-free interest rate curves.
	T&D Financial Life	MCEV	Risk-free rate (JPY): Based on JGB and UFRs. Risk-free rate (Foreign currencies): Based on government bond yields.	Risk-free interest rate curves.
	Taiyo Life	MCEV	Risk-free rate (JPY): Based on JGB and UFRs. Risk-free rate (Foreign currencies): Based on government bond yields.	Risk-free interest rate curves.
	Tokio Marine & Nichido Life	MCEV	Risk-free rate (JPY): Based on JGB and 41st year and thereafter are set to the 40-year spot rate adjusted based on historical interest rate movement.	Risk-free interest rate curves.
MALAYSIA	**Malaysian 10-year government bond yield at 31 December 2023: 3.736%**			
	AIA	TEV	8.80%	Malaysia: Equities 9.10%, 10Y gov't bonds 4.50%
	FWD	TEV	9.15%	Malaysia: Equities 8.79%, 10Y gov't bonds 4.15%
	Great Eastern	TEV	8.00%	Not disclosed
	Hong Leong Assurance	TEV	Not disclosed	Not disclosed
	Prudential plc	EEV	5.60% (NB), 6.20% (IF)	Equities 7.30%, gov't bonds 3.80%
PHILIPPINES	**Philippines 10-year government bond yield at 31 December 2023: 6.023%**			
	AIA	TEV	12.10%	Philippines (Philam Life): Equities 10.80%, 10Y gov't bonds 6.00%
	FWD	TEV	12.75%	Philippines: Equities 11.62%, 10Y gov't bonds 5.75%
	Prudential plc	EEV	12.30% (NB), 12.30% (IF)	Equities 10.30%, gov't bonds 6.10%

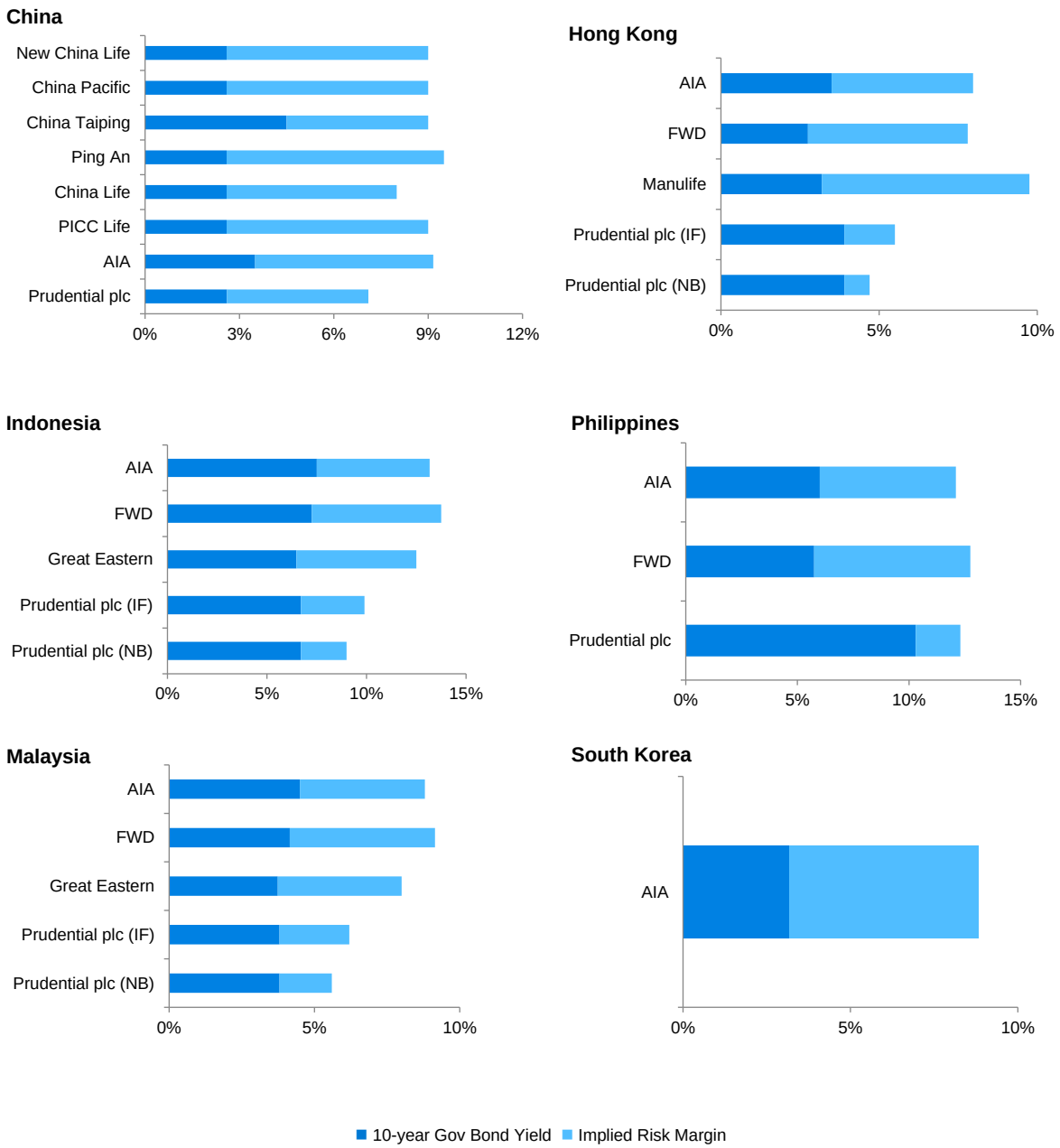
MARKET	COMPANY	EV PRINCIPLE	RDR	INVESTMENT RETURNS
SINGAPORE	**Singaporean 10-year government bond yield at 31 December 2023: 2.706%**			
	AIA	TEV	7.38%	Singapore: Equities 7.60%, 10Y gov't bonds 3.10%
	FWD	TEV	7.55%	Singapore: Equities 7.00%, 10Y gov't bonds 2.80%
	Great Eastern	TEV	6.25%	Not disclosed
	Prudential plc	EEV	4.60% (NB), 4.80% (IF)	Equities: 6.20%, gov't bonds 2.70%
	Singlife	TEV	7.00%	Long-term investment return rate: 4.20%-6.40%
SOUTH KOREA	**South Korean 10-year government bond yield at 31 December 2023: 3.175%**			
	AIA	TEV	8.81%	South Korea: Equities 7.30%, 10Y gov't bonds 3.00%
	Hanwha Life	TEV	8.00%.	3.30%.
	Samsung Life	TEV	7.50%.	3.63%.
TAIWAN	**Taiwanese 10-year government bond yield at 31 December 2023: 1.200%**			
	AIA	TEV	7.62%.	Equities 6.10%, 10Y gov't bonds 1.50% (Current 1.21% Long term 1.50%).
	Cathay Life	TEV	9.50%.	VNB TWD products: 2.62% ~ 4.58% (2043+) USD products : 5.21% ~ 5.28% (2043+) VIF TWD products: 3.88% ~ 4.75% (2043+) USD products : 4.54% ~ 5.35% (2043+) (Equivalent investment yield: 4.19%)
	KGI Life	TEV	9.50%.	TWD Policies: Year 1 ~ Year 19: 3.01% ~ 4.78% Year 20+: 4.78% Non-TWD policies: Year 1 ~ Year 19: 4.52% ~ 5.49% Year 20+: 5.49%
	Fubon Life	TEV	VNB: 9.00%. VIF: 9.00%.	VNB NTD traditional policies : Year 2023 to Year 2042 at 3.55%~4.84%(2043+) USD policies : Year 2023 to Year 2038 at 4.07%~5.30%(2039+) VIF NTD traditional policies : Year 2024 to Year 2045 at 3.55%~4.88%(2046+) USD policies : Year 2024 to Year 2034 at 4.00%~5.32%(2035+)
	Mercuries Life	TEV	9.50%.	VNB TWD products: 3.00% ~ 4.95% (2045+) USD products : 5.55% ~ 6.00% (2026+) VIF TWD products: 2.90% ~ 4.85% (2053+) USD products : 3.40% ~ 6.00% (2050+)

MARKET	COMPANY	EV PRINCIPLE	RDR	INVESTMENT RETURNS
TAIWAN (continued)	Prudential plc	EEV	3.30% (NB), 4.20% (IF).	Gov't bonds 1.30%, equities 5.30%
	Shin Kong Life	TEV	9.50%.	VNB TWD products: 3.31% ~ 4.96%. USD products: 4.61% ~ 5.33%. VIF TWD products: 2.90% ~ 4.98%. USD products: 3.87% ~ 5.44%.
	Taiwan Life	TEV	9.50%.	TWD policies: Year 2024 to Year 2043 at 3.44% ~ 4.24% (2043+) USD policies: Year 2024 to Year 2043 at 4.32% ~ 5.41% (2043+)
THAILAND	**Thai 10-year government bond yield at 31 December 2023: 2.690%**			
	AIA	TEV	7.81%	Thailand: Equities 8.10%, 10Y gov't bonds 3.40%
	Bangkok Life	TEV	8.40%	3.75%
	FWD	TEV	8.75%	Thailand: Equities 8.75%, 10Y gov't bonds 3.20%
	Prudential plc	EEV	10.00% (NB), 10.00% (IF)	Equities 7.00%, gov't bonds 2.80%
	Thai Life	TEV	8.20%	Equities 8.20%, 10Y gov't bonds 3.2%
VIETNAM	**Vietnamese 10-year government bond yield at 31 December 2023: 2.393%**			
	AIA	TEV	9.54%	Vietnam: Equities 9.30%, 10Y gov't bonds 4.00%
	Dai-ichi Life Vietnam	TEV	10.50%	Not disclosed
	FWD	TEV	10.75%	Vietnam: Equities 9.30%, 10Y gov't bonds 4.00%
	Prudential plc	EEV	3.70% (NB), 4.10% (IF)	Gov't bonds 2.30%, equities 6.60%

* Dai-ichi Life Group, Meiji Yasuda Life and Sony Life have been classified as modified MCEV. Modified MCEV is based on the insurer's own internal model approach, which is described by them as being broadly consistent with the Japan Economic Solvency Ratio (ESR) methodology which is market-consistent in nature and is to be implemented from March 2026. It should be noted that modified MCEV is not a formal embedded value standard and there are differences in methodology amongst the players who have been classified under the modified MCEV methodology.

The charts in Figure 91 compare long-term 10-year government bond yields and RDRs assumed by different companies for each market. The implied risk margin is also illustrated for each company.

FIGURE 91: ILLUSTRATIVE SPLIT OF ASSUMED RDR INTO 10-YEAR GOVERNMENT BOND YIELDS AND IMPLIED RISK MARGINS[76] [77] BY COMPANY[78] FOR EACH MARKET

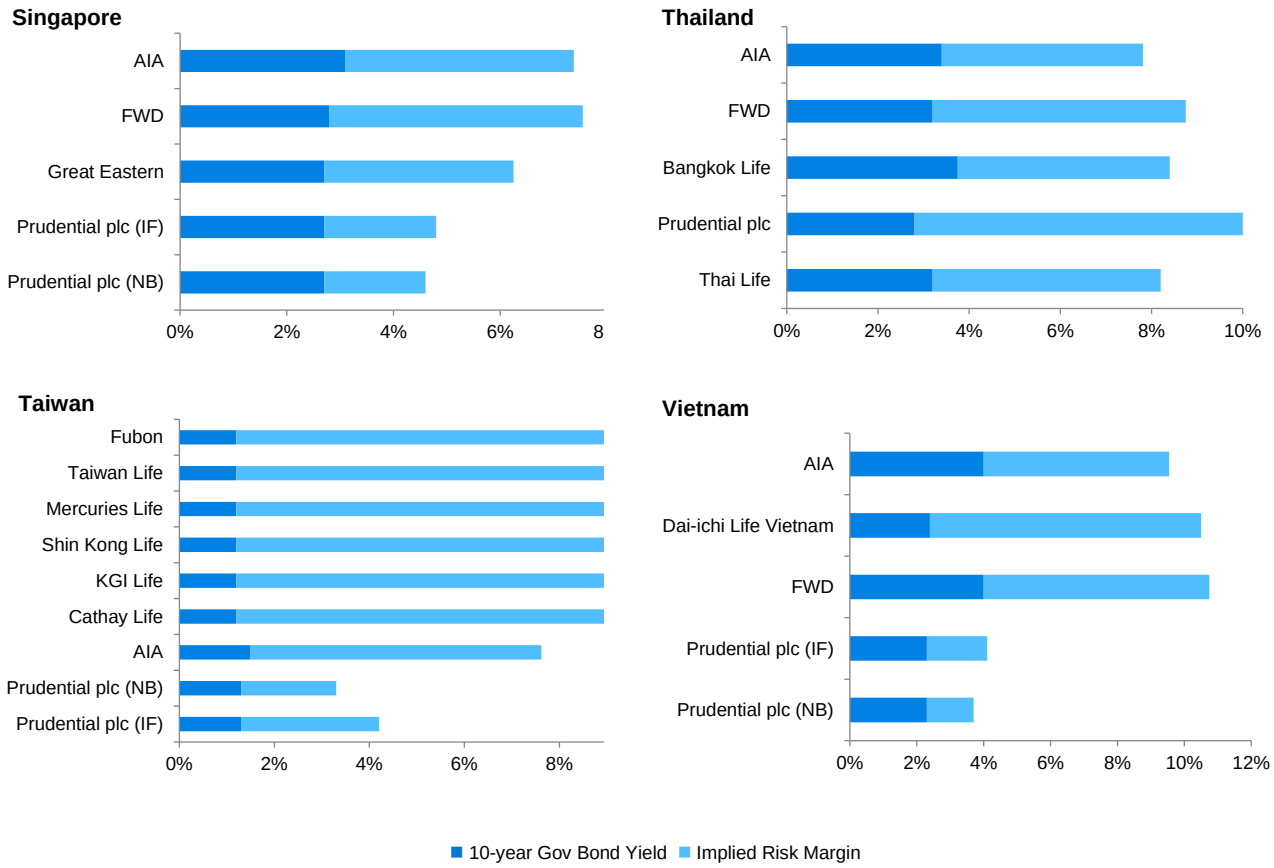


[76] In this case, the risk margin has been defined as the difference between the assumed RDR and the yield on a 10-year government bond as at each insurer's 2023 reporting date.

[77] The 10-year government bond yields have been extracted from http://www.investing.com for those companies that have not published the 10-year government yield.

[78] Note that only TEV- and EEV-reporting companies using RDRs have been included in this analysis. Companies reporting on MCEV, IEV, MC-EEV or Modified MCEV (i.e., using a discount curve similar to MCEV) bases have not been included. Companies that have not published their EV results in time for this report have also been excluded.

FIGURE 91: ILLUSTRATIVE SPLIT OF ASSUMED RDR INTO 10-YEAR GOVERNMENT BOND YIELDS AND IMPLIED RISK MARGINS BY COMPANY FOR EACH MARKET (CONTINUED)



Appendix E: Solvency margin requirements

FIGURE 92: SUMMARY OF SOLVENCY MARGIN REQUIREMENTS BY COMPANY[79]

CATEGORY	COMPANY	EV METHODOLOGY	REQUIRED CAPITAL
MNC	AIA	TEV	China: 100% of required capital as specified under the CAA EV assessment guidance. Hong Kong: 100% RBC. Indonesia: 120% RBC. Malaysia: 170% RBC. Philippines: 125% RBC. Singapore: Higher of 135% of capital adequacy requirement and 80% of Tier 1 capital requirement under RBC. South Korea: 150% RBC. Sri Lanka: 120% RBC. Taiwan: 250% RBC. Thailand: 140% RBC. Vietnam: 100% minimum SM.
MNC	AXA	SII/EEV	150% for entities outside European Economic Area (EEA) with limitations on soft capital to half of the target solvency capital.
MNC	FWD	TEV	Hong Kong: 100% RBC. Indonesia: 120% RBC. Japan: 600% RBC for FWD Life Japan. Malaysia: 195% RBC. Philippines: 125% RBC. Singapore: 114% of RBC. Thailand: 140% RBC. Vietnam: 100% minimum SM.
MNC	Generali	MCEV	For non-EEA: maximum of 100% of the local regulatory required capital and the Solvency II capital based on Standard Formula, net of the relevant free coverage.
MNC	Great Eastern	TEV	Requirements are based on the RBC framework as set out in local regulations for Singapore and Malaysia.
MNC	Manulife	TEV	China: 100% of the required capital as specified under the CAA EV assessment guidance . Indonesia: 120% RBC. Malaysia: 160% CAR. Philippines: 125% RBC. Singapore: 120% CAR. Vietnam: 100% minimum SM.
MNC	Prudential plc	EEV	Amount at least equal to local statutory notification requirements.
MNC	Zurich	MCEV	At least at the level equal to the regulatory required capital and in addition, an adequate buffer to cover short-term volatilities in solvency due to financial and non-financial risks or to achieve the capital required to maintain the desired credit rating.
China	China Life	TEV	Calculated as specified under the actuarial practice standard: Assessment standard for embedded value of life insurance.
China	China Pacific	TEV	Calculated as specified under the actuarial practice standard: Assessment standard for embedded value of life insurance.
China	China Taiping	TEV	Calculated as specified under the actuarial practice standard: Assessment standard for embedded value of life insurance.
China	New China Life	TEV	Calculated as specified under the actuarial practice standard: Assessment standard for embedded value of life insurance.
China	PICC Life	TEV	Calculated as specified under the actuarial practice standard: Assessment standard for embedded value of life insurance.

[79] Blue-shaded entries indicate that the 2023 required solvency capital information has not yet been disclosed, and that the assessment has been based on 2022 disclosures instead.

China	Ping An	TEV	Calculated as specified under the actuarial practice standard: Assessment standard for embedded value of life insurance.
India	Bajaj Allianz Life	MCEV	Not disclosed.
India	Aditya Birla Sun Life	MCEV	Not disclosed.
India	HDFC Life	IEV	Not disclosed
India	ICICI Prudential Life	IEV	150% of RSM less the funds for future appropriation and the book value of subordinated debt to the extent allowed by regulations.
India	Kotak Life	IEV	Not disclosed.
India	Max Life	MCEV	180% of RSM.
India	PNB MetLife	IEV	170% of RSM.
India	Reliance Nippon Life	Not Disclosed	Not disclosed.
India	LICI	IEV	160% of RSM less the FFA in respect of ULIP business and less the provisions for solvency margin requirements within the policy liabilities/insurance reserves/current liabilities.
India	SBI Life	IEV	180% of RSM.
Japan	Daido Life	MCEV	Higher of Japanese regulatory minimum capital requirement (200% of statutory Solvency Margin Ratio) and 133% of economic capital.
Japan	Dai-ichi Life	Modified MCEV	Not disclosed.
Japan	Dai-ichi Frontier Life	Modified MCEV	Not disclosed.
Japan	Japan Post Insurance Co Ltd	MC-EEV	Capital required to maintain 600% statutory Solvency Margin Ratio.
Japan	LifeNet Insurance	MC-EEV	Capital required to maintain 500% statutory Solvency Margin Ratio.
Japan	Medicare Life	MC-EEV	Capital required to maintain 400% statutory Solvency Margin ratio.
Japan	Meiji Yasuda Life	Modified MCEV	Not disclosed.
Japan	MS&AD Aioi Life	MC-EEV	Capital required to maintain 600% statutory Solvency Margin Ratio.
Japan	MS&AD Primary Life	MC-EEV	Capital required to maintain 600% statutory Solvency Margin Ratio.
Japan	Neo First Life	Modified MCEV	Not disclosed.
Japan	Sompo Himawari Life	MCEV	Capital required to maintain 600% statutory Solvency Margin ratio.
Japan	Sony Life	Modified MCEV	Higher of Japanese regulatory minimum capital requirement (200% of statutory Solvency Margin Ratio) or internal target.
Japan	Sumitomo Life	MC-EEV	Capital required to maintain 400% statutory Solvency Margin ratio.
Japan	T&D Financial Life	MCEV	Higher of Japanese regulatory minimum capital requirement (200% of statutory Solvency Margin Ratio) and 133% of economic capital.
Japan	Taiyo Life	MCEV	Higher of Japanese regulatory minimum capital requirement (200% of statutory Solvency Margin Ratio) and 133% of economic capital.
Japan	Tokio Marine & Nichido Life	MCEV	Higher of statutory minimum requirement level and internal target.
Taiwan	Cathay Life	TEV	200% RBC.
Taiwan	KGI Life	TEV	200% RBC.
Taiwan	Fubon Life	TEV	200% RBC.
Taiwan	Mercuries Life	TEV	200% RBC.
Taiwan	Shin Kong Life	TEV	200% RBC.
Taiwan	Taiwan Life	TEV	200% RBC.
Thailand	Bangkok Life	TEV	Not disclosed.
Thailand	Thai Life	TEV	140% CAR.
Vietnam	Dai-ichi Life Vietnam	TEV	Not disclosed.

*Dai-ichi Life Group, Meiji Yasuda Life and Sony Life have been classified as modified MCEV. Modified MCEV is based on the insurer's own internal model approach, which is described by them as being broadly consistent with the Japan Economic Solvency Ratio (ESR) methodology which is market-consistent in nature and is to be implemented from March 2026. It should be noted that modified MCEV is not a formal embedded value standard and there are differences in methodology amongst the players who have been classified under the modified MCEV methodology.

Appendix F: TVOG approaches

FIGURE 93: SUMMARY OF TVOG APPROACHES[80]

COMPANY TYPE	COMPANY	OPTIONS AND GUARANTEES	SCENARIOS	USE OF DYNAMIC POLICYHOLDER BEHAVIOUR	CALCULATED TVOG (ASIA VALUE)
MNC	AXA	Market-consistent, stochastic	At least 1,000	Yes	Yes (EUR 53.0 million for VNB)
MNC	Generali	Market-consistent, stochastic	1,000	Yes	Not disclosed
MNC	Prudential plc	Stochastic	Not disclosed	Yes	Not disclosed
India	Aditya Birla Sun Life	Not disclosed	Not disclosed	Not disclosed	Not disclosed
India	ICICI Prudential Life	Stochastic	Not disclosed	Not disclosed	Yes (INR 40 million for 2023)
India	HDFC Life	Not disclosed	Not disclosed	Not disclosed	Yes (INR 1310 million for 2023)
India	SBI Life	Not disclosed	Not disclosed	Not disclosed	Not disclosed
India	Kotak Life	Not disclosed	Not disclosed	Not disclosed	Not disclosed
India	Max Life	Stochastic	5,000	Not disclosed	Not disclosed
Japan	Daido Life	Stochastic	5,000	Yes	Yes (JPY 57.9 billion)
Japan	Dai-ichi Life	Not disclosed	Not disclosed	Not disclosed	Not disclosed
Japan	Dai-ichi Frontier Life	Not disclosed	Not disclosed	Not disclosed	Not disclosed
Japan	Japan Post Insurance Co Ltd	Stochastic	5,000	Yes	Yes (JPY 223.2 billion)
Japan	Neo First Life	Not disclosed	Not disclosed	Not disclosed	Not disclosed
Japan	LifeNet Insurance	TVOG is zero	Not used	No	Set as NIL
Japan	Medicare Life	Stochastic	5,000	Yes	Yes (JPY 0.1 billion)
Japan	Meiji Yasuda Life	Stochastic	Not disclosed	Yes	Not disclosed
Japan	MS&AD Aioi Life	Stochastic	5,000	Yes	Yes (JPY 61.8 billion)
Japan	MS&AD Primary Life	Stochastic	5,000	Yes	Yes (JPY 10.7 billion)
Japan	Sompo Himawari Life	Stochastic	1,000	Yes	Yes (JPY 17.6 billion)
Japan	Sony Life	Stochastic	1,000	Yes	Yes (JPY 196.2 billion)
Japan	Sumitomo Life	Stochastic	5,000	Yes	Yes (JPY 56.0 billion)
Japan	Tokio Marine & Nichido Life	Stochastic	1,000	Yes	Yes (JPY 192.4 billion)
Japan	T&D Financial Life	Stochastic	5,000	Yes	Yes (JPY 5.7 billion)
Japan	Taiyo Life	Stochastic	5,000	Yes	Yes (JPY 29.4 billion)

[80] Blue-shaded entries indicate that the 2023 required TVOG approaches information has not yet been disclosed, and that the assessment has been based on 2022 disclosures instead.

Appendix G: Total Asian EV by company by territory

FIGURE 94: TOTAL ASIAN EV BY COMPANY (USD MILLIONS[81 82])

TYPE	COMPANY	EV PRINCIPLE	CHINA	HONG KONG	INDIA	JAPAN	KOREA	MALAYSIA	SINGAPORE	TAIWAN	THAILAND	INDONESIA	PHILIPPINES	VIETNAM	UNALLOCATED	TOTAL
MNC	AIA	TEV	13,526	26,306	-	-	-	3,232	7,373	-	8,617	-	-	-	8,393	67,447
	AXA	SII/EEV	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	FWD	TEV	-	-	-	-	-	-	-	-	-	-	-	-	5,682	5,682
	Generali	MCEV	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Great Eastern	TEV	-	-	-	-	-	3,781	9,345	-	-	-	-	-	-	13,125
	Manulife	TEV	-	-	-	-	-	-	-	-	-	-	-	-	20,822	20,822
	Prudential plc	EEV	3,038	17,702	-	-	-	3,709	7,896	-	-	1,509	-	-	7,674	41,528
CHINA	Zurich	MCEV	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	China Life	TEV	177,616	-	-	-	-	-	-	-	-	-	-	-	-	177,616
	China Pacific	TEV	56,646	-	-	-	-	-	-	-	-	-	-	-	-	56,646
	China Taiping	TEV	31,423	-	-	-	-	-	-	-	-	-	-	-	-	31,423
	New China Life	TEV	35,297	-	-	-	-	-	-	-	-	-	-	-	-	35,297
	PICC Life	TEV	14,297	-	-	-	-	-	-	-	-	-	-	-	-	14,297
	Ping An	TEV	117,086	-	-	-	-	-	-	-	-	-	-	-	-	117,086
INDIA	Bajaj Allianz Life	IEV	-	-	2,607	-	-	-	-	-	-	-	-	-	-	2,607
	Aditya Birla Sun Life	MCEV	-	-	1,384	-	-	-	-	-	-	-	-	-	-	1,384
	Canara HSBC Life	MCEV	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Edelweiss Tokio Life	MCEV	-	-	234	-	-	-	-	-	-	-	-	-	-	234
	HDFC Life	IEV	-	-	5,695	-	-	-	-	-	-	-	-	-	-	5,695
	ICICI Prudential Life	IEV	-	-	5,080	-	-	-	-	-	-	-	-	-	-	5,080
	Kotak Life	IEV	-	-	1,829	-	-	-	-	-	-	-	-	-	-	1,829
	Max Life	MCEV	-	-	2,339	-	-	-	-	-	-	-	-	-	-	2,339
	PNB Metlife	IEV	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Reliance Nippon Life	Not Disclosed	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LICI	IEV	-	-	87,267	-	-	-	-	-	-	-	-	-	-	87,267
	SBI Life	IEV	-	-	6,990	-	-	-	-	-	-	-	-	-	-	6,990
JAPAN	Daido Life	MCEV	-	-	-	17,419	-	-	-	-	-	-	-	-	-	17,419
	Dai-ichi Life	Modified MCEV	-	-	-	40,375	-	-	-	-	-	-	-	-	-	40,375
	Dai-ichi Frontier Life	Modified MCEV	-	-	-	5,286	-	-	-	-	-	-	-	-	-	5,286
	Japan Post Insurance Co Ltd	MC-EEV	-	-	-	26,201	-	-	-	-	-	-	-	-	-	26,201
	LifeNet Insurance	MC-EEV	-	-	-	971	-	-	-	-	-	-	-	-	-	971
	Medicare Life	MC-EEV	-	-	-	2,460	-	-	-	-	-	-	-	-	-	2,460
	Meiji Yasuda Life	Modified MCEV	-	-	-	62,578	-	-	-	-	-	-	-	-	-	62,578
	MS&AD Aioi Life	MC-EEV	-	-	-	6,072	-	-	-	-	-	-	-	-	-	6,072
	MS&AD Primary Life	MC-EEV	-	-	-	4,754	-	-	-	-	-	-	-	-	-	4,754
	Neo First Life	Modified MCEV	-	-	-	991	-	-	-	-	-	-	-	-	-	991
	Sompo Himawari Life	MCEV	-	-	-	7,687	-	-	-	-	-	-	-	-	-	7,687

[81] EV results have been converted at the prevailing USD exchange rate as at the reporting date.

[82] Blue-shaded entries indicate that the 2023 EV results have not yet been disclosed as at the data cutoff date of this report.

JAPAN (continued)	Sony Life	Modified MCEV	-	-	-	13,262	-	-	-	-	-	-	-	-	-	13,262
	Sumitomo Life	MC-EEV	-	-	-	37,871	-	-	-	-	-	-	-	-	-	37,871
	T&D Financial Life	MCEV	-	-	-	1,014	-	-	-	-	-	-	-	-	-	1,014
	Taiyo Life	MCEV	-	-	-	7,743	-	-	-	-	-	-	-	-	-	7,743
	Tokio Marine & Nichido Life	MCEV	-	-	-	8,418	-	-	-	-	-	-	-	-	-	8,418
MALAYSIA	Hong Leong Assurance	TEV	-	-	-	-	-	810	-	-	-	-	-	-	-	810
SINGAPORE	Singlife	TEV	-	-	-	-	-	-	1,716	-	-	-	-	-	-	1,716
TAIWAN	Cathay Life	TEV	-	-	-	-	-	-	-	37,118	-	-	-	-	-	37,118
	KGI Life	TEV	-	-	-	-	-	-	-	13,926	-	-	-	-	-	13,926
	Fubon Life	TEV	-	-	-	-	-	-	-	30,313	-	-	-	-	-	30,313
	Mercuries Life	TEV	-	-	-	-	-	-	-	2,984	-	-	-	-	-	2,984
	Taiwan Life	TEV	-	-	-	-	-	-	-	8,423	-	-	-	-	-	8,423
THAILAND	Bangkok Life	TEV	-	-	-	-	-	-	-	-	1,983	-	-	-	-	1,983
	Thai Life	TEV	-	-	-	-	-	-	-	-	4,692	-	-	-	-	4,692
VIETNAM	Dai-ichi Life Vietnam	TEV	-	-	-	-	-	-	-	-	-	-	-	1,418	-	1,418

*Dai-ichi Life Group, Meiji Yasuda Life and Sony Life have been classified as modified MCEV. Modified MCEV is based on the insurer's own internal model approach, which is described by them as being broadly consistent with the Japan Economic Solvency Ratio (ESR) methodology which is market-consistent in nature and is to be implemented from March 2026. It should be noted that modified MCEV is not a formal embedded value standard and there are differences in methodology amongst the players who have been classified under the modified MCEV methodology.

Appendix H: Exchange rates

FIGURE 95: EXCHANGE RATES USED IN THE REPORT

Exchange rate (USD per currency) as at valuation dates:

Currency	31 Mar 24	31 Dec 23	31 Mar 23	31 Dec 22	31 Mar 22	31 Dec 21	31 Mar 21
CAD	0.7384	0.7551	0.8011	0.7902	0.7955	0.7841	0.7083
CHF	1.1087	1.1886	1.0856	1.0967	1.0618	1.1308	1.0391
CNY	0.1385	0.1409	0.1577	0.1574	0.1526	0.1532	0.1412
EUR	1.0811	1.1039	1.1096	1.1377	1.1743	1.2228	1.1024
GBP	1.2625	1.2732	1.3152	1.3536	1.3798	1.3663	1.2455
HKD	0.1278	0.1281	0.1277	0.1282	0.1286	0.1290	0.1290
INR	0.0120	0.0120	0.0132	0.0134	0.0137	0.0137	0.0133
IDR	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
JPY	0.0066	0.0071	0.0082	0.0087	0.0090	0.0097	0.0093
KRW	0.0007	0.0008	0.0008	0.0008	0.0009	0.0009	0.0008
MYR	0.2117	0.2179	0.2378	0.2400	0.2414	0.2486	0.2318
SGD	0.7412	0.7578	0.7386	0.7415	0.7439	0.7566	0.7034
THB	0.0275	0.0292	0.0301	0.0301	0.0320	0.0333	0.0306
TWD	0.0313	0.0326	0.0349	0.0361	0.0351	0.0356	0.0331
VND*	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
USD	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

* The exchange rate of VND per USD as at 31 March 2024 was 0.0000402981.

Source: https://www.xe.com.

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