

MILLIMAN REPORT

# 2022 mid-year embedded value results: Asia

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## Opening remarks

We are pleased to present our Asian embedded value mid-year 2022 update. This report supplements the '2021 Embedded Value Results: Asia' report, which was released in September 2022, and provides a summary of the mid-year 2022 embedded value (EV) results disclosed by Asian insurers.

It is worth noting that while most of the region operates on a calendar year reporting basis, some markets and companies have different reporting years. Notably, insurers in India and Japan report mid-financial year results as at 30 September each year.

Companies in the region have shown mixed EV results in the first half of 2022. Markets such as China and India generally showed an increase in EV, while Hong Kong, Indonesia, Malaysia and Singapore showed a decrease, primarily driven by increasing interest rates as central banks around the world tightened their monetary policy. Value of New Business (VNB) results have been mixed, with insurers in India reporting increases in VNB on account of more favourable product mix, increased new business sales and more diversified distribution mix, while insurers in China have generally shown a decline in VNB resulting from the impact of continuing COVID-19 lockdowns.

Best regards,

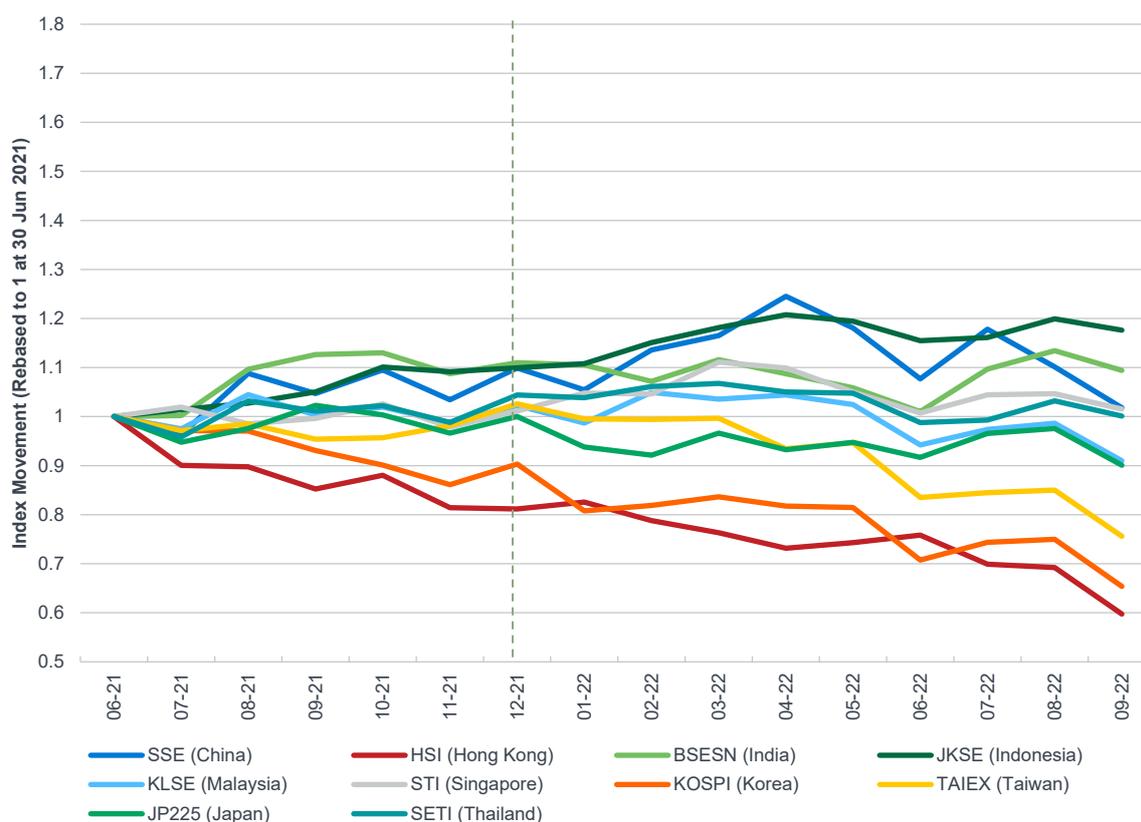
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## Introduction and background

The main Asian equity markets have declined over the period 1 April 2022 to 30 September 2022. This was due, in part, to the general tightening of monetary policy to contain supply-side inflation shocks emanating from ongoing geopolitical tensions as a result of the ongoing Russia – Ukraine conflict. In particular, there were sharp declines over the period in the equity markets of Hong Kong, South Korea, and Taiwan.

Falling equity markets tend to have a negative impact on the life insurance industry, contributing to poorer investment returns and affecting the performance of unit-linked and participating lines of business, with the opposite effect in times of rising equity markets.

**FIGURE 1: RECENT EQUITY MARKET PERFORMANCE: GROWTH OF MAJOR EQUITY INDICES<sup>1,2</sup>, FROM 30 JUNE 2021 TO 30 SEPTEMBER 2022**

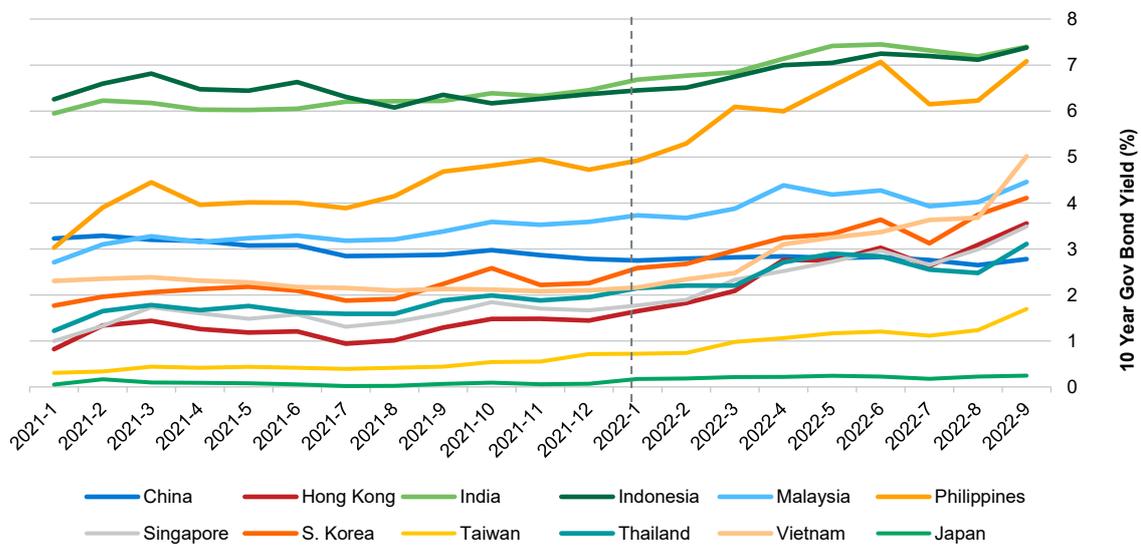


<sup>1</sup> The following stock indices have been used for each market: China: Shanghai Stock Exchange Composite Index; Hong Kong: Hang Seng Index; India: Bombay Stock Exchange 30; Indonesia: Jakarta Composite; Japan: Nikkei 225; Malaysia: Kuala Lumpur Stock Exchange Composite Index; Singapore: Straits Times Index; South Korea: Korea Composite Index; Taiwan: Taiwan Weighted Index, Thailand: SET Index.

<sup>2</sup> Source: Investing.com.

Other than China, which saw a decline in interest rates, yield curves in the other Asian markets significantly increased over the period (refer to Figure 2). The impact of changing interest rates on EV results depends upon the methodology adopted, the assumptions used, and the type of business written by the company. Under a market-consistent EV (MCEV) or the Indian EV (IEV) framework, a higher interest rate might lead to a decrease in the MCEV or IEV if a company writes more unit-linked business (due to the lower starting asset values and discounting of future profits at a higher interest rate) or protection-oriented business (due to unrealised losses on starting assets and discounting of future profits at a higher interest rate), while the opposite might be true for a company that writes more traditional savings-oriented business with guarantees (due to higher investment margins). Under a traditional EV (TEV) framework, the impact of changing interest rates also depends upon whether a company alters its long-term investment return assumptions in line with the change in interest rates. If a company does not change its long-term investment return assumptions, it may lead to counterintuitive results, such as increasing interest rates resulting in a lower EV.

FIGURE 2: 10-YEAR SOVEREIGN BOND YIELDS<sup>3</sup> 2021-2022

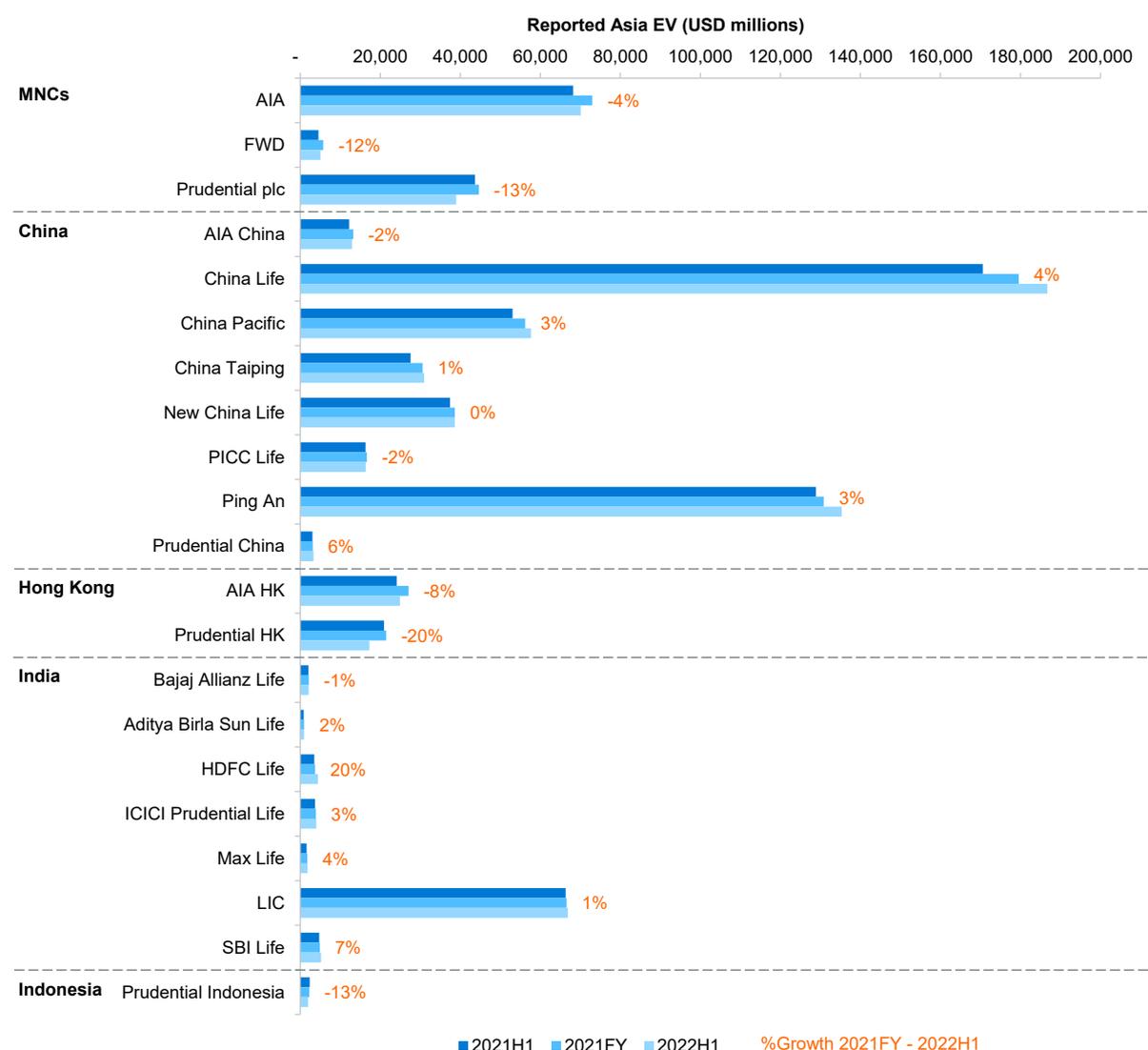


<sup>3</sup> The graph compares gross redemption yields, sourced from Investing.com.

## Embedded value results

Figure 3 compares the EV results by company across different Asian markets over the period 2021 H1 to 2022 H1. It only includes those companies that have reported their mid-year EV results before the cut-off date of this report, which was 30 November 2022. Figure 3 also includes the full year results for all Indian and Japanese companies, as the financial year for these two markets runs from 1 April to 31 March and the results for some companies were not published in time for our year-end EV report '2021 Embedded Value Results: Asia.'

**FIGURE 3: ASIAN LIFE INSURANCE COVERED BUSINESS EV BY COMPANY<sup>4,5,6,7</sup> 2021 H1 TO 2022 H1**

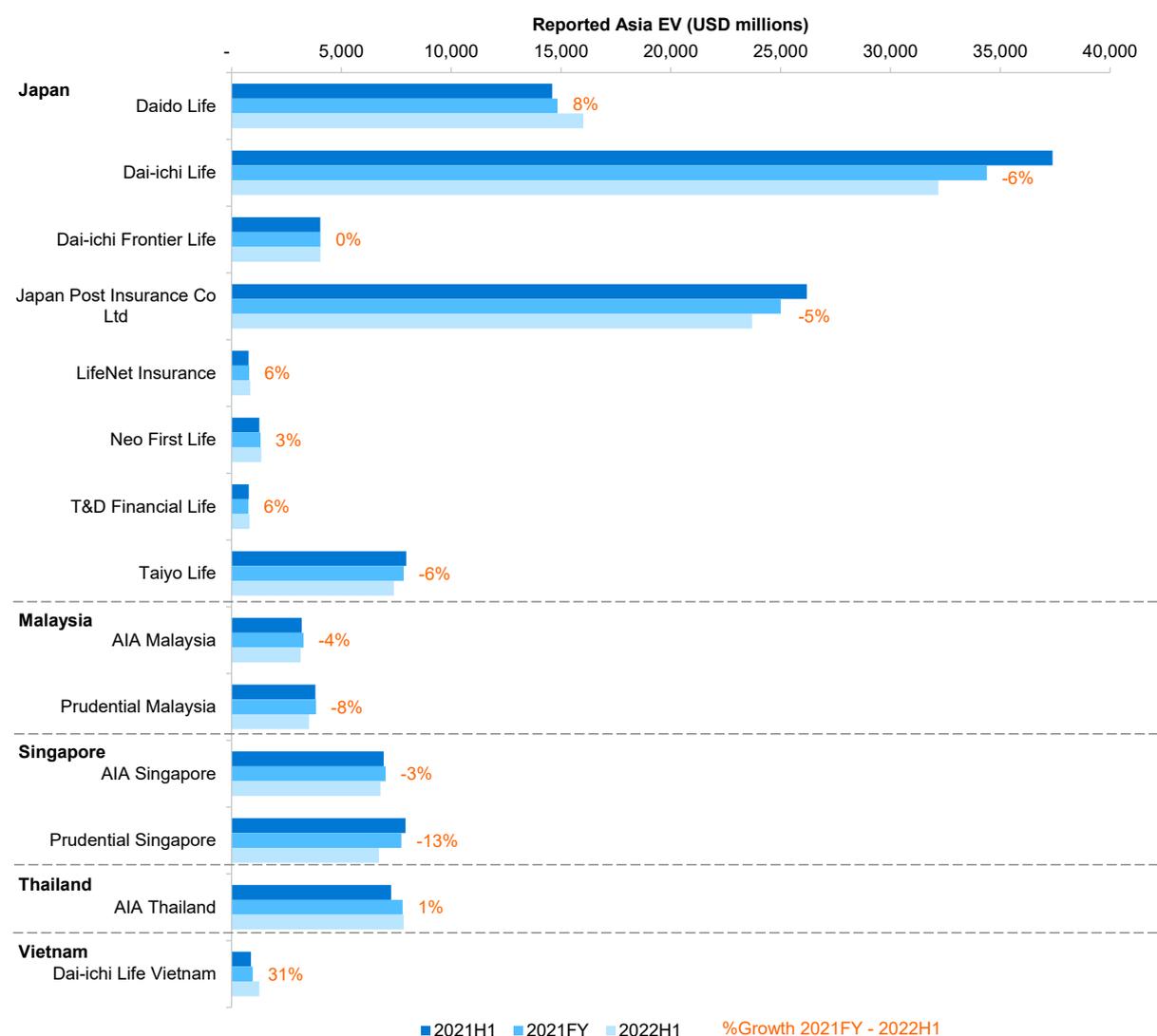


<sup>4</sup> The EV results for each company have been converted to USD at the foreign exchange (FX) rates prevailing as at their 2022 H1 reporting dates to remove most of the effect of currency fluctuations.

<sup>5</sup> In this report, 2021 FY for Indian and Japanese insurers represent the financial year ending 31 March 2022; 2021 H1 and 2022 H1 represent the mid-year ending 30 September 2021 and 30 September 2022, respectively.

<sup>6</sup> We have excluded those companies that have not reported 2021 H1 and 2022 H1 EV.

<sup>7</sup> Please note that Exide Life has been removed from the analysis, as it has been merged with HDFC Life. For HDFC Life, we have used the EV after its merger with Exide Life.

FIGURE 3: ASIAN LIFE INSURANCE COVERED BUSINESS EV BY COMPANY<sup>8,9,10</sup> 2021 H1 TO 2022 H1 (CONTINUED)

EV results have been mixed, with most insurers in China and India showing an increase in EV, while insurers in Hong Kong, Indonesia, Malaysia and Singapore reported a decrease in EV primarily due to rising yields. Dai-ichi Life Vietnam recorded the highest growth in EV of 30.6%, primarily attributing this to the strong Vietnamese dong in relation to the Japanese yen. HDFC Life recorded a significant growth of 19.9% in EV during 2022 H1, largely due to its merger with Exide Life. For both AIA Hong Kong and Prudential Hong Kong, the early adoption of Hong Kong risk-based capital (HK RBC) had a favourable impact on EV. For AIA, the fall in EV was primarily due to changes in operating assumptions and variance in investment return driven by the effect of short-term fluctuations in interest rates and equity markets. For Prudential plc, the fall in EV was attributed to higher interest rates which led to lower associated asset values and consequent impact on fee-generating account balances, along with the impact of higher discount rates under its EEV methodology.

<sup>8</sup> The EV results for each company have been converted to USD at the foreign exchange (FX) rates prevailing as at their 2022 H1 reporting dates to remove most of the effect of currency fluctuations.

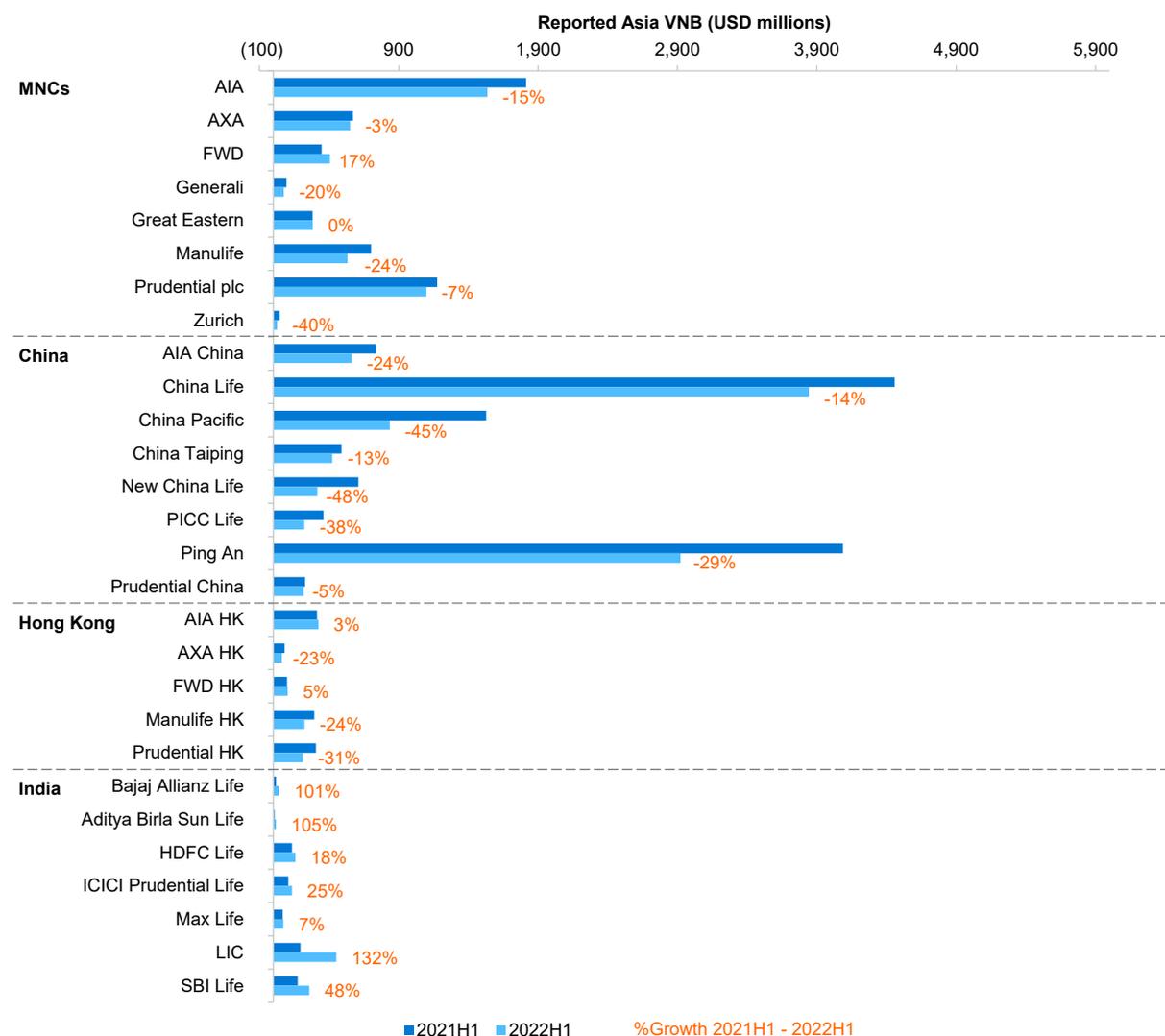
<sup>9</sup> In this report, 2021 FY for Indian and Japanese insurers represent the financial year ending 31 March 2022; 2021 H1 and 2022 H1 represent the mid-year ending 30 September 2021 and 30 September 2022, respectively.

<sup>10</sup> We have excluded those companies that have not reported 2021 H1 and 2022 H1 EV.

## Value of new business results

Figure 4 compares the 2021 H1 and 2022 H1 VNB results by company within the different Asian markets.<sup>11,12</sup>

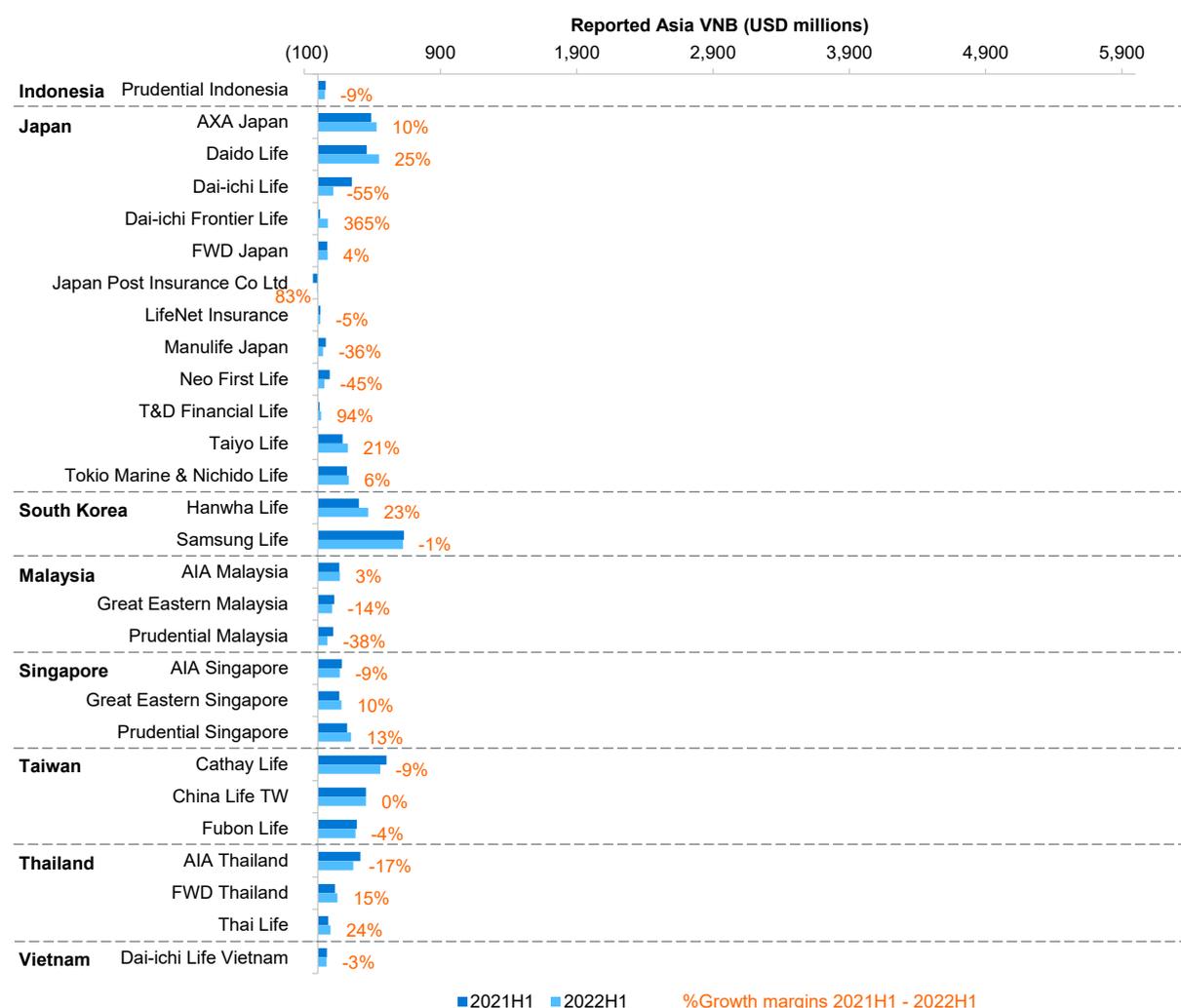
**FIGURE 4: ASIAN VNB BY COMPANY 2021 H1 AND 2022 H1**



<sup>11</sup> For Indian and Japanese insurers, the middle of the financial year (i.e., H1) falls on 30 September. For all other insurers considered in this report, including AIA, the corresponding date is 30 June.

<sup>12</sup> We have excluded those companies that have not reported 2021 H1 and 2022 H1 VNB.

FIGURE 4: ASIAN VNB BY COMPANY 2021 H1 AND 2022 H1 (CONTINUED)



Results were mixed in terms of VNB in Asia during 2022 H1 as compared to 2021 H1. Except for FWD and Great Eastern, all multinational corporations (MNCs) that disclose results reported a decline in VNB, with Zurich reporting the highest percentage VNB decline of 40.0% during 2022 H1. Zurich attributed the fall in VNB to higher discount rates for protection business, less profitable product mix and unfavourable modelling impacts. Manulife reported a decline in VNB of 24.1% over the period, primarily driven by reduced new business sales in its main markets of Hong Kong and Japan. FWD's increase in VNB of 17.1% was attributed to increased new business sales across Asia.

In China, VNB in 2022 H1 declined for all insurers, largely owing to the continued containment measures in relation to the Omicron variant of COVID-19. New China Life showed the highest fall of 48.4%, followed by China Pacific, which reported a decline in VNB of 45.3%. China Pacific attributed the decline in VNB of 45.3% to a substantial cut in agent headcount and aggressive expansion into the bancassurance channel as a result of the ongoing lockdowns. AIA's Chinese subsidiary reported a decrease in VNB of 23.7% in 2022 H1, attributing the decline to lower sales volumes due to continued lockdowns.

All life insurers reporting VNB results in Hong Kong, except for AIA and FWD, recorded significant declines in VNB. Prudential Hong Kong recorded the highest fall in VNB of 31.0%, primarily because of the effect of higher discount rates under its EEV methodology, along with lower agency sales due to COVID-19-related restrictions in Hong Kong. In contrast, AIA Hong Kong attributed the increase in its VNB to a growth in business from its agency and partnership channels as well as enhanced profitability from its participating products. FWD Hong Kong reported a VNB growth of 5.1%, primarily driven by favourable product mix and repricing of some key savings products.

Insurers in India reported significant increases in VNB for 2022 H1, with LIC reporting the highest growth of 132.3% in VNB, attributed to increased new business sales and a greater focus on non-participating business. Aditya Birla Sun Life recorded a significant increase in VNB of 105.5%, mainly driven by distribution diversification, launching of new products to improve the product mix and increased new business sales. Bajaj Allianz Life attributed its VNB growth of 101.5% to increased new business sales, a balanced product mix and diversified distribution mix. ICICI Prudential Life and SBI Life reported VNB growth of 25.1% and 47.9%, respectively. HDFC Life reported VNB growth of 18.3%.

Prudential Indonesia reported a decline of 8.8% in VNB in 2022 H1, citing increases in interest rates, poor agency sales and changes in taxation, with the government reversing its decision to lower the corporate tax rates.

In Japan in 2022 H1, eight of 12 companies reported growth in VNB. In some cases, VNB growth was particularly notable. Dai-ichi Frontier Life recorded the highest growth of 365.2% (a growth of USD 58 million in absolute terms), albeit from a very small base, mainly driven by strong sales of USD-denominated products. The sales of USD-denominated products has increased for Dai-ichi Frontier Life and T&D Financial Life, primarily through the bancassurance channel, owing to the strong USD and higher interest rates. On the other hand, Dai-ichi Life and Neo First Life recorded declines in VNB of 54.7% and 44.9% respectively, due to relatively weak sales compared to 2021 H1.

Amongst all the insurers that reported VNB results for Malaysia, only AIA Malaysia reported an increase in VNB, of 2.5%, attributing this increase to a strong performance by both agency and partnership channels. In contrast, Great Eastern Malaysia and Prudential Malaysia recorded a decline in VNB of 13.5% and 38.1%, respectively.

In Singapore, AIA reported a decline in VNB of 8.5% mainly driven by disrupted sales activity due to the first COVID-19 Omicron wave. Prudential Singapore reported an increase in VNB of 13.5% during 2022 H1, attributing this to higher sales volumes and the positive effect of rising interest rates on the sales of participating business.

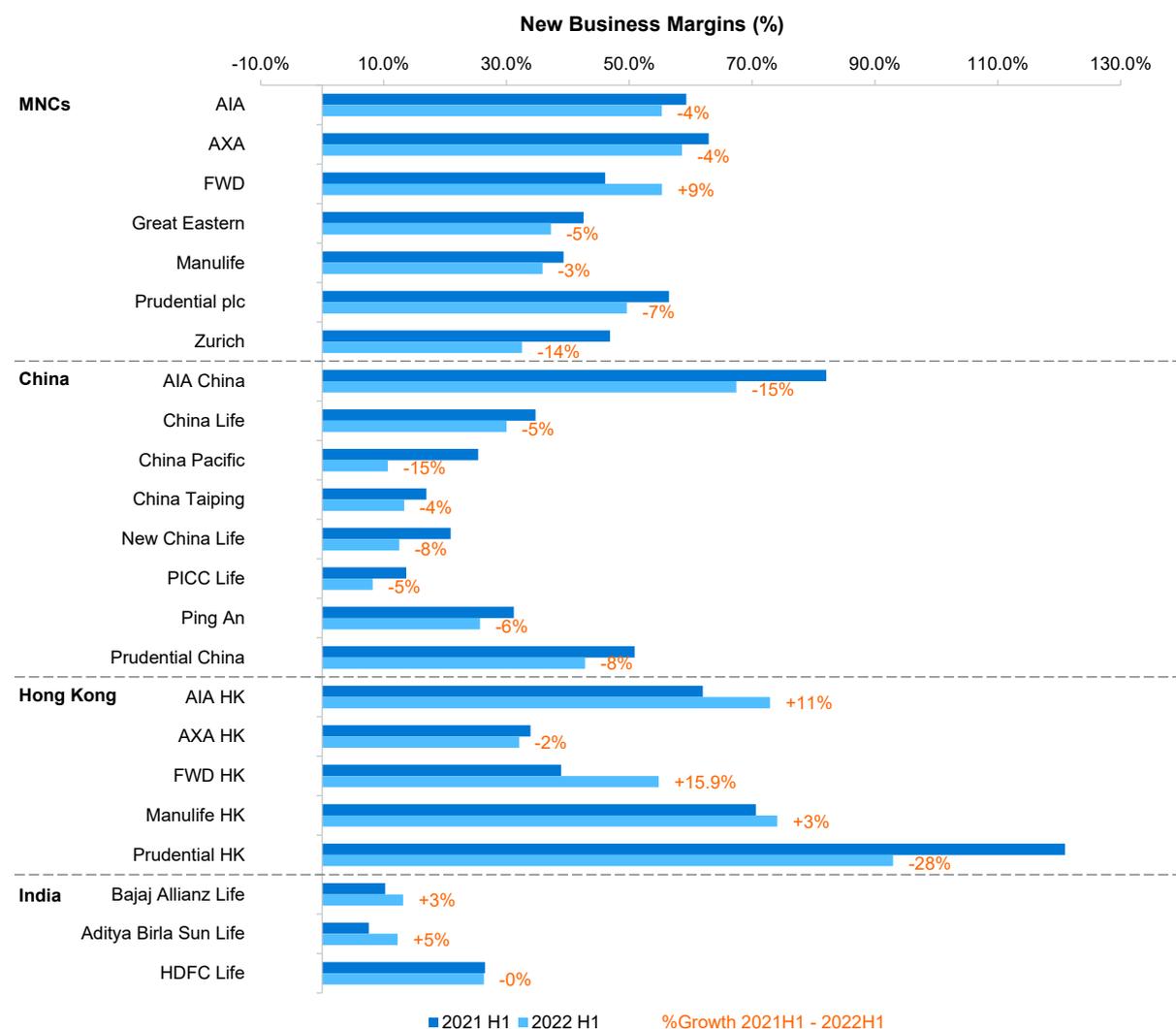
In South Korea, Hanwha Life's VNB growth of 22.5% was driven by strong sales from the protection line of business.

All insurers in Taiwan which were included in the analysis recorded declines in VNB during 2022 H1. Fubon Life's VNB reduced by 3.5% due to a greater shift in sales to the less profitable regular premium traditional life product. Cathay Life's VNB decline of 9.3% is due to pandemic-induced slowdown in sales momentum in 2022 Q2 coupled with a higher 2021 H1 base period for sales volumes of investment-linked products (ILPs).

FWD Thailand and Thai Life reported VNB growth of 15.2% and 24.1% respectively in 2022 H1, while AIA Thailand reported a decline in VNB of 16.7%, attributing this to lower rider sales in 2022 Q1 due to the first wave of the COVID-19 Omicron variant.

## New business margin results

FIGURE 5: IMPLIED NEW BUSINESS MARGINS BY COMPANY,<sup>13,14,15,16</sup> FOR 2021 H1 AND 2022 H1



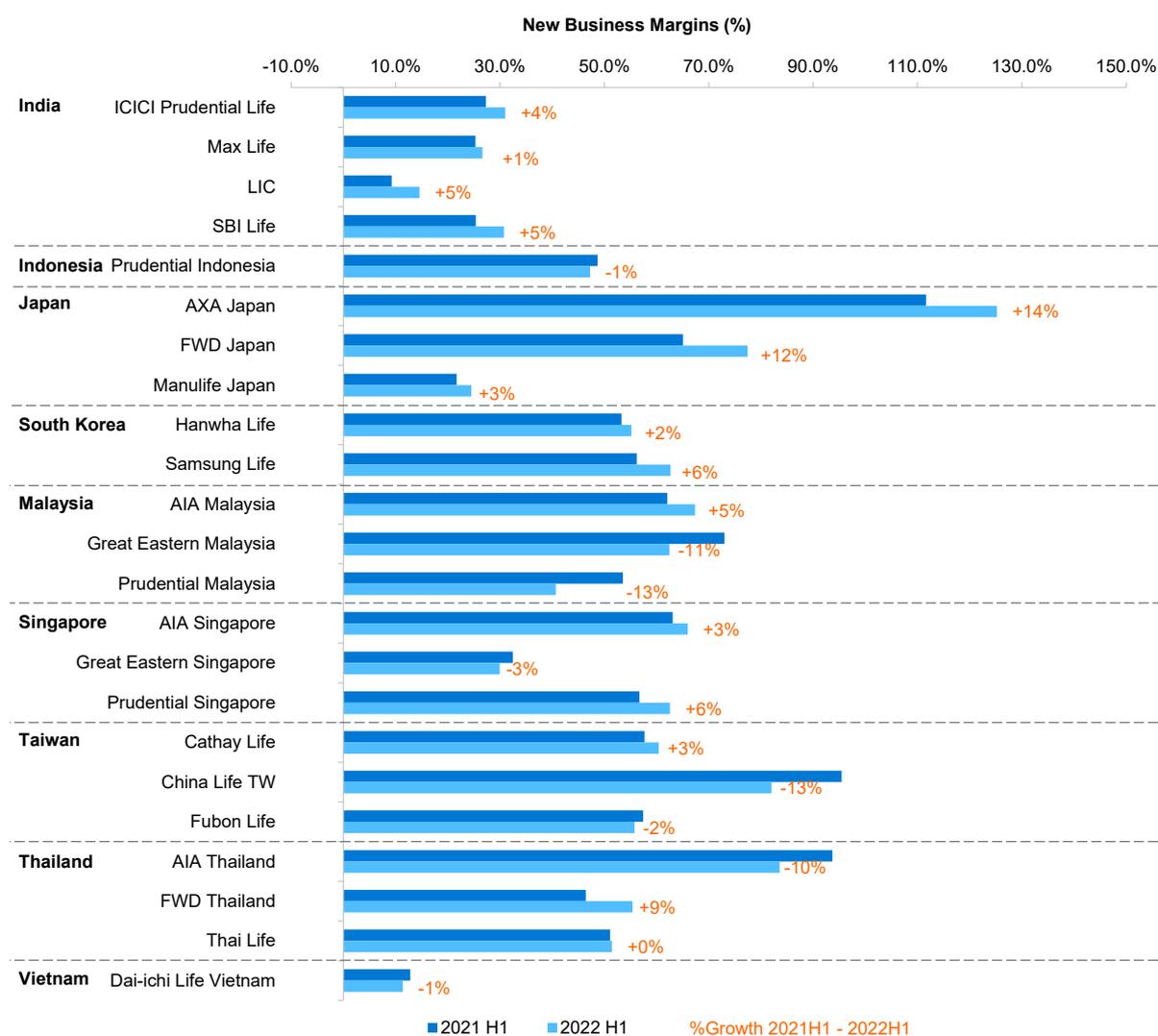
<sup>13</sup> For the MNCs, please note that these are the margins relating to their Asian business.

<sup>14</sup> New business margin is defined as VNB divided by APE. We have excluded Japan and Vietnam insurers from this analysis because they report new business margins as the ratio of VNB to the present value of new business premiums.

<sup>15</sup> We have excluded those companies that have not reported 2021 H1 and 2022 H1 new business margins.

<sup>16</sup> APE figures for China insurers include short-term insurance premiums, as life insurers write both short-term and long-term business for both life and health insurance.

FIGURE 5: IMPLIED NEW BUSINESS MARGINS BY COMPANY FOR 2021 H1 AND 2022 H1 (CONTINUED)



Relative to 2021 H1, changes in new business margins were varied in 2022 H1. In Asia, insurers reported mixed results, with a close to even split between those reporting rising new business margins and those reporting declining new business margins.

The highest increase in new business margins (in terms of absolute percentage) came from the following companies:

- FWD Hong Kong, from 38.9% to 54.8%
- AXA Japan, from 111.6% to 125.2%
- FWD Japan, from 65.1% to 77.4%
- Bajaj Allianz Life, from 1.0% to 13.2%

In contrast, the following companies saw the most significant falls in new business margins (in terms of absolute percentage):

- Prudential Hong Kong, from 120.9% to 93.0%
- China Pacific, from 25.4% to 10.7%
- AIA China, from 82.1% to 67.4%
- Zurich, from 46.9% to 32.5%

All insurers reporting VNB in China showed a decline in new business margins. AIA China reported the highest decline in VNB margins, from 82.1% to 67.4%, primarily due to lower sales volumes and changes in product mix. In contrast, all insurers reporting VNB in India, with the exception of HDFC Life, showed an increase in new business margins. India's largest insurer, LIC, saw margins increasing from 9.3% to 14.6% due to a greater focus on non-participating business.

## Risk discount rate and investment return assumptions

The risk discount rate and investment return assumptions of the insurers in Asia that report embedded value results are summarised in Figures 7 and 8.

FIGURE 7: RISK DISCOUNT RATE AND INVESTMENT RETURN ASSUMPTIONS OF MNCS<sup>17</sup>

TYPE	COMPANY	EV PRINCIPLE	RDR	INVESTMENT RETURNS
MNC	AIA	TEV	China: 9.70% Hong Kong: 6.96% Indonesia: 13.03% South Korea: 8.10% Malaysia: 8.49% Philippines (Philam Life): 11.80%  Singapore: 6.59% Sri Lanka: 20.00% Taiwan: 7.20% Thailand: 7.65% Vietnam: 9.11%	China: Equities 9.30%, 10Y Gov't Bonds 3.70% Hong Kong: Equities 7.00%, 10Y Gov't Bonds 2.20% Indonesia: Equities 12.00%, 10Y Gov't Bonds 7.50% South Korea: Equities 6.50%, 10Y Gov't Bonds 2.20% Malaysia: Equities 8.60%, 10Y Gov't Bonds 4.00% Philippines (Philam Life): Equities 10.50%, 10Y Gov't Bonds 5.30% Singapore: Equities 6.70%, 10Y Gov't Bonds 2.20% Sri Lanka: Equities 11.00%, 10Y Gov't Bonds 9.00% Taiwan: Equities 5.60%, 10Y Gov't Bonds 1.00% Thailand: Equities 7.70%, 10Y Gov't Bonds 2.70% Vietnam: Equities 8.80%, 10Y Gov't Bonds 3.50%
	Allianz	MCEV / SII	Risk-free interest rate curves, allowing for volatility adjustment	Risk-free interest rate curves, allowing for volatility adjustment and correlation assumptions based on historic data
	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: 7.20% Japan: 6.00% Indonesia: 14.00% Malaysia: 9.00% Philippines: 12.50% Singapore: 7.00% Thailand: 8.30% Vietnam: 10.75%	Hong Kong: Equities 7.40%, 10Y Gov't Bonds 2.40% (USD) Japan: 10Y Gov't Bonds 0.25% Indonesia: Equities 11.50%, 10Y Gov't Bonds 7.50% Malaysia: Equities 8.79%, 10Y Gov't Bonds 4.00% Philippines: Equities 8.80%, 10Y Gov't Bonds 5.25% Singapore: 10Y Gov't Bonds 2.25% Thailand: Equities 8.50%, 10Y Gov't Bonds 2.75% Vietnam: Equities 9.70%, 10Y Gov't Bonds 4.00%
	Great Eastern	TEV	Singapore: 6.00% Malaysia: 7.75% Indonesia: 12.5%	Not disclosed
	Manulife	TEV	Hong Kong: 8.50%  Japan: 5.75%	Hong Kong: Equity 9.50% 10Y Gov't Bonds (immediate to ultimate reinvestment rate): 1.50% to 4.10% Japan: Equity 6.00% 10Y Gov't Bonds (immediate to ultimate reinvestment rate): 0.08% to 3.36%
	Prudential plc	EEV	China: 7.4% (NB), 7.4% (IF) Hong Kong: 3.9% (NB), 4.5% (IF) Indonesia: 10.7% (NB), 11.3% (IF) Malaysia: 6.1% (NB), 6.7% (IF) Philippines: 14.6% (NB), 14.6% (IF) Singapore: 4.9% (NB), 5.1% (IF) Taiwan: 3.4% (NB), 4.1% (IF) Thailand: 10.4% (NB), 10.4% (IF) Vietnam: 5.3% (NB), 5.1% (IF)	China: 10Y Gov't Bonds 2.9% Hong Kong: 10Y Gov't Bonds 3.0% Indonesia: 10Y Gov't Bonds 7.9% Malaysia: 10Y Gov't Bonds 4.3% Philippines: 10Y Gov't Bonds 7.4% Singapore: 10Y Gov't Bonds 3.0% Taiwan: 10Y Gov't Bonds 1.3% Thailand: 10Y Gov't Bonds 3.1% Vietnam: 10Y Gov't Bonds 3.4%
	Zurich	MCEV	Risk-free interest rate curves, allowing for volatility adjustment.	Risk-free interest rate curves, allowing for volatility adjustment.

Note: For the blue-shaded entries, FY 2021 assumptions have been shown, as the 2022 H1 EV assumptions have not been disclosed by the company.

<sup>17</sup> NB: new business; IF: in-force business.

FIGURE 8: RISK DISCOUNT RATE AND INVESTMENT ASSUMPTIONS OF INSURERS BY MARKET<sup>18,19,20</sup>

MARKET	COMPANY	EV PRINCIPLE	RDR	INVESTMENT RETURNS
China	<b>Chinese 10-year government bond yield at 30 June 2022: 2.824%</b>			
	AIA	TEV	9.70%	China: Equities 9.30%, 10Y Gov't Bonds 3.7%
	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.
	China Life	TEV	10.00%	Assumed to be 5%
	China Pacific	TEV	11.00%	Long term business: 5.00% Short term business: based on the latest one-year bank deposit base rate
	China Taiping	TEV	Not disclosed	Not disclosed
	New China Life	TEV	11.00%	Non-participating, Participating & Universal life: 5% Unit-Linked & New Non-participating: 6% Specific Participating: 5.5% Specific Non-Participating: 5.25%
	PICC Life	TEV	10.00%	5.00%
	Ping An	TEV	11.00%	Non-investment-linked: 4.75% in Year 1 and 5.00% thereafter Investment-linked: slightly higher than non-investment-linked
	Prudential	EEV	7.4% (NB), 7.4% (IF)	10Y Gov't Bonds 2.9% & Equity 6.9%
Hong Kong	<b>Hong Kong 10-year government bond yield at 30 June 2022: 3.028%</b>			
	AIA	TEV	6.96%	Equities 7.0%, 10Y Gov't Bonds 2.2%
	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	7.20%	Equities 7.40%, 10Y Gov't Bonds 2.40%
	Manulife	TEV	Hong Kong: 8.50%	Hong Kong: Equity 9.50%, 10Y Gov't Bonds (immediate to ultimate reinvestment rate): 1.50% to 4.10%
	Prudential	EEV	3.9% (NB), 4.5% (IF)	10Y Gov't Bonds 3.0%, Equities 6.5%
India	<b>Indian 10-year government bond yield at 30 September 2022: 7.398%</b>			
	Bajaj Allianz	MCEV	Risk-free yield curve	Risk-free yield curve
	Aditya Birla Sun 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)
	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	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	TEV	Not disclosed	Not disclosed
	LIC	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	

<sup>18</sup> NB: new business; IF: in-force business.<sup>19</sup> Source for 10-year government bond yields: Investing.com.<sup>20</sup> For Indian and Japanese companies, the financial year runs from April to March. Therefore, the 10-year government bond yields are shown as at 30 September 2022 (i.e., at the mid-year valuation date for these companies).

MARKET	COMPANY	EV PRINCIPLE	RDR	INVESTMENT RETURNS
Japan	<b>Japanese 10-year government bond yield at 30 September 2022: 0.245%</b>			
	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	Japan: 6.0%	Japan: 10Y Gov't Bonds 0.25%
	Manulife	TEV	Japan: 5.75%	Japan: Equity 6.00%, 10Y Gov't Bonds (immediate to ultimate reinvestment rate): 0.08% to 3.36%
	Daido Life	MCEV	Risk-free rate (Based on Japanese, U.S. and Australian Government Bond and Ultimate forward rates).	Risk-free interest rate curves
	Dai-ichi Life	MC-EEV	Risk-free rate (JPY): Based on JGB and UFRs. Risk-free rate (USD and AUD): Based on U.S. and Australian Government Bond extrapolated by assuming forward rates in the 31st year and beyond were equal to those in the 30th year.	Risk-free interest rate curves
	Dai-ichi Frontier Life	MC-EEV	Total of Risk-free rate (JPY) (Based on JGB and UFRs) and spread that exceeds risk-free rate considering the assets held. Total of Risk-free rate (USD and AUD) (Based on U.S. and Australian Government Bond extrapolated by assuming forward rates in the 31st year and beyond were equal to those in the 30th year) and spread that exceeds risk-free rate considering the assets held.	Total of Risk-free interest rate curves and spread that exceeds risk-free rate considering the assets held.
	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 swap rates and UFRs).	Risk-free interest rate curves
	Medicare Life	MC-EEV	Risk-free rate (Based on Japanese, U.S. and Australian Government Bond and Ultimate forward rates).	Risk-free interest rate curves.
	Meiji Yasuda Life	MC-EEV	Total of Risk-free rate (Based on Government Bond) and spread that exceeds risk-free rate.	Total of Risk-free interest rate curves and spread that exceeds risk-free rate considering the assets held.
	MS&AD Aioi Life	MC-EEV	Risk-free rate: based on JGB extrapolated by assuming that 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 forward rates in the 41st year and beyond were equal to those in the 40th year. Fixed insurance product (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	MC-EEV	Risk-free rate (JPY): Based on JGB and UFRs. Risk-free rate (USD and AUD): Based on U.S. and Australian Government Bond extrapolated by assuming that forward rates in the 31st year and beyond were equal to those in the 30th year.	Risk-free interest rate curves
	Sompo Japan Nipponkoa Himawari Life	MCEV	Risk-free rate (Based on Japanese Government Bond and Ultimate forward rates).	Risk-free interest rate curves
	Sony Life	MCEV	Risk-free rate (Based on Japanese and U.S. Government Bond and Ultimate forward rates).	Risk-free interest rate curves
	Sumitomo Life	MC-EEV	Risk-free rate (Based on Japanese, U.S., and Australian Government Bond and UFRs).	Risk-free interest rate curves
	T&D Financial Life	MCEV	Risk-free rate (JPY): Based on Japanese Government Bond and Ultimate forward rates. Risk-free rate (Based on foreign currency): Based on government bond yields.	Risk-free interest rate curves

MARKET	COMPANY	EV PRINCIPLE	RDR	INVESTMENT RETURNS
Japan (continued)	<b>Japanese 10-year government bond yield at 30 September 2022: 0.245%</b>			
	Taiyo Life	MCEV	Risk-free rate (JPY): Based on Japanese Government Bond and Ultimate forward rates. Risk-free rate (Based on foreign currency): 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 movements.	Risk-free interest rate curves.
Indonesia	<b>Indonesian 10-year government bond yield at 30 June 2022: 7.249%</b>			
	AIA	TEV	13.03%	Equities 12.00%, 10Y Gov't Bonds 7.50%
	FWD	TEV	14.00%	Equities 11.50%, 10Y Gov't Bonds 7.50%
	Prudential	EEV	10.7% (NB), 11.3% (IF)	10Y Gov't Bonds 7.9%, Equities 12.1%
Malaysia	<b>Malaysian 10-year government bond yield at 30 June 2022: 4.274%</b>			
	AIA	TEV	8.49%	Equities 8.60%, 10Y Gov't Bonds 4.00%
	FWD	TEV	12.5%	Equities 8.80%, 10Y Gov't Bonds 5.25%
	Great Eastern	TEV	Malaysia: 7.75%	Not disclosed
	Hong Leong Assurance	TEV	Not disclosed	Not disclosed
	Prudential	EEV	6.1% (NB), 6.7% (IF)	10Y Gov't Bonds 4.3%, Equities 7.8%
Philippines	<b>Philippines 10-year government bond yield at 30 June 2022: 7.069%</b>			
	AIA	TEV	11.80%	Equities 10.50%, 10Y Gov't Bonds 5.30%
	FWD	TEV	12.5%	Equities 8.80%, 10Y Gov't Bonds 5.25%
	Prudential	EEV	14.6% (NB), 14.6% (IF)	10Y Gov't Bonds 7.4%, Equities 11.6%
Singapore	<b>Singaporean 10-year government bond yield at 30 June 2022: 2.963%</b>			
	AIA	TEV	6.59%	Equities 6.70%, 10Y Gov't Bonds 2.20%
	FWD	TEV	7.00%	10Y Gov't Bonds 2.25%
	Great Eastern	TEV	Singapore: 6.00%	Not disclosed
	Prudential	EEV	4.9% (NB), 5.1% (IF)	10Y Gov't Bonds 3.0%, Equities 6.5%
South Korea	<b>South Korean 10-year government bond yield at 30 June 2022: 3.637%</b>			
	AIA	TEV	8.10%	Equities 6.50%, 10Y Gov't Bonds 2.20%
	Hanwha Life	TEV	8.00%	3.30%
	Samsung Life	TEV	7.50%	4.78%
Taiwan	<b>Taiwanese 10-year government bond yield at 30 June 2022: 1.205%</b>			
	AIA	TEV	7.20%	Equities 5.60%, 10Y Gov't Bonds 1.00%
	Cathay Life	TEV	9.50%	VNB TWD Products: 2.59% ~ 4.55% (2041+) USD Products: 3.98% ~ 5.25% (2041+) VIF TWD Products: 3.75% ~ 4.71% (2041+) USD Products: 4.36% ~ 5.33% (2041+)
	China Life TW	TEV	9.50%	TWD Policies: Year 1 ~ Year 19: 3.58% ~ 4.79% Year 20+: 4.79% Non-TWD Policies: Year 1 ~ Year 19: 4.32% ~ 5.20% Year 20+: 5.20%

MARKET	COMPANY	EV PRINCIPLE	RDR	INVESTMENT RETURNS
Taiwan (continued)	<b>Taiwanese 10-year government bond yield at 30 June 2022: 1.205%</b>			
	Fubon Life	TEV	VNB: 9.0% VIF: 9.0%	VIF NTD Traditional Policies: Year 2022 to Year 2048 at 3.82%~4.88% (2049+) USD Policies: Year 2022 to Year 2039 at 3.91%~5.32% (2040+) VNB NTD Traditional Policies: Year 2021 to Year 2042 at 3.57%~4.84% (2043+) USD Policies: Year 2021 to Year 2042 at 3.95%~5.30% (2043+)
	Mercuries Life	TEV	Not disclosed	Not disclosed
	Prudential	EEV	3.4% (NB), 4.1% (IF)	10Y Gov't Bonds 1.3%, Equities 5.3%
	Shin Kong Life	TEV	Not disclosed	Not disclosed
Taiwan Life	TEV	Not disclosed	Not disclosed	
Thailand	<b>Thailand 10-year government bond yield at 30 June 2022: 2.840%</b>			
	AIA	TEV	7.65%	Equities 7.70%, 10Y Gov't Bonds 2.70%
	Bangkok Life	TEV	8.30%	3.25%
	FWD	TEV	8.30%	Equities 8.50%, 10Y Gov't Bonds 2.75%
	Prudential	EEV	10.4% (NB), 10.4% (IF)	10Y Gov't Bonds 3.1%, Equities 7.4%
Thai Life	TEV	8.00%	Local Equities 8.00%, 10Y Gov't Bonds 2.70%	
Vietnam	<b>Vietnamese 10-year government bond yield at 30 June 2022: 3.368%</b>			
	AIA	TEV	9.11%	Equities 8.80%, 10Y Gov't Bonds 3.5%
	Dai-ichi Life Vietnam	TEV	9.50%	Not disclosed
	FWD	TEV	10.75%	10Y Gov't Bonds 4.0%, Equities 9.7%
Prudential	EEV	5.3% (NB), 5.1% (IF)	10Y Gov't Bonds 3.4%, Equities 7.6%	

Note: Blue-shaded entries indicate that the 2022 H1 EV assumptions for the company have not yet been disclosed, thus the stated assumptions have been based on FY 2021 disclosures instead.

## Appendix A: Disclosed Asian EV by company and by market

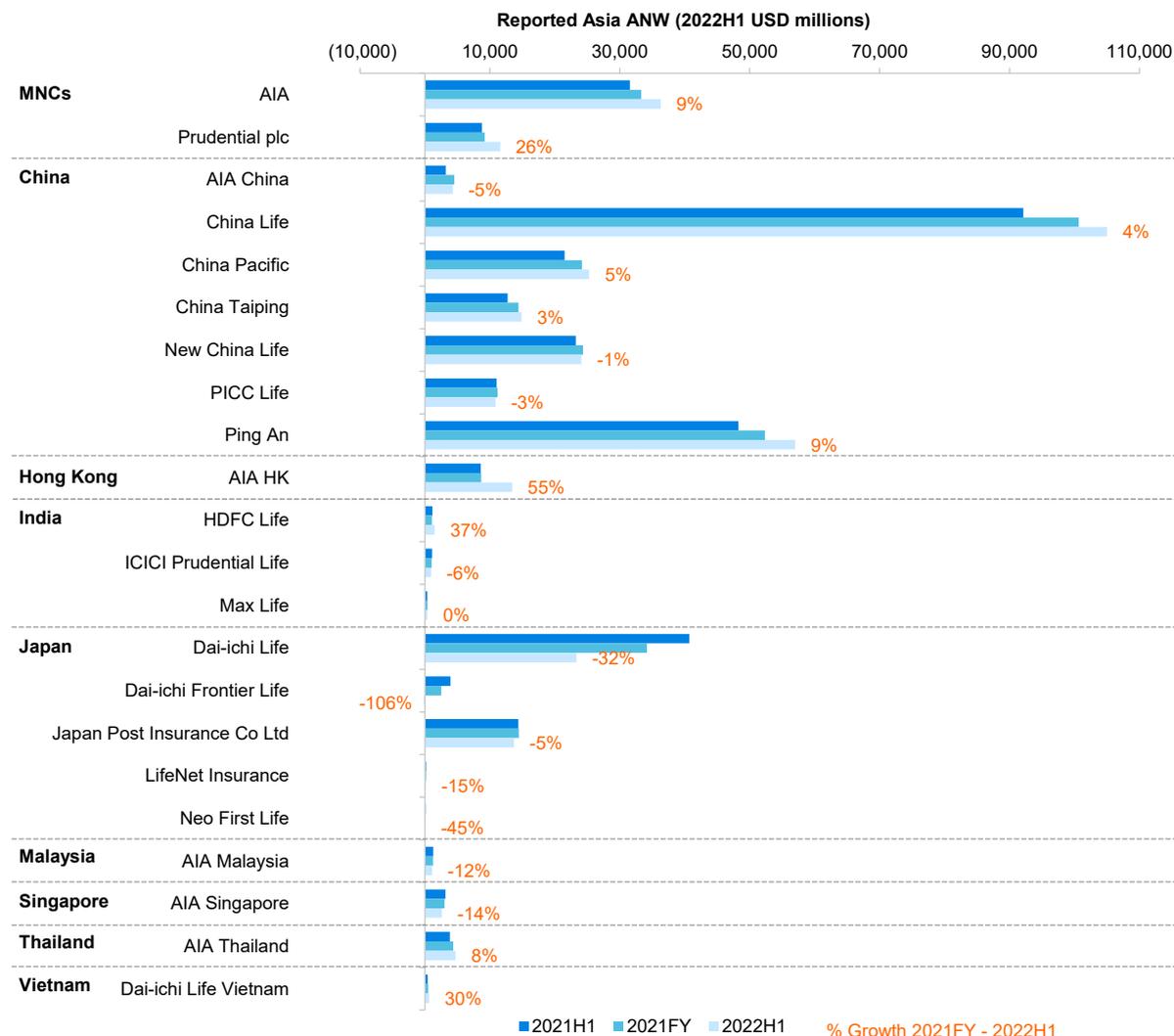
DISCLOSED ASIAN EV BY COMPANY AS AT 2022 H1 REPORTING YEAR (USD MILLIONS<sup>21</sup>)

Type	Company	Financial Mid-Year	EV Principle	China	Hong Kong	India	Japan	South Korea	Malaysia	Singapore	Taiwan	Thailand	Indonesia	Philippines	Vietnam	Other Asia/ Unallocated
MNCs	AIA	30-Jun-22	TEV	12,937	24,902	-	-	-	3,143	6,782	-	7,838	-	-	-	17,487
	Prudential plc	30-Jun-22	EEV	3,302	17,246	-	-	-	3,524	6,712	-	-	1,956	-	-	6,225
China	China Life	30-Jun-22	TEV	186,714	-	-	-	-	-	-	-	-	-	-	-	-
	China Pacific	30-Jun-22	TEV	57,653	-	-	-	-	-	-	-	-	-	-	-	-
	China Taiping	30-Jun-22	TEV	30,963	-	-	-	-	-	-	-	-	-	-	-	-
	New China Life	30-Jun-22	TEV	38,641	-	-	-	-	-	-	-	-	-	-	-	-
	PICC Life	30-Jun-22	TEV	16,355	-	-	-	-	-	-	-	-	-	-	-	-
	Ping An	30-Jun-22	TEV	135,328	-	-	-	-	-	-	-	-	-	-	-	-
India	Bajaj Allianz Life	30-Sep-22	MCEV	-	-	209	-	-	-	-	-	-	-	-	-	-
	Aditya Birla Sun Life	30-Sep-22	MCEV	-	-	956	-	-	-	-	-	-	-	-	-	-
	HDFC Life	30-Sep-22	IEV	-	-	4,426	-	-	-	-	-	-	-	-	-	-
	ICICI Prudential Life	30-Sep-22	IEV	-	-	4,012	-	-	-	-	-	-	-	-	-	-
	Max Life	30-Sep-22	MCEV	-	-	1,807	-	-	-	-	-	-	-	-	-	-
	LIC	30-Sep-22	IEV	-	-	66,880	-	-	-	-	-	-	-	-	-	-
	SBI Life	30-Sep-22	IEV	-	-	5,211	-	-	-	-	-	-	-	-	-	-
Japan	Daido Life	30-Sep-22	MCEV	-	-	-	16,020	-	-	-	-	-	-	-	-	-
	Dai-ichi Life	30-Sep-22	MC-EEV	-	-	-	32,178	-	-	-	-	-	-	-	-	-
	Dai-ichi Frontier Life	30-Sep-22	MC-EEV	-	-	-	4,048	-	-	-	-	-	-	-	-	-
	Japan Post Insurance Co Ltd	30-Sep-22	MC-EEV	-	-	-	23,700	-	-	-	-	-	-	-	-	-
	LifeNet Insurance	30-Sep-22	MC-EEV	-	-	-	851	-	-	-	-	-	-	-	-	-
	Neo First Life	30-Sep-22	MC-EEV	-	-	-	1,352	-	-	-	-	-	-	-	-	-
	T&D Financial Life	30-Sep-22	MCEV	-	-	-	815	-	-	-	-	-	-	-	-	-
	Taiyo Life	30-Sep-22	MCEV	-	-	-	7,390	-	-	-	-	-	-	-	-	-
Vietnam	Dai-ichi Life Vietnam	30-Jun-22	TEV	-	-	-	-	-	-	-	-	-	-	-	1,260	-

<sup>21</sup> EV results have been converted at the prevailing USD mid-FX rate as at the reporting date.

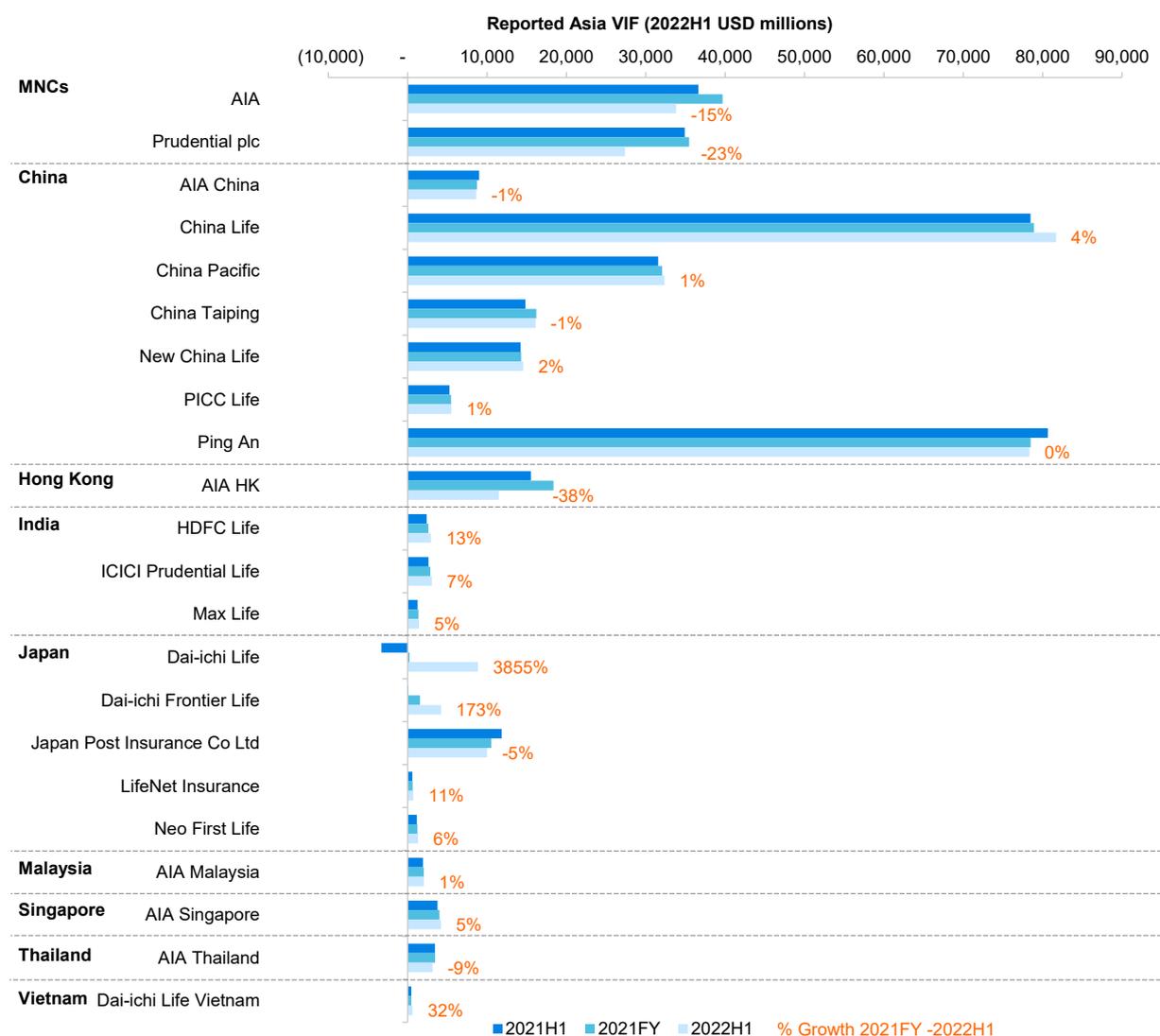
## Appendix B: Disclosed Asian ANW and VIF by company and by market

REPORTED ASIA ANW (2022 H1 USD MILLIONS)<sup>22</sup>



<sup>22</sup> We have excluded those companies that have not reported 2021 H1 and 2022 H1 ANW.

REPORTED ASIA VIF (2022 H1 USD MILLIONS)<sup>23</sup>



<sup>23</sup> We have excluded those companies that have not reported 2021 H1 and 2022 H1 VIF.



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