

MILLIMAN RESEARCH REPORT

2016 Mid-Year Embedded Value Results: Asia (excl. Japan)

Growth amidst volatility

December 2016

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Table of Contents

OPENING REMARKS	2
INTRODUCTION AND BACKGROUND	3
EMBEDDED VALUE RESULTS	5
VALUE OF NEW BUSINESS RESULTS	7
NEW BUSINESS MARGIN RESULTS	9
OTHER MEASURES OF VALUE	11
Market capitalisation	11
IFRS developments	11
RISK DISCOUNT RATE AND INVESTMENT RETURN ASSUMPTIONS	12
APPENDIX A: TOTAL ASIAN EV BY COMPANY BY TERRITORY	15
APPENDIX B: TOTAL ASIAN ANW AND VIF BY COMPANY BY TERRITORY	16
APPENDIX C: UPDATED INDIAN RESULTS, 2013-2015	17
APPENDIX D: NEW RULES FOR EV REPORTING IN CHINA	20

Opening remarks

Welcome to our Asian embedded value mid-year 2016 update. This report supplements the '2015 Embedded Value Results: Asia (excl. Japan)' report, which was released in October 2016, and provides a summary of the mid-year 2016 embedded value results disclosed by Asian insurers. An update of the India section of our full year report is also included to incorporate results that emerged more recently.

Asia continues to report double-digit growth rates in life insurance premiums for several emerging markets. However, the slowdown of embedded value growth seen in the 2015 results has continued into 2016. There are headwinds for many countries in the region, with countries such as South Korea and Taiwan suffering from unfavourable interest rate environments, Indonesia seeing slower economic growth, and equity market volatility in general across the region, particularly in China. Nonetheless, the long-term trend for the region remains positive, with insurers well placed to service the savings, protection, and retirement-related needs of the growing middle class and the aging affluent market.

Best regards,

Paul Sinnott
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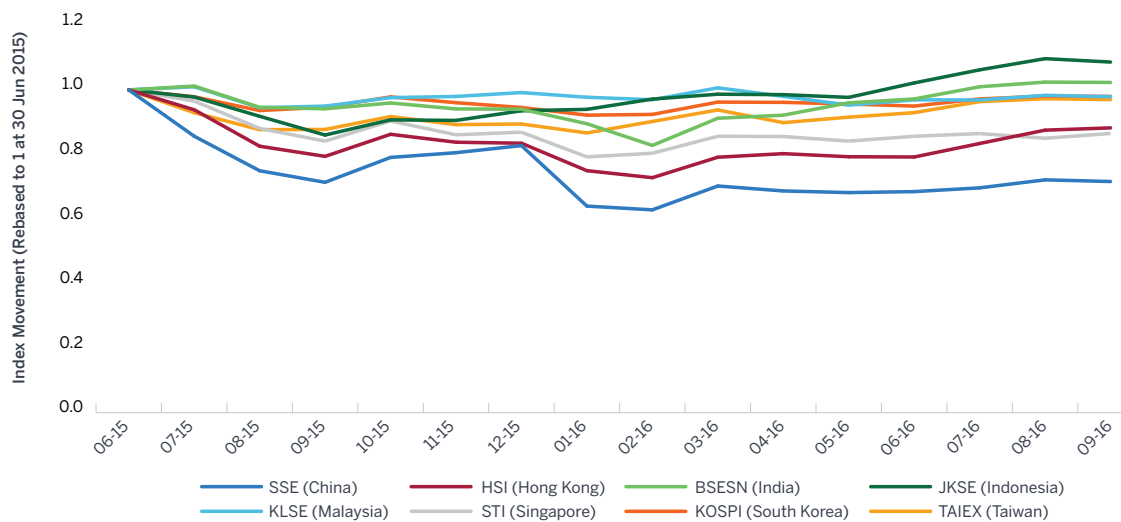
Introduction and background

Since June 2015, the majority of Asia has experienced volatile equity markets (see Figure 1) and further declining sovereign bond yields (see Figure 2). The biggest impact has been in China, where equity values fell significantly when its recent bull run ended abruptly in June 2015. This was followed by another material decrease in January 2016. Spillover effects from this were also seen in several other Asian equity markets.

However, there have been some reversals of these long term trends following the US election result in early November. Since then sovereign bonds yields in several Asian markets have risen, sharply in some cases, while the performance of Asian equity markets have been mixed. It remains to be seen whether this represents a short-term reaction or signals the start of a more sustainable change in economic conditions in Asia.

Declining or stagnant Asian equity markets have had adverse effects on the life insurance industry, particularly on insurers’ investment results and the performance of unit-linked and participating business lines.

FIGURE 1: RECENT EQUITY MARKET PERFORMANCE: GROWTH OF MAJOR EQUITY INDICES^{1,2} FROM 30 JUNE 2015 TO 30 SEPTEMBER 2016

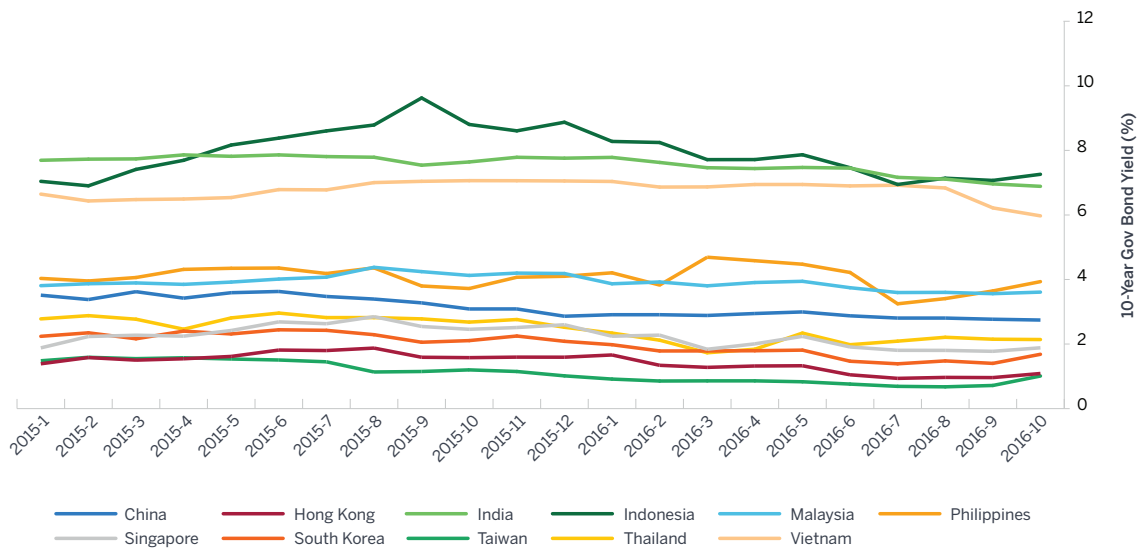


1 The following stock indices have been used for each country: China: Shanghai Stock Exchange Composite Index; Hong Kong: Hang Seng Index; India: Bombay Stock Exchange 30; Indonesia: Jakarta Composite; Malaysia: Kuala Lumpur Stock Exchange Composite Index; Singapore: Straits Times Index; South Korea: Korea Composite Index; Taiwan: Taiwan Weighted Index.

2 Source: Yahoo Finance.

In theory, declining interest rates (as can be seen in Figure 2 for many of the Asian markets) should adversely affect Asian life insurers, with rises in adjusted net worth (ANW) from increasing value of fixed income assets being offset by declines in value of in-force (VIF) business, that are due to lower expected investment returns. As in most Asian markets, life insurers' liabilities are longer-duration than their corresponding assets; this would normally result in lower embedded value results, as the decline in VIF is larger than the uplift in ANW. However, this is not always the case in practice, which is due to some of the approaches taken to setting embedded value (EV) economic assumptions. In Traditional Embedded Value (TEV) reporting in particular, if 'long-term' investment assumptions do not move down with the yield curve, uplifts in ANW can be more than declines in VIF, resulting in the counterintuitive situation of declining interest rates being positive for embedded value results.

FIGURE 2: 10-YEAR SOVEREIGN BOND YIELDS,³ 2015-2016

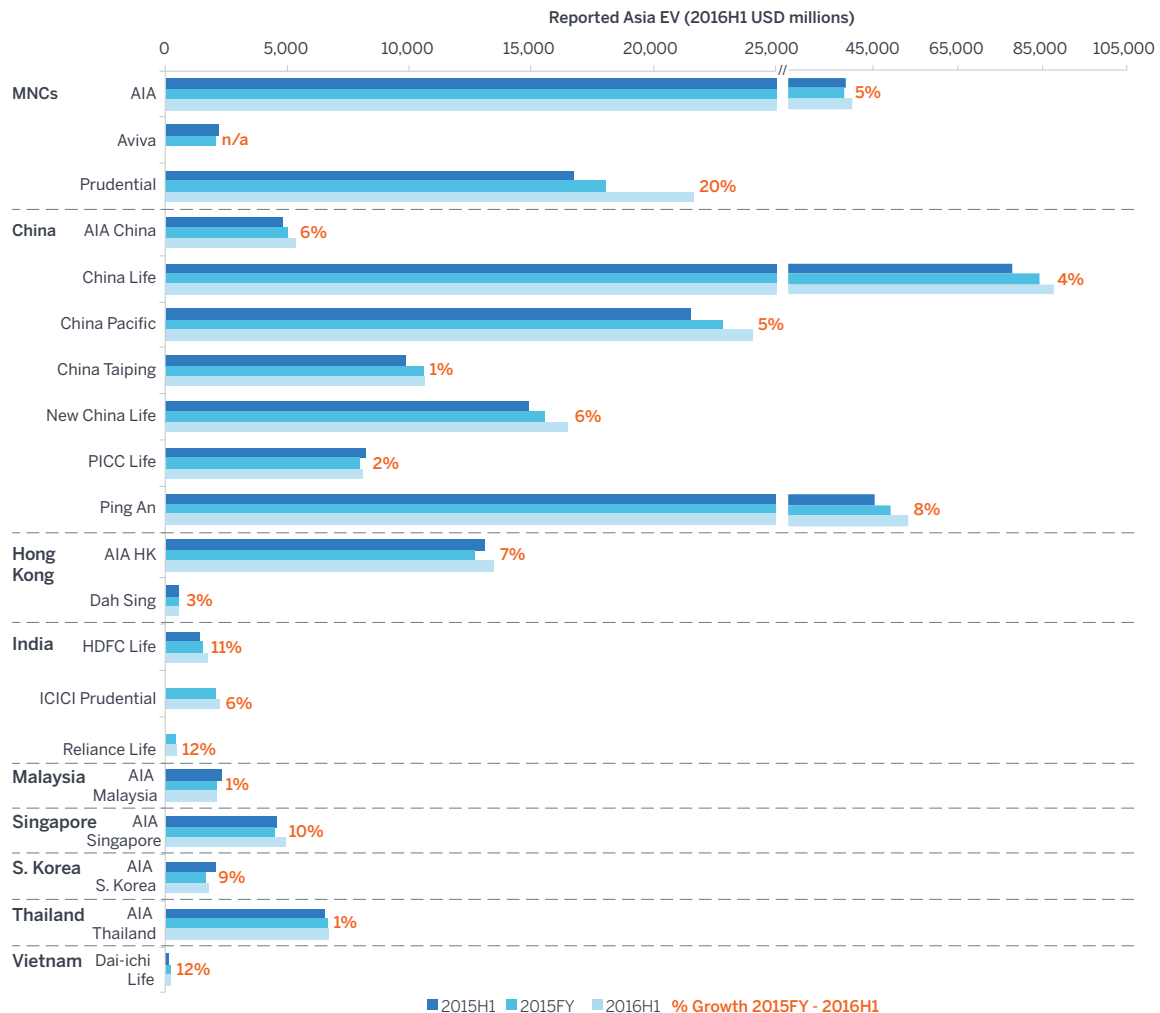


3 Source: Investing.com.

Embedded value results

The chart in Figure 3 compares the embedded value results by company within the different Asian markets over the period 2015H1 to 2016H1.

FIGURE 3: ASIAN LIFE INSURANCE COVERED BUSINESS EV BY COMPANY,^{4,5} 2015H1 TO 2016H1



Overall, insurers have reported positive gains in their Asian embedded value over the last six months, with the biggest increases posted by Prudential⁶ (20%), Reliance Life (12%), Dai-ichi Life Vietnam (12%), and HDFC Life (11%).

Prudential’s Asian EV growth has been primarily driven by strong new business sales, especially in Hong Kong, and an increase in the reported ANW.

Meanwhile, AIA has seen healthy growth in EV in several operations, in particular Singapore (10%) and South Korea (9%). Interestingly, this has been driven by a large increase in the ANW (27% for AIA Singapore and 15% for AIA South Korea), with both operations reporting a fall in VIF.

4 The EV figures for each company have been converted to USD at the mid-rates prevailing as at their 2016H1 reporting dates, to remove most of the effect of currency fluctuations.

5 Please note that for AIA, we have used the embedded values after the inclusion of pension liabilities.

6 Within the report, 'Prudential' refers to Prudential plc, the global insurer domiciled in the United Kingdom.

A continuing key concern for South Korean and Taiwanese insurers is the persistently low level of long-term fixed interest yields (see Figure 2 above). Insurers in these jurisdictions tend to still have large blocks of existing business, with long-term guarantee rates well above the yields earned on medium- to long-term government bonds, dragging down overall profitability.

Chinese and Taiwanese insurers have assumed increasing investment returns for future years. There is limited disclosure as to how these increasing yield scenarios are reflected in the VIF calculations, in particular whether corresponding capital losses are incorporated as interest rates are projected to rise. This is in contrast to AIA, where disclosures indicate that, when fixed interest yields are assumed to rise from the current level to the long-term assumptions, appropriate allowances are made for the resulting bond portfolio capital losses.

On the regulatory front, the China Association of Actuaries (CAA) released new rules for compulsory EV reporting on 22 November 2016. The new rules are intended to encourage the sale of more long-term life insurance business. A more technical explanation can be found in Appendix D.

Value of new business results

The chart in Figure 4 on page 8 compares the value of new business (VNB) results by company within the different Asian markets over the period 2015H1 to 2016H1.

Among the multinational corporations (MNCs), Manulife reported the highest VNB growth of 59%. This is mainly driven by the tripling of its VNB for the 'Asia Other' category (which excludes Hong Kong and Japan), because of strong double-digit growth in its annualised equivalent premium⁷ (APE)—which is particularly due to early success in its bancassurance partnership with DBS Bank—and improved margins.

In Hong Kong, Prudential posted the highest VNB growth of 67%, primarily driven by strong sales of participating business to mainland Chinese visitors, in conjunction with an increase in agent numbers. AIA's and Manulife's Hong Kong operations also recorded strong VNB growth for similar reasons, although there are concerns that continuing actions from the Chinese and Hong Kong regulators with respect to sales of Hong Kong policies to mainland Chinese visitors may affect growth for the whole market going forward.

Most Chinese insurers continue to report significant increases in VNB, primarily driven by increased volumes of agency businesses, and this is reflected in the comparatively higher growth of the more agency-focused businesses such as China Life, China Pacific, Ping An, and AIA, compared with PICC, which is more reliant on the lower-margin bancassurance distribution. New business sales have been dominated by high-return short-term products, however. Given that there are no disclosures with respect to investment return assumptions used for these short-term products that have been sold in such large volumes recently, we understand that the long-term investment return assumptions have been applied to these lines of business. If these short-term liabilities are being matched with short-term fixed income assets, then the VNB is likely to be overstated. If they are actually being backed by long-term fixed income assets, then the companies concerned are taking material durational mismatch risks. Either way, there are questions around the VNB/EV reporting of this important line of business.

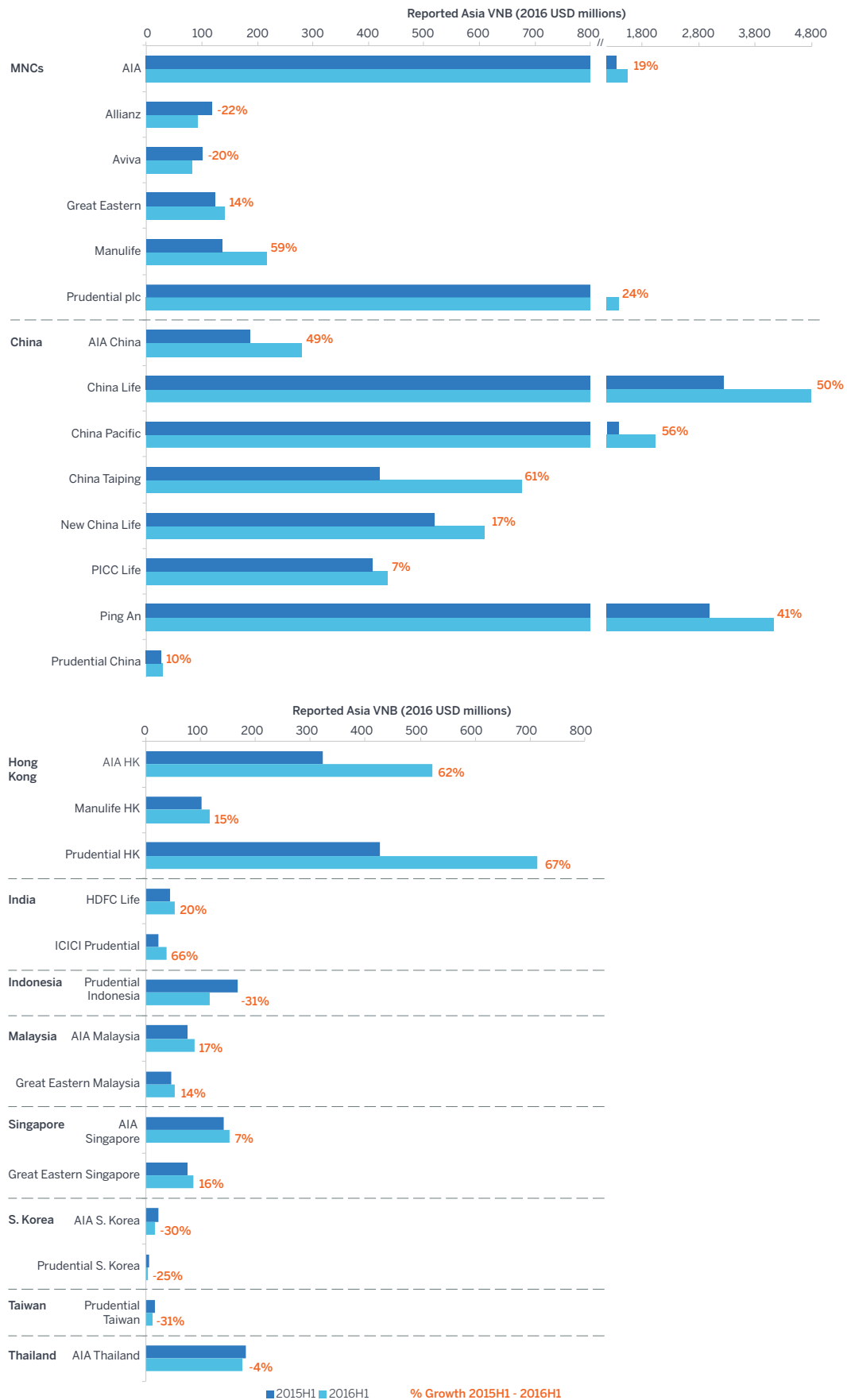
For Indonesia, Prudential reported a 31% decrease in VNB, with difficult economic conditions cited as a contributory factor. Although exact figures were not provided, AIA stated it achieved double-digit growth in its VNB for agency business, which is due to higher agency productivity and increased margins from achieving high-protection rider attachment rates on investment-linked products.

In Singapore, AIA and Great Eastern posted increases in VNB of 7% and 16% respectively. AIA's growth primarily relates to increased agency productivity, while Great Eastern's strong performance came mainly from higher sales through both the agency and bancassurance channels. Meanwhile, Manulife disclosed a growth of 275% in its APE sales in Singapore, driven by strong sales through its DBS bancassurance partnership.

In Malaysia, AIA and Great Eastern reported an increase in VNB of 17% and 14% respectively. AIA's growth in agent numbers and an increase in agency productivity (especially in its Takaful, or Islamic insurance, business) are contributory factors. Great Eastern saw strong increases in sales in both agency and bancassurance channels.

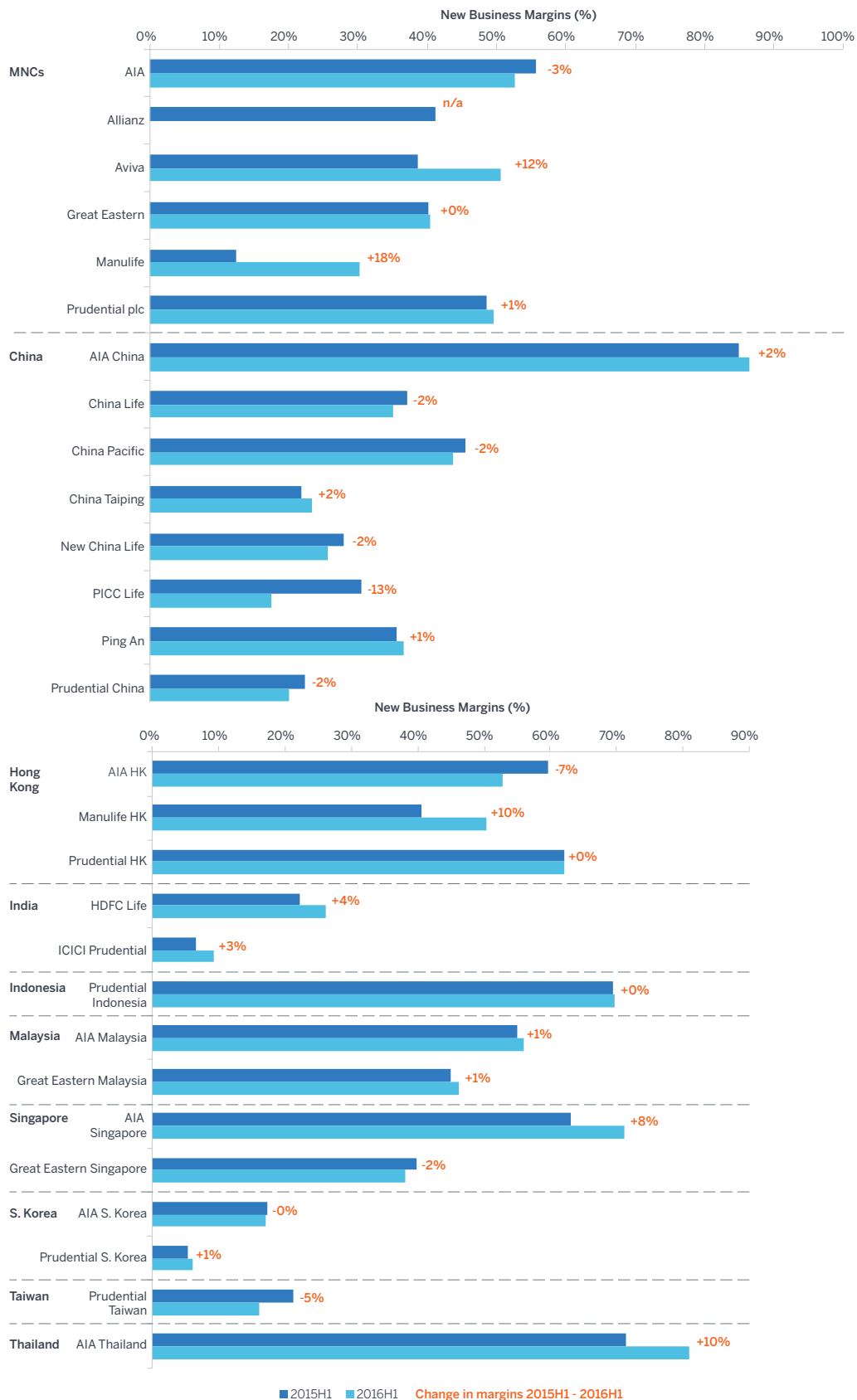
7 Defined to be: regular premiums + 10% of single premiums.

FIGURE 4: ASIAN VNB BY COMPANY 2015H1 TO 2016H1



New business margin results

FIGURE 5: IMPLIED NEW BUSINESS MARGINS BY COMPANY,^{8,9} 2015H1 TO 2016H1



8 For the MNCs, please note that these are the margins relating to their Asian business, excluding Japan.

9 For HDFC Life and ICICI Prudential, note that these are post-expense overrun margins.

Comparing the first half of 2015 and the first half of 2016, more than half of the operating entities reported improvements in new business margin.¹⁰

The biggest growth in new business margins (in relative terms) came from:

- Manulife,¹¹ where margins increased from 13% to 31%
- ICICI Prudential, where margins increased from 6.6% to 9.4%
- Aviva,¹¹ where margins increased from 39% to 51%
- AIA Thailand, where margins increased from 71% to 81%

In contrast, the largest decline in new business margins came from:

- PICC Life, where margins declined from 31% to 18%
- Prudential Taiwan,¹² where margins declined from 21% to 16%
- AIA Hong Kong, where margins declined from 60% to 53%

Because of the small sample size of this mid-year update, any extrapolation of individual company results to wider market trends may not be instructive. For example, whilst both AIA and Prudential South Korea reported little change to their margins, these two operations make up only a small portion of the South Korean insurance market. On a side note, Prudential has announced on 10 November 2016 that it is selling its South Korean life insurance subsidiary to Mirae Asset Life Insurance, the sixth largest life insurance company in South Korea, for KRW 170 billion, or roughly USD 148 million.

All the major industry players in China report half-year results. Two insurers (China Taiping and Ping An) reported slight margin improvements, whilst three other major insurers (China Life, China Pacific and New China Life) reported small reductions in new business margin. PICC Life reported a large decline in new business margin. Although PICC Life did not disclose a reason for the decline, we understand that there is generally lower margin through the bancassurance channel, which is the predominant distribution channel of the company.

¹⁰ New business margin is defined as VNB divided by APE.

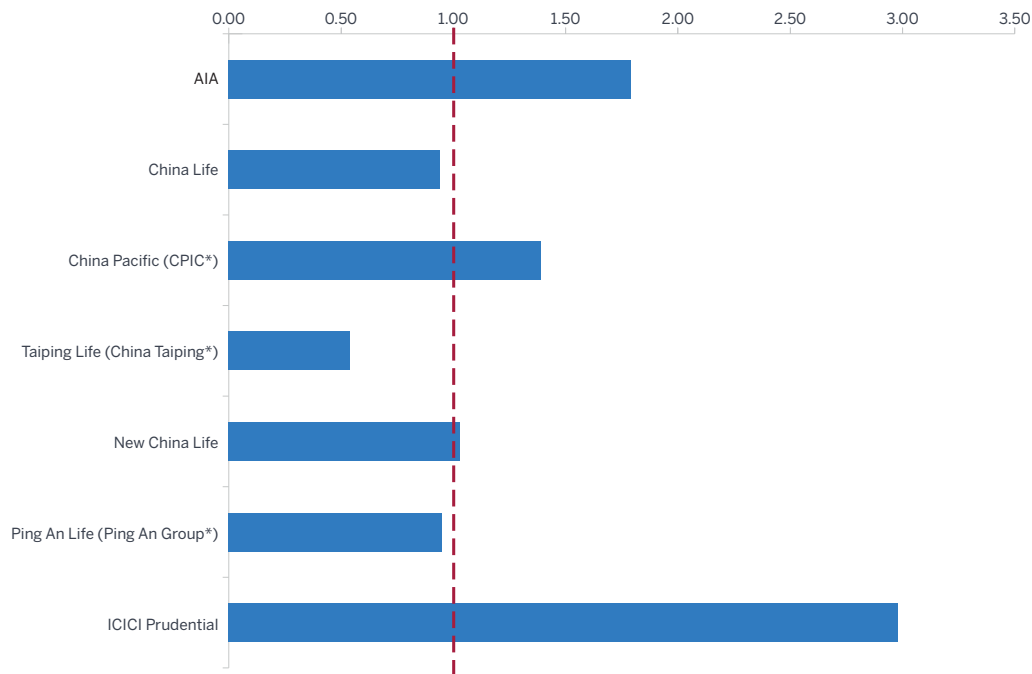
¹¹ For Manulife and Aviva, we are referring to their performance across Asia excluding Japan.

¹² For the avoidance of doubt, this relates to PCA Life Assurance Co. Ltd, the subsidiary of UK-based Prudential plc in Taiwan.

Other measures of value

MARKET CAPITALISATION

FIGURE 6: PRICE TO EMBEDDED VALUE RATIOS AS AT 2016H1 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, namely PICC Life (PICC Group).

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.

Figure 6 shows the price/Embedded Value (P/EV) ratios for listed insurers. It is interesting to note that the 2016H1 P/EV ratios for the Chinese insurance groups have declined significantly compared with FY2015. Meanwhile, ICICI Prudential is included in this figure for the first time, having completed the first Indian insurance initial public offering (IPO) and officially listing on 29 September 2016.

The standard treatment for including non-covered business is to add the net assets¹³ (analogous to ANW in EV reporting), thereby excluding what would have been their equivalent of the VIF. As a result there is a tendency for composites and insurers with large banking or investment businesses to differ from the industry average, based on the P/EV metric.

IFRS DEVELOPMENTS

The International Accounting Standards Board (IASB) continues to make progress on the drafting process of International Financial Reporting Standards (IFRS) 17, previously known as IFRS 4 Phase II. On 15 November 2016, an IASB meeting was convened to discuss a number of interesting topics, amongst others the results of the field test and the level of aggregation required.

IFRS 17 is expected to be published in the first half of 2017, followed by post-issuance support during 2017 and 2018.¹⁴ This is likely to lead to an IFRS 17 'go-live' date of 1 January 2021. Asian insurers will generally have more time than European insurers, as national accounting standards boards are typically talking about putting in place a longer transition period for full IFRS 17 implementation.

¹³ I.e., IFRS assets minus liabilities.

¹⁴ Timelines for IFRS 17 are based on the IASB Work Plan 2017-2021, issued in November 2016.

Risk discount rate and investment return assumptions

For all types of EV reporting, common hot topics in Asia include:

- The selection and construction of the appropriate risk discount rate
- The selection of appropriate investment rate assumptions

The risk discount rate and investment return assumptions of the insurers in Asia that report embedded value results are listed in Figures 7 and 8. Aside from the companies reporting on market-consistent EV (MCEV) and Indian EV (IEV) bases, the only insurer that has adjusted its assumptions for 2016H1 is Prudential. All other insurers either chose to retain their FY2015 assumptions or did not disclose the assumptions used for their 2016H1 EV results.

FIGURE 7: RISK DISCOUNT RATE AND INVESTMENT RETURN ASSUMPTIONS OF MNCS

TYPE	COMPANY	EV PRINCIPLE	RISK DISCOUNT RATE	INVESTMENT RETURNS ¹⁴
MNCs	AIA	TEV	China: 9.75% Hong Kong: 7.00% Indonesia: 13.50% South Korea: 9.10% Malaysia: 8.75% Philippines (Philam Life): 10.50% Singapore: 6.90% Sri Lanka: 15.70% Taiwan: 7.85% Thailand: 8.80 % Vietnam: 13.80%	China: Equities 9.50%, 10Y Gov't Bonds 3.70% Hong Kong: Equities 7.55%, 10Y Gov't Bonds 2.50% Indonesia: Equities 12.80%, 10Y Gov't Bonds 8.00% South Korea: Equities 7.20%, 10Y Gov't Bonds 3.20% Malaysia: Equities 8.75%, 10Y Gov't Bonds 4.20% Philam Life: Equities 9.20%, 10Y Gov't Bonds 4.00% Singapore: Equities 7.00%, 10Y Gov't Bonds 2.50% Sri Lanka: Equities 11.70%, 10Y Gov't Bonds 10.00% Taiwan: Equities 6.60%, 10Y Gov't Bonds 1.60% Thailand: Equities 9.20%, 10Y Gov't Bonds 3.40% Vietnam: Equities 13.80%, 10Y Gov't Bonds 8.00%
	Allianz	MCEV	Swap rates - credit risk adjustment + volatility adjustment	Equity: +500 bps above reference rate Real estate: +2000 bps x reference rate
	Aviva	MCEV	Swap rates + liquidity premium	Equity: +350 bps above reference rate Real estate: +200 bps above reference rate
	Great Eastern	TEV	Singapore: 7.25% Malaysia: 9.00%	Singapore: 5.25% (participating), 4.00% (nonparticipating), 6.00% (linked) Malaysia: 6.00% (participating), 5.00% (nonparticipating), 7.00% (linked)
	Manulife	TEV	Hong Kong: 10.00%	Hong Kong: 11.50% Equity, 1.85% Gov't Bonds Asia excl. Hong Kong and Japan: 9.00% to 11.00% Equity
	Prudential	MC EEV	China: 9.4% (NB), 9.4% (IF) Hong Kong: 3.0% (NB), 2.9% (IF) Indonesia: 11.5% (NB), 11.5% (IF) Korea: 5.9% (NB), 4.0% (IF) Malaysia: 6.3% (NB), 6.4% (IF) Philippines: 10.5% (NB), 10.5% (IF) Singapore: 3.6% (NB), 4.5% (IF) Taiwan: 3.8% (NB), 3.3% (IF) Thailand: 8.7% (NB), 8.7% (IF) Vietnam: 13.7% (NB), 13.7% (IF)	China: 10Y Gov't Bonds 2.9% Hong Kong: 10Y Gov't Bonds 1.5%, Equities 5.5% Indonesia: 10Y Gov't Bonds 7.6% Korea: 10Y Gov't Bonds 1.5% Malaysia: 10Y Gov't Bonds 3.8%, Equities 9.8% Philippines: 10Y Gov't Bonds 3.7% Singapore: 10Y Gov't Bonds 1.9%, Equities 7.9% Taiwan: 10Y Gov't Bonds 0.8% Thailand: 10Y Gov't Bonds 2.0% Vietnam: 10Y Gov't Bonds 6.9%

Note: Blue-shaded entries indicate that the 2016H1 EV assumptions for the company have not yet been disclosed, thus the stated assumptions have been based on FY2015 disclosures instead.

15 Note that for AIA and Prudential, investment return assumptions in Figure 7 are long-term assumptions.

FIGURE 8: RISK DISCOUNT RATE AND INVESTMENT ASSUMPTIONS OF INSURERS BY MARKET

COUNTRY	COMPANY	EV PRINCIPLE	RISK DISCOUNT RATE	INVESTMENT RETURNS
CHINA	Chinese 10-year government bond yield at 30 June 2016: 2.88%			
	AIA	TEV	9.8%	Equities 9.50%, 10Y Gov't Bonds 3.70%
	China Life	TEV	11.0%	Grading from 5.1% to 5.5% by 0.1% every year, remaining level thereafter
	China Pacific	TEV	11.0%	5.20%.
	China Taiping	TEV	11.0%	Year 1: 5.5%; Year 2+: 5.5%
	New China Life	TEV	11.5%	Year 1: 5.00% (non-linked), 7.60% (linked) Year 2: 5.10% (non-linked), 5.20% (universal life), 7.60% (linked) Year 3: 5.20% (nonparticipating), 5.30% (participating), 5.50% (universal life), 7.80% (linked) Year 4+: 5.20% (nonparticipating), 5.50% (participating), 5.60% (universal life), 7.90% (linked)
	PICC Life	TEV	10.00%	5.50%
	Ping An	TEV	11.00%	Non-investment-linked: 4.75% in Year 1, increasing by 0.25% every year until 5.50%
	Prudential	EEV	9.40%	Investment-linked: slightly higher than non-investment-linked
HONG KONG	Hong Kong 10-year government bond yield at 30 June 2016: 1.05%			
	United States 10-year government bond yield at 30 June 2016: 1.48%			
	AIA	TEV	7.00%	Equities 7.55%, 10Y Gov't Bonds 2.50%
	Dah Sing	TEV	8.30%	3.10% to 5.45%, based on investment portfolios
	Manulife	TEV	10.00%	Equities 11.50%, 10Y Gov't Bonds graded from 1.54% to 3.37%
	Prudential	EEV	3.0% (NB), 2.9% (IF)	Equities 5.5%, 10Y Gov't Bonds 1.5%
INDIA	Indian 10-year government bond yield at 30 June 2016: 7.45%			
	HDFC Life	IEV	Risk-free Gov't Bond yield curve	Risk-free Gov't Bond yield curve
	ICICI Prudential	IEV	Risk-free Gov't Bond yield curve	Risk-free Gov't Bond yield curve
	Reliance Life	TEV	Not disclosed	Not disclosed
INDONESIA	Indonesian 10-year government bond yield at 30 June 2016: 7.46%			
	AIA	TEV	13.50%	Equities 12.80%, 10Y Gov't Bonds 8.00%
	Prudential	EEV	11.5% (NB), 11.5% (IF)	10Y Gov't Bonds 7.6%
MALAYSIA	Malaysian 10-year government bond yield at 30 June 2016: 3.75%			
	AIA	TEV	8.75%	Equities 8.75%, 10Y Gov't Bonds 4.20%
	Great Eastern	TEV	9.00%	6.0% (participating), 5.0% (nonparticipating), 7.0% (linked)
	Prudential	EEV	6.3% (NB), 6.4% (IF)	Equities 9.8%, 10Y Gov't Bonds 3.8%
PHILIPPINES	Philippines 10-year government bond yield at 30 June 2016: 4.22%			
	AIA	TEV	10.50%	Equities 9.20%, 10Y Gov't Bonds 4.00%
	Prudential	EEV	10.50%	10Y Gov't Bonds 3.7%
SINGAPORE	Singaporean 10-year government bond yield at 30 June 2016: 1.91%			
	AIA	TEV	6.90%	Equities 7.00%, 10Y Gov't Bonds 2.50%
	Great Eastern	TEV	7.25%	Singapore: 5.25% (participating), 4.00% (nonparticipating), 6.00% (linked)
	Prudential	EEV	3.6% (NB), 4.5% (IF)	Equities: 7.9%, 10Y Gov't Bonds 1.9%
S. KOREA	South Korean 10-year government bond yield at 30 June 2016: 1.47%			
	AIA	TEV	9.10%	Equities 7.20%, 10Y Gov't Bonds 3.20%
	Prudential	EEV	5.9% (NB), 4.0% (IF)	10Y Gov't Bonds 1.5%

FIGURE 8: RISK DISCOUNT RATE AND INVESTMENT ASSUMPTIONS OF INSURERS BY MARKET (CONTINUED)

COUNTRY	COMPANY	EV PRINCIPLE	RISK DISCOUNT RATE	INVESTMENT RETURNS
TAIWAN	Taiwan 10-year government bond yield at 30 June 2016: 0.76%			
	AIA	TEV	7.85%	Equities 6.60%, 10Y Gov't Bonds 1.60%
	Prudential	EEV	3.8% (NB), 3.3% (IF)	10Y Gov't Bonds 0.8%
THAILAND	Thailand 10-year government bond yield at 30 June 2016: 1.98%			
	AIA	TEV	8.80%	Equities 9.20%, 10Y Gov't Bonds 3.40%
	Prudential	EEV	8.70%	10Y Gov't Bonds 2.0%
VIETNAM	Vietnamese 10-year government bond yield at 30 June 2016: 6.90%			
	AIA	TEV	13.80%	Equities 13.80%, 10Y Gov't Bonds 8.00%
	Dai-ichi Life Vietnam	TEV	Not disclosed	Not disclosed
	Prudential	EEV	13.70%	10Y Gov't Bonds 6.9%

Note: Blue-shaded entries indicate that the 2016H1 EV assumptions for the company have not yet been disclosed, thus the stated assumptions have been based on FY2015 disclosures instead.

Appendix A: Total Asian EV by company by territory

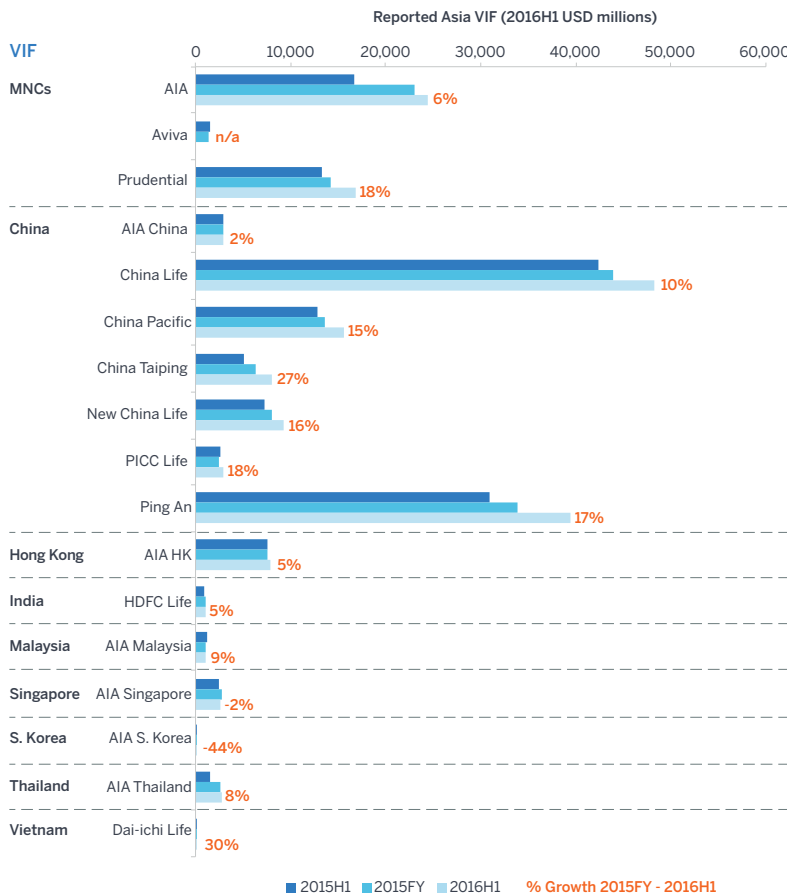
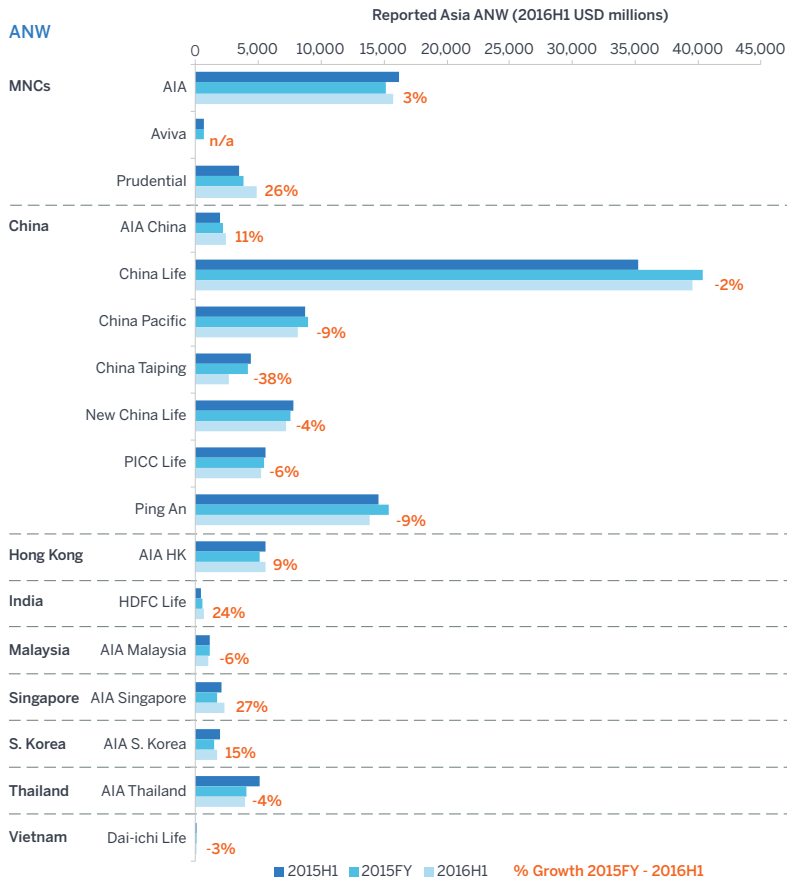
For all types of EV reporting, common hot topics in Asia include:

TOTAL ASIAN EV BY COMPANY AS AT FIRST HALF YEAR OF 2016 REPORTING YEAR (USD M'S¹⁶)

TYPE	COMPANY	FINANCIAL YEAR END	EV PRINCIPLE	CHINA	HONG KONG	INDIA	MALAYSIA	SINGAPORE	SOUTH KOREA	TAIWAN	THAILAND	VIETNAM	OTHER ASIA/ UNALLOCATED
MNCs	AIA	30-Nov-15	TEV	5,352	13,490	-	2,153	4,920	1,828	-	6,713	-	5,613
	Prudential plc	31-Dec-15	EEV	-	-	-	-	-	-	-	-	-	21,629
China	China Life	31-Dec-15	TEV	87,799	-	-	-	-	-	-	-	-	-
	China Pacific	31-Dec-15	TEV	24,061	-	-	-	-	-	-	-	-	-
	China Taiping	31-Dec-15	TEV	10,659	-	-	-	-	-	-	-	-	-
	New China Life	31-Dec-15	TEV	16,497	-	-	-	-	-	-	-	-	-
	PICC Life	31-Dec-15	TEV	8,108	-	-	-	-	-	-	-	-	-
	Ping An	31-Dec-15	TEV	53,322	-	-	-	-	-	-	-	-	-
Hong Kong	Dah Sing	31-Dec-15	TEV	-	585	-	-	-	-	-	-	-	-
India	HDFC Life	31-Mar-16	IEV	-	-	1,706	-	-	-	-	-	-	-
	ICICI Prudential	31-Mar-16	IEV	-	-	2,228	-	-	-	-	-	-	-
	Reliance Life	31-Mar-16	IEV	-	-	461	-	-	-	-	-	-	-
Vietnam	Dai-ichi Life Vietnam	31-Dec-15	TEV	-	-	-	-	-	-	-	235	-	

¹⁶ EV results have been converted at the prevailing USD mid-FX rate as at the reporting date.

Appendix B: Total Asian ANW and VIF by company by territory



Appendix C: Updated Indian results, 2013-2015¹⁷

FIGURE C1: REPORTED EV OF INDIAN INSURANCE OPERATIONS, 2013-2015

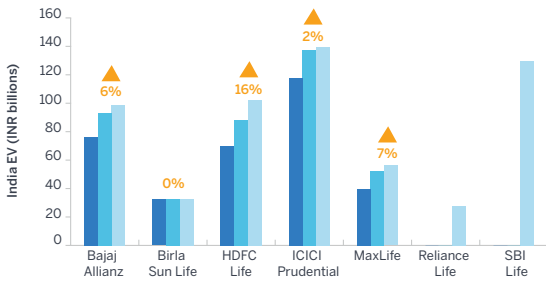


FIGURE C2: REPORTED ANW OF INDIAN INSURANCE OPERATIONS, 2013-2015

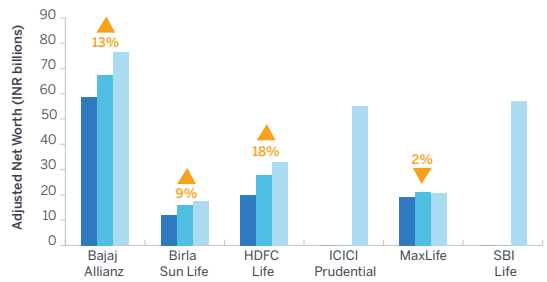


FIGURE C3: REPORTED VIF OF INDIAN INSURANCE OPERATIONS, 2013-2015

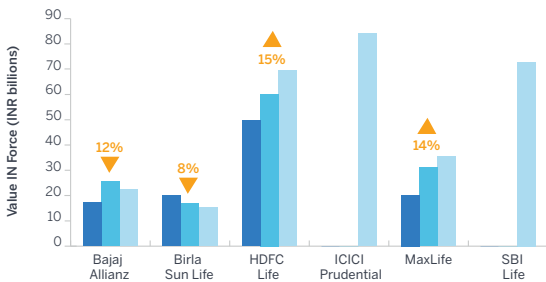


FIGURE C4: REPORTED VIF/ANW SPLIT OF INDIAN INSURANCE OPERATIONS, 2015

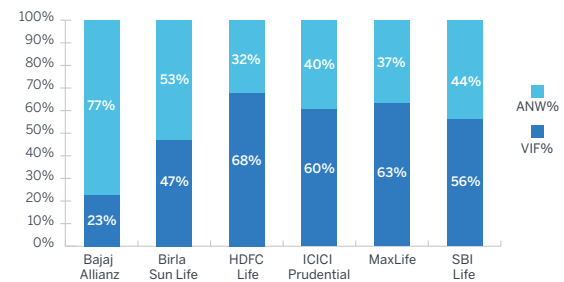


FIGURE C5: REPORTED VNB¹⁸ OF INDIAN INSURANCE OPERATIONS, 2013-2015

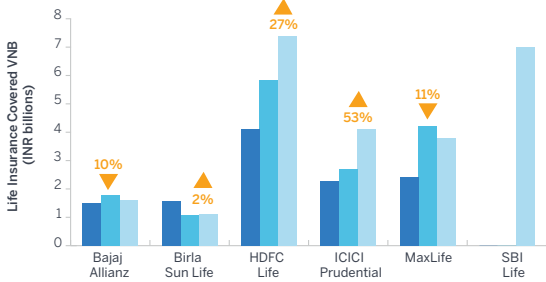


FIGURE C6: REPORTED APE OF INDIAN INSURANCE OPERATIONS, 2013-2015

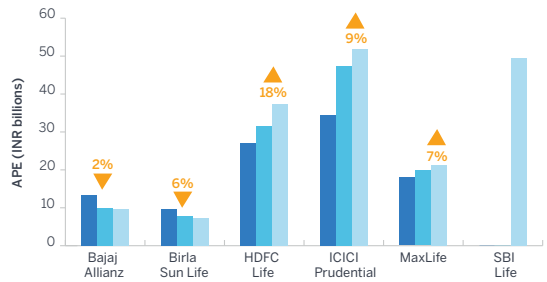
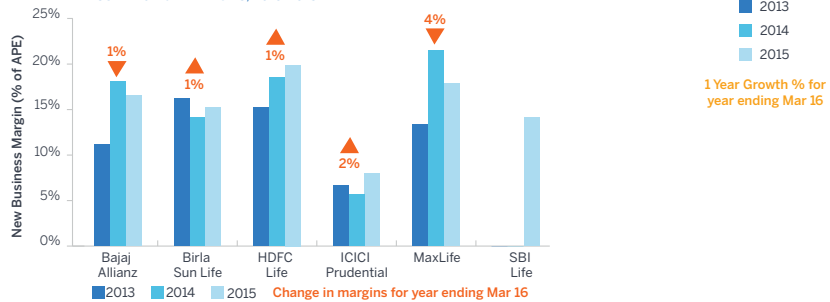


FIGURE C7: REPORTED NEW BUSINESS MARGIN¹⁹ OF INDIA INSURANCE OPERATIONS, 2013-2015



17 For the purposes of this report, FY2015 for India insurers represent the financial year ending 31 March 2016.

18 VNB and new business margin are all post-expense overrun, except for Bajaj Allianz and Birla Sun Life, where no overrun information was provided.

19 Ibid.

There is more divergence in EV/VNB reporting methodologies in India than anywhere else in Asia. Some companies, such as Birla Sun Life and Reliance Life, have chosen to prepare TEV disclosures. SBI Life's first EV disclosure is asserted by the company to have been developed based on MCEV methodology. Others, such as HDFC Standard Life and ICICI Prudential, now use the market-consistent Indian EV (IEV) approach. Max Life also uses a market-consistent approach, but with a clear statement that it was 'not intended to be compliant with the MCEV Principles ... or the APS10 (IEV).' Reliance Life and SBI Life publicly disclosed their EV results for the first time during the FY2015 reporting period.

The 2014 disclosures (as at 31 March 2015) were the first to show new business margins taking into account the impact of the product-related regulatory changes issued in February 2013. New business margins have been reported in the range of 8% to 20% for FY2015, using the various methodologies and after allowing for the impact of acquisition expense overruns. Interestingly, most companies now disclose VNB and new business margins after expense overruns, in contrast to a few years ago, where it was common for companies to only disclose VNB and new business margins before expense overruns. We have therefore revised the charts above to show post-overrun figures, wherever they have been disclosed.

The main changes to disclosed VNB and new business margins in FY2015 were as follows:

- HDFC Life disclosed a post-overrun VNB of INR 7.4 billion and new business margin of 19.9% in FY2015, which was an improvement from the post-overrun VNB of INR 5.84 billion and margin of 18.5% in FY2014.
- Max Life's VNB reduced from INR 4.23 billion in FY2014 to INR 3.78 billion in FY2015, with the new business margin decreasing from 21.5% to 17.9%.
- In its Red Herring Prospectus (RHP) filed with the market regulator Securities and Exchange Board of India (SEBI) for the purpose of an initial public offering (IPO), ICICI Prudential Life stated post-overrun VNB of INR 4.12 billion and margin of 8.0%, as the Actuarial Practice Standard 10 (APS10) does not permit the disclosure of pre-overrun margins in IPO filings. The corresponding FY2014 post-overrun VNB and margin were INR 2.7 billion and 5.7% respectively.
- Bajaj Allianz disclosed its FY2015 pre-overrun VNB of INR 1.6 billion and new business margin of 16.6%, which was slightly lower than the FY2014 pre-overrun VNB of 1.78 billion and new business margin of 18.1%.
- Birla Sun Life disclosed a VNB of INR 1.10 billion and new business margin of 15.2% for FY2015, compared with an FY2014 VNB of INR 1.09 billion and new business margin of 14.1%, but there is no statement as to whether the results reflect the impact of expense overruns.

Following the passing of the Insurance Laws (Amendment) Act, 2015, permitting foreign companies to increase their levels of equity from 26% to 49%, several overseas investors have increased their joint venture stakes. Several (but not all) of the remaining companies are expected to complete shareholder-related transactions in the coming year.

In September 2016, ICICI Prudential Life became the first Indian life insurance company to be listed on the Indian stock exchanges through an IPO process. The IPO itself was oversubscribed by 10 times and the company's stock performance is being closely monitored by industry participants. The actuarial disclosures by ICICI Prudential within the IPO process, which have been prepared in accordance with APS10, are expected to set a new benchmark in EV reporting in the market. Several insurers have already started taking steps to reassess their EVs in a manner consistent with ICICI Prudential.

HDFC Life also announced plans to merge with Max Life (whose parent is already listed), thus scrapping its prior IPO plans. The company is currently going through the regulatory and other approval processes.

The Insurance Regulatory and Development Authority of India (IRDAI) has recently issued a discussion paper, seeking views of companies on making it compulsory to be listed after completion of a certain number of years of business. There has been significant opposition to this move, especially from the mid- to small-sized insurers and it appears that the regulator could be reconsidering this initiative.

Appendix D: New rules for EV reporting in China

The China Association of Actuaries (CAA) released new rules for compulsory EV reporting on 22 November 2016, which replaced the previous EV guidelines issued in 2005. The new guidelines were a response to the existence of the new China Risk Oriented Solvency System (C-ROSS) capital regime. Although publicly listed companies are expected to follow these rules for their EV disclosures, the effective date for the new guidelines has not yet been announced.

The new rules are still based on TEV methodology, with the following major changes:

- 1 Insurance liabilities are now composed of C-ROSS insurance liabilities and the residual margin, which needs to be amortised during the whole insurance period.

- 2 The required capital is defined as:

$$RC_t = \text{MAX}\{MC_t + \text{MAX}[CV_t - (RES_t + MC_t), 0] - (DPL_t - DTL_t), 0\}$$

MC_t is the minimum capital calculated based on C-ROSS

CV_t is the cash value

RES_t is the C-ROSS insurance liability

DPL_t is the residual margin

DTL_t is tax rate * DPL_t

- 3 Considering the complexity of projecting future minimum capital on C-ROSS, as an approximation, a capital drivers approach is recommended with:

$$MC_{ti} = RD_{ti} \times S_i$$

RD_{ti} is the risk driver for each sub-risk. CAA provided the list of risk drivers.

S_i is the projection factor calculated based on the MC and RD at valuation date.

In addition, taxes are based on the liabilities defined above rather than CGAAP liabilities. The difference between the two is counted as deferred tax asset or deferred tax liability.

According to the quantitative tests conducted by life insurers, the EV and VNB calculated under the new guidelines are slightly higher on an industry-wide basis. However, the difference between various companies and products are widening under the guidelines. For participating products, the VNB under new guidelines increases slightly at an industry level, especially for those participating products with more protection components. For short- to medium-term universal life products, VNB under new rules is generally lower.

The new EV guidelines are another regulatory 'lever' to encourage the sale of more long-term life insurance business.



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