

Prepared by:  
Paul Sinnott  
Michael Daly  
Richard Holloway  
Wing Wong  
Iwan Juwono

November 2015



# 2015 Mid-Year Embedded Value Results – Asia (excl. Japan)

## The Growth Story Continues





Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in healthcare, property & casualty, life insurance and financial services, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

[milliman.com](http://milliman.com)

---

## TABLE OF CONTENTS

OPENING REMARKS	2
INTRODUCTION AND BACKGROUND	3
EMBEDDED VALUE RESULTS	5
VALUE OF NEW BUSINESS RESULTS	7
NEW BUSINESS MARGINS RESULTS	10
OTHER MEASURES OF VALUE	13
Market capitalisation	13
IFRS developments	13
APPENDIX A: TOTAL ASIAN EV BY COMPANY BY TERRITORY	14
APPENDIX B: TOTAL ASIAN ANW AND VIF BY COMPANY BY TERRITORY	15
APPENDIX C: UPDATED TAIWAN RESULTS, 2012-2014	17

---

---

## OPENING REMARKS

Welcome to the first edition of our Asian embedded value mid-year update. This report supplements the full year embedded value report for Asia (excluding Japan), which was released in September 2015, and provides a summary of the published half-year 2015 embedded value results for Asian insurers. An update to the Taiwan section of our full year report is also included to incorporate results that emerged after or during final production of that report.

Asia's 2014 embedded value growth trends have continued into 2015, supported by healthy economic growth, expanding middle-class populations and underpenetrated insurance markets. There are headwinds at the moment for some insurance markets, such as South Korea and Taiwan due to unfavourable interest rate environments, Indonesia due to slowing (but still positive) economic growth, and ongoing equity market volatility across the region, China and Indonesia in particular. However, the overall long-term trend for the region still remains positive, with insurers well placed to service the savings, protection and retirement-related needs of the growing middle class and the ageing, relatively wealthy populations in particular.

Best regards,

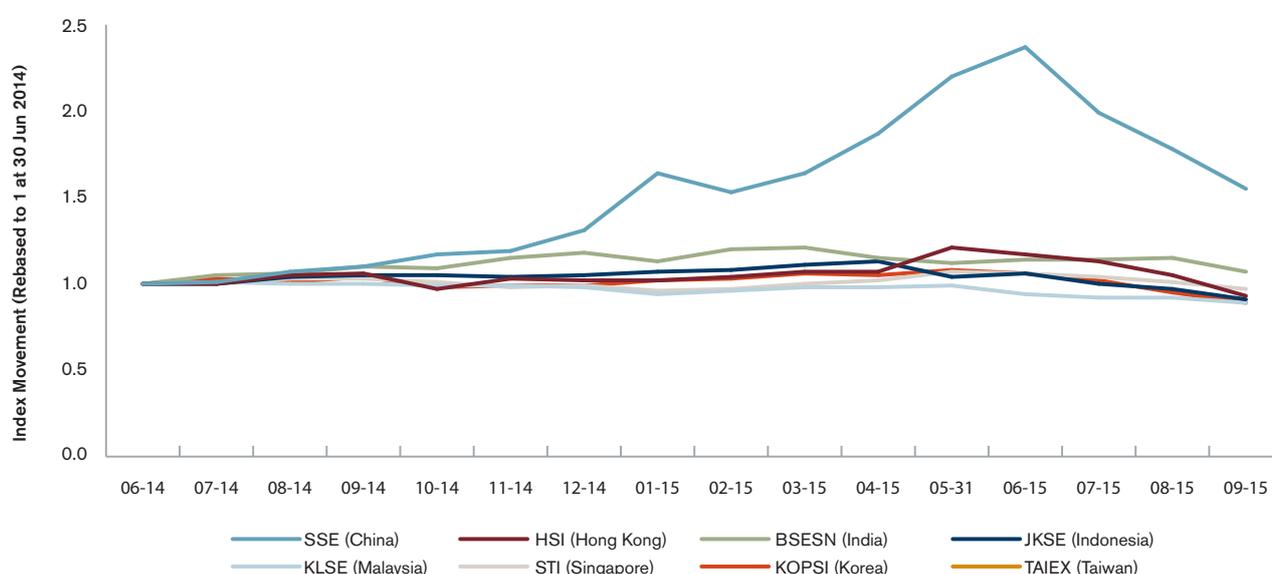
Paul Sinnott  
Michael Daly  
Wing Wong  
Richard Holloway  
Chihong An

## INTRODUCTION AND BACKGROUND

Since June 2014, the majority of Asia has experienced volatile equity markets (see Figure 1) and declining interest rates (see Figure 2). The former is especially true of China, which has seen major declines in equity values in recent months after a bull run that ended abruptly in June this year.

Declining or stagnant Asian equity markets have had adverse effects on the life insurance industry, most noticeably in the investment-linked dominated market of Indonesia, which has experienced falling levels of new business since mid-year 2014; a dramatic reversal from the rapid growth achieved over the preceding decade.

**FIGURE 1: RECENT EQUITY MARKET PERFORMANCE: GROWTH OF MAJOR EQUITY INDICES,<sup>1,2</sup> FROM 30 JUNE 2014 TO 30 SEPTEMBER 2015**

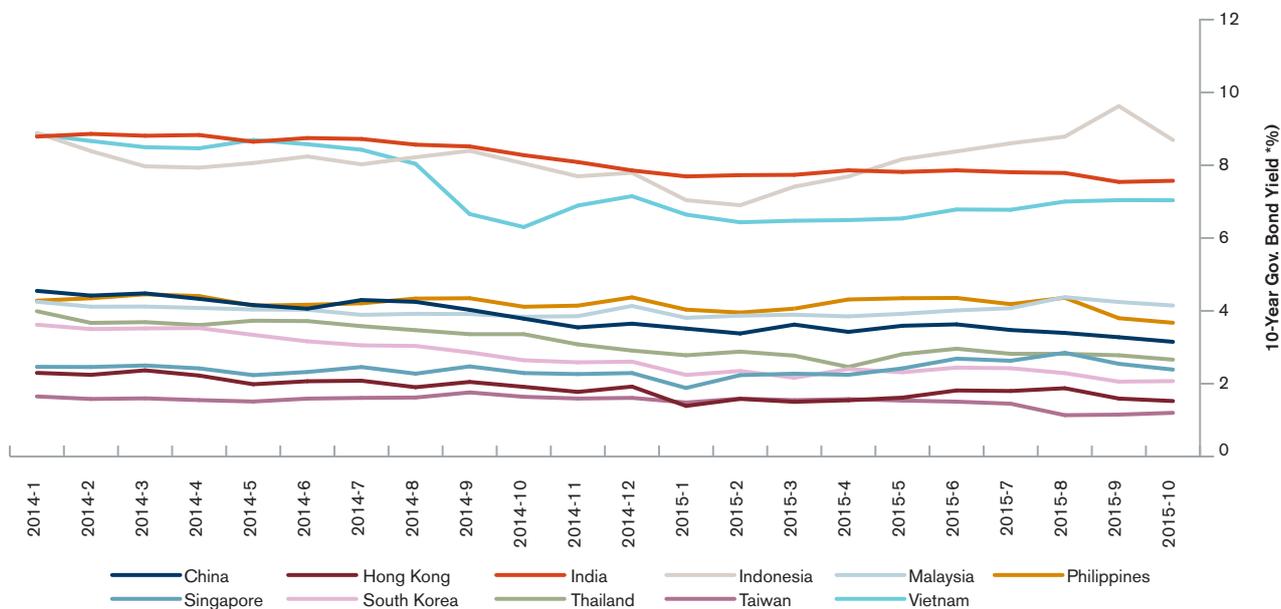


In theory, the impact of declining interest rates (as can be seen in Figure 2 for many of the Asian markets) should be of mixed benefit for life insurers, with rises in Adjusted Net Worth (ANW) from increasing value of fixed income assets being offset by declines in Value of In-force business (VIF) due to lower expected investment returns. As in most Asian markets, life insurers' liabilities are of longer duration than their corresponding assets. This would normally result in lower embedded value results, as the latter's decline is larger than the uplift from the former. Our analysis, however, shows this is not always the case with Asian embedded value reporting, as is explained in the following 'Embedded Value Results' section.

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.

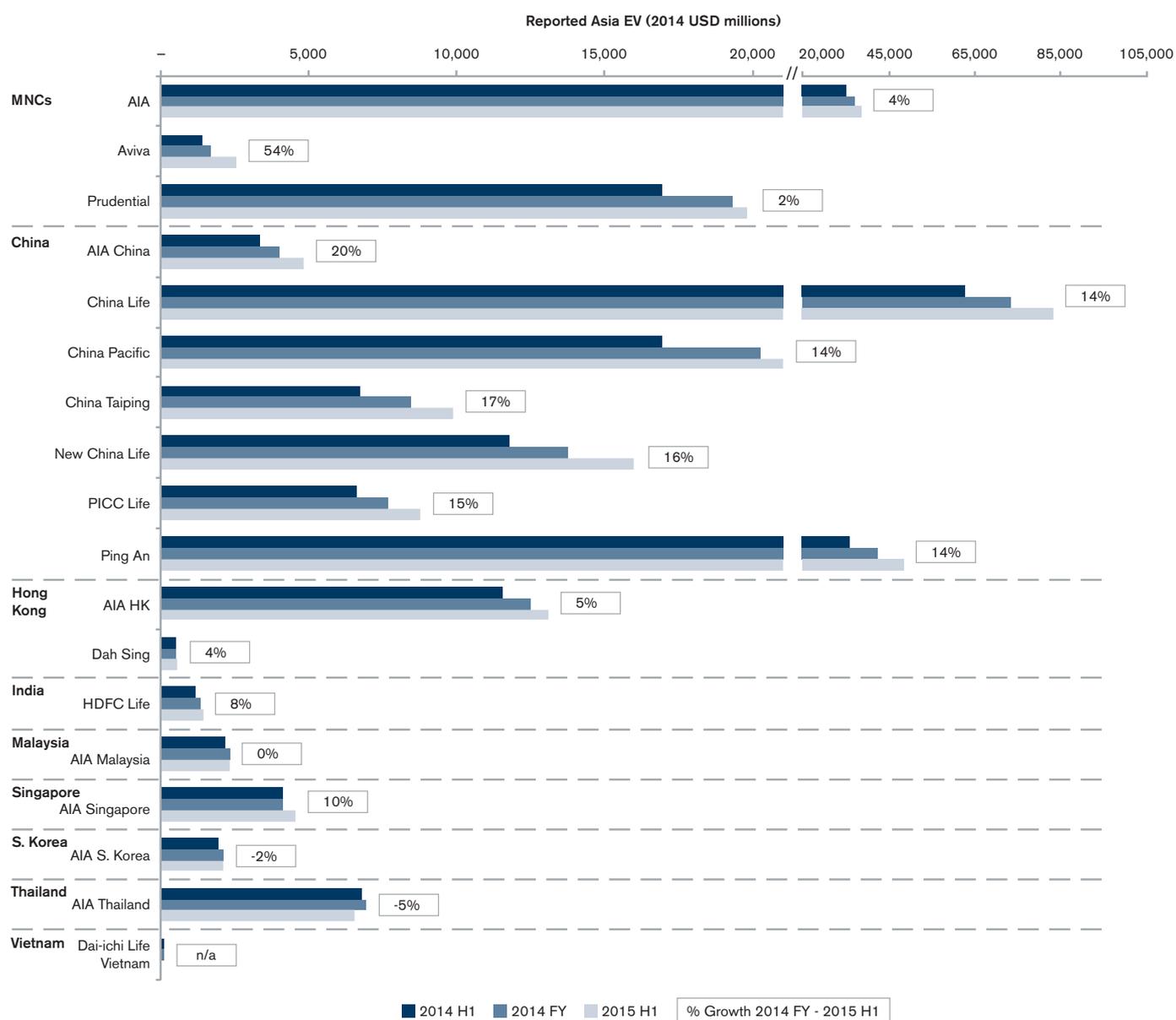
FIGURE 2: 10-YEAR SOVEREIGN BOND YIELDS,<sup>3</sup> 2014-2015



3 Source: Investing.com.

## EMBEDDED VALUE RESULTS

FIGURE 3: ASIAN LIFE INSURANCE COVERED BUSINESS EV BY COMPANY, <sup>4,5</sup> 2014 H1 TO 2015 H1



The chart above compares the embedded value (EV) results of each company within the different Asian markets. Asian insurers have overall reported positive gains in embedded value over the last six months, with the biggest increases posted by Aviva (54%), AIA China (19%), China Taiping (17%) and New China Life (16%).

4 The EV figures for each company have been converted to USD at the mid-rates prevailing as at their 2015 H1 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.

---

A key driver of the improved Chinese EV results has, somewhat counterintuitively, been the low interest rate environment driving increases in the value of the fixed income assets on balance sheets, thereby increasing ANW figures. However, while interest rates decreased by around 80 bps in a near parallel shift between June 2014 and June 2015, most insurers made little or no adjustments to their assumed investment return assumptions, resulting in little negative impact on VIF figures.

The large increase in the EV of Aviva's Asian operations relates primarily to the inclusion of the Asian operations of Friends Life, the UK insurer acquired by Aviva in 2014. The remaining leaders in embedded value growth are Chinese insurers, driven primarily by the issue discussed above, and healthy Value of New Business (VNB) results.

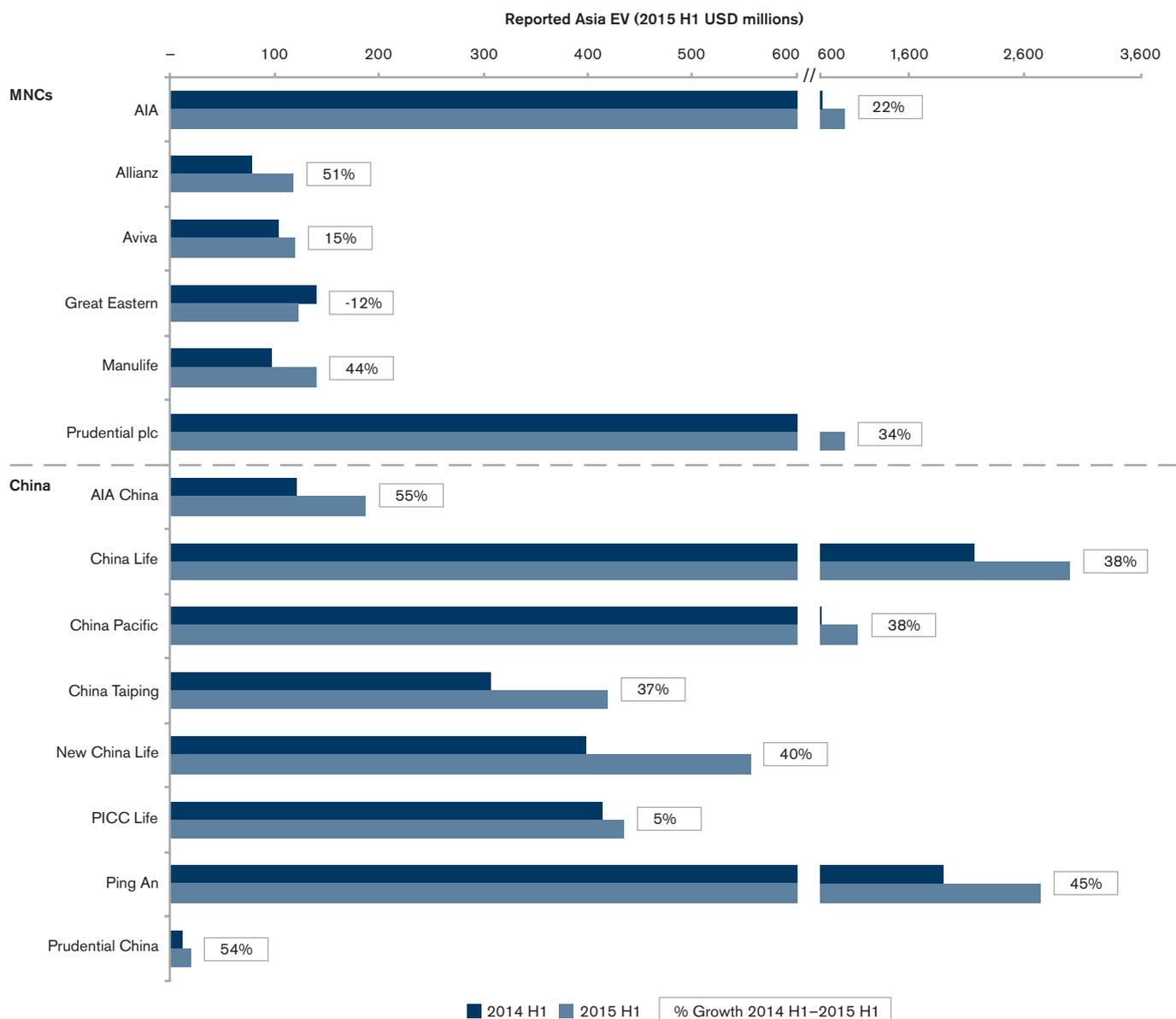
On the regulatory front, a key development in China the last six months has been the announcement by the China Insurance Regulatory Commission (CIRC) that the 2.5% maximum guarantee rate on participating products has been raised to 3.5%. It remains to be seen whether the industry will start to offer products with higher guarantee rates given the potential penalties imposed by the new China Risk Oriented Solvency System (C-ROSS) solvency regime.

A continuing key concern for South Korean and Taiwanese insurers is the persistently low level of long-term interest rates (see Figure 2 on page 4). Insurers in these jurisdictions tend to still have large blocks of existing business with long-term guarantee rates well above the yields being earned on medium- to long-term government bonds, dragging down overall profitability.

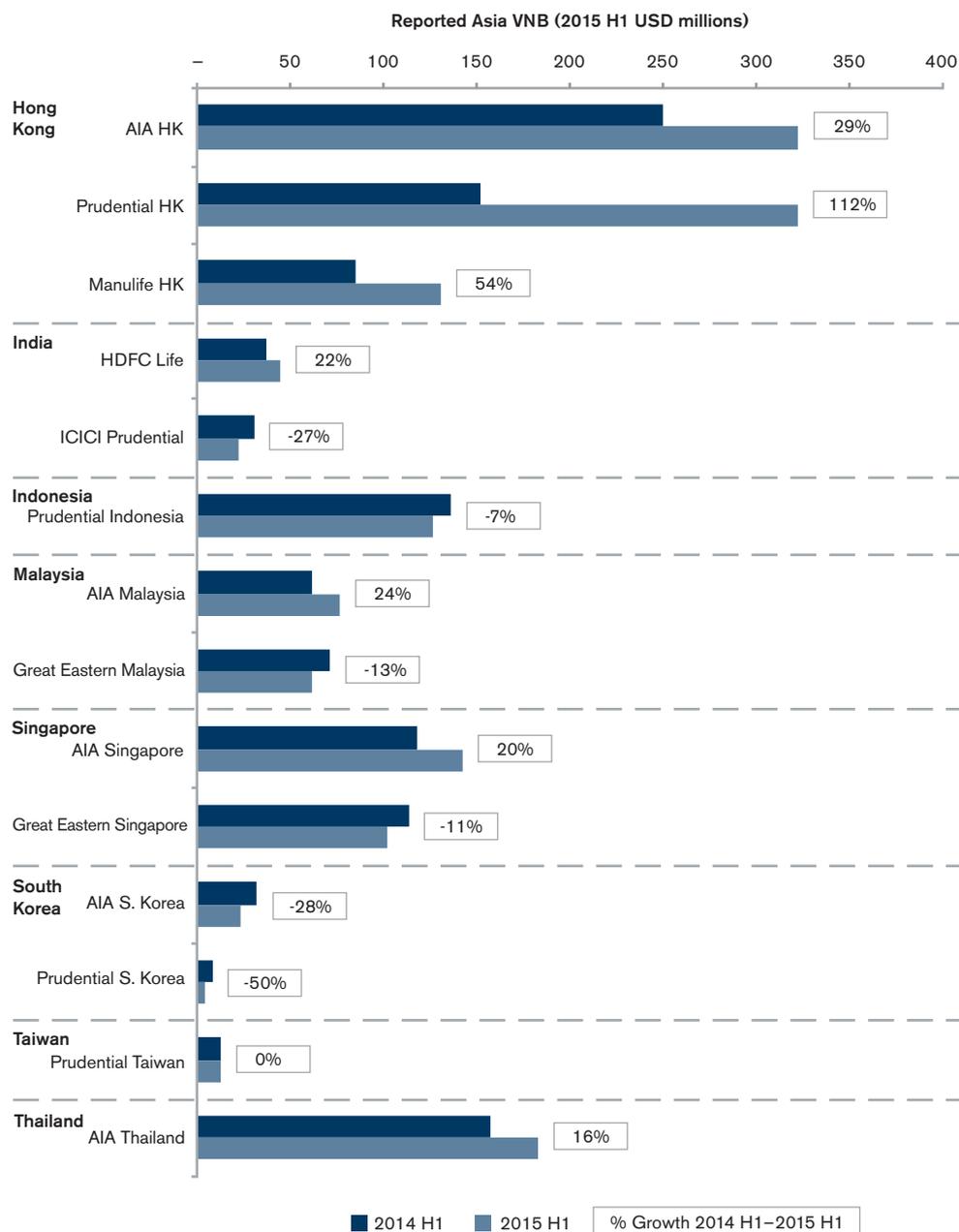
## VALUE OF NEW BUSINESS RESULTS

The chart in Figure 4 compares the value of new business results of each company within the different Asian markets.

**FIGURE 4: ASIAN VNB BY COMPANY 2014 H1 TO 2015 H1**



**FIGURE 4: ASIAN VNB BY COMPANY 2014 H1 TO 2015 H1 CONTINUED**



---

Compared with the same period in 2014, Prudential Hong Kong posted the highest VNB growth of 112%, primarily driven by a strong increase in new business premiums to mainland Chinese customers, but further supported by a 48%<sup>6</sup> increase in its domestic Hong Kong sales. AIA's and Manulife's Hong Kong operations also recorded strong VNB growth for similar reasons. All three Hong Kong insurers have benefitted from increased sales of par business in the last 12 months.

Chinese insurers have also mostly reported high increases in VNB, primarily driven by increased volumes in agency businesses, and this is reflected in the comparatively higher growth of more agency-focused businesses, such as China Life, China Pacific, and Ping An, compared with the PICC group, which is more reliant on bancassurance distribution.

The lower interest rate environment, especially for longer-dated bonds, remains a challenge for Chinese insurers offering long-term insurance products. In response, insurers are increasingly pushing into riskier asset classes, such as listed stocks, private equity, infrastructure debt, and real estate.

A similar challenge applies for South Korean and Taiwanese insurers.

Chinese and Taiwanese insurers have been using increasing investment return assumptions in their embedded value reporting for several years now. 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.

For Indonesia, Prudential reported a 7% decrease in VNB, disclosing that a key driver in this decrease is the reduction in active cases per agent.

In Singapore, AIA reported an increase in VNB, in contrast to Great Eastern, which reported a decrease in VNB. AIA's growth primarily relates to increased agency effectiveness, increases in profitability of the group insurance business, and increased margins in the unit-linked business. Great Eastern's decrease relates primarily to declining new business premiums.

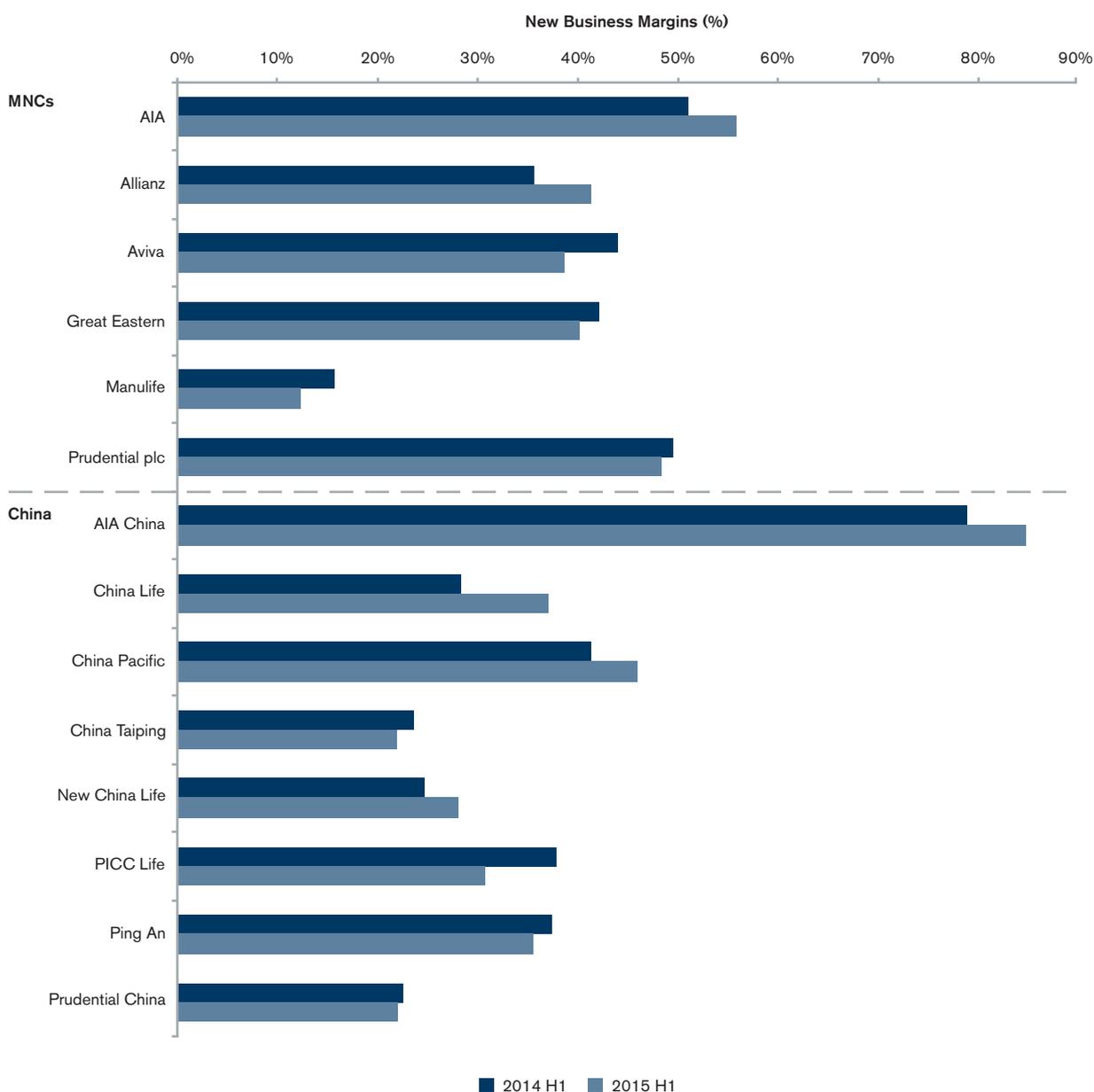
Similarly in Malaysia, AIA reported an increase in VNB, while Great Eastern's VNB decreased. AIA's increase relates to changes in the product mix (shifting to more regular premium investment-linked products with riders), increased agency productivity, and the growth of the bancassurance business with Citibank.

---

<sup>6</sup> Source: Prudential plc 2015 half-year results presentation transcript.

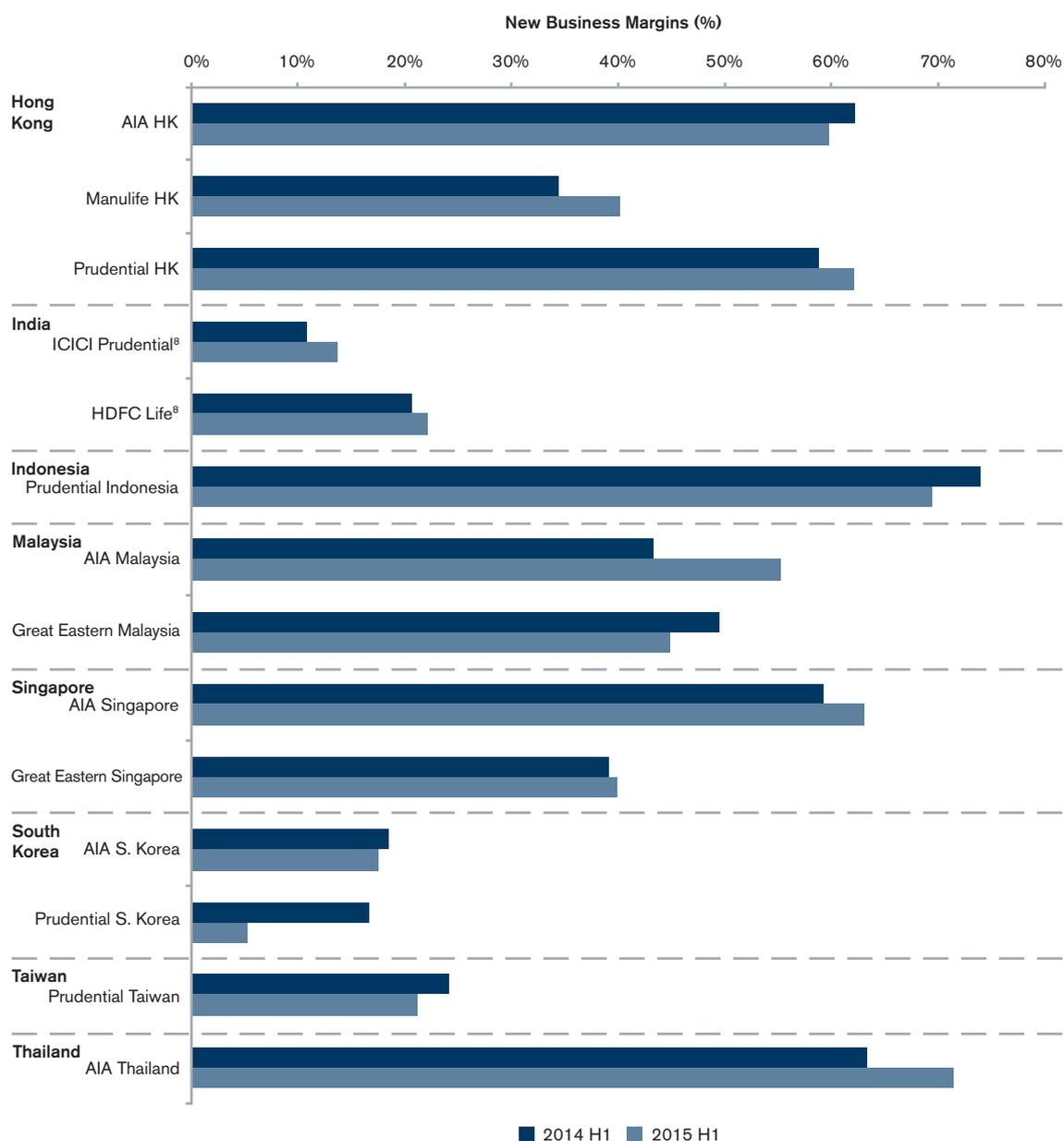
## NEW BUSINESS MARGINS RESULTS

FIGURE 5: IMPLIED NEW BUSINESS MARGINS BY COMPANY,<sup>7</sup> 2014 H1-2015 H1



<sup>7</sup> For the multinational corporations (MNCs), please note that these are the margins relating to their Asian business, excluding Japan.

**FIGURE 5: IMPLIED NEW BUSINESS MARGINS BY COMPANY,<sup>8</sup> 2014 H1-2015 H1 CONTINUED**



Comparing the first half of 2014 and the first half of 2015, exactly half of the operating entities shown in the above charts reported improvements in new business margin<sup>9</sup> while the other half reported declines.

<sup>8</sup> For HDFC Life and ICICI Prudential, these are the pre-expense overrun margins. These two companies only disclosed the post-expense overrun numbers for full year results. For context, the pre-expense overrun margin for HDFC Life's individual business for 2014 was 22.5% compared with the post-expense overrun margin of 17.5%. ICICI Prudential did disclose the post-expense overrun margin for 2015 H1 as 6.6%, compared with its pre-overrun margin of 13.8%.

<sup>9</sup> New business margin is defined as VNB divided by Annualised Premium Equivalent (APE) for the period of time specified. APE is defined as the sum of regular premiums plus 10% of single premiums.

---

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

- China Life, which increased its margins from 28% to 37%
- ICICI Prudential, which increased its margins from 11% to 14%
- AIA Malaysia, which increased its margins from 43% to 55%

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

- Prudential South Korea, whose margin declined from 17% to 5%
- Manulife's Asia operations, whose margin declined from 16% to 12%
- PICC Life, whose margin declined from 38% to 31%

Due to the small sample size of this mid-year update, any extrapolation of individual company results to wider market trends may not be too instructive. For example, while both AIA and Prudential South Korea reported large declines in margin, these two operations make up only a small portion of the South Korean insurance market.

All the major industry players in China report half-year results. Three insurers (China Life, China Pacific, and New China Life) reported margin improvements, while the other major three insurers (China Taiping, PICC Life, and Ping An) reported declines in business margin.

The key differentiator between the two groups is agency related—the first group reported the largest agency force margins (above 55%, with New China Life close to 65%), while the latter three reported the lowest (below 55%, with China Taiping just below 40%). This is crucial, given that agency remains the most important channel for Chinese life insurers (accounting for over 90%<sup>10</sup> of VNB).

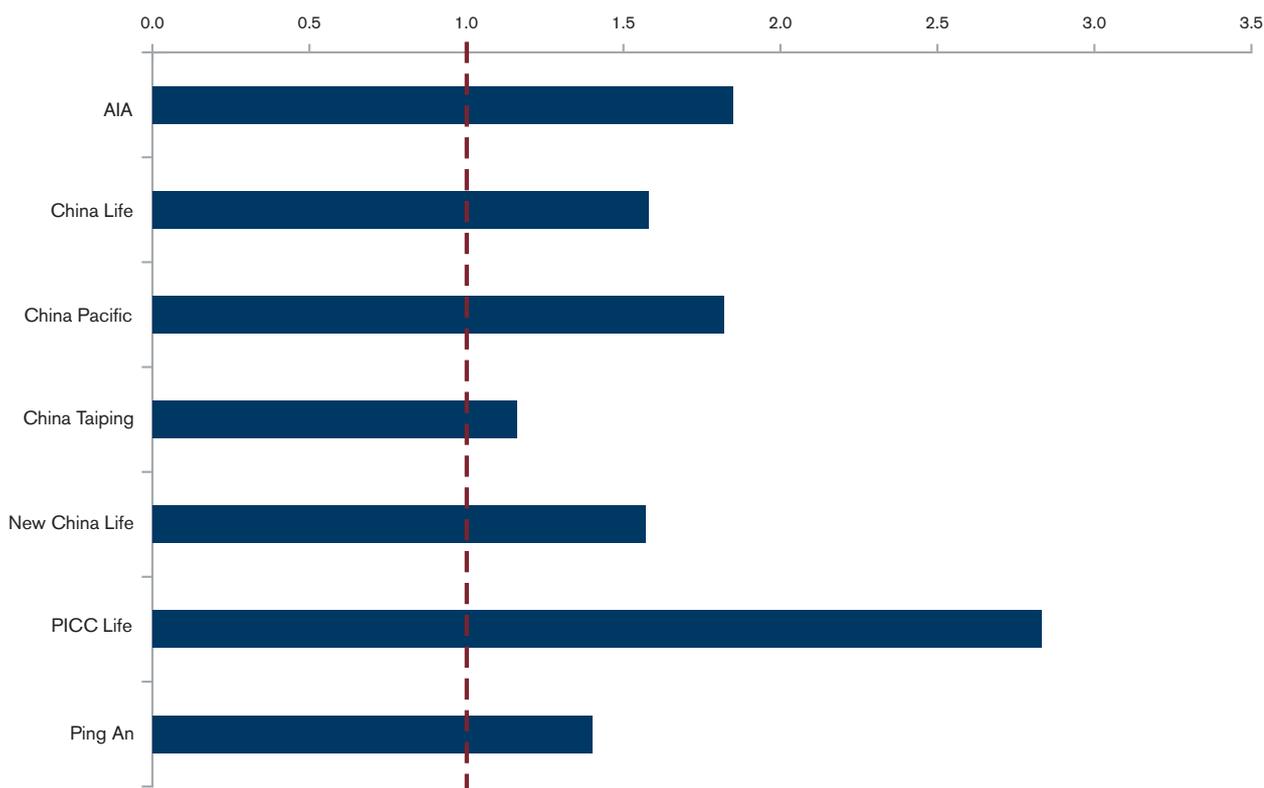
---

<sup>10</sup> Source: Credit Suisse.

## OTHER MEASURES OF VALUE

### Market capitalisation

FIGURE 6: PRICE TO EMBEDDED VALUE RATIOS AS AT 2015 H1 REPORTING DATES



Note: P/EV ratio calculated using 2015 H1 EV figures. All P/EV ratios have been calculated using the market capitalisation as at the reporting date of EV results.

Figure 6 shows the price/EV (P/EV) ratios for listed insurers. All insurers included in the chart are currently being priced above embedded value, implying high new business multipliers.

The standard treatment for including non-covered business is to add the net assets<sup>11</sup> (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 pure investment businesses to seem 'overvalued' by the P/EV metric.

### IFRS developments

The International Accounting Standards Board (IASB) continues to make progress on its long-running project on insurance contracts. Following the feedback received on the Exposure Draft (ED), the IASB made a number of tentative decisions.

The main outstanding area remains the accounting for participating contracts (with-profits). The IASB still plans to consider implications arising from tentative decisions on participating contracts. In particular, the IASB plans to consider consistency between the accounting for contracts with direct participation features and other types of insurance contracts. The IASB has substantially completed its deliberations and expects to conclude deliberations during 2015. The new financial reporting standard is expected to be published in 2016. Its mandatory effective date will not be considered until after the IASB has concluded its deliberations.

<sup>11</sup> i.e., International Financial Reporting Standards (IFRS) assets minus liabilities.

## APPENDIX A: TOTAL ASIAN EV BY COMPANY BY TERRITORY

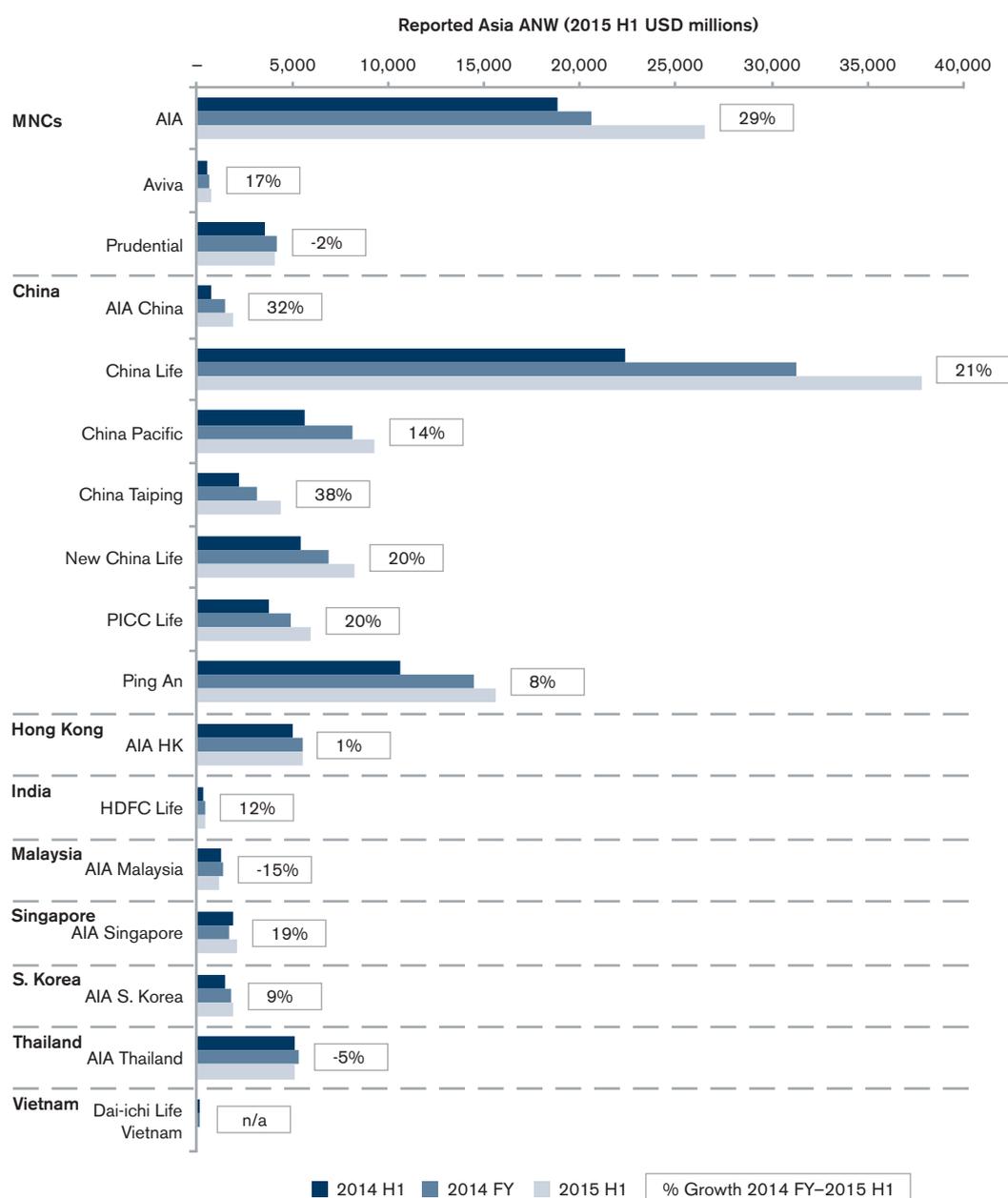
FIGURE 7: TOTAL ASIAN EV BY COMPANY AS AT FIRST HALF YEAR OF 2015 REPORTING YEAR (USD MILLIONS<sup>12</sup>)

TYPE	COMPANY	FINANCIAL YEAR END	EV PRINCIPLE	CHINA	HONG KONG	INDIA	MALAYSIA	SINGAPORE	SOUTH KOREA	TAIWAN	TAIWAN	OTHER ASIA
	AIA	30-Nov-14	TEV	4,830	13,101	-	2,324	4,535	2,093	-	6,541	5,174
	Aviva	31-Dec-14	MCEV	-	-	-	-	-	-	-	-	2,571
	Prudential plc	31-Dec-14	EEV	-	-	-	-	-	-	-	-	19,776
<b>China</b>	China Life	31-Dec-14	TEV	83,212	-	-	-	-	-	-	-	-
	China Pacific	31-Dec-14	TEV	23,058	-	-	-	-	-	-	-	-
	China Taiping	31-Dec-14	TEV	9,883	-	-	-	-	-	-	-	-
	New China Life	31-Dec-14	TEV	15,979	-	-	-	-	-	-	-	-
	PICC Life	31-Dec-14	TEV	8,772	-	-	-	-	-	-	-	-
	Ping An	31-Dec-14	TEV	48,684	-	-	-	-	-	-	-	-
<b>Hong Kong</b>	Dah Sing	31-Dec-14	TEV	-	546	-	-	-	-	-	-	-
<b>India</b>	HDFC Life	31-Mar-15	MCEV	-	-	1,457	-	-	-	-	-	-
<b>Vietnam</b>	Dai-ichi Life	31-Dec-14	TEV	-	-	-	-	-	-	-	-	-

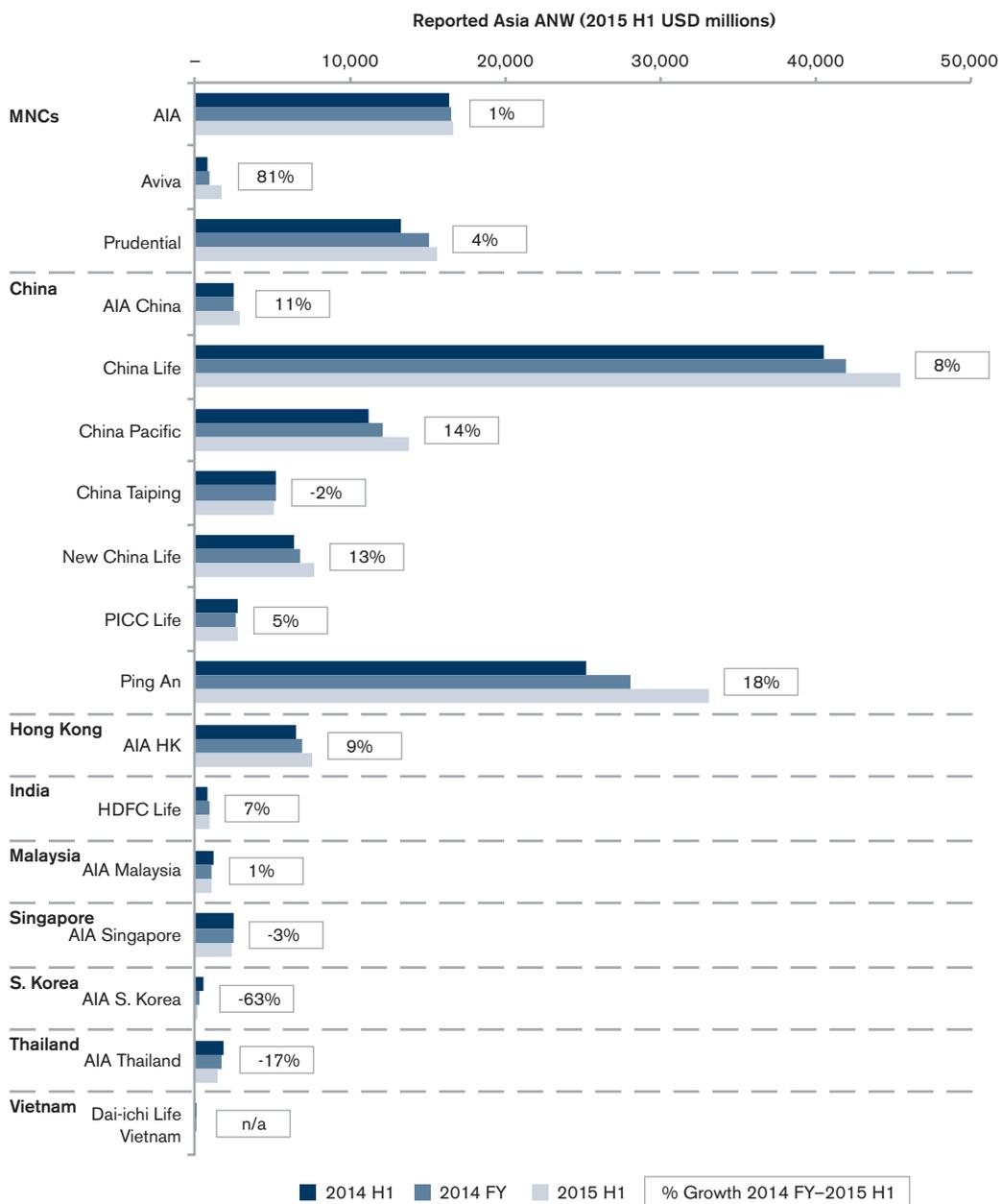
<sup>12</sup> EV results have been converted at the prevailing USD mid-FX rate as at the reporting date.

## APPENDIX B: TOTAL ASIAN ANW AND VIF BY COMPANY BY TERRITORY

### ANW



VIF



## APPENDIX C: UPDATED TAIWAN RESULTS, 2012-2014

FIGURE C1: REPORTED EV OF TAIWANESE INSURANCE OPERATIONS

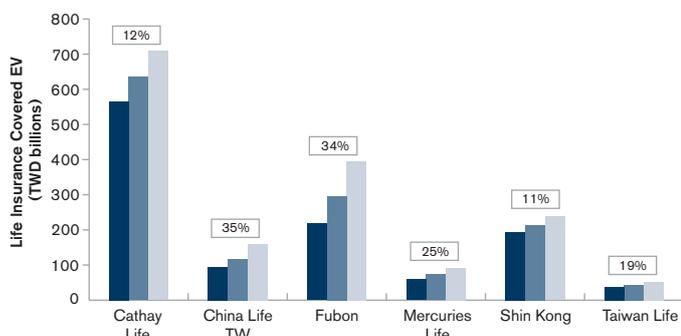


FIGURE C2: REPORTED ANW OF TAIWANESE INSURANCE OPERATIONS

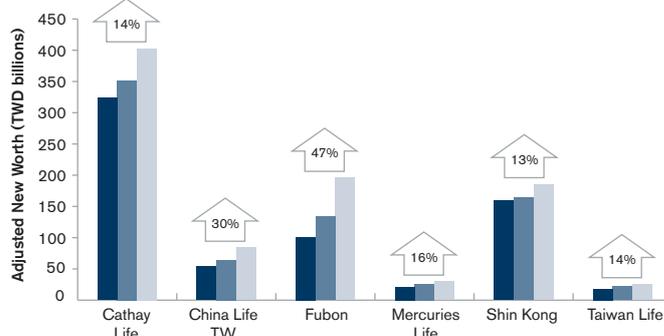


FIGURE C3: REPORTED VIF OF TAIWANESE INSURANCE OPERATIONS

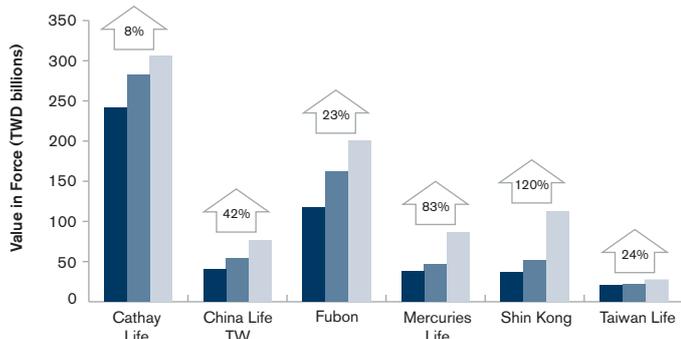


FIGURE C4: REPORTED VIF/ANW SPLIT OF TAIWANESE INSURANCE OPERATIONS

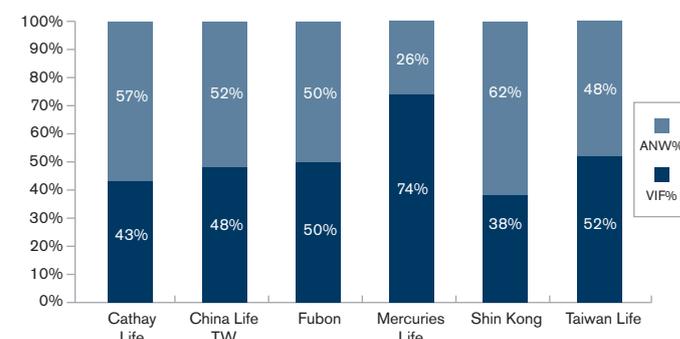


FIGURE C5: REPORTED VNB OF TAIWANESE INSURANCE OPERATIONS

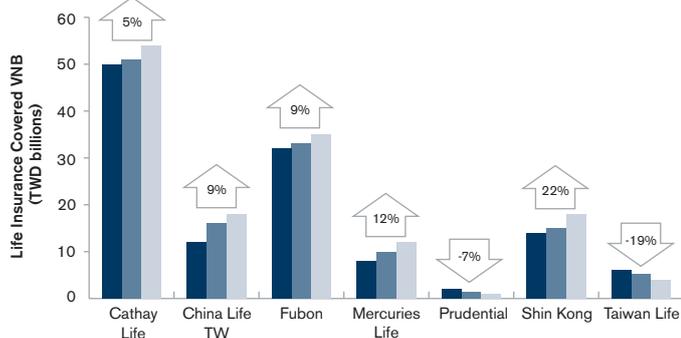


FIGURE C6: REPORTED APE OF TAIWANESE INSURANCE OPERATIONS

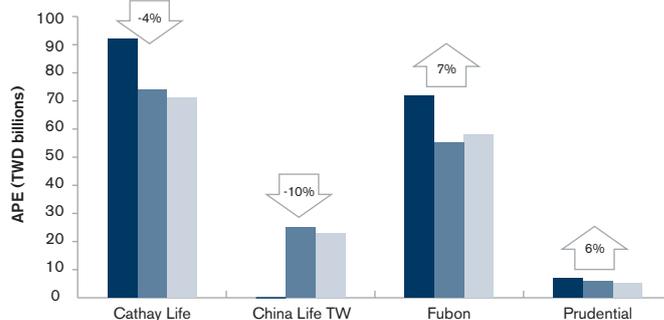
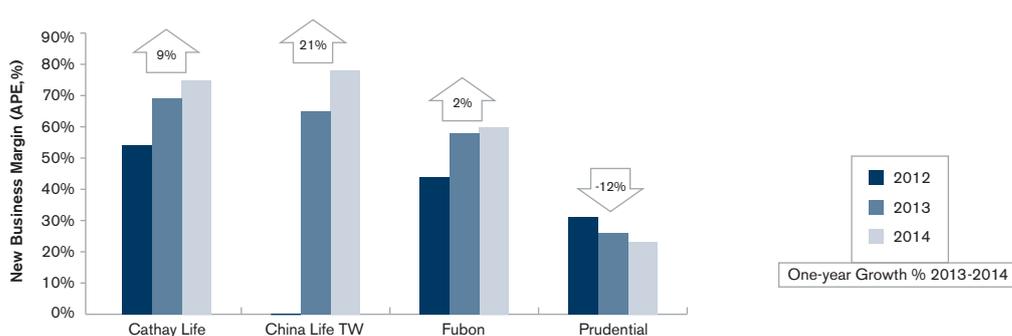


FIGURE C7: REPORTED NEW BUSINESS MARGIN OF TAIWANESE INSURANCE OPERATIONS



**CONTACT**

If you have any questions or comments on this briefing paper or any other aspect of embedded value reporting, please contact any of the consultants below or speak to your usual Milliman consultant.

**Amsterdam**

Dennis de Vries  
dennis.devries@milliman.com  
+31 6 10152187

Henny Verheugen  
henny.verheugen@milliman.com  
+31 6 10149938

**Beijing**

Sharon Huang  
sharon.huang@milliman.com  
+86 10 8523 3189

**Belgium**

Kurt Lambrechts  
kurt.lambrechts@milliman.com  
+32 499 22 16 36

**Boston**

William Hines  
william.hines@milliman.com  
+1 781 213 6228

**Bucharest**

Cosmin Gherghisan  
cosmin.gherghisan@milliman.com  
+40 314 326 524

**Chicago**

Anna Berezovskaya  
anna.berezovskaya@milliman.com  
+1 312 499 5679

Ted Schlude  
ted.schlude@milliman.com  
+1 312 499 5622

Bruce Winterhof  
bruce.winterhof@milliman.com  
+1 312 499 5624

Laird Zacheis  
laird.zacheis@milliman.com  
+1 312 499 5623

**Dublin**

Mike Claffey  
mike.claffey@milliman.com  
+35 31 647 5902

Dermot Corry  
dermot.corry@milliman.com  
+35 31 647 5910

**Dusseldorf**

Lars Hoffmann  
lars.hoffmann@milliman.com  
+49 211 9388 6620

Mario Hörig  
mario.hoerig@milliman.com  
+49 211 938866 13

**Hong Kong**

Paul Sinnott  
paul.sinnott@milliman.com  
+852 2152 3838

Michael Daly  
michael.daly@milliman.com  
+852 2152 3138

Sam Morgan  
sam.morgan@milliman.com  
+852 2147 9678

**Jakarta**

Halim Gunawan  
halim.gunawan@milliman.com  
+62 21 2553 2599

**London**

Nick Dumbreck  
nick.dumbreck@milliman.com  
+44 20 7847 1538

Chris Lewis  
christopher.lewis@milliman.com  
+44 20 7847 1536

Eoin O'Byrne  
eoin.o'byrne@milliman.com  
+44 20 7847 1517

Stuart Reynolds  
stuart.reynolds@milliman.com  
+44 20 7847 1535

Richard See Toh  
richard.seetoh@milliman.com  
+44 20 7847 1529

Phil Simpson  
philip.simpson@milliman.com  
+44 20 7847 1543

Tatiana Egoshina  
tatiana.egoshina@milliman.com  
+44 20 7847 1527

**Madrid**

Luca Inserra  
luca.inserra@milliman.com  
+34 91 598 4077

**Milan**

Aldo Balestreri  
aldo.balestreri@milliman.com  
+39 335 8296 917

Dominic Clark  
dominic.clark@milliman.com  
+34 609 026 561

Jeremy Kent  
jeremy.kent@milliman.com  
+39 02 76 26 05 1

Ed Morgan  
ed.morgan@milliman.com  
+39 02 76 26 05 1

**Mumbai**

Sanket Kawatkar  
sanket.kawatkar@milliman.com  
+91 22 6784 8410

**Munich**

Thomas Wiedenmann  
thomas.wiedenmann@milliman.com  
+49 89 12 71 08 717

**New York**

Steve Schreiber  
steven.schreiber@milliman.com  
+1 646 473 3104

Stuart Silverman  
stuart.silverman@milliman.com  
+1 646 473 3108

Marc Slutzky  
marc.slutzky@milliman.com  
+1 646 473 3102

**Paris**

Jerome Nebout  
jerome.nebout@milliman.com  
+33 1 42 99 15 80

Eric Serant  
eric.serant@milliman.com  
+33 1 42 99 15 90

**Seattle**

Novian Junus  
novian.junus@milliman.com  
+1 206 504 5624

David Wang  
david.wang@milliman.com  
+1 206 504 5524

**Seoul**

Chihong An  
chihong.an@milliman.com  
+82 2 3276 2501

Sung Hoon Kim  
sunghoon.kim@milliman.com  
+82 2 3276 2502

**Shanghai**

Wilson Tian  
wilson.tian@milliman.com  
+86 21 61590253

**Singapore**

Richard Holloway  
richard.holloway@milliman.com  
+65 6327 2301

Iwan Juwono  
iwan.juwono@milliman.com  
+65 6327 2315

Wen Yee Lee  
wenyee.lee@milliman.com  
+65 6327 2302

**Stockholm**

Steve Hardwick  
steve.hardwick@milliman.com  
+46 709 50 80 51

**Sydney**

Wade Matterson  
wade.matterson@milliman.com  
+61 2 8090 9103

**Taipei**

Wing Wong  
wing.wong@milliman.com  
+88 62 8780 0701

**Tokyo**

Steve Conwill  
stephen.conwill@milliman.com  
+81 3 5211 7031

Masaaki Yoshimura  
masaaki.yoshimura@milliman.com  
+81 3 5211 7174

**Warsaw**

Marcin Krzykowski  
marcin.krzykowski@milliman.com  
+48 22 630 6200

**Zurich**

Sandra Kurmann  
sandra.kurmann@milliman.com  
+41 44 287 9078

Tigran Kalberer  
tigran.kalberer@milliman.com  
+41 44 28790 77