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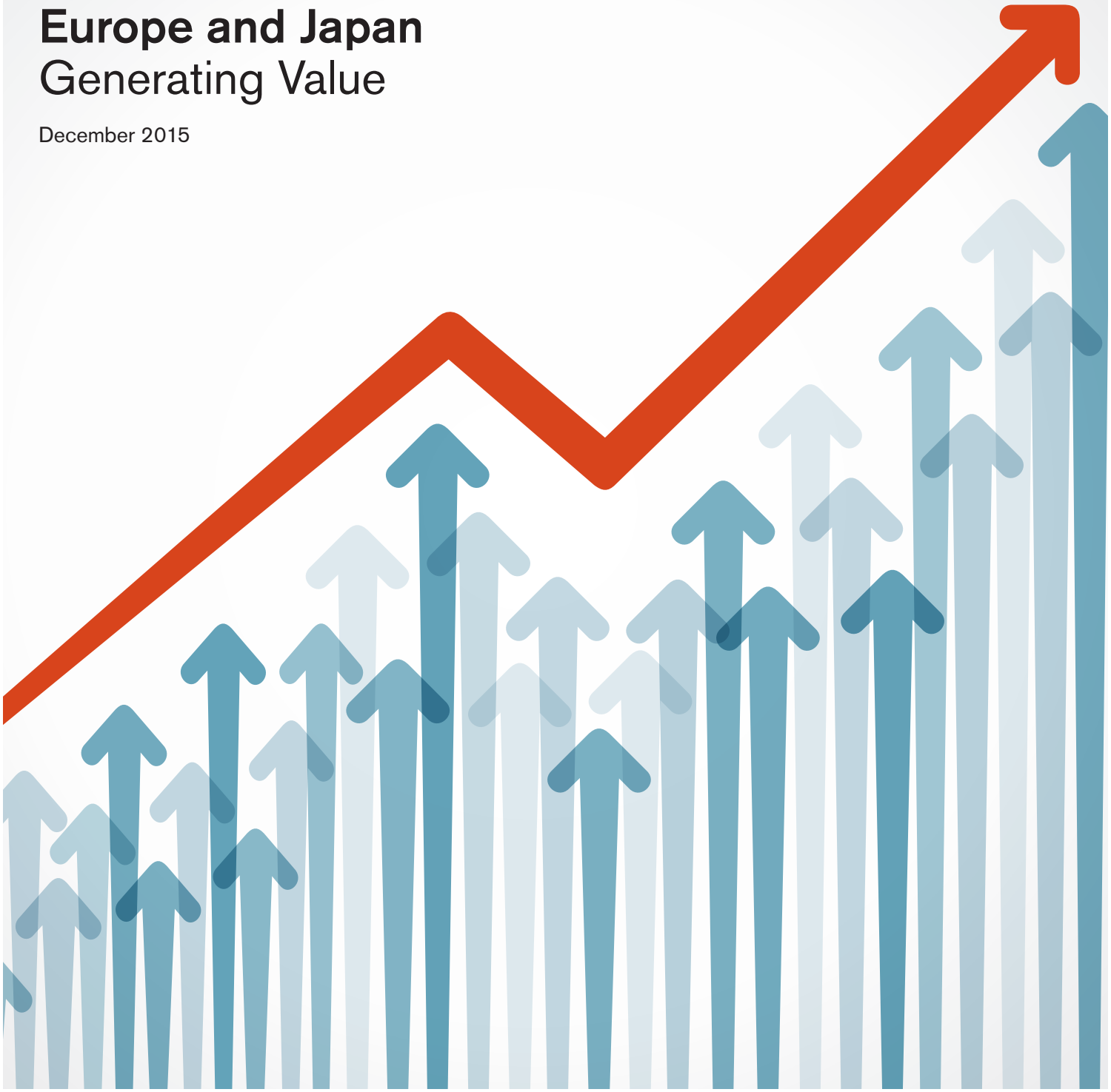
Milliman

2015 Mid-Year Embedded Value Results – Europe and Japan

Generating Value

December 2015



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INTRODUCTION

Disclosed embedded value (EV) results have been broadly positive, with gains in the first six months of 2015 slightly higher, on average, than those in the first six months of 2014. Most European equity market indices exhibited growth over the first quarter of 2015, most notably the German DAX and French CAC 40, followed by a fall over the second quarter (see Figure 1 below). Reasons for the continued cautious nature of markets are varied, but reflect a number of factors including general uncertainty about future monetary policy, the effectiveness of government efforts to manage vulnerable economic growth and the generally subdued level of confidence in the health of the economy. Against this backdrop, the firms included in the survey have disclosed varying levels of the value of new business, with around half of surveyed firms experiencing depressed value of new business (VNB) compared with the same period last year.

The first half of 2015 has continued to see insurers focus their efforts on preparing for the forthcoming Solvency II regulatory regime. This is not surprising, given that the effective date for Solvency II is almost upon us and firms are being required to demonstrate progressive compliance in the lead-up to 1 January 2016. With this is mind, we believe that embedded value has remained an important performance measure for companies in the market and continues to be used in the industry as a key supplementary reporting metric.

As expected, fewer companies published mid-year embedded values compared with the year-end, and the level of detail was scaled back for those that did. Of the 32 European companies covered in our 2014 year-end publication, 10 disclosed mid-year results[1] (12 disclosures for 2014 mid-year). However, those communicating to the market did so in a manner that provides insight over the first half of 2015 regarding the nature of their value generation and areas of challenge. Firms did not disclose any significant changes to their underlying embedded value methodology—in some cases they referred to the methodology laid out in the 2014 year-end report rather than re-stating it in the mid-year report.

This mid-year publication provides an update on the embedded value reporting for European insurance companies that have published interim embedded value results in 2015. For a detailed discussion on embedded value methodology, please see our year-end publication *2014 Embedded Value Results – Europe: Generating Value*.

We also include a comprehensive section on embedded valuing reporting in Japan. This covers the performance of key Japanese companies reporting embedded value and the hot topic issues facing the Japanese market.

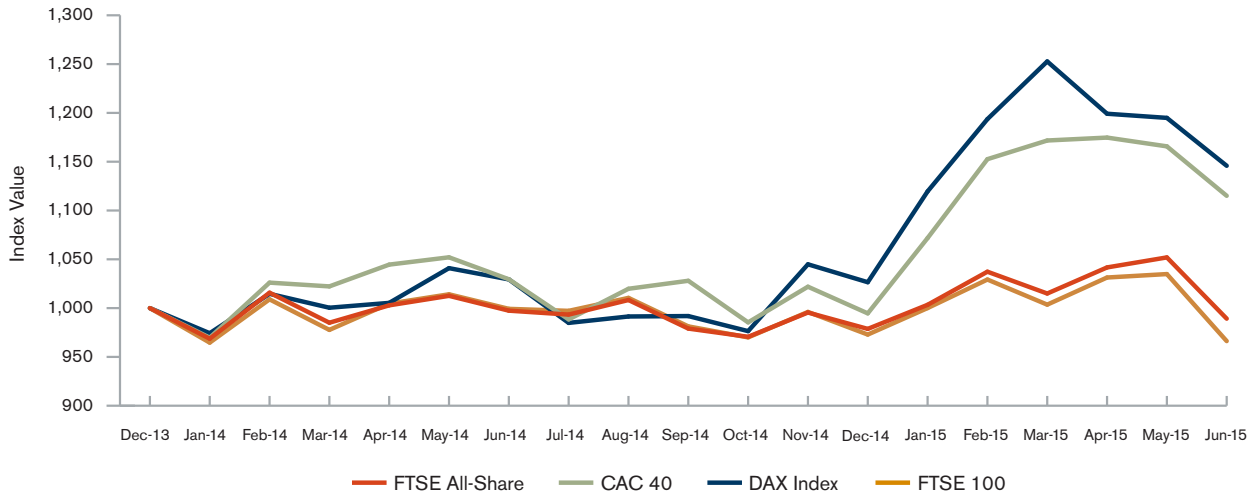
1 Standard Life stopped embedded value disclosures, and Friends Life is now part of Aviva.

JUNE 2015 MID-YEAR REPORTING, EUROPEAN MARKET

The story in Europe

Interest rates in Europe remain at historical lows, continuing to negatively affect many life insurers. Equity markets exhibited growth in Q1 2015, with the subsequent fall over Q2 2015 (as shown in Figure 1).

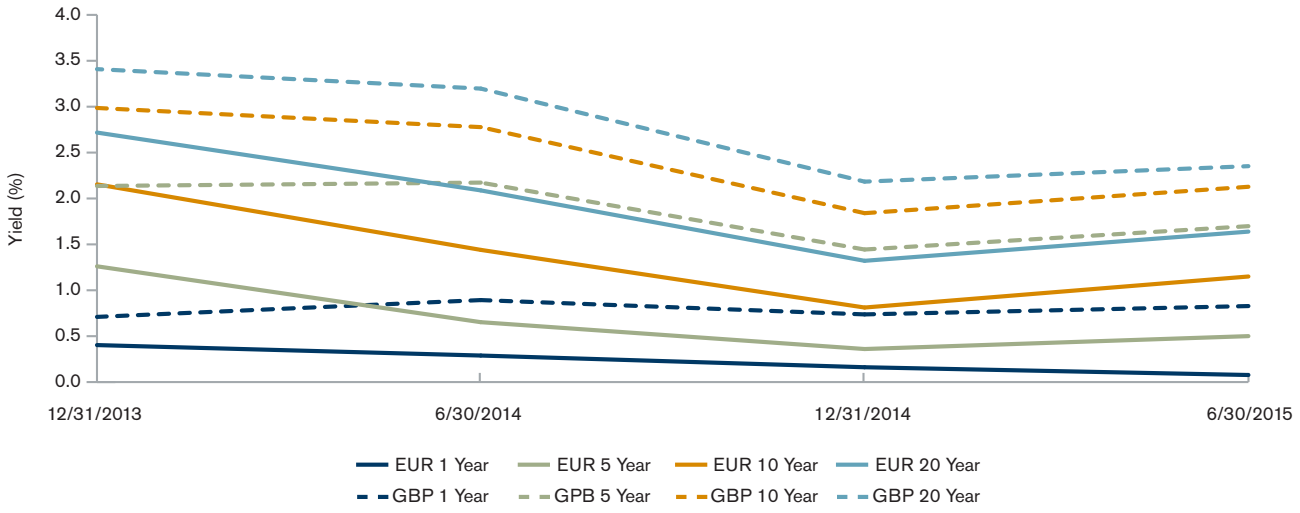
FIGURE 1: RECENT EQUITY MARKET PERFORMANCE



Source: Bloomberg
Indices above are the gross total return indices and have been rebased to 1,000 as at 31 December 2013

Figure 1 shows that most European equity markets exhibited growth over the first quarter of 2015 and then lost some (or all) of the growth over the second quarter. Overall, DAX and CAC 40 indices have grown by 12% over the first half of 2015, and the FTSE All-Share and FTSE 100 returned to their year-end 2014 values.

FIGURE 2: RECENT TRENDS IN GBP AND EUR SWAP RATES



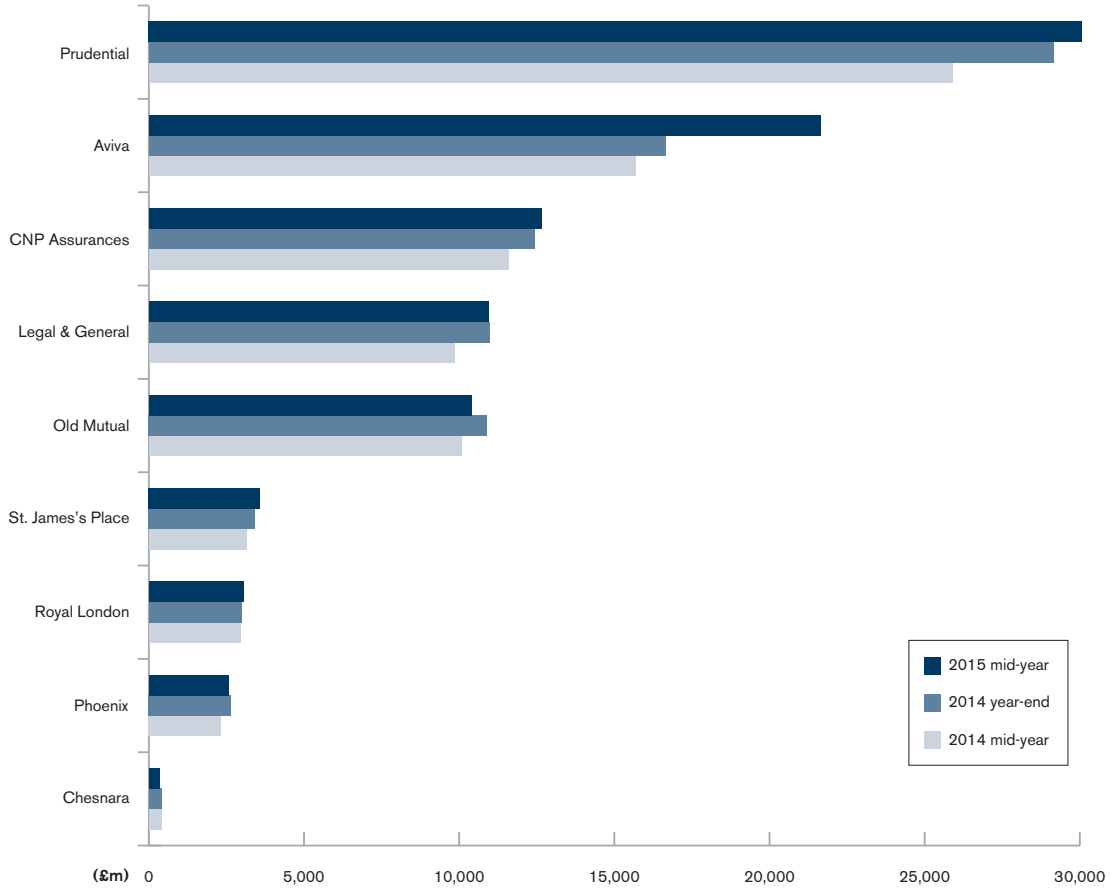
Source: Bloomberg

Figure 2 shows that interest rates were slightly increased in the first half of 2015 at medium- and longer-term durations, while EUR short-term interest rates continued to fall.

Embedded value results

Companies included in our mid-year update had mixed results over the first six months of 2015, which is partly a reflection of persistently low interest rates and flat equity markets. Approximately half the companies saw their embedded value fall.

FIGURE 3: PUBLISHED EMBEDDED VALUE RESULTS AT MID-YEAR 2015, YEAR-END 2014 AND MID-YEAR 2014



Notes: 1. Zurich Insurance Group (ZIG) did not disclose embedded value results other than value of new business for mid-year 2015.
2. Aviva's results have increased by approximately 30% due to the acquisition of Friends Life in early 2015.

The embedded values presented in Figure 3 include both covered and non-covered business. The top three performers based on percentage increases in embedded value (in domestic reporting currency) since year-end 2014 were Aviva, St James's Place and Prudential.

Aviva saw its embedded value increase, in part, due to the acquisition of Friends Life in April 2015, but also due to continued growth of its existing business, with the value of new business up 31% (excluding Friends Life). Aviva's integration of Friends Life has so far allowed it to achieve approximately £63 million of run-rate synergies. Aviva has ongoing plans to further integrate the businesses and to pursue economies of scale. This, together with a reduction in the level of operating expenses of 3% (excluding Friends Life), has contributed to increased profitability over the last 12 months.

St James's Place's new business contribution rose by around 14% from the previous year, reflecting increased sales volumes. St James's Place has commented that its significant new business growth, together with its consistent high levels of retention of existing client funds (95% in 2014), has resulted in a strong first half of 2015.

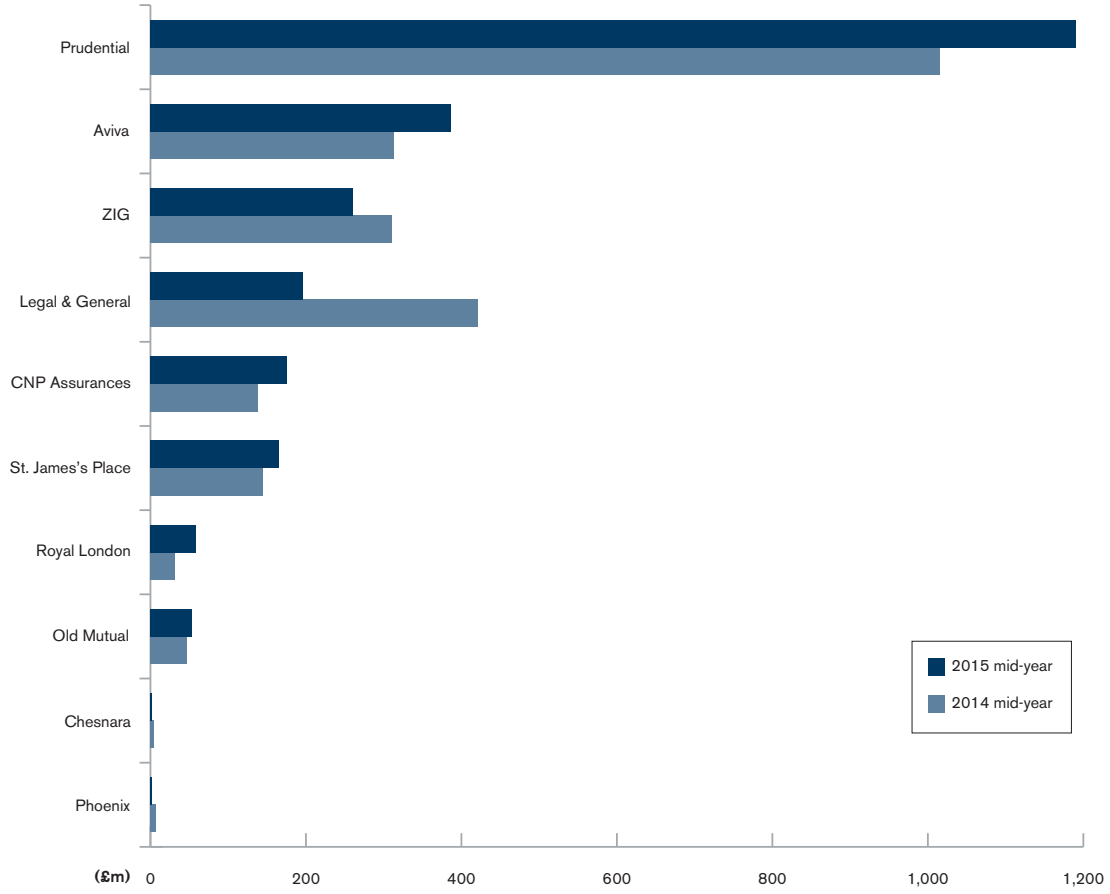
Embedded value growth for Prudential was mainly due to increased value of new business and stable returns from existing business. The largest component of new business growth was from Prudential's Asia operations.

Value of new business

The total results for new business value for companies in this study were similar to last year—although the performance of individual companies varied over the first half of 2015. The total value of new business (VNB), for companies in this survey, reached £2.7 billion at mid-2015 compared with £2.6 billion at mid-2014.

Figure 4 shows the VNB performance over the period up to mid-2014 and mid-2015. Prudential, Aviva and Zurich (ZIG) took the top three positions in terms of VNB at mid-2015. The top performer by percentage increase compared to mid-2014 was Aviva.

FIGURE 4: PUBLISHED VALUE OF NEW BUSINESS AT MID-YEAR 2015 AND MID-YEAR 2014



Prudential's value of new business in the first six months of 2015 was more than triple that of its nearest competitor in our survey and higher than the first six months of 2014. This was mainly because of higher volumes due to continuing growth in Asia, as the VNB margins have broadly remained the same as they were previously.

Legal & General saw one the of largest percentage drops in VNB from mid-year 2014. Considered in isolation this movement is somewhat misleading, as the drop was a result of lower new business for the L&G Retirement division, but also and more significantly the 2014 results benefited from a £3 billion bulk annuity transaction with the ICI pension fund. In addition, the worldwide EEV new business margins reduced to 3.9% (HY 2014: 5.4%), primarily due to lower new business margin in the L&G Retirement division of 7.2% (HY 2014: 8.4%). This was as a consequence of increased levels of longevity reinsurance being used for new bulk annuity business written.

Royal London saw a material increase in its value of new business at mid-year 2015 compared with mid-year 2014. This was due to both an increase in volumes of new business and an increase in new business margins. The increase in volumes reflects a significant increase in pension sales, due predominately to the pension freedom changes and auto-enrolment rules.

Other measures of value

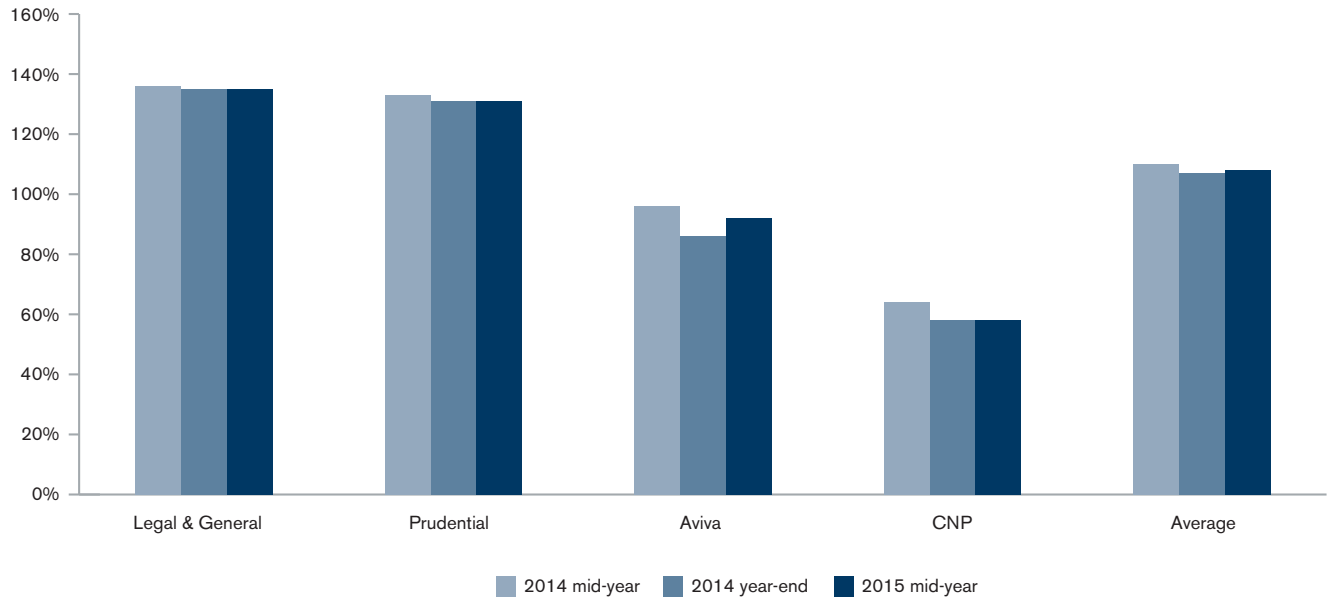
In this section we discuss how results from embedded value compare, and contrast, with alternative metrics used by other stakeholders such as investors or market analysts. In particular, we consider how embedded value compares with market capitalisation and then give a brief update on recent developments in both Solvency II and International Financial Reporting Standards (IFRS).

Market capitalisation

It is often interesting to compare companies' reported embedded values with their market values at the same reporting date. The former can be seen as the company's own view of the value of its existing business[2] and the latter can be seen as the market's view of the value of the enterprise as a whole. Differences between the disclosed embedded value and the market capitalisation can be due to a number of reasons whose impact may not always be entirely clear. For example, no allowance is made within a company's embedded value calculation for future new business sales or for intangible assets such as the brand name, which may be factors that investors consider to have value and hence should be reflected within the market capitalisation. This may suggest that, as long as these items are thought to create value, market capitalisation should exceed the reported embedded value. The relative size of the adjusted net assets and present value of future profits (PVFP) will also influence the difference, as there is less subjectivity around the value of the assets. Other reasons for discrepancies may be the timing differences between the availability of embedded value and market data, or a reflection of the view by some analysts regarding the lack of transparency in insurance company financial results.

Figure 5 shows the market capitalisation as a percentage of the embedded value for the current European Insurance CFO Forum (CFO Forum) members that disclosed embedded values as at 30 June 2015, 31 December 2014 and 30 June 2014. Although, on average, market values have broadly mirrored embedded values in the first half of 2015, with both measures of value rising by approximately 5%, there has been some variation at the individual company level. Half of the companies have their market capitalisations higher than embedded values, and half have this ratio below 100%. Legal & General and Prudential have remained very steady, whereas Aviva and CNP are more variable. Consequently, while the average ratio of market capitalisation to embedded value has not changed significantly from 2014 year-end, results are more volatile at the company level.

FIGURE 5: MARKET CAPITALISATION AS A PERCENTAGE OF EMBEDDED VALUE AS AT MID-YEAR 2015, YEAR-END 2014 AND MID YEAR 2014



Notes: 1. Market capitalisation has been sourced from Bloomberg for the last trading day of mid-year 2015, year-end 2014, and mid-year 2014.

2 Subject to the constraints imposed by the relevant principles under which an embedded value is calculated.

Solvency II developments

With the new Solvency II regime coming into force on 1 January 2016, firms have been working towards compliance with the new regime and finalising their processes to provide Solvency II balance sheet reporting going forward. All firms are expected to produce Own Risk Solvency Assessment (ORSA) in 2015 (referred to as 'Forward Looking Assessments of Own Risk' in the Interim Measures guidelines). The majority of firms were also required to submit a set of quantitative Solvency II figures in Q2 2015 based on a valuation date of 31 December 2014.

There has been some discussion in the market as to the likely shelf life of EV reporting in light of Solvency II. Companies may continue to align their embedded value methodologies with Solvency II, but the existence of features of Solvency II that are not market-consistent is likely to mean that most firms will keep reporting market-consistent embedded values in the short term, at least.

A number of firms are actively considering whether to continue to report embedded value results going forward. Instead, internal discussions are ongoing regarding how Solvency II metrics could be used to describe the value of the company with the use of Solvency II Own Funds, either on a Solvency II basis or an 'adjusted' basis to reflect a more economic approach.

Despite this uncertainty there is still an appetite to continue reporting information around new business levels and the value of new business using an embedded value approach. In some cases, this information may be calculated in line with Solvency II reporting.

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[3] (ED) issued, the IASB Board 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.

3 Exposure Draft ED/2013/7 Insurance Contracts, published in June 2013.

MARCH 2015 YEAR-END REPORTING, JAPANESE MARKET

Japanese embedded value (EV) disclosures offer interesting insights into market dynamics that are not available from other sources. Over the past several years, life insurers have achieved significant increases in value through new sales and investment gains. For listed companies, EV growth has been accompanied by solid gains in market valuation, though ratios of market capitalization to EV continue to lag below apparent potential. This report looks at the market through the lens of EV reporting and offers thoughts on recent trends.

As of the fiscal year ending 31 March 2015, 13 domestic Japanese life insurance entities representing 19 separate life insurance companies disclosed embedded values. The numbers are changed from the prior year only by the merger of two Tokio Marine entities, and by Dai-ichi's acquisition of Protective Life in the United States. Over the next several years, as Japanese companies continue to pursue overseas expansion initiatives, EV reports will provide useful insights into the dynamics—and degree of success—of these operations.

Companies that reported embedded value results accounted for approximately 80% of Japanese domestic life insurance industry assets. In addition, several subsidiaries of European insurers report embedded value results as part of their parents' reporting processes. Most Japanese companies employ a market-consistent approach. Several have fully adopted the CFO Forum's Market Consistent Embedded Value (MCEV)[4] principles over the past few years. With Tokio Marine's move to an MCEV basis as of fiscal 2014, there is now only one company reporting on a traditional EV (TEV) basis. Dai-ichi Life, though reporting most entities on a market-consistent basis, has included Protective Life using a top-down EEV approach. The relative homogeneity of reporting approaches facilitates comparability across the industry.

Figure 6 shows the framework followed by our group of Japanese entities over fiscal years 2014, 2013, 2012 and 2011.

FIGURE 6: EV REPORTING PRINCIPLES

	2014		2013 & 2012		2011	
	REPORTING ENTITIES	INDIVIDUAL COMPANIES	REPORTING ENTITIES	INDIVIDUAL COMPANIES	REPORTING ENTITIES	INDIVIDUAL COMPANIES
EEV	0	1	0	0	0	0
Market-Consistent EEV	8	11	8	11	7	12
MCEV	4	6	3	5	3	2
Other	1	1	3	3	3	3
Total	13	19	14	19	13	17

Source: Embedded value disclosures

For companies reporting under a market-consistent basis, it is fair to say that any deviations from the principles of the CFO Forum are minor. The most common deviation—showing the sensitivity of results to a change in yield curve of 50 basis points rather than 100 basis points—is not unreasonable given the continuing low interest rate environment.

Recent trends in reported embedded value

Although embedded values were hit hard during the 2008 financial crisis, values now exceed pre-crisis values, due to the recovery in equity markets and the value generated through reasonably strong new sales.

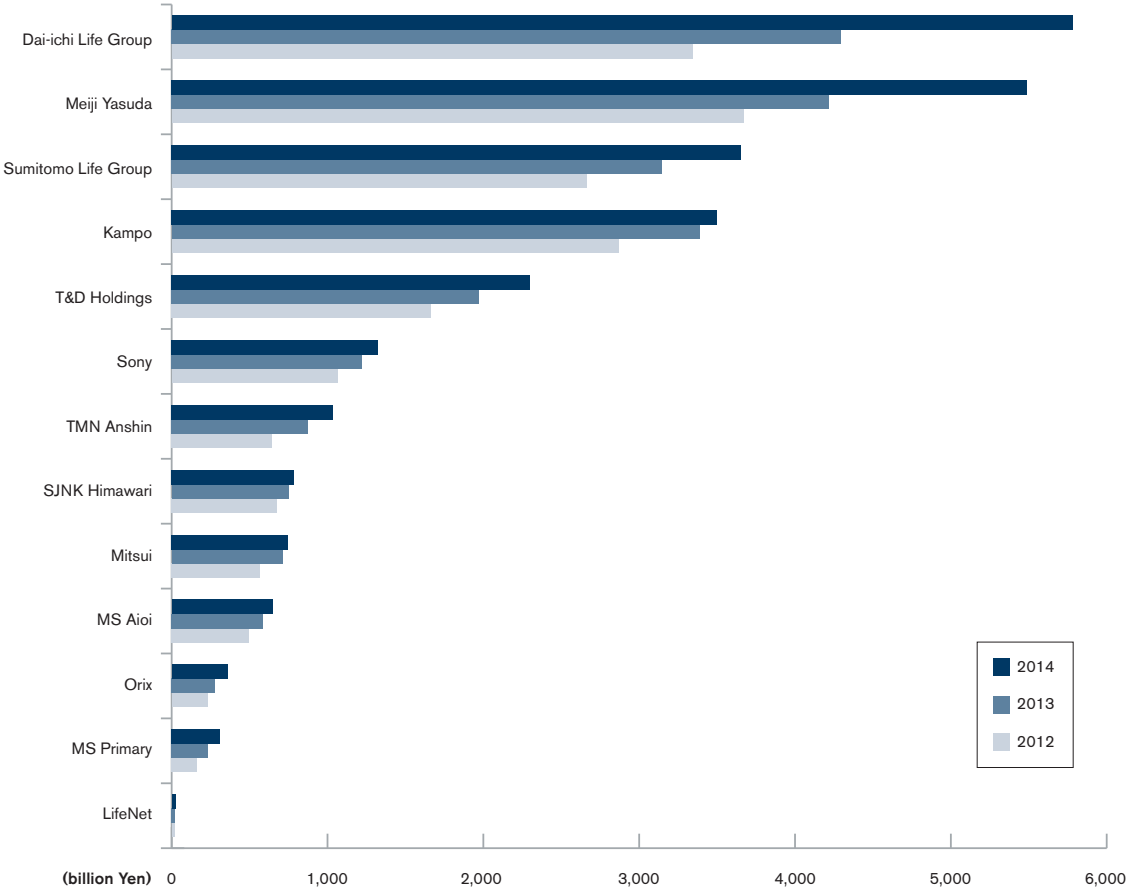
Results in fiscal 2014 continue to follow a positive trajectory. The most significant factor driving EV in fiscal 2014, however, was the rise in domestic equity values. Nonetheless, new sales continue to contribute substantial value. Individual insurance Annual Premium Equivalent (APE)[5] has increased by about 6% per year over the past five years. As APE has grown, the percentage of highly profitable third sector business has remained essentially level.

4 Copyright © Stichting CFO Forum Foundation 2008

5 APE is an accepted industry-wide measure that converts policy premiums regardless of mode or payment duration to a basis comparable to annual recurring premium mode.

Published embedded values for the past three years are shown in Figure 7.

FIGURE 7: PUBLISHED EMBEDDED VALUE RESULTS AT YEAR-END 2012, 2013 AND 2014



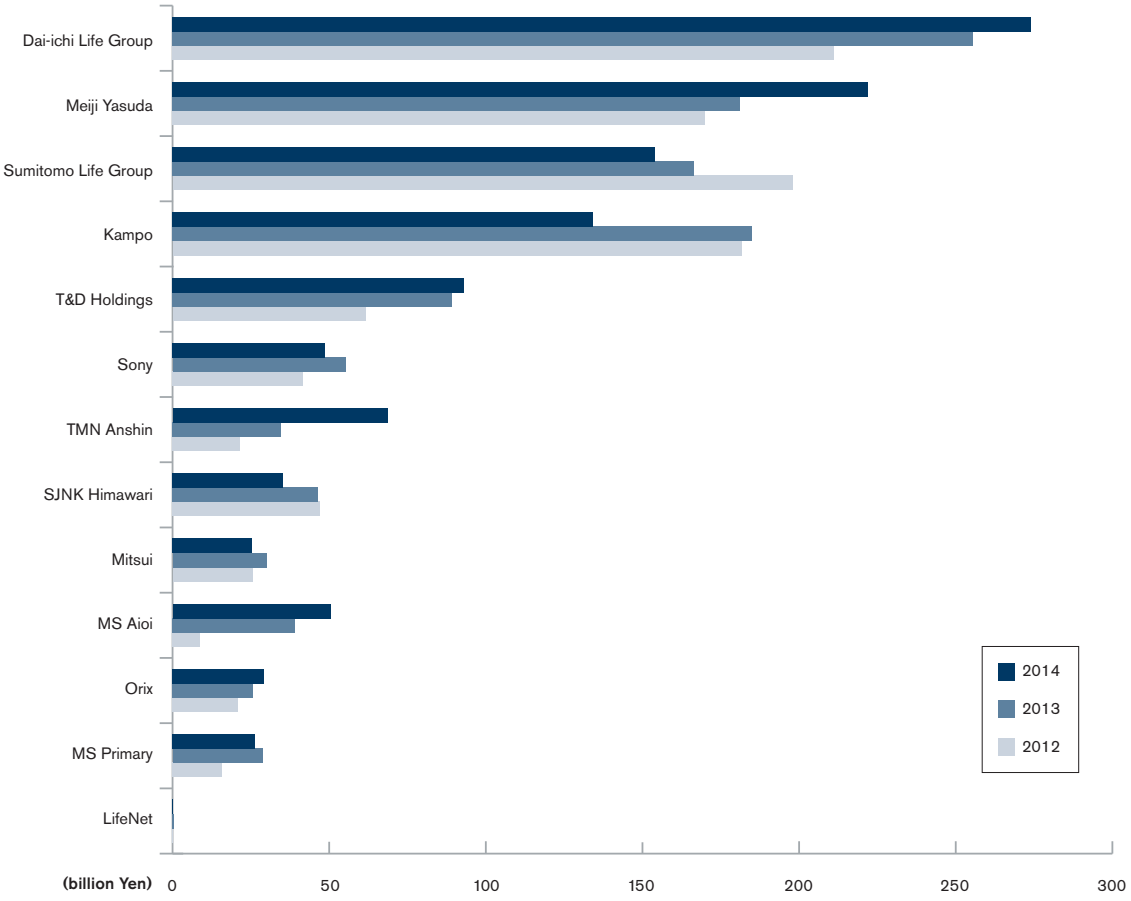
Source: Embedded value disclosures

Dai-ichi Life and Meiji Yasuda continue to vie for the number one spot in reported EV, having both reported EV increases in excess of 30%. Well capitalised and looking for diversification of risk and income, both companies have reported significant acquisitions in the United States over the past 12 months. Dai-ichi's EV report illustrates the challenge faced by global companies in the application of EV principles in diverse market environments. Dai-ichi has chosen a top-down valuation methodology for Protective Life's non-variable-annuity (non-VA) business. As it continues to diversify business units worldwide, management appears to be settling on a pragmatic approach to EV reporting, along the lines of global players such as Prudential in the United Kingdom.

Sumitomo Group, which announced its own US acquisition in August of 2014, nudged past Kampo in 2014 to join the top three in reported EV.

Recent trends in new business values are shown in Figure 8.

FIGURE 8: PUBLISHED VALUE OF NEW BUSINESS AT YEAR-END 2012, 2013 AND 2014



Source: Embedded value disclosures

While all companies continue to add significant value through new sales, there is a considerable deviation in trends among the various market participants. Dai-ichi Life, in particular, has shown consistent growth in new business value (NBV) over the past several years. Dai-ichi's fiscal 2014 results combine a significant increase in sales with a drop in per-unit profitability. An increase in sales volumes and NBV at Dai-ichi Frontier was particularly notable.

Many companies saw a moderate decline in value generated from new sales, due in large part to diminishing margins.

Risk discount rate overview

The key areas of consideration when determining the risk discount rate to use in the calculation of embedded value results include:

- Whether to construct the risk discount rate using a bottom-up or top-down approach
- Whether to use swaps or Japanese government bonds (JGB) as the underlying basis for the risk-free rate
- Whether an allowance for any liquidity premium is made
- The extrapolation of the yield curve

Because the majority of Japanese companies employ some form of market-consistent methodology (see Figure 9), a bottom-up approach is most commonly followed.

FIGURE 9: OVERVIEW OF RISK DISCOUNT RATE CONSTRUCTION

CORPORATE GROUP	PRINCIPLES	RISK DISCOUNT RATE METHODOLOGY	UNDERLYING BASIS FOR RISK DISCOUNT RATE	LIQUIDITY PREMIUM	EXTRAPOLATION OF RISK-FREE CURVE
Dai-ichi Life Group	EEV(MC)	bottom-up*	JGB	Not Disclosed	Y***
Kampo	EEV(MC)	bottom-up	JGB	Not Disclosed	Y, flat beyond year 40
LifeNet	EEV(MC)	bottom-up	swap	Not Disclosed	Not disclosed
Meiji Yasuda	EEV(MC)	bottom-up	JGB	Not Disclosed	Y***
Mitsui	EEV(MC)	bottom-up	swap	Not Disclosed	Y, flat beyond year 30
MS Aioi	EEV(MC)	bottom-up	JGB	Not Disclosed	Y, flat beyond year 40
MS Primary	EEV(MC)	bottom-up	swap	Y for AUD and USD**	Y, flat beyond year 40
SJNK Himawari	MCEV	bottom-up	JGB	N	Y, flat beyond year 40
ORIX	TEV	top-down	n/a	n/a	n/a
Sony	MCEV	bottom-up	JGB	N	Y, flat beyond year 40
Sumitomo Life Group	EEV(MC)	bottom-up	JGB	Not Disclosed	Y***
T&D Holdings	MCEV	Bottom-up	JGB	N	Y, flat beyond year 40
TMN Anshin	MCEV	Bottom-up	JGB	N	Y, flat beyond year 40

* Non-VA businesses of Protective Life is calculated based on a top-down approach.
** For fixed products denominated in AUD or USD. Not applied to VA products or to fixed products denominated in other currencies.
*** Takes into consideration the relevant Japanese swap rate for periods greater than 30 years.
Source: Embedded value disclosures

All companies following market-consistent methodologies use swap rates or JGB yields to represent the risk-free rate. Many companies prefer to use JGB yields in lieu of swaps, which is due, in part, to the relatively high proportion of general account assets allocated to JGBs. MCEV companies using JGBs as the risk-free proxy report a sensitivity showing results under the swap curve. At this point, only MS Primary discloses the use of a liquidity premium, having introduced a liquidity premium on foreign currency denominated products.

Extrapolation of the yield curve is commonplace. Once again, there is a fairly even split in approach, with companies choosing either 30 or 40 years as the point after which the yield curve is assumed to be flat or extrapolated.

Inflation assumptions

With the ongoing application of Quantitative Easing in Japan and the rapid accrual of government debt, we are seeing increasingly intense discussions about appropriate inflation assumptions for embedded value reporting. On the one hand, with a CPI that has been effectively flat for 20 years and historically low interest rates, there are strong arguments to support a zero-inflation assumption.

On the other hand, prices of inflation-indexed bonds demonstrate that the market anticipates the emergence of low inflation. The Abe administration continues to target 2% inflation, and history suggests that governments that incur high levels of debt may ultimately resort to inflation to decrease the real burden of that debt.

As inflation concerns increase among professionals, a small number of companies have introduced an inflation assumption, as shown in the table below:

JAPAN DOMESTIC INFLATION ASSUMPTION

COMPANY	ANNUAL INFLATION EXPECTATION
SJNK Himawari	0.940%
Sony	0.719%
TMN Anshin	0.500%

In addition, Dai-ichi Life assumes US inflation of 2.5% and Australian inflation of 2.75%.

If signs of inflation begin to emerge in Japan, we anticipate that increasing numbers of companies will introduce a positive inflation outlook for their EV reporting.

Cost of capital

As the majority of companies apply a market-consistent approach to their embedded value reporting, the cost of capital is typically modelled using a frictional cost approach. The required capital used in the calculation is generally set with reference to the Japanese regulatory solvency standard, often guided by the results of an internal model. It is typical to include a sensitivity showing the value that would emerge assuming adherence only to the minimum statutory requirement.

Residual non-hedgeable risks

As required by the CFO Forum MCEV Principles, all companies reporting under an MCEV approach explicitly allow for a cost of residual non-hedgeable risks (CRNHR). All follow an economic capital approach, with Sony and SJNK Himawari disclosing methods that parallel those prescribed under Solvency II. Japanese companies reporting under EEV typically employ a simplified model. Details are described in Figure 10.

FIGURE 10: OVERVIEW OF APPROACH TO RESIDUAL NON-HEDGEABLE RISKS

GROUP	MODEL	METHOD	EQUIVALENT COST OF CAPITAL CHARGE[6]	COVERED RISK
Dai-ichi Life Group	Simple model	Not disclosed	N/A	Operational risk and the risk from uncollectibility of carrying loss on tax accounting basis are explicitly disclosed.
Kampo	Simple model	Not disclosed	N/A	Operational risk, catastrophe risk and the risk from uncollectibility of carrying loss on tax accounting basis are explicitly disclosed.
LifeNet	Simple model	Not disclosed	N/A	Operational risks, counterparty risks, lapse risks, mortality and morbidity risks are explicitly disclosed.
Meiji Yasuda	Simple model	Not disclosed	N/A	Operational risk, pandemic risk and the risk from uncollectibility of carrying loss on tax accounting basis are explicitly disclosed.
Mitsui	Simple model about operational risk II type method is followed	Operational risk is calculated by cost of capital	6.00%	Operational risk is calculated by Solvency II type method. Other risk is not explicitly disclosed and calculated by simple model.
MS Aioi	Simple model	Not disclosed	N/A	Operational risk and the risk from uncollectibility of carrying loss on tax accounting basis are explicitly disclosed.
MS Primary	Simple model	Not disclosed	N/A	Counterparty risk from the reinsurer for minimum guarantee risk from variable insurance, operational risk and the risk from uncollectibility of carrying loss on tax accounting basis are explicitly disclosed.
SJNK Himawari	Solvency II type (LTGA)	Cost of capital	6.00%	An allowance for the uncertainty of non-economic assumptions and the portion of economic assumptions considered to be non-hedgeable.
Sony	Solvency II type (like QIS5)	Cost of capital	2.50%	An allowance for the uncertainty of non-economic assumptions and the portion of economic assumptions considered to be non-hedgeable.
Sumitomo Life Group	Not disclosed	Cost of capital	2.50%	Operational risk, unavoidable market risk, uncertainty risk of non-economic assumption and the risk from uncollectibility of carrying loss on tax accounting basis are explicitly disclosed.
T&D Holdings	Economic capital (calibrated to a 99.5 percentile value at risk over one year)	Cost of capital	2.50%	An allowance for the impact of extreme events such as operational risk, catastrophe risk, reputational risk, other asymmetric impact of non-economic assumptions, the risk of unrecoverable tax losses and non-hedgeable financial risks. Also an allowance for additional uncertainty which is not included in the elements above is considered.
TMN Anshin	Economic capital (calibrated to a 99.95 percentile value at risk over one year)	Cost of capital	5.75%	An allowance for the uncertainty of non-economic assumptions and the portion of economic assumptions considered to be non-hedgeable.

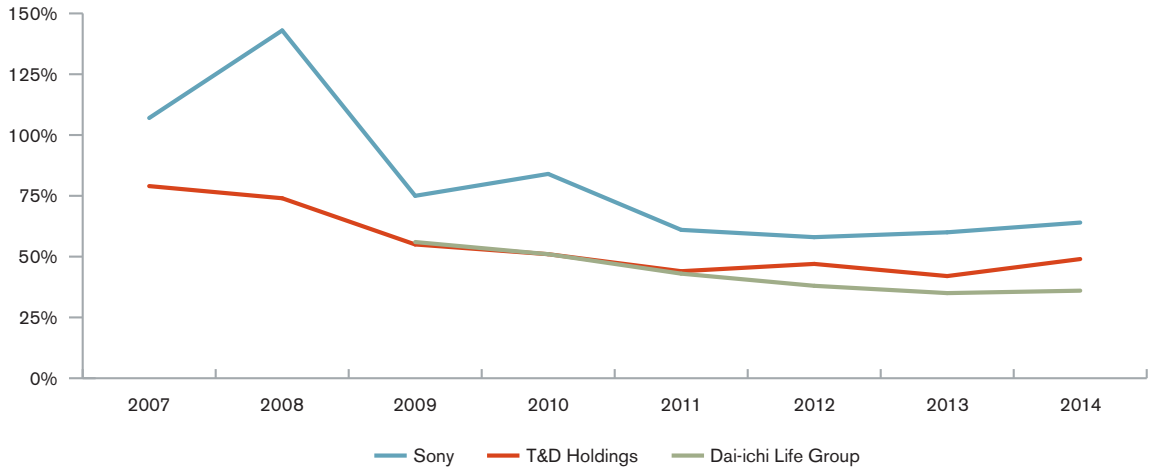
Source: Embedded value disclosures

6 At 99.5 percentile value at risk.

MARKET CAPITALISATION

Equity performance for Japan's listed life insurers was reasonably good in fiscal 2014. However, this appears to reflect the performance of the broader market more than investor interest in Japan's life insurance sector. Indeed, as shown in Figure 11, over the past year, though some improvement is noted, the ratio of market capitalisation to embedded value has continued to languish in a range of 35% to 60%. This contrasts with the situation among European insurers, where ratios above 100% are again the norm.

FIGURE 11: JAPANESE LISTED LIFE INSURERS: TREND IN MARKET CAPITALISATIONS TO EMBEDDED VALUE



Note: For Sony, market capitalisation reflects Sony Financial, while embedded value is that for Sony Life, the largest contributor to Sony Financial value.
Source: Nikkei Kaisha Jouhou, Financial Reports and embedded value disclosures

What accounts for the tremendous gap in investor perception of value? Are investors missing an opportunity?

The table below, reproduced from last year's report, describes some of the possible reasons for the low market capitalisation to EV ratios among Japanese companies.

FIGURE 12: POTENTIAL REASONS UNDERLYING THE LOW RATIOS OF MARKET CAPITALISATION TO EMBEDDED VALUE FOR JAPANESE LISTED LIFE INSURERS

REASON	EXPLANATION
Low Discount Rates and Long Tail Profits	Some analysts and potential investors may be concerned that the low risk-free rate used to discount long tail profits leads to an overstatement of value, especially on highly profitable protection business. While the low discount rate should be compensated for by the CRNHR and other elements underlying market-consistent reporting, investors may not fully understand the methodology or may believe that the CRNHR is understated.
Fear of Price Competition	Japanese company mortality and morbidity margins exceed margins that can be earned in many of the developed markets on broadly similar business. Investors likely fear growing price competition.
Saturated Market	The Japanese population is highly insured; the potential size of the market may be declining because of Japan's declining population and workforce. Combining this concern with the fear of price competition, investors may place little value on new business.
Possible Understatement of the Cost of General Account Options	Insurance companies offering book value withdrawals on traditional savings products face potentially severe disintermediation risk. A material increase in interest rates will certainly lead to an increase in lapses. Though it is difficult to model policyholder behaviour, if rates were to return to historical norms, the market may experience materially increasing lapses. In addition, while most companies now believe that liability durations exceed the durations of their asset portfolios, it is not difficult to envision scenarios where this relationship is reversed. Japanese companies may be exposed to material balance sheet risk, and this may be depressing market capitalisations.
Broader Macroeconomic Concerns	The low valuation of Japanese life insurers likely reflects general market concern, in particular, concerns over Japan's economy, demographics, global competition, and the prospects for 'Abenomics'.
Limited Market Acceptance of Embedded Value as a Performance Measure	Analysts may not fully accept or understand the approach. Results have been volatile, which is due both to volatility in life insurer balance sheets and to the impact of fluctuating market interest rates. In spite of the low ratio of market capitalisations to embedded values, price-earnings ratios are rather high. Confusion over this disconnect may be depressing insurer values.

Drivers of recent EV results

In spite of these concerns, Japanese EV disclosures do in fact provide interesting insights for investors and market analysts. What are the key drivers of value? What can we expect in future years? For many of the older, larger companies, growth in the value of equity holdings has contributed significantly to EV growth in recent years. Analysts will undoubtedly want to separate this driver from other key factors.

The reported value of new sales has generally been solid, as shown previously for fiscal 2014 in Figure 8. Though the following numbers need to be viewed with some caution, we have calculated the ratio of new business value to beginning year EV for companies reporting on an MCEV or EEV basis. This ratio reflects the volume and profitability of new business, relative to starting EV.

COMPANY	RATIO NBV TO BEGINNING YEAR EV (%)
Dai-ichi Life Group	6.4
MeijiYasuda	5.3
Sumitomo Life Group	4.9
Kampo	4.0
T&D Holdings	4.8
Sony	4.0
TMN Anshin	7.8
SJNK Himawari	4.7
Mitsui	3.6
MS Aioi	8.6
MS Primary	11.2
LifeNet	0.4
Average	5.3

Naturally, one would expect lower ratios for the more mature companies. After adjusting for this factor, we find a correlation between sales of profitable medical business and higher new business value ratios. As sales mix changes from year to year, this ratio can exhibit a fairly substantial degree of volatility. We will include a more detailed analysis of drivers and trends in our next publication.

Over the past several years, the growth in embedded value attributable to new sales has been approximately 5% for the overall industry. This is an admirable result considering the demographic headwinds faced by Japanese insurers, but is far less than the double-digit gains recorded in overall embedded value. It is impossible to forecast the future impact of economic variances. On the other hand, an analysis of markets, products, operational efficiencies, risk management capabilities and overall management strategies can yield insights into potential results for the overall industry and for individual companies. Does the low ratio of market capitalisation to reported embedded value demonstrate a lack of understanding by market participants of potential value locked up in Japanese life insurers? It is a question worthy of further study.

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