WINTER ISSUE 2006

Milliman Issues in Brief

UK Life INSURANCE

INDUSTRY AT A CROSS ROADS

In the face of declining with-profits business, insurers are deciding whether to include guarantees in products, and if so, how.

Essentially they are at a cross roads.

One road, the 'Australian road', involves selling only unit linked with no material guarantees on equity or managed funds.

The other, 'the US road', involves including financial risk/investment guarantees in products.

Japanese insurers chose this route back in 2000. The key question is which way will the UK go?

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Pension Buyouts and Annuities

Milliman was pleased to sponsor the Pension Buyouts and Annuity Transfers Westminster and City conference on 4-5 October bringing together the insurance, reinsurance, pensions industries and capital markets.

With increasing interest in transferring bulk annuities from struggling UK corporate pension schemes – valued at around £900bn in assets – speakers discussed issues around asset management, capital efficiency, new and existing buyout structures, longevity and securitisations.

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Welcome

to the Milliman UK life insurance newsletter, which discusses current industry issues and aims to bring clarity to an increasingly complex environment.

Fed up looking backwards and managing past issues, many companies are looking forward to new product development to ensure their success.

In particular, we have seen significant interest in learning lessons from major markets, such as the US and Japan, especially around variable annuity style products and recently new product launches have been made across Europe.

Regulatory changes continue fast and furious on home turf with the new Consultation Paper 06/16 affecting more than 160 life offices this year end and potentially generating significant capital releases.

Embedded Value (EV) reporting continues to go through change with the establishment of European EV. And not to forget Solvency II and IFRS Phase II are on the horizon.

Multi-basis reporting continues to be a challenge and hopefully convergence will arrive one day!

We hope you enjoy reading our newsletter and look forward to your feedback.

Industry at a Cross Roads

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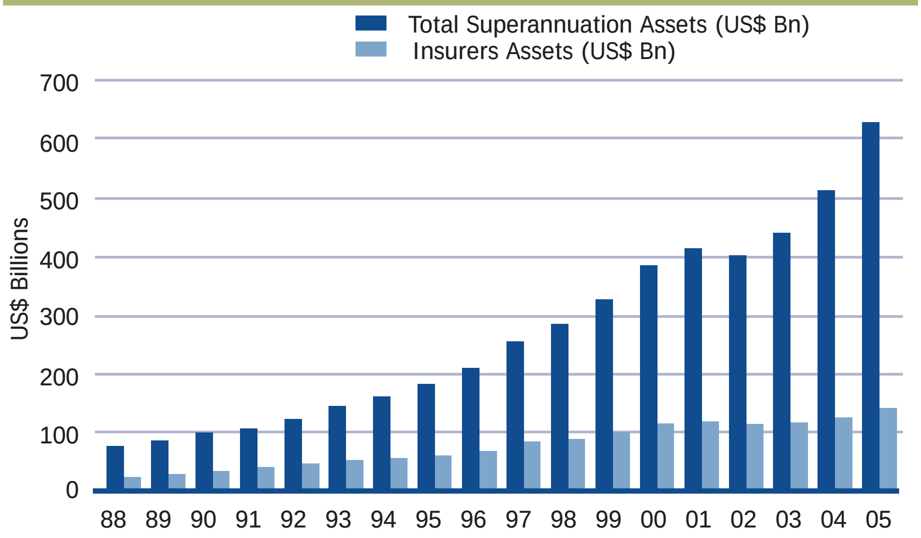
Australian Insurer vs Total Retirement Savings



The negative experience of insurers losing market share on the Australian road and the positive experience of strong growth in the US and Japanese road are shown in the graphs on this page.

By offering guarantees, insurers differentiate themselves as risk taking institutions compared to other fund managers, competing more effectively for investments.

Furthermore, by selling and professionally managing risk, they should enhance profitability and business volumes.

Early indications are that Europe will follow suit, as evidenced by recent product launches from companies such as AXA, Aegon, AIG and Hartford.

So what are Variable Annuities and why are they so attractive?

The phenomenal growth in the US and Japan is driven by so-called variable annuities - not surprisingly, this has generated considerable interest in the UK.

Variable annuities are essentially unit linked style products offering policyholders a choice of rider guarantees such as guaranteed minimum accumulation benefits (GMAB), death benefits (GMDB), income benefits (GMIB) and withdrawal benefits (GMWB) with different charges.

These guarantees usually increase over time through roll-up rates or ratchets, which periodically lock in market gains, ensuring guarantees maintain relevance over time, increasing persistency.

They are also ideally suited to the challenges of retirement savings.

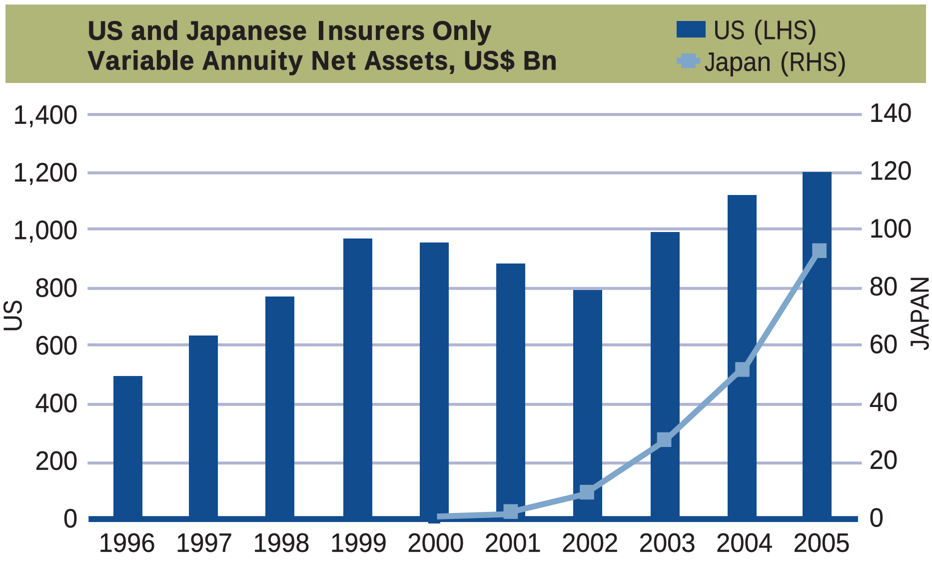
During accumulation, GMABs and GMDBs provide protection against negative investment performance; during payout, GMIBs and GMWBs provide guaranteed income streams; while GMWBs still provide exposure to positive investment performance.

Providing the rider premium is set sufficiently to finance the risk management and hedging programme costs, the products will be profitable and capital efficient.

Our consultants have significant experience assisting insurers launch variable annuity products and design hedging programmes.

For further information, please contact
Josh Corrigan *at*
joshua.corrigan@milliman.com or
Gary Finkelstein *at*
gary.finkelstein@milliman.com

US and Japanese Insurers Only
Variable Annuity Net Assets, US$ Bn



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Pension Buyouts and Annuities

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A number of new entrants have recently entered the market, including Paternoster, Synesis and PIC, backed by the capital markets and private equity rather than traditional insurers.

These will challenge established players such as Prudential and Legal & General.

They will also be competing with reinsurers and investment banks to provide solutions to insurers concerned about worsening longevity on their insured annuity blocks.

Some £150bn of immediate annuitant liabilities are held by insurers and more than £10bn transferred in the last two years through Part VII transfers and reinsurance - the main acquirers being Canada Life, Prudential and XL Re. Similar transaction levels are expected going forward.

Longevity is a core risk companies need to consider to understand fully their exposure.

Stochastic methods and generalised linear models are increasingly used to reflect the underlying portfolio characteristics.

The CMI Bureau also recently released new P-Spline and Lee Carter methods to project mortality improvements and Milliman consultants, Tom Wicling (tom.wicling@milliman.com) and Farzana Ismail (farzana.ismail@milliman.com), have prepared a report detailing the impacts.

Alternative approaches to deal with longevity risk include annuity securitisation and longevity bonds. Cost, capacity, basis and tail risk will be key considerations of such transactions.

Milliman assisted in the calculation of the Credit Suisse First Boston (CSFB) longevity index, which is a step towards enabling hedging of longevity risk. We also have significant experience in annuity transactions, securitisations and mortality cat bonds.

If you would like to discuss pensions buy outs and annuities, please contact
***Philip Simpson** at*
philip.simpson@milliman.com or
***Emma McWilliam** at*
emma.mcwilliam@milliman.com.

2005 UK Embedded Value Survey

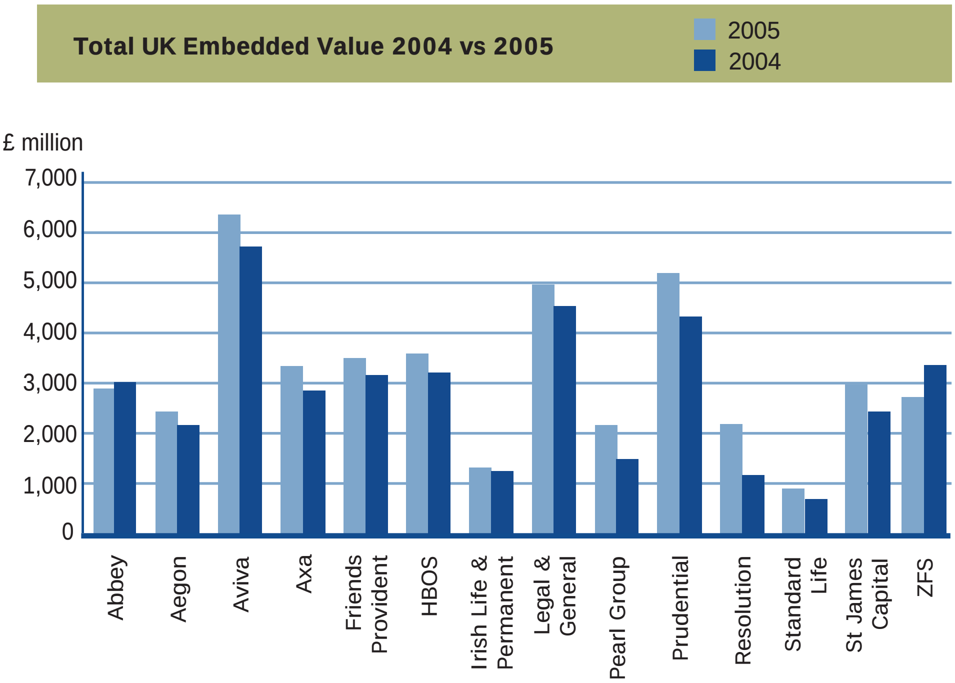
Milliman published a survey on Embedded Value (EV) results as at year end 2005.

Many UK life insurers maintained good profits following the rising stock market and the majority recorded their highest profits in five years.

2006 Interim Reports and Accounts also showed life insurers maintaining operating profits and sales growth.

The report covers the main trends on EV, Operating Profits, EV Profits, New Business results and the impact of moving to European EV.

Total UK Embedded Value 2004 vs 2005



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European Embedded Value Survey

Adoption of European Embedded Value Principles

Many companies adopted the European EV Principles for the first time at year end 2005, replacing the traditional EV methods. The EEV Principles were released by the CFO in May 2004.

The main differences between the methodologies are shown below. The change in methods slightly reduced the EV of affected companies by between 0 to 5%.

This was mainly driven by the need to explicitly allow for the time value of options and guarantees and total required capital. These were, however, partly offset by changes in assumptions.

	European EV		Traditional EV
Methodology	Real World	Market Consistent	Real World
Granularity	Top-down (usually, but can be bottom-up)	Bottom-up	Top-down (almost exclusively)
Risk discount rate	Risk free rate plus risk margin, based on WACC and CAPM	Risk free rate plus allowance for non-market and non-diversifiable risk	Risk free plus a (usually) passive risk margin
Time value of options and guarantees	Stochastic techniques consistent with underlying methodology and assumptions		Usually implicit in the risk discount rate
Required Capital	At least regulatory minimum, but may be related to economic capital or rating agency capital		Regulatory minimum

The Future of Embedded Value Reporting

Companies still reporting EV under traditional methods are likely to consider moving to European EV by year end (eg, ZFS moved to market consistent European EV in their 2006 interim accounts).

It is unlikely though all companies will move to a market consistent basis as this may present unfavourable results and be inconsistent with the way the business is managed, especially if significant volumes of annuity or asset-intensive products are written.

The FSA plans further changes to regulatory reserving under CP 06/16, as discussed later in this newsletter, potentially changing the make up of EV; reducing the value of in-force and increasing shareholders' net assets, before allowing for distributions. This may also have a knock on impact on EV securitisations.

*If you would like a copy of the 2005 UK EV Survey, please contact **Phil Overy** at philip.overy@milliman.com.*

*In addition, copies of our European EV methodology benchmarking report can be obtained from **Jeff Wood** at jeff.wood@milliman.com*

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CP06/16 Proposals: Regulatory Update

The FSA published Consultation Paper CP 06/16: *Prudential Changes for Insurers* (September 2006), containing changes to Prudential Regulations for year end 2006.

The CP contains, inter alia, five significant proposals for life insurers' Pillar 1 reserving and capital requirements and three for Pillar 2 Individual Capital Adequacy Standards (ICAs), as below:

Provisioning at product group level

Non profit technical provisions for expenses not directly attributable to a particular contract (essentially present value of future income less costs) may be set at a homogeneous product group risk level rather than individual contract level.

The FSA estimates that this will result in a reduction of mathematical reserves from their current market level of around £4bn to around £1bn and will only have a material effect for unit-linked business reserving.

Prudent lapse rate assumptions

Technical provisions may now include the economic effect of prudent lapse rates for all long-term business. This makes the valuation of non profit business more consistent with realistic reporting requirements for with-profits business.

Negative reserves allowed as assets

All long-term business not containing guaranteed surrender values may be treated, where appropriate, as an asset in the technical provisions.

The calculation basis will be best estimate plus a risk margin rather than a prudent basis and will lead to lower liabilities.

Recognition of internal transfer values

Realistic reporting firms can recognise the economic value of internal transfers out of the with-profits fund by taking credit in the With-Profits Insurance Capital Component (WPICC), allowing it to be reduced by the value of future transfers calculated in stressed conditions.

Removal of Resilience Capital Requirement

The resilience capital requirement will be removed for realistic reporting firms.

If the regulatory peak (peak 1) dominates, Pillar 1 capital requirements will reduce.

If the realistic peak (peak 2) dominates, this will lead to an offsetting increase in the WPICC and hence, no reduction in capital requirements.

Additional ICA Sub Principles

Three new sub principles will be in place for ICA, requiring greater disclosure of assumptions, methodology and appropriateness of the calculation.

The assessment must also be on a 99.5% probability over a one-year period and companies will either need to change their basis if not using 99.5% or perform two calculations to demonstrate the test has been satisfied.

Overall Impact Expected

The proposals are expected to lead to a £16bn reduction in the industry's overall Pillar 1 mathematical reserves and capital requirements, representing approximately 1.6% of the industry Pillar 1 technical provisions.

The FSA estimates that the impact of Pillar 2 reduces the overall release to £4bn which will cut the industry's cost of capital by a maximum of £140m per annum.

Companies will need to consider the impact of the proposals and implement changes by the year end.

The new proposals on expenses attribution may also encourage firms to re-evaluate the process and structure of outsourcing arrangements.

If you would like to discuss regulatory issues further, please contact
***Philip Simpson** at*
philip.simpson@milliman.com,

***Oliver Gillespie** at*
oliver.gillespie@milliman.com or

***Lindsay Unwin** at*
lindsay.unwin@milliman.com

IFRS Phase II

Insurance Contracts Reporting

The International Accounting Standards Board (IASB) continued discussions on the Phase II Insurance Contract accounting project throughout 2006.

The aim is to define an insurance contracts accounting framework for those currently dealt with under IFRS 4: *Insurance Contracts* (issued March 2004).

This standard is a temporary stop gap essentially allowing insurance companies to continue existing accounting for insurance contracts with certain modifications.

The recent October IASB Board meeting focused on reviewing the Board's tentative conclusions in light of recommended accounting models presented by the European CFO Forum, Group of North American Insurance Enterprises (GNAIE) and selected Japanese life insurers.

The major concern being that the insurance industry is suffering a higher cost of capital due to lack of transparency as compared to other industries.

The next major step is to release a Discussion Paper, due early 2007, which will summarise the preliminary conclusions of the Board and the main components of an insurance contract framework.

An Exposure Draft will likely follow at the earliest July 2008 with a final standard around July 2009.

The Discussion Paper is expected to present a "current exit value" approach to reserving, although it is unclear how different this will be, if at all, to the concept of fair value. We recently released detailed updates on the Board discussions, prepared by Milliman Consultant William Hines (william.hines@milliman.com), who is an observer at the IASB meetings.

Companies will need to review the Discussion Paper and assess its impact on capital, reserving, profit emergence and product design.

The analysis needs to be efficient and communicate high level impacts to management and the Board to shape the future release of an Exposure Draft.

If you would like to discuss how Milliman can help assess the impact of IFRS, please contact
***Emma McWilliam** at*
emma.mcwilliam@milliman.com or
***Oliver Gillespie** at*
oliver.gillespie@milliman.com

Risk Management Initiative

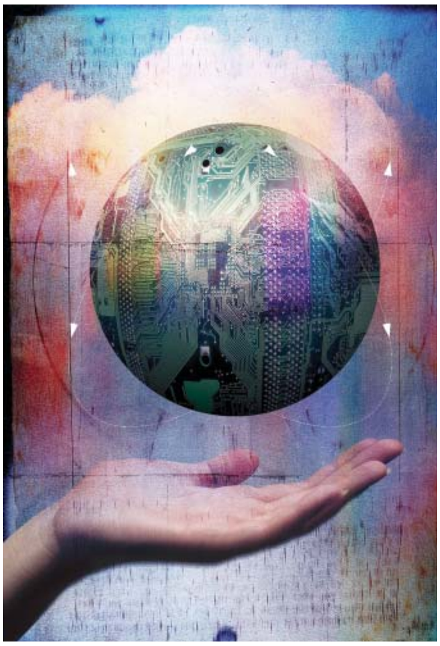
Risk management remains at the top of executives' agendas. Much effort has gone into the quantification of risk, but the FSA and rating agencies are clear that they expect to see companies embedding the discipline of risk management into their organisations.

Many companies are finding it a challenge to quantify exposures in non-financial areas, such as operational and strategic risk, key to the integration process.

Milliman's operational and strategic risk models provide a practical solution to calculating operational risk exposure that also align the "calculations" with the "management" of risk. The approach can be upgraded over time to use some of the most advanced thinking in how to link operational risk into an Enterprise Risk context. This approach is all about embedding the management of risk into the business and aiding the understanding of risk exposure.

In addition Milliman is undertaking leading research together with Bath University on cutting edge approaches to identify and understand the more difficult risk exposures.

If you would like to discuss this area further, please contact
***Neil Cantle** at*
neil.cantle@milliman.com



Newsletter

What's New at Milliman

Promotions and New Joiners

Oliver Gillespie was elected a Principal of Milliman earlier in 2006. Oliver is a key advisor on mergers and acquisitions and Part VII company restructuring both in an advisory and Independent Expert capacity, as well as continuing to fulfil the roles of Reviewing Actuary and Actuarial Function Holder to a number of organisations.

Emma McWilliam recently joined Milliman. She has worked internationally, over the last five years, in New York and across Continental Europe with multinationals on global insurance projects and is pleased to bring her experiences back to the UK market.

Neil Dissanayake recently joined the Financial Risk Management team of Milliman. He has five years of UK experience, split equally between a mainly audit based consultancy and the financial reporting team of a major UK life insurer.

Juan Carlos Esparragoza-Rodriguez relocated to the UK Milliman office in August 2006, being part of the Milliman global Financial Risk Management team since December 2005. His main experience includes risk management and asset liability management, including working with investment banks.

New Phone Numbers

We recently had to change our phone numbers. The new switchboard number is **020 7847 1500**.

We remain at the same address in Finsbury Tower. Our old phone numbers will work for at least another three months.

Milliman
Finsbury Tower
103-105 Bunhill Row
London EC1Y 8LZ
Tel: +44 207 847 1500
Fax: +44 207 847 1501

New contact details for our UK consultants can also be found on our website at **www.milliman.co.uk/aboutmilliman/people.php**

or alternatively please visit **www.milliman.com**

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Milliman Newsletter

Solvency II Impact Studies: QIS Vadis?

Cynics suggest Solvency II remains a distant prospect and the 2009 timetable for implementation hopelessly optimistic. Despite this, there has been a lot of pan-European activity to test the financial impact of new structures and the ability to implement them.

The testing has been conducted through Quantitative Impact Studies (QIS) promoted by the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) on behalf of the EU Commission.

The impact studies have mostly been completed by larger companies and there are concerns smaller companies will struggle. In the UK, some smaller companies may be familiar with Solvency II concepts as a result of Pillar 1 realistic peak reporting and Pillar 2 Internal Capital Adequacy calculations; however, early consideration is still essential - especially as this is likely to influence the thinking in CEIOPS around the perceived inability of smaller companies to implement the framework.

Companies not involved in the QIS will need to play catch up with larger companies to understand the impact of reporting assets and liabilities under Solvency II.

If you would like to discuss the impact of Solvency II further, please contact
John McKenzie *at*
john.mckenzie@milliman.com or
Neil Cantle *at*
neil.cantle@milliman.com

QIS 1 completed earlier in the year focused on benchmarking current levels of technical reserves against pre-defined confidence intervals.

QIS 2 completed in July 2006 considered the restatement of assets and liabilities under Solvency II together with options for setting capital requirements including minimum and standards capital requirements.

QIS 3 is already in the planning (although technical specification for this has not yet been released), with a target completion of second quarter 2007.

Upcoming Events

10th Annual Annuity and Drawdown Conference

Milliman is sponsoring the 10th Annual Annuity and Drawdown Westminster and City Conference on Tuesday 12 December 2006 at Claridge's Hotel, Brook Street, London.

Gary Finkelstein, our Financial Risk Management Practice Leader in London, will be talking on "Variable Annuities – Bringing the US and Japanese Experiences to the UK". Milliman will also host a stand and our consultants will be available to discuss emerging issues.

For further details please contact
Emma McWilliam *at emma.mcwilliam@milliman.com*
and to register
Martin Fearnley *at*
martinfearnley@westminsterandcity.co.uk

Managing the Transition from ICAS to Solvency II Conference

Milliman will be hosting a one day workshop and speaking at the Infoline conference "Managing the Transition from ICAS to Solvency II for Life Insurers" (28 February 2007) and leading a practical pos conference workshop (1 March 2007). During the conference, Philip Simpson will be speaking on "Integrating Pricing Decisions within a Risk Management Framework". The following day, John McKenzie will chair a workshop exploring the latest findings of CEOIPs in light of the recent Quantitative Impact Studies and the impending draft Directive.

For further information on Solvency II, please contact
Phil Simpson *at philip.simpson@milliman.com or*
John McKenzie *at john.mckenzie@milliman.com.*
To register and enquire about the conference please contact
Susan Hamilton *at susan.hamilton@infoline.org.uk*