

## Recent Media Comments 2008

### **Crisis wipes USD4trn off global pensions, by Nyree Stewart, IPE.com, 13 November 2008**

GLOBAL - The financial crisis wiped over \$4trn (€3.2trn) from global pension assets between January and October, according to the Organisation for Economic Co-operation and Development (OECD)

At a seminar in Paris yesterday, representatives from OECD governments, academia and the private sector, were told private pensions had been "severely affected by the financial crisis", with pension fund returns across the OECD falling by an average of more than 20%.

It was claimed both defined benefit and defined contribution schemes have been affected, with negative returns resulting in smaller pension pots for members of DC schemes. For DB systems, the OECD claimed the main worry is the decline in funding levels which it placed at 5-15% decline – depending on the discount rate used. It warned "worse data is likely to be reported at year end".

The organisation revealed the proxy figure of \$4trn in losses was obtained by applying "the variation of an index of cash, equities and bonds during 2008 to the asset allocations of pensions funds in several OECD countries at the end of 2007".

A presentation by the OECD Secretariat on the prospective losses of pension funds among member countries showed the least affected areas appear to be Korea and Luxembourg, while the biggest losses could hit Ireland, the USA and the Netherlands as these are the countries with the highest exposure to equities as a percentage of total assets.

In reaction to the crisis the OECD revealed pension funds in countries with "fair value and quantitative risk-based solvency rules" are selling parts of their equity portfolios, which puts further downward pressure on prices,

Meanwhile concerns over counter-party risk, means pension funds are "shunning derivatives and swaps for risk management purposes", although moves into alternative investments appear to be continuing.

Attendees discussed possible policy reactions to the financial crisis including reviewing funding requirements for DB plans for both the short and long term and implementing an "upgrade in risk management methods" of instruments such as derivatives and swaps.

It was suggested governments could play more of a role in managing risks associated with the payout phase of pensions and annuities, with the idea they could encourage the market for longevity hedging products by producing an official longevity index.

Other proposals included suggestions that governments should issue longevity bonds that "would set a benchmark for private issuers", while they "should also consider" issuing more long-term and inflation-indexed bonds, a move already taken by the

Danish government with the release of a 30-year bond that was primarily bought by domestic pension funds and insurance companies.

Professor **David Blake**, director of the **Pensions Institute** at Cass Business School, said in his presentation that the effects of the crisis would encourage investors to look for assets that are "uncorrelated with traditional financial asset classes", for example through longevity-linked instruments such as life settlements, while "the state will begin to recognise its role in hedging aggregate longevity risk".

In addition the OECD highlighted the need to look at the adequacy of retirement income from DC plans, and suggested the provision of "default investment strategies that involve switching to less risky assets as people age" – such as life-styling or target date funds.

### **Market turmoil to spur longevity market, by Cecilia Valente, Mon Oct 13, 2008**

LONDON (Reuters) - The longevity swaps market, in which the risk of longer life spans is traded for a premium, is likely to get a boost from troubled markets, the director of the **Pensions Institute** at **Cass Business School** said.

Professor **David Blake** told Reuters pension scheme sponsors are more likely to offload risk to pension buyout firms now that they are faced with yawning funding gaps caused by exposure to equities.

The buyout firms - which take on the assets and liabilities of a pension scheme, and therefore the risk - are then likely to seek hedging strategies which will boost the longevity swaps market, he said.

"There is an enormous opportunity and my feeling is the growth (of longevity swaps) will follow the growth of the buyout," he said.

The UK buyout market has grown from zero two years ago to an estimated 8 billion to 10 billion pounds (\$13.83-\$17.28 billion) by the end of this year. As sponsors seek pension buyouts, so they concentrate longevity risk into the hands of a few players with limited capacity.

"Essentially (buyout firms) will need a longevity hedge to expand," Blake said.

He noted the example of Paternoster which has acquired assets worth about 2 billion pounds. "I reckon it can reach up to 6 billion - it could be a couple of years but they will prepare for that," Blake said.

He said there is also momentum building from the players poised to tap growing demand for hedging.

Blake said long-term, highly liquid investors such as sovereign wealth funds are looking for opportunities uncorrelated with mainstream financial markets.

The premiums they would receive for swap deals which take on buyout firms' longevity risk would provide just that, providing they can accept lower returns.

"If you make 25 percent from commodities they will not appreciate 8-10 percent returns but if they get the volatility we are getting now, suddenly 8 percent returns become attractive.

"This is an uncorrelated risk; independently of the market people live longer," he said.

Blake based estimates for returns from longevity swaps deals on life settlements which are generating returns in the range of 8 percent to 12 percent.

Some players like pension fund buyout firms themselves or annuity providers may become both buyers and sellers of longevity risk, Blake argues in a study - *The Birth of the Life Market* - to be published this week.

The growth in the longevity swaps market will for the moment remain brokered in private deals. However, a truly liquid, sophisticated market for longevity risk can only emerge once the government issues longevity bonds, Blake said.

"The private sector cannot hedge inflation by itself, because inflation is an aggregate risk, like longevity," Blake said.

Blake advocates bonds issued with maturity terms based on a national mortality index in a move which would create the same conditions which spurred the inflation-linked swaps market once inflation-linked bonds were issued.

BNP Paribas tried to launch a longevity bond in 2004, but it failed for lack of interest. Blake's forthcoming report argues that the industry has learnt valuable lessons since.

### **Derivatives become hedge for longevity risk, by Drew Carter, October 13, 2008, Pionline.com**

AMSTERDAM — Pension funds have just begun to use derivatives to hedge — or even invest in — longevity risk, according to speakers at the **Fourth International Longevity Risk and Capital Markets Solutions Conference**, held Sept. 25-26 in Amsterdam.

"Really, this new market has emerged," said Guy Coughlan, London-based managing director in JPMorgan Chase Bank NA's pension advisory group, speaking at the conference. "Deals have been done" involving both longevity risk and mortality risk.

Although markets are just starting to emerge, experts believe that within a few years institutional investors will be able to sell longevity risk to the market and invest in that risk by using vehicles similar to life-settlement bonds. Those bonds, in which some Dutch pension funds have already begun investing, are backed by life insurance policies and have been dubbed "death bonds" because the investor cashes when people die.

Longevity risk is hard to pinpoint because life expectancy is based only on current observations, not projections. But if life expectancies continue to grow "someone will have to foot the bill," said Joanna Kellermann, executive director of De

Nederlandsche Bank, Amsterdam, the Dutch central bank, where pension supervision is part of her responsibilities.

Pension funds can hedge longevity risks by using derivatives.

“The vast majority of pension funds are looking at (new capital market offerings) as hedges. Some defined benefit pension funds — very small in number — are looking at these as potential investments,” Mr. Coughlan said in an interview after the conference.

In July, JPMorgan developed a £500 million (\$890 million) customized longevity swap for an unidentified U.K. insurance company that was hedging its risk; JPMorgan then sold its risk to investors.

Although the customized hedges will play an increasing role in longevity hedges in years to come, standardized index derivatives will be preferred by investors in the short term because they are cheaper, more liquid and have shorter maturities than customized hedges, Mr. Coughlan said.

There is some question about the importance of longevity risk to U.S. pension funds. Longevity risk ranked at the bottom of concerns among corporate and public pension plan in North America who were surveyed in June 2007 by State Street Corp., Boston (Surge in retirement assets can't mask huge liabilities, lack of savings, Pionline, April 25). Liability mismatch topped the list, with 47% of respondents naming it as the greatest risk they faced in managing their plan, followed by 42% who said investment risk; 6%, operational risk; and 5%, longevity risk.

However, at the conference, Ms. Kellermann said longevity risk exceeds commodity risk and is almost as important as currency risk to pension funds.

Speakers said that larger pension funds, especially well-funded ones that have already hedged interest rate and inflation risks, will likely be the first to put longevity hedges in place.

But Ronald Wuijster, director of strategy and research at the €240 billion (\$338 billion) All Pensions Group Investments, an independent pension administrator in Amsterdam, Amsterdam, said hedging longevity exposure is very expensive, that the market is undeveloped and that transparent and unbiased benchmarks are lacking.

Instead, Mr. Wuijster said pension funds ought to look at insurance-linked securities for investment opportunities for their low correlations with other asset classes and “interesting” returns.

Gilles Dellaert called longevity a “developing asset class” and pegged possible returns at 200 to 700 basis points above the London interbank offered rate. Mr. Dellaert is a vice president at Goldman Sachs, New York.

*Executive Editor Joel Chernoff contributed to this article.*

## Longevity risk higher on TLP derivatives – MPL, IPE.com 11 August 2008

GLOBAL – Pensions funds are being advised to invest traded life policy funds as part of a strategy to hedge longevity rather than buy direct or opt for TLP derivatives, as a supplier to European pension funds argues only half of the risk is being hedged in some circumstances.

Officials at Managing Partners Ltd, a UK-based provider of trade life policy (TLP) funds, believe there is the potential for the growth of TLP-based derivatives to help support pension funds' need to hedge longevity risk but argue investors are still exposed to greater mortality risk than through funds because the indices used in such products may not sufficiently correlate with the lives of those people they are measured against.

Jeremy Leach, managing director at MPL, told IPE traded life policies while there could be significant growth of the TLP market over the coming years, many of the policies investments banks are buying and holding to back such derivatives only represent a small portion of the market they are benchmarking to.

More importantly, investors could find their returns from TLP derivatives, were they to be created, may not match their benchmarks and could therefore see higher volatility risk than intended as the assets held may not be benchmarked against the mortality rates of today.

As a result, he believes pension funds seeking to hedge longevity risk would be better suited to investing in TLP funds where assets are regularly rebalanced to smooth the potential returns.

“For LDI, [pension funds] are looking for a benchmark level of return which is a smooth predictable return whatever their liabilities and what most of the derivatives are doing is providing a sample of lives and comparing it to a mortality scale, most of which tend to use the US Valuation Basic Tables (VBT),” said Leach.

“What they are doing is comparing their sample against VBT so if they have a different correlation it will move up or down. If the sample of remaining lives is of 45,000 lives from 2001, what it doesn't include is the mortality today on the VBT and what you are left with is a sample of the data, and incomplete data at that,” he added.

The subject is a somewhat complex one as TLP derivatives are a relatively new product but experts, such as Professor **David Blake** from the **Pensions Institute** have recently argued their development could help pension funds to manage longevity risk. (See earlier IPE story: [TLPs could be foundation for wider mortality market](#))

The TLPs purchased for such derivatives tend to be bought in batches designed to represent the required timeline of mortality risk for a pension fund, so should span the spectrum of potential deaths the fund experiences.

That said, they are made up of largely US-based life insurance policies of individuals who have chosen to sell their plan so they no longer have to pay the insurance

premium and gain a payout based on medical predictions as to how long they will survive before the policy ‘matures’.

The risk, as Leach suggests, is there is no definite maturity date to those policies, so a pension fund buying a derivative on the back of it, or investing directly in TLPs, is potentially taking a higher risk compared with investing in TLP funds which can be open-ended investments and, as is the case at MPL, are regularly rebalanced through policy maturities and acquisitions to smooth returns and rebalance the portfolio against the chosen benchmark.

“A larger number of Italian, as well as German and Swiss pension funds” have been buying into MPL’s TLP fund, according to Leach, in their search for assets uncorrelated to other classes as part of an LDI strategy, and have seen returns over 9.5% per annum as a result.

But some investors, such as the Netherlands’ PME pension fund, has bought direct and seen equally strong gains, albeit paying a higher administrative price in the process.

Roland van den Brink, former director of investments at PME pension fund and now a member of the executive board at Mn Services, keeps a watching eye over its clients’ investments in trade-life policies.

In contrast to Leach’s opinion, he believes they are a good direct investment for pension funds as they deliver a net return of 9.5% per annum, and have an attractive risk profile because of the low correlation to other assets. Some clients, such as PME, have therefore allocated 2% last year and are still interested in the market.

While they are a good investment for pension funds, he does not believe they should be used in an LDI strategy, because it does not minimise the funds’ interest rate exposure.

“When we started investing, we first did one and a half years of research and we were one of the first movers. But one issue is life policies carry a heavy administrative burden and in the past there have been some governance issues,” said van den Brink.

“One has to do a medical check, and solicitors have to verify the policy is correct. There is quite a process to complete and a lot of paperwork because you are changing the ownership. You buy a policy from someone and have to pay the premium until the moment that person dies. The policy does not change, only the beneficial owner. Nowadays because interest rates are moving up and credit spreads are tightening there is an opportunity because policy owners have more difficulty in financing the premiums.”

He continued: “It is an attractive way of getting higher yield from sound investments. It is just a niche in the market, which requires knowledge and experience. Without adequate selection criteria you could run reputational risks.

“Credit has gone up, so everything with a risk has risen in value giving you a higher yield than before. But this market is maturing and prices have become more transparent as most policies are sold via auction,” added van den Brink.

His expectation is the TLP market will continue to grow as more American citizens may find it appealing to cash in their life insurance policies.

“People may have housing problems or job insecurities, so they can get rid of these annual payments. Ageing and current circumstances are in our favour as people over the age of 70 as well as returning soldiers may sell their policies tax-free.”

*If you have any comments you would like to add to this or any other story, contact Julie Henderson on + 44 (0)20 7261 4602 or email [julie.henderson@ipe.com](mailto:julie.henderson@ipe.com)*

### **Pensions accounting - Choose a number, *The Economist*, Aug 7th 2008**

*Silly accounting may be obscuring a black hole in pension funds*

UNITED UTILITIES and Scottish and Southern Energy are similar in many respects. Both are energy utilities that supply electricity and gas. Both employ thousands and run huge pension funds. Yet when calculating the cost of those pensions, the similarities end. The two companies have chosen to use very different assumptions—and these choices have a big impact on the pension surplus or deficit on their balance-sheets.

When discounting their eventual obligations (figuring out the cost today of paying pensions years in the future), United Utilities has used a rate of 6%, Scottish and Southern one of 6.9%. The difference may not seem much, but Lane Clark & Peacock, a firm of actuaries, reckons that Scottish and Southern’s pension liabilities come out about £350m lower than if it had used United’s rate—a material difference for a fund that in 2007 was £92m in the red.

This example demonstrates the difficulty that investors and employees have in assessing the health of pension funds at individual firms. It also points to some glaring gaps in accounting rules that may be hiding a black hole in many pension funds that is bigger than most imagine.

This was never meant to be. Accountants this decade introduced new rules aimed at making pension deficits more comparable across companies. They are already showing themselves inadequate.

The biggest problem is that the discount rate firms are required to use is the interest rate that bondholders demand for holding the debt of creditworthy companies. Yet turmoil in credit markets has made this a flaky measure. First, investors are now demanding very different rates for buying the bonds of different, though equally creditworthy, companies. There is no agreement on a uniform “corporate spread” to serve as a benchmark. So pension funds each pick a rate from a range.

The credit crunch has also increased the gap in general between interest rates on corporate bonds and those on government bonds. Investors, not unreasonably, think companies are a lot

more likely than countries to go bust. But that, perversely, has reduced apparent pension deficits by raising the rate at which future liabilities are discounted. Had bond spreads not widened, the total pension deficit of FTSE 100 companies would be about twice its current £41 billion, Lane Clark & Peacock reckons.

And even that number may be an understatement. Robert Gardner of Redington Partners, which advises firms and pension funds, estimates that the FTSE 100 pension deficit could be twice as big again, at £160 billion.

Some experts, however, including **David Blake** of the **Pensions Institute** at Cass Business School, question the wisdom of reducing pension funding to a single number on the balance-sheet, given that it is based on forecasts about inflation, longevity and wages far into the future. He would rather companies reported confidence intervals around the best estimate of pension liabilities to reflect the uncertainty inherent in the calculations. This might be more accurate, but the poor worker nearing retirement would be out the door before he had the faintest clue what it all meant.

#### **EEA fund reaches £100m despite TLP concerns, by Gary Shepherd, Professional Pensions, Tuesday 29th July 2008: 12:02**

EEA says its Life Settlements fund has broken through £100m, despite concerns raised about regulation of traded life policies (TLPs) in the US where it invests.

EEA attributes the fund's growth to greater transparency in the life settlements market, while the sector, which is not correlated with equity and bond markets, is becoming more attractive to investors disillusioned with the relative recent poor performance of traditional asset classes.

In a report issued this month by the **Pensions Institute**, the market for traded life policies is valued at around \$13bn (£6.5bn), though this figure is expected to grow to \$160bn over the next few years, with retail funds emerging in the 10 largest OECD countries.

However, since the asset class emerged in the mid-1990s, the report asserts that regulation - which is at US state rather than federal level - has not kept pace with the growth in the size and complexity of the market. It states that inconsistencies in regulation currently affect the reputation of the market and raise questions over the ethics of 'profiting from mortality'.

**David Blake**, director of the Pensions Institute and co-author of the report, said: "Policyholders who sell into the secondary market must understand that a third party will profit from their death, while investors must appreciate that their return is based on the successful prediction of the date of death of the original insureds whose policies are held in the fund or portfolio.

"However, provided appropriate safeguards are in place, life settlements should not raise ethical issues that are not present in other mortality-linked investments, such as pensions, annuities or reverse mortgages."

Peter Winders, EEA marketing director, said: "The report confirms what we have been saying for a long time - that life settlements, if handled correctly, benefit everyone involved."

"If the transparency is there at every stage, as it is in our fund, they represent a truly uncorrelated asset class - and one with a social responsibility. Certainly the more people find out about our fund, its high ethical standards and robust structure, the more support we are getting."

According to EEA, over the past 12 months to end of June 2008, Life Settlements fund, which targets a consistent total net return of 9pc-10pc per annum, has returned 10.62pc net of fees.

Winders added: "It's clear from our experience that this market is set to grow and we believe we have the right product and a rigorous, ethical and transparent approach that the market likes. The performance speaks for itself - in volatile markets advisers are looking for absolute return products that deliver - this fund does and 30 consecutive months of positive returns demonstrates remarkable consistency."

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### **TLPs could be 'foundation' for wider mortality market, IPE.com, 8 July 2008**

UK – Traded Life Policies (TLPs) could become a successful new asset class and provide a "firm foundation" for the development of the wider life market in trading mortality and longevity-indexed securities and derivatives, according to research from the **Pensions Institute** at **CASS Business School**.

However, the report - entitled '*And Death Shall Have No Dominion: Life settlements and the ethics of profiting from mortality*' - suggested for TLPs to continue their rapid growth, the market needs to become "well-regulated" and more transparent for both policyholders and investors.

TLPs are US whole-of-life insurance policies which are sold on by the policyholder - most commonly those aged over 65 with between two and 15 years' life expectancy – to a life settlement company who either uses the policy for its own investment purposes or sells it on to a third party, including institutional investors such as pension funds.

The report, written by Dr **David Blake** and **Debbie Harrison**, revealed this secondary market was valued at \$13bn (£3.3bn) in 2005 but is now estimated to reach \$160bn within the next few years.

The report revealed pension funds are showing more interest in TLPs as a way of diversifying its investment strategy - through an average portfolio of around 300 life

policies - as life expectancy is not correlated with either equity or bond market returns.

In particular, the research stated Germany was one of the first investment markets to be attracted to the product, and some larger pension plans in the Netherlands have started to invest in life settlement policies, while it suggested UK defined benefit (DB) scheme may soon start considering the asset class as part of a liability-driven investment (LDI) strategy.

However, the report pointed out while TLPs have benefits for investors, there are also some key concerns, such as the lack of standardised regulation in the market.

This is because US life policies are regulated at state rather than federal level – so each state can make its own regulations, with some such as New York, California and Illinois not regulating TLPs at all except for those relating to the 'viatical' market – where policyholders have less than two years to live.

In addition, the research warned while there appears to be no particular ethical issues associated with investing in TLPs, the market needs to become "fully transparent" to ensure investors are making an informed choice.

Blake, director of the [Pensions Institute](#), said: "Policyholders who sell into the secondary market must understand that a third party will profit from their death, while investors must appreciate their return is based on the successful prediction of the date of death of the original insureds whose policies are held in the fund or portfolio."

As a result, it suggested disclosure could become an important issue for institutional investors such as pension funds, as it is investing on behalf of private individuals who might have ethical objections to the investment.

To try and avoid this, it suggested institutional investors should consider the ethics of investing in TLPs in relation to any socially responsible investment strategies it has adopted, such as the UN Principles for Responsible Investing (UNPRI).

And it warned, "given the 'youth' of this asset class, institutional investors might need to review their existing SRI principles to consider if their principles should include provisions relating to life settlements".

Although Blake said: "Provided appropriate safeguards are in place, life settlements should not raise ethical issues that are not present in other mortality-linked investments, such as pensions, annuities or reverse mortgages."

In addition, the report highlighted the importance of accurate life expectancy reports when investing in TLPs, as it suggested "overly optimistic" mortality assumptions could inflate the cash price paid to policyholders and reduce returns to investors.

That said, it admitted there is now a growing interest in synthetic replications of the TLP market, described as "life-linked" exposures rather than "policy-linked", which Harrison, as senior visiting fellow at the Pensions Institute, said "could eliminate

exposure to policy-related risks, such as reputational risks in relation to how policies are sourced, and cross-border tax risks".

The research warned, "going forward, the success of this asset class, irrespective of any ethical investment concerns, will depend on the purchasers' expertise in portfolio construction, the accuracy of life expectancy reports, and robust standards in the regulation of purchase and resale processes."

However, it added if standard regulations are introduced across the US then the life settlement market will provide a "welcome new asset class for investors" and would provide a "firm foundation for the development of the wider life market".

*If you have any comments you would like to add to this or any other story, contact Nyree Stewart on + 44 (0)20 7261 4618 or email [nyree.stewart@ipe.com](mailto:nyree.stewart@ipe.com)*

**Call to regulate trade in US life policies, By Pauline Skypala, *FTfm Financial Times*, July 7 2008**

The growing trade in US life policies raises ethical and regulatory issues, according to a report from the **Pensions Institute** at **Cass Business School**.

Investors are showing interest in the diversification potential of second-hand life policies, sold by policyholders who no longer need the cover or want to raise money.

But regulation is inconsistent, with policy sales in some US states, including California and New York, entirely unregulated.

Debbie Harrison, co-author of the report, said the major concerns for investors were whether it was ethical to profit from someone's death, and the safeguarding of policyholders' privacy.

The report concludes that, provided there is full transparency for the original policyholder and the end investor, the ethical considerations are the same as for other investments based on mortality projections. But it advises that regulators and market participants should "work towards standard regulation in all US states".

**Life settlements trade raises complex issues, By David Blake and Debbie Harrison, *FTfm Financial Times*, July 7 2008**

Institutional investors are showing increasing interest in the diversification potential offered by second-hand US life insurance policies. But the growth in the market for traded life policies (TLPs) raises questions for investors about the ethics of making money from successfully predicting someone's death, according to a report\* published today by the Pensions Institute. Regulation of the sector, which is worth in excess of \$13bn (£6.5bn, €8bn) and expected to grow to \$160bn in the next few years, is also an issue.

The report says this relatively new alternative asset class - which is not correlated with traditional equity and bond markets - has attracted interest from large investment banks, insurance companies, asset managers, hedge funds, and pension funds.

In addition to the direct market in policies, Deutsche Bank and Goldman Sachs, among others, have established a synthetic market offering institutional investors products that replicate the investment in a portfolio of TLPs. Separately, retail funds are also emerging in the 10 largest OECD countries.

The direct market for TLPs, also known as life settlements, is based mainly on US "whole life" policies. Unlike term assurance, which runs for a fixed period, whole life policies last a lifetime and in most cases are assignable. This means a third party can buy the policy, maintain the premiums, and receive the benefits on the original policyholder's death. The success of the investment, therefore, will depend largely on the accuracy of the medical or life expectancy report, on which the sale price is based. Investors focus on policyholders who are 65 or over and have a medical condition that reduces their life expectancy to between three and 15 years. Policyholders sell for a range of reasons but typically because they genuinely no longer need the cover, or have a pressing need for capital, in which case the circumstances might be classed as a "distress" sale. The policyholder can expect to sell for a higher price than the insurer's surrender value but may still only get, say, 15 per cent of the face value of the policy, which would otherwise be paid in full to the individual's beneficiaries.

The report says it is essential for policyholders to understand that a third-party will benefit from their death. Individual and institutional investors should appreciate that their "return" is based on the successful prediction of the date of the death of the original insured persons whose policies are held in the fund or portfolio. These are important ethical issues and the potential for market abuse is exacerbated by the lack of consistent regulation, which operates at US state rather than federal level. The report notes, for example, that if overly optimistic mortality assumptions are used to price policies, this will inflate the cash sums paid to policyholders (and the intermediaries' sales commission) and will reduce the potential return on life settlement portfolios and funds.

In some states there is no regulatory framework for the secondary market, while in others regulation is in place but is inconsistent.

A particularly thorny issue, currently under review in several states, is the potential for market distortion associated with "stranger-originated life insurance" (Stoli) practices. This is where an individual takes out a policy on a "premium financing" basis, whereby an investor provides a loan or pays cash to cover the cost of premiums, with the intention of buying the policy in due course. US life insurers are concerned such practices could distort the main purpose of life insurance, which is based on an insurable interest between an insurer, a policyholder, and a beneficiary, and is not intended for speculative investment. Also, Stoli cases could be contested in the courts and the benefits paid to the family rather than the investor.

The report warns that building a life settlement portfolio involves significant risk and requires considerable expertise.

The emergence of synthetic structures that replicate an investment in life settlement portfolios could be of considerable interest to institutional investors seeking exposure to older-age US longevity risk. Such structures could eliminate exposure to policy-related risks, such as reputational risks in relation to how policies are sourced, and cross-border tax risks.

The report concludes there would appear to be no particular ethical issues associated with investing in this asset class that distinguish it from other investments based on mortality projections, provided there is full transparency and the privacy of the policyholder is safeguarded.

*David Blake is the director and Debbie Harrison is a senior visiting fellow of the Pensions Institute at Cass Business School*

*\* And death shall have no dominion: Life settlements and the ethics of profiting from mortality , [www.pensions-institute.org](http://www.pensions-institute.org)*

## **Recommendations**

The Pensions Institute report argues that the success of the secondary market in US life policies - for the policyholder and the investor - will depend on improvements in regulation and also increased competition between the primary and secondary market players.

In future we would expect to see:

- \*Standard and consistent regulation in all US states
- \*Clear and transparent standards for mortality and morbidity assumptions used in life expectancy reports
- \*Transparency in the pricing of life settlements at all stages
- \*Transparency in the fees paid to intermediaries
- \*Effective data protection safeguards for the original policyholders, including identity, health conditions, and financial status
- \*The establishment of credit rating agency standards for assessing the credit risks associated with life settlement transactions
- \*Initiatives on the part of insurance companies to provide policyholders with alternatives to the secondary market, such as loans against the policy
- \*Rigorous regulatory standards for retail funds to ensure the risks and ethical considerations are made clear

For further details on institutional investment regulatory issues, see 'Life Settlement Securitisation', A. M. Best, March 2008, [www.ambest.com/debt/lifeselement.pdf](http://www.ambest.com/debt/lifeselement.pdf).

**If the old refuse to die, let them work longer, By Michael Skapinker  
*Financial Times*, June 16 2008**

Administrators of company pension funds worry about investment performance and intrusive regulators. But nothing bothers them as much as their members' refusal to die.

The increase in human lifespan since the mid-19th century is startling. In 1840, Swedish women had the highest life expectancy of women anywhere, dying at an average age of 45. By 2000, Japanese women, now the world's record survivors, were living until 85.

Only 35 per cent of those born in England and Wales in 1851 could expect to live until their mid-60s. Of those born in 1951, 80 per cent are expected to make it to 65.

In the UK, longevity is not only increasing; the increase is accelerating. Some experts predict that half of today's 30-year-olds could live to be 100.

Could lifespans increase indefinitely? In their excellent report [Apocalyptic Demography?](#), **David Blake** and **John Pickles** of London's **Cass Business School** say that ageing is not a biological necessity. Mortality rates of sea anemones, for example, do not increase with age, which is probably why they do not have defined benefit pension schemes.

For companies that still have defined benefit pension plans, increased longevity adds hugely to future costs. The UK's pensions regulator says each year that members live adds 3 per cent to a pension plan's liabilities – and employers have no way of knowing how much longer members are going to live.

The Cass report says we can be 90 per cent confident that, by 2050, a 65-year-old English or Welsh male will live between 21 and 32 years longer – a huge and uncertain range.

This is why companies have closed so many defined benefit pensions to new and, in some cases, existing members. British employers began shutting defined benefit schemes after companies in the US, the other country where they were once prevalent. The schemes' longer survival in the UK has made the country a pioneer in limiting longevity risk, according to John Fitzpatrick, an American partner at the UK-based Pension Corporation.

Pension Corporation is one of several companies offering to manage companies' pension assets, liabilities and risks.

In February, Lucida, an insurance company, and [JPMorgan](#) launched a derivative contract to allow pension providers to hedge against an increase in lifespans greater than that predicted by a longevity index.

Last month, Pension Corporation announced that it would sell insurance to defined benefit pension plans worried that their members would live longer than expected. You usually buy insurance against events that may or may not happen: car accidents, theft, rain at Wimbledon. How does Pension Corporation plan to make money insuring companies against the certainty of increased longevity? Is that not like offering insurance against the sun setting?

Mr Fitzpatrick points out that not all lifespans are increasing at the same rate. Some people – smokers, drinkers, blue-collar workers – still die earlier than others. Pension Corporation will take a view on how long a scheme's members and their dependants are likely to live and price the insurance accordingly.

Given that the insurance will continue until the last member's dependant dies, this is quite an undertaking: it could be 60 years from now and there is no knowing what will happen to lifespans by then.

Although social class, employment and lifestyle greatly affect longevity, sex is a bigger determinant: a waitress in the UK is likely to outlive a male accountant. But there are signs that the longevity gap between men and women is starting to close.

Nor is there any certainty that lifespans will carry on increasing at these accelerated rates. There are some indications that US longevity increases are beginning to plateau, possibly because of obesity.

There are good reasons for providers of defined benefit schemes to buy themselves greater certainty (although it does not help the growing number of employees in defined contribution pensions).

But there is something too often left out of the discussion: our failure to adjust retirement ages to how long we are likely to live. Those who survive until 90 could spend a third of their lives in retirement. Not only is this difficult to fund; it is also a waste of willing workers.

While age discrimination is now illegal in the European Union, employers can still tell employees to go at 65. A challenge by a Spaniard forced into retirement failed last year in the European Court of Justice, which is expected to hear further challenges from British pensioners.

These applications have been opposed by employers. Given the uncertain cost of pension provision, and the certain fall in the number of young people entering the workforce, this opposition makes no sense.

*Send your comments to [michael.skapinker@ft.com](mailto:michael.skapinker@ft.com)*

*More columns at [www.ft.com/skapinker](http://www.ft.com/skapinker)*

**Also:**

<http://www.businessspectator.com.au/bs.nsf/Article/The-grim-worker-FNUNA?OpenDocument>

## Falling short - The trouble with pensions, *The Economist*, 14 June 2008

Workers are sleepwalking towards an impoverished old age

MORE and more people are speculating on their retirement income, even though they may not know it. According to Watson Wyatt, an actuarial consultancy, the amount of money that is saved in defined-contribution (or money-purchase) schemes worldwide will overtake the amount of money in defined-benefit (or final-salary) schemes by 2014—see chart 1.

For a lot of people, this is going to be a problem. In a defined-contribution (DC) scheme, the eventual pension depends on the investment performance of the fund that the employee has paid into—and he takes the risk of poor investment performance. By contrast, defined-benefit (DB) schemes promise employees a retirement income based on their pay and length of service. The employer takes the risk.

But an even bigger problem is that the level of contributions from both employers and employees into DC schemes is lower than it is into DB schemes. Whatever the arguments about the merits of the new wave of schemes, if you put less money in, you will get less money out. To make the shortfall worse, the costs of running DC schemes are, on average, higher. And finally, DC pensions call for a degree of decision-making that their members are often ill-equipped to undertake. As a recent paper\* published by Britain's **Pensions Institute** points out: for “financial products extending over long periods of time, many consumers are clearly not well-informed or well-educated. The retirement-savings decision needs accurate forecasts of lifetime earnings, asset returns, interest rates, tax rates, inflation and longevity; yet very few people have the skills to produce such forecasts.”

The result may be that many employees face retirement with an income well short of their expectations. An employee who pays into a DC scheme for 40 years may get only half the retirement income he could have expected under a final-salary system. When pension experts were polled by Watson Wyatt their biggest concern was that DC schemes will yield inadequate pensions for DC members. As the Pensions Institute paper says: “When the plan member eventually discovers how low his pension really is, it is by then too late to do anything about it.”

If pension incomes are too small, employers will face the problem that their older, and usually more expensive, workers are unwilling or unable to retire; firing them may not be an option in places such as Britain, that have laws against age discrimination. Even when employees do retire with a decent pot of money, many countries, including America, Germany and Australia, do not require the pensioner to convert those savings into an annuity. That creates the risk that the pensioner will outlive his savings, prompting him to fall back on the mercy of the state. Indeed, the evidence suggests that employees are not good at estimating how long they are likely to live.

Whatever the flaws of DC schemes, the world—or at least the private sector—is not about to return to DB plans. Companies introduced DB plans after the second world war as a benefit for employees—sometimes as a way of heading off demands for higher wages.

Initially, the costs of this promise were manageable, largely because companies could decide whether to raise the pension of someone in retirement. Steadily, however, the promise of a DB pension became more expensive. For example, British schemes were forced to protect employees against the ravages of inflation. Longer lives also added to the burden.

The bull market of 1982-2000 disguised this, as investment returns outpaced the rise in pension liabilities for a long while. But the cost eventually came to seem intolerable, because of a combination of the bear market of 2000-03, falling interest rates, and a change to accounting standards, which asked firms to report the annual change in their pensions burden.

DC schemes have been around for 30 years or so, and were at first widely used by the self-employed and small businesses. Such schemes promise nothing. Although employers usually contribute to them, they do not have to top up the fund if its returns are disappointing.

#### DB or not DB

Enthusiasts for DC pensions argued that the investment risk was at least partly offset, since a DC member avoided the “credit risk”—that the company would go bust before fully funding its pension plan. However, in Britain and America credit risk is less of a factor these days, since insurance schemes now protect employees from the bankruptcy of the sponsoring company. And changes to DB rules have reduced the penalties on early leavers (albeit at the price of making the schemes more costly to run, and thus more likely to be closed).

Nevertheless, there is a strong argument that companies should not be offering DB schemes. Since the schemes require companies to take bets on the financial markets, it turns firms into quasi-hedge funds and distracts them from their core business. The DC approach allows businesses to stick to their knitting.

In addition, DC pensions arguably suit a modern economy better. Final-salary pensions tended to penalise early leavers and reward “time servers” who spend all their careers at a single firm. Instead, workers should be encouraged to be mobile, taking their pension rights with them every time they move. A study by Richard Hinz of America's Department of Labour found that, because of employment patterns, DB plans were actually more risky for employees than DC ones are.

But the Hinz study had one crucial assumption; that contributions to the two types of schemes are at the same level. They are not. Employers have taken advantage of the switch from DB to DC to cut the level of their payments drastically. That is hardly surprising: the cost of meeting the DB promise was what prompted employers to switch to DC schemes in the first place. Figures from Britain show that the average level of employers' payments into DB schemes, as of October 2007, was 14.2% of payrolls; in DC schemes, by contrast, the average was just 5.8%.

Employees are not making up the difference. They are pumping just 3% of their salaries into British DC schemes, taking the total to 8.8%, against the equivalent for

DB schemes of 19.1%. In America total DC contributions at the last estimate were slightly higher than in Britain, but were still only 9.8%.

Lower contributions almost inevitably mean lower pensions. Watson Wyatt estimates that the median 25-year-old contributing at the British DC rate would earn a pension of about 30% of his final salary. And that assumes an optimistic rate for annual costs of 0.3%, whereas many DC schemes have expense ratios of more than 1%. In DB schemes, contributing for 40 years would entitle the employee to 66% of final salary.

The loss to DC scheme members is partly offset by their own lower contributions—in other words, higher net pay—of around 2% a year. But DC members also have investment risk; for about 5% of them, the pension would be worth just 15% of their final salary.

You could argue that the comparison between DB and DC contributions is unfair, because DB payments have recently been inflated by the need for firms to spend money cutting the deficits that had built up in their pension funds. But the factors that caused those deficits—sluggish asset markets, lower bond yields and higher longevity—also face DC scheme members. If DB contributions are rising to cover the greater cost of meeting DB liabilities, then DC contributions should rise too.

But workers facing a loss from the switch to DC schemes have failed to pay in more, perhaps because they do not appreciate what a good deal pensions are. Andrew Warwick-Thompson, of Hewitt Associates, a benefits consultancy, says that focus groups of employees have shown that pensions rank a long way down the list of benefits they value. Flexible working or the chance of extra holidays are deemed much more important.

Another reason for employees' apathy may be the lack of spare cash, particularly if they are not paid much. There is also deferred gratification to overcome; until employees reach their 40s, retirement seems an awfully long way away. Spending cash straight away looks a lot more fun (see chart 2).

This is a shame, in pension terms, because of the miracle of compound interest. Invest \$3,000 a year at age 55 (earning an annual return of 7%) and by age 65, you will have a pension fund of only \$41,449. Start at age 45 and your fund will reach nearly \$123,000, almost three times as much. But start at 25 and your pension fund will be worth almost \$600,000.

In addition, fewer employees seem willing to take part in DC schemes. A survey by the Confederation of British Industry (CBI) in 2006 found that participation rates in the country were just 61%, compared with 90% for final-salary schemes. Given that employers still contribute to the vast majority of schemes (even if less generously than they did to DB schemes), workers are turning down free money. At 6% of pay, for instance, a British employer's contributions would add up to £300,000 over 40 years (assuming an average salary of £25,000 and an investment return of 7%). That is a decent-sized win on the lottery.

Slippers and cocoa

Is there a way around this shortfall? Take employees' reluctance to join a scheme. One answer is auto-enrolment. Studies find that inertia is a powerful force; employees would rather not fill in forms. If they have to apply to join a pension scheme, they may not bother. Auto-enrolment turns this inertia to the advantage of saving by asking employees to fill in a form if they want to opt out. This is the basis of the Australian pension system and will be introduced in Britain in 2012, as part of the new National Pensions Savings Scheme (NPSS). Britain's National Association of Pension Funds reckons auto-enrolment boosts scheme membership by 20-50%.

But not everyone admires the idea. Ros Altmann, an academic, argues that in places, such as Britain, where state benefits are means-tested, low-paid employees may find extra retirement saving is offset by a fall in their benefits when they retire. In addition, it is probably better for them to save in other ways rather than lock away their money in a pension that cannot be touched until their old age. They may suffer illness or unemployment, in which case they may want to be able to get their hands on the money. In theory, low-wage workers could be advised to opt out of the NPSS. But the scheme is understandably trying to keep its costs low so as to reduce the drag on members' returns. Such an approach will not make it possible to offer employees individual advice.

And low-paid employees may not be the only people who feel that pensions are not for them. When graduates leave university, they are often burdened with student debt. Their priority is to pay it back. After that, they will probably want to save a deposit so they can buy a house. Either way, cash is a lot more useful to them than pension contributions are.

Rational or not, the lack of interest shown by employees hardly creates an incentive for employers to make pension schemes more attractive. "The HR director has to make a business case to the finance directors as to why they need a pension scheme," says Mr Warwick-Thompson, "and the HR director has to show that the company is getting bang for its buck."

The paradox of choice

Consumer choice, seemingly one of the advantages of DC schemes, is really another weakness. This emerged in its starkest form at Enron, an energy company where employees had chosen to invest more than half of their pensions' assets in the company's own shares. A DB plan, taking professional advice, would never have been exposed like that. Nor do employees appear to have learnt the lesson. A survey of 65 big American DC schemes, by Pensions & Investments magazine earlier this year, found that 26% of their assets were in the parent company's shares.

Academic studies suggest that employees are heavily influenced by recent market conditions. Figures show that American workers who began DC plans in 2000, at the height of the bull market, allocated 72% of their portfolio to the stockmarket; those who joined in 2003, after the long bear market, allocated just 48%. Once these decisions are made, inertia sets in; less than 10% of plan members in schemes run by Vanguard, a fund management group, change their asset allocation every year.

Studies also show that employees can be overwhelmed by the responsibility of making the investment selection. Rather than choose between a lot of funds, they decide not to choose at all. According to Barrie & Hibbert, a consultancy, the average take-up rate of schemes with just two investment options was 75%; for schemes with 40 options, the rate drops to 65%.

Just as important, more choice also means higher costs, and higher costs mean lower returns. Studies have shown that the average American DC scheme underperforms a DB scheme by around a percentage point a year. Calculations by Ennis Knupp and Associates, a Chicago-based consultancy, suggest that this alone can cut DC pensions by almost a fifth.

Some of these costs are caused by the administrative hassle of dealing with individual scheme members, who may have different contribution rates and asset allocations, rather than with a single DB fund. But it also reflects the ability of DC members to opt for higher-charging mutual funds. According to Ennis Knupp, DC members are far less likely to use low-cost index-tracking funds than DB plans are; that alone may result in higher costs of more than half a percentage point a year. According to Watson Wyatt, the average cost of running a pension fund has increased by 50% over the past five years.

One answer to the cost problem is to set up co-operative schemes that amalgamate the savings of workers in one industry, or even across industries. This is the basis of the Australian system, seen as an exemplar by commentators such as Keith Ambachtsheer of the Rotman International Centre for Pension Management in Toronto; TIAA-CREF, a pension fund for American academics, is also run on a co-op basis.

Company schemes can keep costs down by focusing on the default fund, the option that employees end up with (since they have difficulty making their own choice). Default funds can also be used to give employees a sensible asset allocation. In both the British and American markets, default funds tend to use a “lifestyle” or “target date” approach. This changes the asset allocation with the member's age. When members are young, they can take more risks, so there is a bigger exposure to equities; as they near retirement, they are shifted into government bonds, to protect their pension pot.

But Watson Wyatt argues that this approach is not sophisticated enough. Shifting employees entirely into bonds at age 65, when they may have 20 years to live, is not sensible. People have different attitudes to risk and will have savings outside the pension fund; their portfolios could be tailored to their needs. Instead of a single default fund, there could be several, with investors having various mixes, depending on the employee's situation. Employees may be willing to take more risk at a young age, adding further contributions to the plan later if performance falls short of expectations. These more sophisticated plans may use alternative asset classes like hedge funds and private equity to control risk—although whether the benefits such managers bring outweigh their higher fees remains to be seen.

Better by design

The structure of these default funds is all-important because of the way employees make decisions. An academic study\*\* offered three groups of employees a choice of two funds. One group was offered an equity and bond fund, a second group an equity and balanced fund, and the final group a bond fund and a balanced fund. The most common option was a 50/50 split between the two funds—but that led to the second group having an equity weighting in their portfolio of 73% and the third group a weighting of just 35%.

The trouble is that neither employers nor employees really know what DC plans are aiming to do. Over two-thirds of European plans surveyed by Mercer, a consultancy, had no formal objectives or goals.

In their Pensions Institute paper, **David Blake, Andrew Cairns and Kevin Dowd** point out that DC plans are poorly designed. Instead of asking how much employees want to get out of the plan, the focus is on how much they are willing to contribute. “A well-designed plan will look very much like a defined-benefit plan, offering a promised retirement pension, but without the guarantees implicit in the DB promise,” they argue. One way of achieving this would be for the default fund to target a pension level that is a proportion of final salary.

When it comes to pensions, the buck has been passed from employers to employees. But too few workers realise how much they need to contribute to guarantee a decent retirement or feel confident enough about how to invest their funds. This will not lead to the headlines about bankrupt pension funds that marked the decline of the DB scheme. But it will be bad for many workers all the same.

\* “Turning Pension Plans into Pension Planes: What Investment Strategy Designers of Defined Contribution Plans Can Learn from Commercial Aircraft Designers”, [www.pensions-institute.org](http://www.pensions-institute.org)

\*\* “Naive Diversification in Defined Contribution Plans”, by Shlomo Benartzi and Richard Thaler, 2001, <http://faculty.chicagogsb.edu/richard.thaler/research/>

### **Outliving the kitty - Pension buy-outs, *The Economist*, 31 May 2008**

*Of competition and pricing risk*

*The cost to firms of offloading plans is plunging; pensioners may pay the price*

THE prospect that millions of octogenarians will have a few extra years to potter about in gardens or bounce grandchildren on prosthetic knees ought to be an unmitigated good thing. But for employers the healthy glow in a retired worker's cheeks is cause for worry. Having promised to pay employees a proportion of their final salaries, uprated for inflation, until they died, many firms are weighed down by pension funds that swing wildly from surplus to deficit with every gyration of the markets. The deficits grow larger as old folk keep living longer.

Yet hope may be at hand. A fresh wind of competition and innovation is blowing through the pensions world. A host of new entrants are offering, for a price, to liberate companies from their irksome burden. And firms are grabbing at the offers with both

hands, transferring their open-ended pension liabilities to insurers for an agreed premium. Over the six months to March 31st companies offloaded some £4.1 billion of pension liabilities, up from just £600m in the previous six months, according to Lane Clark & Peacock, an actuarial firm (see chart on next page).

The sudden leap in pension buy-outs is being driven by a strange confluence of factors. Although companies say that providing pensions has become more onerous in recent years, the fees charged by insurers for taking over those liabilities have dropped sharply. Why the apparent difference in views?

Rising longevity is one reason why companies are anxious to wriggle out from under the promises they once made (though they also keep a weather eye on the risks posed by volatile interest and inflation rates). Actuaries reckon that pension-fund liabilities usually increase by about 3% for every extra year that pensioners live after 65. “In the 1950s and 60s it was simpler, pensioners lived for a few years and then did the decent thing,” says **David Blake** of the **Pensions Institute** at **Cass Business School**. Now thousands of small firms with pension funds are “carrying an unhedged exposure to cures for cancer that they are ill placed to manage”.

Regulation is another reason. Companies are being pressed to pay more into their funds to make good any deficits, and levies charged by the Pensions Protection Fund, a safety net for pension-plan members whose employers go bust, have increased. Mooted new accounting rules may increase the size of pension liabilities on firms' balance sheets, and other proposals could exacerbate the effect of swings in the value of stocks and bonds.

The third main reason for the explosion in pension buy-outs is a sharp fall in the fee that insurers are charging to take on liabilities. John Hawkins of Mercer, an actuarial firm, reckons that premiums have fallen by 10-20% over the past 18 months and Paternoster, a new specialist insurance company, puts the drop at about 8% in the first quarter alone (though premiums rose again by 3% in April).

For this thank competition, first of all. Eleven firms, most of them recently constituted, now scrap for a toe-hold in a market that two sleepy insurers contested a couple of years ago. They are willing to price more keenly to get business and are able to do so because they invest in higher-yielding corporate bonds rather than safe but unexciting government bonds. The credit crisis has sweetened the yields further.

Yet the scramble for market share also creates problems. Regulators and many in the industry fret that the premiums insurers charge do not reflect the risks they are taking on. A Panglossian view is that they are accepting unprofitable business now in the hopes of building up critical mass that will allow them to charge more realistic rates later. They may, however, be mispricing risk just to get the business, gambling with the retirement funds of others.

Insurers claim that they can make do with lower premiums because they earn more money on their investments, and that they have honed their ability to assess pensioners' life expectancy. Maybe.

But although regulators and insurers both say they are aware of the risks and are taking steps to mitigate them—mainly by setting aside pools of extra capital in case they get their sums wrong—divining what the world will look like in 40 years' time must be more art than science. Given the perilous state of a great number of corporate pension funds and the firms that stand behind them, many pensioners may be better off in the hands of well-capitalised and -regulated insurers, especially as official compensation is more generous if an insurer fails to honour its obligations than if a company goes bust leaving an underfunded pension scheme. But if insurers in the heat of competition get their bets wrong, thousands of octogenarians may find themselves outliving their means.

**FT REPORT - FUND MANAGEMENT: Paying for a longer life, By Heather Dale, *FTfm Financial Times*, Jun 02, 2008**

Pension funds have paid little heed to the risk of people living longer than expected in their funding approach, but UK funds are under pressure to adopt tougher longevity assumptions and may have to take action to hedge such risks.

Adding two extra years to life expectancy can increase scheme liabilities by 5 per cent, according to the Pensions Regulator. It wants schemes to recognise the cost of scheme members living longer in their funding.

UK funds have been slow so far, though, to adopt the solutions coming onto the market over the past year, a reluctance commentators say is due to a view that prices are too high.

"There's a disconnect between what pension schemes are willing to pay to protect themselves from longevity risk and what the firms are quoting," says Richard Jones, a principal at Punter Southall.

He concedes that a lot of pricing, quoting and investigations have been carried out by pension schemes, but says the process seems to fall apart when it comes down to price.

"Pension schemes I have spoken to think it is very expensive, because trustees do not tend to believe people are going to live forever and think they may as well just carry the risk themselves," he says.

Con Keating, an analyst at Brighton Rock Insurance, says: "I think overwhelmingly longevity solutions are solutions in search of a problem. An awful lot are outrageously expensive."

Mark Wood, chief executive of Paternoster, which last month launched a quarterly buy-out affordability index, says: "We quote for mortality only buy-outs [insurance against people living longer than expected] but we tend to find that when people want a quote for a mortality buy-out, they end up comparing it to a bulk buy-out and go for that instead."

Brighton Rock has put on hold the launch of the longevity insurance it had planned to unveil in July due to unfavourable stock market conditions.

But others have ploughed ahead, and in the past year a number of both capital market and insurance-based longevity solutions have been targeted at UK pension funds.

Investment banks such as JPMorgan, Credit Suisse and Natixis are developing swaps based on longevity indices, and in February, Lucida, a buy-out specialist, announced the first longevity swap transaction based on the JPMorgan LifeMetrics index. Under this, Lucida has agreed to pay JPMorgan an income stream based on current longevity expectations in return for JPMorgan's promise to pay an income stream based on how long people actually live for.

The LifeMetrics Index is based on observed mortality rates for England and Wales.

New pension fund insurers, such as Brighton Rock and PensionsFirst, have also emerged. Last month, Pension Insurance Corporation introduced a longevity insurance policy that reimburses pension schemes for the cost of any future pension payments arising from pensioners living longer than expected.

In return for this protection, schemes pay fixed annual premiums set at the inception of the policy. The policy remains in force until the death of the scheme's last covered pensioner or their dependant, such as a spouse.

John Fitzpatrick, a director at Pension Insurance Corporation, says the policy is suitable for large pension funds with over £1bn of assets, but suggests a buy-out approach could be more efficient for smaller funds.

**David Blake**, director of the **Pensions Institute** at Cass Business School, says the advantage of swaps based on indices like JPMorgan's is that they can be traded easily and contracts can be unwound, as they are homogeneous in structure. The drawback is that, being based on countrywide mortality data, rather than data for a particular pension plan, they can only provide up to 85 per cent hedge effectiveness.

Products such as Pension Insurance Corporation's longevity insurance policy, which is a tailor-made contract, are 100 per cent effective, but would be difficult, if not impossible to unwind, says Mr Blake.

Mr Fitzpatrick disagrees. He says particulars can be negotiated once a scheme has decided to purchase the insurance. "If someone wants to retain the right to terminate the agreement, we are happy to discuss that," he says.

Currently, risk reduction strategies like longevity solutions are not factored into the levy UK pension schemes have to pay to the Pension Protection Fund (PPF), the insurance scheme that protects members of defined benefit pension funds. The levy is calculated on how well funded a scheme is and the strength of the sponsoring employer.

Earlier this year, however, the PPF said it would consult on developing the levy, so it would better represent the long term risk that a particular scheme poses to the fund.

**One day pensions will be properly planned, By David Blake, Andrew Cairns and Kevin Dowd, *FTfm Financial Times*, May 18 2008**

One day defined contribution pension plans will be well designed. They are not now. This is the lesson from a report presented last month at a World Bank conference in Washington DC.\*

Our **report** draws an analogy with the commercial airline industry. Commercial aircraft were also once poorly designed. They crashed a lot, and since passengers did not like this, design improved and now commercial airline journeys are the safest form of travel.

DC plans have two key stages, an accumulation stage and a decumulation stage. There is currently little connection between them. Why? Because potential pension plan members generally have a poor understanding of each stage and the resources required and risks involved in delivering adequate pensions in retirement. We are not, unlike the case of airline passengers, dealing with “intelligent consumers”.

As a consequence, plan providers have little incentive to give much thought to pension plan design, let alone take an integrated approach to it. The fund manager during the accumulation stage has no target retirement lump sum to reach. And the annuity provider just annuitises the lump sum handed over by the fund manager, but has no concern about the standard of living this might provide to the plan member.

Let’s take the airline analogy a bit further and demonstrate the similarity between pension plans and commercial airline journeys. We can think of the aircraft as being equivalent to the plan’s strategic investment strategy, the aircraft operator as the pension plan provider, the aircraft’s fuel as the contributions to the plan, the climb stage as the accumulation stage of the plan, the descent stage as the decumulation stage, the pilot’s actions (eg in dealing with turbulence and cross winds) as the market timing or tactical asset allocation, and air traffic controllers as the pension regulators. Both aircraft and pension plan seek to get you to a destination, in one case, a safe landing, and in the other, a comfortable retirement until death. Both involve the commitment of significant resources, managing risks and “climb” and “descent” stages.

What is important in DC? The decumulation or descent stage of the pension plan journey should be of most interest to pension plan members: this is where they discover whether or not they have been a member of a good pension plan or not. The test will be whether they enjoy a comparable standard of living in retirement as in work.

A good pension plan must therefore be designed from back to front, like an airline journey.

Key factors in the design include:

- The consumption profile desired by the plan member in retirement (the expected present value of this equals the size of the fund that will need to be accumulated by the time of retirement)

- The vehicle for delivering the pension, either a life annuity or drawdown
- The planned retirement date
- Working backwards, the combination of contributions and investment strategy most likely to deliver the fund, taking into account the plan member's attitude to risk and the value of the plan member's human capital (the discounted present value of lifetime labour income), which is needed to determine both the required value of fund at retirement date and the required contribution amount during the accumulation phase.

The optimal investment strategy will be “stochastic lifestyling”, which involves dynamically changing investments in equity, bond and money market funds to hedge human capital, inflation and annuity (ie interest) rate risks over the accumulation stage.

One day, like an aircraft journey, pension plans will be properly designed from back to front, that is, from desired outputs to required inputs, with the goal of delivering an adequate targeted pension with a high degree of probability. Given a few key parameters (the member's job type, the desired retirement income profile, the planned retirement date, the degree of risk aversion and the bequest intensity), the plan provider can be left to do what is needed to get the plan safely to its destination, so long as the plan member believes in the benefits of the pensions journey and is willing and able to maintain the required contributions schedule.

There will still be risks, of course, but these will be as well understood and managed as in the case of an airline journey.

*\*Turning pension plans into pension planes: What investment strategy designers of defined contribution pension plans can learn from commercial aircraft designers, by David Blake (Pensions Institute, Cass Business School), Andrew Cairns (Maxwell Institute, Edinburgh, and Heriot-Watt University) and Kevin Dowd (Nottingham University Business School), April 2008. Available at: <http://www.pensions-institute.org/workingpapers/wp0806.pdf>*

### **CIMA warns against 'apocalyptic demography', Investment Pensions Europe (Web), Thursday 1, May 2008**

UK A life expectancy increase of two years could add 45bn (57bn) to the liabilities of UK defined benefit (DB) pension funds, according to a report produced by the Chartered Institute of Management Accountants (CIMA). The report, entitled *Apocalyptic demography? Putting longevity risk in perspective*, and published in association with the Pensions Institute at Cass Business School, warns unprecedented increases in life expectancy could undermine the financial viability of DB funds. Defined benefit pension schemes promise specific levels of payouts to retired members, putting the investment risk on the shoulders of the companies which run them, reads the report. The Pensions Regulator estimates that two years of extra life could add up to 5% to a defined benefit pension liability with liabilities across UK pension schemes adding up to around 900bn - a move of 5% would equal 45bn. Authors **David Blake**, director of the **Pensions Institute** at Cass Business School, and research fellow **John Pickles**, argue UK life expectancy has nearly doubled over the past 150 years increasing by 2 to 2.5 years a decade on average,

exceeding official projections. Commenting on the report, David Blake said interest rate or inflation risk are generally perceived as bigger risks in the pension scheme, but can be hedged these using Liability Driven Investment (LDI) strategies such as duration and inflation swaps. If finance directors do nothing to hedge this risk [of longevity], they leave themselves exposed to cures for cancer and other medical advances extending the lives of plan members in a way that was not anticipated or reserved for when those members retired, said Blake. Charles Tilley, chief executive at CIMA, said: While multinationals and other larger FTSE100 companies are alive to the risks posed by longevity issues, it is typically smaller to medium organisations that may not realise quite how seriously life expectancy assumptions can impact upon their balance sheets. If you have any comments you would like to add to this or any other story, contact Carolyn Bandel on +44 (0)20 7261 4622 or email carolyn.bandel@ipe.com

### **CIMA warns on pension risk, Director of Finance Online, Wednesday 30, April 2008**

Longevity risk can have a serious impact on firms' defined benefit pension liabilities.

The report *Apocalyptic demography? Putting longevity risk in perspective*, published by the Chartered Institute of Management Accountants (CIMA) in association with the **Pensions Institute** at Cass Business School, provides a checklist to finance directors who may not fully understand how seriously even small changes in mortality assumptions can affect them.

Defined benefit pension schemes promise specific levels of payouts to retired members, putting the investment risk on the shoulders of the companies which run them.

CIMA believes that longevity risk is one of the most challenging risks around today for finance directors. UK life expectancy has nearly doubled over the past 150 years, with a trend of 2.5 years per decade.

This has consistently exceeded official projections. There is currently no commonly accepted forecasting model when it comes to predicting longevity risk and substantial, unprecedented increases in life expectancy could potentially undermine the financial viability of defined benefit pension schemes across the UK.

Charles Tilley, chief executive at CIMA, says that multinationals and other larger FTSE100 companies are alive to the risks posed by longevity issues, but adds that it is typically smaller to medium organisations that may not realise quite how seriously life expectancy assumptions can impact upon their balance sheets.

The Pensions Regulator estimates that two years of extra life could add up to 5 per cent to a defined benefit pension liability with liabilities across UK pension schemes adding up to around 900bn, a move of 5 per cent would equal 45bn.

Tilley says that it is therefore imperative that these risks are understood.

CIMA has created its pensions guidance and accompanying checklist to help finance teams manage their pension schemes and put longevity risk into perspective, by encouraging them to question their actuaries more rigorously on the mortality assumptions used in estimating their scheme liabilities.

**CIMA warns increases in life expectancy could ‘undermine’ viability of schemes, by Steven Dignall, Professional Pensions, 30 April 2008**

INCREASES in life expectancy could undermine the financial viability of defined benefit pension schemes, a Chartered Institute of Management Accountants report warns.

The professional body’s report – *Apocalyptic Demography* published in association with the Pensions Institute at Cass Business School – warned companies of the impact longevity risk could have on their finances if they had defined benefit risks on their balance sheets.

And it provided a checklist to finance directors who might not understand how seriously even small changes in mortality assumptions could affect them.

CIMA chief executive Charles Tilley explained: "While multinationals and other larger FTSE100 companies are alive to the risks posed by longevity issues, it is typically smaller to medium organisations that may not realise quite how seriously life expectancy assumptions can impact upon their balance sheets.

"The Pensions Regulator estimates that two years of extra life could add up to 5pc to a defined benefit pension liability – with liabilities across UK pension schemes adding up to around £900bn, a move of 5pc would equal £45bn. It is therefore imperative that these risks are understood."

He added: "CIMA has created its pension guidance and accompanying checklist to help finance teams manage their pension schemes and put longevity risk into perspective, by encouraging them to question their actuaries more rigorously on the mortality assumptions used in estimating their scheme liabilities."

Cass Business School Pensions Institute director David Blake added: "Longevity risk in pension schemes might not be as significant as say, interest rate or inflation rate risk, but having hedged these last two risks using liability driven investment strategies such as duration and inflation swaps the relative importance of longevity risk increases substantially.

"If finance directors do nothing to hedge this risk, they leave themselves exposed to cures for cancer and other medical advances extending the lives of plan members in a way that was not anticipated or reserved for when those members retired."

**CIMA warns against 'apocalyptic demography', IPE.com, 30 April 2008**

UK – A life expectancy increase of two years could add £45bn (€57bn) to the liabilities of UK defined benefit (DB) pension funds, according to a report produced by the Chartered Institute of Management Accountants (CIMA).

The report, entitled *Apocalyptic demography? – Putting longevity risk in perspective*, and published in association with the Pensions Institute at Cass Business School, warns unprecedented increases in life expectancy could undermine the financial viability of DB funds.

“Defined benefit pension schemes promise specific levels of payouts to retired members, putting the investment risk on the shoulders of the companies which run them,” reads the report.

The Pensions Regulator estimates that two years of extra life could add up to 5% to a defined benefit pension liability – with liabilities across UK pension schemes adding up to around £900bn - a move of 5% would equal £45bn.

Authors David Blake, director of the Pensions Institute at Cass Business School, and research fellow John Pickles, argue UK life expectancy has nearly doubled over the past 150 years increasing by 2 to 2.5 years a decade on average, exceeding official projections.

Commenting on the report, David Blake said interest rate or inflation risk are generally perceived as bigger risks in the pension scheme, but can be hedged these using Liability Driven Investment (LDI) strategies such as duration and inflation swaps.

“If finance directors do nothing to hedge this risk [of longevity], they leave themselves exposed to cures for cancer and other medical advances extending the lives of plan members in a way that was not anticipated or reserved for when those members retired,” said Blake.

Charles Tilley, chief executive at CIMA, said: “While multinationals and other larger FTSE100 companies are alive to the risks posed by longevity issues, it is typically smaller to medium organisations that may not realise quite how seriously life expectancy assumptions can impact upon their balance sheets.”

*If you have any comments you would like to add to this or any other story, contact Carolyn Bandel on +44 (0)20 7261 4622 or email [carolyn.bandel@ipe.com](mailto:carolyn.bandel@ipe.com)*

**'Apocalypse' warning to company pension funds as life expectancy rises, By Margareta Pagano and Kate Hughes, *Independent on Sunday*, 27 April 2008**

Defined benefit schemes will risk shortfalls totalling £45bn, claims a new report, if they fail to factor in the effects of medical advances

Pension funds for defined benefit company schemes are facing huge shortfalls because members are living far longer than expected, according to a report seen exclusively by The Independent on Sunday.

An investigation by the Chartered Institute of Management Accountants (Cima) and the Pensions Institute at Cass Business School has revealed that the future of defined benefit pension schemes could be hanging in the balance because the life expectancy

of members is often underestimated by more than two years. This can leave funds short by as much as £45bn, or 5 per cent of their total value.

The report, called *Apocalyptic Demography?*, is aimed at finance directors of companies with significant defined benefit pension liabilities. It warns that companies could be in line for unexpected pension scheme bills of millions of pounds, which could undermine the financial viability of schemes across the UK, particularly those of small and medium-sized businesses.

Life expectancy has almost doubled in the past 150 years, increasing by around 2.5 years a decade and consistently exceeding projections that many schemes base their forecasts on. There is no commonly accepted forecasting model for the financial impact of longer-than-average lives on pension schemes, and payouts to increasingly older members could create huge deficits in funding, the authors of the report warn.

There are, the institute believes, a number of organisations with significant defined benefit pension liabilities that may not realise how seriously longevity can affect their balance sheets. This applies particularly to those that have closed their schemes to new employees, and may therefore appear to be a safe bet to potential investors.

"Defined benefit schemes are worth around £900bn at the moment, so they could be missing some £45bn," said Charles Tilley of Cima. "This is a long-term debt: these debts should be paid over time and many larger companies will have longevity risk built into their figures. But some smaller organisations will be unable to meet their contributions, and there are instances of people losing their pensions."

David Blake, director of the Pensions Institute at Cass , urged bosses to review their longevity assessments, saying: "If companies do nothing to hedge this risk, they leave themselves exposed to medical advances extending the lives of plan members in a way that was not anticipated or reserved for when those members retired. Companies will not want to deal with this in the years ahead when the world becomes a much more competitive place to do business."

Cima's report presents a checklist of questions for finance directors, focusing on three key areas where they can gain a better understanding of the mortality assumptions used in their defined benefit schemes.

As the report highlights, current life expectancy owes much to demographic factors – for example, blue-collar workers have a shorter life expectancy than white-collar ones – but there will also be specific issues affecting different schemes: "This means organisations must understand where their scheme sits as far as life expectancy is concerned."

If mortality rates stay the same as in 2004-06, then a 65-year-old man could expect to live another 16.9 years and a 65-year-old woman another 19.7. But there are big regional differences. In Scotland the average age of death is 74.6 for a man and 79.6 for a woman, while in Wales it is 76.6 and 80.9 respectively. In the UK as a whole, the male and female equivalents are 76.9 and 81.3.

The Cass report goes further, showing just how big the regional differences are in mortality. In the North-east, for example, the average male age is 75.8 years old and the woman 80.1 while in the richer South-west and South-east the averages rise to 78.5 and 82.4. respectively. Taking it down to local authority level, men in London's Kensington and Chelsea live on average 8.2 years longer than in Glasgow while the women live an extra 7.7 years.

On top of this finance directors have to build in socioeconomic status into their models – professionals can add 18.3 years to the average 65-year-old while an unskilled manual worker can only expect another 14 years once they get to 65.

**Longevity rise of 2 years adds 45 billion pounds to pension liabilities – study, By Raji Menon, Thomson Investment Management News, 29 April 2008**

Cass school pensions specialist warns finance directors are exposed to impact of medical advances.

LONDON (Thomson IM) - An increase of two years in average life expectancy will add 45 billion pounds to the liabilities of UK defined benefit pension schemes, according to a new report by the Chartered Institute of Management Accountants (CIMA).

The study published in association with Cass Business School noted that the Pensions Regulator estimates that two years of extra life could add up to 5 percent to a DB pension liability, and with UK pension schemes' liabilities amounting to 900 billion pounds currently, a 5 percent move would equal 45 billion pounds.

David Blake, director of Pensions Institute at Cass Business School, said that with other risks like interest rate and inflation risks being hedged by pension schemes using duration and inflation swaps, the relative importance of longevity risk has increased substantially.

'If finance directors do nothing to hedge this risk, they leave themselves exposed to cures for cancer and other medical advances extending the lives of plan members in a way that was not anticipated or reserved for when those members retired,' he said.

Blake, who has co-founded the LifeMetrics Index with JP Morgan, also expects a new capital market to develop that will trade financial instruments that can be used to hedge aggregate longevity.

'These kinds of instruments are uncorrelated to anything else available in the market and investor groups like hedge funds and endowments who are looking at alternative investment options can act as counterparties to these transactions.

'We are at very beginning of the life market and I am confident that London is the centre of this new capital market.'

According to CIMA, UK life expectancy has nearly doubled over the past 150 years, with a trend of 2-2.5 years per decade.

Chief executive Charles Tilley said: 'While multinationals and other large FTSE 100 companies are alive to the risks posed by longevity issues, it is typically smaller to medium organisations that may not realise quite how seriously life expectancy assumptions can impact upon their balance sheets.'

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**Deutsche Börse is latest player in longevity market, by Mark Cobley, [efinancialnews.com](http://efinancialnews.com), 12 Mar 2008**

Deutsche Börse has become the first major stock exchange group to enter the nascent market for longevity risk, by launching a range of indices tracking population trends. So far only some investment banks, such as JP Morgan and Goldman Sachs, have comparable products.

The exchange has its German index up and running, and is planning equivalents for other European countries, including the UK. They will be known as Xpect Indices.

The exchange hopes its data will encourage over-the-counter deals to swap longevity risk, such as those JP Morgan signed with reinsurance group Scor and pensions buyout firm Lucida in the last few weeks.

Eventually, pension schemes may be able to insure themselves against the risk of their members living longer than expected through this kind of transaction, just as they are currently able to use derivatives to hedge against rises in interest rates and inflation.

Hartmut Graf, head of issuer data and analytics at Deutsche Börse, said: "The first step is to enable the risk transfers to take place, and for over-the-counter transactions to happen we need transparent data. That is what we are aiming for."

In the long run, Graf said, the exchange hopes to foster a market in standardised, tradeable longevity risk products.

David Blake, director of the Pensions Institute at Cass Business School and a specialist in the field, said: "When one of the world's major stock exchanges introduces a set of indices designed to facilitate trading in longevity-linked assets, you know that the life market has at long last arrived.

"I have been predicting this since 2001, but it looks as though 2008 will be the year this market really takes off."

Deutsche Börse's Xpect project took a year to get off the ground. Graf said a major difficulty was that German central public authorities only collect life expectancy data on a three-to-five-year basis. The exchange has sourced its own figures from local municipalities and will update its indices monthly.

Other longevity index products include JP Morgan's LifeMetrics index, which covers population data in England and Wales as well as the US, Credit Suisse's, which covers the US, and Goldman Sachs', which is based on a database of those selling life assurance policies

## **Retirement hopes take a battering, by Sylvia Morris, Daily Mail, 12 March 2008**

SAVERS using with-profits personal pension plans have seen their chances of a comfortable retirement wrecked by a combination of poor investment returns and falling interest rates.

This desperate situation has been caused by two factors. First returns on with-profit pensions have fallen dramatically, with many paying less than half the sum they'd have given ten years ago.

Then on retirement most of the pension money saved must be used to buy an annuity, which pays your income for life. The rates paid on these have also tumbled.

The result is that someone who had saved £200 a month for 20 years can expect around £23,000 a year less pension than an equivalent person retiring ten years ago.

This year the average £200 a month, 20 year with-profits pension plan will pay out £112,942 according to figures from industry specialist Money Management, against £263,718 ten years ago

Men retiring today at age 65 could expect to buy a pension of just £7,000 a year compared with £30,000 if they retired ten years ago with a similar policy, figures from specialist adviser Annuity Direct show.

With-profits investing was supposed to smooth out the ups and downs in the stock market. Instead returns have crashed in recent years because life insurance companies paid out too much in the past.

Regulators also allowed them to pay for the compensation costs on the mis-selling of personal pensions from their with-profits funds and they failed to take into account that people were living longer. Some offices have to hold back money to cover the high guarantees built into the policies to encourage savers to sign on.

Among the worst so far this year is Standard Life paying just £92,735, down £9,630 on two years ago. In 1997 it paid out £269,365 on a similar policy. Scottish Widows is also poor at £97,328 against an average £106,664 for this year to date.

Policyholders with weaker life insurance companies whose funds are no longer open to new customers can expect poor results too.

They have a huge £140 billion invested in these funds either as endowments or pensions, research from the **Pensions Institute** at **Cass Business School** shows. But these insurers have not bothered to publish their results. Last year they paid out below average.

For example at Guardian it was £91,578, London Life £75,612 and Pearl Assurance £92,170. On average the closed funds have only 36 pc of your money invested in shares and property with the remainder in fixed interest, while for funds still open to new savers the figure is 59 pc, says the Pensions Institute.

Shares usually do better than fixed interest over the long term. Research from Barclays Capital reveals that shares grew by 8.8 pc a year over the past 25 years against 5.5 pc for government bonds.

You don't need to use the money from your policy to buy an annuity with the company which built up your fund. You can buy from another source using the 'open market option'.

Stuart Bayliss, managing director of Annuity Direct, an adviser which scours the market looking for the best deals, says: 'On average you can improve your pension by 12 pc by buying elsewhere and in some cases by as much as 30 pc.'

### **Is the pensions industry burying its head in the sand? Economics Intelligence Unit, February 4th 2008**

*New models present a graphic picture of a future where many more people will live longer than expected. Will pension companies pull their heads out of the sand to act?*

The pensions industry is usually rather sluggish to respond to change, even if change threatens the industry's financial well being.

The pension industry's response to the impact that increasing life expectancy has on retirement plans is no exception. Despite a gradual acceptance that rising longevity is hazardous for pensions, there has been an alarming lack of urgency in taking action to address this.

One of the major obstacles to dealing with increasing life expectancy has been the lack of a reliable and transparent method for predicting just how long we are going to live. Actuaries were saddled with measuring the immeasurable, often relying on simple deterministic projections.

However, this is set to change with the publication of a series of fan charts which show future survivorship and life expectancy. Developed by Professors **David Blake** (**Pensions Institute**, Cass Business School), Kevin Dowd (Nottingham University Business School) and Andrew Cairns (Heriot-Watt University), the fan charts present a much more accurate picture of the likelihood of people living well into their nineties. The charts highlight just how serious this prospect is for the retirement industry.

"The idea was to find a visual way to explain longevity risk to people and to quantify it accurately," Professor Blake explains. Inspired by the inflation fan charts used by the Bank of England to project the increasing funnel of uncertainty in inflation rates, the professors applied the same principles to longevity and survivorship.

[Download the full report.](#)

**FT REPORT - FUND MANAGEMENT: Time to get real on pensions, By Pauline Skypala, Financial Times, Feb 04, 2008**

The UK's Accounting Standards Board dropped a bombshell into the world of pension accounting last week, proposing changes to the way pension liabilities are calculated that could send deficits soaring.

This is not just a local matter. The ASB states clearly that it aims to influence the International Accounting Standards Board in its review of the international standard (IAS 19) governing pensions. With international convergence of pension accounting standards on the agenda, the Federal Accounting Standards Board in the US may move in the same direction as the IASB. In the last 18 months the FASB has made changes that put pension deficits on US company balance sheets in a similar way to IAS 19.

The ASB proposals would see pension liabilities discounted at the risk-free rate, rather than at the AA corporate bond rate that applies at present; substitute actual returns on assets for expected returns; and remove future salary increases from the calculation. The first would increase the size of the liabilities significantly, the second would make them more volatile, while the third would reduce liabilities, but not by as much as the lower discount rate would raise them.

There have been predictable shrieks of anguish from some quarters of the pension industry. Aon Consulting describes the proposals as "another dagger in the side of final salary pensions schemes", while BDO Stoy Hayward Investment Management calls them "a real kick in the teeth for DB scheme sponsors, just when they thought they had their schemes under control".

Aon adds that the changes would add £120bn (€160bn, \$239bn) to the combined deficit of the UK's largest 200 pension schemes and knock down the proportion of schemes in surplus from 40 per cent to 2 per cent.

This is all rather hysterical. It would take three or more years for any changes to be implemented, and it is not as if discounting liabilities at the risk-free rate is a complete novelty. It is the measure used to work out the liabilities on a buy-out basis, or in other words, what it would cost to offload a scheme to an insurer. It is the realistic position if the scheme stopped now.

Other measures take account of expected returns on assets, says Ros Altmann, a specialist in pensions economics. "If you assume you can earn more than gilts by taking investment risk, you don't have to put so much money upfront today. If you don't, you have to put the money in now or show a bigger deficit." Scheme members and company shareholders ought to know that company accounts showing a pension surplus measured on a FRS 17 basis are not reflecting reality. "FRS 17 is way short of what is required to pay pensions," says Ms Altmann.

There is little doubt that forcing pension scheme sponsors to reflect the real cost of running a DB pension in their accounts is likely to lead to more scheme closures, and a further move away from equities. Finance directors are likely to come under

pressure from shareholders to lower both the risk and the volatility a pension scheme represents to a company's balance sheet.

It may also lead to more business for the pension buy-out specialists. As John Hawkins, principal at Mercer, points out, if companies have to use the same assumptions as buy-out firms, the buy-out option looks a lot less expensive.

The cost of buy-out, relative to an FRS 17 position, has grown significantly since last summer as a result of the credit squeeze. The ASB proposals may have met with less opposition if they had come out before spreads widened considerably.

Redington Partners, an independent adviser on pension scheme investment strategy, says calculating the aggregate FTSE 100 deficit on the proposed ASB basis would only have added £8bn relative to the FRS 17 basis last July, but now adds £84bn.

Trustees should not be surprised by these numbers, according to Redington, as they are in the habit of looking at their schemes on an economic basis, which means discounting liabilities at the risk-free rate.

However, moving the pension accounting basis from an AA corporate bond rate to a risk-free rate is not enough for some pension experts. On the same day the ASB proposals came out, the **Pensions Institute** at **Cass Business School** in London published a paper\* that takes issue with using a single number to discount liabilities and recommends the development of tools such as fan charts that would show a range of possible outcomes. Professor **David Blake**, director of the Pensions Institute, says reducing measures to a single number leads to a false sense of certainty. "Forecasts are only helpful if we understand the uncertainty around them: a single number cannot convey useful information about the distribution of future outcomes."

Interest rates, inflation and longevity are the three areas of uncertainty for pension schemes. It would be possible to combine forecasts and produce a distribution of liabilities on a 90 per cent confidence level, says Prof Blake.

You might be 90 per cent confident, for example, that scheme liabilities lie between £150m and £250m.

The focus on describing company pension liabilities more accurately is welcome. Perhaps it is also time to shine the spotlight on public sector schemes, most of which are unfunded. Taxpayers are just as entitled to know the true cost of providing this employee benefit as company shareholders.

*\* An unreal number: How company pension accounting fosters an illusion of certainty*

**Pensions - Rising To The Pensions Challenge - Investment Banks Have Been Sitting Up And Taking Notice Of The Pensions Industry In Recent Years -an Industry With Global Benefit Liabilities Of Nearly \$20,000bn., By Edward Russell-Walling, The Banker, 1 February 2008**

Whoever accused big companies of not being entrepreneurial has obviously never seen a large investment bank beavering away at a business opportunity. One of their richer seams in recent years has been the pensions industry - and the capital markets' most tantalising challenge right now is finding an affordable way to manage longevity risk.

Pension fund assets and liabilities are vast - \$19,600bn in defined benefit liabilities worldwide, by some measures - so it is not surprising that investment banks want to be involved. An early way in was through so-called 'transition management' - helping pension funds to rebalance their investment portfolios away from the heavy equity bias that characterised the 1980s and much of the 1990s.

That business became less profitable as it grew more competitive and as the clients realised that 'best execution' was not always top of the agenda. So, the smarter banks turned to the next great pensions theme - derisking. New regulatory and accounting standards highlighted alarming deficits between what pension funds were going to have to pay their members over time - their liabilities - and how much they were likely to retain in the pot.

#### *Wider impact*

Pension fund status began to effect corporate valuations and even mergers and acquisitions strategy - first negatively and now, on occasion, positively. Edmund Truell's Pension Corporation has bought UK companies such as Thresher, Thorn and Telent (the rump of GEC Marconi) purely to get its hands on their pension funds - which it believes it can run more efficiently.

So managing, reducing and even transferring pensions risk is now as important to the boardroom as it is to the trustees. The most popular approach that has evolved to deal with these concerns is 'liability-driven investing', which highlights the importance of minimising and managing risk. It identifies three main liability risks - inflation, interest rates and longevity.

"You ask yourself 'am I adequately rewarded for assuming that risk?'," says **David Blake**, director of the **Pensions Institute** at London's **Cass Business School**. "If so, you retain it. If not, you insure it or sell it to someone else."

#### *Inflation and interest*

Increasing numbers of pension schemes see no reward in retaining inflation or interest rate risk, and investment banks have been happy to take it off them with inflation and interest rate swaps. This was lucrative business to begin with, but it too has become commoditised and less profitable as more banks compete to offer it.

Longevity risk has been consistently underestimated and, on its own at least, is difficult to lay off. Professor Blake says that longevity improvements are a stochastic process rather than a deterministic one, and actuaries' assertions that they 'must tail off' have always got it wrong.

He and two academic associates, Andrew Cairns and Kevin Dowd, developed a series of fan charts - much like the Bank of England's inflation forecasting charts - to predict a range of possible longevity outcomes. They showed, for example, that while the best estimate of life expectancy for a 65-year-old male in 2050 (ie, someone born in 1985) was another 26 years, this could range from 21 to 32 years.

"Every additional year of life expectancy adds 3% or 4% to the present value of pension liabilities," says Professor Blake. "So if this person has just entered the job market and joined a pension plan, the plan could end up between 18% and 24% short."

That could represent an awful lot of money. The insurance market offers one way to offload this longevity risk, along with all other risk, through a bulk annuity. This is long-established practice, although new entrants to the market have given it an air of novelty. In the UK, for example, Legal & General and Prudential traditionally dominated the bulk annuity market for closed schemes.

### *Buyout competition*

Competition is increasing here, in both full and partial buyouts. Paternoster, formed by a former Prudential executive with Deutsche Bank as a backer, has taken on mature pension assets worth GBP1.5bn (\$2.94bn), it says. These buyout solutions are regulated by the insurance regime of the Financial Services Authority and must be fully funded. They are also expensive, costing between 20% and 30% more than the balance sheet value of the pension scheme

Only insurers can sell annuities. An alternative UK buyout route is to keep the scheme alive and regulated by the Pensions Regulator, which permits deficits under certain circumstances and allows a broader range of investments.

Citigroup opted for this approach when it proposed to acquire the \$392m Thomson Regional Newspapers pension scheme. Its idea is to create value by managing the scheme more efficiently.

Many now believe that there is a better way to manage longevity risk. "Buyouts and bulk annuities are both costly and inflexible," says Guy Coughlan, head of pension asset liability management, JPMorgan. "And an insurance-based solution will never get you to a liquid market. Capital markets products are more liquid and have lower transaction costs."

JPMorgan has, with the help of the Pensions Institute and consultants Watson Wyatt, developed the LifeMetrics index to measure longevity and provide a tool for trading it. It has also created instruments to transfer longevity risk, called q-forwards ('q' is the actuarial symbol for mortality rates).

BNP Paribas, EIB and Partner Re tried to tackle the longevity problem with a 25-year longevity bond, announced in 2004. The coupon was adjusted in line with actual mortality rates. It never took off for various reasons, not least that it did not hedge the 'toxic tail' - the years after the age of 90 when longevity risk is highest - and there was

a lack of capital efficiency. Given the up-front cost of the bond, there was very limited risk reduction.

### *Bad timing*

"The timing was wrong," says Mr Coughlan. "It was too early and the market wasn't receptive enough." There have been three historical barriers to a capital market solution for longevity risk, he says. The first was a lack of recognition and measurement of it as a problem - now largely addressed by regulatory and accounting changes.

Next was a lack of education. "The issue was obscured by jargon and actuarial complexity," says Mr Coughlin. "Even for financial market professionals, longevity risk is unfamiliar - and most of the expertise lies with insurance actuaries, not pensions actuaries." However, the subject is now raised more often in research papers and seminars, and is a more familiar sight in the press.

### *Need for standardisation*

The third obstacle, says Mr Coughlan, has been a lack of standardisation - in risk measurement, language and concepts. "Actuaries, financial professionals, consultants, all need to talk to each other in the same vocabulary. We have been trying to promote a common way of looking at this, through our index and through use of language."

Since all of these issues are being addressed, the time is right for a market in longevity risk to develop, he says. A portfolio of q-forwards swaps, with the LifeMetrics index as the fixed leg, can be used to provide an effective hedge of the longevity risk of a pension plan or annuity book, adds Mr Coughlan.

As such, it could be an alternative to a buyout, part of a do-it-yourself hedging of all risks. "Or it could act as the lubricant for a buyout, for those who can't afford it but might be able to in five or 10 years' time. They would use it to lock in the value of liabilities with respect to longevity changes at a future date - so it wouldn't be a moving target."

### *Measuring longevity*

Mr Coughlin argues that measuring longevity risk is easier than most people think, and that you do not have to transfer 100% of it for a successful hedging strategy. "As long as the cost is commensurate with the risk reduction, you're in a better position," he says. The basis risk between a standardised hedge and a scheme's actual longevity experience can be minimised, he adds, "by constructing the hedge appropriately".

JPMorgan has yet to close any such contracts with a pension fund, although Mr Coughlin is confident that it will do so this year. Some consultants believe that these swaps do not yet offer value. "Longevity swaps are extremely expensive," says Gavin Orpin, investment partner at consultants Lane Clark & Peacock. "We say they are not good value and that schemes should rather self-insure or do a buyout."

Others are convinced that there will be a market, however. Secondary trading in life insurance policies - the life settlements market - has introduced investment banks to the idea of mortality and how to repackage and redistribute the risks. Credit Suisse, for one, is sure that this market will develop and has been staffing for structuring as well as trading this type of risk. "The market is in its infancy but interest is growing fast," says head of insurance and pensions solutions at Credit Suisse, David Prioul. "Growing demand will drive prices down to levels where it becomes attractive for players - like pension funds - to consider offloading the risk."

#### *New entrants*

Deutsche Bank agrees that longevity risk will become more important in 2008. Rather than using a swap approach, it is looking for new players to take on these risks via its trading and structuring arms. It already places some older-age longevity risk using structured notes, and believes it can also repackage longevity for the asset-backed securities market.

In December, Goldman Sachs launched the first index that will allow pension funds, insurance companies, hedge funds and money managers to trade exposure to longevity risk in a transparent and real-time manner. It is called QxX.LS, and the firm expects it to encourage a more liquid secondary market. Its competitors would like that too.

#### **'Unreal' figures 'mislead' accounting standards – Cass, IPE.com, 31 January 2008**

UK – Existing pension accounting rules can be 'misleading' about the funded status of a defined benefit scheme, research from the Pensions Institute has suggested.

The report '*An Unreal Number: How Company Pension Accounting Fosters an Illusion of Certainty*' highlighted that while accounting standards have improved, the requirement of reporting a single number to value a deficit or liability can mislead investment analysts and shareholders.

Findings from the research, funded by the Institute of Chartered Accountants in England and Wales (ICAEW) charitable trusts, revealed existing reporting requirements mean companies have to forecast the stream of future payments required to fund the scheme; discount these payments to a present value and then subtract that from the value of the pension assets.

Professor David Blake, co-author of the report and director of the [Pensions Institute](#) at Cass Business School, argues this methodology does not allow for the potentially-wide range of possible future outcomes and is an "unreal" figure.

"The single number which is required on balance sheets is a hypothetical construct reliant on forecasting and discounting. It creates an aura of precision but, in reality, the ability of the assets to fund the future payments is highly uncertain," he added.

Instead, the report urged standard setters for pensions accounting give priority to developing new tools, such as fan charts used by the Bank of England for inflation,

and actuaries for longevity assumptions, which can "measure and communicate the uncertainties inherent in the pension promise".

In addition, [the report](#) noted pension forecasting is made more difficult by a "lack of consensus" over the discount rate that should be used, including the yield from 'risk-free' government bonds, the yield from high-quality AA corporate bonds, or the expected return on pension fund assets.

Blake said: "Given this range of views, we should not be surprised to learn from the Pensions Regulator that an overwhelming majority of its respondents think that a single-figure measure of DB pension liabilities is meaningless."

Research findings did reveal standard setters have started to recommend the disclosure of the risks and rewards of pension plans, implicitly acknowledging the limitations of a single number, with the Accounting Standards Board ([ASB](#)) suggesting the use of 'sensitivity analysis'.

But Blake warned while the use of sensitivity analysis will display how much a number will change if the underlying assumptions are changes, he pointed out it does not reveal how much confidence analysts can have in the single number.

"The current pension accounting standards are better than their predecessors because they seek to provide information about the amounts and timing of the projected pension payments and the value of the pension fund assets," said Blake.

But he warned: "As our research shows, they over-reach themselves by allowing this useful information to be reduced to a single number."

The report from the Pensions Institute has been published at the same time as a discussion paper by the ASB, in which it calls for a "fundamental review" of pension accounting standards, including changes to the discount rates, and the time frame over which surpluses and deficits are recorded.

### **Pension Accounting Rules “Meaningless”, *AccountingWEB.co.uk*, 31-Jan-2008**

Current pension accounting rules are misleading users, according to a report published by the **Pensions Institute** at Cass Business School.

The research, funded by the ICAEW Charitable Trusts, suggests the single number used to represent the pension deficit (or surplus) does not allow for key variables such as future life expectancy.

“Forecasts are only helpful if we understand the uncertainty around them,” said Professor David Blake, director of the Pensions Institute at Cass. “A single number cannot convey useful information about the distribution of future outcomes.”

Companies currently account for their defined benefit pension plans by forecasting the stream of future payments required, discounting those future payments back to a present value, and then netting that off against pension fund assets. The single number produced – as required by balance sheets – is described by Blake as being “unreal... a

hypothetical construct. It creates an aura of precision, but in reality... is highly uncertain.”

The Pensions Institute points out that many authorities have shy away from drawing single numbers out of key variables. The Bank of England doesn't put a single number on inflation forecasts, for example, “because a forecast is inherently probabilistic”, as governor Mervyn King put it. Similarly, the UK actuarial profession now considers it impossible to rely on a single projection of life expectancy, recommending instead that actuaries should consider the full range of variables.

The unreliability of a single number is compounded by the absence of consensus about how future payments should be discounted back. Some companies use the yield on government securities, others are happy with risk and yields reflected in blue-chip bonds; some use the expected return on pension fund assets, others the cost of the firm's capital.

While Professor Blake says that the current standards are better than their predecessors, he also says he wouldn't be surprised if the “overwhelming majority” of respondents to the Pensions Regulator branded the single-figure measure “meaningless”.

A spokesperson from the Pensions Regulator told AccountingWeb the present arrangements “did introduce a degree of transparency to financial reporting, which has not always been the case.” The regulator said it would also welcome the introduction of the Reporting Statement, “which... if adopted would enhance disclosure in relation to the volatility of the pension obligation, through for example the use of sensitivity analysis.”

### **Hedging longevity risks in U.K: Pension funds seek more precise data to help contain costs, by Mark Cobley, Wall Street Journal, 10 Jan 2008**

U.K. PENSION SPECIALISTS are struggling to come to grips with [mortality](#)-rate figures because the majority of them are using imprecise historical data.

According to data from the U.K.'s Pensions Regulator, 97% of pension schemes are using outdated figures -- the 1992 tables -- to calculate [mortality](#) rates. Some schemes have started to use the updated 2000 tables. But even these are out of date and aren't pension-scheme specific as they are drawn from insurance-company data.

In recent years, U.K. life expectancy has tended to rise. Pension funds using [mortality](#) data from 15 years ago are likely to eventually see their bills grow far larger as they will need to pay out pensions longer than they had bargained for.

Aware of the need for more precise data, the Institute of Actuaries' Continuous [Mortality](#) Investigation has been collecting data based on a sample of self-administered company U.K. pension schemes since 2002.

With only a few years of accumulated data, these new tables, known as Saps, are vague. But they are attracting interest, as they cover twice as many people and incorporate factors such as income into the variability of death rates. Saps references

data from 350 self-administered pension schemes each with at least 500 current pensioner members. The data span 2000-2006 and contain more than 10 million life-years of exposure and nearly 400,000 deaths.

The levy that schemes pay to the Pension Protection Fund, the U.K. government's safety net for collapsed pension schemes, is based on the size of their unfunded liabilities, and the PPF may be about to incorporate the Saps tables into its longevity calculations.

"What the PPF is using for the levy calculation at the moment looks a little out of date," said Jane Beverley, a principal at actuarial consultancy Punter Southall in London. "For its own funds it is using the latest tables with ratings to reflect the different [mortality](#) likely to be experienced by members with different pension amounts. In terms of the change in longevity assumptions, the likely effect would be to increase liabilities. The PPF estimates that changing its internal [mortality](#) assumption reduced its funding level from 92% to 88%."

The bigger PPF bills are likely to make companies think twice, if they haven't done so already, about the risk their pensioners will live longer than expected. This development will be good for pensions-buyout ventures, including Mark Wood's Paternoster and Edmund Truell's Pension Corp.

Credit Suisse Group and J.P. Morgan Chase & Co. have established indexes that track current rates of longevity and [mortality](#), and Goldman Sachs Group Inc. put the finishing touches to its version last month. PensionsFirst, the venture headed by former Morgan Stanley International co-president Amelia Fawcett, also introduced its first [mortality](#) products last month.

All three are understood to have set up desks and hired traders to deal in longevity swaps and derivatives. The banks declined to comment further on the matter.

Jan Loeys, an analyst at J.P. Morgan, said he believes the U.K. is at the forefront of the market in managing longevity risk. "Its pension funds are most aware and most under pressure to hedge longevity risk," he said. "It will be followed closely by the U.S. and the Netherlands as both have large and sophisticated pension funds and high-quality [mortality](#) data."

The first deals have been done. In April 2007, U.K. insurer Friends Provident entered into a longevity swap with Swiss Re, to insure the [mortality](#) and investment risks of its GBP 1.7 billion (\$3.35 billion) book of in-force pension annuities. However, the deal was a reinsurance transaction as opposed to a capital-markets deal.

Other providers are lining up to do similar deals. PensionsFirst formally started in November with equity backing from Japan's Shinsei Bank and Bill Reeves, co-founder of hedge fund BlueCrest Capital Management. PensionsFirst offers a range of bonds to pension schemes that will match their future liabilities with a stream of steady income.

Timothy Lyons, a partner at the venture, said the method depended on in-depth proprietary analysis of how long each scheme's members are likely to live. The

models are then updated regularly, so emerging differences between PensionsFirst's projections and the reality can be corrected.

PensionsFirst said hedging all pension-scheme risks, including interest-rate exposure and inflation sensitivity as well as longevity risk, with its products would cost about the same as the cheaper insurance buyouts. The difference is that the schemes remain under companies' control, and hedges for individual risks will cost correspondingly less.

PensionsFirst plans to repackage most of the longevity risk and sell it, believing it will be able to find investors interested in fixed income-type assets that provide a diversifier from those markets. Candidates include hedge funds and endowment-type investment funds.

"There is appetite for longevity risk already in the equity markets," Mr. Lyons said. "People buy insurance companies' shares, which are exposed to it. We will offer participation in longevity in tranches -- exposures for 10, 15 and 20 years. In that time, horizon longevity is fairly predictable and trend-driven."

"We think it will be fairly easy to persuade investors in the fixed-income markets that this is something they can reasonably expect to manage. But longer-term longevity is more difficult to predict. . . . We will have to manage that risk ourselves with equity," he said.

Others are keen on setting up a fully operating derivatives market, arguing that one-off, scheme-specific deals won't promote transparency of prices and terms. **David Blake**, a professor and specialist on longevity and pensions at the **Pensions Institute** at Cass Business School, predicts progress will be made this year. "The main reason why anyone keeps the terms secret is that they are making a lot of profit out of it," he said. "The terms must be favorable to the acquirer of the longevity risk. The party on the other side of the swap has no way of knowing if they are paying a fair price. The costs of the transaction are not in the public domain."

**Longevity hedging attracts interest from trustees, by Mark Cobley, efinancial news, 7 Jan 2008**

*Schemes are using outdated figures to calculate mortality rates*

Jacobean poet John Donne may not have been an actuary or pension fund trustee but it seems he had the right idea – it does not matter for whom the bell tolls because mortality rates affect everyone. Yet pension specialists are struggling to get to grips with these figures because the majority of them are using imprecise historical data.

According to data from the UK's [Pensions Regulator](#), 97% of schemes are using outdated figures – the 92 Tables (the name relates to the year up to which the data runs) – to calculate mortality rates. Some schemes have started to use the updated 00 Tables. But even these are out of date and are not pension scheme specific as they are drawn from insurance company data.

Aware of the need for more precise data, the [Institute of Actuaries'](#) Continuous Mortality Investigation has been collecting data based on a sample of self-administered company pension schemes since 2002.

With only a few years of accumulated data, these new tables, known as Saps, are vague. But they are attracting interest, as they cover twice as many people and incorporate factors such as income into the variability of death rates.

The levy that schemes pay to the [Pension Protection Fund](#), the Government's safety net for collapsed schemes, is based on the size of their unfunded liabilities and the [PPF](#) may be about to incorporate the Saps tables into its longevity calculations.

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"In terms of the change in longevity assumptions the likely effect would be to increase liabilities. The PPF estimates that changing its internal mortality assumption reduced its funding level from 92% to 88%."

The bigger PPF bills are likely to make companies think twice, if they have not done so already, about the risk their pensioners will live longer than expected. This development will be music to the ears of pensions buyout ventures, including [Mark Wood's Paternoster](#) and [Edmund Truell's Pension Corporation](#).

But companies might soon have an alternative to a full buyout – a developing market in financial tools that can hedge against the risk of longevity rising. Investment banks and some smaller participants are moving in.

[Credit Suisse](#) and [JP Morgan](#) have established indices that track current rates of longevity and mortality and [Goldman Sachs](#) put the finishing touches to its version last month. [PensionsFirst](#), the venture chaired by former [Morgan Stanley International](#) co-president [Amelia Fawcett](#), also launched its first mortality products last month.

All three are understood to have set up desks and hired traders to deal in longevity swaps and derivatives.

[Jan Loeys](#), an analyst at JP Morgan, believes the UK is at the forefront of the market in managing longevity risk. He said: "Its pension funds are most aware and most under pressure to hedge longevity risk. It will be followed closely by the US and the Netherlands as both have large and sophisticated pension funds and high-quality mortality data."

The first deals have been done. In April last year, UK insurer [Friends Provident](#) entered into a longevity swap with [Swiss Re](#), to insure the mortality and investment risks of its £1.7bn (€2.3bn) book of in-force pension annuities. However, the deal was a reinsurance transaction as opposed to a capital markets deal.

Other providers are queuing to do similar deals. PensionsFirst formally launched in

November with equity backing from Japan's [Shinsei Bank](#) and [Bill Reeves](#), co-founder of hedge fund [BlueCrest Capital Management](#). It offers a range of bonds to pension schemes that will match their future liabilities with a stream of steady income.

[Timothy Lyons](#), a partner at the venture, said the method depended on in-depth proprietary analysis of how long each scheme's members are likely to live. The models are then updated regularly, so emerging differences between PensionsFirst's projections and the reality can be corrected.

PensionsFirst said hedging all pension scheme risks, including interest rate exposure and inflation sensitivity as well as longevity risk, with its products would cost about the same as the cheaper insurance buyouts – roughly 120% to 125% of the FRS17 liabilities. The difference is that the schemes remain under companies' control, and hedges for individual risks will cost correspondingly less.

Lyons said: "It is true people are living longer in general, but the actual experience of a specific population is variable. It really does go down to postcode level. So we wanted to offer a scheme-specific solution."

PensionsFirst plans to repackage most of the longevity risk and sell it, believing it will be able to find investors interested in fixed income-type assets that provide a diversifier from those markets. Candidates include hedge funds and endowment-type investment funds.

Lyons said: "There is appetite for longevity risk already in the equity markets. People buy insurance companies' shares, which are exposed to it. We will offer participation in longevity in tranches – exposures for 10, 15 and 20 years. In that time, horizon longevity is fairly predictable and trend-driven. Even if there are medical advances they take a long time to feed through.

"We think it will be fairly easy to persuade investors in the fixed income markets that this is something they can reasonably expect to manage. But longer-term longevity is more difficult to predict. If you consider the life expectancy of a 20-year-old, for example, then you are talking about an exposure of potentially 60 years or more. We will have to manage that risk ourselves with equity."

Others are keen on setting up a fully operating derivatives market, arguing that one-off, scheme-specific deals will not promote transparency of prices and terms. [David Blake](#), a professor and specialist on longevity and pensions at the Pensions Institute at [Cass Business School](#), predicts progress will be made this year.

He said: "The main reason why anyone keeps the terms secret is that they are making a lot of profit out of it. The terms must be favourable to the acquirer of the longevity risk. The party on the other side of the swap has no way of knowing if they are paying a fair price. The costs of the transaction are not in the public domain.

"Because of this, the capital markets will eventually produce a solution. The other reason is that there is not enough capacity in the reinsurance industry to absorb the roughly \$20 trillion worth of longevity-linked liabilities there are worldwide. The

banks have set up the desks. They have taken stakes in the pensions buyout companies. They are willing to warehouse a lot of longevity risk to get the market started, as they are confident they will be able to sell it.”

Blake, together with colleagues [Andrew Cairns](#) of Edinburgh’s Heriot-Watt University and [Kevin Dowd](#) of the [Nottingham University Business School](#), have put together their own model of expected longevity trends and are hoping it will be used by traders. Their data is based on the total population of England and Wales.

He said the importance of scheme-specific analysis of mortality was exaggerated: “If you can get a 90% effective mortality hedge through the capital markets for a third the cost of an insurance transaction, then it is better than nothing.”

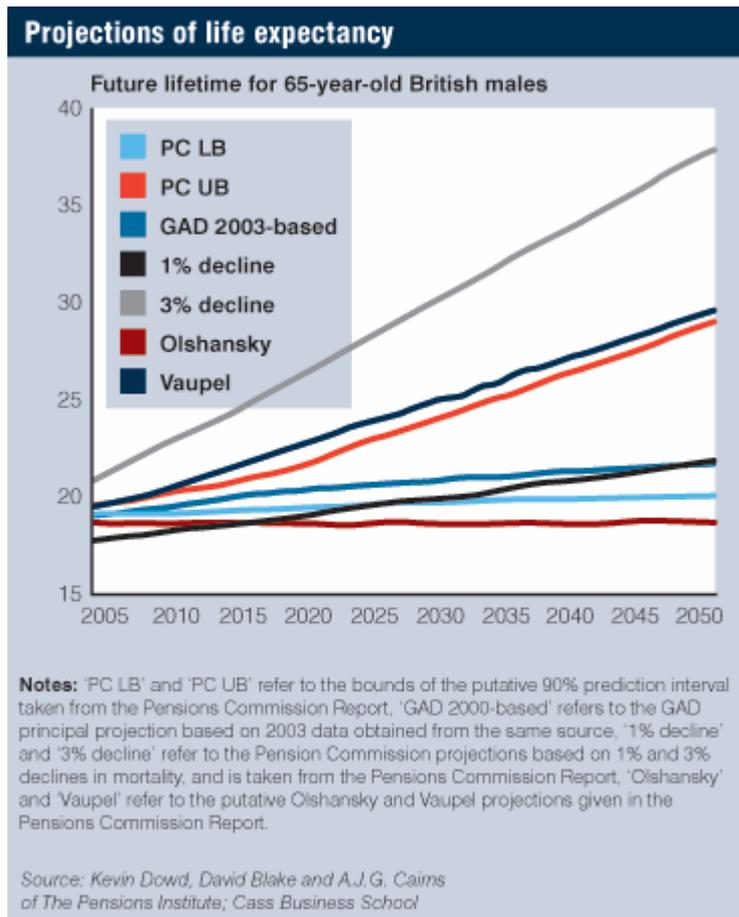
However, [Phil Page](#), a client manager at [Cardano](#), had a different view: “When [BNP Paribas](#) tried to launch a longevity bond in 2004 nobody bought it, and that was not because it was not priced sensibly, but because it was based on generic mortality data. The difference in mortality experience around the country is quite large. Any big pension fund will want to do scheme-specific calculations.”

If banks and other providers want to get their swaps and derivatives in front of pension schemes they will need to get past the investment consultants, who hold the keys to the trustee boardroom doors. PensionsFirst is one provider that has concentrated its marketing squarely at them.

Most consultants remain to be convinced on longevity swaps. Page, whose company specialises in advising on and implementing derivatives transactions, said the biggest difficulty was still identifying counterparties.

He said: “The fundamental problem is that there is an imbalance of supply and demand. Unless someone is willing to be the protector of longevity risk and put their balance sheet at risk, it will not happen.”

JP Morgan believes it has identified certain potential investors in longevity, including hedge funds, endowments, certain insurers and even pension buyout companies, confident of enough of their actuarial expertise to leverage their exposure.



## Longevity swaps tipped to take off, by Irene Chapple, Derivatives Week, 29 December 2008

Longevity Swaps are being tipped as a prime investment opportunity for 2009 as the financial crisis highlights their lack of correlation with other asset classes.

Earlier this month, Dresdner Kleinwort released a new swaps pricing model that it is now pitching to clients. The model can be used by investors negotiating bespoke longevity swaps, according to Domenico Picone, credit researcher in London. “(It) offers the simplest and easiest way to price the longevity risk for a pension fund.”

Dresdner Kleinwort’s pitch for a slice of the market comes as **David Blake**, director of the **Pensions Institute** and a professor of pension economics at Cass Business School in London, notes the financial crisis has sent investors looking for asset classes uncorrelated with equity and credit.

Blake believes the financial crisis and the fall-out in other asset classes has also, “focused the minds of the pension (funds).” He added, “Longevity risk is the one large remaining un-hedged risk, and it is a long-term trend risk.”

Pricing to date has been largely proprietary so it has been difficult to get transparency, explained David Rawson-Mackenzie, managing director at Centurion Fund Managers in London. “The issue has been pricing models. Investment banks haven’t known how to price it.” Blake estimates that only one in five trades is executed.