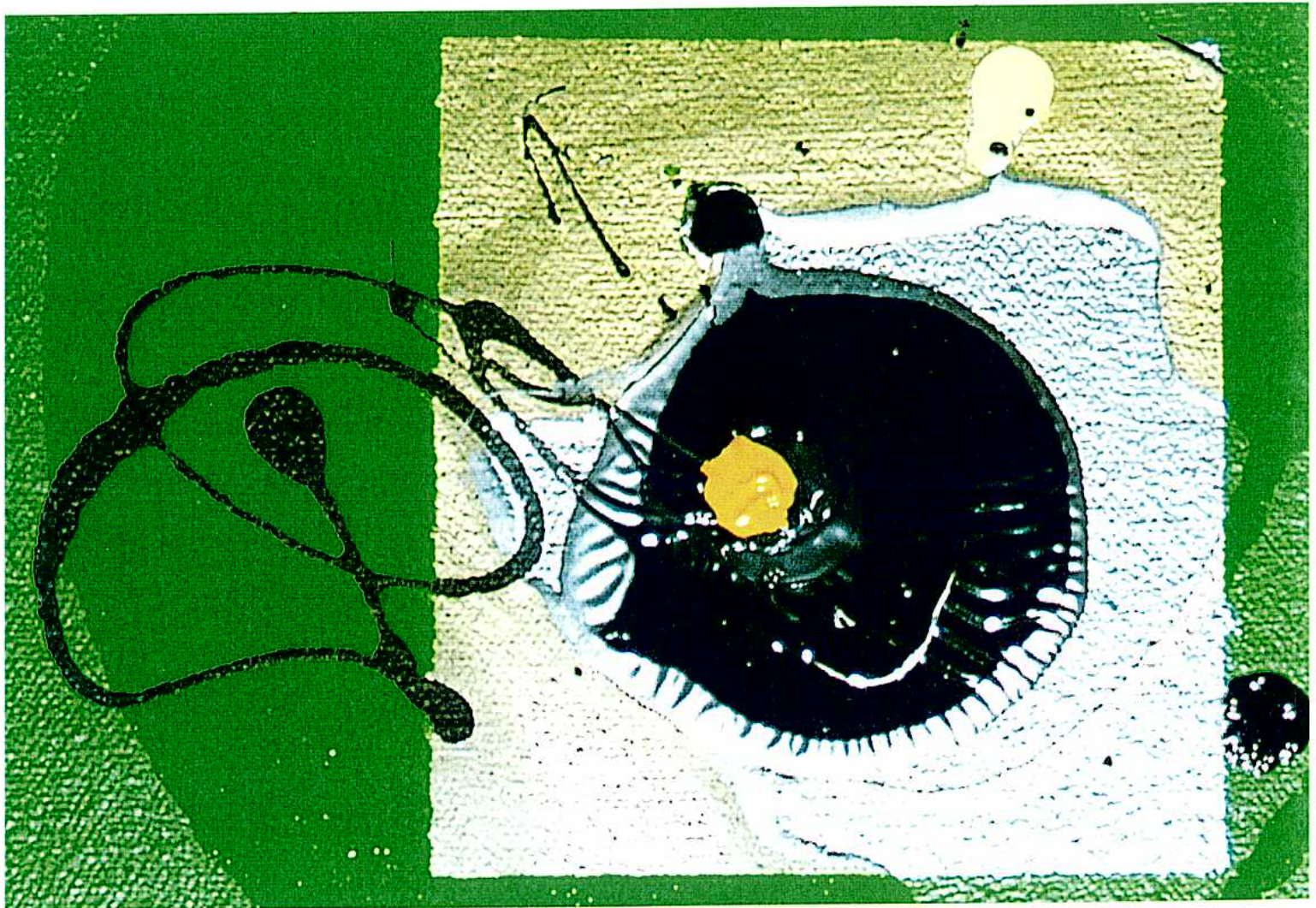


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Looking ahead (clockwise from top left): Rajeev Misra, Deutsche Bank; Thomas Renggli, Swiss Re; Maximilian Zimmerer, Allianz Leben; and Michele Falssola, Deutsche

# The future for pensions

European pension reform is creating demand for derivatives. Life insurance companies and asset managers are changing the way they lay off their risks. How far will the revolution go?

By Carola Schenk

European governments are encouraging the use of private and occupational retirement schemes. As a result, assets held in life insurance policies, pensions and mutual funds should rise dramatically. Many of these long-term savings vehicles feature embedded capital or return guarantees, and life in-

surers and asset managers increasingly use derivatives to hedge such liabilities. Most will do so using plain vanilla over-the-counter derivatives such as interest rate swaps or equity options. But there is a burgeoning demand for more complex hedging programmes.

Many European life insurers and asset

managers use derivatives to hedge interest rate, currency and equity risks in their own books, client portfolios and mutual funds. Stuttgart-based Allianz Lebensversicherung, the domestic life insurance arm of Germany's Allianz group, for example, uses forward swaps to manage maturities within its fixed-income port-

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folio, and equity options to handle returns on its equity investments. Milan-based Fideuram Capital, the asset management arm of Banca Fideuram, uses stock or index futures to manage liquidity in its mutual funds.

Pension reforms in Europe are boosting assets under management by these buy-side institutions, and this will inevitably lead to them trading greater volumes of derivatives. "You will have more assets to invest. Regardless of any increase in the use of derivatives as such, there will be more activity in derivatives," says Michele Faissola, global head of OTC derivatives at Deutsche Bank in London.

The effects could be huge. On January 1, Germany is introducing capital-guaranteed private and occupational pension provision. Analysts estimate this move will release new assets of up to €400 billion for life insurers and money managers by 2008. In Spain, companies must outsource their pension liabilities to life insurers by November next year. Some 40% of this €10 billion-15 billion business has yet to be placed, says Ignacio Diez, co-head of insurance sales at Banco Bilbao Vizcaya Argentaria (BBVA), one of Spain's largest banks, in Madrid.

Countries such as France, which, like

trillion) of assets would have to be set aside by Europeans were they to reach the high levels of US private pension savings.

Much of these savings would probably be placed in principal-guaranteed funds or with-profit and guaranteed annuity policies. In Germany, for example, the bulk of new private pensions savings will flow into traditional life insurance policies, with the rest going into unit-linked policies, according to Thomas Renggli, head of insurance marketing for German-speaking and eastern Europe at Swiss Re Financial Services in Zurich.

Guaranteed capital

The key feature of Germany's pension reform is the guaranteed capital embedded in all savings vehicles qualifying for state subsidies - savings products with a zero-coupon type structure. Many providers will simply buy zero-coupon bonds to hedge the principal and invest the remainder of the assets in equities to increase returns, says Renggli.

Those offering unit-linked products, in particular, will also use option contracts on diverse underlyings, such as credit, equity and interest rates. "Clients effectively just buy the upside, keeping the guarantee on the principal," explains

**"Buying options implies paying premium for the hedge, which reduces returns in the long run. We try to avoid this"**

**Maximilian Zimmerer, Allianz Leben**

Germany, have relied mainly on unfunded state pension provision, may soon copy the German reform initiative, say analysts. Some countries, such as Italy, are already moving towards following Spain's lead. The aim is to make pensions safer by preventing firms from using assets covering pension liabilities to bail out their businesses, for example.

No official public estimates exist as to what such reforms could mean in terms of new business for the life insurers and money managers. But Deutsche Bank's Faissola says in Germany, pension reform related business could become "the biggest business within the financial sector as a whole".

The share of life insurers' pension fund and annuity business in their overall portfolios, now worth some 5-10%, will grow, says Faissola. Deutsche Bank 24, Deutsche Bank's multichannel bank, estimates that an extra \$3 trillion (€3.3

Deutsche's Faissola.

Typically, unit-linked policies invest in investment funds modelled on liquid indexes, such as the Dax or the MSCI, and thus options will be on these indexes. But Deutsche Bank has already structured principal-guaranteed transactions on funds of funds and mixed equity and fixed-income portfolios that sometimes comprise credit assets for yield enhancement, for example, says Faissola.

For some asset managers and life insurers, however, even such presumably simple hedging strategies can pose difficult risk management challenges. Some may lack the capital markets expertise or administrative set-up to handle such strategies. Swiss Re's Renggli explains: "Every day, investors of different ages pay varying amounts into their funds. These payments result in liabilities with an indefinite number of different maturities."

In theory, the fund manager would have to buy an option matching each of these payments to guarantee the paid-in principal. This is unfeasible, especially as long-dated options are available only for large asset volumes, he adds.

Investment banks and other players, such as alternative risk transfer experts, are stepping in. Swiss Re is offering to bundle such maturities for different types of investment funds. It will use traditional hedging tools such as options, swaps, straddles or zero-coupon structures to guarantee the paid-in capital, says Renggli, and it offers to take on biometric risk such as longevity via a reinsurance contract.

Dresdner Kleinwort Wasserstein is talking to several unnamed life insurers with a view to providing them with a hedging strategy that will cap volatility and thereby guarantee the principal, says Matthias Schellenberg, head of OTC sales, global equities in Frankfurt. This will entail reducing the risk profile of an investment fund or unit-linked policy over time as the policyholder nears retirement.

But there is also burgeoning interest from the European life sector for more complex hedging strategies, in particular those that take an integrated approach to managing assets and liabilities, say derivatives structurers. Pension reforms are increasing their long-dated liabilities, and life insurers are increasingly aware of potential mismatches between their asset and liability portfolios, they say.

Swiss Re Financial Services is working on what it claims would be the first combined financial derivatives/financial reinsurance contract. The client is a Scandinavian life insurer. But Daniel Keller, responsible for business origination for Scandinavia, Holland and Denmark in Zurich, says the concept would

Arguably, the financially weaker institutions may well be willing to pay the price for such strategies. Allianz Leben says it will not use long-dated swaptions or other complex hedging strategies – precisely because it feels they are too costly. “Buying options implies paying premium for the hedge, which reduces returns in the long run. We try to avoid this,” says board member Maximilian Zimmerer, who is responsible for finance at the firm. Allianz Leben relies on its capital reserves to buffer shortfalls from investment returns to cover liabilities, but few life insurers are as well capitalised.

#### Shudders

The closing to new business last year of the UK's Equitable Life – the world's oldest mutual life insurer – due to its inability to meet existing liabilities, has sent shudders not only through the UK's but also the continent's life sectors. Like Equitable Life, many insurers hold large portions of their assets in equities, creating a mismatch with long-dated fixed-income liabilities.

In addition, the sharp decline in equity valuations this year has substantially reduced insurers' so-called hidden reserves – capital reserves that arise from the difference between the book values insurers use for accounting purposes, and their assets' market values. Such reserves typically act as a buffer, which an insurer can tap to meet liabilities.

“Continental European life insurers tend to be better capitalised than UK insurers. Nevertheless, many face a similar problem of annuity guarantees and long-dated liabilities that are not being properly priced,” says one derivatives structurer servicing such institutions. “There is enough capital to cover those liabilities. But, having said that, it really is

## “Regardless of any increase in the use of derivatives as such, there will be more activity in derivatives”

**Michele Faissola, Deutsche Bank**

be applicable in almost all European countries with ageing populations.

Cost remains the problem. “One problem is pricing such a collar structure, which depends not least on how much upside the client is willing to sacrifice,” says Keller. “Many companies are reluctant as many long-term derivatives strategies are relatively expensive,” he adds.

an issue of risk management: insurance companies often keep assets and liabilities completely separately. There is this mismatch issue.”

Deutsche Bank, for example, has already structured large volumes of hedging transactions for the Spanish life sector. These involved repackaging long-dated assets, including credit assets, and

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structuring cashflows from these portfolios that would match the insurer's pension liability. Rajeev Misra, global head of integrated credit trading in London, says his institution is seeing burgeoning interest from the Italian life sector in particular in such transactions.

Going forward, however, such strategies could prove more difficult to implement. They require top-rated fixed-income assets with maturities of 30 or 40 years. In the past, a major source of such securities has been Germany's Landesbanken sector. Earlier this year, these institutions lost their state guarantees for new capital markets issues maturing after 2015. "It is much more difficult to find other highly rated banks or corporates willing to issue these very long-term notes," says BBVA's Diez. Going forward, BBVA will tap asset-backed securities and long-term subordinated bank notes more intensely.

One alternative, already used by some UK life insurers to hedge guaranteed annuity rate (GAR) exposures (*Risk* May 2001, page 13), is long-dated swaption contracts. Over the past three or four months, Danish life insurers and pension



Ignacio Diez, BBVA

triggers – of lapse ratios and exposure to interest rate movements.

Unlike long-dated swaptions, such a strategy would not actually transfer risk off the client's balance sheet. "It would rather substitute excess capital in scenarios where the existing capital is depleted for some reason," says Sam Alexander, responsible for marketing to UK life insurers at Swiss Re Financial Services in

## The trend in Europe to encourage private and funded corporate retirement provision will undoubtedly spur more demand for derivatives trades

funds have rushed to buy long-dated euro-denominated swaption contracts to hedge liabilities such as annuity guarantees, say derivatives dealers. This followed a request by the Danish insurance sector watchdog that these institutions stress test their portfolios with respect to sharp falls in equity markets.

"They have been buying long-dated receiver options on 20-year swaps expiring out to 20 years, struck below the market at around 5%," says Sean Notley, head of interest rate derivatives trading at Morgan Stanley in London.

Such long-dated swaption contracts are often expensive, in particular in the more illiquid sterling market, so some UK insurers have now started to turn to the more liquid euro market. But the industry is also looking for alternatives that can deliver broader protection or cover at a lower cost. Swiss Re says it is seeing interest from UK life insurers that have written GAR policies for capital replenishment-type programmes with dual

London. But for the same reason, such a programme would also be less expensive, he says.

The trend in Europe to encourage private and funded corporate retirement provision will undoubtedly spur more demand for derivatives trades by the region's buy-side institutions. In addition, several European insurance and pension fund regulators are reviewing investment rules on the use of derivatives or considering doing so.

The common aim is to allow these institutions more flexibility in managing their assets and liabilities. Germany's Bonn-based Bundesaufsichtsamt für das Versicherungswesen, for example, is likely to review such rules next year. Meanwhile, Spain's Madrid-based Dirección General de Seguros y Fondos de Pensiones is considering allowing insurance companies to invest directly in credit derivatives. Such regulatory moves should further boost buy-side demand for derivatives expertise in the region. ■

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