



# Variable annuities and turbulent markets

*Recent capital market conditions have reinforced the strength of the variable annuity product proposition. Offering exposure to equities and managed fund investments, with the possibility of protecting against the risk of downside market movements, the products are supported by active hedging techniques. Milliman's Gary Finkelstein explains why these products are so attractive, and how some insurance companies have been able to successfully manufacture them during the recent turbulent markets*

**What are variable annuities?** Under a variable annuity (VA) product, the policyholder's investments consist of managed funds selected to provide exposure to upside market performance. Additionally, optional guarantee insurance can be purchased to protect the policyholder's investment from negative market returns. A wide range of guarantees can be offered, as described below, enabling the benefits to be tailored to meet the varying needs of customers.

**Guaranteed Minimum Accumulation Benefit (GMAB)**

Provides a guaranteed minimum investment return or capital amount at a future date or dates

**Guaranteed Minimum Death Benefit (GMDB)**

Provides a guaranteed minimum amount upon death

**Guaranteed Minimum Income Benefit (GMIB)**

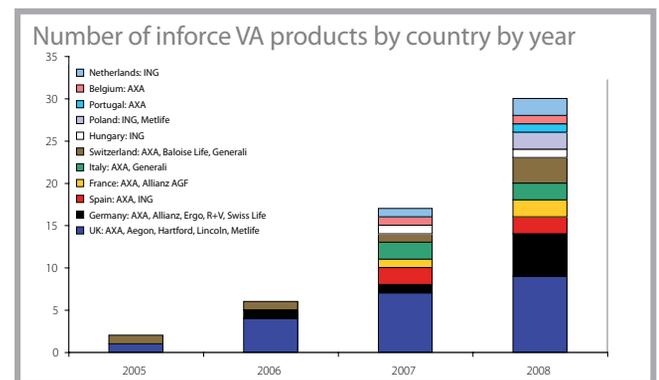
Provides a guaranteed minimum income benefit through annuitisation in the future

**Guaranteed Minimum Withdrawal Benefit (GMWB)**

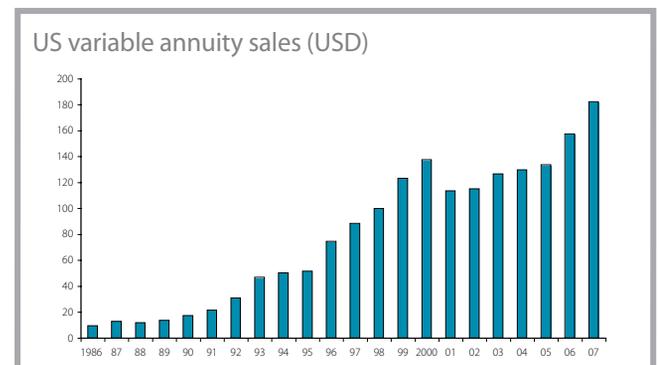
Provides a minimum income or return on capital through guaranteed minimum withdrawals, either for a fixed term or for life

**Strength of the proposition** The prospect of investing at what might be perceived to be low market prices, and participating in market recoveries, seems very attractive, provided that a guarantee against the risk of further market falls can be secured. In addition to the obvious capital or investment return guarantees, guaranteed minimum living benefits can be used to secure a guaranteed minimum income to support a living standard when in retirement. With longevity steadily increasing, retaining exposure to real assets to mitigate the impact of inflation is very important – especially with the safety net of a guarantee in case of adverse market movements.

**Size of the market** According to the US National Association for Variable Annuities, total VA industry net assets were \$1.41 trillion as of June 30, 2008, as compared to the 2007 US gross domestic product of \$13.8 trillion. In the US, VAs have surpassed fixed annuities as the dominant insurance vehicle for baby boomers to save for their retirement. Growth of the product has also been exceptional in Japan and, over the last few years, nearly all the leading multinational insurance companies have launched these products across Europe.



Source: Milliman Research



Source: NAVA, Morningstar, Inc., & LIMRA International

**Worth the price?** One year ago, there was much discussion about whether the premium (usually around 0.5–1% of the fund per annum dependent on the level and type of guarantee) was worth the price. Advisers challenged whether the cost of hedging the guarantee was too much for the customer to bear. With hindsight however, it seems clear that anyone who invested one year ago and purchased the guarantee, would be very pleased that they did so. It seems that 1% off the upside could be a small price to pay for protection against all the market falls we have seen in the last year. While each individual customer has unique circumstances with their own perspective on risk, the current conditions do highlight that the perceived worth of guarantees is well recognised.

**How well have the hedging techniques worked in recent market turbulence?** The effectiveness of the hedging techniques used is clearly very important as this is how insurance companies can offer the guarantees on such attractive terms, and it affects the creditworthiness of those who offer them. Milliman recently carried out two surveys on the effectiveness of the major VA providers' hedging programmes. The first survey, conducted in May, found that the majority of companies

experienced either net hedging gains, or net losses limited to 10 basis points of invested funds. The second survey, published in November, confirmed that this favourable hedging success continued in the third quarter, with average hedge effectiveness being 93%, saving the industry an estimated US\$40 billion. Furthermore, the futures and swap markets, which are at the cornerstone of these hedge programmes, have remained liquid throughout the credit crisis, and the collateralisation process that secures this system has worked very effectively. Clearly there have been some instances where companies did not hedge all their portfolio, or all the risks. However the strength of the product proposition, and success of the hedge programmes this year, leads us to expect increased rather than decreased hedging activity going forward.



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