McKinsey&Company

McKinsey Working Papers on Risk, Number 19

Variable Annuities in Europe after the Crisis: Blockbuster or Niche Product?

Lukas Junker
Sirus Ramezani

February 2010

Contents

McKinsey Working Papers on Risk presents McKinsey's best current thinking on risk and risk management. The papers represent a broad range of views, both sector-specific and cross-cutting, and are intended to encourage discussion internally and externally. Working papers may be republished through other internal or external channels. Please address correspondence to the managing editor, Rob McNish (rob_mcnish@mckinsey.com)

Variable Annuities in Europe after the Crisis: Blockbuster or Niche Product?

Until recently, the European life insurance market saw variable annuities as a potential blockbuster product. In Germany, AXA led the way, followed by other major insurers, and even small competitors contemplated entering the market. But the financial crisis revealed the risks of variable annuities – and dimmed hopes for this new class of products. Following staggering losses and market exits in the United States as well as in Europe, the questions have surfaced again: do variable annuities represent a new paradigm – one that offers customers long-term guarantees and potentially high rates of return while giving insurers, with their depleted risk capital, a new opportunity as the economy picks up? Or do the substantial risks of variable annuities consign them to the status of niche products? And, for those life insurers who do want to add variable annuities to their product portfolios, what strategic options and operational challenges should they prepare for?

Introduction

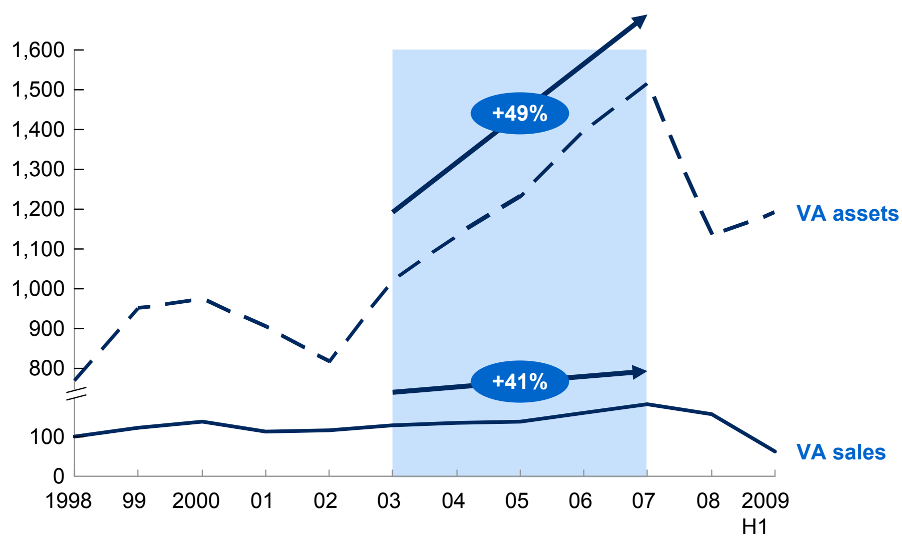
Starting in the 1990s, sales of variable annuities soared in the United States. The growth of variable annuities (VAs) as indirect, tax-deferred investments particularly for wealthy customers was a phenomenon propelled by a stream of ever more and varied guarantee options (Exhibit 1). With the onset of the financial crisis, however, some of the most successful players skidded into trouble. Between October 2007 and March 2009, six of the ten largest publicly listed VA issuers in the U.S. lost about 90 percent of their market capitalization. In parallel, industry profitability sagged under rising guarantee values, the collapse of earnings from mutual fund fees, negative hedging results, and exploding hedging costs. As a result, many companies' credit ratings were downgraded by the rating agencies.

Exhibit 1

Before the crisis, growth rates for variable annuities in the United States were enormous

Variable annuities – assets and sales volumes in the United States

USD billions



SOURCE: LIMRA, VARDS, analyst reports

The sources of these problems were mostly on the supply side. While VA holders continued to profit in the crisis from their guaranteed returns, insurers were scrambling to get to the root of the problems they faced. Three main culprits have emerged:

1. **Inadequate risk hedging and poor hedging strategies.** Because many insurers were focused on hedging their GAAP results, they neglected fully to hedge certain types of guarantees (e.g., Guaranteed Minimum Income Benefits, see "What are variable annuities?"). Furthermore, many individual risk factors were not hedged at all, such as the change in the volatility of the equities market. In the crisis, hedging efficiency plummeted because the mutual fund shares and their benchmarks (the "basis risk") diverged. Essentially, the problem was the design of the hedging strategies and not the stability of the hedging transactions themselves. After all, in September and October 2008 alone, hedging transactions brought U.S. insurers a much-welcomed return of $40 billion – mostly at the expense of the investment banks that had issued these instruments.

2. **Ruinous price competition and false assumptions.** Ferocious competition among VA players, intensified by the growing importance of independent sales channels, led many insurers to issue ever more generous guarantees at ever lower prices. When the crisis hit, the assumptions underlying their calculations – from equity market volatility to customer conduct – proved to be unrealistic. The sharp rise in the volatility of the stock market, in particular, led to a dramatic increase in the costs of hedging VA business.

3. **Pressure from consumer groups.** Finally, vehement criticism of variable annuities by consumer interest groups created uncertainty among consumers as well as distribution partners and hurt the image of VA products. The main points of criticism were and are high sales commissions and administration costs. In contrast to Europe, VA sales costs in the U.S. often amounted to 10 percent of the customer's contribution.

What are variable annuities?

Today's variable annuities combine unit-linked annuity products (with per se variable face value and hence pay-outs to the customer) with innovative forms of guarantees (riders), which fall in two main categories: living benefits and death benefits. With a death benefit rider, the beneficiary receives a minimum benefit upon the death of the insured, which is independent of the value of the policy. The provision of more and more attractive living benefits was an important factor in the success of variable annuities in the United States. Since their U.S. introduction in the mid-1990s, the products have undergone a number of evolutionary stages.

- **Guaranteed Minimum Income Benefit** (GMIB, since the 1990s): Guarantee of a minimum payout as the basis for annuity calculation independent of portfolio performance
- **Guaranteed Minimum Accumulation Benefit** (GMAB, since ca. 2000): Guarantee of the amount of the contract value after a defined number of years independent of portfolio performance
- **Guaranteed Minimum Withdrawal Benefit** (GMWB, since ca. 2000): Availability of a certain percentage of the account value (e.g., 5 percent) until completely withdrawn and independent of portfolio performance
- **Lifetime Guaranteed Withdrawal Benefit** (GWBL, since ca. 2004): Guarantee of a smaller percentage of the account value compared with the GMWB, starting from the beginning of the payout phase and running until the death of the annuitant.

The GWBL rider, which combines the advantages of its predecessors, has prevailed on the U.S. market in recent years. It offers both the security of guaranteed capital and covers the longevity risk while also offering flexible payout options – and continuing participation in the value appreciation of the fund investments (by means of "ratchet" mechanisms, which – usually annually – link the increase of the account value with increases in the guaranteed amounts). For the affluent baby-boomer generation which is now approaching retirement, such variable annuities have been particularly appealing as insurance against market and longevity risks when making the transition from the accumulation to the decumulation phase.

The crisis has changed the American VA industry profoundly. Major issuers have withdrawn from this segment almost entirely, while the remaining VA business has been severely revamped, above all in terms of product features and pricing. Guarantees such as the Guaranteed Minimum Income Benefit are either no longer offered at all or offered for much higher fees; in many cases, restrictions have also been imposed on payout amounts and choice (e.g., in the form of establishing a minimum share of fixed-interest investments).

These developments in the U.S. may be instructive for insurers in Europe – where as well, major players have withdrawn – when designing their VA products in the future. First, the crisis has shown that the biggest challenge in the VA business lies in risk management: a company must know the inherent risks of its products as well as the opportunities to mitigate them through product design and hedging. Second, the US market makes clear the risks an insurer runs when it competes for market share by offering ever-more attractive guarantees at ever lower prices. This type of competition is dangerous for VA players and may even threaten their survival.

I. The market: the future of variable annuities in Europe

For European insurers, an accurate outlook cannot come from an analysis of the VA crisis in the U.S. alone. First and foremost, they must independently assess the future relevance of variable annuities for their own markets. This means investigating the attractiveness of the product from the perspective not only of the customer, but also from the point of view of distribution and production. It is only when variable annuities offer advantages from all three perspectives that they have a chance of succeeding in Europe.

Customer perspective

Demand for retirement products will remain strong, as demographic changes will continue to weaken state-run social security systems and thus widen the "pension gap." So far, however, European insurers have hardly taken advantages of this development at all, as indicated in many European countries by the low sales of traditional immediate annuities and a generally low penetration of life insurance products among older customer groups. Variable annuities could change this picture, because they are able to overcome some deficiencies of conventional products, such as limited flexibility.

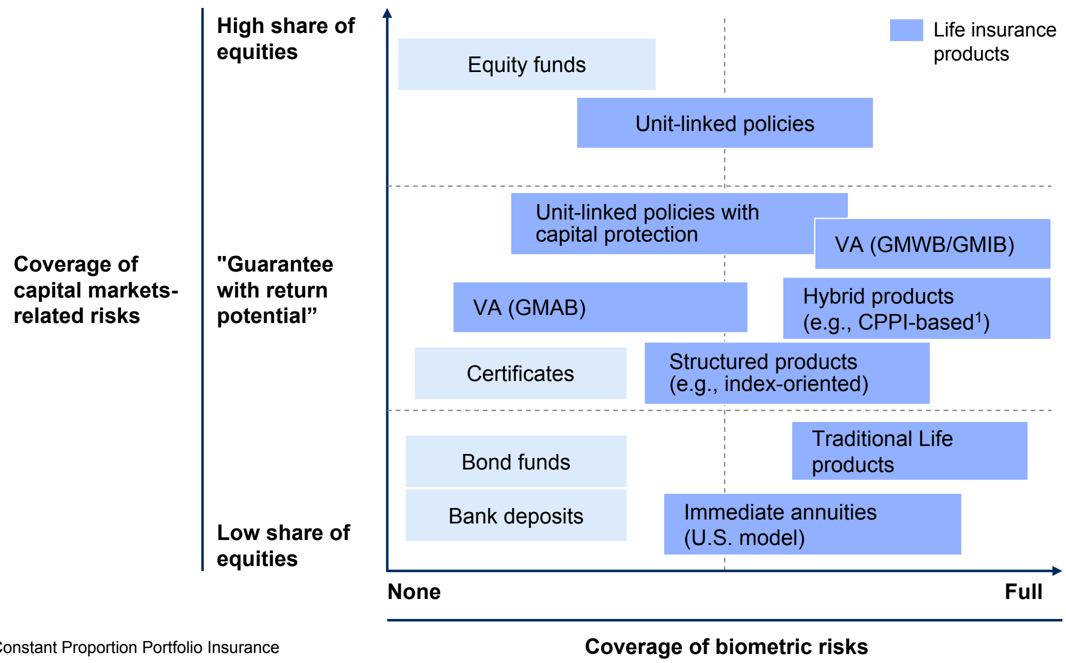
The demand for variable annuities also depends, however, on the economic cycle and the macroeconomic environment, including developments in the equity markets, in interest rates, and the savings rate. But unlike unit-linked or traditional products, which are in especially high demand when the cycle is rising or falling, variable annuities are nearly always attractive and more universal given their combined value proposition ("guarantees plus upside potential"). In this connection, it is telling that at the start of the crisis in the U.S., demand for VAs fell much less than demand for pure-play equity mutual funds. And in Japan, the long period of low interest rates with declining savings rates saw increasing inflows to VA products because they succeeded both in protecting against the longevity risk and in allowing the holder to participate in the chance that the equities market would recover.

The value proposition "guarantees plus upside potential" is, however, not a unique selling proposition in itself. Variable annuities are in fierce competition with alternative products, in particular, unit-linked policies with capital guarantees, index-oriented offerings, and other structured products as well as hybrid solutions (Exhibit 2). Comparison of these substitutes reveals both the advantages and the disadvantages of variable annuities.

Exhibit 2

As a product offering "guarantees plus upside potential," variable annuities compete with many substitutes

Classification of substitute products by degree of risk coverage



1 Constant Proportion Portfolio Insurance

SOURCE: McKinsey analysis

- **Strengths:** Variable annuities are distinguished by their flexibility and the clarity of their value proposition. With other products, customers generally do not have such a wide range of choices regarding alternative investment strategies, modular guarantee components for living and death benefits, and flexible payout mechanisms. The size of the benefit is also mostly quite transparent and unlike traditional or hybrid products largely beyond the influence of the insurer.

- **Weaknesses:** Variable annuities are typically perceived by customers as complicated and expensive. The negative cost perception no doubt arises from the fact that all variable annuity pricing components are explicit, giving the customer full transparency on the insurer's initial commission, guarantee costs, fund management fees, and administrative charges. With the substitution products, these cost elements are by contrast only implicit elements of the price.

The subjective perception of high cost along with complexity (which can never be fully overcome) are thus significant hurdles in the effort to promote broader acceptance of VAs beyond their current core target group of wealthy customers. This is the area that insurers and their distribution organizations will have to pay attention to on the customer side.

Distribution and sales perspective

From the distribution and sales perspective, the attractiveness of variable annuities in comparison with substitutes also requires a differentiated assessment.

- **Strengths:** Variable annuities are "rich" and inherently high-margin products because they cover a broad spectrum of biometric and capital-markets-related risks – and thus enable attractive commissions. Furthermore, they also open up possibilities for proprietary and independent sales organizations to differentiate themselves from competitors by advising customers on optimal fund choices. Last but not least, the simplicity of the value proposition is relatively easy to communicate.

- **Weaknesses:** From the perspective of the distribution and sales organizations, it is also necessary to overcome the perception of VAs as complex and costly and to correct the negative image propagated by consumer interest groups. In particular, agents that have specialized in property and casualty insurance (in some countries, this is a sales channel with a significant market share) are likely to regard the product with skepticism and be reluctant to acquire the necessary product knowledge. This applies especially for insurance companies that do not make VAs a central pillar of their product and advising strategies.

It remains doubtful whether companies will succeed in overcoming the forces of inertia in their distribution and sales organizations – above all if they include VAs as just another product among many in their product portfolios.

Insurance company and producer perspective

Life insurers in Europe who launch variable annuities are not just introducing an innovative product, they are also required to adopt a completely new form of "manufacturing" guarantees. This has far-reaching consequences for large parts of the value chain. For instance, the costs for providing the guarantees each year are fully recognized in the profit and loss statement. This distinguishes VAs fundamentally from the treatment of traditional products, which give insurers significant leeway, e.g., in the question of how to "store" non-allocated surpluses and distribute them between policyholders and shareholders. Consistent with this, VAs have higher requirements for exact margin and profit management.

For insurers, VAs also have advantages and disadvantages compared with substitute products.

- **Strengths:** From the perspective of insurers, the "richness" and high margins, due to the variety of risks covered, are also important advantages. This applies above all for large groups with in-house hedging and asset management capabilities, which allow the company to expand in-house value added and thus the share of the margin retained by the group. Whereas new products and innovative design often do not create major advantages, VAs offer the opportunity to earn an "innovation premium" in the short term and differentiate from competitors in the longer term. This holds true for VAs to a greater extent than, for example, for hybrid products.

- **Weaknesses:** The central challenge for players, as the U.S. crisis has shown, is the design and execution of effective risk management solutions. VAs have so far generated inherently volatile results and mostly offer less effective levers for profit management, so a significant skill-building effort would essentially be needed for the capital investment function. The necessary investments in this core function would tend to put smaller players off just as much as outsourcing to a reinsurer, because this can involve large margin losses. In comparison, hybrid products also make significantly higher demands on risk management, although to a lesser extent due to the larger number of management levers they offer.

While the challenges regarding customers and distribution can presumably be dealt with through corresponding efforts in product development and training, insurers have not yet finally assessed the advantages and disadvantages of VAs. Companies still face a far-reaching decision: whether to commit to building a VA business systematically, including the fast construction or acquisition of the capabilities they need to close the large gap with their U.S. competitors, or to stick with traditional products with their known instruments for profit management (keyword: policyholder participation), possibly combined with some diversification into hybrid products.

McKinsey's current experience in advising clients indicates an increasingly positive assessment of variable annuities by leading life insurance companies. There has been a recognition that in comparison with other products VAs are much more able to satisfy customer needs for broad coverage of biometric and capital-markets-related risks. This versatility gives insurers a significant competitive advantage over other financial services providers such as asset managers and additionally offers a certain protection against rapid margin erosion. Furthermore, the view that appears to be gaining the upper hand is that valuable experience was gained in the crisis that will help make VA risk management systems more robust and effective going forward.

At the same time, the uncertainties attending the capital requirements and future regulatory conditions should not be underestimated, particularly the Solvency II regime. Ultimately, these factors could tip the scales for or against the development of the European VA market.

For the success of VAs, insurers should also not underestimate the extremely heterogeneous features of some local life insurance markets. These features include the market-specific penetration of substitute products and the development of the retirement savings market in general. Clear differences emerge, for example, in a comparison of the British and German markets: at approximately 70 percent, the share of unit-linked products in the U.K. is markedly higher than in Germany. The commoditization of life insurance products, with low margins and the disintegration of the value chain (e.g., widespread third-party funds on the product side and clear trend to sales via IFAs and wrap platforms on the distribution side), is much farther advanced in the U.K. than in Germany. Given such differing circumstances, the possibilities for differentiation from competitors and recombination of the value chain through VAs can have a certain appeal. For each specific market, insurers must also clarify the extent to which VAs are not only suitable as niche products for affluent and wealthy customers, but can also be developed into a mass-market product. This possibility for differentiation is all the most likely in countries where exposure to the equities market is seen as desirable and awareness exists of the value of the VA-type guarantees as a result of corresponding financial savvy.

II. The strategy: options for life insurers

In view of these uncertainties, how should an individual insurer position itself in the VA market in the medium term? The answer to this question should not be oriented only to expectations for market development, but also the initial position of the respective company. To arrive at a decision, it will be useful to apply the following criteria.

- **Geographic market coverage:** Under current regulations, a company can only launch VA products rapidly and without an excessive implementation risk if it has a carrier in Ireland or Luxembourg. This could be a company's existing unit in either country or a new company. Plainly, in comparison with medium-sized national insurers, the large pan-European insurance groups are in a better position to realize operating economies of scale and use a central VA carrier for multiple EU markets.

- **Traditional products:** Issuers with a very attractive portfolio of conventional products and corresponding expertise in product development will tend to be more cautious about introducing VAs – also in view of cannibalization effects. This applies particularly when the economy is weak, the phase in which traditional guaranteed products are in highest demand. These companies might at least consider variable annuities to diversify their product portfolios in preparation for an economic upswing. VAs can be particularly interesting and important for insurers whose conventional products are not perceived as attractive (e.g., due to weak performance) or whose risk capital has shrunk as a result of the crisis, thus limiting new business volume with traditional products.

- **Proprietary channels:** With a view to the efforts in sales training and incentives that are necessary for the VA business, proprietary channels offer better manageability and integration in the insurer's standard advising approach. For this reason, issuers with strong sales channels of their own (tied agents) have a competitive edge.

- **Relevant skills:** Well-developed skills in the areas of product development and risk management or access to corresponding knowledge in the company (e.g., a group-owned investment bank) will reduce the investments required and speed up the entry in the VA business.

Ultimately, each insurer will decide for itself, based on its assessment of these criteria and the market situation, whether the risk-return profile of VAs justifies the substantial investments required. In the course of this process, European insurers can consider various strategic stances, outlined below.

1. **Wait and see:** Focused on their domestic markets, medium-sized insurers with a strong traditional product portfolio will in most cases not want to build up a variable annuity platform in Luxembourg or Ireland. These companies could initially build on substitutes subject to simpler regulations and in parallel keep the option open to offer VAs, in order to be able to quickly enter the market if and when national regulations change.

2. **Insourcing:** Medium-sized companies with strong proprietary sales channels could seriously consider selling VAs, but try to limit the investment by insourcing certain elements of the value chain, such as the hedging of capital market guarantees.

3. **Focused entry:** For international issuers with corresponding scale advantages and a strong traditional portfolio, building internal product development and hedging capabilities can be an important strategic option, in which VAs would play a supplemental role in a product strategy oriented to diversification.

4. **Building a new "pillar":** Only internationally active companies with a weak traditional business could reasonably decide to make variable annuities a cornerstone of their product and sales strategies and thus further develop the necessary capabilities into a sustainable competitive advantage.

Each of these positionings offers specific opportunities and risks that insurers need to analyze and evaluate in detail. The insourcing strategy, for example, does enable a company to participate in market opportunities – but mostly at a price, namely, that a good share of the margin has to be passed through. For a focused entry strategy, it is meanwhile doubtful whether the distribution and sales organization, burdened with a broadly diversified product portfolio, would embrace VAs and acquire the relevant product expertise.

III. The business model: core elements of a VA offering

If an insurer has made the basic strategic decision to develop a VA business model, it could face a considerable challenge in practical implementation, including product design, risk management, and distribution approach.

Product design

When designing the product, the insurer must overcome or at least minimize potential deficits from the customer and/or distribution perspective. Here, limiting (perceived) complexity will make VAs more attractive, and lower sales commissions and fund management charges will increase sales volumes. This could be achieved, for example, by developing separate product lines: a premium product – with the current flexibility and modularity – could appeal to wealthy customers and independent sales partners, whereas an "economy" variant could target the mass retail market and sales channels (e.g., agents), segments that are less focused on investments. For economy products, the investment spectrum would be confined to passively managed funds and combined with a mandatory minimum share of fixed-interest investments. This design would not only reduce complexity, but thanks to the much smaller basis risk also minimize expenses for fund management and guarantee provision. The prospect of higher sales volumes might additionally open up leeway to reduce sales commissions.

Risk management

The management of the biometric, conduct-induced, capital-markets-related, and operating risks should focus on three tasks.

- **Reducing the product-inherent risks:** Product design and pricing can make the VA offering not only more attractive for customers, it can also contribute to minimizing risks and hedging costs. Exhibit 3 illustrates possible levers. These include modifying the investment options (e.g., by focusing on the insurance group's own near-index funds), adjusting the product's flexibility (e.g., by increasing the access age requirement) or making the guarantee costs more flexible for new and existing business (e.g., via market-dependent increases up to a maximum charge). Alternatively, the profitability of the portfolio can be managed by introducing market-dependent constraints, e.g., a clause that, under certain market conditions, allows switching the investments to funds with lower volatility or lower tracking error. All of this requires sophisticated implementation measures at the operating level (e.g., IT systems to monitor fund performance as well as close group-internal coordination across functions, above all between the investment management and product development units.

- **Developing a robust hedging strategy:** The hedging strategy is derived from the company's defined risk appetite and overarching risk strategy. Taking into account internal capabilities, the hedging strategy determines which risks should be covered by reinsurance, structured products from investment banks, or internal hedging programs. As the most sophisticated option, in-house hedging requires both specification of the hedging objective (e.g., securing economic values vs. accounting positions) and the selection of risk factors to be hedged (e.g., equity market volatility). Transparency regarding the type and scope of non-hedged positions is absolutely essential given the often very high loss potential associated with gaps in the hedging policy ("implicit bets"); top management should therefore always be involved here. To ensure that the risk exposure is concretely known, it is helpful to run a scenario analysis that models the reactions of the VA portfolio or, even better, the entire business relative to individual risk factors in terms of profitability, value preservation, and capital requirements. Such a simulation can show that for single-premium VA products individual categories such as basis and behavioral risks are the largest risks to the portfolio. A comparison with other hedging strategies (e.g., static hedging using structured products) also reveals in quantified form the risk that can arise as a result of the relatively short maturities of such structured products. A company first has to have such analytical results in hand in order to make fact-based decisions about the type and scope of its hedging activities and derive focus areas for day-to-day risk management (e.g., close monitoring of the basis risk of fund investments).

Exhibit 3

The risk profile of VAs can be improved by shifting the levers for investment management, product design, and pricing

Levers for mitigating inherent product risks

	Before	After
Investment options	▪ Wide range of funds actively managed by third parties with high tracking error, hence considerable basis risk	▪ Reduction of basis risk – Passively or semi-actively managed funds with low tracking error – Group's own funds – Setting volatility limits as trigger for switching funds
Product flexibility	▪ High flexibility for sum increases and withdrawals ▪ Only one product for all different age groups ▪ Widespread use of riders with high conduct risks (GMIB)	▪ Choices restricted or at a price ▪ Limit on access age or products adjusted to respective age group ▪ Focusing on riders with limited conduct risk (GMWB, GMAB)
Pricing	▪ Prices of guarantees in the portfolio cannot be adjusted ▪ Relatively long repricing intervals for new business	▪ Flexible pricing of guarantees in portfolio (with upper limits) ▪ Faster repricing cycles

SOURCE: McKinsey analysis

- **Managing operational risks:** Dynamic hedging programs are vulnerable to many risk factors. Liquidity and counterparty risks – often underestimated before the crisis – can be best limited through simple, liquid, and publicly listed financial instruments. In addition, strict risk governance is necessary in order to reduce operational risks and ensure dynamic monitoring of the risk factors (e.g., of the basis risk). Finally, an insurer needs reliable controlling systems in order to quickly get a clear view of current risk positions and be able to predict the effects of individual scenarios on an ongoing basis (e.g., changes in lapse rates, interest rate increases).

Distribution and sales approach

A sales strategy that treats variable annuities as just one product among many without specific training and incentives for the channels has practically no chance of success. The newness and inherent relative complexity of the product necessitate an advising-intensive sales approach, which must begin with an extensive sales activation program. To overcome awareness and comprehension hurdles in the sales force as well as among targeted customer groups, variable annuities must be positioned as anchor products and embedded in a company's overarching advising strategy. Furthermore, training capacities must be installed, sales incentives adapted, and accessible marketing communications developed. These investments will pay off in the medium term when a gradual shift in demand occurs in the direction of VA products.

* * *

If the expectations of leading insurers are met, variable annuities will represent a new paradigm in the European life insurance landscape, one that poses new strategic and operational challenges. At the same time, a radical shift in product demand towards variable annuities is not in the cards. Variable annuities will be a further, albeit important addition to an increasingly varied spectrum of products and will rapidly gain in importance for individual insurers and customer segments.

The authors acknowledge the contributions of Christian Bender to this paper.

Lukas Junker *is a partner in McKinsey's Frankfurt office.* ***Sirus Ramezani*** *is a partner in the Zurich office.*

McKinsey Working Papers on Risk

McKinsey Working Papers on Risk
February 2010
Designed by North American Design Center

www.mckinsey.com