In the days before the financial crisis, with stock markets rising and affluent investors looking to accumulate higher levels of tax-deferred savings in a life insurance wrapper, investors' appetites for variable annuities were nearly insatiable.

“During the '90s, there was sort of an arms race in VA companies offering very rich guarantees,” said Alex Marion, vice president of product management for Numerix, which provides analytical risk management services to financial companies and insurance companies.

Full-year VA sales grew to $156 billion in 2007, according to Limra, and vendors kept upping the ante by offering customers benefit after benefit, such as base increase rates of 6% or higher, aggressive portfolio allocation options and little or no management of volatility.

“But through the bear market, a lot of these guarantees turned out to be underpriced,” Marion said.

Since then, VA companies have been seeking to restructure their business, buying out these overly generous guarantees, moving to fixed income annuities, offering new product models and designs and adding new risk-management features.

“The hedging programs in place only worked to a certain extent,” Marion said. “A lot of companies have since exited the business and the companies that are still offering VAs have modified product designs significantly, either by reducing benefits or increasing fees.”

Since the crisis, sales of VAs have remained flat, and most recently have dropped. According to Limra, VA sales in 2014 were $140.1 billion, a 4% drop from 2013 and the lowest annual VA sales since 2009.

Nearly overnight, some of the largest VA players—Hartford Financial Services, Sun Life Financial and ING U.S.—exited the industry entirely. Others offered buyback programs for holders of their legacy offerings. And those that remained committed to the space placed renewed emphasis on risk management.

“For the most part, the challenges in the industry had to do with guaranteed benefits, especially living benefits that carriers started to sell in the late '90s,” said Steven D. McDonnell, president of Soleares Research, which tracks the variable annuity industry.

“That really became problematic in two periods: One was the aftermath of the tech bubble and the second wave was after the '08 crisis.

“With the downturns in the markets in those periods, it caused these benefits to go into the money, which in turn did things to insurers like depleting benefit reserves, which they had to shore up and that created a drain on capital,” he said. “They also had breakage to their hedging programs, which resulted in hits on earnings.”

Three Reasons for the Sales Drop

That has resulted in a much more rational market.

“Before the crisis there was an arms race of who could outdo the next company on the benefit levels,” said Dan Herr, Lincoln Financial Group’s vice president of annuity product management. “The financial crisis exposed the risk for the carriers that engaged in that. So I think after the crisis we’ve seen more of a rationalization of the marketplace.”

The three major reasons for the drop-off in sales are changes in product design and reductions in benefits; carrier exits from the market; and deliberate underselling or voluntary reduction in sales, according to Tamiko Toland, Strategic Insight’s managing director of retirement income consulting who monitors developments in the VA industry.

Key Points

What’s Changed: Current VAs have key differences than those issued before the financial crisis.

New Features: Many have embedded risk management features that reduce volatility and the cost of hedging living benefit guarantees.

Other Trends: Newly popular designs include investment-only VAs and structured hybrid products that include features of fixed index annuities.

New variable annuities are less volatile but provide less-generous guarantees.

by Angelo John Lewis

Angelo John Lewis is a senior associate editor. He can be reached at angelo.lewis@ambest.com
the major development has been the introduction of risk management features, which through a variety of methods decrease VA volatility.

“The biggest change really has been the introduction of risk-managed fund features. These are overlays on top of mutual funds or investment choices that minimize the volatility or tail risk of these investment choices,” Marion said. “What that does is reduce the cost of hedging these guarantees.”

By reducing volatility, these risk-managed fund features have helped to stabilize the VA market. “I believe that managed volatility has actually saved the VA industry and without it, I don’t think that we would see the number of companies participating as actively as they do now,” Toland said. “That’s been a real linchpin in terms of constructing this new risk management paradigm.”

Some funds manage volatility by using derivatives, while others have dynamic algorithms that automatically reallocate investments as economic conditions shift.

“So if volatility starts spiking, the equity exposure is reduced through different instruments since volatility is a pretty good indicator of downturns in the market,” Lincoln’s Herr said. “It protects the investment from the sharp and prolonged downturns in the market, and ultimately should result in better performance over the long term, when you have these cycles of good markets and bad markets.”

Another risk management strategy in effect transfers the risk of the product back to the consumer by tying losses or gains to an index, such as the S&P 500 or the Chicago Board Options Exchange Volatility Index.

Despite the introduction of these risk management measures, Marion said he believes that VAs still involve

### Product Risk Scale

<table>
<thead>
<tr>
<th>Lower Risk</th>
<th>Medium Risk</th>
<th>Higher Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Assumption UL</td>
<td>Group Life</td>
<td>Fixed Indexed Annuities</td>
</tr>
<tr>
<td>Group Life</td>
<td>Credit Ins.</td>
<td>Fixed Deferred Annuities</td>
</tr>
<tr>
<td>Term Life</td>
<td>Suppl Health Products</td>
<td>Disability Income</td>
</tr>
<tr>
<td>Term UL</td>
<td>No-Lapse UL</td>
<td>VA's w/ Living Benefits</td>
</tr>
<tr>
<td>Variable Life</td>
<td>Final Exp/Pre-Need</td>
<td>Immediate Annuities</td>
</tr>
<tr>
<td>Term Life</td>
<td>Dental</td>
<td>Large Group Medical</td>
</tr>
<tr>
<td>Stop Loss</td>
<td>Medicare Suppl Advantage</td>
<td>Structured Settlements</td>
</tr>
<tr>
<td>Long Term Life</td>
<td>Group Medical Loss</td>
<td>Long Term Care</td>
</tr>
</tbody>
</table>

Source: Best’s Special Report U.S. Life/Annuity Variable Annuities: Legacy Blocks Still Represent Tail Risk (March 16, 2015)
insurer risk to some extent. “I would say it’s not a risk-free product,” Marion said. “I think what we’ve seen is an introduction of new types of risks. So by reducing fund choices, they’ve reduced basis risk around hedging the funds, but they’ve introduced an additional basis risk now in hedging with managed volatility funds. A lot of these managed volatility funds are black box funds issued by banks or asset managers, where the insurance company doesn’t have visibility into the actual fund volatility overlay,” Marion said. “So it makes them very difficult to model these funds and that introduces the basis risk.”

“At the same time, whenever you have a large segment in the market concentrating in a similar type of investment strategy, there’s some systemic risk there as well,” Marion said. “It’ll be interesting to see in the next major bear market how all these managed volatility funds are able to achieve a target volatility when every single fund is trying to do the same thing.”

Legacy Risks
While most post-crisis VAs have been structured to reduce carrier risk, the greater concern is legacy VAs that offered richer guaranteed living benefits.

“For the most part, the challenges in the industry had to do with guaranteed benefits…that carriers started to sell in the late ’90s.”

Dan Herr, Lincoln Financial Group

While the industry has made significant strides in risk management in recent years through hedging, mandatory asset allocation and fee increases, legacy VA blocks remain a tail-risk concern, given that ultimate risk remains subject to equity market correction, the direction of interest rates, realization of lapse rate assumptions and policyholder benefit utilization,” according to a March 2015 Best’s Special Report, Variable Annuities: Legacy Blocks Still Represent Tail Risk.

“VA writers walk a fine line between the need for revenue growth, meeting customer and distribution needs for retirement solutions and balancing earnings and capital volatility,” according to the report.

McDonnell said he believes the industry is in a transition phase “where insurance companies are experimenting with new models and new designs that will slowly move the dialogue away from those guaranteed benefits.”

“It’s going to take a while, but there are some signs that certain designs have gotten a bit of traction,” he said.

One of these newer designs is investment-only variable annuities, which are accumulation vehicles that provide guaranteed lifetime income via annuitization, but do not...

U.S. Individual Variable Annuity Sales Trend/Market Share
(Years 2004, 2007, 2013 and 9/30/14 YTD)
($ in thousands)

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hartford Life Insurance Co.</td>
<td>$15,282</td>
<td>12%</td>
<td>$13,276</td>
<td>7%</td>
<td>$915</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>MetLife</td>
<td>$13,696</td>
<td>11%</td>
<td>$16,226</td>
<td>9%</td>
<td>$17,700</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td>3</td>
<td>TIAA-CREF</td>
<td>$13,093</td>
<td>10%</td>
<td>$14,116</td>
<td>8%</td>
<td>$14,086</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>4</td>
<td>AXA Financial/MONY</td>
<td>$9,669</td>
<td>7%</td>
<td>$15,833</td>
<td>9%</td>
<td>$16,226</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td>5</td>
<td>AIG/SunAmerica/VALIC</td>
<td>$8,864</td>
<td>7%</td>
<td>$9,478</td>
<td>5%</td>
<td>$8,764</td>
<td>6%</td>
<td>12,305</td>
</tr>
<tr>
<td>6</td>
<td>ING Group of Cos.</td>
<td>$7,677</td>
<td>6%</td>
<td>$11,128</td>
<td>6%</td>
<td>$0</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>7</td>
<td>Lincoln National Life Insurance Co.</td>
<td>$7,164</td>
<td>6%</td>
<td>$13,026</td>
<td>7%</td>
<td>$10,426</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>8</td>
<td>Pacific Life Insurance Co.</td>
<td>$6,401</td>
<td>5%</td>
<td>$10,676</td>
<td>6%</td>
<td>$3,990</td>
<td>3%</td>
<td>4,515</td>
</tr>
<tr>
<td>9</td>
<td>John Hancock Life Insurance Co.</td>
<td>$5,948</td>
<td>5%</td>
<td>$10,805</td>
<td>6%</td>
<td>$515</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>10</td>
<td>Prudential/American Skandia</td>
<td>$5,770</td>
<td>4%</td>
<td>$11,658</td>
<td>6%</td>
<td>$19,974</td>
<td>14%</td>
<td>11,428</td>
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<tr>
<td>11</td>
<td>Ameriprise Financial/Riversource</td>
<td>$4,673</td>
<td>4%</td>
<td>$10,670</td>
<td>6%</td>
<td>$5,157</td>
<td>3%</td>
<td>5,230</td>
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<tr>
<td>12</td>
<td>Allianz Life Insurance Co. of North America</td>
<td>$4,043</td>
<td>3%</td>
<td>$3,326</td>
<td>2%</td>
<td>$3,324</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>13</td>
<td>Nationwide Life Insurance Co.</td>
<td>$4,256</td>
<td>3%</td>
<td>$6,051</td>
<td>3%</td>
<td>$4,221</td>
<td>3%</td>
<td>5,741</td>
</tr>
<tr>
<td>14</td>
<td>Jackson National Life Insurance Co.</td>
<td>$3,640</td>
<td>3%</td>
<td>$9,113</td>
<td>5%</td>
<td>$19,724</td>
<td>13%</td>
<td>20,942</td>
</tr>
<tr>
<td>15</td>
<td>Aegon/Transamerica</td>
<td>$2,182</td>
<td>2%</td>
<td>$4,006</td>
<td>2%</td>
<td>$5,274</td>
<td>4%</td>
<td>8,406</td>
</tr>
</tbody>
</table>

Industry Total | $129,897 | $182,645 | $147,400 | $145,300 | $105,900 | 12% | -20% | 0% |

Top 15 as a Percentage of Industry Totals | 86.5% | 87.3% | 83.3% | 82.7% | 82.5% |

Top 10 of 2004 % of Market Share | 72.0% | 69.1% | 57.7% | 52.9% | 48.8% |

Sources: Limra; Bloomberg; company financial statements, reports and press releases
offer optional living benefits. Buyers of these products are generally more concerned about growing their asset base, or protecting their asset base from decline, than they are with living benefits.

Sales in this category are still relatively low compared to other types of variable annuities, accounting for 5% to 10% of total variable annuity sales of $1.45 billion in 2012, according to the Insured Retirement Institute. In its white paper on the subject, Accumulation-Oriented Variable Annuities Gain Momentum, the organization predicted that this category would continue to grow.

In many respects, the re-emergence of this category harkens back to the early days of VAs, during which the primary focus of the product was more on wealth accumulation, Herr said.

"In recent years, the focus across the industry shifted to guaranteed lifetime withdrawal benefits and we lost focus on the wealth accumulation. I think what you're seeing with these IOVAs is getting back to the wealth accumulation side rather than just focusing on the one consumer need of guaranteed lifetime income."

An additional innovation has been hybrid types of structured products that contain elements of fixed annuities with downside protection reminiscent of variable annuity living benefits. These offer consumers participation in the gains of a market index with limited downside protection capped at a certain percentage, while also protecting insurers from the market risk that comes with traditional variable annuity product designs.

"While their sales are still small compared to VAs and FIAs, a couple of big firms have offered products that mimic both VAs and FIAs," McDonnell said. "They use basically structured note-type crediting strategies that have some downside protection."

These VAs allow consumers to participate in upside market potential by offering a number of investment options that are tied to market performance. The investment options are often linked to the performance of a specific index, such as the S&P 500, a traditional characteristic of indexed annuities.

"When [Axa] came out with that in 2010, people thought it was crazy because it wasn't a lifetime guarantee product, which was the focus of everybody else in the industry," Toland said. "Instead it looked more like a structured product on an annuity chassis."

With new designs being introduced regularly, clearly there's no shortage of innovation among product designers.

"I have a belief that the industry has a lot of that know-how and creativity to be able to make designs that will work and be appropriate going forward in terms of a risk standpoint," McDonnell said.

"However, it's going to be a bit of a road to go through to get to the point where we're not going to be so dependent upon the living benefit sales."

A.M. Best’s View: Legacy VA Blocks

I n a recent A.M. Best TV episode of First Monday, Senior Associate Editor John Weber interviewed A.M. Best's Assistant Vice President Rosemarie Mirabella about insurers' concerns over legacy variable annuity blocks.

What concerns does A.M. Best have regarding legacy variable annuity blocks?

Our concern is primarily centered around the tail risk. It relates to the embedded richness of the guarantees, the equity market risk and the interest rate risk. Additionally, we have some concerns regarding policyholder utilization. Many of these products are just starting to get to the point where we'll get good historical experience to see the level of utilization and to see whether or not the pricing assumptions made in lapses are realistic or not.

How have companies addressed the risk in these legacy blocks?

They've taken action in a number of areas over the last several years. Changes have included increasing the rider fees, product redesigns, reducing the level of guarantees, repricing to reflect lower interest rate and lapse assumptions, and changing the asset allocation strategy. In addition, companies have managed their overall sales profile fairly tightly to make sure that they’re not taking on too much balance-sheet risk. Finally, they have offered some specialized programs to incent policyholders to surrender the policies.

What’s new in variable annuities?

We see companies returning to the traditional sales model, specifically what’s called investment-only variable annuities, which are products that have no guarantees. We see very significant carriers increasing their sales allocation, which can be as much as 30% to 50% of current-year sales. These products have no risk, essentially, to the insurance industry.

The other thing that’s new is we’re starting to see the emergence of what I’m calling hybrid products, which is sort of blurring the lines between indexed annuities and variable annuities. There’s something called an index variable annuity product, which is tied to an index, say the S&P 500. This product offers upside protection just like any variable annuity or indexed annuity would, but it has a somewhat unique feature in that policyholders will absorb losses below a specified buffer level, say 10% for example.

The other thing we see is reinsurance capacity returning to the space on a highly selective basis, but overall that’s a positive for the industry. I would say that the industry continues to remain very proactive in adapting its enterprise risk management practices and monitoring the overall risk profile of its exposure.

To view the full interview, go to www.ambest.tv