



Article from

Reinsurance News

July 2017
Issue 88

Return on Capital Enhancement Opportunities for the Life Insurance Industry

By Rebecca Wilczak

Unlike products sold in most industries, life insurance is the sale of a promise to pay in the future, when vulnerable parties are in their greatest times of need. These vulnerable parties count on life insurance benefits to pay bills, send their children to college, and return to some semblance of normalcy after a tragic event. The importance of these benefits and the uncertainty in their timing makes regulation of life insurance companies a matter of public policy. Regulations exist to make sure that life insurers have the funds necessary to pay the benefits they promised at the time of sale.

At the same time, life insurance companies, like most other industries, only sell products to the extent they can earn a profit, that is, earnings which exceed the cost of capital. Life insurers do not benefit from knowing the actual cost of goods sold at the time of the initial sale of a life insurance policy. Thus, it is necessary to make assumptions about future mortality rates, interest rates, lapse rates, expenses, and other items in order to determine the premiums charged to a policyholder and the level of revenue to hold back as reserves and capital. Using more aggressive assumptions allows the company to realize a higher profit sooner, but perhaps not have enough funds to pay benefits in the future. Using more conservative assumptions increases the likelihood that the company will have funds to pay benefits, but also delays and lowers current profits. For a company to be able to ensure that all benefits can be paid in the worst possible case where all insureds die immediately, the company would need to hold the entire face amount of all policies in reserves and capital. Doing so would require that premiums be set equal to the face amount of the policy and effectively eliminate the benefit that life insurance now provides.

The question, then, is not whether life insurance companies, regulators, and policyholders should accept a non-zero probability of failure, but what probability of failure is acceptable. There must be a balance between the competing objectives

of having strong life insurance companies that are able to pay claims even through extremely-adverse mortality scenarios, with making life insurance affordable and accessible to the largest number of people.

An important measure to use when finding this balance is the return on capital that the insurance company can achieve. A company with extremely conservative levels of capital that could withstand even the worst scenarios will generally have a lower return on capital than a company that is able to offer cheap insurance but may not be able to pay future claims. A tool that allows life insurers to earn a higher return on capital without eroding the ability to pay claims would obviously be useful.

At the most basic level, there are three ways for a life insurance company to generate a higher return on capital. The first is to make the business more profitable by increasing the profit margin and maintaining the same level of capital, the second is to produce more volume with the same capital base, and the third is to lower the amount of capital that is held. By examining the ways that life insurers have used these methods in the past, we can see how the life insurance market has swung between the two objectives mentioned above.

Before Regulation XXX, many insurers accomplished this boost to their return on capital by structuring term and universal life insurance products to take advantage of the existing statutory reserve calculations. As an example, term life insurance policies included substantial unilateral rate increases in their later years, and, because statutory reserve calculations assumed that no policyholders lapsed, these high premiums were assumed to be paid and could be set at a level that reduced the minimum statutory reserve required to be held. Term insurance products were made available at low prices and with long guarantees, but the minimum reserves could be set lower than many felt was prudent.

Regulators reacted to this practice by adopting Regulation XXX, which, in most cases, substantially increased the statutory reserve requirements for term life insurance products. The assumptions and methods used in the calculation were viewed as overly conservative and the resulting level of reserves onerous and redundant. To compensate, some insurers raised prices and shortened guarantees, making it difficult for consumers to obtain life insurance that matched their needs.

Other life insurers were successful at ceding blocks of term policies to offshore reinsurers with less conservative reserve requirements. In order to take reserve credit on their statutory statement, the insurer only needed for the offshore reinsurer to hold, for example, a letter of credit. The simplicity of this approach led to an explosion in the use of offshore third-party reinsurers and a peak in the cession rate to more than



60 percent in 2002¹ versus less than 25 percent in 2015². Life insurers taking this approach were able to offer products at lower rates and with better guarantees, but they took on significant counterparty credit exposure to entities which were in turn using significant amounts of financial leverage to support these reserves. This method created systemic risk to both the U.S. life insurance and global insurance market.

Not long after this, the market for financing these “redundant” reserves expanded to include investment banks, which used existing securitization and credit technology to develop solutions. To facilitate these solutions, certain states allowed life insurers to set up limited purpose insurance company subsidiaries, known as captives, which were subject to more advantageous accounting. Captives allowed life insurers to segregate blocks of policies from the rest of the operating company and attract more cost effective third-party financing. These capital market approaches allowed life insurance companies to back redundant reserves with less expensive sources of capital and reduced counterparty credit exposure, but replaced that counterparty credit risk with a combination of financial and operating leverage.

This pattern continued until credit markets tightened during the financial crisis, when even the most transparent credit

facility became difficult to complete at a reasonable price, let alone esoteric structured insurance transactions. The lack of financing solutions came at the same time that insurers experienced the impact of the crisis on their fixed income portfolios. Fortunately, the life insurance industry faced mostly optical challenges and, inconsistently, certain states granted their domestic life insurers exceptions to some standing regulations. These exceptions let healthy life insurance companies withstand the external circumstances and continue offering products at reasonable rates.

Given that statutory reserves were viewed by most regulators as having a material amount of excess conservatism and that the challenges of the financial crisis led to a requirement to replace many existing credit facilities, one of these exceptions was to allow additional flexibility in the requirements for assets which could be used to finance reserves, including letters of credit and structured notes. The use of these non-traditional assets let life insurance companies hold the entire statutory reserve while transferring risk to a highly-rated counterparty. Each state made the decision individually on whether to allow this or not. At the same time, captive transactions usually involve limited disclosures making it difficult for one state to examine the condition of a company located somewhere else. Changes to regulations, including Dodd-Frank, also limited the ability

of states outside the state of domicile to make requirements for what types of captives should be allowed. These structures allowed life insurers in some states to consistently offer insurance products at reasonable prices, but concerns grew in other states that a potential race to the bottom, as states competed amongst themselves to be the most reasonable, could worsen the financial condition of the industry. These fears led to three years of data gathering and analysis by regulators which culminated in a 2014 report by Rector and Associates.³ This report did not confirm many of the concerns with a so-called shadow insurance market, but it did make several recommendations on how to make redundant reserve financing transactions more robust, more consistent, and more transparent.

The release of Actuarial Guideline 48 in December 2014, which built upon the Rector report, codified the use of captive reinsurers and sought to bring uniformity and transparency to captive structures. The new regulation allowed captives to hold a level of traditional securities equal to a so-called modified VM-20 reserve instead of the substantially more conservative XXX reserve. The captive could then hold non-traditional assets, for example, a structured note, to back the portion of reserves in excess of the modified VM-20 reserve up to the required XXX reserve. The new requirement, which acts as a bridge to principle-based reserves, allowed life insurers to continue offering term products at reasonable rates in the face of increased scrutiny of their financing structures. Had regulators completely disallowed such structures or required insurers to hold the entire XXX reserve in traditional securities, insurers would have needed to substantially increase rates in order to accommodate the increased cost of supporting the product.

A 2013 paper by Kojien and Yogo⁴ and a 2014 paper by Harrington⁵ take contrasting views on the use of captives, and a detailed review is beyond the scope of this article, but a point of agreement is that captive reinsurance makes term life insurance more affordable and available. Kojien and Yogo estimates that without the use of captives, term premiums would increase by more than 10 percent for companies that currently utilize captives and the industry as a whole would shrink by \$6.8 billion or 7 percent. With an estimated gap in existing life insurance coverage of more than \$16 trillion, making life insurance less affordable and less available is certainly not a favorable outcome.

Some regulators have taken the view that financing transactions and captives would be temporary solutions as principle-based reserves would obviate the need to finance redundant reserves. Principle-based reserves, while generally less conservative than current XXX reserves, still do include material conservatism which is very significant for some policies and can still result in statutory reserves that are much higher than a company's best estimate. In fact, many are finding that principle-based reserves

for certain products are materially higher than existing statutory reserves. For this reason, among others, we will again see a transition to new forms of financing arrangements in the coming years as life insurers implement principle-based reserves.

A potential way forward is that these new era financings may look like the XXX securitizations of the early 2000s, as described above, which require traditional securities backing their reserves and do not allow for the structured notes and letters of credit of the post-crisis, pre-AG 48 era. Funded securitizations allow a life insurer to isolate risks in a captive and repackage it to better suit investor's individual preferences—a fixed income asset manager may be interested in senior insurance risk with a small risk premium while an insurance-linked securities investor may look for mortality risk as a diversifying tool. Securitizations remove many of the intermediary steps between investors and the risks they want to assume, improving the efficiency of the market. To the extent that the reserve is fully funded with traditional securities, securitizations can represent a less expensive source of capital for life insurers while reducing the risk that a company defaults on its promise to pay.

Regardless of the future of captives, the life insurance industry and its regulators must continue to work to strike a balance between affordable insurance and strong, well-capitalized companies. Requiring insurers to hold an excessively conservative statutory reserve is unlikely the best option, but neither are opaque captive structures which create the perception of a shadow insurance industry. Alternatively, transparent financing transactions that bring more affordable capital into the U.S. life insurance industry with such capital available to widows, widowers, and orphans can make insurance more affordable while reducing the risk of default. ■



Rebecca Wilczak, FSA, CERA, MAAA, is actuary, Financial Solutions at Hannover Re. She can be reached at rebecca.wilczak@hlramerica.com.

ENDNOTES

- 1 Bruggeman, Life Reinsurance Data from the 2010 Munich Re survey, *Reinsurance News* November 2011.
- 2 Sebastian, Results of the 2015 Life Reinsurance Survey, *Reinsurance News* July 2016.
- 3 Rector and Associates, The Rector Reports to the PBR Task Force, February 2014.
- 4 Kojien, Ralph S. J. and Yogo, Motohiro, Shadow Insurance (October 2013). NBER Working Paper No. w19568.
- 5 Harrington, The Use of Captive Reinsurance in Life Insurance, 2014.