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## Taming a Wild Ride: Investment and Risk Management Strategies for Long-Term Care Insurers in a Challenging Market

by James G. Stoltzfus and Angelika Feng

### OVERVIEW OF THE LTC MARKETPLACE

An analysis of the long-term care (LTC) insurance market shows an industry undergoing significant changes, and one in which the future is difficult to predict. With sales declining significantly in 2008 and 2009, insurers outside of the top ranks of LTC sellers have struggled to build new sales, and several companies have decided to limit their participation in the LTC market, take substantial rate increases, or stop selling LTC policies altogether. However, despite these recent trends, we have started to see improvements in sales since 2010. According to the U.S. LTC insurance annual review reports<sup>1</sup> by LIMRA (an association of insurance and financial

services companies), sales in 2010 grew 13 percent and 24 percent in the individual LTC market and the group LTC market, respectively. The number of lives covered by U.S. individual LTC insurance policies increased 11 percent, and new premiums at the top 10 individual LTC carriers combined grew 20 percent in 2010. The individual LTC sales showed continued growth in the first half of 2011.

One bright spot in the market is products that combine life insurance with LTC, for example

#### FOOTNOTES

<sup>1</sup> LIMRA, Group LTC Insurance, Annual Review 2008-2010, Individual LTC Insurance, Annual Review 2008-2010

by including a rider that allows policyholders to draw death benefits early if they end up needing LTC coverage. Products that combine an annuity with LTC insurance are also growing in popularity, with several benefit designs being offered in the market today. The market penetration of these products is partly due to favorable tax rules created by the Pension Protection Act of 2006 that became effective in January of 2010, including tax-favored access to account values and tax-free distributions from combination annuities.

In addition, alternative funding techniques are being increasingly utilized including reverse mortgages.

## OVERVIEW OF THE KEY RISKS FACED BY THE LTC WRITERS

These combination products represent a fairly small part of the LTC insurance market, which itself is only a small fraction of its potential size. The need for LTC insurance is clear, but in addition to relatively low consumer demand, insurers face significant challenges in pricing and managing the risks associated with these products.

Chief among these is the long duration of the LTC coverage. Cash flows are typically positive in early years, but negative later on, requiring extremely careful asset management over the long term. Over the course of the decades that LTC policies are typically in force, the potential for long-tail liability risk rises. In fact, the economy is still in recovery from an economic “perfect storm” so improbable that leading economists failed to predict it—one that has had significant impact on LTC insurers. Over long time spans, these are the kinds of risks for which insurers must plan.

One important consequence of the economic situation that has a major impact on LTC insurers is the depression of interest rates to extreme lows. This greatly impacts the yields on Treasuries and investment-grade corporate bonds, which represent a significant portion of the LTC assets. According to Milliman research<sup>2</sup>, for every percentage point long-term interest rates drop, insurers may need to increase premiums 10 to 15 percent to cover the gap depending, of course, on the assumptions utilized to price the product. Prolonged low interest rates create reinvestment risk, meaning that higher-

interest investments maturing today might be rolled into new, lower-interest vehicles, barely providing any interest rate margin over valuation rates.

Additionally, LTC insurers face risks created by the mismatch between the duration that assets take to mature and the long duration of policy coverage. Bonds and other low-risk investments have a typical maximum duration of 10 to 15 years, while the duration of liabilities can often be 20 years or much longer. This makes it exceedingly difficult to match investment returns with anticipated claims. This problem is exacerbated by lower-than-anticipated lapse rates for policies that were issued and priced using the historical experience from earlier generations of LTC.

Traditional investment strategies are not looking as viable as they once did. Longer duration assets reduce liquidity, making it difficult for LTC insurers to adjust to market conditions with anything other than rate increases. Large market value fluctuations occur with small changes in the current market rates due to the long duration of assets. Convertible bonds and equities can lengthen asset duration, but there are regulatory restrictions on the portion of the insurer’s asset portfolio that can be held in equities.

Along with lower-than-anticipated lapse rates, these risks and economic challenges have caused many LTC insurers to apply for significant premium increases, ranging from 10 to 40 percent or more. Some insurers, including MetLife and, more recently, Guardian, have chosen to stop selling LTC policies altogether.

Given these challenges, what can LTC insurers do to remain solvent and, hopefully, profitable while continuing to sell and service LTC policies? This paper focuses on strategies that companies are using today to invest assets more profitably and manage risks more effectively to help ensure that they can meet their obligations and move forward in an uncertain market.

### FOOTNOTES

<sup>2</sup> “How Do You Spell LTC Profitability?” Presentation by Dawn Helwig at LIMRA/LOMA/SOA DI/LTC conference, September 2009.

## ASSET INVESTMENT STRATEGIES

Since the recent financial crisis, traditional assumptions about the performance of various assets have been turned upside down. Low interest rates have made conventional “safe” investments such as government bonds less attractive to back LTC liabilities as they do not presently provide sufficient yield for most purposes, although most insurers are required to keep a certain proportion of their assets in such vehicles. The equity markets suffered massive losses. Although they have recovered a substantial amount of value recently, volatility and uncertainty concerns remain. Because of these realities, more companies are looking for alternative investments. Also, improved pricing assumptions have enabled a more realistic determination of the liability durations. This allows companies to better manage their investment strategies and asset portfolios early on in the policy life cycle, which reduces risks now and in the future. In this section, several of these investments that have been utilized are discussed in terms of their benefits and risks for long-term care insurer asset portfolios. Obviously, new asset types will be developed in the future. This list is not meant to be an all-inclusive list. Rather, it is meant to offer some alternatives to traditional assets that have been used to help meet the long-term duration and mitigate reinvestment risks.

### *Convertible Bonds*

Convertible bonds are instruments that pay a fixed yield until a specific date, at which point they can be converted into equity shares in the issuing entity at an agreed-upon exercise price. They are hybrid securities, meaning that they have both debt-like features (like a bond) and equity-like features (like a stock). While the return during the “bond phase” can be relatively low, the option to convert to equities can provide higher yields in the future. This makes them useful as assets for LTC insurers because the value of the investment will not fall below the value of the bond, but there is the possibility of greater return farther down the road when it is needed to fund LTC claims. While many companies are not investing in convertible bonds today because of the recent downturns in the equity markets, over a time horizon of 20 to 30 years, convertible bonds can be

very useful assets, especially given the low yield for government bonds today.

### *Derivatives*

Derivatives have been bashed by the popular press as a source of instability in global financial markets and one of many causes for the financial meltdown. Some of this criticism is fair, but the truth is that derivatives are and will remain a critical part of the global financial system. They enable organizations to trade risks and can be used to manage reinvestment risk and asset and liability duration mismatch risk in the LTC markets.

A common type of derivative is the interest rate swap in which two parties exchange one set of cash flow payments for another at dates specified in the contract. For example, one party could be paying a floating rate while the other is paying a fixed rate. Executing a long-dated receive-fixed interest rate swap can allow insurers to synthetically create long-tenored investments with durations much longer than other available cash market instruments.

Other commonly used types of swaps include:

- **Currency swaps:** Used when a company wants to hedge interest rate movements and currency movements simultaneously, particularly when assets are denominated in different currencies. This could give access to longer-duration assets in foreign markets which could be swapped back to the U.S. dollars, though counterparty credit risk is higher in the case of currency swaps.
- **Swaptions:** Gives the contract holder the right to enter an interest rate swap agreement. A receiver swaption is the right to enter into a swap at a specific future date as the fixed rate receiver at a rate specified in the swaption contract. Companies often use swaptions to hedge future movements of the interest rates. Insurers can reduce reinvestment risk by using swaptions to lock-in future reinvestment rates.
- **A forward-starting swap** is a forward security which locks in the rate today for an interest rate swap agreement to be entered in the future. For example, companies sometimes use “receive

**Some of this criticism is fair, but the truth is that derivatives are and will remain a critical part of the global financial system.**

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fixed/pay variable” forward-starting swaps to hedge their future purchases of long-term bonds in a declining interest rate environment. These swaps are usually terminated at the time that the future purchase is expected to occur.

Derivatives do carry risks. Counterparty risk is the risk that the counterparty will default on the agreement. Additionally, it is extremely important for insurers to stay abreast of how derivative investing is affected by regulations and capital requirements. Finally, accounting for these assets is complex, and accounting treatments can be different depending on the purposes of the hedges and how they are categorized.

#### ***Collateralized Loan Obligations***

Collateralized loan obligations (CLOs) pool loans and the associated payment streams into securities with varying degrees of risk and return. CLOs are securitized assets similar to collateralized debt obligations (CDOs) where the underlying collateral is bank loans instead of other types of debt instruments. Typically, these consist of a pool of higher-risk, higher-yield medium and large commercial loans and the overall credit risk of which has been reduced through the collateralization process.

Despite receiving bad press in the same fashion as derivatives, many of these investments performed well during the financial crisis, leading a growing number of companies to consider adding well-diversified CLOs to their portfolios. Tranches can range from relatively short-term investments to medium-term, so they may not address the duration mismatch issue, but the performance of CLOs can make them attractive for backing claim reserves.

#### ***Private Placements***

Private placements are investments that are not traded or bought over the counter but are created in a private agreement between two companies. They may provide higher yields than other types of investments, but they tend to have higher risk for several reasons. First, although they are listed as securities, they are not publicly traded, so there is less information available about them. If an organization needs to use a private placement to raise capital, it may have credit risks that prevent it from obtaining traditional financing, so further research of the organization is important. Lastly, there may not be an active market in which to sell private placement investments, and this could create liquidity risks for the holder.

#### ***Other Asset Types***

Companies have recently looked at Build America Bonds, which are taxable municipal bonds funded by the 2009 American Recovery and Reinvestment Act. The primary market for this asset type has passed its sunset in 2011. However, they may begin a secondary market in 2011. Given the higher earnings rates, it is likely the purchase price is at a premium thereby reducing the prospective buyer’s yield on the asset. Other asset types which have been available in the past are obviously still available, and generally these traditional assets make up a large portion of company portfolios.

## **LIABILITY RISK TRANSFER**

In addition to considering alternative investment strategies, LTC insurers could look at innovative ways of managing the liability risks inherent in their business. Three significant possibilities are securitization, offshore reinsurance and product redesign.

#### ***Securitization***

Securitization of insurance risk has been practiced

in other insurance or liability markets for many years. It is a means for transferring risk from an insurance company to capital markets by exchanging risk-prone cash flows for lump sum payments, much like a bond. One key in successful securitizations is finding buyers who understand the risks sufficiently to want to take them on. Many insurance securitizations are highly complex, and, therefore, create informational asymmetries between the issuer and the investor.

LTC securitizations have been attempted in recent years. However, due to the uncertainty of future morbidity flows, differences between actual experience and originally priced expectations in experience, and the long-term risk of future cash flows, much higher risk margins must be assumed, making securitization of an entire block of future cash flows less attractive to outside investors.

#### **Claim Securitization**

Claim reserves for policyholders currently on claim are much more predictable. The one component of future claims, claims incidence, is already known. Current claim reserves can be sizable but usually have shorter durations, particularly those not containing lifetime benefits or without future benefit increase options. For example, a block of existing claims consisting of 4-year or 5-year benefit periods may present an opportunity.

#### **Commission Securitization**

Another cash flow stream that is more predictable is future commissions. At least two opportunities could exist here. First, the future stream of commissions could be collateralized or securitized into an asset-backed security. Second, the future stream of commissions could be sold to an outside investor, thereby providing cash to the insurer and relieving the insurer of future commission payments as the investor takes over the commission payments. The outside investor may then buy out the agents and pick up a margin on the purchase.

#### **Offshore Reinsurance**

Much has been written about offshore reinsurance. Offshore reinsurance involves ceding the business to a reinsurer typically in a jurisdiction with efficiencies around capital requirements, reserve requirements, investment restrictions, regulations, and tax structure. The reinsurer could be a

separately licensed entity or a captive established in the offshore jurisdiction.

Typically, reserve requirements in other jurisdictions outside the United States may be closer to GAAP. Also, there may be fewer investment limitations and fewer capital (RBC) restrictions. For example, it may be possible to keep a higher proportion of assets in equities or enjoy lower capital requirements compared to purchasing U.S. reinsurance. Obviously, disadvantages exist as well. These could include currency risk, excise taxes and ceded reserve credits. The use of offshore reinsurance should be carefully evaluated to make sure all of the risks are well understood.

#### **Product Redesign**

It is also useful for LTC insurers to examine the structures of their products to mitigate risks. LTC is not a mature market and new ideas for structuring products arise regularly. One approach that has gained more favor recently is combo products which combine life insurance or an annuity product with LTC insurance, by offering life insurance or an annuity with an LTC rider. Life insurance primarily suffers from the risk that mortality will arise too early in the product lifecycle, while LTC faces the opposite risk. By offering both benefits in one product, the risks can be balanced. For example, an increasingly popular class of product provides an LTC “living benefit” that draws down the balance of the life policy. Other approaches exist or have been proposed in the past as well, such as “universal LTC,” which could be structured similarly to universal life insurance or a deferred annuity. While each of these possibilities has advantages and disadvantages, the key is to better understand the risks and develop a product that appeals to both the policyholders and the insurers in the long term.

## **REGULATORY IMPACTS ON LTC RISK MANAGEMENT**

One more consideration is how changes to insurance regulations, specifically, the adoption of the principle-based approach (PBA) in the United States and the related adoption of Solvency II regulations in Europe, will affect the viability of specific risk management and investment strategies for LTC insurers. These regulations, both



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anticipated in the 2013 time frame at the earliest, will likely change the capital requirements for certain types of assets and liabilities. If specific asset classes result in higher capital needs, the LTC market could see a rising interest in alternative investments as well as strategies for minimizing capital requirements.

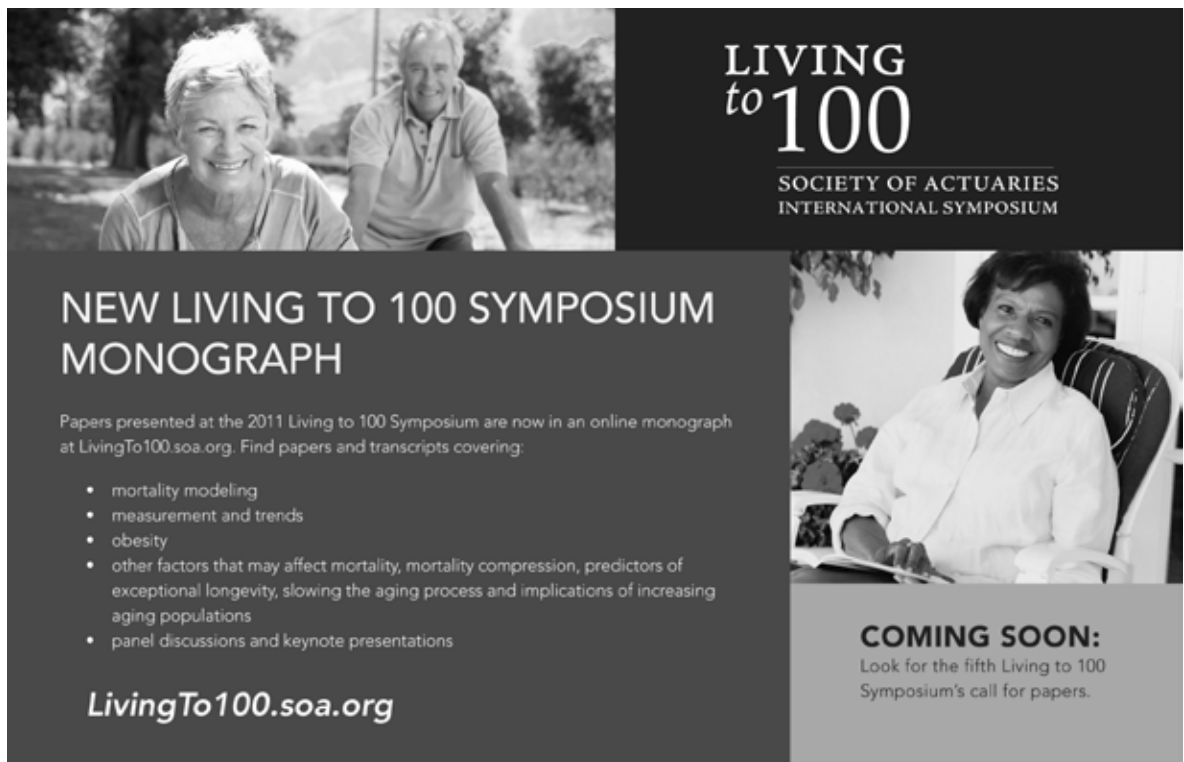
Methods such as Solvency II, PBA and Canadian GAAP (CGAAP) require companies to stochastically determine capital and reserves. In addition, rating agencies have adopted economic capital modeling in their rating process. For LTC insurers, this means active life reserves, claim reserves and capital requirements could all potentially be determined on a stochastic basis. For some companies, especially small companies, this could lead to major overhaul of their systems.

Larger and more diversified companies may be able to gain more capital relief and more competitive pricing, while making it more and more difficult for some companies to compete. Consequently, this could lead to more consolidation in the LTC market going forward. Time will tell for sure.

Companies will need to develop more robust ERM platforms under the new regulatory requirements. Risk management techniques described above such as hedging, reinsurance and capital market risk transfer will become even more important.

## CONCLUSION

Despite the happenings over the last couple of years, the outlook for LTC is extremely positive. The key is understanding and dealing with the risks. While the LTC insurance market is growing (albeit slowly) and maturing, it holds inherent risks for insurers in the imbalance between assets and liabilities. Given an uncertain investment and interest rate environment, LTC insurers should aggressively investigate alternative strategies for ensuring that their organizations can meet their obligations over the long term. At the same time, since some of these strategies are both emerging and complex, insurers must ensure they have the appropriate expertise that will help them gauge which strategies will help them reach their goals without undesirable or unforeseen consequences. ■



The advertisement features a black and white photograph of an elderly couple sitting outdoors on a bench, smiling. To the right of the photo is the text "LIVING to 100 SOCIETY OF ACTUARIES INTERNATIONAL SYMPOSIUM". Below the photo is the title "NEW LIVING TO 100 SYMPOSIUM MONOGRAPH". Underneath the title is a paragraph: "Papers presented at the 2011 Living to 100 Symposium are now in an online monograph at [LivingTo100.soa.org](http://LivingTo100.soa.org). Find papers and transcripts covering:" followed by a bulleted list of topics. At the bottom left is the website "LivingTo100.soa.org". On the right side, there is a smaller black and white photo of a woman sitting in a chair, smiling. Below this photo is the text "COMING SOON: Look for the fifth Living to 100 Symposium's call for papers."

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