Developments in the Insurance-Linked Securities Market

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■ INTRODUCTION
As the credit markets continue to thaw, there is a noticeable increase in investor appetite for alternative investment instruments that can boost returns and help diversify portfolio risk. Insurance-linked securities—both from the life and property/casualty (p/c) sectors—are probably the most prominent such instruments that hold great appeal for investors. Insurance-linked securities (ILS) are products of the rapid development of financial innovation and the process of convergence between the insurance industry and the capital markets. The securitization model has been employed by insurers eager to transfer risk and tap new sources of capital market funding. While the insurance-linked security market has proven most resilient during the financial crisis, it was not left untouched by the profound market dislocation that occurred. This article explores the recent developments in the insurance-securities market and insurers’ involvement as both issuers and investors.

■ THE STATE OF THE MARKET
The insurance-linked securitization market is still emerging compared with the more mature credit securitization market. The market only constitutes a small fraction—estimated to be around 1%—of the total global securitization volume. However, the ILS market grew in leaps during the last few years, and despite the financial crisis, investors’ demand for high-yielding, uncorrelated asset classes seems to be coming back strong.

In addition, insurance-linked securities have been well-established as an effective and viable alternative for insurers to traditional types of financing and risk mitigation. The advantages of insurance securitization for issuers promise a strong pipeline able to satisfy the potentially rising demand. Insurance-linked securities have been utilized by both property/casualty and life insurers to transfer risk, for financing purposes, and to monetize future cash flows from insurance contracts. The convergence between the insurance industry and the capital market helped increase not only the product volume but also the diversity of available structures.

■ PROPERTY/CASUALTY INSURANCE SECURITIZATION
The most important instrument in the p/c industry’s securitization tool kit is catastrophe (cat) bonds, which offer protection against extreme risks such as hurricanes, earthquakes and windstorms. Catastrophe bonds* allow insurers to transfer risk from their balance sheet to the capital markets, reducing their overall reinsurance costs while freeing capacity to underwrite new business.

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For more information on the structure and risks of catastrophe bonds, please request a copy of “CAT Bonds—Securitized Event Risk,” SVO Research Newsletter, September 2006 via email at svoresearch@naic.org.

FIGURE 1: WORLD CATASTROPHE LOSSES

Source: Swiss Re, Guy Carpenter & Company, LLC.
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Although 2009 was a relatively quiet year in terms of catastrophe losses (Figure 1 on the previous page), catastrophe risk remains at the top of the agenda of most international reinsurance companies due to their vulnerability to climate change and the potentially rising disaster losses. If one looks at the 10-year moving average, there was only a slight drop in catastrophe losses in 2009 from 2008, to $36 billion from $38 billion. Even more telling is the significant jump in average losses from 1970-1989, when they averaged about $5 billion a year, to the 1990-2009 period when losses averaged $27 billion a year.

Although still well below the record level of $7 billion in cat bond issuance in 2007, last year’s issuance marked a 25% increase over 2008 as the market recovered from its post-Lehman freeze (Figure 2). For about six months after the September 2008 collapse of Lehman Brothers, there was virtually no cat bond issuance. Lehman Brothers had served as the total return swap counterparty (TRS) for a number of cat bond transactions; however, following a series of downgrades, they all defaulted.

Catastrophe bonds are the largest investment class in the insurance-linked securities market, accounting for about 32% of the total insurance securitization volume during the 10-year period 1997 to 2007.¹ Catastrophe bond issuance came back stronger in 2009 following the steady recovery in the capital markets, with 18 transactions totaling $3.3 billion. It is noteworthy that most market activity is centered in the U.S., as more than 80% of the volume issued in 2009 covers natural catastrophe risks in this country.

The financial crisis seriously tested the cat bond market as investors exited positions, generally selling at a discount, to protect their liquidity. While the crisis showed that cat bonds were not fully immune to the vagaries of the credit markets, they only suffered from a low degree of correlation with other asset classes whose performance had been severely compromised. Actually, catastrophe bonds proved very resilient during the crisis, outperforming all other asset classes, thus living up to their “alternative investment” status.

While in the first quarter of 2010 only $300 million of catastrophe bonds were issued, most analysts and market participants expect the market to pick up and finish the year strong. About $5 billion in catastrophe bonds are scheduled to mature this year, and some of them will need to be replaced. Also, entirely new deals will add to the total 2010 issuance, which is forecasted to be between $5 billion and $7 billion. Earlier this year, an executive at Swiss Re called for a 43% jump in cat bond sales this year. As cat bonds represent only

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about 7% to 10% of the total natural catastrophe reinsurance capacity, and given the ongoing recovery in the capital markets, there is ample room for the cat bond market to grow.

Catastrophe bond issuance should also be helped by the improved pricing environment. Cat bond spreads have tightened back down to levels more in line with the traditional market. Expected net cash inflows to the catastrophe bond market should exert downward pressure on spread levels, bringing in more issuers to the market as catastrophe bonds become a very cost-effective way to transfer risk.

Other tools that have been used by p/c insurers to transfer risk or increase capacity are sidecars*, derivatives and industry loss warranties. Sidecars—the once-popular equity-like instruments—allow investors to share in an insurer’s profits and risks, and they are used mainly by reinsurers to add capacity. Sidecar activity is expected to decline this year, as reinsurers do not need extra capacity. If the reinsurance market continues to be soft, and without a major catastrophe event this year, demand for sidecars will remain extremely limited.

LIFE INSURANCE SECURITIZATION
Mortality and longevity risk securitizations fulfill a similar function for life insurers as catastrophe bonds do for p/c companies—the transfer of risk to the capital markets. Extreme risks of increasing mortality rates due to natural catastrophes and pandemics could impose a substantial problem for a life insurer’s solvency. Longevity risk is the other side of mortality risk. A jump in mortality rates would adversely affect the amount and timing of death benefits an insurer must pay, while a rise in longevity rates would increase cash outflows due to more annuity payments.

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Life insurance securitization involves a few other structures designed to help insurers monetize future profits and raise needed financing. In triple-X securitizations**, which fulfill the financing function, life insurers securitize the difference between regulatory and economic capital. Embedded value securitizations are designed primarily for the monetization of future cash flows coming from a block of policies. At the same time, these deals contain the risk transfer motivation, as the issuer can reduce its investment risk, contract withdrawal risk, cost uncertainty, and liquidity risk.

The life insurance securitization market has been slow to come back after the financial crisis and the collapse of financial guarantors. If there is a bright spot, however, it is the healthy dose of investment demand still present in the market. A little over $1 billion in life insurance-linked securities were issued in 2009. Only one deal—a triple-X $825 million transaction—has come to the market this year. Market analysts point to available capacity and demand as indications of a future market rebound.

As the typical life deal was wrapped, the life securitization market was seriously affected by the monolines’ troubles. The market hit a brick wall when the previously “AAA”-rated deals slid all the way down the rating scale, draining away investor demand. This was another example of how insurance-linked securities are not completely uncorrelated with the capital markets. The subprime crisis, through the monolines, eventually reached even isolated corners of the market, previously thought to be walled off, such as the insurance securitization market. Also, the failed auction market hampered life insurance-linked securities, especially triple-X deals. When the auction rate securities market collapsed, life securitization issuers were forced to assume uneconomical interest rates, a fact that eventually drove them out of the market.

According to Asset-Backed Alert,² a number of insurers are thinking about securitizing future life premiums and marketing triple-X deals if conditions in the credit market continue to improve. As spreads narrow, reducing the cost of funding these, insurers should be ready to market their deals.

- Longevity

Longevity risk bonds could be the new frontier of the life securitization market. Although longevity bonds haven’t taken off as expected, there seems to be a shared conviction among a number of analysts and market participants that the market is ready for trading in longevity risk, and hedge funds could provide the liquidity lifeline it needs. Furthermore, longevity bonds are actively promoted by a new trade association, the Life and Longevity Markets Association, founded for exactly that purpose. In early April, it was reported that some large reinsurance companies are considering entering the longevity bond market.

- Life Settlements

While there is also some interest expressed in the securitization of life settlements, main players such as life insurance companies, rating agencies and policymakers have voiced their opposition as they share many concerns over the development of such a market. The STOLI (stranger-owned life insurance) market was ready for trading in longevity risk, and hedge funds could provide the liquidity lifeline it needs. Furthermore, longevity bonds are actively promoted by a new trade association, the Life and Longevity Markets Association, founded for exactly that purpose. In early April, it was reported that some large reinsurance companies are considering entering the longevity bond market.

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* For additional information on sidecars, please request a copy of “Sidecars Emerge as Alternative Capital Source,” SVO Research Newsletter, September 2006 at svoresearch@naic.org.

** For more information on the structure of triple-X securities, please request a copy of “Life Insurance Securitization,” SVO Research Newsletter, May 2005 via email at svoresearch@naic.org.
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insurance) issue is one of the main problems, as investors who do not have an insurable interest in the lives covered by the policies contained in the securitized pool, become the beneficiaries of these policies. Issues of legality and potential abuse would have to be resolved before life settlement securitization becomes a reality. Standard & Poor’s has refused to rate any proposed life settlement deals because it believes that the model of the structure is plagued by too many problems to be workable.

**Investor Profile**
Over the years, the insurance-linked securities investor profile has become much wider. In the late 1990s, during the early years of the insurance securitization market, more than 50% of all insurance-linked securities issuance was absorbed by insurance and reinsurance companies. Now, globally, insurers and reinsurers make up less than 7% of all insurance-linked securities investors.

According to the World Economic Forum, the largest investors in catastrophe bonds are dedicated cat funds, which make up about 44% of all investors. Banks (13%) and hedge funds (14%) are the other two large catastrophe bond investor categories. The largest investors in life securitizations are banks, which purchase about 43% of the total issuance, followed by money managers (25%), dedicated funds (13%) and hedge funds (10%).

**Insurance Holdings**

U.S. insurance companies held in aggregate $490.5 million in insurance-linked securities at the end of 2009. Insurance securitization exposure was concentrated with only six insurance groups holding approximately 81% of the total industry investment.

Life insurers held the majority with $416.2 million, of which 81% was in catastrophe risk and 19% in mortality risk deals. Property/casualty companies held a more modest $42.3 million, of which 99% was in catastrophe risk securitizations and just 1% was in mortality risk.

According to NAIC designations reported in insurers’ 2009 annual statements, the insurance industry’s insurance-linked securities portfolio was of high credit quality, with 70% of life and 67% of p/c companies’ holdings falling into investment-grade categories (Figure 3).

**Conclusion**
The insurance-linked securities market seems primed to grow as the economy and the capital markets continue to mend following the credit crisis. However, while there is great potential for future growth, the limited size of the market could affect investor confidence. The consensus among market analysts and participants is that long-term prospects seem upbeat, although it is very difficult to predict how the insurance-linked securities market will fare in the short to medium term.

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**Figure 3: Credit Quality of Industry ILS Holdings (2009 Year-End)**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Life Insurers</th>
<th>P/C Insurers</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAIC-1</td>
<td>43.7%</td>
<td>67.3%</td>
</tr>
<tr>
<td>NAIC-2</td>
<td>26.4%</td>
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<tr>
<td>NAIC-3</td>
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<td>0.0%</td>
</tr>
<tr>
<td>NAIC-6</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Source: NAIC, Securities Valuation Office.

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* Exposures are estimated based on insurers’ Schedule D part 1 statements and do not include potential exposures reported on other schedules. Also, deals that may have been misreported or could not be identified are not captured in our current exposure estimates. Therefore, although we are confident that our estimates include nearly all of insurers’ related investments, aggregate and individual company numbers may exceed the amounts reflected in this report.