

Life Insurance Securitization: **An Overview**

The life insurance industry is a highly conservative enterprise. Risks are carefully assessed by insurers when determining pricing, policy issuance, and the investment of premium income. Although insurers actively match their reserves to projected claims through rigorous internal actuarial analysis, companies are subject to not only their own metrics, they have to also meet externally imposed statutory capital requirements.

In the United States the amount of capital required by state regulators is based on a risk-based capital (RBC) formula provided by the National Association of Insurance Commissioners (NAIC). The requirements are motivated by solvency considerations and thresholds are typically set from industry averages. As a result, though regulatory limits may provide an adequate assessment of risk from an aggregate perspective, they may not be reflective of a specific company's risk profile.

Some companies have found that regulatory requirements have imposed higher reserve levels than what may be economically necessitated, resulting in the holding of what is known as "excess" or "redundant" reserves. Reserve redundancy, the difference between the statutory requirement and the economic reserve, can stall growth, limit returns and ultimately curtail shareholder value.

To meet statutory requirements while also freeing capital for other uses, insurance companies have traditionally sought letters of credit and have entered into reinsurance agreements. However, in the last few years for a variety of reasons including cost, there has been an increasing interest in employing alternative methods for capital management. This has resulted in the greater deployment of, and interest in, securitizations. Though this financial technology has been in use for quite some time, it has only recently taken a noticeable foothold in the life insurance sector. In fact, securitizations have been most visibly used within the life insurance sector since early 2000 but have been routinely used with respect to both mortgages and credit card receivables for decades.

The most significant drivers for the adoption of securitization have been the competitive nature of the sector in conjunction with the economic environment, specifically investor appetite for yield. However, in spite of the market forces that have made securitization a viable method of accessing capital, the process of securitizing life insurance reserves and the mechanics related to the benefits from the process: increased liquidity, lower cost of capital and increased return on equity, have only recently gained widespread investor interest.

Defining Life Insurance Securitization

Securitization is essentially the transformation of a financial asset or liability into an issue which can be bought and traded. Depending on the industry, there are potentially multiple types of securitization transactions that can be pursued. In the life insurance sector the cash flows that can be securitized include both inflows and outflows where inflows consist of premiums and investment income and outflows are comprised of, but not limited to, annuity payments, benefit payouts and surrenders. For blocks of business that are stable and predictable, securitizations are a transparent and effective method of transferring risk to the capital markets.

The securitization process is essentially used to release trapped capital in exchange for a payment or stream of payments to the security purchaser. In the life insurance industry, the most common transactions involve trading debt for access to the excess or redundant reserves that back the insurer's potential claims. The debt issued is a tradable security with the only tie to the originator being the type of cash flow being securitized and the inherent risk of the financing structure. For this reason, some have likened securitization to a commoditization process because it does create a more generic or standardized instrument that is then comparable to other debt issues based on yield, maturity and rating. An indirect benefit of securitization is part of the process itself and relates to the due diligence incorporated in the debt issue.

Life insurance securitizations require a significant amount of actuarial analysis to determine the threshold levels of reserves required for a given set of potentially securitizable assets or liabilities. The evaluation process itself and the transparency required to motivate investors to purchase the end-product security has increased available information on insurance operations which in turn has furthered both investor awareness and interest.

Types of Life Insurance Securitizations

Life insurance securitizations began to be explored nearly ten years ago, but the process had limited traction in spite of the industry's securitization potential—an estimated \$10 trillion in assets and liabilities. In the last five years, as a result of the economic and regulatory environment, however, more life insurers have turned to securitization with an increasing number of transactions occurring in the most recent period.

In general, and as shown in Table 1, the majority of life insurance securitizations fall into one of three categories: regulatory reserve securitizations, block of business securitizations and mortality catastrophe bonds. Regulatory reserve transactions take their name from the regulation from which they originated and include XXX and AXXX transactions. Block of business securitizations, which include transactions referred to as embedded value deals, monetize the future profit of a block of business. Mortality catastrophe bonds or mortality cat bonds are very similar in structure and design to catastrophe bonds issued by property and casualty insurers and are becoming a significant method of limiting catastrophic mortality risk for both life insurers and reinsurers. Unlike regulatory and block of business securitizations, which seek to either release excess capital or access capital, mortality cat issues are “trigger” sensitive and seek to provide the insurer with capital to offset catastrophe-related claim expenses.

Though different with respect to the cash flow being securitized, the life insurer is effectively transferring risk to the capital markets with each transaction. With XXX it passes the risk of increases in mortality over the long-term. With block of business it sells the risk related to the performance of the block, and with catastrophic mortality it sells the risk of a pandemic or like event.

Table 1. Selected Securitization Transactions

Year	Sponsor	Type
1998	NPI	Embedded Value
2001	Prudential Financial	Closed Block
2002	MONY	Closed Block
2003	Genworth	XXX Reserves
2003	Barclays Life	Embedded Value
2003	Genworth	XXX Reserves
2004	Swiss Re	Mortality Risk
2004	Forethought	Closed Block
2004	Friends of Provident Life	Embedded Value
2004	Banner Life	XXX Reserves
2004	Genworth	XXX Reserves
2005	Scottish Re	XXX Reserves
2005	Swiss Re	Mortality Risk
2005	Genworth	XXX Reserves

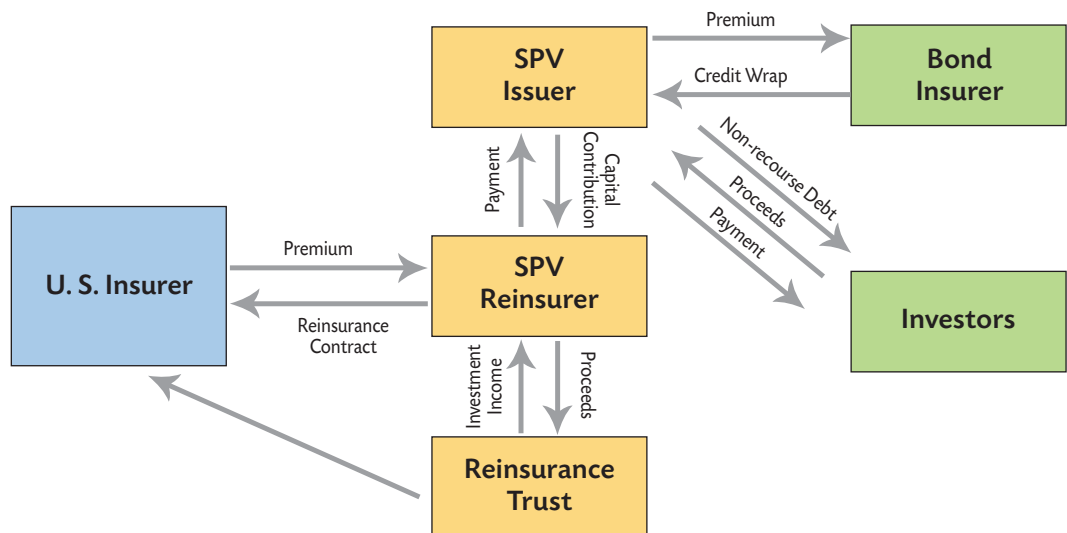
*The Table includes the majority of securitization transactions through 2005, excluding those transactions that were not categorized as being regulatory, block of business or mortality risk.

Regulatory Reserve: XXX and AXXX Securitizations

XXX securitizations take their name from the letters assigned to the U.S. National Association of Insurance Commissioners (NAIC) Model Regulation 830. Commonly referred to as Regulation XXX and effective since 2000, the regulation requires life insurers to use conservative techniques to calculate the required or statutory reserves to be held against outstanding life insurance policies. Additionally, it imposes the requirement that the excess or redundant reserves be held for the term of the underlying insurance policy, 20 to 30 years. The imposition of Regulation XXX has resulted in insurers holding more statutory capital than would be required under a purely economic analysis of reserve requirements. For many insurers, particularly those who may have limited available capital, the reserve burden of Regulation XXX has created the need to find outside sources for capital funding. Alternatives such as reinsurance and letters of credit have been traditional sources; however, the duration mismatch between Regulation XXX capital requirements and the length of the reinsurance contract or letter of credit has been problematic—letter of credit and reinsurance agreements are negotiated on a yearly or short-term basis while policy durations have a longer associated time horizon than these instruments provide. This has been the entry point for securitizations, which by their very nature are customized financial transactions.

The first XXX securitization closed in 2003. The transaction essentially transferred the risk embedded in the difference between the calculated economic reserve and the statutory reserve to the capital markets. The securitization, in simplified form, involved transferring the liabilities (potential life insurance claims) along with the economic reserve to a special purpose vehicle (SPV). The SPV in turn sold bonds to cover the excess reserve requirement, essentially funding the reserve to the statutory requirement via debt issue.

Diagram 1: Basic Structure of a Regulation XXX Securitization



A typical XXX transaction involves the creation of a Special Purpose Vehicle (SPV). The SPV is ceded by the parent company with the liabilities associated with a given block of business pursuant to a reinsurance agreement. The SPV is compensated for taking on the liabilities with an amount equal to the economic reserves and the parent, as part of the reinsurance agreement, regularly pays the SPV a premium. The SPV, in turn, then issues non-recourse debt to fund the difference between the economic reserve and the statutory reserve. The proceeds from the issuance, in order to meet the SPV's reinsurance obligations are then placed in a reinsurance trust. Investors are paid interest and principal from three sources: the investment returns from the trust; the premium income from the parent; and the reserve release from the trust that occurs over time due to reduction in the statutory limits as potential claims are eliminated, "run-off." The actuarial analysis that is undertaken to justify the economic reserves offers protection to investors and as a general rule, extreme deviations from embedded assumptions would have to occur for investors to suffer a loss. However, given the relatively new nature of life insurance securitizations, many issuers are opting to add the additional layer of investor incentive by having the non-recourse issues wrapped by a bond insurer.

XXX methodology has been the foundation for AXXX securitizations—AXXX refers to Actuarial Guideline 38 of Regulation XXX. AXXX securitizations are similar to XXX securitizations with the one significant difference being that they address the statutory reserve requirements of universal life policies. As universal policies offer greater complexities and risks than the term securitizations embedded in XXX transactions, these transaction models are more difficult to develop though the general methodology is similar – excess reserves are released through debt financing. The XXX structure has been implemented in other situations where statutory requirements may be in excess of economic calculations. Most recently in October of 2006, UnumProvident completed a life insurance industry first, in which the company mimicked the XXX framework to release excess capital related to seasoned disability claims.

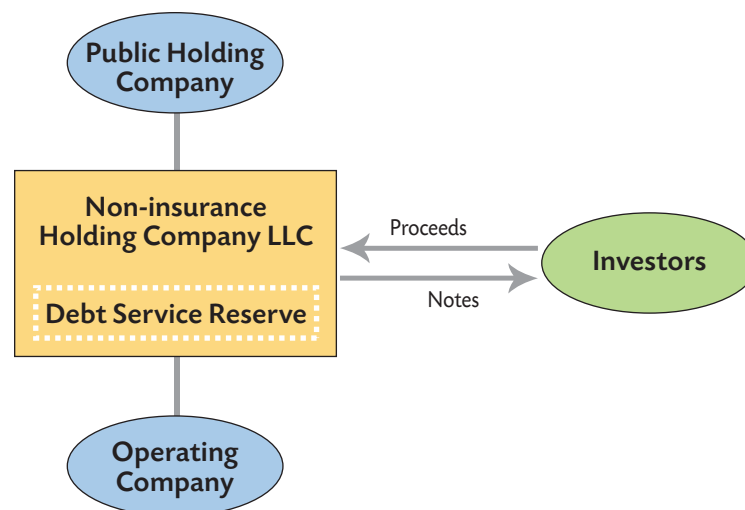
Regulatory securitizations are subject to the performance risk of the underlying assets. Investors can lose principal and interest if actuarial expectations are not met. For this reason and to garner greater investor interest in these debt issues, many insurers have sought insurance and have had their issues wrapped by a third party in order to allay any fears of default risk.

Block of Business or Embedded Value Securitizations

Block of business securitization, also known as embedded value or value in-force, is another common type of securitization. Like the regulatory based securitizations, this type of securitization releases excess capital for present use and inter-temporally shifts capital through debt issue. The first block of business securitizations involved closed blocks of business and as a result, the closed block structure has become the standard framework employed in these transactions.

By definition, closed blocks are not part of an issuer's on-going business and as such are required to have assets be set aside to support reserves and capital requirements of the specific block. However, statutory asset requirements may be greater than economically necessitated. As in the case of the regulatory securitizations, block of business transactions seek to free the difference between the economic and statutory requirement.

Diagram 2: Illustrative Closed Block Securitization Transaction Structure



In a closed block transaction a LLC is created as the owner of the operating insurance company. The LLC issues debt based on the projected returns of the closed block. The net proceeds of the debt are then used by the holding company or parent to fund other operations and growth initiatives. The debt issued is then serviced by the dividends from the operating company. Dividends come from the surplus created in the closed block as the business within the block runs off. Dividend payments are regulated by state law and are typically equal to the greater of 10% of the prior year surplus or the prior year statutory net gain from operations.

The typical structure of a closed block securitization involves the creation of an LLC non-insurance holding company intermediary between the parent holding company and the operating insurance entity. The LLC is the debt issuer and the debt it issues is equitable to the present value of the expected future profit from the closed block. It secures the issued debt with funds from the operating insurance company in the form of dividends paid-in, where the dividends arise from excess surplus—profits—formed as potential liabilities within the closed block run-off. As in the case of the regulatory securitizations, actuarial analysis is required to estimate the expected value of the future profitability and to then be able to price and rate the issued debt. The analysis promotes transparency and enhanced efficiency while increasing insurer capital access. However, as is true for regulatory securitizations, debt issued may be subject to default risk based on the performance of the underlying assets. As a result, they may be wrapped by a third party to insure principal and interest payment.

Mortality Catastrophic Bonds

Unlike regulatory and block of business securitizations, catastrophic mortality securitization transactions do not seek to release or provide a portion of statutory capital to insurers; rather these securitizations seek to provide capital when needed by the issuer, which is when a catastrophe does occur. The typical structure of these transactions is more complicated than with the other securitizations discussed and payments with the catastrophic framework are related to a specific catastrophic “trigger” event.

In the basic framework an insurer establishes a special purpose vehicle or SPV. The SPV then issues debt which has a maturity equal to the coverage period—for these instruments the average life is three years. The proceeds from the debt are invested and hedged through a floating rate swap. Debt holders are paid from the proceeds of the swap and from dividend payments that filter from the insurance company through the SPV. In the event that the insurer is met with a catastrophic event, the SPV makes payments to the insurer and the principal and payments to the debt holders are subordinated. Depending on the extent of the losses suffered by the insurer, debt holders may potentially be at risk to lose the entirety of their principal.

As with other forms of securitization, risks associated with mortality catastrophe bonds are actuarially assessed. The methodology does increase transparency and investors take on an evaluated risk. Additionally, issues may be insured for interest and principal repayment, reducing investment risk.

Purpose and Future of Life Insurance Securitization

Securitization is beneficial for insurers as it provides a source of economic capital. With respect to both regulatory and block of business transactions, securitizations offer access to trapped capital that actuarially can be shown as redundant or excess with respect to liabilities. Tapping into this excess reserve increases the competitive position of insurers. It allows them to increase their return on equity through more productive redeployment of excess capital. Securitizations may also enhance price-based competition directly through potentially reducing the cost of capital. However, more significant cost reductions are expected to occur as transactions increase in number and the life insurance securitization process itself becomes commoditized.

There remains some debate on the future of securitization within the industry. Some believe that current activity is just the off-shoot of tightening credit spreads and investor search for yield. They do not believe that securitization will make a major impact on the dynamic of the industry and do not foresee the use of the financial technology being widespread. Others believe that securitizations will revolutionize the industry, making life insurers the intermediaries of packaged financial products for the financial market in much the same manner that mortgage companies have evolved. In either event the case for securitization is found in the process’ inherent transparency, its promotion of capital accessibility and its indirect potential benefit to investors and shareholders in terms of both growth and return.