Life ILS: 18 months in review

Big changes since the beginning of 2013—and more to come

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Given the significant amount of activity in the first half of 2014 related to life insurance-linked securities (Life ILS)[1]—especially relating to regulatory developments—we decided that this year our annual Life ILS year in review would cover 18 months. These regulatory developments are evolving quickly, so the reader should note that some of them discussed herein may change shortly after publication of this paper.

In 2013 and thus far in 2014, we estimate that over USD 15 billion in reserve financing and embedded value (EV) financing transactions were completed, in spite of extensive discussions at the National Association of Insurance Commissioners (NAIC) on the use of captives to finance excess reserves. Most of these transactions involved the financing of excess reserves for U.S. life insurers selling level premium term insurance subject to Regulation XXX or universal life products with secondary guarantees (UL-SG) subject to Actuarial Guideline 38 (AXXX, or AG38). The forms of financing continued to evolve in 2013.

In addition to the reserve financing transactions and the EV financing transactions, in 2013 and thus far in 2014 the market saw at least USD 530 million in transactions to hedge catastrophic morbidity or mortality risk, and continued activity in the market to hedge longevity and other pension risks.

EXCESS RESERVE FINANCING: CONTINUED EVOLUTION

Last year marked the 10th anniversary of the first Regulation XXX excess reserve financing transaction. Such reserve financing transactions have become a common part of many insurers' capital management programs, in many cases allowing companies to use debt-like financing for a portion of their reserves. Even the New York Department of Financial Services (NY DFS) now acknowledges that the reserves on level premium term business are excessive.

Over the past 10 years, the market has evolved significantly. Early on it was largely funded by capital market securitization transactions structured and guaranteed by AAA-rated financial guarantors. During 2006 and 2007, solutions funded by banks on a recourse basis achieved a material market share. In 2009 and 2010, much of the financing was structured by banks providing long-dated letter of credit (LOC) solutions on a recourse basis. In 2011, much of the financing involved nonrecourse LOCs or other nonrecourse transactions with

[1] When the reserve financing market first developed, many transactions involved the issuance of securities that were often called "Life ILS," or just "ILS." While many of the current transactions do not involve the issuance of securities, in this paper we continue to refer broadly to such transactions as "Life ILS" or "ILS" transactions.

economics similar to nonrecourse LOCs. More recently much of the financing has involved structures whereby a captive purchases credit-linked notes (CLN).

In 2013 and into 2014, we saw the continuation of several trends discussed in our 2012 year in review paper.

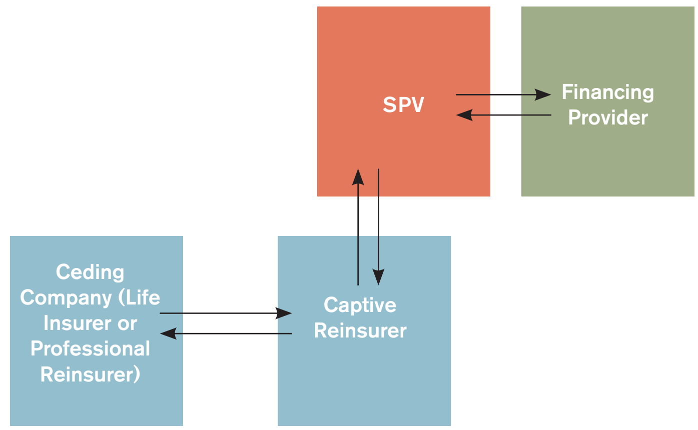
- There was a lot of activity on AXXX financing or transactions involving a combination of XXX and AXXX financing.
- The number of providers successfully executing transactions appeared to be relatively unchanged.
- A smaller percentage of transactions were disclosed publicly than in preceding years.
- We saw reinsurers play an increasing role in the reserve financing market, sometimes directly via traditional reinsurance or CLN structures that compete with bank LOCs.
- Reserve financing continues to be a significant issue in mergers and acquisitions (M&A) transactions, which include term insurance and UL-SG blocks of business.

In 2013 and into 2014, there were several noteworthy changes from 2012:

- We believe that the total number of reserve financing transactions in 2013 was larger than the number of transactions in 2012. Because fewer transactions are being disclosed publicly, it is difficult to quantify the true number of transactions or the volume of such transactions.
- More insurers chose to execute CLN structures rather than LOCs. Some would say that 2013 was the year of the CLN.
- Some banks in the Life ILS market offered or considered offering CLN structures in addition to LOCs.
- Most of the CLN structures executed were offered by reinsurers directly to insurers.
- Some of the larger CLN structure transactions involved a lead financing provider plus one or more additional financing providers.
- Gross financing costs were relatively stable in 2013 and into 2014 and did not continue the steady declining trend we observed during the last few years.
- A range of structures have been used to date in 2014.
- We have seen increased regulatory scrutiny of the transactions.

In 2013, the generic CLN structure became public information. Although each CLN structure has proprietary bespoke features, most such transactions have the same common foundation, as shown in the diagram in Figure 1. In the generic CLN structure, the captive reinsurer issues a surplus note bought by a special purpose vehicle (SPV), and the captive reinsurer buys a CLN with a lower coupon issued by the SPV, which obtains credit support from a financing provider. In good times, the coupon difference is paid to the financing provider as a fee. In bad times, the financing provider covers the SPV's shortfall, which allows the captive reinsurer to meet its obligations to the ceding company.

Figure 1: Generic Credit-linked Note Structure



OTHER LIFE ILS TRANSACTIONS IN 2013 AND INTO 2014

While most of the North American life ILS transactions involved excess reserve financing, several other innovative transactions provided financing or insurance risk hedging in various forms in the United States and in Europe. See our prior year in review papers[2] for a discussion of other ILS transactions executed in 2012 or 2011.

As with 2012, 2013 was yet another relatively quiet year for EV securitization, with once again at least one EV securitization transaction completed, and there was more activity in a related form of financing that has been described in Europe as a value in force (VIF) monetization.[3] The EV securitization was only USD 20 million, which is unusually small, but was a groundbreaking transaction because it was the first publicized life securitization issued in the Islamic finance (Sukuk) market. The 2013 VIF monetizations, as in 2012, once again involved Spanish banks that each obtained bulk reinsurance to monetize the value of their individual life risk portfolios. The first VIF monetization transaction publicized in 2014 was announced in March and provided a ceding commission to a life insurance subsidiary of a Spanish bank for the reinsurance of its life mortality and disability risks.

[2] Routhenstein, A., Schreiber, S., & Silverman S. (February 14, 2013). Life ILS: 2012 Year in Review and Looking Ahead to 2013. Milliman Insight. Retrieved June 30, 2014, from http://www.milliman.com/uploadedFiles/insight/Research/life-rr/pdfs/Life-ILS-2012_year-in-review-and-looking-ahead-to-2013.pdf.
Routhenstein, A., Schreiber, S., & Silverman S. (February 10, 2012). Life ILS: 2011 Year in Review and Looking Ahead to 2012. Milliman Insight. Retrieved June 30, 2014, from http://publications.milliman.com/publications/life-published/pdfs/life-ils-2011-review.pdf.

[3] Clark, D. & Mitchell, S. (November 2012). VIF Monetisation for Life Insurers–Key Drivers and Considerations. Milliman White Paper. Retrieved June 30, 2014, from http://www.milliman.com/uploadedFiles/insight/Research/perspective/research/published-articles/vif-monitisation-for-life-insurers.pdf.

Aetna, through its ongoing Vitality Re financing program, raised USD 150 million in January 2013 via two tranches of securities issued by Vitality Re IV Ltd. In January 2014, it raised USD 200 million via two tranches of securities issued by Vitality Re V Ltd. While Vitality Re IV provides four years of excess-of-loss protection on a portion of Aetna's group commercial health insurance business (i.e., catastrophic morbidity risk hedging), Vitality Re V provided five years of protection. Consistent with the overall decline in spreads seen in the natural catastrophe bond market, spreads on the Vitality transactions continued their downward movement, with spreads at issuance tightening on Vitality Re IV versus Vitality Re III and tightening further on Vitality Re V versus Vitality Re IV.

In the catastrophic mortality market, Swiss Re for the first time in several years did not issue a publicized bond under one of its Vita Capital programs, but SCOR was an issuer for the first time since 2009. SCOR raised USD 180 million of catastrophic mortality protection through the issuance of Series 2013-1 of its Atlas IX Capital Limited program, which covered excess mortality in the United States, and was a 5.33-year bond rated BB with a variable rate coupon spread of 325 basis points (bps).[4]

The market for hedging macro longevity risk continues to develop. While among publicized transactions there was less risk hedged in 2013 (GBP 17 billion) than in 2012 (GBP 37 billion), which was primarily due to three exceptionally large transactions that took place in 2012, there was significantly more risk hedged in 2013 compared to 2011(GBP 12 billion). The number of transactions that we are aware of in 2013 (31) was roughly 50% higher than the number of transactions per year in 2011 and 2012. Thus far in 2014, the number of publicized transactions (12) and the amount of risk hedged (GBP 28 billion) is indicative of an active market in which two exceptionally large transactions have been announced. However, it remains to be seen how and to what extent the market will be impacted by a March 19, 2014, UK finance minister announcement, discussed below in the "Looking Ahead" section of this paper.

While many of the longevity deals that took place in 2013 and early 2014 involved insurers or reinsurers ultimately accepting the risk, sometimes directly and sometimes via a bank intermediary, there were several transactions with ILS investors as the ultimate risk takers. Some of these transactions were familiar vehicles, such as longevity swaps, but other novel vehicles have been introduced or are being considered. For example, Deutsche Bank has completed the first transaction using its Longevity Experience Option platform, which is a standardized option with payoffs that are based on survival rates of general population data. Further, we have seen longevity risk hedging transactions expand to the Canadian market. For example, Sun Life completed an innovative inflation-linked annuity buy-in transaction with the Canadian Wheat Board.

> "Consistent with the overall decline in spreads seen in the natural catastrophe bond market, spreads on the Vitality transactions continued their downward movement."

Many of the same factors that catalyzed growth in the UK longevity market, such as increased accounting transparency and awareness of longevity risk, are beginning to appear in Canada too.

REGULATORY, LEGAL, AND RATING AGENCY DEVELOPMENTS: HIGHLIGHTS

There were many significant regulatory, legal, and rating agency developments that took place in 2013 and the first half of 2014 that affect the Life ILS market. Below are executive summaries of what we view as the highlights of these developments.

NAIC Life ILS-focused developments

- **The NAIC Captive and Special Purpose Vehicle Use (E) Subgroup.** This subgroup was formed by the NAIC Financial Condition (E) Committee in November 2011 in response to concerns raised in a *New York Times* article in May 2011. Its charge was to study insurers' use of captives and SPVs to transfer third-party insurance risk in relation to existing state laws and regulations and establish appropriate regulatory requirements to address concerns that were identified. The subgroup completed its charge with its adoption of an NAIC white paper, "Captives and Special Purpose Vehicles,"[5] which was adopted by the (E) Committee on July 17, 2013.

- **NAIC (E) Committee delegation of white paper recommendations.** Immediately after its July 17, 2013, adoption of the captives white paper, the (E) Committee referred three of the paper' s seven recommendations to the (E) Committee's Reinsurance Task Force (RTF) and the other four to the NAIC Principle-Based Reserving (PBR) Implementation (EX) Task Force (PBRI Task Force), as follows:

  1. Accounting considerations: PBRI Task Force
  2. Confidentiality: PBRI Task Force
  3. Access to alternative markets: RTF
  4. International Association of Insurance Supervisors (IAIS) principles, standards, and guidance: RTF
  5. Credit for Reinsurance Model enhancements: RTF
  6. Disclosure and transparency: PBRI Task Force
  7. Financial analysis handbook guidance: PBRI Task Force

[4] Aon Benfield (2014). Insurance-Linked Securities: Fourth Quarter 2013 Update. Retrieved June 30, 2014, from http://thoughtleadership.aonbenfield.com/Documents/201307_ab_securities_ils_quarterly_update_q42013.pdf.

[5] Captive and Special Purpose Vehicle Use (E) Subgroup (June 6, 2013). Captives and Special Purpose Vehicles. NAIC White Paper. Retrieved June 30, 2014, from http://www.naic.org/store/free/SPV-OP-13-ELS.pdf.

- **NAIC PBRI Task Force's adoption of an NAIC framework for reserve financing.** On June 30, 2014, the PBRI Task Force adopted a reserve financing "framework" and passed charges to various technical groups to implement the framework (the June 30th action still needs to be formally approved by the NAIC Executive Committee). The framework was based on two reports prepared by the PBRI Task Force's consultant, Rector & Associates: a February 17, 2014, report (Rector's 2nd Report) and a June 4, 2014, Modified Recommendations (Rector's 3rd Report).

  — The key objectives of this new NAIC framework are to require standardized cedant disclosure of all XXX/AXXX reserve financing transactions, to establish a uniform set of collateral requirements (Primary Security Requirements) for transactions occurring after a yet-to-be defined date (though January 1, 2015 is a target date discussed on several conference calls), and to require risk-based capital (RBC) requirements to apply to reserve financing transactions.

  — The Primary Security Requirement specifies that in order for the cedant to receive reserve credit for reinsurance ceded to a reinsurer that is not exempted (under rules intended to exempt most traditional third-party reinsurance arrangements), "Primary Security" (defined as assets listed by the NAIC Securities Valuation Office) must be held as collateral (on a basis of funds withheld or assets in trust) to secure a portion of the statutory reserve greater than or equal to the "Actuarial Method" reserve (defined by VM-20, or a modified version of VM-20, with details to be clarified by the NAIC Life Actuarial Task Force), and the excess of statutory reserves over the Actuarial Method reserve can be backed by "Other Security" (defined as other types of assets that do not qualify as Primary Security but are approved by the cedant's domestic regulator as part of the regulatory approval of a reserve financing transaction).

LINKS TO RELEVANT REGULATORY RESERVE FINANCING DEVELOPMENTS

- Rector's 2nd Report (February 17 report): http://tinyurl.com/n8q7rbc
- Rector's 3rd Report (June 4 report): http://tinyurl.com/lx8fh4h
- Comparison of the February and June proposals: http://tinyurl.com/kgkcsrn
- Comments Received on the June 4 Framework proposal: http://tinyurl.com/kp8383f

- **NAIC (F) Committee's review of captive XXX/AXXX reinsurance subsidiaries.** At the NAIC 2014 Spring national meeting, the NAIC Financial Regulation and Accreditation Standards (F) Committee exposed proposed revisions to the accreditation preamble that would 1) define a term "multi-state reinsurer" to include most captive subsidiaries of commercial insurers, and 2) subject multi-state reinsurers to NAIC accreditation standards. Most of the 28 comment letters objected to the breadth of the proposal and/or to the unconventional process used to make the proposed changes, although a small percentage of the comments supported the proposed changes.

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- **FAWG's reserve financing charges.**

  — On July 17, 2013, after its adoption of the captives white paper, the (E) Committee assigned three captive-related charges to its Financial Analysis (E) Working Group (FAWG):

  1. Perform analytical reviews of transactions (occurring on or after a date as determined by the NAIC membership) by nationally significant U.S. life insurers to reinsure XXX and/or AXXX reserves with affiliated captives, SPVs, or any other U.S. entities that are subject to different solvency regulatory requirements than the ceding life insurers, to preserve the effectiveness and uniformity of the solvency regulatory system.

  2. For such transactions entered into and approved prior to this date and still in place, collect specified data in order to provide regulatory insight into the prevalence and significance of these transactions throughout the industry.

  3. Provide recommendations to the domiciliary state regulator to address company-specific concerns and to the PBRI Task Force to address issues and concerns regarding the solvency regulatory system.

  — Given that all FAWG meetings and conference calls are regulator-only and not open to non-regulators, limited information is publicly available on the progress FAWG has made on the above charges.

  — On November 20, 2013, the (E) Committee disclosed that the cutoff date determined by the NAIC for charge #1 above was July 26, 2013, and since that earlier date regulators have been encouraged to confidentially submit XXX/AXXX captive transactions for companies in their jurisdictions to the FAWG.

  — Among the materials for the March 31, 2014, meetings of the (E) Committee and the PBRI Task Force was a February 11 memo addressed to the (E) Committee and the PBRI Task Force from the FAWG stating its recommendations to address issues and concerns regarding the solvency regulatory system related to XXX/AXXX captive transactions. During the (E) Committee meeting, the FAWG chair stated that the FAWG has fulfilled the first two of its three XXX/AXXX captive-related charges (collecting data and reviewing transactions of nationally significant life insurers), and this memo fulfilled part of its third charge. The remaining part of its third charge is to provide recommendations to the domiciliary state regulator to address company-specific concerns. Highlights of the memo's recommendations, which are viewed by FAWG as current best practices, are as follows (as copied from the FAWG memo):

- Each transaction should be reviewed by the regulator of the ceding company for approval. (The memo listed seven specific items to be reviewed.)

- Each ceding insurer with a prior transaction should be reviewed by the regulator of the ceding company at least annually to verify that the initial assumptions used in the initial projections remain reasonable and on track.

- In addition, as contemplated within the NAIC procedures for holding company analysis, the lead state should consider the impact of any accumulated transactions of this nature, plus the ability of the group to absorb such transactions and adverse experience.

State legislative and regulatory issues directly affecting Life ILS transactions

- **In general.** While the NAIC was studying the use of captives in 2013 and thus far in 2014, most state regulators that approved reserve financing transactions before 2013 continued to provide regulatory approval for such transactions in 2013 and thus far in 2014. While we are seeing some enhanced level of regulatory scrutiny, transactions continue to be approved.

- **New York**
  - On June 11, 2013, the New York Department of Financial Services (NY DFS) released a report on its review of captives data gathered over the past year. The report was very critical of insurers' use of captives and the regulators that have approved these transactions, and is indirectly critical of the NAIC process for evaluating insurer use of captives. All use of captives was painted as being bad and no consideration was given to the benefits to consumers and companies of appropriately structured captives. The NY DFS report recommended that state insurance commissioners consider an immediate national moratorium. The NAIC president and the co-chairs of the NAIC PBRI Task Force each responded to the NY DFS report by defending the NAIC process evaluating insurer use of captives.

  - In 2013, the NY DFS required all licensed companies to complete a captives reinsurance reporting schedule, which was included in the New York Supplement to the Annual Statement. A company completing the Supplement needs to include information about captive arrangements within its holding company system, even if the company does not have any captives. The 2013 New York Supplement to the Annual Statement blank is accessible at http://www.dfs.ny.gov/insurance/annual/pdf/lsupp13.pdf.

> “While the NAIC was studying the use of captives in 2013 and thus far in 2014, most state regulators that approved reserve financing transactions before 2013 continued to provide regulatory approval for such transactions in 2013 and thus far in 2014.”

  - On September 11, 2013, the NY DFS issued a letter addressed to insurance commissioners in all other states, expressing its view that Section 8D of the AG38 amendments (the so-called "AG38 Compromise") did not accomplish the objectives of the NY DFS, stating that the NY DFS is thus letting the AG38 amendments expire on September 13, 2013, for statutory statements filed with the NY DFS, and reiterating its view that the NAIC should reconsider its current path to PBR. This action requires companies licensed in New York to hold higher reserves on certain UL-SG products than companies not licensed in New York.

  - On March 27, 2014, the NY DFS published a letter addressed to other state insurance commissioners stating the NY DFS has determined that reserves on level term products “are high relative to actuarial experience and should be modernized.” On April 30, 2014, NY DFS published draft revisions to NY Regulation 147 and to NY Regulation 179, in order to implement reserve relief for level premium term life business issued in 2015. Comments were due by mid-June. The proposed changes do not address excessive reserves on in-force business. The NY DFS expects that the aggregate effect of the change will be that reserves on such new future business will be 30% to 35% lower than under current Regulation XXX. The NY DFS has also starting looking at possibly updating reserve formulas for UL-SG products.

- **Vermont’s modified requirements for SPFICs created after January 1, 2014.** On January 27, 2014, the Vermont Department of Financial Regulation issued Bulletin No. C-2014-01, which requires new special-purpose financial insurance companies (SPFICs), unless otherwise exempted by the commissioner, to 1) obtain an NAIC company and group code number, 2) prepare annual and quarterly statements on appropriate NAIC blanks in accordance with instructions, and 3) file annual and quarterly statements with Vermont and the NAIC. Quarterly statements, use of NAIC blanks, and filing with the NAIC have not historically been requirements of Vermont or other U.S. captive jurisdictions. Vermont’s stated reasons for these changes are in response to concerns about SPFICs raised by state and federal regulators.

FIO initiatives on captives and PBR

- On March 13, 2013, during a meeting of the Federal Advisory Committee on Insurance to the Federal Insurance Office (FIO), FIO Director Michael McRaith said that the FIO is examining the national implications of the use or possible abuse by life insurers of captives and special purpose vehicles. The FIO is not interested in duplicating the NAIC's efforts, but wants the U.S. Treasury Department to be fully informed about this activity.

- In its December 12, 2013, report entitled "How to Modernize and Improve the System of Insurance Regulation in the United States," the FIO had eight recommendations on capital adequacy and safety/soundness, for which two related specifically to PBR or captives:

  – *3) States should develop a uniform and transparent solvency oversight regime for the transfer of risk to reinsurance captives.*

  – *5) States should move forward cautiously with the implementation of principles-based reserving and condition it upon: (1) the establishment of consistent, binding guidelines to govern regulatory practices that determine whether a domestic insurer complies with accounting and solvency requirements; and (2) attracting and retaining supervisory resources and developing uniform guidelines to monitor supervisory review of principles-based reserving.*

Rating agency developments affecting Life ILS

- **A.M. Best rating factors for insurance groups with life captive reinsurers.** On October 28, 2013, A.M. Best issued a Special Report entitled "Rating Factors for Organizations Using Life Captive Reinsurers." Two quotes from the report are as follows:

  – *A.M. Best's rating process entails a full understanding of insurance companies' use of U.S. and offshore captives, and incorporates–through both quantitative and qualitative assessments–how the captive impacts an issuing insurance group's balance sheet strength.*

  – *It entails an analysis of balance sheet strength, including the quality of capital above and beyond regulatory capital ratios such as the NAIC RBC, as well as an assessment of operating performance and business profile.*

- **Moody's view on life insurer use of captives.** On August 23, 2013, Moody's released a Special Comment entitled "The Captive Triangle: Where Life Insurers' Reserve and Capital Requirements Disappear." Moody's sees the use of captives by U.S. life insurers as having multiple credit negatives and few credit positives. The report provides summary statistics by insurance group for reserves ceded to unauthorized affiliates.

- **S&P's evolving view on life insurer use of captives.** On March 10, 2014, S&P published a proposed new "Methodology For The Treatment Of Captives In Rating U.S.-Domiciled Life Insurers," on which S&P requested comments by April 25. We believe S&P's intent is to develop a practical way to properly consider use of captives in evaluating a life insurance group's consolidated capital adequacy, reflecting how well a group's captives are capitalized and how equity investments in the captives are valued. For excess reserves that are not ceded to a captive, S&P would consider economic reserves calculated or validated by an independent actuary in a manner similar to if the business were ceded to a captive that obtains reserve financing.

"We believe S&P's intent is to develop a practical way to properly consider use of captives in evaluating a life insurance group's consolidated capital adequacy, reflecting how well a group's captives are capitalized and how equity investments in the captives are valued."

LOOKING AHEAD TO THE REST OF 2014

Below we present our views as to potential further developments in the second half of 2014.

The reserve financing marketplace. Reserve financing transactions will continue to drive the U.S. Life ILS market for the rest of 2014. With XXX and AXXX excess reserves growing between USD 15 billion and USD 20 billion per year, the life insurance industry will continue to be open to cost-effective solutions to finance excess reserves. In 2014 we have seen a lot more activity in the first half of the year because of a potential July 1 implementation date of the NAIC framework initially described in Rector's 2nd Report. Given that the potential implementation date has been postponed, we would expect a continuation of increased activity in the second half of 2014, in advance of a possible implementation date of January 1, 2015, for the NAIC framework. Various factors to watch for the remainder of the year are included below.

NAIC PBRI Task Force captive-focused regulatory developments. We expect that the PBRI Task Force will monitor progress on captive-related charges delegated to other NAIC task forces and working groups, and possibly also captive-related developments at the (F) Committee, and provide ongoing guidance to other such task forces and working groups to ensure that the NAIC XXX/AXXX captive framework is implemented as intended by the PBRI Task Force.

NAIC (F) Committee's review of XXX/AXXX captive reinsurance subsidiaries. It is unclear at this point whether the (F) Committee might withdraw its proposal (as suggested by ACLI), narrow the scope of its proposal to be limited to XXX/AXXX captives, or take some other action.

NAIC RTF's three captive-related charges. Given the PBRI Task Force's adoption of the framework on June 30, 2014, the RTF might soon commence work (or publicize not yet publicized work) on the two of its three captive-related charges on which no progress has been publicly disclosed. It is not yet clear whether the RTF will address its charge for enhancements to the Credit for Reinsurance Model[6] simultaneously with its charge of access to alternative markets,[7] or whether one will be placed on a faster track than the other, but given the high profile of captive topics at the NAIC it seems reasonable to expect the RTF to make substantial progress on one or both by year-end 2014 and attempt to complete both as early as possible in 2015. Note that it is unclear whether the former captive-related charge might possibly be the RTF's rationale for its memo of June 11, 2014, to the NAIC Valuation of Securities (E) Task Force, inquiring about the original intent behind the Credit for Reinsurance Model's use of the phrase "Securities Listed by the Securities Valuation Office," which is a possibility given that the phrase appears multiple times in Rector's 2nd Report. The RTF's rationale for its inquiry is not clarified by the memo. The RTF will also continue with its third captive-related charge, on International Association of Insurance Supervisors (IAIS) principles, standards, and guidance,[8] but it is unclear to what degree if at all that this charge might affect the RTF's other charges.

NAIC FAWG's reserve financing charges. In a memo of February 11, 2014, addressed to the PBRI Task Force by the FAWG, it was stated that the FAWG would soon start providing confidential responses to regulators on XXX/AXXX captive transactions pending regulatory approval. On current and recent XXX/AXXX deals, most of our insurance company clients are receiving more regulatory questions than in prior years, but because the FAWG process is confidential the companies are not sure whether the questions are coming from the FAWG or whether their regulators on their own have become more thorough in their review of XXX/AXXX transactions submitted for regulatory approval.

Other NAIC captive-related developments

- **PBR.** Officially 17 states have passed the PBR package as of late June. These 17 states account for about 27% of 2008 industry premiums. PBR won't become effective until 42 states/jurisdictions representing 75% of 2008 premiums have adopted the revised Standard Valuation Law incorporating PBR. While several more states are considering the PBR package this year and others have said they will consider it in 2015, we view it as highly unlikely that the threshold amount will be met next year, meaning the earliest PBR can become effective is 2017 (and remember, following the operative date, companies have three years before they are required to begin reporting on a PBR basis). While it still may be many years before a company needs to file its statutory statements on a PBR basis, under the NAIC framework the Actuarial Method for XXX/AXXX business is based on a modified version of the PBR VM-20 requirements, so companies looking to execute reserve financing transactions in the future may need to be prepared much sooner to begin performing PBR calculations.

"While several more states are considering the PBR package this year and others have said they will consider it in 2015, we view it as highly unlikely that the threshold amount will be met next year, meaning the earliest PBR can become effective is 2017."

CATF's captive-related activities

- **RBC factors for Other Security in XXX/AXXX reserve financing.** The Investment Risk Based Capital (E) Working Group of the Capital Adequacy (E) Task Force (CATF) will likely commence discussions about appropriate C-1 RBC factors for various kinds of Other Security. The working group will attempt to finalize its proposed approach by December 2014 (even though it wouldn't become effective until December 2015) so that the structuring and regulatory approvals of XXX/AXXX reserve financing transactions executed in the first quarter of 2015 can reflect the relevant C-1 RBC factors for the Other Security used in each transaction.

- **Unauthorized reinsurance.** The timing is uncertain for the Life Risk Based Capital (E) Working Group of the CATF to develop and expose a proposal to require life companies to collateralize RBC ceded to unauthorized reinsurers in the same manner as reserves.

- **Operational risk RBC.** For life (and health) RBC, the CATF's Operational Risk (E) Subgroup in the next nine months will 1) assess the degree to which operational risk is already reflected in C-4 RBC and other areas of the formula, and 2) consider interested party suggestions that any additional charge for operational risk (beyond that already in NAIC RBC) should be nominal. To the extent that the additional charge for operational risk is material, and depending on how it is defined, it might when effective impact the structuring or capitalization of certain types of captives.

[6] Study further the effects of, and potential limits on, the variability in qualified LOCs or any other security that might not provide the intended protections provided within the NAIC Credit for Reinsurance Model Law.

[7] Update or draft new NAIC model acts or regulations for solutions designed to shift risk to the capital markets or provide alternative forms of business financing.

[8] Monitor IAIS captive-related principles, standards, and guidance.

State regulatory developments

- **New York.** It appears likely that the draft revisions by the NY DFS to NY Regulation 147 and to NY Regulation 179 will be adopted and will implement reserve relief for level premium term life business issued in 2015 and thereafter. This new methodology will create an additional administrative burden on companies licensed in New York who sell level term business. The timing for any NY DFS proposal relating to UL-SG reserves is unclear.

Rating agency developments

- **S&P.** S&P is in the process of reviewing comments received on its proposed March 10, 2014, new "Methodology for the Treatment of Captives in Rating U.S.-Domiciled Life Insurers," and presumably will reflect such comments in criteria that S&P is likely to publish later in 2014. In addition, S&P is in the process of receiving comments on its proposed April 9, 2014, new "Methodology for the Classification and Treatment of Insurance Companies' Operational Leverage," which would affect some forms of reserve financing transactions.

- **A.M. Best, Fitch, and Moody's.** In light of ongoing life captive-related regulatory developments, and given how financing structures have evolved in the last couple of years, we would not be surprised if one or more of these rating agencies in 2014 introduces changes to their captive-related criteria.

- **In the embedded value (EV) financing market.** We expect to see a small number of EV securitizations in Europe or the United States, but we expect a greater number of VIF monetization transactions executed by insurance subsidiaries of banks or insurance holding companies in solutions to strengthen bank balance sheets.

- **In the catastrophic morbidity and mortality risk hedging market.** We expect that the lower C-2 risk hedging cost priced into Vitality Re V might draw more issuers to the market and we thus might see more transactions get completed than in 2013.

- **In the longevity risk hedging market.** We expect continued development around the world. In the United States, the funding levels in defined benefit plans affect plan sponsor interest, where greater interest is expected from plans that are more highly funded. Looking at pension plans in aggregate, a June 6 publication about Milliman's Pension Funding Index (PFI) showed a funding ratio of 84.3% for the top 100 defined benefit plans in the United States.[9] The current PFI statistics are before the reflection of the anticipated new pension mortality table assumptions, which will likely significantly increase pension liabilities. The revised mortality assumption that illustrates the longevity risk of defined benefit plans may lead CFOs at corporations with pension plans to better understand the impact of longevity risk, and in turn it may expedite the number of longevity risk transfer transactions. In Canada, given recent accounting changes,[10] we are poised to see an increased execution of transactions related to longevity risk. In the U.K., we anticipate a dramatic reduction in life insurer demand to purchase longevity protection as a result of a March 19, 2014, U.K. finance minister announcement that changes will be implemented to substantially reduce the percentage of new retirees that are compelled to buy annuities. However, among U.K. pension plans and those in continental Europe, we see no reason for a material slowdown in longevity transaction activity.

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[9] Ehrhardt J., & Wadia J. (June 6, 2014). Pension Funding Index. Retrieved June 6, 2014, from http://us.milliman.com/pfi/.

[10] Task Force on Audit Reporting Implications of the New Canadian Auditing Standards (April 2014). Issue No. 12: Reporting Implications of New Auditing and Accounting Standards. CPA Canada. Retrieved June 20, 2014, from http://www.frascanada.ca/canadian-auditing-standards/resources/reference-material/item50999.pdf.