Life ILS: 2015 year in review and looking ahead to 2016

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Last year, 2015, was a significant transition year, as it was the first year for which Actuarial Guideline XLVIII (AG48) was applicable for the U.S. life reserve financing marketplace, which still remains the largest segment of the Life ILS[1] market. AG48 was the result of a multiyear effort on the part of the regulators to bring more uniformity and transparency to the reserve financing marketplace. It was the latest evolution in the reserve financing marketplace, which started in 2003 when companies began using reserve financing transactions both for capital management purposes and to offer consumers lower-cost products. The approval process for such deals was always completed on a one-off basis, based on rules agreed upon between the insurer's domestic regulator and the captive reinsurer's regulator.

In 2015, we saw an evolution in the reserve financing structures to comply with AG48, and we saw more uniformity in regulatory approvals for such AG48 financings than ever before. In addition, 2015 saw the first transactions involving policies from pre-2015 captives for which the financing was restructured and/or refinanced after AG48 had become effective. We refer to such insurance policies as "grandfathered policies" because these policies continue to be exempt from AG48. New year-end 2015 disclosure requirements will increase the transparency of both grandfathered policy transactions and AG48 transactions. The two key XXX/AXXX reserve financing-related objectives of the National Association of Insurance Commissioners (NAIC), the increase in uniformity and the increase in transparency, have been achieved.

This year, 2016, will bring additional developments to formalize the provisions of AG48 into an NAIC model regulation[2] and might bring further changes to risk-based capital (RBC) requirements for reserve financing transactions covering non-grandfathered policies. In early January, the NAIC adopted amendments related to life insurer captives to the NAIC Credit for Reinsurance Model Law, which will empower regulators to first complete and then adopt the XXX/AXXX CFR Model Reg and any other NAIC model regulations developed for reinsurance of other life insurer lines of business.

1 When the reserve financing market first developed, many reserve financing transactions involved the issuance of securities that were often called "Life ILS," or just "ILS," which is an acronym for "insurance-linked securities" or "insurance-linked securitization." 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.

2 Known as the NAIC XXX/AXXX Credit for Reinsurance Model Regulation (XXX/AXXX CFR Model Reg).

While we believe the number of reserve financing transactions was down in 2015, as compared with prior years, this was not due to a lack of need for such financing as many companies' products are still priced assuming the companies will be able to implement reserve financing structures. Instead, this was due to companies waiting to see how the marketplace evolved, as well as companies getting up to speed on the significant effort needed for the new actuarial modeling required under AG48. We believe 2016 will see more companies with a need to execute AG48 transactions bring such transactions to the market. This will include companies that have never executed a reserve financing transaction, as such companies get comfortable with the new regulatory framework for such transactions.

On a related topic, the NAIC in 2015 also began a process to modify reserves, capital, and hedge accounting rules for variable annuities (VA) in order to address the issues that led insurers to utilize VA captives. The NAIC is conducting a quantitative impact study (QIS) in 2016, with a plan to develop and finalize the details of its VA Framework for Change by year-end 2016, so that the changes can be implemented in 2017. Unlike AG48, which only applied prospectively, the NAIC expects the VA Framework for Change to apply to all variable annuity business issued since January 1, 1981.

In 2015, most of the ILS activity we saw continued to be excess reserve financing transactions for U.S. life insurers selling level premium term life insurance subject to Regulation XXX, or universal life insurance with secondary guarantees (UL-SG) subject to Actuarial Guideline XXXVIII (AXXX). Once the new NAIC reporting for such transactions becomes available in April, we will be able to quantify the number and amount of these transactions executed in 2015.

In addition to the reserve financing transactions, we also saw a few embedded value (EV) financing transactions and transactions to hedge catastrophic morbidity or mortality risk. Further, the market to hedge longevity and other pension risks continued to develop.

DEVELOPMENT OF EXCESS RESERVE FINANCING TRANSACTIONS

The XXX/AXXX excess reserve financing market developed because statutory reserving requirements did not evolve to keep pace with the significant improvements in mortality seen by the industry in the 1990s and 2000s, resulting from significant improvements in insurers' underwriting and risk classification capabilities. As a result, many insurers sought financing for the part of the statutory reserves on certain products that were viewed as excessive. Financing providers, based on extensive due diligence, got comfortable that the reserves were excessive and were able to agree with insurers on terms for financing a material portion of such reserves. The definition of "economic reserves" varied from deal to deal, but often was defined with assumptions set at deal inception as a best-estimate gross premium reserve or as a gross premium reserve with modest provisions for adverse deviations. The definition of "excess reserves" was typically statutory reserves minus economic reserves. These transactions also included negotiated provisions to ensure the financing provider, the cedant's regulator, the captive's regulator, and the cedant's rating agencies that the captive would be sufficiently capitalized over a range of stress scenarios. The XXX/AXXX excess reserve financing market started in 2003, and since then XXX/AXXX reserve financing transactions have grown in popularity to become an important part of many insurers' capital management programs, in many cases allowing companies to use debt-like financing for a portion of their reserves. The financing of excess reserves has allowed insurers to offer consumers lower-priced insurance products. Even the New York Department of Financial Services (NY DFS), which has been outspoken in its opposition to reserve financing transactions, now acknowledges that the statutory reserves on level premium term products and on some UL-SG products are excessive.

Since 2003, the market has evolved significantly. Early on, financing solutions were largely in funded form via capital market securitization transactions structured and guaranteed by financial guarantors with Aaa/AAA ratings. 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 economics similar to nonrecourse LOCs. More recently, much of the financing (including transactions executed in 2015 that only cover grandfathered policies) has involved structures whereby a captive purchases credit-linked notes (CLN) for which one or more financing providers (e.g., professional reinsurers, banks, financial guarantors, or other investors) provides credit enhancement.

Each of these transactions was reviewed by the ceding insurer's domestic regulator and by its captive's regulator, where the terms of each transaction were negotiated between the insurer and the financing provider on a one-off basis and then modified, if needed, to obtain regulatory approval. While common concepts existed, there was no uniformity in the definition of economic reserves or in terms of the kinds of assets that could back excess reserves.

ACTUARIAL GUIDELINE XLVIII

AG48, which was the end product of several years of work by the NAIC, was intended as a temporary solution to bring more uniformity to reserve financing transactions, until principle-based reserves (PBR) became effective. AG48 will be replaced on a state-by-state basis after the NAIC finalizes and adopts a new NAIC XXX/AXXX CFR Model Reg, and then as each state adopts the model regulation and captive-related amendments to the NAIC Credit for Reinsurance Model Law that were adopted by the NAIC in January 2016. Such legislative process probably will span the next several years, and until a state adopts the revised model law and the new model regulation and such models become effective in that state, AG48 will continue to apply to that state's domestic life insurers.

AG48 uses concepts developed for PBR to define an "Actuarial Method" reserve (AMR). AG48 specifies particular assets ("Primary Security"), which must secure (via funds in trust, funds withheld, or a modified coinsurance arrangement) the AMR ceded to the captive, and allows "Other Security" approved by the ceding company's regulator and the captive's regulator for each financing to back the excess of statutory reserves over the AMR.

The AMR is intended to bring uniformity in reserve financing transactions to what previously was the economic reserve concept, with calculations reflecting the PBR requirements as specified in the NAIC Valuation Manual, chapter 20 (VM-20). To reflect anticipated changes to VM-20 prior to PBR becoming effective, AG48 defines the AMR as a modified VM-20 calculation.

Given the use of PBR concepts in AG48, companies that executed AG48 transactions in 2015 were, in effect, participating in a live PBR field test. These companies expended significant effort in defining AMR assumptions and in building complex models to forward-forecast PBR-like reserves. The time spent in developing such assumptions and projection methodologies resulted in a much longer time than in prior years for companies to develop the business plans for the captive. Together with a longer regulatory review process, execution time for 2015's AG48 transactions were typically twice as long as transactions executed in prior years, with companies needing six months or more from the start of a transaction to completion.

AG48 applies to policies included in reserve financing transactions for which the reinsurance treaty is effective on or after January 1, 2015, but it does not apply to policies that were part of a specified reinsurance arrangement as of December 31, 2014, which are permanently "grandfathered" from AG48 treatment, even if the treaty or financing agreements are amended or replaced with new agreements or involve a new captive, captive jurisdiction, financing provider, or form of financing.

On a treaty-by-treaty basis, the ceding insurer's actuary must review and opine on compliance with the AG48 requirements for reserve financing transactions subject to AG48, and must issue a qualified opinion for the insurer if one or more of its reserve financing transactions covering non-grandfathered policies is not compliant with the requirements of AG48. For year-end 2015, the ramifications of a qualified opinion, if the qualification is based solely on AG48, are that the insurer must disclose that its actuarial opinion is qualified and that an RBC penalty may occur if such qualified opinion involves a Primary Security shortfall that is not completely remedied. For year-end 2015, to the extent that an insurer has a Primary Security shortfall that is not remedied at one or more of the insurer's captive reinsurers, the sum of such shortfalls is added to the insurer's Authorized Control Level RBC, which increases the insurer's Company Action Level RBC by twice the shortfall.

OTHER RESERVE FINANCING DEVELOPMENTS

While the main development in the reserve financing marketplace related to the regulatory developments discussed above, we saw the following trends and other developments in 2015.

Relative to 2014:

- Fewer transactions were executed (possibly because of the complexities of AG48, because companies wanted to see how new structures developed, and/or because companies did not want to be one of the first to execute an AG48 transaction).
- A smaller percentage of the newly executed transactions provided financing for UL-SG (mostly because the AMR is much more complicated to model for UL-SG than for level term).
- A smaller percentage of financing providers were involved in new financing transactions.
- Reinsurers continued to play a leading role in the reserve financing market, typically with CLN structures.
- Reserve financing continues to be a significant issue in mergers and acquisitions (M&A) transactions, both around the structuring (or restructuring of existing structures) and the execution risk (and whether such risk is assumed by the buyer or the seller).
- Gross financing costs were relatively the same or slightly lower.

OTHER LIFE ILS TRANSACTIONS IN 2015

While most of the North American Life ILS transactions in 2015 involved XXX/AXXX excess reserve financing, several other innovative transactions provided financing or insurance risk hedging in various forms.

It was a somewhat busier year than 2014 for EV securitization, where there were at least four EV securitization transactions completed. The EV securitizations included three private transactions that were not publicized by their sponsors, and one CAD 210 million EV securitization that was publicized by its sponsor.

Aetna, through its ongoing Vitality Re financing program, raised USD 200 million in January 2015 via two tranches of securities issued by Vitality Re VI Ltd, and in January 2016 raised USD 200 million via two tranches of securities issued by Vitality Re VII Ltd. While Vitality Re VI provided three 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 VII provided four years of protection. Consistent with the overall increase in credit market spreads in late 2015 and early 2016 as a result of adverse capital market conditions, the issuance spreads on Vitality Re VII's two tranches were materially wider than those for comparable tranches on Vitality Re VI.

In the catastrophic mortality market, Swiss Re was an issuer in a publicized transaction for the first time since 2012, and AXA was an issuer in a publicized transaction for the first time since 2006. Swiss Re's issuance was for USD 100 million with a five-year maturity via Vita Capital VI, and AXA's issuance was for EUR 285 million with a five-year maturity via Benu Capital.

The market for hedging macro longevity risk continues to develop. While not quite as big as 2014 in terms of amount of risk transferred, the market was still very substantial and was more diverse than 2014. Further, we have seen new entrants into the market.

Many of the longevity deals that took place in 2015 followed the trend of insurers or reinsurers ultimately accepting the risk. The UK market continues to be the leader in longevity risk transfer transactions, where there is a robust longevity swap market (i.e., only the longevity risk is transferred) and buy-in/buy-out market (i.e., where the asset risk is transferred too). Longevity swap transactions became a larger portion of the market in 2015 (compared with 2014), in terms of number of transactions. A common theme in 2015 is that we continue to see cross-border transactions. U.S.-based insurers have provided longevity reinsurance to several UK insurers that have longevity exposure to UK lives. Examples of these transactions are the longevity reinsurance that Prudential Financial has provided Pension Insurance Corporation and Legal & General. These UK insurers have more longevity exposure than mortality exposure and are using the longevity reinsurance as part of their pricing in new deals, helping them lock in a spread on the longevity risk.

The structure for the noteworthy British Telecom transaction in 2014 has set the way for various transactions in 2015. This structure enables the pension plan to insure the risk to a wholly owned offshore captive (e.g., in Guernsey), which then allows for the risk to be reinsured to a U.S. insurance company. This structure eliminates the need for an intermediary and thus improves cost-efficiency for the pension plan.

In continental Europe, Dutch life insurer Delta Lloyd entered into another substantial longevity swap transaction with RGA. The two parties entered into a similar transaction in 2014. We believe this is the largest reported transaction in 2015. Aegon continues to be involved in the longevity risk market, as it transferred a significant portion of its longevity risk to Canada Life Re.

While not as robust as the UK market, the U.S. longevity market continued to develop in 2015. Whereas there were a couple of billion-dollar buy-out transactions, there was large growth in the mid-sized buyout transactions ranging from $200 million to $700 million.

There were innovative risk-sharing transactions in 2015, mainly driven by the need to satisfy fiduciary requests to diversify risk. For example, in February, Kimberly-Clarke entered into a substantial pension buy-out transaction, splitting the liabilities equally between Prudential and MassMutual, where neither insurer takes credit exposure to the other.

The 2015 Canadian longevity market was buoyed by longevity insurance purchased from Sun Life by the Bell Canada Pension Plan. Sun Life in turn reinsured portions of its assumed exposure to SCOR and RGA.

REGULATORY, LEGAL, AND RATING AGENCY DEVELOPMENTS: HIGHLIGHTS

There were many significant regulatory, legal, and rating agency developments that took place in 2015 that affect the Life ILS market. Below are summaries of what we view as the highlights of these developments.

NAIC's implementation of a framework for reserve financing

On January 1, 2015, the NAIC implemented a reserve financing "framework" developed by the NAIC PBR Implementation Task Force (PBRI TF). Please see pages 4 and 5 of Milliman's Life ILS 2014 Year in Review white paper[3] for a discussion of the key concepts relating to the reserve financing framework, including paraphrased definitions for some capitalized AG48 terms used herein such as "Covered Policies", "Primary Security", and "Other Security".

Purposes & Procedures Manual definitions of "Securities Listed by the SVO," "Regulatory Transaction," and "Investment Security"

On October 8, the NAIC Valuation of Securities Task Force (VOSTF) adopted compilation instructions to be included in the Purposes & Procedures Manual to define "Securities Listed by the SVO." The instructions include the December 4, 2014, memo of the NAIC's Securities Valuations Office (SVO) to the Reinsurance Task Force (RTF) and VOSTF, which defines "Securities Listed by the SVO" to include U.S. government securities and insurers' investment securities but not any individual insurer's bespoke regulatory transactions. For certain CLN forms of XXX/AXXX reserve financing in many jurisdictions, this change clarifies that ceding company regulators cannot treat a CLN as "Securities Listed by the SVO" and instead must utilize their "other form of collateral acceptable to the commissioner" authority in order for their domestic companies to obtain reserve credit for the portion of reserves backed by the CLN.

NAIC's adoption of enhanced 2015 year-end disclosure requirements for XXX/AXXX reserve financing transactions

- In the spring of 2015, the NAIC adopted year-end 2015 enhancements to a four-part Supplemental XXX/AXXX Reinsurance Exhibit for which the filing deadline is April 1, 2016. The exhibit requires year-end 2015 disclosure of certain nonconfidential information about transactions involving AG48 "Covered Policies" (as defined in AG48) in addition to that required for grandfathered policy transactions (which itself has been enhanced since the original year-end 2014 requirements).

- Effective for annual statements starting with year-end 2015, and in response to a charge to from PBRI TF, the NAIC required a new "Note to the Audited Financial Statements" regarding compliance with AG48 or the XXX/AXXX CFR Model Reg, as applicable.

3 Life ILS: 2014 Year in Review and Looking Ahead to 2015. Routhenstein, A. et al. (February 2015). Milliman White Paper. Retrieved February 23, 2016, from http://us.milliman.com/uploadedFiles/insight/2015/life-ils-in-review.pdf.

NAIC's adoption of year-end 2015 RBC requirements for cedants that execute reserve financing transactions covering non-grandfathered policies

On June 30, the NAIC Capital Adequacy Task Force (CATF) adopted instructions for year-end 2015 RBC for XXX/AXXX ceding companies, and are applicable for transactions involving AG48 Covered Policies. In short, the three instructions adopted are as follows:

- Qualified Actuarial Opinion: Item #2014-33-LMod avoids impacting all lines of business for a Qualified Actuarial Opinion for which the qualification is based solely on AG48.
- Primary Security Shortfall: Item #2014-35b-LMod increases a ceding company's Authorized Control Level RBC to the extent that any XXX/AXXX captive reinsuring AG48 Covered Policies has a Primary Security Shortfall.
- RBC Cushion: Item #2014-42-L discloses a consolidated presentation of all XXX/AXXX reinsurance ceded, and decreases the company's total adjusted capital (TAC) to the extent that any XXX/AXXX captive involving AG48 Covered Policies has TAC less than a benchmark of 300% of Authorized Control Level RBC.

NAIC adoption of accreditation program requirements for XXX/AXXX reinsurance subsidiaries

At its November 22 meeting, the NAIC Executive-Plenary Committee adopted as an accreditation standard the amended Part A preamble to the NAIC Accreditation Program Manual (Accreditation Preamble), as adopted by its Financial Regulation Standards & Accreditation Committee (F Committee) on August 15. The Accreditation Preamble defines a term, "multi-state insurer," and subjects the regulation of U.S. XXX/AXXX captives involving AG48 Covered Policies to accreditation requirements effective January 1, 2016, unless the NAIC XXX/AXXX Reinsurance Framework is followed. The intent of this requirement is to strongly discourage any state from permitting its domestic companies to deviate from the NAIC XXX/AXXX Reinsurance Framework.

NAIC's development of model laws and regulations relating to XXX/AXXX reinsurance ceded

During 2015, the RTF adopted captive-related amendments to the NAIC Credit for Reinsurance Model Law and such amendments were adopted by the NAIC on January 8, 2016. The RTF is also in the process of developing for adoption by the NAIC this year an XXX/AXXX CFR Model Reg so as to incorporate the AG48 provisions into a model regulation. This is discussed below in the "Looking Ahead to 2016" section.

NAIC's adoption of pending accreditation program requirements for VA and LTC captives

The Accreditation Preamble adopted by the NAIC in 2015 also includes a requirement, applicable after effective dates to be determined, that a U.S. captive assuming VA business or long-term care (LTC) business must also be treated as a multistate reinsurer and its regulation is subject to accreditation program requirements. As with XXX/AXXX captives, the Accreditation Preamble revisions acknowledge that the regulation of a VA captive or LTC captive would be deemed to satisfy the Accreditation Preamble should the captive satisfy methodologies developed in the future by the NAIC that address these types of products.

NAIC's adoption of a variable annuities framework for change

In March, the NAIC Financial Condition Committee (E Committee) announced the formation of a new Variable Annuities Issues Working Group (VAIWG) charged to "oversee the NAIC's efforts to study and address, as appropriate, regulatory issues resulting in variable annuity captive reinsurance transactions." In November, the NAIC adopted the VA Framework for Change proposed by VAIWG, and agreed to provide funding together with the industry for VAIWG to pursue a 2016 Quantitative Impact Study (QIS). In a related initiative, in November the NAIC also adopted, for year-end 2015 only (i.e., subsequent disclosure will be revisited in 2016), the NAIC blanks proposal labeled as 2015-36: Variable Annuity Captive Disclosure, and agreed that additional confidential RBC-type information would be collected via a confidential data request. Highlights of the VA Framework for Change are as follows:

- Modify statutory reserve requirements to be less conservative, less volatile, and better aligned with business economics.
- Modify capital requirements to be less conservative, less volatile, better aligned with business economics, and more cost-efficient to determine.
- Modify Statement of Statutory Accounting Principles (SSAP) No. 86 to reduce the accounting mismatch that exists between the value of the hedge and the value of the hedged item (the variable annuity liability).
- Develop narrowly defined statutory language that states may use to remove limitations that may exist within their investment statutes that may otherwise limit the extent to which an insurer may use hedges in its risk management.

Federal and international regulatory initiatives on life insurer use of captives

Three U.S. federal regulatory entities issued reports on life insurer use of captives, but none of the reports provided any material revelations not already in documents published by the NAIC or rating agencies:

- Voting members of the Financial Stability Oversight Council (FSOC) approved the FSOC 2015 Annual Report on May 19, 2015.
- The Federal Insurance Office (FIO) of the U.S. Department of the Treasury published its annual report on the insurance industry (FIO 2015 Annual Report) on September 25, 2015.
- The Office of Financial Research (OFR) of the FSOC published its annual report to Congress on financial stability (OFR 2015 Annual Report) on December 15, 2015.

In response to federal government and International Association of Insurance Supervisors regulatory desires to have a group-wide capital calculation for insurers designated as systemically important financial institutions (SIFIs) or global systemically important insurers (GSIIs), in November the NAIC decided that its E Committee should develop an insurance group capital calculation using an RBC aggregation approach that is intended to serve as a tool to help enhance U.S. state insurance regulators' approaches to group supervision. An NAIC decision will need to be made on how to aggregate the legal entity capital requirements from other jurisdictions as well as what to do with legal entities such as captives that have no existing NAIC capital requirements.

Rating agency developments affecting Life ILS

A.M. Best, Fitch, and Moody's criteria for assigning ratings to captives, ILS, or ILS funds

We are not aware of any material change in criteria related to Life ILS for these rating agencies.

S&P's new view on life insurer use of captives

On March 12, 2015, S&P published a new "Methodology: U.S. Life Insurance Reserves and Reserve Financing Transactions," that replaced its 2006 criteria for short term credit solutions and the operational leverage section of its 2004 criteria for long-term funded XXX solutions. The most notable changes from prior criteria include a) new focus on consolidated insurance group analysis rather than whether and to what degree an instrument qualifies for operational leverage treatment, and b) a view that the excess of statutory reserves over GAAP reserves is redundant, regardless of whether such reserves are financed. As a result of these changes and other nuances of the 2015 reserve financing criteria, S&P began using a substantially different perspective to view insurance groups with XXX/AXXX business, and some insurance groups have modified their reserve financing strategies. While the net effect might have changed S&P's assessments of the capital adequacy, leverage or financial flexibility for some insurance groups, we are not aware of any S&P ratings actions on an insurance group under the 2015 reserve financing criteria that S&P has attributed to the group's XXX/AXXX business.

LOOKING AHEAD TO 2016

Below we present our views as to potential further developments in 2016.

The market for amendments or refinancings to XXX/AXXX reserve financing transactions involving grandfathered policies

For grandfathered policies that were excluded from AG48, we believe it is quite clear that neither a simple amendment to an existing transaction (such as extending the maturity or replacing the financing provider) nor the complete refinancing of an existing transaction (such as the creation of a new captive structure with a different financing arrangement) would cause such policies to become AG48 Covered Policies. Regulatory approvals in 2015 of transactions involving grandfathered policies support our view. We expect to see several transactions with grandfathered policies in 2016.

The AG48 reserve financing marketplace

As discussed above, many companies reflect reserve financing in their pricing of level term business and UL-SG business. Companies that had previously executed reserve financing transactions prior to 2015, but took a "wait and see" approach in 2015 with regard to an AG48 transaction, likely will be looking to execute an AG48 transaction in 2016, to cover at least 2015 and 2016 issues. And we believe that there are companies that previously have not executed reserve financing transactions that may now consider executing a transaction in 2016, given the well-defined regulatory framework around such transactions.

For 2015 AG48 transactions for which the excess over AMR was financed, ceding company actuaries and regulators were careful to make sure that AG48 was satisfied. Some ceding companies had substantial discussions with their regulators and financing providers on alternative forms of "mezzanine" financing for the excess of AMR over economic reserves, but execution of third-party mezzanine financing was generally postponed until 2016 so that further research and discussions could be completed.

Aside from the AG48 potential implications, the following additional factors may affect the nature of the financing structures that will be implemented in 2016.

Purposes & Procedures Manual definitions of "Securities Listed by the SVO," "Regulatory Transaction," and "Investment Security"

The year-end 2015 Purposes & Procedures Manual's new compilation instruction definitions of "Securities Listed by the SVO," "Investment Securities," and "Regulatory Transactions" might for some insurers result in the evolution of whatever forms of financing each views as optimal, and could affect grandfathered policy refinancing decisions as well as AG48 decisions.

NAIC XXX/AXXX Credit for Reinsurance Model Regulation

On January 8, 2016, the NAIC adopted captive-related amendments to the NAIC Credit for Reinsurance Model Law, which, when adopted by each state, would empower its state insurance commissioner to adopt the XXX/AXXX CFR Model Reg after it has been adopted by the NAIC. The NAIC would like to refine and adopt this model regulation by its spring national meeting.

Although the PBRI TF had previously requested that RTF not deviate from AG48, because AG48 was drafted as part of a delicate compromise among members of the NAIC and the industry, one material deviation that was included in the draft model regulation introduced in 2015 has been retained in a revised draft exposed by RTF on February 26, 2016.

A highly punitive reserve credit penalty for a shortfall of Primary Security or Other Security has been introduced rather than the dollar-for-dollar reduction implicit in 2014 and 2015 discussions. As proposed by RTF, if there is a $1 shortfall of either Primary Security or of Other Security, then the ceding company must establish a liability for the full statutory reserve ceded as if $0 were held as security.

Life RBC Working Group XXX/AXXX-related charges

RBC cushion: On February 19, 2016, the Life RBC Working Group exposed for 30 days a refinement of the conceptual approach for the RBC cushion. The design of the refined approach would be to create a level playing field among cedants, regardless of whether the captive does or does not file RBC reports. If adopted, the refined approach would likely become effective for year-end 2016 annual statements, and would modify the RBC cushion treatment of a captive filing RBC reports that is not an admitted subsidiary.

RBC factors for Other Security: On a February 19, 2016, Life RBC Working Group conference call, it was agreed that the working group would not pursue development of RBC factors for Other Security.

PBR: Thirty-nine states have passed the NAIC's PBR package as of early 2016. These 39 states account for 71.8% of 2008 industry premiums. PBR won't become effective until 42 states or jurisdictions, representing 75% of 2008 premiums, have adopted the revised Standard Valuation Law incorporating PBR. It is expected that this threshold will be reached before July 1, 2016, which would make PBR operative as of January 1, 2017. Following the PBR operative date, however, companies have three years before they are required to begin reporting on a PBR basis. The NAIC will also need to consider this year whether the PBR laws adopted in various states (for which some states have unique versions of the small company exemption) meet the "substantially similar" provision in the Model Law requirement, in order for such states to be included in the count.

State regulatory XXX/AXXX developments

New York: The new NY DFS implemented new minimum reserving requirements for both level term business and UL-SG business, for policies sold on or after January 1, 2015. These new reserving rules will create additional administrative burden on companies licensed in New York that sell level term and UL-SG business. And these new reserving requirements, which allow companies to hold reserves lower than those allowed under Regulation XXX and under Regulation AXXX, have caused the NAIC to question the accreditation of the NY DFS. These discussions are ongoing.

Rating agency XXX/AXXX captive-related developments

A.M. Best, Fitch, Moody's, and S&P: In light of ongoing regulatory developments related to life captives, 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 2016 introduces changes to their captive-related criteria. For 2016 it is possible that we see an uptick in funded ILS issuances as one of the ways to finance the excess of AMR over economic reserves in a manner that satisfies AG48 Primary Security requirements, in which case we would expect investors for each issuance to require ratings from one or two of these rating agencies. In addition, we anticipate that some insurance groups will modify their XXX/AXXX financing strategies or pursue other capital management initiatives in response to the notable changes and nuances in S&P's March 12, 2015 reserve financing criteria.

Market for Life ILS transactions other than XXX/AXXX

The NAIC's next type of life insurer captive to evaluate: The January 2016 amendments to the NAIC Model Credit for Reinsurance Model Law include the phrase "such other life and health insurance and annuity products as to which the NAIC adopts model regulatory requirements with respect to credit for reinsurance," which enables the NAIC to develop a model reserve credit regulation for a next type of captive that the NAIC might designate as a priority concern. In a related effort, the E Committee has adopted a new charge to "oversee and implement a process to address issues threatening the consistency and uniformity of the U.S. solvency framework," which lays the groundwork for the NAIC to identify the next type of captive that might be a priority concern. Other than VA captives (on which the VAIWG is already focusing), and LTC captives (on which the E Committee has communicated preliminary views that such captives are not prevalent), it is not clear what next type of captive if any that might be designated by the E Committee as a priority concern.

EV financing and VIF monetization market: We expect to see modest growth in the number of EV securitizations and value of in-force (VIF) monetization transactions (a related form of financing) executed by insurance subsidiaries of banks or insurance holding companies in Europe or North America. Catalysts for such growth might include adverse capital market conditions for which some holding companies decide to strengthen their balance sheets, or evolving regulatory requirements (such as the implementation of Solvency II) that alter the risk and capital management paradigm for what insurance groups view as optimal for their own enterprises.

Catastrophic morbidity and mortality risk hedging market: Based on Aetna's recent history as an annual issuer of catastrophic morbidity bonds, we would expect another issuance. And it is likely that we will see more issuance of catastrophic mortality transactions in 2016.

VA captives and other VA capital management transactions market: The NAIC's VAIWG has indicated that it plans to launch the QIS in March or late February. Over the late spring and summer, it plans to analyze data collected, with a target implementation date for its recommendations of January 1, 2017. If the complete VA Framework for Change is implemented as drafted in 2015, it should reduce the insurance group economic benefits of having a VA captive and result in some insurers recapturing reinsurance ceded to VA captives. Depending on the implementation details, however, some insurance groups might conclude that a VA captive is attractive to maintain for risk and capital management purposes.

Longevity risk hedging market: We expect continued development around the world.

We see trends continuing from last year in the UK and Europe. As we wrote about in our 2014 Year in Review, in the long term, we anticipate a dramatic reduction in demand amongst UK life insurers for purchasing longevity protection as a result of changes implemented in 2015 which have substantially reduced the percentage of new retirees who buy individual annuities. However, in the near term, for insurers in the UK and continental Europe, we anticipate modest longevity market transaction growth that might accelerate as a result of Solvency II developments. Among pension plans in the UK and continental Europe, we see no reason for a material slowdown in longevity transaction activity, especially given that insurers may seek to take on more bulk transactions to offset the reduction of their individual annuity businesses. Further, the market has grown in efficiency, allowing smaller pension funds to participate.

In the United States, life insurer demand to purchase or provide such protection in 2016 could potentially change from 2015 levels if the NAIC exposes in 2016 a future change to C-2 RBC to reflect longevity risk. In April 2016, the NAIC Life RBC Working Group is expected to summarize and discuss how longevity risk is addressed in jurisdictions outside of the United States, but it is currently too early in the NAIC's discussion of longevity risk to forecast the nature and timing of any NAIC proposals to modify C-2 RBC. Further, some insurers have begun to express concern about the amount of pension exposure they are accumulating. In some cases the concern relates to the long-dated asset risk associated with pension buy-in and buy-out transactions. In other cases, the concern relates to the accumulated longevity risk exposure relative to their retained mortality exposure (i.e., after reinsurance). We anticipate new transaction structures to alleviate the concentration risk, allowing for insurers to continue to efficiently service corporations with pension plans. Also, we anticipate that insurers will begin to become more sophisticated about understanding the diversification benefit of offering pension longevity risk products, in conjunction with their life insurance liabilities. Earlier this month, Milliman produced an in-depth case study[4] that examines the diversification benefit of longevity and mortality risks.

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4 Diversification of Longevity and Mortality Risk. Silverman, S. & Theodore, D. (February 2016). Milliman White Paper. Retrieved February 23, 2016, from http://www.milliman.com/uploadedFiles/insight/2016/Diversification-longevity-mortality-risk.pdf.

ILS GLOSSARY

AG48 - Actuarial Guideline XLVIII
AMR - Actuarial Method Reserve
AXXX - Actuarial Guidelines XXXVIII
CATF - NAIC Capital Adequacy Task Force
CLN - Credit-linked notes
EV - Embedded Value
FIO - Federal Insurance Office
FSOC - Financial Stability Oversight Council
GSII - Global Systemically Important Insurers
LOC - Letter of credit
LTC - Long-Term Care
M&A - Mergers and Acquisitions
NAIC - National Association of Insurance Commissioners
NAIC XXX/AXXX CFR Model Reg - NAIC XXX/AXXX Credit for Reinsurance Model Regulation
NY DFS - New York Department of Financial Services
OFR - Office of Financial Research
PBRI TF - PBR Implementation Task Force
PBR - Principle-Based Reserves
QIS - Quantitative Impact Study
RBC - Risk-Based Capital
RTF - Reinsurance Task Force
SIFI - Systemically Important Financial Institutions
SSAP - Statement of Statutory Accounting Principles
SVO - Securities Valuation Office
TAC - Total Adjusted Capital
UL-SG - Universal Life Insurance with Secondary Guarantees
VA - Variable Annuities
VAIWG - Variable Annuities Issues Working Group
VIF - Value in Force
VM-20 - NAIC Valuation Manual, Chapter 20
VOSTF - Valuation of Securities Task Force