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INSURANCE ADVISOR

ALTERNATIVE CAPITAL AND ITS IMPACT ON THE REINSURANCE SECTOR

By Imran Makda

The popularity of alternative capital entering the reinsurance market has increased by approximately 600 percent over the last 10 years, according to Aon Benfield. This trend, coupled with good underwriting results and lower catastrophic losses in the previous few years, has resulted in the reinsurance buyer experiencing the lowest cost of underwriting capital in a generation. This article offers a look at what's behind the trend and the most common types of alternative reinsurance capital vehicles.

FOUR COMMON ILS VEHICLES

Alternative reinsurance capital – more commonly known as Insurance Linked Securities (ILS) – is akin to asset-backed securities. The key difference is an asset-backed security uses an asset as collateral, whereas an ILS is backed by a reinsurance contract. There are four common types of ILS: Catastrophe Bonds (Cat Bonds), Industry Loss Warranties (ILWs), Reinsurance Sidecars and Collateralized Reinsurance Investments (CRI). Cat Bonds and CRIs are the most common types.

An ILS is typically structured by establishing a special purpose vehicle or insurer (SPV or SPI) which enters into a reinsurance agreement with a sponsor. The SPV receives premiums from the sponsor in exchange for providing the reinsurance coverage via the issued securities. The SPV issues the securities to investors

DID YOU KNOW...

Losses from severe winter events averaged $1.2 billion annually over the past 20 years; for 2014, losses will likely exceed $2.5 billion, according to the ***Insurance Information Institute***.

The outstanding catastrophe bond and insurance-linked securities market reached a new all-time high in November of $23.4 billion, based on transactions listed in the ***Artemis Deal Directory***.

A majority of directors say their boards are more involved in cybersecurity than a year ago (59 percent) and have increased cybersecurity investments (55 percent), according to the ***2014 BDO Board Survey***.

A new ***U.K. Royal Society*** report finds that risks from extreme weather are "significant and increasing," calling for changes to global financial accounting and regulation to make related risks more explicit.

A report from IT firm ***Cognizant*** suggests that property adjusters may be early adopters of drone technology, which have the potential to improve the efficiency of risk assessment surveys and claims settlement by up to 50 percent.

Marsh & McLennan Cos. estimates that the U.S. cyberinsurance market could double this year to $2 billion in gross written premiums from an estimated $1 billion in 2013.

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ALTERNATIVE CAPITAL

and receives principal amounts in return. The principal is then deposited into a collateral account, where they are typically invested in highly rated money market funds.

The investor coupon or interest payments are made up from interest that the SPV makes from the collateral and the reinsurance premiums received from the sponsor. If a loss trigger event occurs, the SPV liquidates the collateral to make the required payment and reimburse the sponsor according to the terms of the reinsurance agreement. If no trigger event occurs, then the collateral is liquidated at the end of the term and investors are repaid.

A Cat Bond is the reinsurance of low probability and high severity events such as hurricanes, winds, severe thunderstorms, windstorms, typhoons, wildfires and earthquakes. Catastrophe modeling is vital to Cat Bond transactions to provide analysis and measurement of events that could cause a loss, as well as to define the exposed geographical region.

CRIs are often created by transforming reinsurance contracts, using an offshore entity, into securities that are bought and so collateralized. This provides investors access to the return of the reinsurance market. This side of the market is growing and allows investors to access much broader classes of insurance risk should they choose.

▶POPULARITY AND PERFORMANCE

The popularity of these securities has increased significantly as hedge funds, mutual funds and other institutional investors seek investments in vehicles that are not directly correlated to the financial markets. This class of investors accounted for approximately 55 percent of the total investment in the ILS sector in 2013.

The total alternative or ILS capital jumped from approximately $37.5 billion at the end of 2012 to approximately $50 billion at the end of 2013. The capital increased by another 18 percent to $58.6 billion during the first six months of 2014. According to Aon Benfield, the 12-month period ended June 30, 2014, was ground breaking for the ILS market: Cat Bond issuance reached $9.4 billion, an increase of 41 percent compared to the prior year. To satisfy the increasing appetite of these investors, new ILS products are being introduced, such as non-U.S. perils and indemnity-based triggers. We are also seeing the introduction of risk bundling. For example, South American and Canadian earthquake exposures are added to U.S. exposures; in other cases, hurricane, earthquake, severe thunderstorm and wildfire risks are being bundled.

The continuing inflow of capital in this sector has resulted in tightening spreads and lower interest payments to investors. This trend will likely continue in the near future unless a major catastrophe changes the risk premium and the desired yields.

▶REVERBERATIONS IN REINSURANCE

Global reinsurance capital has steadily inclined over the last 10 years, except during the period of financial crisis in 2008 and 2009. It amounted to $570 billion as of June 30, 2014, an increase of approximately $30 billion from December 2013. While the ILS market makes up approximately 10 percent of today's total global reinsurance capital, it – along with the absence of costly disasters – has been a drag on reinsurance pricing for a number of years. Several hedge funds have formed offshore reinsurers with cost-efficient platforms that are taking market share away from already established traditional reinsurers. In other words, supply has clearly exceeded demand, which has resulted in continuing soft market trends with no relief in sight for the near future. This has also slowed down the stock price performance for the reinsurance sector, and several rating agencies continue to have a negative outlook on this sector.

For more information, please contact Imran Makda at imakda@bdo.com.

	Return for period ended 6/30		Average Annual Return	
Aon Benfield ILS Indices	**2014**	**2013**	**2009-2014**	**2004-2014**
U.S. Hurricane Bond – Bloomberg Ticker (AONCUSHU)	8.94%	13.19%	10.81%	9.35%
U.S. Earthquake Bond – Bloomberg Ticker (AONCUSEQ)	4.33%	6.89%	5.99%	6.47%
Benchmarks				
3-5 Year U.S. Treasury Notes	1.75%	-0.61%	3.15%	4.13%
3-5 Year BB US High Yield Index	10.11%	7.50%	11.21%	7.67%
S&P 500	22.04%	17.92%	16.34%	5.56%
ABS 3-5 Year, Fixed Rate	3.91%	1.55%	7.28%	3.93%
CMBS 3-5 Year, Fixed Rate	4.26%	4.73%	10.32%	6.72%

Source: Aon Benfield, Reinsurance Market Outlook, September 2014

LOSS RESERVE VARIABILITY – DEVIATING FROM THE EXPECTED

By Cory Zass, Principal & Consulting Actuary, ARM

THE WINTER 2014 ISSUE OF *INSURANCE ADVISOR* INCLUDED AN ARTICLE ON UNDERSTANDING LOSS RESERVE DEFICIENCIES; IN THIS ARTICLE, WE GO DEEPER INTO A COMMON ISSUE WITH LOSS RESERVES: MIS-ESTIMATION.

As a result of uncertainty and randomness, in reality there is less than a two percent chance that a single point loss reserve estimate perfectly mirrors the funds necessary to pay the actual losses that will emerge. This implies that over 98 percent of the time the reported point estimate found on the balance sheet (and guarding against the respective future losses) is either too high or too low. The impact to earnings and solvency, with raised eyebrows from regulators and rating agencies, is exacerbated by the amount of deviation between the loss reserve estimates and the actual loss development. The theory goes that that a financial reporting actuary continually refines his/her original loss reserve estimate using acquired knowledge since the last estimate. Over time, that same loss reserve estimate converges toward the actual level of loss ultimately becoming zero when there is zero likelihood of future losses. If the loss reserves end up too large, then there is some concern that estimates are too conservative, which may draw attention from the IRS or the SEC. The flip side raises the alarm that the loss reserving methods are potentially too aggressive, thus understating the funds necessary to cover future loss obligations, bringing financial stability and solvency into question.

As in life, there are definitely two ends of the spectrum and a whole bunch of views in between the goal posts that must be considered. On the one side, we have reserve setters who appear to have done little more than a quasi back–of-the-envelope calculation, with little attention to the specifics of the organization. At the proverbial other end, there are numerous reserve setters who use complex methods to assess reserve estimates using various deterministic and stochastic simulation estimation techniques. Just like the monkey beating the stock pickers, there are times that luck appears as the best method; albeit over the long run, a hindsight view will show that the better reserve setters are those having a recurring objective of low variability with their estimates.

Both the U.S.-based Society of Actuaries and the Casualty Actuarial Society (CAS) have frequently produced professional development sessions, workshops and white papers discussing the accuracy of loss reserve estimates.

Some of the more common high-level questions that arise around loss reserve estimates include:

Q1 Why are loss reserves so difficult to estimate, considering the current availability of sophisticated financial models?

The very nature of loss reserves are volatile for a number of reasons, including disconnect between the reserving process and the pricing cycle, and the difficulty of identifying changing trends. While not too dissimilar as loss reserving for health claims, let's turn to the P&C insurance space. Despite extensive research prior to 2005, the CAS Working Party on Quantifying Variability in Reserve Estimates (circa 2005) concluded that financial reporting actuaries did not have adequate tools or means of measuring uncertainty. As a result, in recent years, there has been a shift by some actuaries toward using complex stochastic techniques to aide actuaries in evaluating the variability in the casualty arena. Unfortunately you will always find actuaries who continue to use a combination of less robust methods and a set of assumptions representing an "industry" view without any regard to the nuances of the underlying company and/or product line. So in the end, accurate loss reserving requires both a decent tool and an experienced user, much akin to the effects of the sharpest knife being used by a novice person – mistakes will be made and, with luck, no limbs will be lost!

Q2 How can you measure the accuracy of the loss reserve estimates?

One barometer is the hindsight test in which the loss reserves are effectively trued up for knowledge that has become available since the development of the point estimate. The

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LOSS RESERVE VARIABILITY

Hindsight Test		Accident Year Development – Measuring Actual Losses versus Original Estimate								
Low	High	2002	2003	2004	2005	2006	2007	2008	2009	2010
-100%	-25%	11.8%	16.2%	20.0%	23.1%	24.0%	22.6%	17.1%	11.1%	4.7%
-25%	-10%	13.7%	18.1%	21.5%	25.9%	29.3%	32.0%	26.3%	27.4%	17.7%
-10%	10%	30.5%	37.2%	40.0%	36.4%	34.0%	32.9%	45.5%	51.4%	70.6%
10%	25%	22.4%	16.4%	9.8%	8.4%	7.4%	7.9%	7.0%	6.3%	4.3%
25%	100%	21.5%	12.1%	8.7%	6.3%	5.3%	4.5%	4.1%	3.9%	2.7%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

test looks across accident (incurred) years as well as product lines. If access is available, a similar analysis is conducted against competitors or major product line players. A company can use these hindsight tests to recast the previously reported earnings to provide a clearer picture of earnings with that luxury of hindsight. With respect to the deviations between the original estimates and the hindsight-based estimates, a company should consider the results on a major product line basis to minimize the effects of an overstatement on one line and understatement on another. This insight certainly aids a company in understanding the drivers of change in the loss reserve estimates.

Q3 When will you know if the loss reserve estimate is accurate?

The obvious answer about when the loss reserve estimate is accurate is when there are no more claims. This is simply not plausible with longer tail risk programs or even some shorter term risk programs. The reality is that each product line or program is different and the best barometer is the completion factor (or loss development factor), which will demonstrate whether the loss development is essentially completed in months or years or decades. It is this background that provides the basis of observation periods to use to determine whether the hindsight test follows the law of diminishing returns. In other words, if the historical experience of a group medical line shows that losses are almost always known after 10 months, then the test of the adequacy of a group medical loss estimate will likely not produce a materially improved prediction by waiting for 36 months to pass to make the test.

Q4 Can you manage loss reserve risk?

A recent study of the entire P&C insurance sector for the period between 2002 and 2010 indicated that with hindsight (measured as of 2011), the accuracy of loss projections for the industry have been better in some periods and worse in others. The table above provides a breakdown of the distribution of the entire U.S. P&C industry over the observation period. Not surprisingly, there are few cases in more recent accident years where the original estimates are significantly over or under the true losses because not enough time has elapsed for loss experience to emerge. For example, as of 2011, 70 percent of the insurers had their 2010 loss reserve estimate within 10 percent of the revised estimate one year later. This can be contrasted to 2002, which shows that one-quarter of the industry had loss estimates that were at least 10 percent deficient, while only 30 percent of the industry was within a reasonable 10 percent (plus or minus); the balance inherently had conservatism in their estimates since paid losses through 2011 showed actual losses to be lower than projected loss reserve estimates. Remember that some underlying lines of business will have loss development periods well in excess of the nine years since the original 2002 period. So if we were to evaluate the distribution of the industry three years later in 2014, we would expect that the 2002 period may well show some shifts in the variance categories defined in the table. There are also some clear trends that occur such as the results from the active hurricane period of 2005. What is not seen in these numbers may be the more telling, variance results at a product line level.

▶CLOSING THE GAP

Whether the product line is casualty in nature or falls into the health insurance realm, the keys to more accurate loss reserve estimation is to understand loss development drivers. Some of those drivers include the characteristics specific to product lines, underwriting cycles (casualty), or regulation (Obamacare). Another overarching influence is the company's general risk aversion appetite that can implicitly include conservatism or aggressiveness. In addition, loss reserve setters and their respective C-suite should consider other approaches, where appropriate and data permitting, that result in refining their loss reserving projections. The days of a simple "lag triangle study" to compute the loss reserves should be relegated to the pasture like the horse and buggy!

In closing, the process of reserving requires a dose of science, a dash of art and a whole lot of experience to understand the nuances of the line of business or product line that triggers a loss event. The adage is that learning from the past can lower the chance of history repeating itself; this is especially important with loss reserving given that some of the most frequently used actuarial projections are predicated on history repeating itself. The goal for more accurate loss reserving should also consider the evaluation and ultimate transition toward new robust loss reserving techniques, where possible.

Learn more by contacting the BDO Alliance actuarial firm, Actuarial Risk Management, at info@actrisk.com

NAIC FALL 2014 NATIONAL MEETING HIGHLIGHTS

By Richard Bertuglia

The National Association of Insurance Commissioners (NAIC) held its Fall 2014 National Meeting in mid-November. Hot topics discussed related to the new reinsurance model regulation aimed at XXX and AXXX reinsurance captives and guidance on accounting for the risk-sharing provisions of the Affordable Care Act.

XXX/AXXX Reinsurance Model

For more than two years, the NAIC has been working to address life insurers' use of captive reinsurers to finance reserves for certain term life insurance or universal life insurance policies. The reserves are known as "XXX reserves" for the term life insurance policies, and "AXXX reserves" for the universal life insurance policies. The NAIC's primary concern is that commercial insurers may be entering into reinsurance transactions with captives and special purpose vehicles (SPVs) solely to provide relief from statutory accounting, and companies could actually have a higher level of solvency risk because these entities are regulated differently from commercial insurers. Most states allow captive insurers to recognize letters of credit (LOCs) as admitted assets, but this accounting practice is not available to commercial insurers. Other potential abuses relate to unsecured LOC agreements, whereby the LOC is contingent and may not provide the funds when needed by the insurance company or where the commercial insurer takes credit for reinsurance without appropriate transfer of risk.

In order to curb these potential abuses, the NAIC Principles-Based Reserving (PBR) Implementation Task Force was charged with developing a PBR Implementation Plan to enhance transparency and regulatory oversight of XXX/AXXX transactions involving affiliated captive insurance companies. Key developments at the meeting included:

AG 48 Clarification

Actuarial Guideline XLVIII (AG 48) was forwarded to the Executive and Plenary Committee for adoption. It will require captive transactions to hold assets meeting the definition of a Primary Security up to the reserve amount determined using a modified Valuation (VM)-20 methodology.

The PBR Task Force decided the Primary Security designation should be limited to cash, commercial mortgages with Risk Based Capital (RBC) ratings of CM-3 and higher and Securities Valuation Office-listed securities. For funds withheld and modified coinsurance reinsurance arrangements, the PBR Task Force agreed to allow policy loans, commercial mortgages and derivatives specifically to hedge the risk of the product being sold. Excluded are any synthetic letters of credit, contingency notes, credit-linked notes or other similar securities that operate in a manner similar to a letter of credit.

The PBR Task Force agreed that AG 48 will apply to policies and reinsurance agreements issued on or after Jan. 1, 2015, and exclude policies that were part of a reinsurance arrangement before Dec. 31, 2014. The group also approved a requirement for the qualified actuarial opinion in situations when companies are not in compliance with AG 48.

A call will be scheduled before Dec. 31, 2014, to consider adoption of AG 48.

The NAIC Statutory Accounting Principles Working Group (SAPWG) exposed a note to the audited financial statements that would require disclosure of any departures from the security amounts required by the AG 48 or NAIC XXX/AXXX Reinsurance Model Regulation. The comment period ends Jan. 16, 2015.

Small Company Exemption

The American Council of Life Insurers (ACLI) presented a proposal at the NAIC 2014 Summer National Meeting that would exempt small companies from PBR requirements. The proposed threshold for exemption was companies with less than $300 million of ordinary life premiums and group insurers with less than $600 million of ordinary life premiums. The NAIC Life Actuarial Task Force (LATF) recommended that the PBR Task Force consider adoption of the ACLI Proposal, and determine whether the proposed threshold was appropriate. To help evaluate this consideration, the PBR Task Force exposed the small company exemption with a chart indicating how many companies could be excluded from the PBR requirement based on different premium thresholds. The table includes lower premium thresholds than the ACLI proposal and also incorporates the impact of the Company RBC criteria. Using the ACLI proposed threshold, 362 companies, representing $9 billion (less than 5 percent) of the industry premium will be exempted. The comment period ends Jan. 16, 2015.

Risk Sharing Provisions of the Affordable Care Act

The SAPWG adopted Issue Paper No. 150 – Accounting for the Risk-Sharing Provisions of the Affordable Care Act and the related Statement of Statutory Accounting Principles (SSAP) No. 107 was exposed with a comment period ending on Dec. 8, 2015. The SAPWG adopted SSAP No. 107 on Dec. 12, 2014. This guidance provides accounting for three Affordable Care Act programs known as the "three Rs" – risk adjustment, reinsurance and risk corridors – that take effect in 2014. The SSAP No. 107 incorporates the following revisions to previously exposed guidance:

- removed guidance to nonadmit risk adjustment distributions owed to the reporting entity, which are in excess of the reporting entity's risk adjustment payable, until notification of distribution;
- added criteria that incorporates conservatism and sufficiency of data in order for risk adjustment receivables to be admitted; and
- removed the guidance that would require risk-adjustment distributions that are 90 days overdue to be nonadmitted to be consistent with other government receivables. Receivables will be evaluated for collectibility.

For more information, please contact Richard Bertuglia at rbertuglia@bdo.com.

MARK YOUR CALENDAR...

FEBRUARY

February 23-25
2015 National Association of Health Underwriters (AHU) Capitol Conference
Hyatt Regency on Capitol Hill
Washington, D.C.

February 26-27
ACI's 9th National Forum on Insurance Regulation
The Carlton Hotel
New York, N.Y.

MARCH

March 3-4
SIFMA's Insurance and Risk Linked Securities Conference
Grand Hyatt
New York, N.Y.

March 11-12
AHIP National Health Policy Conference
The Ritz-Carlton Washington
Washington, D.C.

March 18-20
LIMRA's 2015 Regulatory Compliance Exchange
Crystal Gateway Marriott
Arlington, Va.

March 23-24
ACI's 10th National Advanced Forum on Cyber & Data Risk Insurance
Fairmont Chicago Millennium Park Hotel
Chicago, Ill.

March 29-April 1
PLRB Claims Conference & Insurance Services Expo
Anaheim Convention Center
Anaheim, Calif.

APRIL

April 13-15
LIMRA's 2015 Life Insurance Conference
Crystal Gateway Marriott
Arlington, Va.

April 19-21
2015 AAIS Main Event Conference
Four Seasons Hotel
Santa Barbara, Calif.

April 26-29
RIMS 2015 Annual Conference & Exhibition
New Orleans Ernest M. Morial Convention Center
New Orleans, La.

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