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Global Reinsurance Outlook – 2016

Outlook Remains Negative Amid Excess Capacity, Shrinking Demand

Summary Opinion

The outlook for the global reinsurance sector remains negative as reinsurers continue to face excess capacity in traditional reinsurance capital and the various forms of alternative capital, persistent low interest rates, and reduced demand from reinsurance buyers due to rationalization of reinsurance purchases and low global economic growth. In addition, we anticipate increased risks for reinsurers as they venture into uncharted underwriting and strategic territories in an effort to retain relevance and profitability.

The following factors drive our negative outlook:

Excess capital and weaker demand: Reinsurers face a predicament given the abundance of reinsurance capacity and simultaneous decrease in demand from primary insurers. Reinsurers are holding onto excess capital in an effort to maintain scale, and in some cases in preparation for regulatory reform, contributing to our expectation of persistent soft prices.

Reserve releases and benign cat losses obscure the extent of deterioration in earnings: Although reinsurers have generally maintained reported returns above their costs of capital, adjusting for normalized cat losses, reserve releases, and in some cases, investment gains, the picture is gloomier. Weakening terms and conditions also contribute to the deterioration of earnings quality.

Alternative capital remains a major driver of industry condition: Increasingly embedded in the insurance landscape, alternative capital is both a threat and a resource to reinsurers, many of whom are progressively more dependent on it as a low cost source of retrocession. Despite its more widespread adoption, the alternative market remains untested in a major catastrophe event, which could produce unexpected outcomes.

M&A will create winners and losers: There has been significant M&A activity recently, as reinsurers build scale, diversify into primary/specialty business or are acquired by investment holding companies. Due to the growing importance of scale, this M&A will weaken the position of bottom tier reinsurers, but is unlikely to remove much excess capacity.

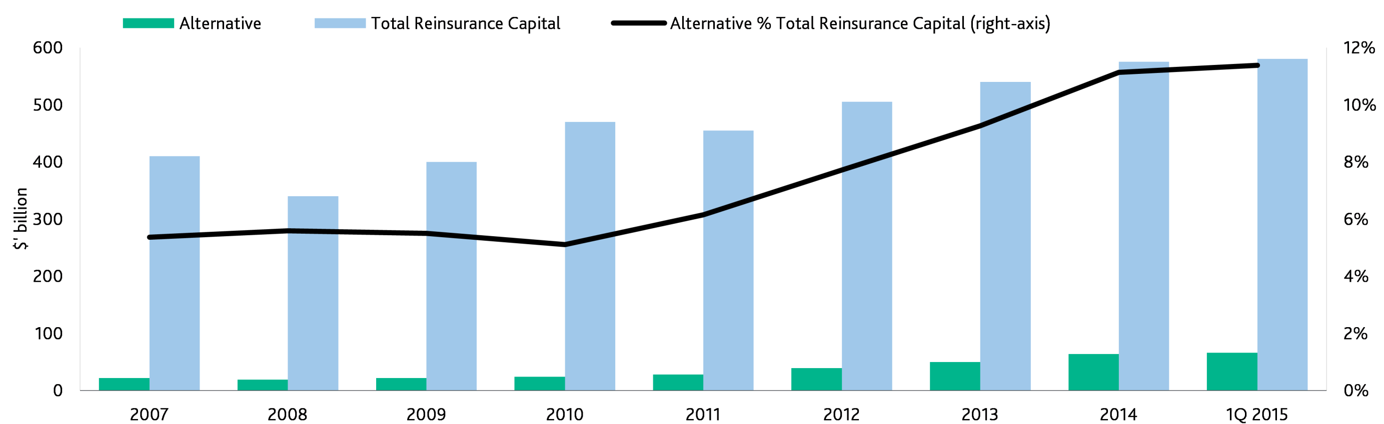
Reinsurers look to uncharted territory for profits and relevance: Reinsurers are looking beyond somewhat commoditized lines, such as catastrophe-exposed property, to emerging risks and markets, which may offer greater barriers to entry and more defensible pricing power. Along with potential benefits, the risks entailed in a large-scale move into new areas should not be underestimated.

Excess capital and weaker demand

An abundance of capital is available in the reinsurance market, including capital from alternative sources and traditional reinsurance players. Capacity is bolstered by reinsurers themselves, holding onto bulkier balance sheets as scale becomes a competitive advantage and the transition to Solvency II looms. Meanwhile, the inflow of alternative capacity has continued at a steady pace, and by some measures, has even accelerated over the past two years. According to an analysis by Guy Carpenter Securities[1], alternative capital as a percentage of global property catastrophe reinsurance capacity accounted for approximately 18% of year-end 2014 global property catastrophe reinsurance capacity, up from 8% in 2008. Cat bond issuance levels have remained robust through 2Q 2015, although volumes are lower than the same period in 2014.

Although most of the new capital has been earmarked for property catastrophe reinsurance, significant softening in property catastrophe pricing, and increasing availability of alternative capital in the form of sidecars and collateralized reinsurance, has also pushed capacity into other lines, including casualty in some cases. More broadly, beyond property catastrophe capacity, alternative capital, as shown in Exhibit 1, by some estimates amounts to approximately 12% of total reinsurance capacity, compared to 8% at the end of 2012.

Exhibit 1
Alternative capital is a growing source of global reinsurance capacity



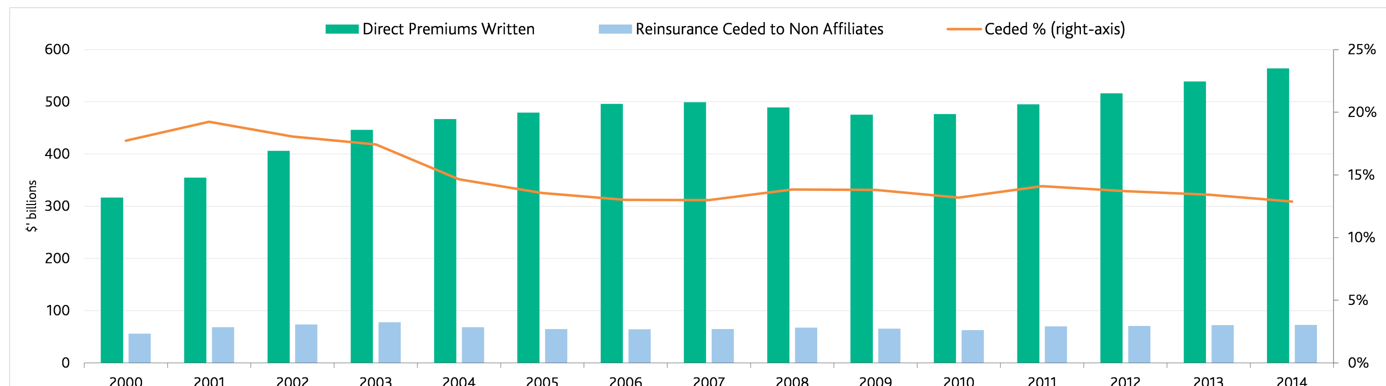
Source: Aon Benfield Analytics - Reinsurance Market Outlook

Primary insurers, meanwhile, have met excess capacity with diminishing demand for reinsurance. Although the reduction has largely been driven by their increasingly sophisticated modeling and capital management and in-group consolidation of reinsurance programs, higher retentions also help insurers compensate for the effects of low economic growth. Over the next few years, we expect insurance industry consolidation to further lower demand for reinsurance, as merged entities have lower capital requirements through risk diversification. As shown in Exhibit 2, US primary insurers have ceded progressively lower premiums to third-party reinsurers since 2011, with 2014 cessions of 12.9% the lowest level since 2000.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Exhibit 2

US P&C premiums ceded to reinsurers progressively decreasing



Source: SNL Financial

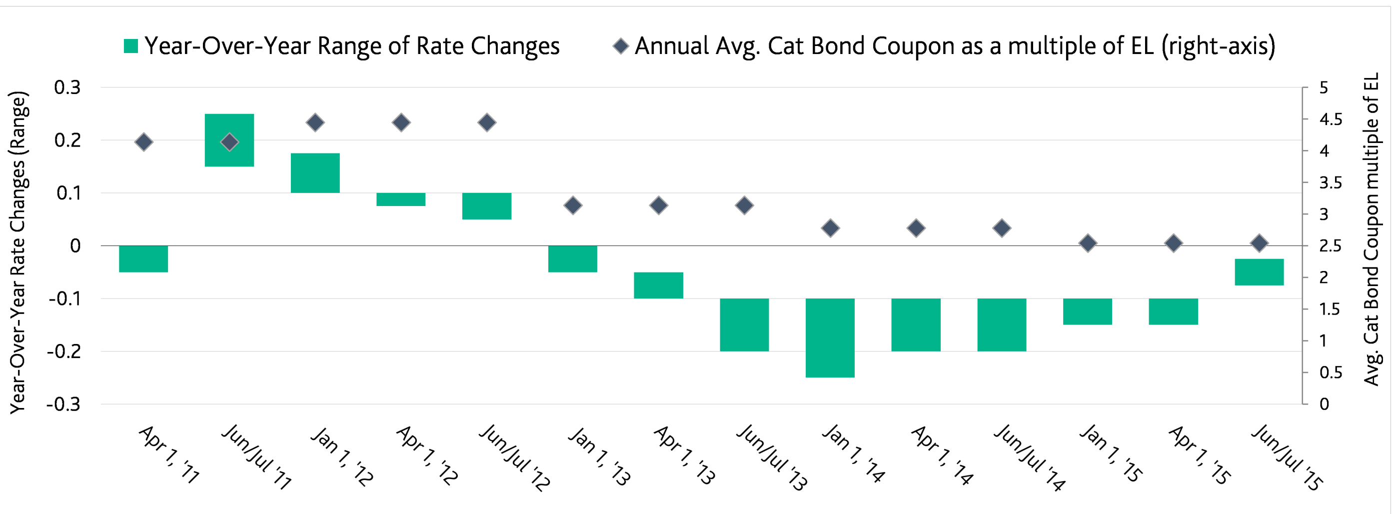
Supply and demand imbalances have contributed to steadily lower reinsurance prices over the past four years, most notably for property catastrophe lines. Exhibit 3 indicates that price decreases peaked during the January 2014 renewal season, and have gradually pulled back. This pattern is broadly in line with the pricing on catastrophe bonds, and illustrates the influence that alternative capital has on traditional reinsurance pricing.

Lower demand is also manifest in changes in the type of reinsurance purchased, with some cedents eliminating quota share cessions, instead purchasing excess of loss coverage. Florida property writer Universal Insurance Holdings (UIH) is a good example, announcing elimination of quota share in its 2015-16 programs and putting in place additional excess coverage. The firm also increased the extent of multi-year coverage on these excess of loss covers, and incurred lower reinsurance costs than the previous year. Heritage P&C, another large Florida writer, made a similar announcement. The shift from quota share to excess of loss impacts reinsurers' profitability through lower premiums earned, offset to some extent by expected lower attritional losses. However, it also increases their exposure to tail events, and outsized losses, as they migrate towards lower-frequency, higher-severity exposures.

Excess capacity has had the most pronounced effect on property catastrophe lines, because it is the area most susceptible to direct competition from alternative capital. However, Exhibit 4 shows how a broad range of reinsurance lines have experienced price softening, including higher ceding commission, as alternative capital has moved progressively into new lines, and as reinsurers have shifted some capacity from property catastrophe lines to casualty and specialty lines.

Exhibit 3

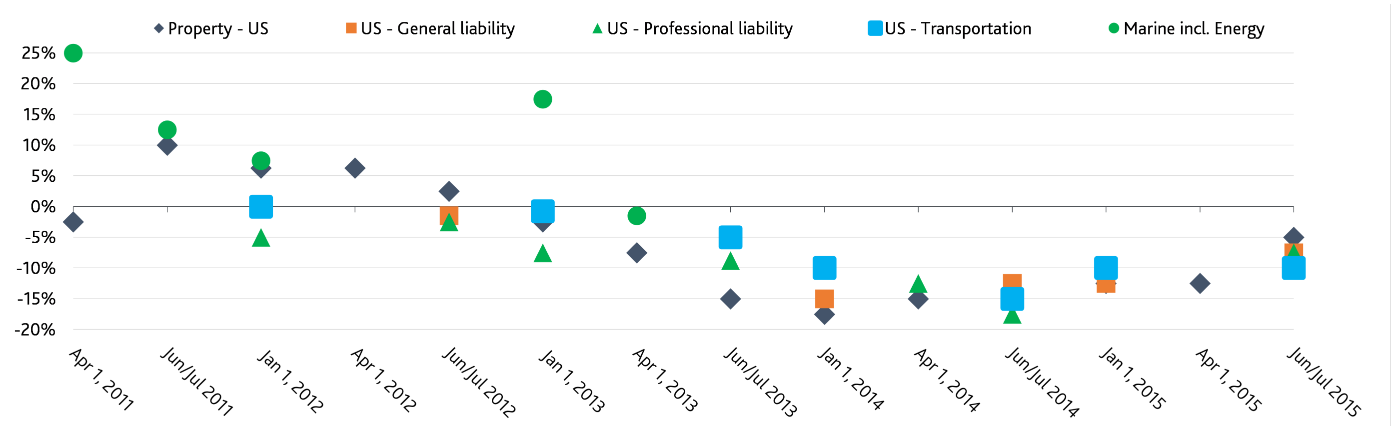
Property-catastrophe reinsurance rates are falling at a slower pace(Range of year-over-year rate decreases for US Nationwide loss-free accounts at various renewal dates)



Source: Willis Re - Rates pertain to US Nationwide loss-free accounts; Artemis.bm – Deal Directory

Exhibit 4

Reinsurance prices have softened across a range of lines
(Mid-point of year-over-year rate decreases for loss-free accounts for various lines at various renewal dates)



Source: Willis Re - Rates pertain to loss-free accounts

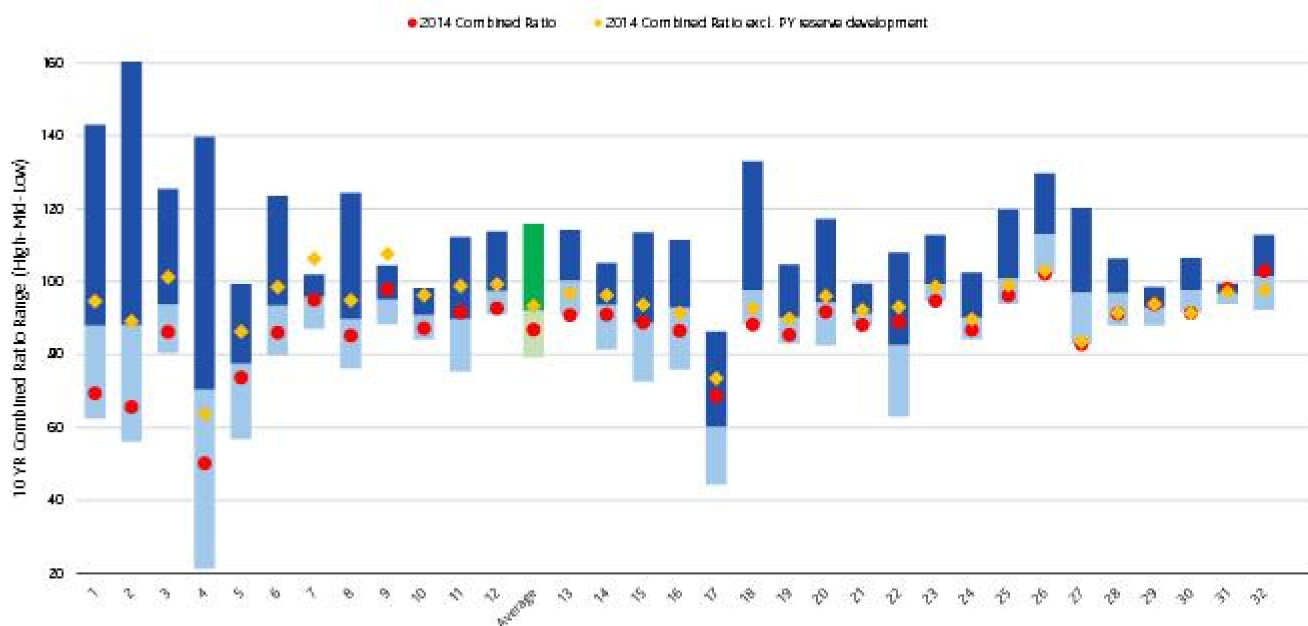
Although demand from primary insurers is weakening, there has been a pickup in demand from public or government risk mitigation programs. Florida has been a large source, with Citizens Property Insurance Corporation transferring greater amounts of risk to the private insurers through its depopulation program. A number of new Florida property-focused insurers have emerged to underwrite this business, and are particularly reliant on abundant, low-priced reinsurance as a source of capacity. In addition, the Florida Hurricane Catastrophe Fund made its first ever placement of risk to private reinsurers, for the 2015-16 year. The $1 billion placement was spread across a number of traditional reinsurers, but also included collateralized reinsurers and sidecars that took a moderate amount of exposure[2] .

Reserve releases and benign cat losses obscure the extent of deterioration in earnings

Reinsurers have generally maintained reported returns above their costs of capital despite pressure on prices, reflecting benign cat losses and meaningful reserve releases. Adjusting for normalized cat losses and reserve release, the picture is far gloomier, with some reinsurers not earning their cost of capital. As shown in Exhibit 5, a number of companies have a meaningful difference between 2014 combined ratios with and without the benefit of favorable reserve development. On average, without the reserve benefit, the cohort of reinsurers' combined ratios would be slightly worse than the 10-year average. However, some companies adopt more conservative pricing and reserving practices, which together with low claims inflation currently observed, should enable them to benefit from continued reserve releases.

Exhibit 5

Without prior year reserve development most combined ratios move above 10 year average

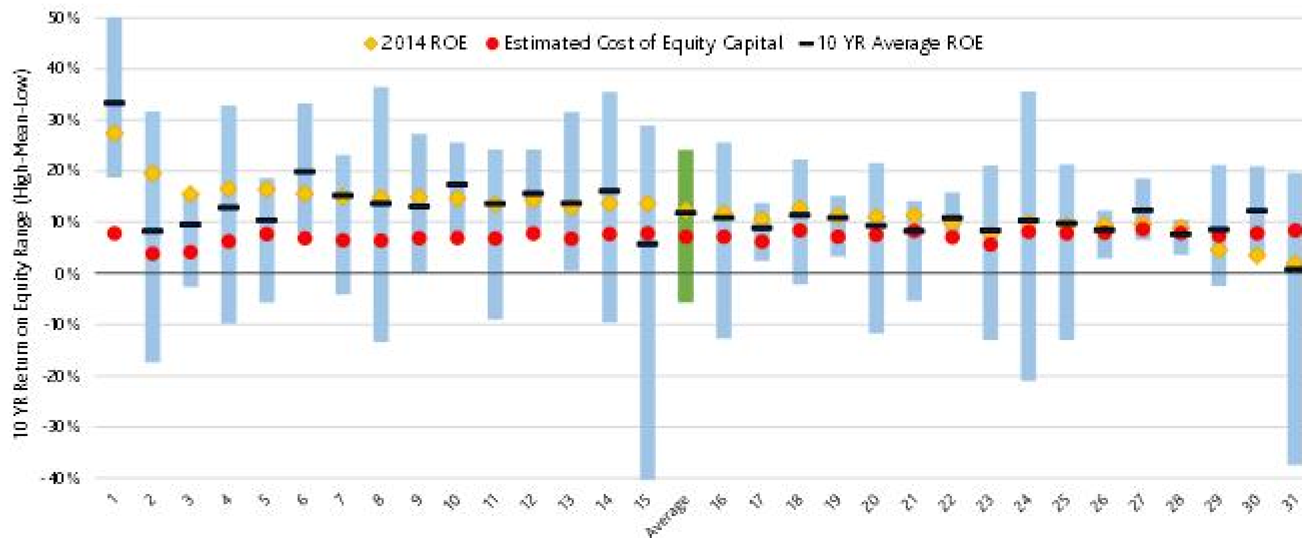


Source: : SNL Financial, Company filings, Moody's Investors Service

In addition, a number of companies, as shown in Exhibit 6, are only earning returns slightly above their estimated, or theoretical, cost of equity capital[3] , in part as a result of such favorable reserve development. The estimates of costs of equity capital general fall within the range of 7% to 8%, which we believe is reasonable for the sector in relation to current risk-free rates. As reserve redundancies decrease, we expect lower reserve releases to cause erosion of returns. Furthermore, a key risk inherent in reliance on reserve releases to maintain return on equity, is that reserve releases mask the impact of lower pricing, and broader terms and conditions, on recent vintage business and/or loss development trends. Over time, excessive subsidization of recent vintage business could lead to reserve deficiencies and an amplified effect on future profitability.

Exhibit 6

Most reinsurers are earning only slightly above their estimated cost of equity



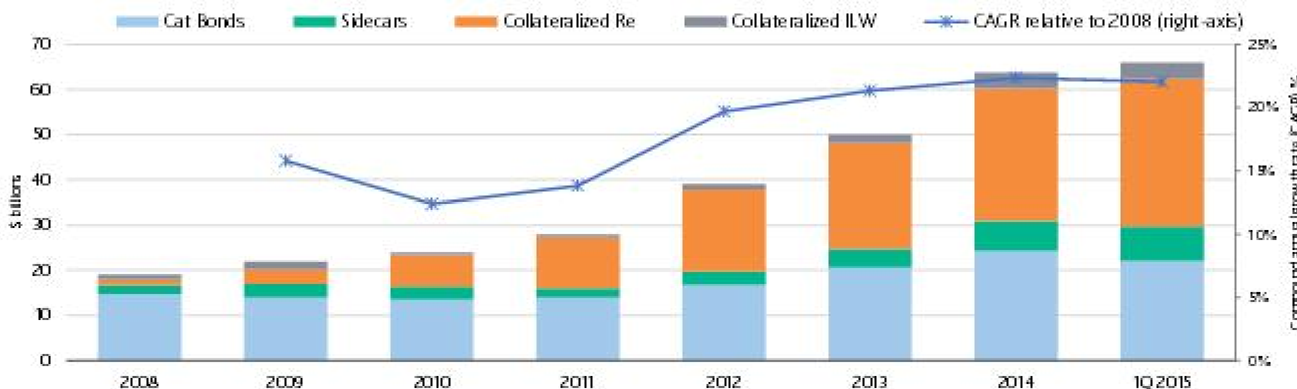
Source: SNL Financial, Company filings, Moody's Investors Service

Alternative capital remains a major driver of industry condition

The amount of alternative capital in the market is rising, with estimated alternative capacity increasing to approximately $66 billion at 1Q2015, an increase of 32% over year-end 2013. A report by Aon Benfield[4] predicts that alternative capacity could reach $150 billion by 2018, implying a CAGR of approximately 23% from 2014-18. This is broadly in line with historical growth: as shown in Exhibit 7, alternative capacity grew at a compounded rate of approximately 22% between 2008 and 1Q2015. Although $150 billion is a significant amount relative to current reinsurer capital, it is small relative to the assets of pension funds (0.5% of Top 5 countries' pension assets[5]), who are often significant long-term investors in alternative insurance capital. We expect alternative capacity to continue increasing as (re)insurance risk is generally seen as uncorrelated with market risk, but expect the historical pace of growth to slow as interest rates rise over the next several years, and opportunities to deploy such capital are harder to find.

Alternative capital is increasingly embedded in the (re)insurance market, and (re)insurers will need to continue to adapt to this new reality, both by competing with it, and by aligning themselves with it to benefit from the capital efficiencies it offers. Many reinsurers are also sponsors of sidecars (e.g. RenRe and DaVinci) and collateralized reinsurers (e.g. Arch and Watford) enabling them to offer cedents greater capacity, both in terms of volume and risk appetite.

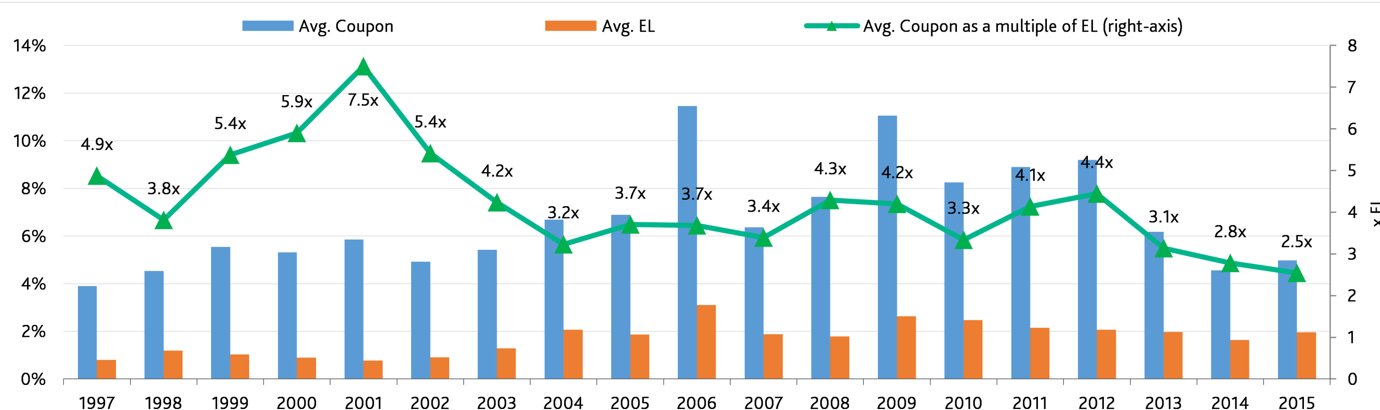
Exhibit 7
Alternative capital grows at CAGR of 22%, with Collateralized Re leading the growth



Source: Aon Benfield Analytics - Reinsurance Market Outlook; Moody's Investors Service

Cat bond pricing has softened significantly over the past five years owing to the build-up of capacity, the low interest rate environment, and benign catastrophe activity since 2012. One measure of catastrophe bond pricing is the multiple of bond coupon over expected loss. As shown in Exhibit 8, this multiple has decreased from an average of 4.2x for 2009 to an average of 2.5x through the July 2015 renewal season. Alternative capital is broadening its reach to non-property catastrophe risks, and together with traditional reinsurers attempting to reduce dependence on property cat, is contributing to price erosion in other lines, including, excess and surplus, commercial insurance and most recently, mortgage credit risk. Although prices are still softening, the rate of decrease has tapered off as relative returns for (re)insurance risk have become less attractive to investors, indicating that the market could be close to finding a floor. Although price increases are unlikely while low interest rates persist, higher interest rates could contribute to additional price stabilization, or even strengthening, in property cat rates.

Exhibit 8
Average Cat Bond pricing (coupon as a multiple of expected loss) at lowest level since 1997



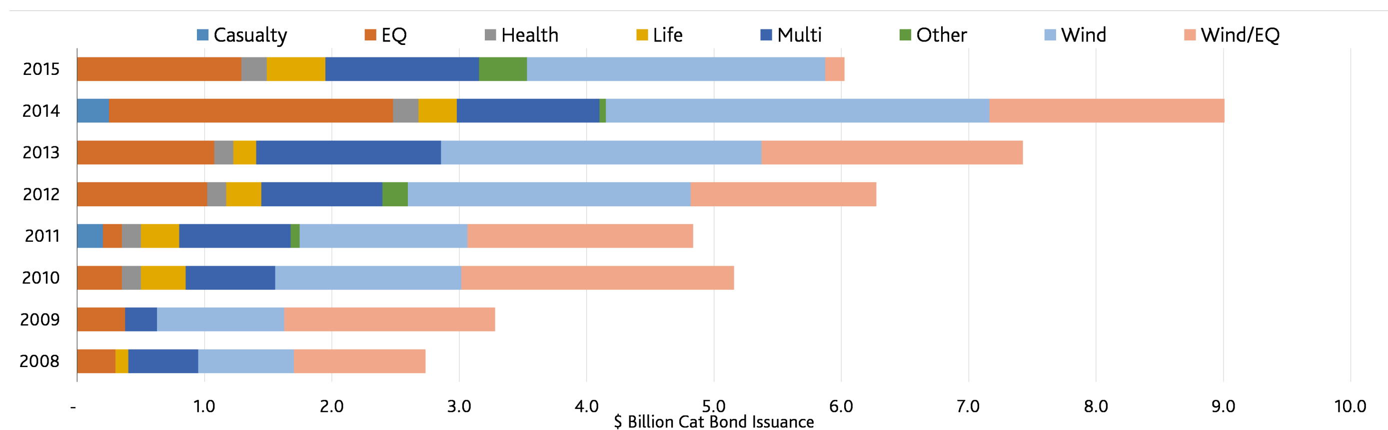
Source: Artemis.bm – Deal Directory, Moody's Investors Service

The majority of cat bonds remain focused on natural catastrophe exposures, predominantly US wind and earthquake. However, as shown in Exhibit 9, there has been growth in cat bonds covering multiple perils in multiple geographies. In addition, multi-year issuances are becoming more prevalent, and approximately one-third of cat bonds outstanding as of July 2015 are for aggregate, rather than per occurrence, coverage. There has been a shift towards more cat bonds using an indemnity trigger as opposed to industry loss or parametric triggers, with the incidence of indemnity triggers increasing to approximately 64% in 2015, from a low of 30% in 2011[6] . The increased use of indemnity triggers shifts basis risk from the insured to cat bond investors, and brings cat bonds more in

line with the coverage offered by traditional reinsurance, which offers indemnity cover. While comprehensive data on reinsurer terms and conditions are not widely available, changes in cat bond features offer some guidance on market expectations and the pressure on reinsurers to loosen contract terms, including writing more multi-year, aggregate contracts. Some reinsurers are likely to build up risk accumulations, through multi-year and multiple-peril policies, which could lead to higher losses in the event of elevated severity or frequency of insured catastrophes.

Exhibit 9

Cat Bond issuance remains dominated by wind and earthquake exposures



Source: Artemis.bm – Deal Directory, Moody's Investors Service classification

Overall, cat bonds are becoming more complex, implying a greater level of uncertainty about modeled expected losses. In the event of unexpected severity or frequency of losses, less experienced investors could be surprised by the behavior of their cat bond and ILS investments. In addition to increased complexity and uncertainty, some of the more routine aspects of reinsurance coverage remain untested for cat bond and ILS managers, including claims handling ability, the willingness to pay claims, and the availability of post-event capacity given that collateral will remain tied up in trust accounts until claims are paid. Traditional reinsurers, which have established track records and a longer-term view on client relationships, could also be more accommodating than alternative capital providers in times of severe stress, potentially highlighting another difference between the two.

Since (re)insurers are significant users of cat bonds, taking advantage of the lower costs of capital to offset some of the price softening, they are increasingly exposed to some of the bonds' inherent risks. We believe one of the key risks to reinsurers is becoming over reliance on alternative capacity as a source of capital. Notably, alternative capacity's untested nature could make it difficult for reinsurers to find capacity after a large event. Greater reliance on alternative capacity by reinsurers will increase the risk of insufficient of capacity, including the availability of traditional retro. Reinsurers who have taken on meaningful multi-year and aggregate cover exposures would be particularly at risk in the event of a capacity shortage.

M&A will create winners and losers

Both the primary and reinsurance sectors have seen significant M&A activity in the past 18 months, with strategies that include building scale, diversifying into primary/specialty business and investment holding companies acquiring reinsurance assets. We consider M&A to be positive for reinsurers to the extent that it contributes to right-sizing the amount of available capital. However, in a number of transactions, investment holding companies have purchased reinsurers, which is unlikely to reduce the amount of available capital and is negative for the industry at large.

Exhibit 10

Significant M&A activity driven by a quest for scale and diversification

Date Announced	Acquirer	Target	Deal Value ($'bn)	Rationale
Sep-2015	Mitsui Sumitomo	Amlin	5.3	- Diversification into global specialty insurance/reinsurance
Aug-2015	EXOR	PartnerRe	6.9	- Diversification of industrial focused portfolio Timing of reinsurance cycle
Jul-2015	ACE	Chubb	28.2	- Scale and complimentary business mix Expense savings
Jul-2015	China Minsheng	Sirius	2.2	- Diversification into reinsurance Access to float to fund investments
Jun-2015	Tokio Marine	HCC	7.5	- Diversification into specialty insurance and into US market
May-2015	Fosun	Ironshore	2.1	- Diversification into reinsurance (US) Access to float to fund investments
Mar-2015	Endurance	Montpelier Re	1.4	- Scale Diversification, including Lloyds platform
Feb-2015	Fairfax	BRIT	1.7	- Scale and diversification Deploy excess capital into attractive opportunity
Jan-2015	XL	Catlin	4.1	- Scale and diversification
Dec-2014	Fosun	Meadowbrook	0.4	- Diversification into US primary specialty
Nov-2014	RenaissanceRe	Platinum	1.9	- Scale and diversification
Jun-2014	Validus	Western World	0.7	- Growth of business and scale

Source: SNL Financial, Moody's Investors Service, company statements

Over the past few years the reinsurance industry has become increasingly tiered, as primary companies have consolidated more cessions with reinsurers that have the capacity and breadth of expertise to provide coverage across many lines and geographies, including whole-account coverage. As this trend progresses, we expect that lower and mid-tier reinsurers will increasingly be relegated to capacity player status in large account business, and will face more competition from alternative capacity. ACE's ABR Re joint venture with BlackRock is a good example of this trend: with ACE consolidating its external reinsurance purchases amongst a smaller group of larger reinsurers, and ceding a quota share across its entire book to ABR Re, it will replace a number of lower-tier, capacity players currently on its panel. In addition, mergers of primary companies, for example that of ACE/Chubb, are likely to reduce the need for reinsurance, since larger combined entities will benefit from greater diversification and capital efficiencies.

Cross-border acquisitions by investment holding companies is another M&A trend. It will likely help shelter the acquired reinsurers from harsh market conditions, but will not contribute to a reduction in reinsurance capital. Recent examples include EXOR/Partner Re, China Minsheng/Sirius and Fosun/Ironshore. In addition to maintaining available capacity, the rationale for some of these acquisition is the investment holding company's ability to access insurance float as a source of funding for its other investments. This dual investment-insurance strategy could allow these reinsurers to be less sensitive to underwriting profits, while increasing their relative investment risk, and add a further dampener to pricing.

Reinsurers look to uncharted territory for profits and relevance

In the face of the steady commoditization of some established lines, such as catastrophe-exposed property, reinsurers are looking to new products or emerging risks and markets, which in many cases offer greater barriers to entry and more defensible pricing power. We consider the following four areas of innovation to be most prevalent in the (re)insurance sector:

» **Developing the capability and technology to insure new or uninsured and complex risks:** Emerging risks such as cyber and supply-chain interruption are difficult to model and insure, but would provide a meaningful advantage to insurers that are able to understand and underwrite these risks, while avoiding pitfalls that could generate substantial losses. Reinsurers that are successful in developing ways to address these risks will be able to offer their primary insurance clients significant value beyond pure risk transfer capacity.

» **Expanding coverage of underinsured risks and addressing the protection gap:** There are well-documented cases of underinsurance in both emerging and developed markets, California earthquake being a prime example. As the public's awareness of the possible effects of climate change increases, and governments look to greater risk sharing with the private sector (e.g.

FloodRe in the UK, and Florida Hurricane Catastrophe Fund), reinsurers are well-positioned to address opportunities that arise. However, this also exposes reinsurers to greater, including unmodeled, risks from extreme weather.

» **Expansion into emerging insurance markets:** Although growing at a slower pace than before the financial crisis, emerging market non-life premiums grew by 8% in 2014[7] , outpacing advanced market non-life premium growth of 1.8% and aggregate emerging market GDP growth of 4.1% in 2014. Despite challenging business conditions, emerging markets provide reinsurers an attractive, long-term opportunity.

» **Innovation in business models:** Primary innovations in business model include reinsurers aligning themselves with alternative capital in various forms (sidecars, ILS fund management, etc.) and experiments with the dual investment-insurance strategy of taking risk on both the underwriting and investment sides of the business, that is most prevalent in the Hedge Fund Re model. Recently launched Fidelis Insurance furthers development of the Hedge Fund Re model of taking both asset and liability risk, but using a multi-manager investment strategy, as opposed to handing the investment reins to one hedge fund. These innovations, some of which entail significant risk to both reputational and to capital, will undoubtedly create winners and losers, with large diverse players better placed to make measured bets on new business models.

While some of the factors dampening demand for traditional reinsurance are cyclical (e.g. low interest rates and the benign cat environment) and should normalize over time, disintermediation and the increased sophistication of buyers of reinsurance seem to be secular changes. To avoid being relegated to being capacity players in highly competitive and commoditized lines, most reinsurers are evolving. However, adapting to the new business environment carries risks. Those reinsurers that have already begun will be better positioned, because they are less likely to be forced into making outsized make-or-break bets on new risks or markets.

Innovation is a defense against ongoing disintermediation, which is likely to become more pronounced in areas in which reinsurers are not able to maintain proprietary expertise. In addition to alternative capital that is being deployed to lines where expertise is generally available, primary insurers have made significant investments in portfolio optimization and data analysis technology that will jeopardize reinsurers' traditional expertise advantage.

Key drivers of individual reinsurer ratings

Our ratings are positioned to accurately reflect the credit profiles of reinsurers on a cross-cycle basis, and therefore already anticipate some erosion during market down-cycles. While the majority of reinsurers will likely be able to adapt to negative market conditions, the following factors could increase the risk of a rating downgrade for individual insurers:

» Particularly for smaller, less-diversified reinsurers, the inability to earn their cost of capital when adjusted for normalized cat losses and reserve releases

» Outsize exposure to, or reliance on alternative capital or retrocession, possibly together with evidence of growing basis risk or maturity mismatch (e.g. multi-year reinsurance contracts supported by single-year retro)

» Dependence on commoditized lines that are subject to intense competition and eroding profitability

» Rapid and meaningful growth into new and emerging markets or risks (e.g. Cyber)

» M&A that is expected to alter a reinsurers' risk appetite or financial profile

Swing factors to our outlook

The following factors could return our outlook to stable:

» Higher interest rates could lead to reduced supply of capacity from alternative capital providers, easing pricing pressure on traditional reinsurers

» A large cat event could test alternative capital's commitment to this sector, resulting in an outflow of some capacity, or a reset of risk/return expectations

- In addition, a large cat event could test the ability and willingness of alternative capital to meet buyers' expectations – possibly highlighting the value of the reinsurers' long-term relationships and customer service

The following factors could cause our outlook to be more pessimistic:

- Greater penetration of nontraditional capacity outside the US would pressure rates in territories that have been strongholds of reinsurers
- Inflows of nontraditional capacity into casualty/non-catastrophe reinsurance lines would further squeeze margins in an already shrinking segment
- If nontraditional capital were to move downstream, into the primary insurance industry, reinsurers would be exposed to a higher risk of disintermediation
- Continued, significant price decreases
- A significant cat event that results in no meaningful increase in price or outflow of capacity – a potential indication that the traditional notion of hard and soft cycles no longer applies, given alternative capital's ability to take exposure post-event
- A cat event could also expose reinsurers' dependence on alternative capital

Appendix

Exhibit 11

Top 40 Global Reinsurance Groups

(Ranked by 2014 total reinsurance premium)

Top Global Reinsurance Groups (USD Mil.)

		RATING		TOTAL REINSURANCE PREMIUM [1]			SHAREHOLDERS' EQUITY [2]		P&C REINSURANCE		L&H REINSURANCE		P&C INSURANCE		L&H INSURANCE		TOTAL PREMIUM	
	DOMICILE	IFSR	Outlook	FY 2014	FY 2013	Metric	FY 2014	FY 2013	FY 2014	FY 2013	FY 2014	FY 2013	FY 2014	FY 2013	FY 2014	FY 2013	FY 2014	FY 2013
1 Munich Reinsurance Company	Germany	Aa3	STA	40,840	43,073	GPW	36,671	35,579	22,182	22,598	18,658	20,475	6,756	6,636	17,171	18,112	64,767	67,821
2 Swiss Reinsurance Company	Switzerland	Aa3	STA	28,850	28,448	GPW	36,041	32,977	17,292	17,800	11,558	10,648	2,996	2,870	1,430	1,616	33,276	32,934
3 Hannover Reinsurance Company	Germany	NR	NR	19,042	18,547	GPW	9,987	8,872	10,479	10,384	8,564	8,162	-	-	-	-	19,042	18,547
4 SCOR SE	France	A1	STA	15,004	13,619	GPW	6,933	6,766	6,543	6,439	8,461	7,179	-	-	-	-	15,004	13,619
5 Lloyds of London	UK	NR	NR	14,004	14,044	GPW	35,184	33,557	14,004	14,044	-	-	27,547	25,911	119	119	41,670	40,074
6 Berkshire Hathaway Reinsurance Group	USA	Aa1	STA	10,116	8,786	NPE	108,988	110,680	7,435	5,477	2,681	3,309	-	-	-	-	10,116	8,786
7 Reinsurance Group of America, Inc.	USA	A1	STA	9,118	8,573	GPW	7,023	5,936	-	-	9,118	8,573	-	-	-	-	9,118	8,573
8 China Reinsurance Group	China	NR	NR	8,336	7,734	GPW	8,806	7,580	4,917	4,741	3,419	2,993	3,652	3,249	-	-	11,962	10,963
9 General Re Corporation	USA	Aa1	STA	6,215	5,697	GPW	14,480	14,643	2,994	2,641	3,221	3,056	364	448	3	-	6,582	6,145
10 PartnerRe, Ltd.	Bermuda	A1	STA	5,932	5,562	GPW	7,104	6,766	4,667	4,590	1,265	972	-	-	-	-	5,932	5,570
11 Korean Reinsurance Company	Korea	NR	NR	5,637	4,126	GPW	1,657	1,362	4,757	3,546	881	579	-	-	-	-	5,637	4,126
12 Allianz Group	Germany	Aa3	STA	4,946	4,432	GPW	77,086	71,799	4,089	3,469	857	963	59,981	58,400	33,167	32,946	97,961	95,702
13 Everest Re Group, Ltd.	Bermuda	A1	STA	4,531	3,950	GPW	7,873	7,062	4,531	3,950	-	-	1,218	1,269	-	-	5,749	5,219
14 Tokio Marine Holdings, Inc.	Japan	Aa3	NEG	4,412	4,278	NPW	30,090	27,005	4,412	4,278	-	-	22,988	23,557	3,080	4,577	30,479	32,411
15 Great-West Lifeco, Inc.	Canada	Aa3	STA	4,009	4,242	GPW	18,875	18,358	-	-	4,009	4,242	-	-	24,589	22,509	28,598	26,751
16 Mapfre	Spain	A3	POS	3,781	3,879	GPW	13,879	13,441	3,088	3,310	693	570	18,669	18,312	7,251	6,813	29,701	29,004
17 Alleghany Corporation	USA	A1	STA	3,600	3,423	GPW	7,482	6,948	3,600	3,423	-	-	1,525	1,486	-	-	5,097	4,886
18 Sompo Japan Nipponkoa Insurance Inc.	Japan	A1	STA	3,188	3,214	NPW	13,277	12,159	3,188	3,214	-	-	16,670	17,559	-	-	19,858	20,773
19 General Insurance Corp of India	India	NR	NR	2,483	2,433	GPW	6,731	5,391	2,113	2,139	370	293	-	-	-	-	2,483	2,433
20 Maiden Holdings, Ltd.	Bermuda	NR	NR	2,459	2,099	GPW	1,241	1,124	2,459	2,099	-	-	49	105	-	-	2,507	2,204
21 R+V Versicherung AG	Germany	NR	NR	2,315	2,021	GPW	2,491	2,597	2,281	1,986	34	35	-	-	-	-	2,315	2,021
22 Catlin Group, Ltd.	Bermuda	NR	NR	2,231	1,966	GPW	3,992	3,783	2,231	1,966	-	-	3,735	3,343	-	-	5,966	5,309
23 AXIS Capital Holdings Limited	Bermuda	A2	STA	2,176	2,138	GPW	5,880	5,868	2,176	2,138	-	-	2,535	2,559	-	-	4,712	4,697
24 Assicurazioni Generali SpA	Italy	Baa1	STA	2,170	2,101	GPW	29,266	29,079	2,170	2,101	-	-	-	-	-	-	93,383	87,507
25 Fairfax Financial Holdings Limited	Canada	A3	STA	2,137	2,148	GPW	9,744	8,461	2,137	2,148	-	-	5,323	5,079	-	-	7,460	7,227
26 XL Group Plc	Ireland	A2	STA	2,119	2,218	GPW	11,436	11,349	1,785	1,894	333	324	5,976	5,523	-	-	8,095	7,741
27 Mitsui Sumitomo Insurance Co., Ltd.	Japan	A1	STA	1,984	2,138	NPW	14,444	12,911	1,984	2,138	-	-	11,164	11,694	-	-	13,147	13,833
28 Aioi Nissay Dowa Insurance Co., Ltd.	Japan	A1	STA	1,870	1,901	NPW	6,643	5,917	1,870	1,901	-	-	8,698	9,519	-	-	10,568	11,419
29 Amlin Plc	UK	A2	STA	1,859	1,544	GPW	2,782	2,763	1,859	1,544	-	-	2,366	2,316	-	-	4,226	3,860
30 Arch Capital Group, Ltd.	Bermuda	A1	STA	1,816	1,400	GPW	6,899	5,647	1,816	1,400	-	-	3,009	2,713	-	-	4,841	4,197
31 Caisse Centrale de Réassurance	France	NR	NR	1,754	1,669	GPW	2,383	2,548	1,622	1,555	132	114	-	-	-	-	1,754	1,669
32 The Toa Reinsurance Company, Ltd.	Japan	NR	NR	1,739	1,950	NPW	1,659	1,557	1,271	1,454	468	496	-	-	-	-	1,739	1,950
33 Validus Holdings, Ltd.	Bermuda	A3	POS	1,680	1,856	GPW	4,127	4,288	1,680	1,856	-	-	683	545	-	-	2,363	2,401
34 RenaissanceRe Holdings, Ltd.	Bermuda	A1	NEG	1,474	1,551	GPW	4,997	5,004	1,474	1,551	-	-	77	54	-	-	1,551	1,605
35 Deutsche Ruck Group	Germany	NR	NR	1,377	1,321	GPW	250	275	1,327	1,273	50	48	-	-	-	-	1,377	1,321
36 Endurance Specialty Holdings, Ltd.	Bermuda	A3	STA	1,178	1,190	GPW	3,185	2,887	1,178	1,190	-	-	1,716	1,475	-	-	2,894	2,665
37 Aspen Insurance Holdings Limited	Bermuda	A2	STA	1,173	1,134	GPW	3,419	3,300	1,173	1,134	-	-	1,730	1,513	-	-	2,903	2,647
38 IRB Brasil Re	Brazil	NR	NR	1,172	1,115	GPW	1,112	1,130	1,125	1,057	47	58	-	-	-	-	1,172	1,115
39 Pacific LifeCorp	USA	A1	STA	1,139	965	GPW	10,231	8,973	-	-	1,139	965	-	-	1,035	1,098	2,174	2,063
40 QBE Insurance Group	Australia	NR	NR	1,134	1,365	GPW	11,082	10,403	1,134	1,365	-	-	15,198	16,610	-	-	16,332	17,975
TOTALS				**231,000**	**223,850**		**585,431**	**556,746**	**155,043**	**149,794**	**75,957**	**74,056**	**224,624**	**222,744**	**87,846**	**87,790**	**634,511**	**619,762**

[1] There is an element of double counting in the premium total because part of Lloyd's premium is also included in the figures of some of the other groups in this table.
[2] Shareholders' equity includes minority interests.
[3] Berkshire Hathaway Reinsurance Group IFSR is for National Indemnity Company.
[4] Great-West Lifeco Inc. IFSR and Outlook is for Great-West Life Assurance Company.
[5] Mapfre IFSR is for Mapfre Global Risks Cia Int. de Seg. y Reaseg.
[6] Alleghany IFSR is for Transatlantic Reinsurance Company.
[7] Fairfax IFSR is for Odyssey Reinsurance Company

Sources: Company reports, Federal Reserve Bank of New York and Moody's.

Moody's Related Research

Moody's Reinsurance Monitor - June 2015

Moody's EMEA Insurance Monitor - June 2015

Insurance Issuance of CoCos to Evolve with Regulatory Changes - July 2015

Low Interest Rates are Credit Negative for Insurers Globally, but Risks Vary by Country - March 2015

Brazil's New Reinsurance Regulation Is Credit Positive for Multinational Players, Negative for Domestic Players - July 2015

1Q15 Reinsurance Earnings: Margins Compress While Terms and Conditions Expand - July 2015

2015 Reinsurance Predictions - April 2015

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

Endnotes

1 The (Re)insurance Landscape - Guy Carpenter Mid-Year (Re)insurance Report, July 2015

2 Florida Hurricane Catastrophe Fund Reinsurance Purchase Credit Positive for Fund and Reinsurers

3 Cost of equity estimated using CAPM formula. Assumptions include three-year average market returns and risk-free rate based on major indices relative to each company's primary listing exchange or jurisdiction, and three-year Beta estimates sourced from SNL Financial.

4 Aon Benfield - Reinsurance Market Outlook, April 2015.

5 Towers Watson Global Pension Assets Study 2015 estimates aggregate pension assets for the top five countries (US, Japan, UK, Australia, Canada) to be approximately $31.5 trillion as of year-end 2014.

6 Artemis.bm Deal Directory – Catastrophe bonds and ILS issuance by trigger and by year

7 Figures from Swiss Re Sigma No. 4/2015

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