GC BRIEFING

An update from GC Securities*

February 2014

CATASTROPHE BOND UPDATE: FOURTH QUARTER 2013

Influence from direct capital markets' participation in reinsurance programs, coupled with catastrophic insured losses well below historical averages in 2013, put significant pressure on global catastrophic reinsurance pricing. As a result of significantly reduced pricing (relative to recent years), approximately USD7.1 billion worth of new property/casualty (P&C) catastrophe bonds were issued in 2013 — the second best record year for P&C issuance. The year included seven new sponsors — American Coastal, American Modern, AXIS Capital, the Metropolitan Transportation Authority (MTA), QBE, Renaissance Re and the Turkish Catastrophe Insurance Pool — who collectively secured USD1.46 billion of catastrophe bond capacity. In addition to new sponsors, another prevalent change in the market was the increasing use and acceptance of indemnity-based triggers. Given that spreads have tightened between indemnity and other trigger types, sponsors were inclined to take advantage of investors' openness to indemnity triggers to reduce coverage basis risk without a material increase in pricing relative to non-indemnity trigger pricing.

While capital markets pressured pricing through the first three quarters of 2013, traditional reinsurers responded to protect their market share and limit further pricing impact by offering attractive pricing, expanded structural features and in some cases collateralized capacity and/or limited multi-year capacity. Some insurers even started lining up capacity for their January 1, 2014 renewals before the end of the third quarter, given the desirable pricing seen in the traditional market. Despite the traditional market's response, insurance-linked securities (ILS) issuance in the fourth quarter of 2013 remained robust, as sponsors issued USD1.82 billion of capacity, a level of issuance consistent with the fourth quarters in previous years.

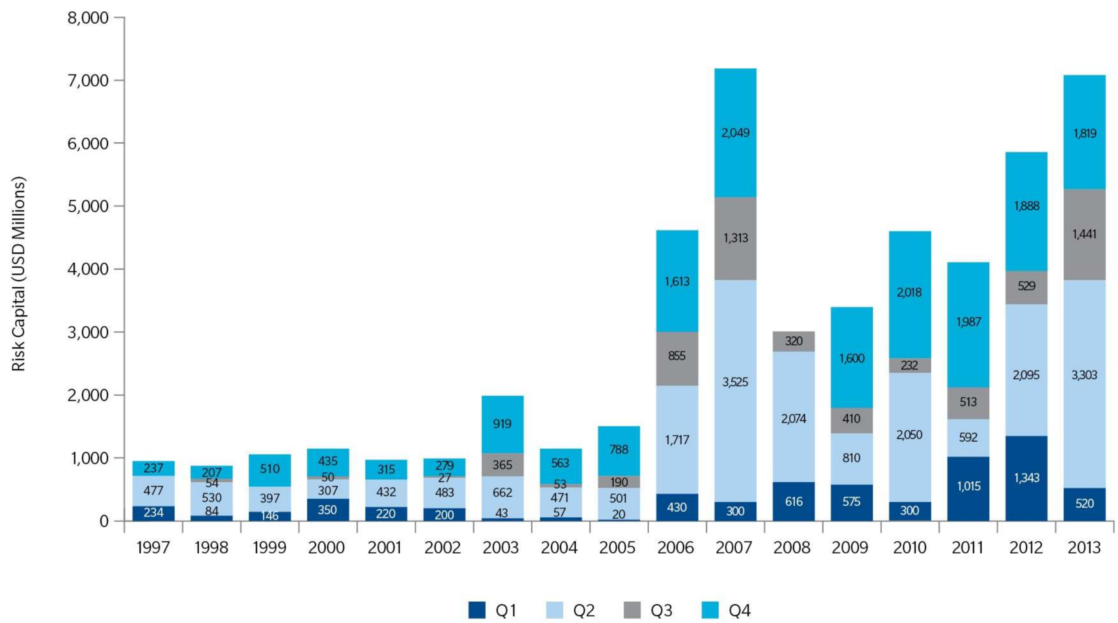
Fourth Quarter 2013 Issuance Activity

Fourth quarter activity began on October 15, 2013 with AXA returning to the catastrophe bond market to issue Calypso II. At the end of October, Catlin issued Galileo Re, their first transaction since 2008. November saw no sponsors come to market. Then there was a flurry of activity in December starting with USAA and AIG both returning to the market for a second time in 2013 with Residential Re 2013-2 and Tradewynd Re 2013-2, respectively. Residential Re 2013-2 Class 1 Notes carried an expected loss of 14.23 percent, making it the second riskiest tranche issued of all time in the 144A catastrophe bond market (the riskiest being Successor I Class B-II issued in 2008 benefiting Swiss Re with an expected loss of 14.73 percent).

At the end of December, Argo Re closed Loma Re 2013-1, which utilized a hybrid trigger — indemnity for Argo's insurance business and PCS industry index for Argo's reinsurance business. The final two transactions of the year were VenTerra Re benefiting QBE and Queen City Re benefiting American Modern. QBE's VenTerra transaction was the first indemnity trigger transaction covering Australia perils (earthquake and cyclone).

A summary of issuance by quarter from 1997 to 2013 is in Figure 1. The details on each transaction completed during 2013 can be found in Table 2 at the end of this briefing.

F-1 | RISK CAPITAL ISSUED BY QUARTER – 1997-2013[1]



Maturities and Total Risk Capital Outstanding

Catastrophe bond issuance in the fourth quarter of 2013, USD1.82 billion, was minimally offset by the limited amount of catastrophe bond maturities of USD360 million, resulting in a net change of risk capital outstanding of USD1.46 billion.

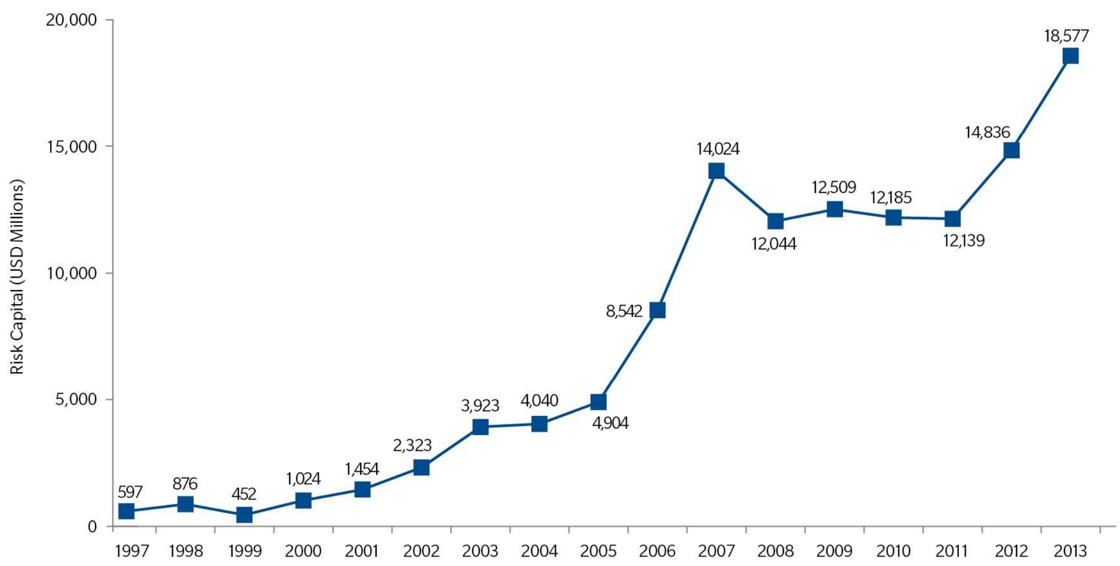
Recent and upcoming scheduled maturities by peril are shown in Table 1 below. Significant capital will be available as a result of an above average volume (based on principal amount) of maturities scheduled for the first and second quarters of 2014, which should result in a sponsor-friendly environment as investors look to redeploy capital quickly.

T-1 | UPCOMING SCHEDULED MATURITIES BY PERILS[1] (USD Millions)

	U.S. Hurricane	U.S. Earthquake	U.S. Multi-peril	International	U.S. and International	TOTAL
1Q14	180.0	0.0	1,230.0	381.9	230.0	**2,021.9**
2Q14	1,184.8	0.0	0.0	99.0	130.0	**1,413.8**
3Q14	0.0	150.0	0.0	310.0	0.0	**460.0**
4Q14	0.0	0.0	0.0	0.0	0.0	**0.0**

As a result of the positive net change in risk capital outstanding, total risk capital outstanding at the end of 2013 reached an all-time high of USD18.58 billion, which is an estimated 16 percent of global property catastrophe limit purchased annually. Given the large amount of scheduled maturities in the first quarter of 2014, risk capital outstanding may decrease until new catastrophe bond issuances occur in 2014.

F-2 | RISK CAPITAL OUTSTANDING – 1997-2013[1]



Outlook for 2014

The growing influence of alternative markets capacity is pressuring traditional reinsurers' business model and challenging them to compete against a model with lower-cost of capital that continues to enter the reinsurance market. Most reinsurance companies have responded to the challenge by leveraging their incumbent status on reinsurance programs, offering similar or better terms and similar or reduced pricing. Particularly, traditional players are emphasizing their ability to efficiently provide reinstatements, which are seen by many as a critical part of core reinsurance programs, particularly for working reinsurance layers. Traditional players are also hedging their bets and creating their own capital markets divisions to attract, manage and utilize capital from third-party sources whether in the form of fund management, managed accounts or sidecars. This will allow reinsurers the opportunity to securitize the most capital-intensive parts of the business while providing valuable cost-efficient capacity in other business lines.

Despite the significant decrease in ILS pricing over the past 12 months, investor demand continues to be robust. If insurers do elect to continue accessing capital markets capacity they may be kindly rewarded through enhanced terms, conditions and pricing. ILS managers continue to see interest in deploying large amounts of capital into the sector, but given the limited opportunities to actually deploy such capital, some ILS managers are maintaining a soft closed position with respect to bringing incremental capital into the ILS space. However, if opportunities do emerge, they are well positioned to call on such capital and offer attractive pricing.

As the catastrophe bond market continues to mature, more new sponsors are looking into the alternative market space for meaningful capacity and the expectation is that this trend is likely to continue through 2014. Also, bespoke parametric structures for non-peak risks are becoming more common, which is causing a wide range of corporate sponsors worldwide to evaluate alternative risk transfer capacity in addition to traditional indemnity coverage.

Finally, lower multiples (the ratio of spread — equivalent to net rate on line — to expected loss) as a result of the influx of additional ILS capacity have resulted in lower spreads. Insurers are also seeking coverage for more remote risk layers, which also corresponds to lower spreads.

The combined result has been a suppression of yields, which investors may want to offset by looking at more risky programs and/or risky layers that pay a higher spread.

T-2 | 2013 144A CATASTROPHE BOND DETAIL[1]

Quarter	Closing Date	Deal	Sponsor	Trigger	Peril(s)/ Region(s)	Risk Period	Expected Loss	Risk Spread	Notional (Millions)
Q1	3/7/13	Caelus Re 2013-1 A	Nationwide	Indemnity Per Occurrence	US HU and EQ	3 years	1.46% (AIR WSST)	5.25%	$270
Q1	3/28/13	Everglades 2013-1 A	Citizens	Indemnity Per Occurrence	Florida HU	3 years	3.18% (AIR WSST)	10.00%	$250
Q2	4/1/13	Merna Re IV	State Farm	Indemnity Per Occurrence	US EQ	3 years	0.40% (RMS)	2.50%	$300
Q2	4/4/13	Caelus Re 2013-1 A	Nationwide	Indemnity Per Occurrence	US HU and EQ	4 years	1.98% (AIR WSST)	6.85%	$320
Q2	4/9/13	Tar Heel Re A	NCJUA/NCIUA	Indemnity Annual Aggregate	North Carolina HU	3 years	2.77% (RMS NT)	8.50%	$500
Q2	4/25/13	Bosphorus Re	Turkish Catastrophe Insurance Pool	Parametric Per Occurrence	Turkey EQ	3 years	1.01% (RMS)	2.50%	$400
Q2	5/3/13	Sanders Re	Allstate	PCS Per Occurrence (both classes)	US HU and EQ (both classes)	4 years (both classes)	Class A: 0.96% Class B: 1.22% (AIR WSST)	Class A: 3.50% Class B: 4.00%	Class A: $200 Class B: $150
Q2	5/8/13	Pelican Re	Louisiana Citizen Property Insurance Corporation	Indemnity Per Occurrence	Louisiana HU	4 years	2.05% (AIR WSST)	6.00%	$140
Q2	5/23/13	Blue Danube II	Allianz	Multiple Triggers (MITT PCS/ Modeled Loss) Per Occurrence	US HU, US EQ, and Canada EQ (MITT)/ Caribbean and Mexico HU (PCS)	3 years	0.96% (AIR WSST)	4.25%	$175
Q2	5/16/13	Longpoint Re III 2013-1	Travelers	Indemnity Per Occurrence	Northeast HU	3 years	1.243% (AIR WSST)	4.00%	$300
Q2	5/14/13	Armor Re	American Coastal	Indemnity Per Occurrence	Florida HU	1 year	0.40% (AIR WSST)	4.25%	$183
Q2	5/31/13	Residential Re 2013-1	USAA	Indemnity Class 3: Per Occurrence Class 11: Annual Aggregate	US HU, EQ, ST, WS, WF (both classes)	4 years (both classes)	Class 3: 3.68% Class 11: 2.60% (AIR WSST)	Class 3: 9.25% Class 11: 8.00%	Class 3: $95 Class11: $205
Q2	6/26/13	Queen Street Re VIII	Munich Re	Multiple Triggers (PCS/Modeled Loss) Per Occurrence	US HU/ Australia Cyclone	2.75 years	2.92% (AIR)	6.50%	$75
Q2	6/26/13	Ibis Re II	Assurant	PCS (all classes) Per Occurrence	US HU	3 years (all classes)	Class A: 0.85% Class B: 1.53% Class C: 3.36% (AIR)	Class A: 4.00% Class B: 4.50% Class C: 8.00%	Class A: $110 Class B: $35 Class C: $40
Q2	6/27/13	Tramline Re II	Amlin	PCS Per Occurrence	US HU and US EQ	4 years	1.21% (AIR)	3.25%	$75
Q3	7/1/13	Green Fields Capital II	Groupama	PERILS Per Occurrence	France Windstorm	3.5 years	0.85% (RMS)	2.75%	€280
Q3	7/2/13	Mythen Re 2013-1 Class B-1	Swiss Re	PCS Per Occurrence	US HU	2 years	3.01% (AIR)	8.00%	$100
Q3	7/8/13	Mona Lisa Re	Renaissance Re	PCS Annual Aggregate	US HU and US EQ	4 years	2.17% (AIR)	7.30%	$150
Q3	7/9/13	Tradewynd Re 2013-1	AIG	Indemnity Per Occurrence	US & Caribbean HU and US & Canada EQ	5 years	1.53% (AIR)	8.25%	$125
Q3	7/30/13	MetroCat Re	MTA	Parametric Upon Occurrence	Northeast US Storm Surge	3 years	1.71% (RMS)	4.50%	$200

T-2 | 2013 144A CATASTROPHE BOND DETAIL[1] *Continued*

Quarter	Closing Date	Deal	Sponsor	Trigger	Peril(s)/ Region(s)	Risk Period	Expected Loss	Risk Spread	Notional (Millions)
Q3	8/5/2013	Northshore Re	AXIS Capital	PCS Per Occurrence	US HU and US EQ	3 years	2.24% (AIR)	7.25%	$200
Q3	9/6/2013	Nakama Re	Zenkyoren	Indemnity Per Occurrence	Japan EQ	3 years	0.90% (AIR)	2.75%	$300
Q4	10/15/13	Calypso Capital II	AXA	PERILS Per Occurrence	Europe Windstorm	A – 3 years B – 4 years	Class A: 0.96% Class B: 1.18%: (EQECAT)	Class A 2.60% Class B: 2.90%	Class A: €185 Class B: €165
Q4	10/30/13	Galileo Re	Catlin	PCS / PERILS Annual Aggregate	US HU, US EQ Canada EQ & Europe Windstorm	3 years	2.38% (AIR)	7.40%	$300
Q4	12/2/13	Residential Re 2013-2	USAA	Indemnity Per Occurrence	US HU, EQ,ST, WS, WF (both classes)	4 years	Class 1: 14.23% Class 4: 1.80% (AIR)	Class 1: 20.00% Class 4: 5.25%	Class 1: $80 Class 4: $70
Q4	12/18/13	Tradewynd Re 2013-2	AIG	Indemnity Per Occurrence	US & Caribbean HU and US & Canada EQ	1-A - 1 year 3-A and 3-B - 3 years	Class 1-A:1.28% Class 3-A: 1.28% Class 3-B: 1.62% (RMS)	Class 1-A: 6.25% Class 3-A: 6.50% Class 3-B: 7.25%	Class 1-A: $100 Class 3-A: $160 Class 3-B: $140
Q4	12/23/13	Queen City Re	American Modern	Indemnity Per Occurrence	US HU	3 years	0.57% (AIR)	3.50%	$75
Q4	12/30/13	VenTerra Re	QBE	Indemnity Per Occurrence	US & Australia EQ and Australia Cyclone	3 years	1.35% (RMS)	3.75%	$250
Q4	12/30/13	Loma Re	Argo	Hybrid Indemnity + PCS Annual Aggregate	US & Caribbean HU and US & Caribbean & Canada EQ	4 years	Class A: 4.16% Class B: 5.62% Class C: 8.99% (AIR)	Class A: 9.75% Class B: 12.00% Class C: 17.00%	Class A: $32 Class B: $75 Class C: $65

(1) Source: GC Securities Proprietary Database (P&C catastrophe bonds as of December 31, 2013 excluding private transactions)

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