ILS MARKET UPDATE

Q1 2011: The Market Digests a Major Catastrophe Event

WILLIS CAPITAL MARKETS & ADVISORY

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Q1 2011 Cat Bond Market Issuance

The first quarter is usually a relatively quiet one for new issuance, this year however, although we saw only four new issues brought to market, they represented a record $1 billion of risk capital (2010: $650 million). The new issues, all from repeat cat bond sponsors, are summarized in the table below.

Swiss Re sponsored a fourth takedown from their 2009 Successor X shelf facility. The transaction consisted of two tranches, totaling $305 million, providing coverage for three years against U.S. hurricanes and California earthquakes on a per occurrence basis. The notes use a modified PCS trigger for the hurricane peril and a parametric index for earthquake. Interestingly, the two tranches use different collateral solutions; the higher expected loss tranche invests the bond proceeds in treasury money market funds, whereas the other tranche uses a puttable IBRD note.

The Hartford sponsored a further takedown from their Foundation Re III program, which provides $135 million of U.S. hurricane protection for four years. The bond uses a modified PCS trigger and treasury money market collateral. This transaction had unusually remote risk characteristics and the resulting spread of 5% may represent the current minimum risk premium required by investors for first event U.S. hurricane risk.

The largest deal of the quarter was Chubb's East Lane Re IV, which provides $475 million of indemnity protection against hurricanes, earthquakes, thunderstorms and winter storms in the northeastern U.S. This deal also uses treasury money market funds as the collateral structure. These new notes replace expiring East Lane Re I and II tranches, which come off risk prior to the 2011 wind season. Chubb chose to stagger the maturity dates by placing one of the new tranches for three years and the other for four years.

The final new issue of the quarter was from Munich Re. Queen Street II provides $100 million of protection against U.S. hurricanes and European windstorms. The transaction uses modified PCS and PERILS triggers for the U.S. and European risks respectively. The collateral is invested in a money market fund managed by a Munich Re subsidiary and invested in U.S. treasury bills. This transaction priced just after the Tohoku earthquake in Japan and this was probably one factor, among others, in its final pricing, which was at the upper end of the initial guidance range.

After a fourth quarter of 2010 that saw a good mix of perils for investors, all of the first quarter transactions are exposed to U.S. hurricane risk. As our chart on page 2 shows, 72% of outstanding cat bond limit is exposed to U.S. hurricane risk of some form, although there is some regional diversification within that proportion. It is likely that second quarter issuance will also be dominated by hurricane exposure as we move toward the 2011 wind season.

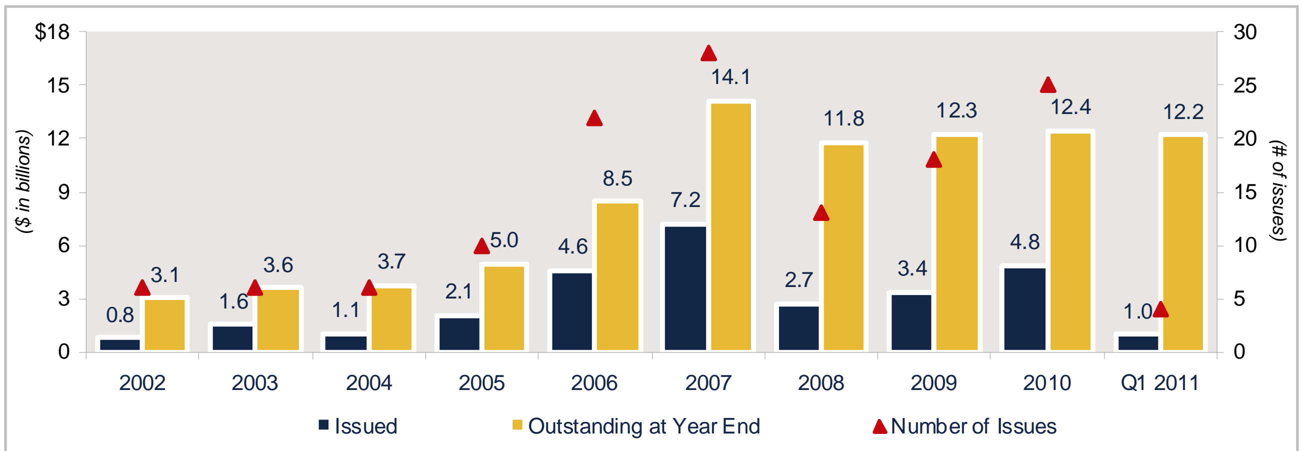
Q1 2011 NON-LIFE CAT BOND MARKET ISSUANCE

($ in millions)

Sponsor	Issuer / Tranche	Issue Date	Term (Yrs)	Amount ($M)	Risk Premium	Risk
Munich Re	Queen Street II	03/22/11	3.0	$100	7.50%	US HU / Euro Wind
Chubb	East Lane Re IV - A	03/07/11	3.0	225	5.75%	US HU / Quake / T-Storm / Winter Storm
Chubb	East Lane Re IV - B	03/07/11	4.0	250	6.65%	US HU / Quake / T-Storm / Winter Storm
Hartford	Foundation Re III	02/18/11	4.0	135	5.00%	US HU
Swiss Re	Successor X IV - E3	02/18/11	3.0	160	9.25%	US HU / CA Quake
Swiss Re	Successor X IV - AL3	02/18/11	3.0	145	13.00%	US HU / CA Quake
			Total	**$1,015**		

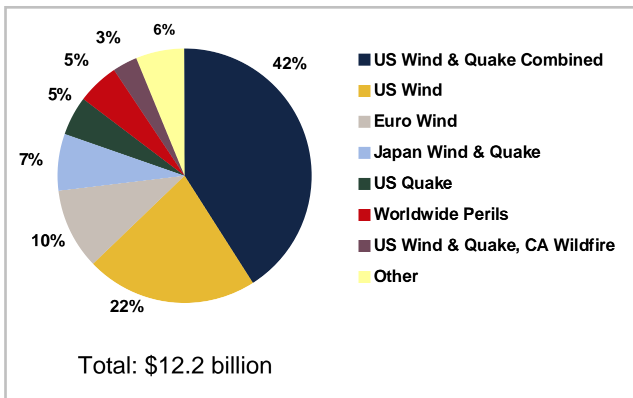
Source: WCMA Transaction Database.

CAPACITY ISSUED AND OUTSTANDING BY YEAR



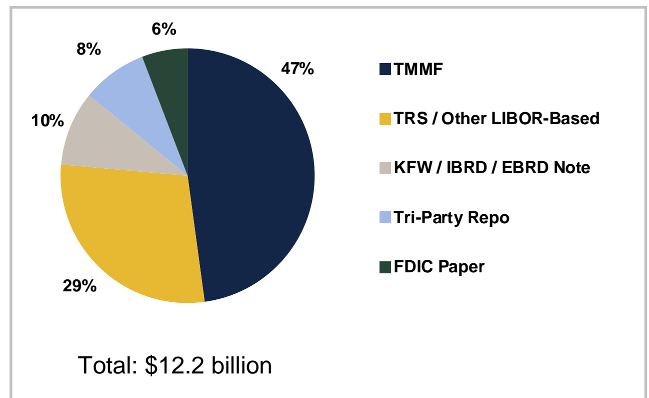
Source: WCMA Transaction Database.

ON-RISK CAPACITY BY PERIL (March 31, 2011)



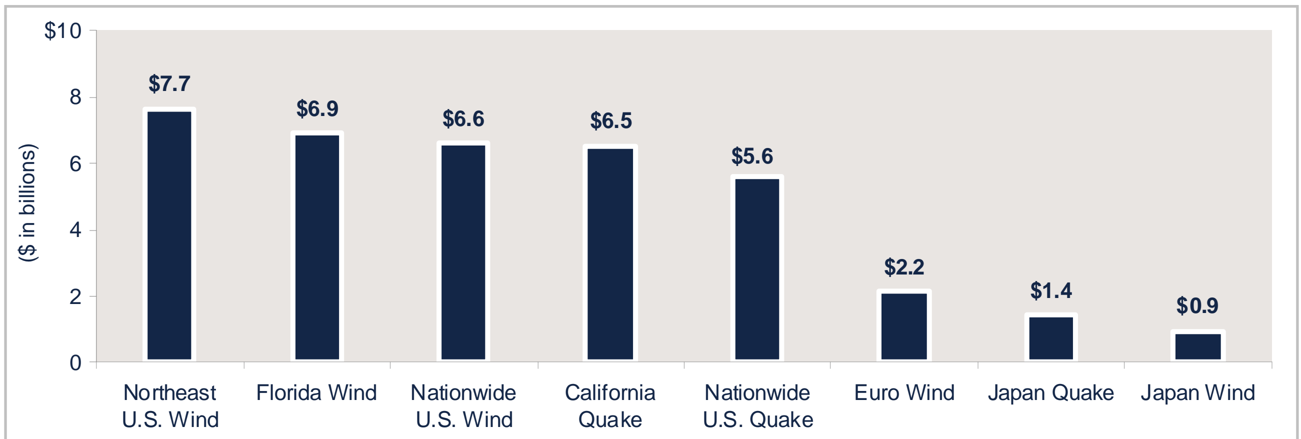
Source: WCMA Transaction Database.

PAR OUTSTANDING BY COLLATERAL TYPE



Source: WCMA Transaction Database.

AGGREGATE ON-RISK CAPACITY EXPOSED TO PEAK PERILS (March 31, 2011)



* Nationwide U.S. Wind includes Texas to Maine exposures. Multi-peril exposed capacity is counted repeatedly for each peril that it covers. Japan Quake includes all bonds exposed to the Tohoku event with no adjustment for anticipated losses.

Source: WCMA Transaction Database.

The Tohoku Earthquake in Japan

Ten cat bond deals from six different sponsors are potentially exposed to this very significant earthquake event (see table below). At present, we understand that the $300 million Muteki transaction, sponsored by Munich Re on behalf of Zenkyoren, will be a total loss for investors. Moody's has downgraded the bond to a "C" rating. This deal used a parametric index trigger based on readings derived from the K-Net system of earthquake recording apparatus. After some initial difficulties in obtaining the data it appears that sufficient data has now been collected to calculate that the event index will exceed the exhaustion point of the first event bond layer.

At the time of writing we do not expect that any other catastrophe bond will suffer a loss of principal directly as a result of this event. The table below summarizes the bonds exposed to the event.

Three other transactions have been placed on negative watch by rating agencies as a result of this event. Platinum Re's $200 million cat bond Topiary Capital is a second event structure that has been activated by this event and is now on-risk should a further large event occur in the period up to its expiry in August this year. The $60 million "E" tranche of Flagstone Re's Montana Re 2010 transaction has an annual aggregate trigger exposed to second and subsequent events and is now on-risk to another large event for the remainder of 2011. The third tranche on negative watch is Swiss Re's Vega Capital 2010, another multi-peril, annual aggregate trigger that now has an increased risk profile for the balance of the year due to losses, incurred as a result of this event, eroding the aggregate attachment level.

CAT BONDS EXPOSED TO TOHOKU EARTHQUAKE

($ in millions)

Sponsor	Issuer / Tranche	Maturity Date	Amount ($M)	Japan EQ Trigger Type	Rating Original	Rating Current
Zenkyoren / Munich Re	Muteki	05/24/11	$300	Parametric; occurrence (top & drop)	Ba2	C
Flagstone	Valais Re - A	06/06/11	64	Indemnity; annual aggregate	Ba2 / bb	Ba2 / bb
Flagstone	Valais Re - C	06/06/11	40	Indemnity; occurrence	B3 / b	B3 / b
Swiss Re	Vega Capital (2008) - A	06/24/11	21	Mod. loss; annual aggregate	A-	A-
Swiss Re	Vega Capital (2008) - B	06/24/11	23	Mod. loss; annual aggregate	BBB	BBB
Swiss Re	Vega Capital (2008) - C	06/24/11	64	Mod. loss; annual aggregate	--	--
Swiss Re	Vega Capital (2008) - D	06/24/11	43	Mod. loss; annual aggregate	--	--
Platinum	Topiary Capital	08/05/11	200	Parametric; 2nd event per occur.	BB+	Negative Watch
JR East / Munich Re	Midori	10/24/12	260	Parametric; occurrence	BB+	BB+
Swiss Re	Successor X - BY-3	04/04/13	40	Parametric; occurrence	B-	B-
SCOR	Atlas VI - 2009	04/06/13	112	Parametric; annual aggregate	BB-	BB-
Swiss Re	Vega Capital (2010) - C	12/13/13	64	Parametric; annual aggregate	Ba3	Negative Watch
Swiss Re	Vega Capital (2010) - D	12/13/13	43	Parametric; annual aggregate	--	--
Flagstone	Montana Re 2010 - E	01/08/14	60	Parametric; ann. aggregate - 2nd event	B-	Negative Watch
SCOR	Atlas VI - 2010	04/07/14	101	Parametric; annual aggregate	B-	B-
		Total	**$1,433**			

Source: WCMA Transaction Database.
Rating agency releases.

Secondary Market Trading

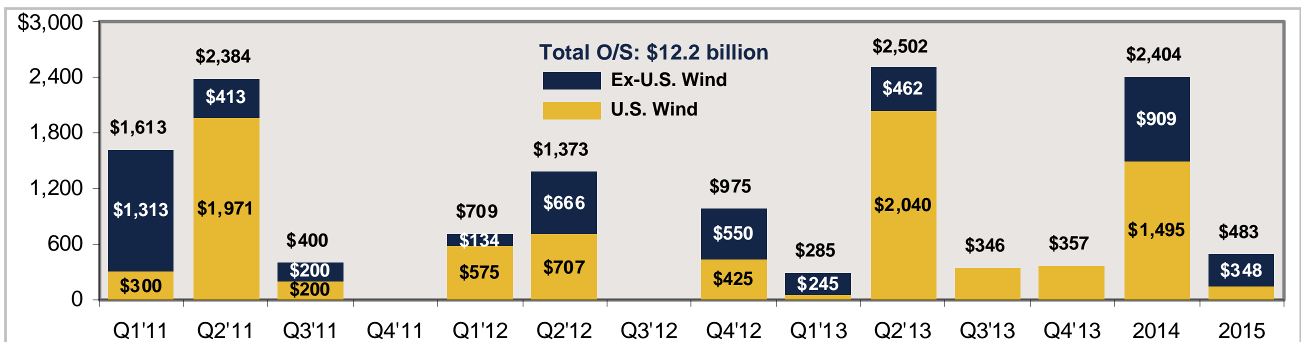
Traditionally a slow period, the first quarter was no exception as investors faced the prospect of $4.0 billion of bonds maturing in the first half of this year (see our chart below). While most investors wanted to hold on to their cat bonds, we did see some light secondary trading as investors rebalanced or repositioned their portfolios in the wake of the strong IPO market towards the end of the fourth quarter of last year.

The Tohoku earthquake on March 11 had investors scrambling to assess the possible impact on their portfolios. There was an immediate mark-to-market impact on the bonds exposed to Japanese earthquake risk, although actual trading was very light, as few buyers were willing to step up in the immediate aftermath, while the loss implications remained uncertain. The Muteki deal, after a period of uncertainty, is now effectively marked to reflect a total loss.

Several aggregate or second event bonds were impacted by the event and the secondary market pricing now reflects the changed risk profile of these deals. In most cases, in the absence of additional events or further loss development, this mark-to-market impact should reverse out as the respective risk periods expire.

Trading is likely to pick up in the second quarter as the pace of new issues increases. An active primary market usually leads to increased secondary activity as investors make room for new issues by selling similar or short-dated risks.

ON-RISK CAPACITY BY MATURITY DATE *($ in millions)*



Source: WCMA Transaction Database.

The Rule 144A Market Is Dead! Long Live the Rule 144A Market!

Over the past few years, the dedicated ILS funds have continued to grow their assets under management. Meanwhile the Rule 144A cat bond market has shown little growth (see chart on page 2). Where has the money gone? We believe that for the most part the additional money has been deployed into illiquid investments that serve as substitutes for both Rule 144A cat bonds and for traditional reinsurance: collateralized indemnity reinsurance and private index deals. Private index deals include not only straightforward unstructured industry-loss warranties but also highly structured index triggers and cat bond derivatives. Investors can use these trades to deploy available capital and to try to diversify the risks in their portfolio.

These private trades can be arranged quickly, usually have a one year or less risk period and have relatively lower transaction costs, similar to traditional reinsurance. There is an illiquidity premium relative to the cat bond market for large private deals and the tradeoff between transaction costs and risk premium influences the sponsor's choice in each case.

In our view, however, there remains significant investor demand to put assets to work in catastrophe bond form, where there is potential liquidity and where secondary market prices provide a clear basis for valuing positions. In contrast to recent years, it appears that a disproportionate amount of recent cash inflows are designated for bond investment only. This demand for risk in cat bond form should maintain some downward pressure on cat bond spreads. Furthermore, as significant catastrophe losses add up in 2011, potential sponsors may place more value on multi-year cover that provides a hedge against potential reinsurance price volatility if further catastrophe events occur.

The cat bond market has proved quite resilient and adaptive over time. Consequently, the cat bond market could attract a greater share of capacity in the future, especially if meaningful progress can continue to be made on making the issuance process more efficient.

Market Outlook

It is not yet clear what impact the Japan earthquake event will have on pricing for new cat bond issues. At the beginning of the quarter, we saw downward pressure on risk premium levels driven by cash inflows into specialist cat funds, in turn creating strong investor demand for cat bonds. In addition, the market had to some extent followed downward pricing trends in a soft reinsurance market.

The significant loss activity in the traditional reinsurance market creates an opportunity for cat bond investors to demonstrate that their capacity is provided by a pool of capital with a different cost and different investment motivations to the traditional reinsurers. The ability of the market to provide consistent or expanded multi-year capacity at consistent risk spreads could stimulate new issuance and help to grow the market from the $12 billion in size it has been over the last three years.

We believe it is likely that cat bond pricing will continue to reference the pricing in the traditional market somewhat. In particular, we expect increased spreads for Japan earthquake risks. The other variable going into the second quarter is the impact of the new RMS model on U.S. wind pricing. The market was aware of the potential quantitative impact of the pending changes in Q4 2010; however, the actual release has created some surprises. As a result the full impact in both the primary market and secondary market remains unclear.

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