



# **ILS MARKET UPDATE**

Strong Momentum Continues Into 2012  
Hurricane Season

**WILLIS CAPITAL MARKETS & ADVISORY**

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**Willis**  
Capital Markets & Advisory

## Q2 2012 Cat Bond Market Issuance

The second quarter of 2012 saw new issuance volume of \$2.1 billion of non-life capacity through 7 transactions (Q2 2011: \$600 million in 4 deals).

## Q2 2012 Non-Life Cat Bond Market Issuance Summary

(\$ in millions)

Sponsor	Issuer / Tranche	Issue Date	Term	Amount	Risk Spread	Basis	Risk
Travelers	Longpoint Re III	06/06/12	3.0	\$250	6.00%	OCC	US Wind (NE Only)
USAA	Residential Re - CI 3	05/31/12	4.0	50	10.00%	OCC	US Wind & Quake
USAA	Residential Re - CI 5	05/31/12	4.0	110	8.00%	AGG	US Wind & Quake
USAA	Residential Re - CI 7	05/31/12	4.0	40	22.00%	AGG	US Wind & Quake
Swiss Re	Mythen Ltd. - A	05/03/12	3.0	50	8.50%	OCC	US Wind
Swiss Re	Mythen Ltd. - E	05/03/12	3.0	100	8.00%	OCC / Multi Event	US Wind
Swiss Re	Mythen Ltd. - H	05/03/12	3.0	250	11.00%	OCC / Multi Event	US Wind & Euro Wind
FL Citizens	Everglades Re Ltd.	04/30/12	2.0	750	17.75%	OCC	US Wind (Florida)
Mitsui Sumitomo	Akibare II Ltd.	04/05/12	4.0	130	3.75%	OCC	Japan Wind
LA Citizens	Pelican Re Ltd.	04/04/12	3.0	125	13.75%	OCC	US Wind (Louisiana)
Allianz	Blue Danube Ltd. - A	04/03/12	3.0	120	6.00%	OCC	US Wind & Quake
Allianz	Blue Danube Ltd. - B	04/03/12	3.0	120	10.75%	OCC	US Wind & Quake

Source: WCMA Transaction Database.

**Total \$2,095**

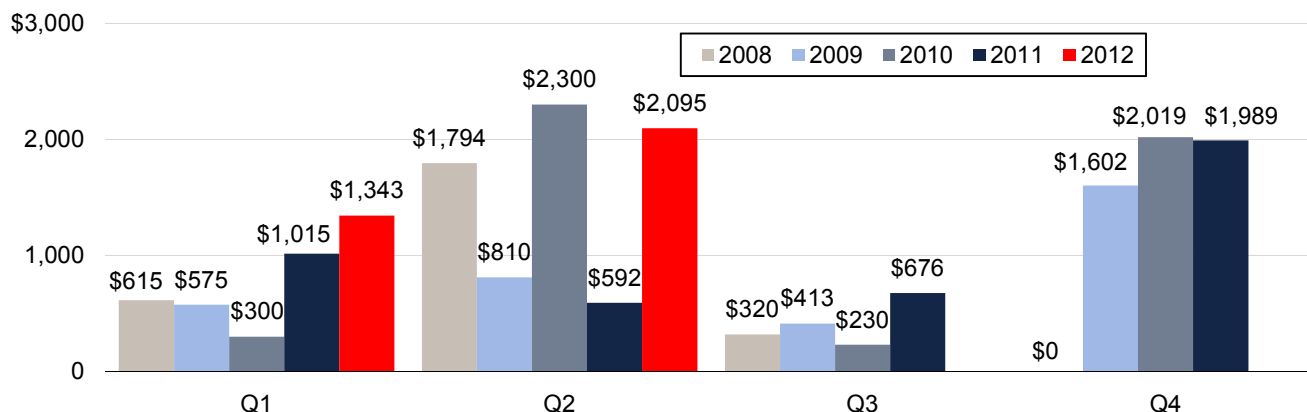
The first transaction of the quarter was from Allianz who sponsored the **Blue Danube** transaction, which provides \$240 million of hurricane and earthquake cover. The covered area includes the U.S., Mexico and Caribbean for hurricane and the U.S. and Canada for earthquake. The three-year deal uses an AIR-modeled hybrid modeled loss / PCS-based trigger on an occurrence basis with adjustments for the Mexican and Caribbean exposures.

Louisiana Citizens sponsored its first catastrophe bond with the **Pelican Re** transaction. The three-year deal provides \$125 million of indemnity triggered protection against hurricane losses in Louisiana on an occurrence basis.

Mitsui Sumitomo returned to the cat bond market with **Akibare II**, a renewal of a similar earlier transaction from 2007. The transaction provides \$130 million of cover for a four-year period against Japanese typhoons on an occurrence basis and uses a modeled loss trigger.

## Non-Life Cat Bond Issuance by Quarter (2008 – 2012 YTD)

(\$ in millions)



Source: WCMA Transaction Database as of June 30, 2012.

## Q2 2012 Cat Bond Market Issuance (cont'd)

The stand-out transaction of the quarter in terms of size was **Everglades Re** for Florida Citizens, another first time sponsor of a cat bond. The two-year deal was upsized to \$750 million, making it the largest single tranche cat bond ever placed. Everglades Re provides occurrence coverage for Florida hurricanes on an indemnity basis.

Swiss Re launched a new catastrophe bond program with a \$400 million multi-tranche offer from **Mythen Ltd.** This three-year transaction features three tranches; two of which protect against U.S. hurricanes on a per occurrence basis (one tranche on a second or subsequent event basis) and the third tranche protects against European windstorms in addition to U.S. hurricanes on a second or subsequent event basis. The transaction utilizes a state-weighted PCS index trigger for the U.S. and a country-weighted PERILS index for Europe.

USAA sponsored a catastrophe bond issue for the 16<sup>th</sup> consecutive year with the **Residential Re 2012** transaction. This four-year deal provides \$200 million of indemnity triggered protection against U.S. catastrophe perils including hurricane, earthquake, severe thunderstorm, winter storm and California wildfire. Two tranches totaling \$150 million of limit provide coverage on an annual aggregate basis, the remaining \$50 million tranche on a per occurrence basis.

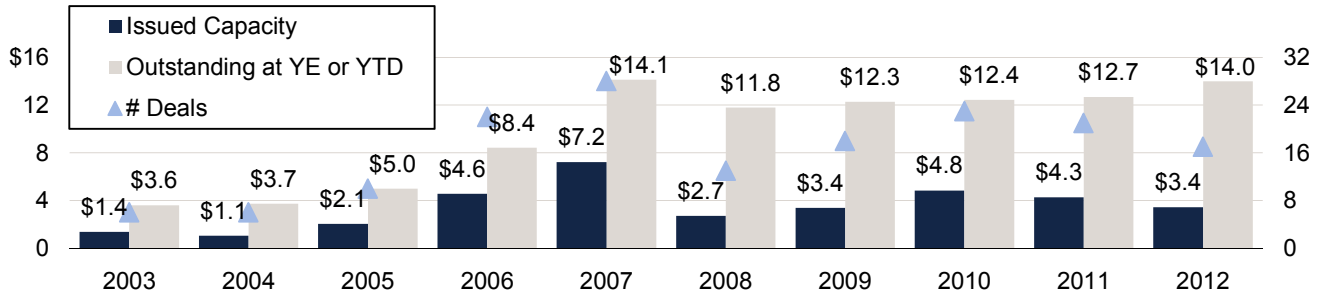
The final new issue of the quarter was a return to the market for Travelers. **Longpoint Re III** provides \$250 million of three-year occurrence cover on an indemnity triggered basis protecting against hurricane events in the Northeastern U.S.

As with the first quarter, all of the second quarter transactions were denominated in U.S. dollars and used AIR to perform the risk analysis. Two of the second quarter deals, Allianz's Blue Danube and Swiss Re's Mythen Re, used LIBOR-based puttable IBRD notes as a collateral solution. The remaining transactions invested the collateral from the bond proceeds in the market standard U.S. Treasury Money Market Funds.

During the second quarter, eight catastrophe bonds matured totaling approximately \$1.4 billion, meaning outstanding on risk-capacity increased by just over \$700 million during the quarter. U.S. hurricane exposed transactions dominated the quarter's issuance and continue to dominate the non-life market, with 73% of outstanding cat bond limit exposed to U.S. hurricane risk of some form.

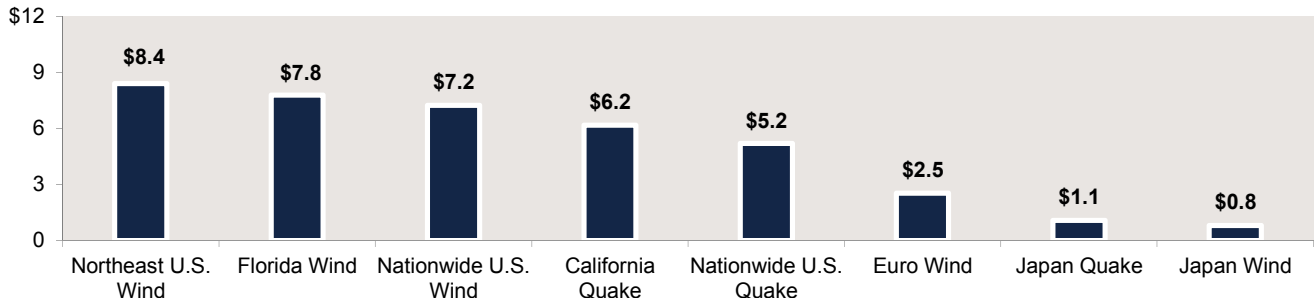
### Capacity Issued and Outstanding by Year

(\$ in billions)



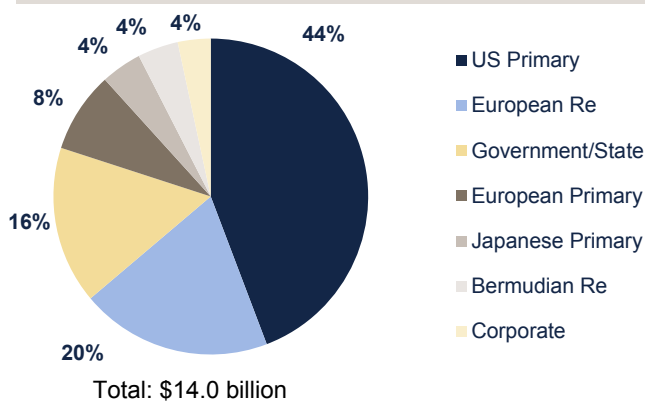
### On-Risk Capacity by Peril

(\$ in billions)

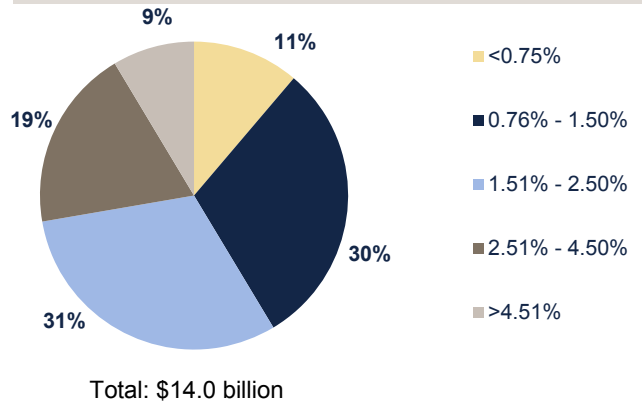


Note: Multi-peril exposed capacity is counted repeatedly for each peril that it covers; only non-life transactions included.  
Source: WCMA Transaction Database as of June 30, 2012.

## Par Outstanding by Sponsor Type

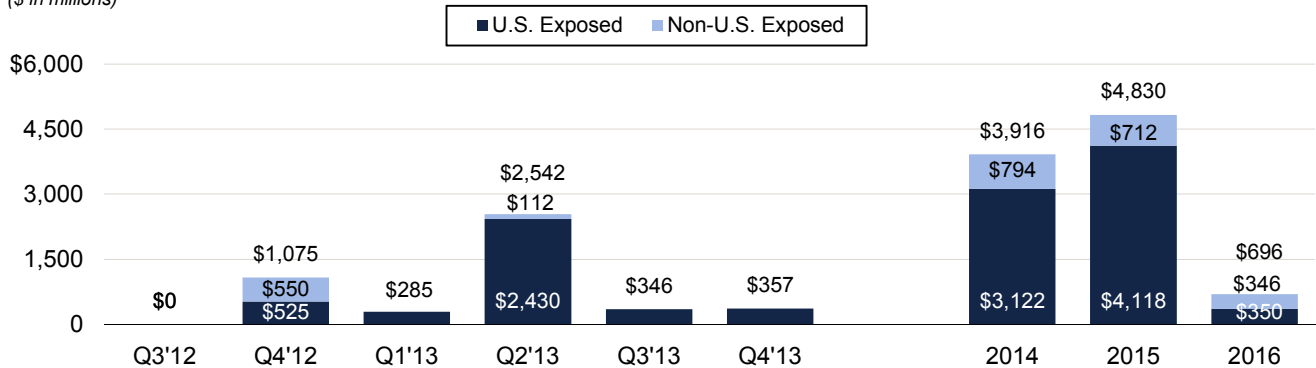


## Par Outstanding by Annual Expected Loss



## On-Risk Capacity by Maturity Date

(\$ in millions)



Source: WCMA Transaction Database as of June 30, 2012; only non-life transactions included.

## Secondary Market

The second quarter started off in a similar fashion to the first with ILS investors finding many opportunities to selectively add to their portfolios. The market saw several bonds offered and afforded the discriminating ILS purchaser the luxury of unhurried selection from available secondary options.

As each new primary issuance came to market early in the quarter there was some subsequent widening of spreads as investors accommodated upsized issues. For example, no sooner had Louisiana Citizens' Pelican Re issue settled, when Florida Citizens' Everglades deal came to market. Initially marketed as a \$200 million deal, it upsized to \$750 million. While this led many market observers to feel encouraged about the state of health of the primary market there were some consequences in the secondary trading arena. Sellers in the secondary market largely evaporated and a strong bid tone developed with less actual trading.

A culmination of several factors likely increased demand in the secondary market; new cash inflows, demand for diversifiers and feedback from the June 1 renewal season, from both traditional programs and through the ILW market. We began to see the recently issued bonds catching follow on orders, pushing yields lower. Towards the end of the quarter the market certainly appeared to have more available capital. It was almost counter-intuitive to see, so soon after a record sized primary issue in Everglades, that seasonality factors were not suppressing prices as the new deals were driven several points above par despite the impending wind season.

And that is how the second quarter closed: Investors selectively looking to put new funds to work; some sensitive to being close to their maximum appetites for U.S. wind and keen to find complementing diversifiers. Others recognizing the approaching wind season brings the added benefits of seasonality to their portfolios.



## WCMA Interview: Rowan Douglas



Rowan Douglas is CEO of Willis Global Analytics and also head of the Willis Research Network, which has grown to become the world's largest collaboration between public science and the finance sector, recognized with various awards for its innovation. Rowan is also a member of the UK Prime Minister's Council for Science and Technology (CST). The CST is the UK Government's top-level advisory body on science and technology policy issues that reports directly to the Prime Minister.

### ***Can you please give us a brief status update and overview of the Willis Research Network?***

The network now has approximately 50 institutional members, mostly universities and public science institutes. About two thirds of the network's activity covers natural catastrophe issues, such as weather related and seismic risks and we now have very good coverage of global perils. The other third of activity is focused on other risks. For example, we have just launched the Willis Economic Capital Forum in collaboration with Georgia State University, which will focus on internal economic capital models with a goal of supporting, refining and validating such models so that their use can lead to better decision making for the industry. This is an idea we have been pursuing for some time and obviously issues like Solvency II in Europe have been a catalyst to formalize our work in this area.

### ***Are there any other particular areas of research that you or the network partners are keen to explore in the near future?***

We are particularly looking to develop global models to enable a more consistent view and framework for analyzing risk. As an example, we are working on a global flood risk model which will help to identify significant areas of risk not covered by existing vendor catastrophe models and hopefully enable us to locate the next Thailand type event before it happens. Our members are also working on a high-resolution global model for tropical cyclones. We hope to simulate climate systems on a global basis.

### ***Do you think that the scientific research into natural catastrophes undertaken over the last five years has impacted (re)insurance market behavior?***

I think there are several examples of scientific advances impacting market behavior. Increased use of numerical modeling of catastrophe perils is one. Models do not just rely on historically derived statistics. Current model event sets now contain many numerically modeled events in addition to historic events. Another is increasing confidence in seasonal forecasting. It is generally perceived to be getting better and should improve further in the next five years. Also, increased use of global models will help understanding of the correlations between different weather regions. This is not just issues like El Niño / La Niña but other correlations not so well understood at present. This in turn helps the industry to control accumulations of risk and maintain better diversification.

### ***Do you think that the amount of data and academic study of natural catastrophe risks and weather patterns has had a positive effect on bringing capital markets investors into the sector?***

It seems that there is some comfort in the catastrophe modeling currently available and that this has been instrumental in getting capital markets investors involved in the market already. My opinion is that increased capital markets involvement in the catastrophe risk sector will help to increase investment in scientific research. In my view the capital markets investors like to have data to analyze and would value additional scientific research that became available.

### ***What are the 5-year goals for the WRN?***

The network is currently a good size and we have obtained expertise in most of the key areas. The next phase will be to consolidate and strengthen the network and focus on turning the research into really useful output. I would like to see us continue to develop an integrated set of global models covering the different hazards so that we have a constant and consistent view of global natural catastrophe perils which in turn integrate effectively with next generation economic capital models for the industry. We must also work to ensure effective communication of this output to key stakeholders such as senior management, regulators and rating agencies. Willis will continue to be critically located at the center of all these different activities.

Note: Rowan Douglas is CEO of Willis Global Analytics, an affiliate of Willis Capital Markets & Advisory. The views expressed herein by Mr. Douglas are his personally and do not necessarily reflect the views of Willis Capital Markets & Advisory or its affiliates.

## Third Party Capital

The second quarter saw several sidecar transactions announced, which we have summarized in the table below.

Vehicle	PaCRe	Timicuan Re III	AlphaCat Re 2012	New Point V	Onyx Re
Industry Sponsor:					
Lead Investors:		Not Disclosed	Not Disclosed		
Description:	Hedge Fund Sponsored NewCo	Collateralized Quota Share (Florida Focused)	Collateralized Reinsurance (Florida Focused)	Collateralized Retro (with Draw-Down)	Collateralized Quota Share
Date:	April 2012	June 2012	June 2012	June 2012	Undisclosed
Amount:	\$500 million	\$55 million	\$70 million	\$210 million	Undisclosed

Source: Public Filings and Press Releases.

RenaissanceRe's Timicuan Re III and Validus's AlphaCat 2012 transactions are both focused on Florida opportunities that arose at the June 1<sup>st</sup> renewals and raised \$55 million and \$70 million respectively, including investments from the sponsors themselves.

In addition, Alterra launched the latest iteration of their New Point franchise. New Point V co-sponsored by Stone Point Capital has raised \$210 million from its sponsors and other investors to write collateralized retro lines. We understand that all of these vehicles are offering fully collateralized single shot limits and typically write high rate on line contracts to generate the type of investment returns being sought by their capital providers.

The second quarter also saw media reports that Blackrock launched a partnership with Swiss Re. The Onyx Re vehicle will apparently write a collateralized quota share of a portfolio focused on the global peak perils. It is expected that \$200 million to \$300 million of capital will support the initial one-year deal.

Another third party capital venture announced in the quarter was PaCRe. PaCRe is a hedge fund sponsored new company formation in a similar vein to the recently launched Third Point Re and SAC Re. These hedge fund sponsored vehicles are using returns from reinsurance business to complement returns from the sponsor hedge fund investment portfolio and also as a source of funds for the hedge fund to invest. Greenlight Re, which launched in 2004, is an established example of this model of reinsurance entity.

The PaCRe vehicle is a partnership between Validus Holdings and the Paulson & Co hedge fund management business. PaCRe has been capitalized with \$500 million, 10% provided by Validus and has an A- rating from A.M. Best. Validus will underwrite a portfolio of business for PaCRe and its assets will be managed under a long-term investment management agreement by Paulson & Co.

In our view, we may be seeing the early stages of a significant strategic development in the catastrophe reinsurance market. In the future, we believe increasing amounts of peak catastrophe risk will be taken by third party capital providers writing alongside existing reinsurance businesses.

Reinsurers have noted the success that RenaissanceRe has enjoyed with a significant third party capital management strategy (DaVinci Re has now been operating since 2001). The idea that an existing underwriting platform and balance sheet can be leveraged by earning fees from capital partners is an attractive one. Reinsurers can write more attractive business without stressing capital requirements or introducing greater volatility into their results. It also means that capital relationships are in place that can be ramped up in appropriate market environments. Investors for their part gain access to an established brand and infrastructure, with all its existing customer and broker relationships, plus the underwriting skills and sophisticated risk analytics that the reinsurers employ.

We believe that it is likely these private unlisted vehicles, along with the growing specialist independent catastrophe risk funds, will take an increasingly larger share of the catastrophe risk market in collateralized form over the medium term.

## Market Outlook

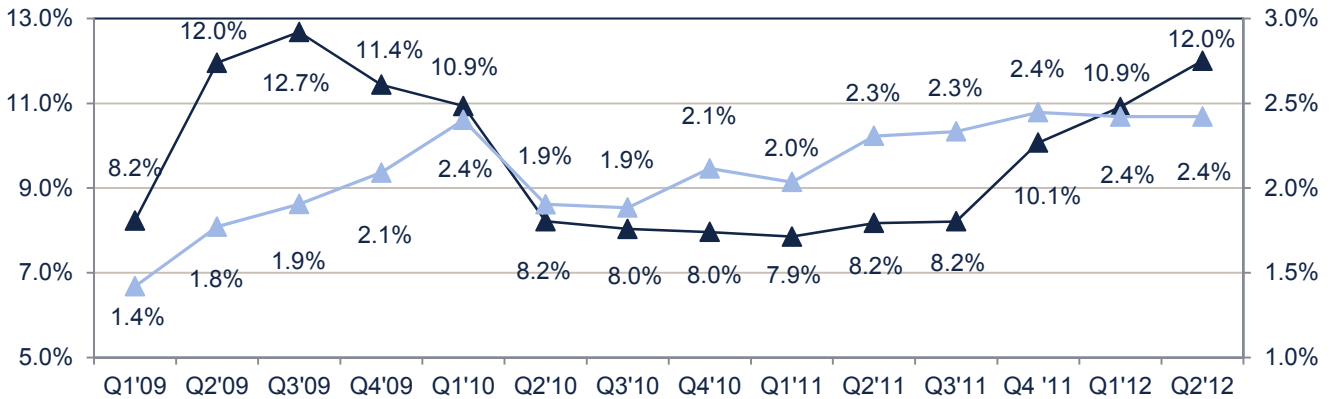
As our chart below illustrates, the trailing twelve month primary market spreads for U.S. hurricane exposed cat bonds widened further in the second quarter, although the Q2 data is somewhat distorted by the very large Everglades Re transaction. The weighted average risk premium for hurricane risk has increased to 12.0% from 8.2% in the second quarter of last year, while the weighted average expected loss for those bonds has moved to 2.4% from 2.3% over the same period.

The market for bonds not exposed to U.S. hurricane has been more stable as our chart demonstrates. The weighted average risk premium for non-hurricane risk has moved to 5.6% from 4.5% in the second quarter of last year, while the weighted average expected loss for those bonds has moved to 1.8% from 1.5% over the same period.

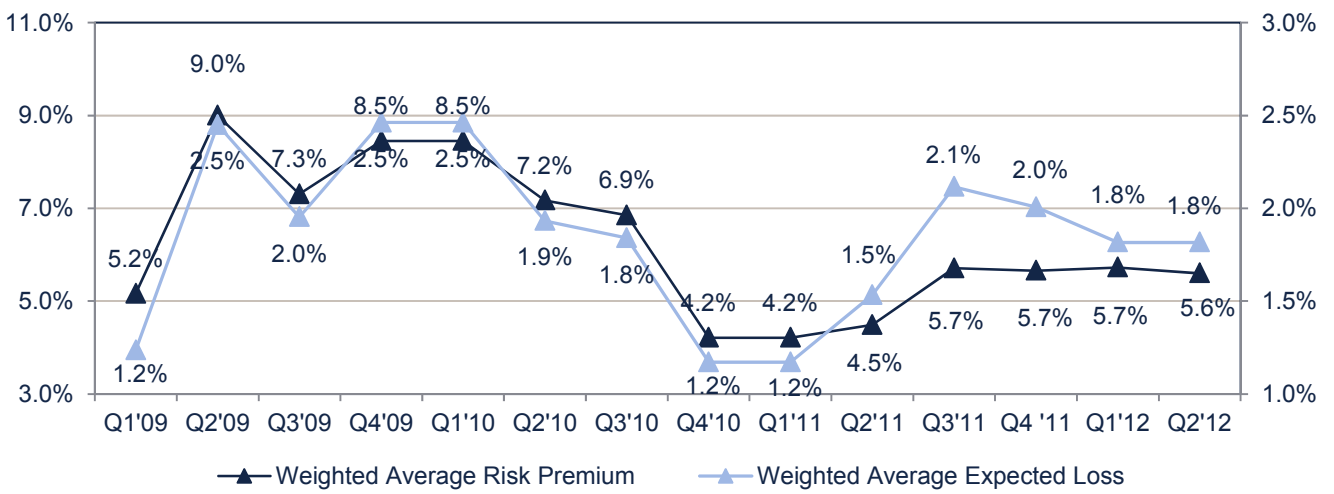
There is some evidence to suggest that the elevated spread levels seen in the primary market in the first half of 2012 may be beginning to tighten. Firstly, spreads have been tightening in the secondary market as reported in our summary above. Secondly, the final transaction of the quarter, Longpoint Re III for Travelers, closed below its initial guidance range on strong volume.

We believe the current market outlook is very encouraging. Reduced risk spreads as a result of strong investor demand and available capital should stimulate increased issuance from sponsors in the future. With \$3.4 billion of non-life issuance in the first half of the year we would expect the total issuance for this year to be in the \$5.5 billion to \$6.0 billion range. Clearly, a significant catastrophe event in the second half of the year could impact this prediction and stimulate incremental issuance later this year and into the first half of 2013.

### Quarterly LTM U.S. Wind Exposed Weighted Average Risk Premium and Expected Loss



### Quarterly LTM Non-U.S. Wind Exposed Weighted Average Risk Premium and Expected Loss



Source: WCMA Transaction Database as of June 30, 2012.

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