Aon Benfield

Insurance-Linked Securities

Q2 2017 Update

Empower Results®

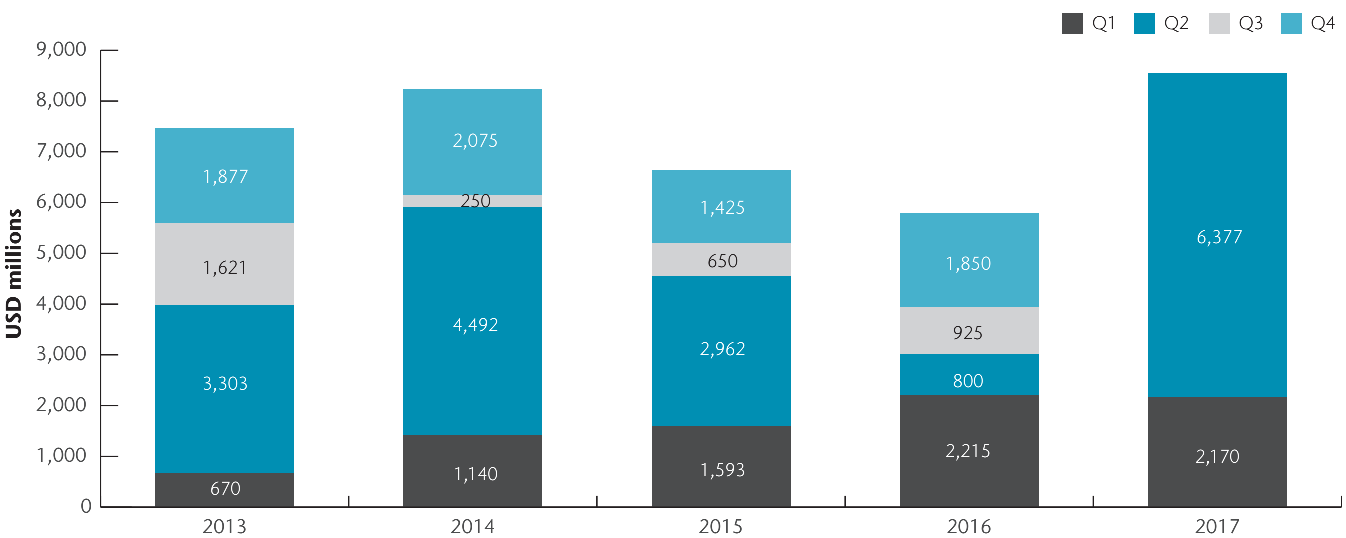
Second Quarter 2017 Catastrophe Bond Transaction Review

Ahead of the North America hurricane season, the catastrophe bond market climbed to new heights following an unmatched second quarter issuance total.

In the second quarter of 2017, a record USD6.38 billion of limit was placed—a USD1.89 billion increase from the prior record quarter set in Q2 2014. With USD2.17 billion of catastrophe bond limit placed in the first quarter of 2017, the two quarters combined set a new annual issuance record, surpassing the prior record established in 2007 when USD8.38 billion was placed for the full year.

The strong 2017 year is in part based on the renewal of the record amount of limit maturing in the first half of 2017. However, three new sponsors, favorable pricing, and the ability of alternative capital to provide significant capacity again and again, resulted in the expansion of the overall market. Outstanding catastrophe bond limit reached USD26.12 billion as of June 30, 2017—a new record height for the market.

Catastrophe Bond Issuance by Quarter



Source: Aon Securities Inc.

In the second quarter of 2017, USD4.17 billion of limit matured resulting in an over USD1 billion expansion of the overall catastrophe bond market as new issuance outpaced maturities.

The majority of issuance in the second quarter of 2017 came from returning sponsors to the catastrophe bond market. Of significance is the downward pressure seen on interest spreads and the ability of sponsors to capitalize on strong market demand to significantly upsize transaction sizes to secure meaningful capacity.

Second Quarter 2017 Catastrophe Bond Issuance

Beneficiary	Issuer	Series	Class	Size (millions)	Covered Perils	Trigger	S&P Rating	Expected Loss[1]	Interest Spread
Second Quarter									
Everest Reinsurance Company	Kilimanjaro II Re Limited	2017-1	A-1	$225.0	US/CAN/PR HU, EQ	Industry Index	Not Rated	6.34%	10.00%
			B-1	$400.0				4.21%	7.50%
			C-1	$325.0				2.86%	6.00%
		2017-2	A-2	$50.0				6.34%	10.00%
			B-2	$75.0				4.21%	7.50%
			C-2	$175.0				2.86%	6.00%
Louisiana Citizens Property Insurance Corporation	Pelican IV Re Ltd.	2017-1	A	$100.0	LA HU	Indemnity	Not Rated	0.96%	2.25%
Security First Insurance Company	First Coast Re Ltd.	2017-1	A	$175.0	FL HU, ST	Indemnity	Not Rated	2.01%	4.25%
American Integrity Insurance Company of Florida	Integrity Re Ltd.	2017-1	A	$72.0	FL HU	Indemnity	Not Rated	0.89%	3.25%
			B	$3.0				11.30%	14.50%
			C	$100.0				1.58%	4.00%
			D	$35.0				1.89%	4.25%
United Services Automobile Association	Residential Re Limited	2017-1	10	$50.0	US HU, EQ, WS, ST, WF, MI, OP	Indemnity	Not Rated	15.97%	17.50%
			11	$225.0			Not Rated	2.43%	4.75%
			13	$150.0			BB-	0.68%	3.00%
Nationwide Mutual Insurance Company	Caelus Re V Limited	2017-1	A	$75.0	US HU, EQ, ST, WS, WF, VE, MI, OP	Indemnity	Not Rated	0.95%	3.25%
			B	$150.0				1.85%	4.50%
			C	$75.0				3.55%	6.50%
			D	$75.0				5.77%	9.25%
Palomar Specialty Insurance Company	Torrey Pines Re Ltd.	2017-1	A	$45.0	US EQ	Indemnity	Not Rated	1.26%	3.00%
			B	$66.0	US EQ			2.09%	3.75%
			C	$55.0	US HU, ST, EQ			4.14%	6.25%
Citizens Property Insurance Corporation	Everglades Re II Ltd.	2017-1	A	$300.0	FL HU	Indemnity	Not Rated	2.28%	5.00%
Heritage Property & Casualty Insurance Company	Citrus Re Ltd.	2017-2	B	$35.0	FL, GA, NC, SC HU	Indemnity	Not Rated	7.14%	10.75%
California Earthquake Authority	Ursa Re Ltd.	2017-1	B	$425.0	CAL EQ	Indemnity	Not Rated	1.11%	3.50%
			E	$500.0				3.33%	6.00%
Metropolitan Transportation Authority	MetroCat Re Ltd.	2017-1	A	$125.0	NY HU, Storm Surge, EQ	Parametric Index	Not Rated	2.27%	3.70%
Texas Windstorm Insurance Association	Alamo Re Ltd.	2017-1	A	$400.0	TX HU, ST	Indemnity	Not Rated	1.88%	3.75%
Great American Insurance Company	Riverfront Re Ltd.		A	$142.50	US/CAN HU, EQ, ST, WS, WF, VE, MI	Indemnity	Not Rated	1.09%	4.50%
			B	$47.5	US/CAN HU, EQ, ST, WS			2.58%	6.25%
Castle Key Insurance Company	Sanders Re Ltd.	2017-2	A	$200.0	FL HU, ST, VE, MI, WF	Indemnity	Not Rated	0.84%	3.25%
Avatar Property and Casualty Insurance Company	Casablanca Re Ltd.	2017-1	A	$66.95	FL HU	Indemnity	Not Rated	0.96%	3.75%
			B	$26.3				2.08%	5.25%
			C	$6.75				10.99%	16.00%
Massachusetts Property Insurance Underwriting Association	Cranberry Re Ltd.	2017-1	A	$350.0	MA HU, ST, WS	Indemnity	Not Rated	0.47%	2.00%
Tokio Millennium Re AG	Spectrum Capital Ltd.	2017-1	A	$160.0	US/CAN EQ; US NS, ST, WS, WF	Industry Index	Not Rated	3.05%	5.75%
			B	$270.0				1.45%	3.50%
Assicurazioni Generali S.p.A	Lion II Re DAC			$226.0	EU WS, FL; IT EQ	Indemnity	Not Rated	2.24%	3.00%
AXIS Specialty Limited	Northshore Re II Limited	2017-1	A	$350.0	US HU; US/CAN EQ	Industry Index	Not Rated	4.67%	7.25%
Total Closed During Q2 2017				$6,377.20					

1 *Expected loss represents initial one-year annualized figures with WSST sensitivity or RMS Medium-Term Rates when applicable*

The figures above include Windmill I Re Ltd. 2017-1 placed privately by Aon Securities

Source: Aon Securities Inc.

Legend

CAL – California
CAN – Canada
FL – Florida
GA – Georgia
LA – Louisiana
MA – Massachusetts
NC – North Carolina
NY – New York
PR – Puerto Rico
SC – South Carolina
TX – Texas
EQ – Earthquake
HU – Hurricane
MI – Meterorite Impact
OP – Other Peril
ST – Severe Thunderstorm
VE – Volcanic Eruption
WF – Wildfire
WS – Winter Storm

Highlights of Q2 2017

New Sponsors

Of the new sponsors to the market during Q2 2017, Casablanca Re Ltd. and Integrity Re Ltd. are both first time issuances by Florida specialty companies. Casablanca Re Ltd., issued on behalf of Avatar Property and Casualty Company covers the peril of Florida named storm. Notably, throughout the marketing process, the size of the bond was decreased from initial guidance and then upsized to settle at initially marketed target size. Integrity Re Ltd. was issued on behalf of American Integrity Insurance Company of Florida and covers the perils of Florida named storm and severe thunderstorm. The series has four tranches and both Class A and B cover second and subsequent events for the sponsor. Additionally, Torrey Pines Re Ltd. was issued on behalf of first time sponsor, Palomar Specialty Insurance Company. The first two classes of the three classes of notes cover earthquake risks, while the third tranche covers multiple perils including named storm and severe thunderstorm in addition to earthquake. Torrey Pines Re Ltd. was able to achieve 16 percent upsize from its initial guidance.

Spectrum Capital Ltd. was issued on behalf of Tokio Millennium Re AG (TMR) and is TMR's first 144A transaction. Spectrum Capital Ltd. utilized Aon's CATstream® program, a platform that was first utilized in 2016 by Blue Halo Re. CATstream® allows for an expedited transaction structuring and issuance process which coupled with investor demand allowed Spectrum Capital to upsize from its initial target size of USD250 million to USD430 million. The Class A notes provide annual aggregate protection and priced at the low end of reduced guidance. The Class B notes provide per occurrence for second and subsequent events protection and priced at the low end of the narrowed range of guidance.

Repeat Sponsors

In the second quarter the market saw the third largest catastrophe bond ever, the USD1.25 billion Kilimanjaro II Re Limited Series 2017-1 and Series 2017-2 transaction on behalf of Everest Reinsurance Company. The Series 2017-1 notes issued under the new program provide annual aggregate protection against U.S., Puerto Rico and Canada weighted industry insured losses for a four-year term, while the Series 2017-2 offer the same protection for a five-year term. The covered events are named storm events and earthquake events. Investor demand allowed the transaction to upsize by more than 100 percent from an initial USD600 million to USD1.25 billion in total across the six offered classes within the two series. Upon close, Kilimanjaro II Re Limited will combine with the prior outstanding Kilimanjaro Re Limited issuances to total USD2.82 billion in outstanding limit, making Everest the largest sponsor in the catastrophe bond market.

The USD375 million Caelus Re V Limited Series 2017-1 transaction on behalf of Nationwide Mutual Insurance Company ("Nationwide Mutual") is the inaugural catastrophe bond transaction from the Caelus Re V Limited program and sixth overall on behalf of Nationwide Mutual. The latest program is the first to offer annual aggregate cover to the benefit of Nationwide Mutual. The four classes of notes provide a combined USD375 million of collateralized reinsurance protection on an indemnity basis for U.S. perils. Of note, Other Peril is a new coverage addition relative to Caelus Re IV Limited Series 2016-1 placed last year. The transaction was well received by the market, pricing at the lower end of initial price guidance across all four classes. The transaction was also upsized by USD75 million over initial guidance.

Public Sector Sponsors

Six different public entities came to the market during Q2 2017, issuing USD2.2 billion of catastrophe bonds across a variety of regions and covered perils. All six were repeat sponsors, showing the continued support of alternative capital in privatizing public risks.

- **Pelican IV Re Ltd.**—Louisiana Citizens property residual market returned with its fourth offering covering the peril of Louisiana hurricane. Due to investor demand, the issuance was able to price at the low end of reduced guidance.
- **Everglades Re II Ltd.**—Florida Citizens property residual market returned with its fifth offering covering the peril of Florida Hurricane. The issuance priced at the low end of reduced guidance while also achieving an increase in size.
- **Ursa Re Ltd.**—California Earthquake Authority's seventh overall offering and largest offering to date. The transaction upsized 85 percent to become the fifth largest catastrophe bond issued by the market.
- **MetroCat Re Ltd.**—The New York Metropolitan Transportation Authority issued its second catastrophe bond covering the perils of storm surge when caused by New York hurricanes and earthquakes.
- **Alamo Re Ltd.**—Texas Windstorm Insurance Association's third Alamo Re catastrophe bond has added severe thunderstorm as a covered peril in addition to Texas named storm. The issuance priced at the low end of reduced guidance while also achieving an increase in size.
- **Cranberry Re Ltd.**—Massachusetts Property Insurance Underwriting Association's issued its third catastrophe bond covering the perils of Massachusetts named storm, severe thunderstorm and winter storm. The issuance priced at the low end of reduced guidance while also achieving an increase in size.

Secondary Trading Update

Supported by the record-breaking primary issuance during the second quarter of 2017, secondary trading activity increased following four consecutive quarters of declining activity. According to FINRA's Trade Reporting and Compliance Engine (TRACE), there were 231 trades totaling USD236.4[3] million during the period. This represented a six percent increase in the number of trades, and a decrease in dollar volume of four percent compared to the same time period in 2016. When compared to more recent TRACE reported trading activity, the number of trades increased 32 percent from Q1 2017 and dollar volume increased 14 percent from Q1 2017.

One bond reported 10 trades or more—Aozora Re Ltd Series 2017-1, proving the ongoing interest in diversifiers even as numerous primary issuances were being offered.

The high increase in number of trades while compared against the lower increase in dollar volume is due to several reasons, including new, smaller funds that entered the space during the quarter as well as established funds rebalancing their portfolios upon receiving allocations from the numerous primary issuances available. The substantial number of new issuances also meant that the usual slowdown in trading that occurs around the beginning of the hurricane season did not occur this year, with a more active June than in the prior year.

3 *Note that this is an underestimate of total market volume as trades in bonds rated below investment grade are capped at $1 million and foreign trades as well as trades by non-US broker dealers are excluded*

Aon ILS Indices

The Aon ILS Indices are calculated by Bloomberg using month-end price data provided by Aon Securities Inc.

During the second quarter of 2017, all Aon ILS Indices posted gains, although at a slower rate from the same time period the prior year. The Aon All Bond index and U.S. Hurricane Bond index achieved the greatest growth with returns of 1.06 and 1.14 percent, respectively. The BB-rated Bond and U.S. Earthquake Bond indices followed with returns of 0.95 and 0.87 percent, respectively. The Aon ILS Indices performed with mixed results relative to benchmarks, but did outperform the 3 to 5 year US Treasury Notes Index.

Following in the same trend, the annual returns for all Aon ILS Indices achieved gains but did not surpass the prior year's annual returns. The 10-year average annual return of the Aon All Bond Index, 7.50 percent, outperformed the majority of the comparable benchmarks and reinforces the value of a diversified book of pure insurance risks for investors' portfolios over the long term.

Aon ILS Indices[2]

Index Title	Return for Quarterly Period Ended June 30		Return for Annual Period Ended June 30	
Aon ILS Indices	2017	2016	2017	2016
All Bond Bloomberg Ticker (AONCILS)	1.06%	1.67%	2.10%	3.50%
BB-rated Bond (AONCBB)	0.95%	1.39%	1.94%	2.84%
U.S. Hurricane Bond (AONCUSHU)	1.14%	1.66%	1.79%	2.39%
U.S. Earthquake Bond (AONCUSEQ)	0.87%	1.92%	2.08%	3.03%
Benchmarks				
3-5 Year U.S. Treasury Notes (BEUSG2)	0.64%	1.20%	1.23%	3.72%
3-5 Year BB U.S. High Yield (J2A1)	2.00%	3.97%	3.29%	6.93%
S&P 500 (SPX)	2.57%	1.90%	8.24%	2.69%
ABS 3-5 Year, Fixed Rate (R2A0)	1.27%	1.94%	2.50%	3.35%
CMBS 3-5 Year, Fixed Rate (CMB2)	1.05%	1.63%	1.72%	4.03%

Source: Aon Securities Inc. and Bloomberg

[2] The 3-5 Year U.S. Treasury Note index is calculated by Bloomberg and simulates the performance of U.S. Treasury notes with maturities ranging from three to five years.

The 3-5 Year BB U.S. High Yield index is calculated by Bank of America Merrill Lynch (BAML) and tracks the performance of U.S. dollar denominated corporate bonds with a remaining term to final maturity ranging from three to five years and are rated BB1 through BB3. Qualifying securities must have a rating of BB1 through BB3, a remaining term to final maturity ranging from three to five years, fixed coupon schedule and a minimum amount outstanding of $100 million. Fixed-to-floating rate securities are included provided they are callable within the fixed rate period and are at least one year from the last call prior to the date the bond transactions from a fixed to a floating rate security.

The S&P 500 is Standard & Poor's broad-based equity index representing the performance of a broad sample of 500 leading companies in leading industries. The S&P 500 Index represents price performance only, and does not include dividend reinvestments or advisory and trading costs.

The ABS 3-5 Year, Fixed Rate index is calculated by BAML and tracks the performance of U.S. dollar denominated investment grade fixed rate asset backed securities publicly issued in the U.S. domestic market with terms ranging from three to five years. Qualifying securities must have an investment grade rating, a fixed rate coupon, at least one year remaining term to final stated maturity, a fixed coupon schedule and an original deal size for the collateral group of at least $250 million.

The CMBS 3-5 Year, Fixed Rate index is calculated by BAML and tracks the performance of U.S. dollar denominated investment grade fixed rate commercial mortgage backed securities publicly issued in the U.S. domestic market with terms ranging from three to five years. Qualifying securities must have an investment grade rating, at least one year remaining term to final maturity, a fixed coupon schedule and an original deal size for the collateral group of at least $250 million.

The performance of an index will vary based on the characteristics of, and risks inherent in, each of the various securities that comprise the index. As such, the relative performance of an index is likely to vary, often substantially, over time. Investors cannot invest directly in indices.

Contact

Paul Schultz
Chief Executive Officer, Aon Securities Inc.
+1.312.381.5256
paul.schultz@aonbenfield.com

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Aon Benfield, a division of Aon plc (NYSE: AON), is the world's leading reinsurance intermediary and full-service capital advisor. We empower our clients to better understand, manage and transfer risk through innovative solutions and personalized access to all forms of global reinsurance capital across treaty, facultative and capital markets. As a trusted advocate, we deliver local reach to the world's markets, an unparalleled investment in innovative analytics, including catastrophe management, actuarial and rating agency advisory. Through our professionals' expertise and experience, we advise clients in making optimal capital choices that will empower results and improve operational effectiveness for their business. With more than 80 offices in 50 countries, our worldwide client base has access to the broadest portfolio of integrated capital solutions and services. To learn how Aon Benfield helps empower results, please visit aonbenfield.com.

About Aon

Aon plc (NYSE:AON) is a leading global professional services firm providing a broad range of risk, retirement and health solutions. Our 50,000 colleagues in 120 countries empower results for clients by using proprietary data and analytics to deliver insights that reduce volatility and improve performance.

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Aon Securities Inc. and Aon Securities Limited (collectively, "Aon Securities") provide insurance and reinsurance clients with a full suite of insurance-linked securities products, including catastrophe bonds, contingent capital, sidecars, collateralized reinsurance, industry loss warranties, and derivative products.

As one of the most experienced investment banking firms in this market, Aon Securities offers expert underwriting and placement of new debt and equity issues, financial and strategic advisory services, as well as a leading secondary trading desk. Aon Securities' integration with Aon Benfield's reinsurance operation expands its capability to provide distinctive analytics, modeling, rating agency, and other consultative services.

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