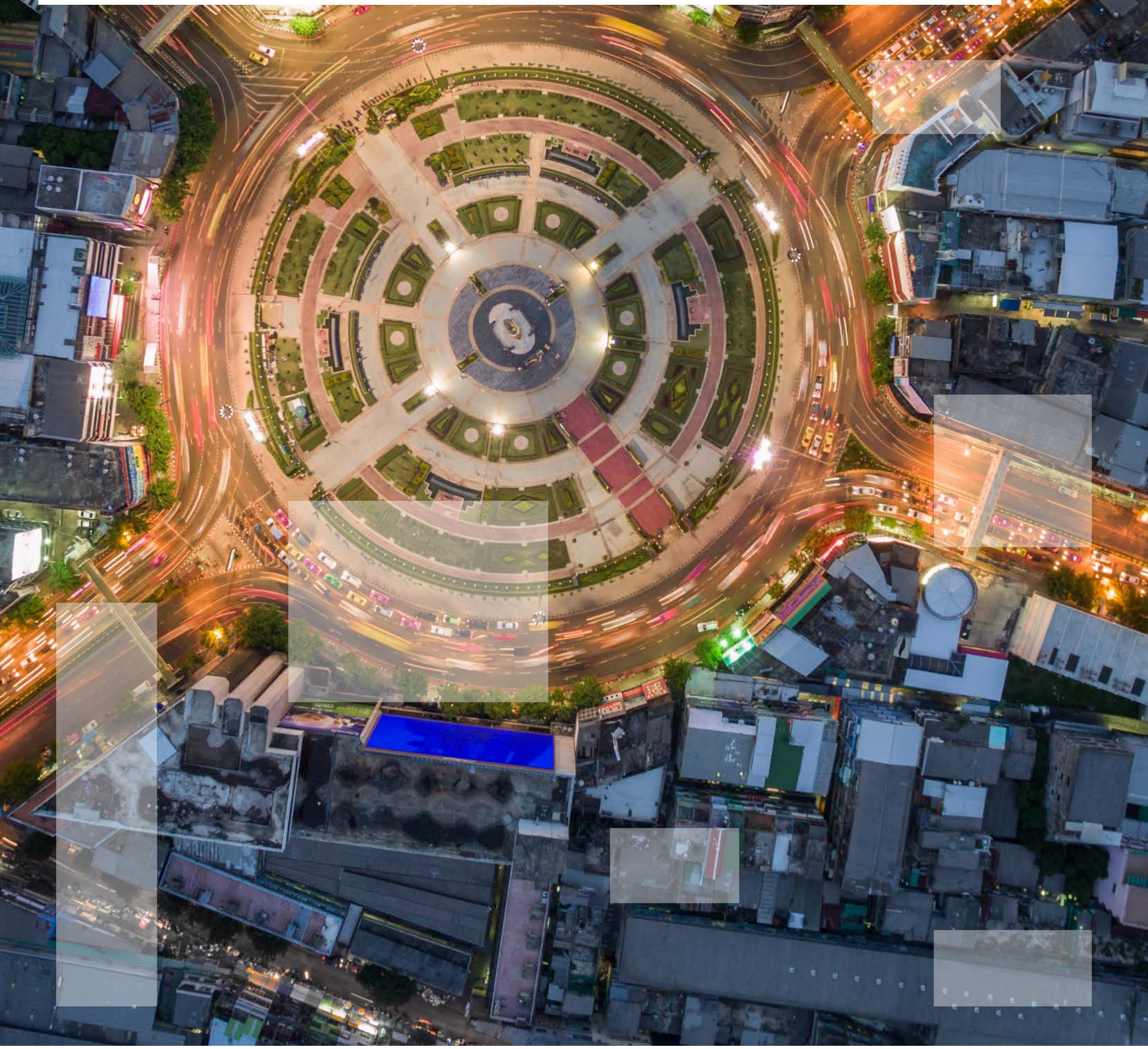
ILS Market Update

Reloaded and ready

April 2018



Willis Towers Watson Securities

ILS Market Update

Q1 2018 market perspective: Reloaded and ready

ILS expansion continues. Investors have fully reloaded and are now putting capital to work in the lead-up to the crucial 6/1 Florida renewal date. What was wrong with the thesis that investors would cut and run with cat losses and rising interest rates? Why did so many people outside of the immediate ILS space get this wrong for so long? The simple answer is that those making the arguments were "talking their books" without regard to facts. A more charitable view is that they misunderstood some ILS basics.

Investors were ready for headline news cat losses

The cat losses are the easy piece. Most end investors expect to take losses over time, especially from TV news type events. The marketing of ILS fund investments and direct investments makes this risk and others crystal clear. Perhaps some end investors are disappointed that the 2017 losses did not seem to at least create broad-based capacity constraints driving up pricing across the board. A bigger problem would have occurred and will occur when similar cat losses at an industry level come from a surprise source (e.g., an ice storm in Miami). Interestingly, the investors were so well prepared that many former investors, not currently active in the sector, looked at reengaging post-event.

"Some reinsurers and pundits have told anyone who would listen that rising interest rates would cause ILS to disappear. This has been proved wrong."

An increase in risk-free interest rates may actually have helped ILS

Some reinsurers and pundits have told anyone who would listen that rising interest rates would cause ILS to disappear. This has proved wrong in two respects. First, most end investors make long-term and slow commitments to ILS and do not rapidly reallocate away based on short-term rate changes. In fact, this is not how they behave with changes in allocations to any asset class, not just ILS.

In addition, the cause of the changes in rates is really important. If you simplistically think of interest rates as having two components, a risk-free rate for the time value of money and a credit spread, it is only long-term changes in credit spreads that might cause some reallocation away from ILS. That is because a rising risk-free rate increases ILS collateral yields without changing the perceived risk of the highly rated stable value assets such as U.S. Treasury money market funds that serve as typical assets. In contrast a prolonged, not just a cyclical, change in fundamental credit risk would potentially shift demand toward or away from ILS, albeit slowly.

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"By the way it operates, the ILS placement process is simply more efficient."

"We will continue to see a trend toward true syndication with less and less market power for large leading markets."

The power of full syndication: a necessary evolution of the reinsurance placement method

A bonus explanation for why the ILS market didn't stall out in 2017 and is well primed for the future is that ILS distribution can sometimes work against the cartel-like behavior of lead markets. The "syndication" in syndicated traditional reinsurance placements and the true syndication in a securities placement actually differ to some degree. In a traditional placement, the ability of the lead markets to either support or not support firm order terms as well as their implied renewal rights gives the lead markets enormous market power to increase rates and squeeze out competition.

Fans of the traditional process say that lead markets have proven their value to insurers over the long term. This then justifies additional value paid to them. In particular, large reinsurers have (largely) demonstrated their ability and willingness to pay claims post-event, which is fundamentally what reinsurance is about. On the contrary, the same argued that ILS were untested and that their resilience over the cycle was overrated.

Recent events, however, have proved this line of thought wrong. On the contrary, ILS's splendid behavior at the January 1 renewal, in the face of reluctant reinsurers, proves the point: Assuming a similar or better claims-paying ability, it is the rate-on-line that determines the competiveness of a reinsurer.

By the way it operates, the ILS placement process is simply more efficient. In an ILS placement, the market speaks without the ability for one or two large players to dictate price or be in a position to hold up a deal. There are no Firm Order Terms but simply risk spreads where the forces of supply and demand meet. Generally speaking, new and old investors who match the market clearing rate can participate on equivalent terms, thus eliminating the supply constraining impact of renewal rights.

* * * * *

What does all of this mean for the next 12 months? First, without a true surprise loss, end investors will continue to allocate capacity to ILS. Second, further increases in government yields will be neutral or maybe even slightly positive for ILS. Finally, even more important, we will continue to see a trend toward true syndication with less and less market power for large leading markets. This will all put the reinsurance cycle on life support or worse.

ILS Market Update

Q1 2018 ILS market issuance overview

"Breaking Q1 2016's record, the first quarter of 2018 was the largest ever issuance first quarter in the history of the non-life ILS market."

The first quarter of 2018 saw $3.1 billion of underwritten widely distributed non-life ILS capacity issued through five cat bonds (Q1 2017 saw $1.7 billion issued through five bonds). Breaking Q1 2016's record of $2.0 billion, the first quarter of 2018 was the largest ever issuance first quarter in the history of the non-life ILS market. But unlike Q2 2016 when only $1.0 billion of capacity was issued in the second quarter, we expect a robust pipeline in the second quarter of 2018 as well.

Other than the Allstate bond Sanders Re 2018-1 A, the first quarter was dominated by diversifying transactions. Indeed, the other deals were sponsored by the four Pacific Alliance countries (Mexico and the first-time sponsors Chile, Colombia and Peru) and by repeat Japanese cedants: Zenkyoren, Mitsui Sumitomo Insurance (with its sister company Aioi Nissay Dowa Insurance) and Tokio Marine & Nichido Fire.

"The first transaction of the year saw the governments of Chile, Colombia, Mexico and Peru accessing the capital markets to secure $1.36 billion of cover."

The first transaction of the year saw the governments of Chile, Colombia, Mexico and Peru accessing the capital markets to secure $1.36 billion of parametric cover on a per occurrence basis. This is the largest sovereign risk insurance transaction ever. The deal was facilitated by the World Bank issuing five tranches of Catastrophe-Linked Capital at Risk Notes. The CAR Series 116 Notes provide protection against Chilean Earthquake across a three-year term. They have an expected loss of 0.86% and priced at 2.50% while upsizing from $300 million to $500 million. The CAR Series 117 Notes provide protection against Colombian Earthquake over a three-year term. They have an expected loss of 1.56% and priced at 3.00% while upsizing from $300 million to $400 million. The Class A Series 118 Notes and the Class B Series 119 Notes provide protection against Mexican Earthquake over a two-year term. Class A has an expected loss of 0.79% and priced at 2.50% while upsizing from $140 million to $160 million. The riskier Class B has an expected loss of 6.54% and priced at 8.25% while upsizing from $85 million to $100 million. Finally, the CAR Series 120 Notes provide protection against Peruvian Earthquake over a three-year term. They have an expected loss of 5.00% and priced at 6.00% while upsizing from $175 million to $200 million. All classes priced below the initial guidance.

After its latest issue in September 2016, Zenkyoren came back to the market with Nakama Re 2018-1. The two LIBOR-based tranches, which cover Japanese quake, amount to $700 million of cover. Both tranches feature an indemnity trigger and provide aggregate cover for three overlapping three-year risk periods for a total term of five years. Class 1 with an expected loss of 0.48% priced at the lower end of the initial guidance settling at 2.00% while upsizing from $200 million to $500 million in size. Class 2 with an expected loss of 1.44% also priced at the bottom of the initial guidance settling at 3.00% and upsized from $50 million to $200 million.

"MSI and its sister company ADI are the sponsors of the $320 million Akibare Re 2018-1."

MSI and its sister company ADI are the sponsors of the $320 million Akibare Re 2018-1. The cover provides four years of indemnity protection against Japanese events on a per-occurrence basis. The bond is denominated in USD but the attachment and exhaustion points are still expressed in JPY terms. The Class A tranche covers MSI against losses from typhoons, floods and earthquake-related fire events. It has an expected loss of 0.73% and priced at 1.90% while upsizing from $150 million to $220 million. The Class B tranche benefits ADI with protection against losses from typhoons and floods. It has an expected loss of 0.99% and priced at 1.90% while upsizing from $75 million to $100 million.

ILS Market Update

Q1 2018 ILS market issuance overview

Non-life Q1 2018 ILS issuance(a)

($ in millions)

Sponsor	Issuer/Tranche	Issue	Maturity	Amount	EL	Spread	Basis	Risk	Trigger
Allstate	Sanders Re 2018-1 A	Mar-18	Apr-22	$500	0.71%	5.50%	OCC / AGG	Peak multiperil	Indemnity
TMNF	Kizuna Re II 2018-1 A	Mar-18	Apr-23	$150	0.12%	1.88%	TERM AGG	Japan Quake	Indemnity
TMNF	Kizuna Re II 2018-1 B	Mar-18	Apr-23	$50	1.00%	2.50%	TERM AGG	Japan Quake	Indemnity
MSI	Akibare Re 2018-1 A	Mar-18	Aug-22	$220	0.73%	1.90%	OCC	Diversifying multiperil	Indemnity
ADI	Akibare Re 2018-1 B	Mar-18	Aug-22	$100	0.99%	1.90%	OCC	Diversifying multiperil	Indemnity
Zenkyoren	Nakama Re 2018-1 1	Mar-18	Apr-23	$500	0.48%	2.00%	TERM AGG	Japan Quake	Indemnity
Zenkyoren	Nakama Re 2018-1 2	Mar-18	Apr-23	$200	1.44%	3.00%	TERM AGG	Japan Quake	Indemnity
Rep. of Chile	IBRD CAR 116	Feb-18	Feb-21	$500	0.86%	2.50%	OCC	Chile Quake	Parametric
Rep. of Colombia	IBRD CAR 117	Feb-18	Feb-21	$400	1.56%	3.00%	OCC	Colombia Quake	Parametric
FONDEN	IBRD CAR 118 A	Feb-18	Feb-20	$160	0.79%	2.50%	OCC	Mexico Quake	Parametric
FONDEN	IBRD CAR 119 B	Feb-18	Feb-20	$100	6.54%	8.25%	OCC	Mexico Quake	Parametric
Rep. of Peru	IBRD CAR 120	Feb-18	Feb-21	$200	5.00%	6.00%	OCC	Peru Quake	Parametric
		Q1'18 Total:		**$3,080**					

Source: Willis Towers Watson Securities Transaction Database as of 3/31/2018. Aggregate data exclude most private ILS deals.
(a) All issuance amounts reported in or converted to USD on date of issuance. EL for HU deals is based on WSST conditioned catalog for AIR and medium-term catalog for RMS.

Tokio Marine Nichido Fire secured $200 million of protection against Japanese Earthquake through Kizuna Re II 2018-1 for a five-year risk period. The two tranches feature a three-year aggregate indemnity trigger where losses can accumulate over each of the three overlapping three-year risk periods. The $150 million Class A priced at the midpoint of the initial guidance settling at 1.875%. The $50 million Class B priced at the bottom of the initial guidance settling at 2.50%.

"Q1 2018 also saw the issuance of Aetna's Vitality Re IX."

After its two issuances in 2017, Allstate came back to market with Sanders Re 2018-1. The bond will cover the sponsor against named storms, earthquakes, severe thunderstorms, fires and other perils in all U.S. states except for Florida and New Jersey. The structure has a risk period of four years, and it features an indemnity trigger working both on a per-occurrence and an annual aggregate basis. The bond was upsized by 25% from an initial size of $400 million to $500 million and priced at a spread of 5.50%, at the bottom of the initial guidance.

Q1 2018 also saw the issuance of Aetna's Vitality Re IX. The bond will cover Aetna for a four-year period against an increase in its medical benefit ratio (MBR). The Class B Notes have an expected loss of 16 bps while the Class A Notes have the usual expected loss lower than 1 bps. Both tranches priced below the initial guidance: Class A tranche's coupon is 1.60% and Class B's coupon is 1.75%.

ILS Market Update

Interview: Pierre Michel – General Manager for Reinsurance and International Operations at Covéa Group

Pierre Michel is general manager for reinsurance and international operations at Covéa Group.

After starting his career with the French insurance regulatory authority in 1993, Pierre became part of the EU Commission's Insurance and Pension Funds division in Brussels from 1995 to 1998. He then joined the reinsurance sector, where he held several senior positions in underwriting, actuarial, finance and general management at Partner Re and CCR. From 2014 until 2016, Pierre was director general of FFSA, the French insurers' professional association

Pierre Michel – General Manager
for Reinsurance and International Operations at Covea Group

"We perceive ILS to be a natural way to diversify our reinsurance capacity, with the goal of ensuring stability of supply through the cycle as well as better cost control."

Covéa has recently sponsored its first cat bond, Hexagon Re: What were the motivations behind this project?

Covéa is France's largest domestic insurer. Our exposure to natural cat risks in France is therefore second to none and, speaking only of French windstorm risk for instance, we currently purchased a €1.7 billion cat program to cover it. This makes us one of the largest European buyers of reinsurance coverage. As a result, we rely on the behavior of our traditional reinsurers and monitor very closely our credit risk exposure. In that context, we perceive ILS to be a natural way to diversify our reinsurance capacity, with the goal of ensuring stability of supply through the cycle as well as better cost control.

There was another ancillary but not negligible benefit for Covéa: As a very well-capitalized mutual, Covéa has had limited experience with capital raising. It was perceived by management that Hexagon Re would be a learning experience for the group, around a collaborative internal project. Ultimately, Hexagon Re was a strategic purchase but built on a solid financial rationale.

Why now and not before?

We have been studying the ILS market for many years. We met with investors over the years at various market events to evaluate the potential of a cat bond for us. Notably, we witnessed that the terms and conditions of cat bonds were becoming more and more in line with traditional reinsurance. As the space demonstrated its resilience and efficiency, we realized that it was becoming possible to sponsor a cat bond at satisfactory financial terms for us and, with the help of our advisors, we performed a feasibility study to identify a suitable working structure. Based on the positive conclusions of this study, I was confident that the project was viable and decided to bring it to the group executive committee for approval.

Note: The views expressed herein by the people interviewed are their personal views and do not reflect the views of their employer or Willis Towers Watson Securities or their respective affiliates.

Interview: Pierre Michel – General Manager for Reinsurance and International Operations at Covéa Group

"This reminded to all the strategic importance of reinsurance for the organization as a key tool to protect earnings and optimize capital."

How did you select the terms and conditions of your first instrument?

A key condition was that Hexagon Re had to replicate as much as possible our traditional reinsurance as we did not want to create a coverage gap in our program. In addition, achieving efficient pricing was key: This limited our flexibility as the cost of traditional reinsurance for most of the layers on our program are below ILS investors' minimum rates on line. This is why we took a reverse approach and decided to go much closer to the risk, to give investors more yield, which many of them had told us they would like to receive. We are happy with the placement of Hexagon Re: Investors' receptivity was excellent and the roadshow gave us an opportunity to meet the market face to face, to start building relationships that, I hope, will be as long-lasting as those we have with our traditional partners.

Are there features of the cat bond product that you would like to see change or evolve?

Our advisors had warned us: The main criticism I have is that sponsoring a cat bond for the first time is very demanding in terms of wording, documentation and formalities. Certainly, Hexagon Re was a very good learning experience for my team, but dealing with traditional reinsurers is significantly more flexible and, indeed, business friendly. The good side of this is that it puts reinsurance at the center of a collaborative project, where we had to work with our colleagues of legal, finance, tax, claims and so on. This reminded to all the strategic importance of reinsurance for the organization as a key tool to protect earnings and optimize capital.

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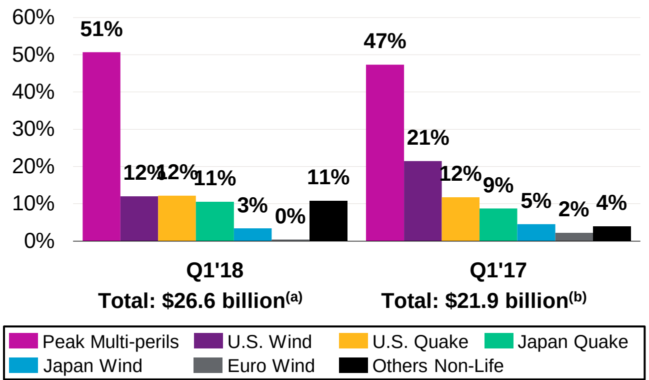
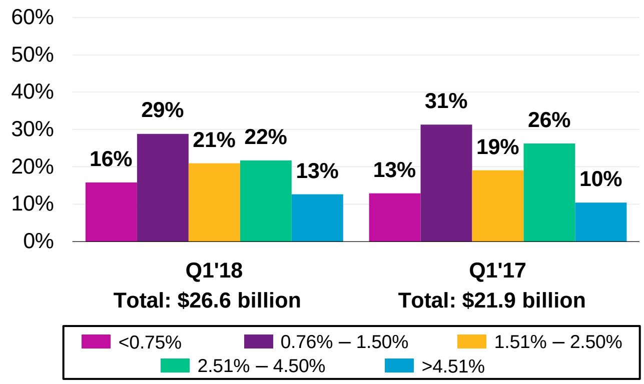
ILS Market Update

Q1 2018 ILS market statistics

Par outstanding by risk peril

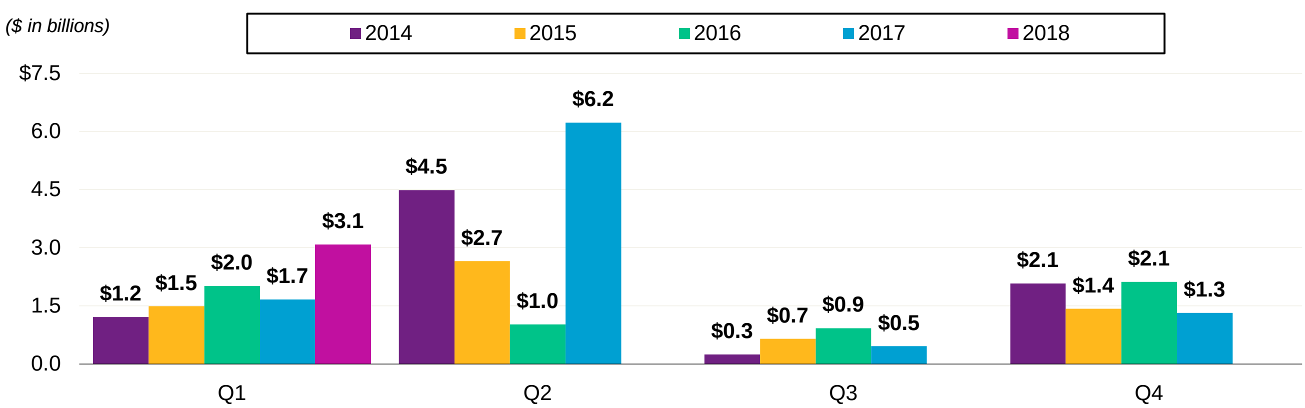


Par outstanding by expected loss at issuance

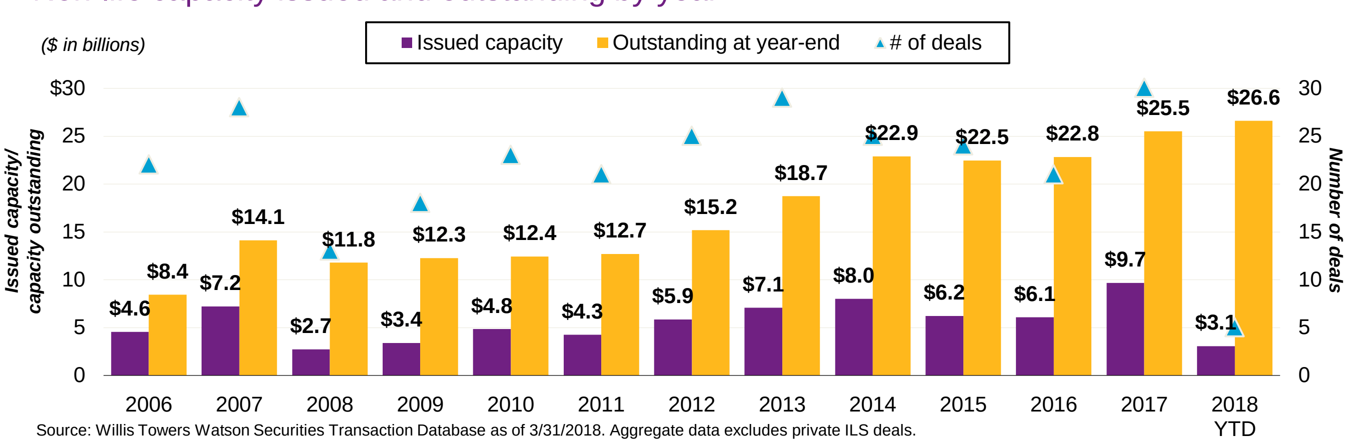


Source: Willis Towers Watson Securities Transaction Database as of 3/31/2018.
(a) In aggregate, 63% of all capacity outstanding exposed to U.S. Wind.
(b) In aggregate, 69% of all capacity outstanding exposed to U.S. Wind.

Non-life ILS issuance by quarter (2014 – 2018)(c)



Non-life capacity issued and outstanding by year(c)



Source: Willis Towers Watson Securities Transaction Database as of 3/31/2018. Aggregate data excludes private ILS deals.
(c) All issuance amounts reported in or converted to USD on date of issuance. Outstanding amounts adjusted for actual principal losses.

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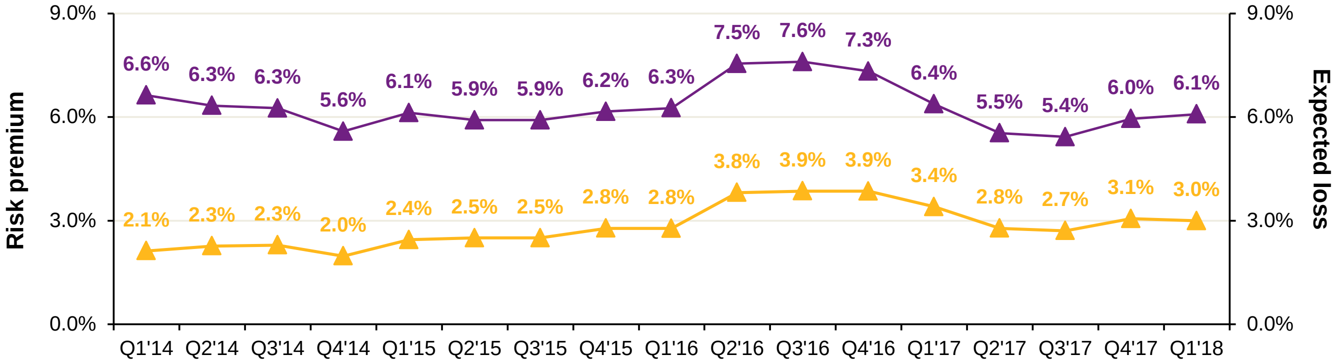
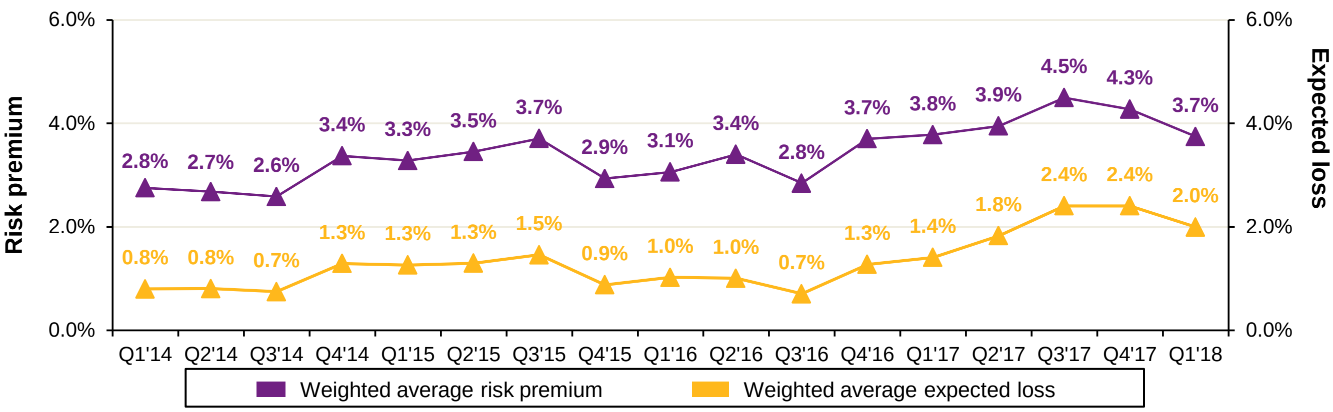
Q1 2018 ILS market statistics

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: Willis Towers Watson Securities Transaction Database as of 3/31/2018. Aggregate data excludes private ILS deals.
LTM = Last 12 months. Aggregate data are for primary issuance and do not reflect secondary trading.

Secondary market trading overview

"The primary issuance was in full swing."

With the 2017 events behind us, investors spent much of the quarter managing expectations for increased returns and following loss developments for the various 2017 events. Retentions have been eroded, and the mark-to-market of affected aggregate bonds yielded a few surprises over the quarter. Winter storm Riley added further losses to these same bonds.

The primary issuance was in full swing, which gave plenty of opportunity for funds to rebalance portfolios. The secondary market was well bid with a broad spectrum of perils and geographies trading. Interestingly, much of the primary issuance was non-U.S. peak peril and as a consequence, even the U.S. Wind bonds are sought after in the secondary market.

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About Willis Towers Watson

Willis Towers Watson (NASDAQ: WLTW) is a leading global advisory, broking and solutions company that helps clients around the world turn risk into a path for growth. With roots dating to 1828, Willis Towers Watson has 40,000 employees serving more than 140 countries. We design and deliver solutions that manage risk, optimize benefits, cultivate talent, and expand the power of capital to protect and strengthen institutions and individuals. Our unique perspective allows us to see the critical intersections between talent, assets and ideas — the dynamic formula that drives business performance. Together, we unlock potential. Learn more at willistowerswatson.com.

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