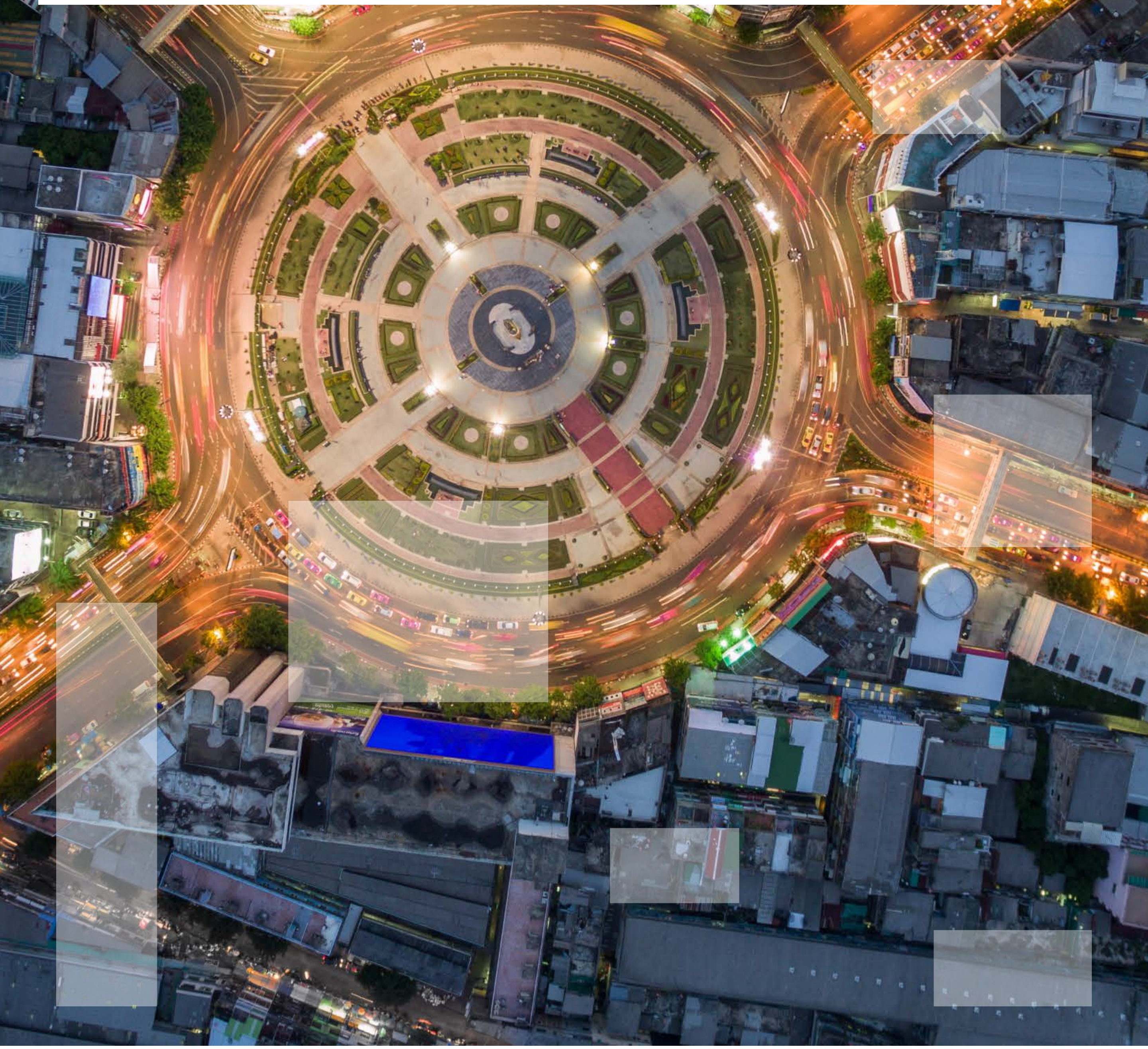
ILS Market Update

ILS Market Update: Slow return to normal

August 2019



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ILS Market Update

Q2 2019 market outlook: relationships and ILS: a cost-benefit analysis

It is often said to the point of being a cliché (and especially at industry conferences around the world) that reinsurance is a relationship business and, as a counterpoint, that the capital markets are purely transactional. Reality, especially as reflected in the 2019 market, has more nuance. Relationship behaviour is not the exclusive domain of reinsurers, and neither is transactional behaviour exclusive to investors.

Costs and benefits

Some of the benefits of a strong two-way relationship seem relatively obvious. For example, a counterparty may participate on one line of business or layer where it might not meet their return targets - with the expectation they will make money elsewhere with the same cedant.

Familiarity also makes it easier for both sides to adapt to changes in the underlying business.

A cedant can better explain important tweaks in their underwriting process if the counterparty knows how that particular cedant selected risks in the past.

"The renewal process where reinsurers have de facto renewal rights has a substantial cost, even if many like to pretend otherwise. If the program is locked up like Fort Knox, cedants may never know what they are missing."

A transactional approach also has benefits. Capacity can come in and fill out layers and programs as needed. This additional transactional capacity can lower rates and improve market security as well as terms and conditions via traditional reinsurers and capital markets investors who seize the opportunity to compete and participate for business priced at market.

The renewal process where reinsurers have de facto renewal rights has a substantial cost, even if many like to pretend otherwise. If the program is locked up like Fort Knox, cedants may never know what they are missing. The corollary is that investors who have shunned relationship building and only deploy capital with the best opportunities on offer miss out on the higher risk-adjusted premiums hiding within the walls of Fort Knox because they never see them.

Relationships in H1 2019

In H1 2019, relationships added real value to cedants. In many cases, programs got done at 4/1, 6/1 and 7/1 without the same level of ILS participation as in the past. Companies with multiyear capacity and with breadth in their traditional reinsurance partners and ILS investors did well. They did even better if they had some diversity in how they interacted with investors and reinsurers between traditional quota shares, syndicated XOL reinsurance and cat bond-backed layers. In contrast, cedants who had few relationships, all single-year capacity and too high a component of purely transactional capacity tended to suffer a little. The key was that the more relationship-oriented investors and reinsurers

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"The key was that the more relationship-oriented investors and reinsurers were relatively reluctant to let go of programs and partners they had worked hard to court, even if pricing, terms, and conditions didn't meet their wish list."

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were relatively reluctant to let go of programs and partners they had worked hard to court, even if pricing, terms and conditions did not meet their wish list or what was on offer from alternative places to deploy capacity.

Lessons learned or mislearned?

While things are slowly returning to a more normal environment on the ILS side, relationships will still matter a great deal in H2 2019 in cedants getting the protection they need with pricing, terms and conditions that make sense.

The risk is that cedants and the broader market read too much into 2019 on this count. The next market inflection point will not necessarily look like 2019. To take one example, in 2019 impairments among relationship partners have been a non-issue. It only takes one large California earthquake or 100-year return period pandemic with associated impairments to shift the view on credit risk, which currently seems "out of sight, out of mind."

Another approach would be to focus less on the relationships versus transactional partner dimension and more on the breadth of relationships. Cedants should not just work with four insurers and three investors. ILS investors should not source business from just one intermediary. Breadth is going to be the best approach for most people. It does require a lot of work. Sometimes courting an investor with $150 million of assets under management (AuM) seems unrewarding, but then again that same investor could have $2 billion of AuM in due course.

Independently of the breadth of relationships, cedants need to find the appropriate balance between relationship and transactional capacity that meets their own objectives. Some might want a 100% relationship approach with a small number of trading partners, even though doing so has a higher price in increased costs and increased volatility some of the time. Other cedants might accept a large purely transactional component to save money in most years, even though it adds volatility some of the time. The key is to take the time to do this assessment now and then act accordingly with purpose.

Intermediaries have an important role here in helping cedants strike the right balance. We can then both implement the approach in program design and help build the right relationships. All of this is at the core of what we do both in the reinsurance markets and equally in the capital markets. 2019 gives us the opportunity to do even more of this so our clients can succeed in 2020 and beyond.

By William Dubinsky, Managing Director & Head of ILS

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Interview: Humberto Valdes – co-chief investment officer at Quantedge Capital

How did you first get involved with ILS?

The firm had been looking at ILS as an asset class for some time. This was an attractive, non-correlating asset class and a useful way to deploy cash not being utilized by our core strategies. After some operational due diligence, we acquired our first Rule 144A cat bond in early 2012.

What do you think about the relative attractiveness of private instruments versus widely syndicated securities?

From 2012 until mid-2014, we were only set up to trade public cat bonds. As cat bond spreads compressed, we looked towards higher yielding areas of the ILS/reinsurance markets. Today our ILS portfolio consists of fronted reinsurance, collateralized retro, sidecars, industry loss warranties (ILWs) and cat bonds, with a heavy skew (> 95%) towards private instruments. While private ILS does not offer the liquidity that the Rule 144A market does, we view the difference in expected returns as being sufficient compensation for the illiquidity risk.

How did your fund prepare to face the consequences of a series of events like Hurricanes Harvey, Irma and Maria and, more recently, the California Wildfires?

The time and resources we invested in modelling, reserving methodology and marketing over the past few years proved valuable following the loss events of 2017-2018. On the modelling front, our book is managed to specified risk tolerances. Our framework rewards diversification and pushes us to construct the portfolio without undue concentration in any one region and peril. This approach meant the losses to our book in 2017 and 2018 were manageable, and we were able to trade through the events.

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In terms of reserving, 2017-2018 presented the first large-scale test to quickly and accurately value positions in our ILS portfolio. The groundwork we established in the earlier years was valuable in managing this process. More recently, market dislocation in localized regions/perils has presented post-loss opportunities to take on attractive risk on a selective basis.

How do you expect the recent activity to impact ILS investors, access to capital and ability to trade forward effectively? Does it depend on premium movements?

Following the loss events in 2017, the ILS market was able to recapitalize very quickly and to a level sufficient to ensure abundant capacity was available for 2018 renewals. Some / most of this capital was raised on the expectation that modelled expected returns would improve substantially as a result of record-setting losses in 2017. The ease with which capital came into the market in advance of 2018 turned out to dampen any

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meaningful hardening that might otherwise have resulted in the market. When 2018 losses were once again at near-record levels, and pricing did not increase as expected, there was a noticeable shift in market sentiment in 2019. Retro and ILW capacity tightened at January 1 and again at midyear, and there were pronounced rate movements in these spaces as well as in the midyear Florida reinsurance renewals. There were some leading indicators in the cat bond market preceding the midyear renewals as well. It seems investors were more cautious this time around and did not easily buy in to forward looking expectations of dramatic rate rises. Market sentiment will again adjust following the 2019 wind and wildfire seasons and the level of loss activity will drive pricing in 2020.

How do you see the expansion of ILS into other lines of business other than property cat? What do ILS investors need to be able to underwrite new risks?

Many non-specialist ILS investors require or lean on an independent third-party view of risk. While this was certainly true five to ten years ago, increasingly we find that ILS investors are willing and able to conduct their only analyses of deals both in the property cat and non-property cat spaces, utilizing approaches similar to those in common use in the reinsurance industry. The requirement to have a vendor model view of risk for a particular issuance seems to be much less of an impediment to ILS investors in 2019. The real impediment, in our view, is duration of development tail and associated collateral lockups. More specifically, investors seek a return on collateral which is sufficient over the life of the transaction, including any workout periods following expiration of the risk period. Cedants, however, look to purchase efficient protection, pay a risk spread commensurate with the exposure ceded, and have certainty of recovery even if latent losses materialize a few years after issuance. With some exceptions where casualty risk has been successfully securitized using calendar-year paid or incurred triggers, we think there remains a large gap in the prices cedants are willing to pay versus the returns investors required for classes of business with longer development tails. Bridging this gap will potentially require access to multiple pools of capital at the outset of a transaction, for example, traditional ILS capital coupled with capacity from runoff specialists, and/or expansion of permissible collateral to higher yielding/riskier assets.

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Q2 2019 ILS Market issuance overview

"The second quarter of 2019 saw the issuance of just under $1.7 billion of non-life ILS capacity across a total of 11 different cat bonds. This is a significant reduction compared to the second quarter performance observed in 2017 and 2018."

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The second quarter of 2019 saw the issuance of just under $1.7 billion of non-life ILS capacity across a total of 11 different cat bonds. This is a significant reduction compared to the second quarter performance observed in 2017 and 2018, where a total of $6.2 billion and $4.0 billion of capacity were issued, respectively. Indeed, with the exception of Q2 2016, this is the lowest second quarter issuance by volume in the past eight years, whilst total issuance by number is below that observed in both 2017 and 2018.

This quarter saw a continuation of the underlying theme observed in Q1, with U.S. wind-focused deals dominating the Q2 issuance. $650 million of pure U.S. wind coverage was issued across three cat bonds, whilst a further $1.04 billion of capacity was placed for peak multiperil protection.

April saw FEMA's second venture into the cat bond market in as many years, seeking further protection for the National Flood Insurance Program (NFIP) through Floodsmart Re 2019-1. As was the case last year, Floodsmart Re sought coverage against named-storm-related flood events across the U.S. This deal provides the NFIP with $300 million of protection across two tranches. The less risky Class A notes, $250 million in size, have an expected loss of 4.15% and a spread of 11.25%, whilst the riskier Class B notes, $50 million in size, were priced at a spread of 14.50% for an expected loss of 6.01%.

UPC Insurance sponsored their second cat bond through the Armor Re II vehicle, securing $100 million of protection against named storms and earthquake events in the U.S. for four of their insurer subsidiaries. The single tranche will operate on a per-occurrence basis, utilizing an indemnity trigger. The notes were priced at a spread of 5.90% for an expected loss of 1.64%.

Atlas Capital 2019-1 provides SCOR with $250 million of coverage against U.S. named storm, European wind and North American earthquake risk across a four year period. The tranche operates on an annual aggregate basis with an industry loss trigger. The notes have an expected loss of 5.96%, placing it below the 2018 Atlas cat bond, which had an expected loss of 3.24%. The 2019 issuance was priced at a risk spread of 11.75%. This issuance marked the second cat bond to be domiciled within the U.K.

Security First Insurance returned to the capital markets for their third cat bond issuance. First Coast Re II 2019-1 will provide $100 million of capacity for Security First. A point of note is that the successful issuance of this bond made it the first fully syndicated issuance of a cat bond in Singapore – a further indication of the potential for growth of this ILS jurisdiction. The $100 million of notes have an expected loss of 1.63%, and were priced at 5.25%.

Swiss Re sought protection through the cat bond market for the first time in a number of years as they utilized Matterhorn Re, a new SPI for 2019. Through marketing, the cat bond upsized by 150%, resulting in final capacity totaling at $250 million. The notes will provide coverage against losses from northeast U.S. named storms, on an industry loss trigger and per occurrence basis. The bond operates on a zero-coupon basis, being issued at 91.5% of par value. The notes have an expected loss of 2.03%, and will provide Swiss Re with protection across an 18-month period.

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Q2 2019 ILS Market Issuance Overview (continued…)

This quarter has also seen four cat bonds issued, totaling over $1.8 billion in cover, to protect against mortgage insurance risks. Eagle Re 2019-1 will provide Radian Guaranty with $562 million worth of protection, whilst Home Re 2019-1 will deliver $316 million of capacity to MGIC Investment Corporation. The other two bonds were repeat issuances, with Bellemeade 2019-2 and Radnor Re 2019-2 providing $621 million and $333 million of cover to Arch and Essent Guaranty, respectively.

Non-life Q2 2019 ILS issuance[a]

($ in millions)

Sponsor	Issuer/Tranche	Issue	Maturity	Amount	Expected Loss	Spread	Basis	Risk	Trigger
FEMA / NFIP	Floodsmart Re 2019-1 A	Apr.19	Mar.22	$250	4.15%	11.25%	OCC	U.S. Wind	Indemnity
FEMA / NFIP	Floodsmart Re 2019-1 B	Apr.19	Mar.22	$50	6.01%	14.50%	OCC	U.S. Wind	Indemnity
UPC	Armor Re II 2019-1 A	May.19	Jun.22	$100	1.27%	5.90%	OCC	Peak Multiperil	Indemnity
USAA	Residential Re 2019-1 12	May.19	Jun.23	$60	4.11%	8.25%	Annual AGG	Peak Multiperil	Indemnity
USAA	Residential Re 2019-1 13	May.19	Jun.23	$75	1.16%	4.50%	Annual AGG	Peak Multiperil	Indemnity
SCOR	Atlas Capital 2019-1	May.19	Jun.23	$250	5.96%	11.75%	Annual AGG	Peak Multiperil	Index
Security First	First Coast Re II 2019-1 A	May.19	Jun.23	$100	1.63%	5.25%	OCC	Peak Multiperil	Indemnity
Safepoint	Manatee Re III 2019-1 A	May.19	Jun.22	$20	1.34%	5.25%	OCC	Peak Multiperil	Indemnity
Safepoint	Manatee Re III 2019-1 B	May.19	Jun.22	$20	4.80%	9.50%	OCC	Peak Multiperil	Indemnity
TWIA	Alamo Re 2019-1 A	May.19	Jun.22	$200	1.97%	4.50%	Annual AGG	Peak Multiperil	Indemnity
AIIC	Integrity Re 2019-1 A	May.19	Jun.23	$50	1.30%	4.75%	OCC	Peak Multiperil	Indemnity
NCIUA	Cape Lookout Re 2019-2	Jun.19	May.22	$100	2.53%	6.75%	Annual AGG	U.S. Wind	Indemnity
Swiss Re	Matterhorn Re 2019-1	Jun.19	Nov.20	$250	2.03%	Zero [a]	OCC	U.S. Wind	Index
AXIS	Northshore Re II 2019-1	Jun.19	Jul.23	$165	3.14%	7.50%	Annual AGG	Peak Multiperil	Index
		Q2'19 Total:		**$1,690**					

Source: Willis Re Securities Transaction Database as of 6/30/2019. Aggregate data exclude most private ILS deals, life deals and mortgage deals

(a) All issuance amounts reported in or converted to USD on date of issuance. Expected loss for hurricane deals is based on WSST conditioned catalog for AIR and medium-term catalog for RMS.

(b) If fronted, beneficiary is listed if known.

(c) Issued at 91.50 of par value. Issue matures 7/12/20 and covers two U.S. wind risk periods.

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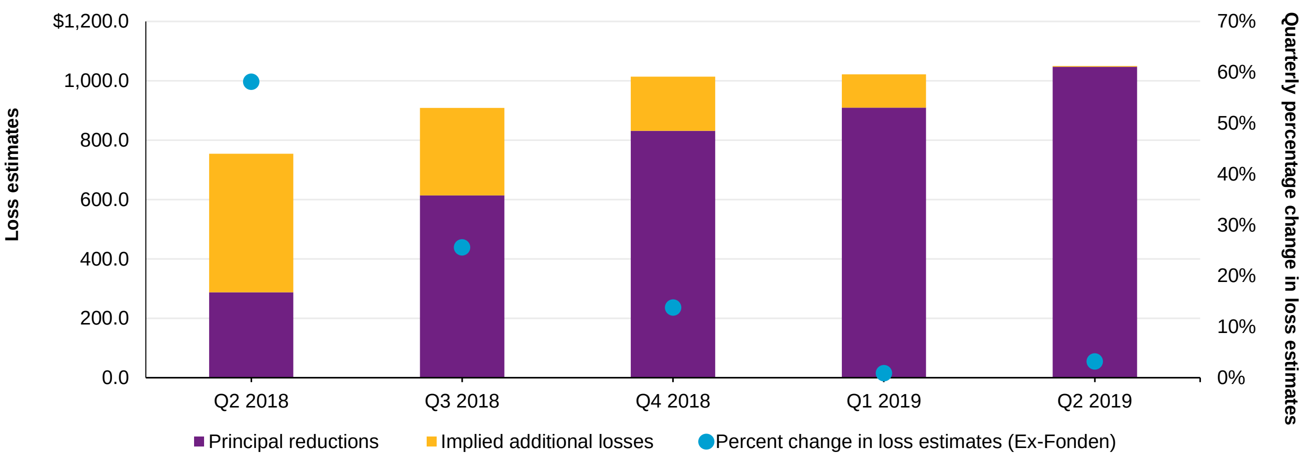
2017 events loss development at a glance

At the end of Q2 2018, cat bond loss estimates in connection with HIM, 2017 California Wildfires and the September 7 8.1 magnitude Chiapas earthquake totaled around $755 million, representing roughly 3% of the $25.1 billion in non-life widely distributed cat bond capacity outstanding pre-HIM. That figure has now grown to slightly over $1.0 billion[(a)] (or 4.2% of the $25.1 billion). This represents year-over-year growth of about 40% in cat bond loss estimates.

The chart below shows the development of losses by quarter as well as the sequential loss estimate growth rates for impacted cat bonds. Q1 2018 loss estimates of about $532 million (not depicted) saw a quarterly increase of about 58% followed by a 26% increase between Q2 2018 and Q3 2018. Over the past year, the difference between actual principal reductions and ceding insurer loss estimates has narrowed from implied additional losses being 63% of loss estimates to now less than 1%. Not surprisingly, loss estimates grew in tandem with underlying insurer and reinsurer estimates for these events.



Source: Willis Re Securities Transaction Database, Bloomberg and company filings as of 6/30/2019. Aggregate data exclude private ILS deals, life deals and mortgage deals

a) Loss development based upon cedant reported losses as at 6/30/19

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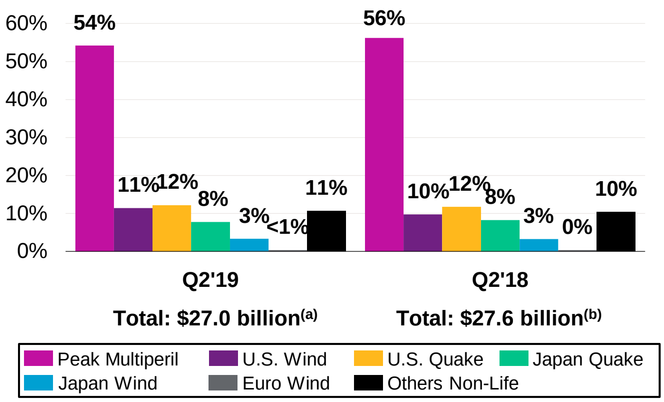
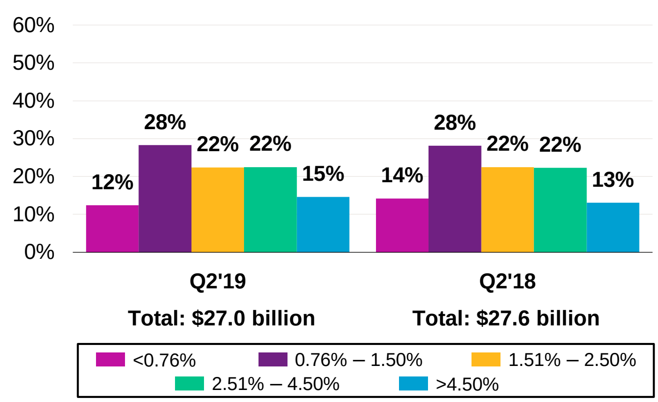
Q2 2019 ILS market statistics

Par outstanding by risk peril

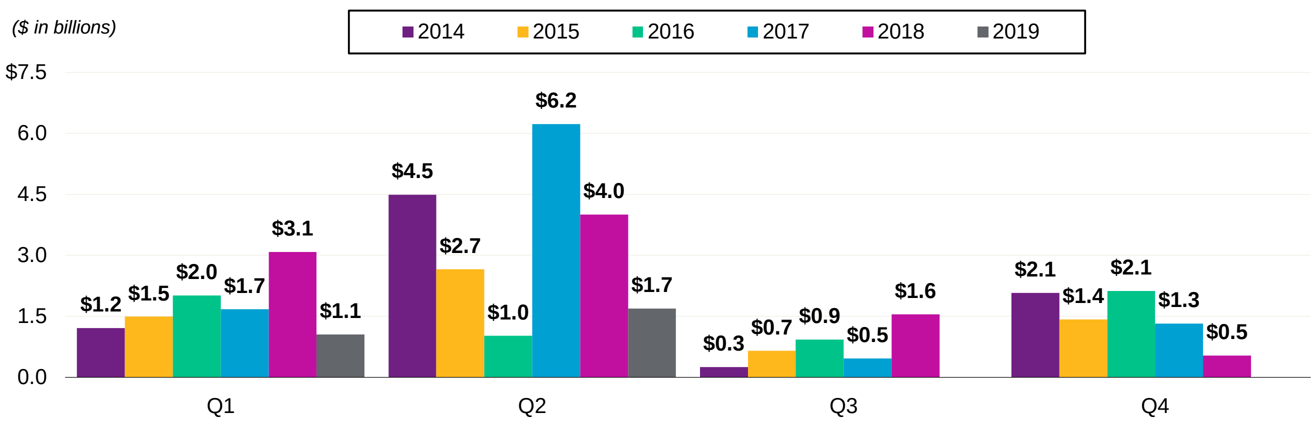


Par outstanding by expected loss at issuance

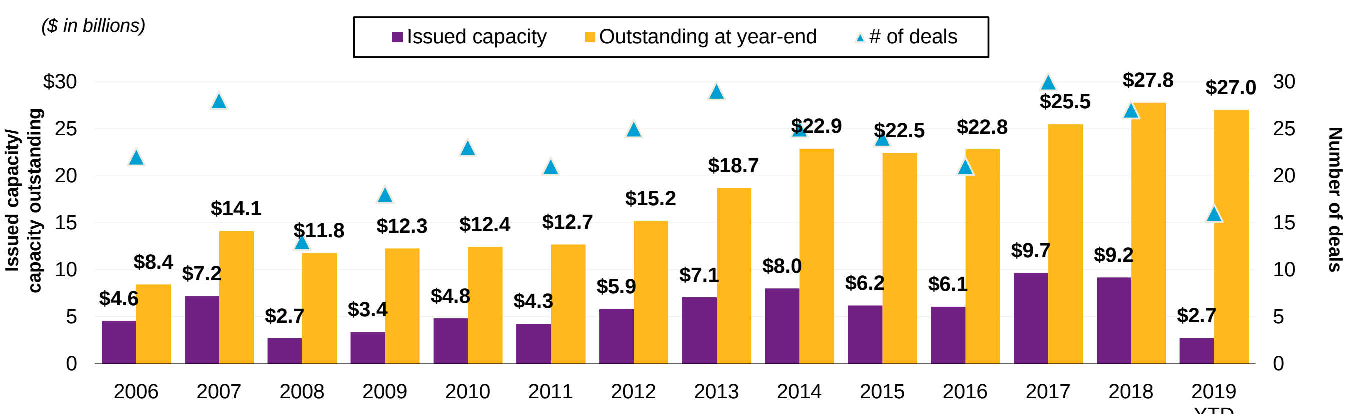


Source: Willis Re Securities Transaction Database as of 06/30/2019
(a) In aggregate, 65% of all capacity outstanding exposed to U.S. Wind.
(b) In aggregate, 66% of all capacity outstanding exposed to U.S. Wind.

Non-life ILS issuance by quarter (2014 – 2019)[c]



Non-life capacity issued and outstanding by year[c]



Source: Willis Re Securities Transaction Database as of 6/30/2019. 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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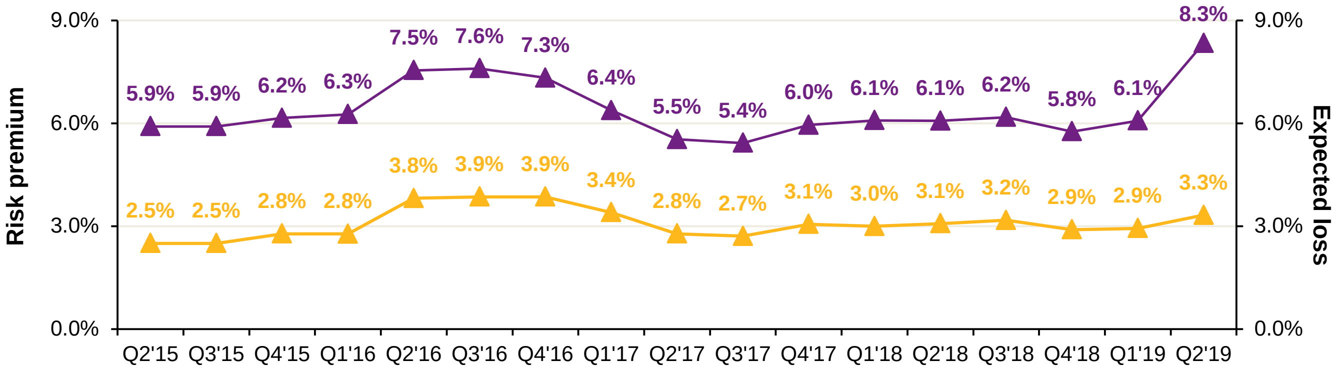
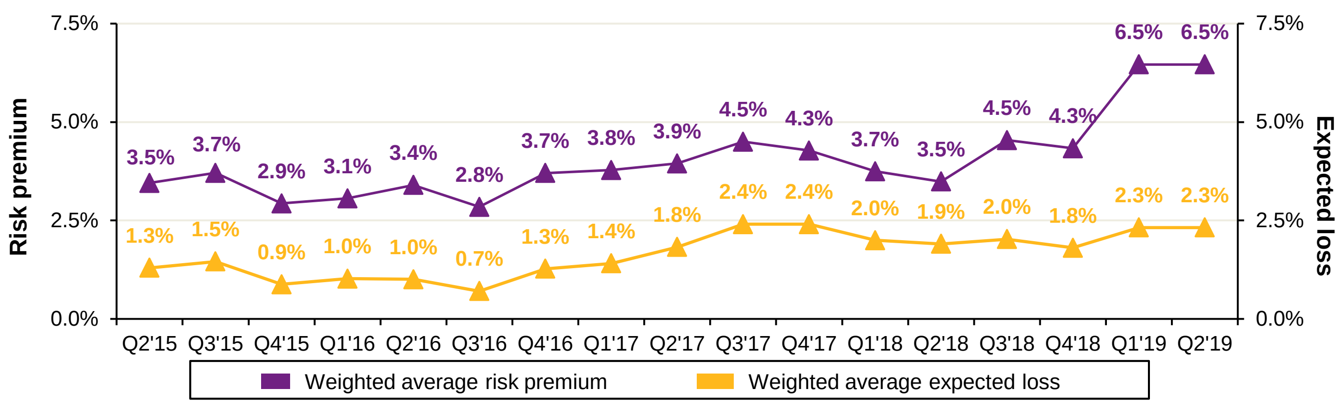
Q2 2019 ILS market statistics

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 Re Securities Transaction Database as of 6/30/2019. 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

"Much of the market has recalibrated their models and thinking to accommodate the loss creep for the last few events."

With June renewals came meaningful rebalancing, as portfolio managers turned to the liquid cat bond space to adjust net portfolios. Much of the quarter was focused on cash management: game planning pricing, reallocation along programs, managing around locked-up capital and communicating with end investors.

We saw a slight bid come back to the market post the June 1 renewals and anticipate that will continue going into the second half of the year. Much of the market has recalibrated their models and thinking to accommodate the loss creep for the last few events and are collectively turning to this wind season to set the tone for the coming year.

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