ILS market rolls with the punches and prepares for further growth

Still standing after taking it on the chin

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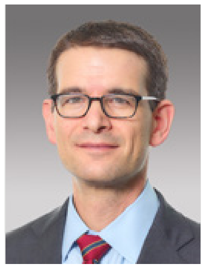

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Doubters of insurance-linked securities' (ILS) durability will be confounded that the asset class has rebounded off the ropes, our latest survey canvassing end investors, ILS funds and (re)insurer cedants indicates.

Much like a boxer whose reputation isn't fully established until faced with a full-blown strike to the chin, many insurance industry commentators have waited to see how the ILS market will react to current market conditions, which are less favorable than the conditions that supported market growth in recent years.

Now they have their answer. The 2018 Willis Towers Watson Global ILS Market Survey Report* shows that a costly 2017 natural catastrophe season – far from causing it to go down for the count or contemplate throwing in the towel – has, if anything, reinforced the market's attractions for many of its participants.

Becoming mainstream

2018 was a very active year for new catastrophe (cat) bond issuance – with about $9.2 billion placed (*Figure 1*, next page) – demonstrating the health and resilience of the ILS market. The prospects for ILS are strong as this market

Source: Willis Towers Watson Q4 2018 ILS Update (https://www.willistowerswatson.com/en/Insights/2019/01/growth-in-the-gaps)
*All issuance amounts reported in or converted to USD on date of issuance. Outstanding amounts adjusted for actual principal losses.

About the survey

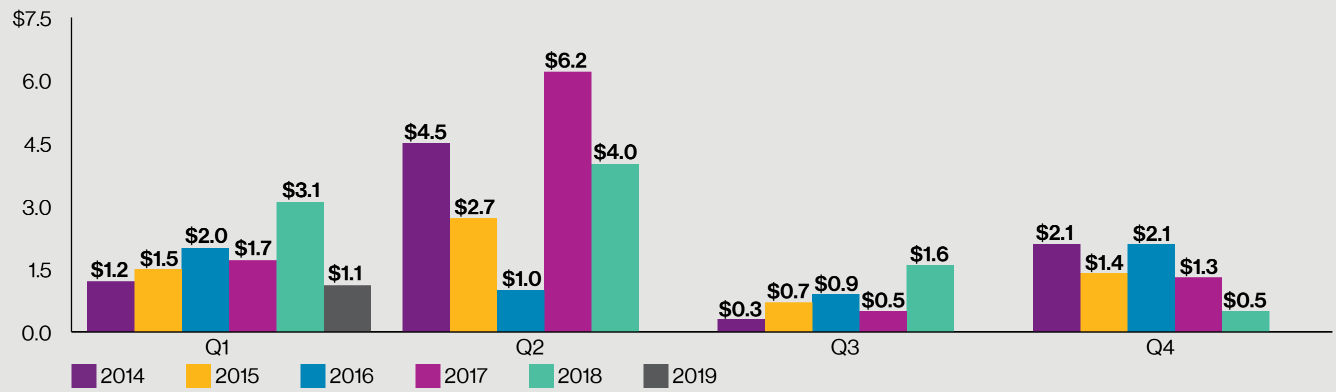
The Willis Towers Watson 2018 Global ILS Market Survey Report brings together the views of the three main ILS market constituents – users of ILS capacity (cedants/sponsors), ILS funds and end investors.

The survey was a cross-business effort of Willis Towers Watson's Investment, Risk and (Re)insurance business unit with the following objectives:

- Understand the changing dynamics of the market from three key stakeholders
- Measure respondents' engagement with ILS and growth opportunities
- Gauge market participants' views and usage of ILS
- Provide participants with a clear perspective of how other constituents view ILS

The web-based survey of 117 global ILS participants was fielded in June 2018 and took place after key 2018 renewals with post-loss pricing known. Surveys were tailored to the respective stakeholder groups.

Figure 1. **Non-life ILS issuance by quarter, Q1 2014 to Q4 2018*, in billions**



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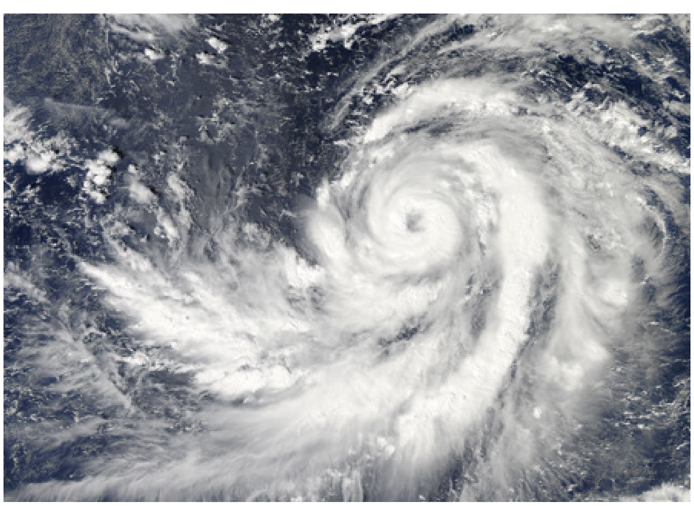
becomes mainstream and is no longer broadly defined as an “alternative investment,” a view shared by all three sets of market participants.

The majority (58%) of cedants surveyed access ILS capacity, and nearly a quarter derive more than 30% of their capacity limit from ILS. The most common forms of capacity used are fronted capacity on a traditional program (71%), collateralized capacity on a traditional program (53%) and collateralized capacity backed by cat bonds (37%). And of the 42% that don’t currently use ILS, 19% anticipate using ILS capacity in the next three years, with more saying they will seek more information before making a decision.

The prospects for ILS are strong as this market becomes mainstream and is no longer broadly defined as an “alternative investment.”



ILS are also increasingly sought out by end investors such as pension funds and sovereign wealth funds. Over half of those surveyed said they have a strategic allocation to ILS between 2% and 5% of total assets. Moreover, two-thirds expect to maintain or increase their allocation, based on experience to date. Perhaps picking up on this growing appetite, the vast majority of ILS funds anticipate capacity expanding by more than 10% in the next five years.

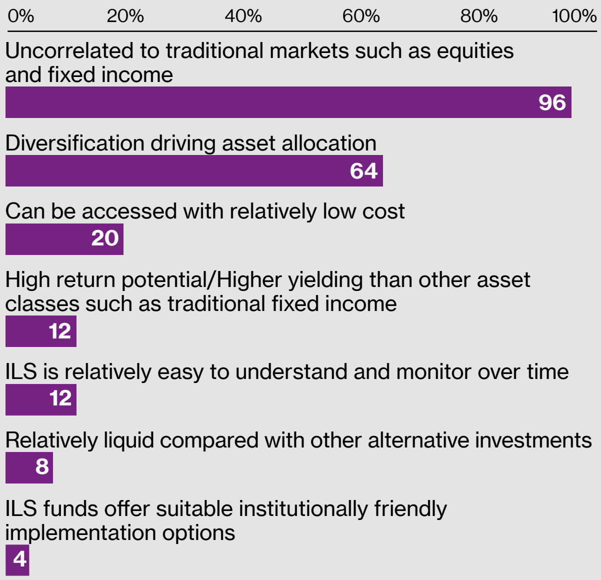
After the storms

ILS market participants remain optimistic despite the battering delivered by hurricanes Harvey, Irma and Maria that struck the U.S. in 2017 and led to a reported $91 billion of insured losses in the U.S. alone (source: Insurance Information Institute). Together, they represented, arguably, the largest test yet of the resolve of ILS market participants.

But to a large extent, ILS endure with nearly two-thirds of end investors surveyed invested in ILS for more than five years. This suggests that most pension and sovereign wealth fund managers understand the asset class’s risk profile and have reconciled it with their risk appetites and the relative impact of potential losses on overall fund performance. Significantly, around 80% reported that 2017 ILS fund performance was in line with expectations, given the scale of natural disasters.

Indeed, many investors reacted opportunistically to the unfolding events. Almost half reported tactically increasing their allocation to ILS to take advantage of near-term premium increases. Only 20% made any reductions, while post-loss redemptions were also uncommon.

Figure 2. **End investor reasons for investing in ILS – multiple responses**



Source: Willis Towers Watson 2018 Global ILS Market Survey Report

Diversification is king

The reason for these attitudes and actions becomes clear when you examine what motivates investors and (re)insurers to use ILS.

End investors are primarily driven by ILS' portfolio diversification opportunities and their noncorrelation with other financial asset classes. Memories of the very limited diversification among traditional asset classes during the global financial crisis remain fresh. Only 12% are mainly focused on the return/yield potential of ILS, ranking fourth after cost *(Figure 2)*.

Interest in diversification is also likely to correlate with investors' cost of capital, suggesting that ILS investments are typically consistent with needs. For instance, (re)insurance companies have a high cost of capital requiring high levels of return for accepting catastrophe risk, but this is not the case for institutional investors such as pension funds.

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How do cat bonds work?

Bond size and term

Cat bonds, one form of ILS, typically have a two- to five-year term, with three years most common. They typically range in value from $100 million to $400 million, although the market will sometimes support deals in excess of $1 billion. The placement process often splits large deals into multiple tranches with different risk/return profiles.

Perils and structure

Cat bonds may provide coverage for a single peril (such as hurricanes) within a specific region or for multiple perils (such as hurricanes and earthquakes) across multiple territories. While first-event-per-occurrence cover predominates, the past few years have seen a surge in sponsor demand for coverage structured on a multi-event or aggregate basis.

Payout triggers

Triggers for cat bond payouts include:

- Indemnity – bases recovery on the actual losses of the sponsor (ultimate net loss)
- Parametric and parametric index – uses actual reported physical event parameters, such as wind speed or earthquake magnitude or location, to determine loss
- Industry loss index – uses estimated industry losses, such as PCS and PERILS, to determine loss
- Modeled loss – determines payout by inputting actual physical parameters into a predetermined cat model and running the model for an escrowed portfolio to produce an event loss
- Hybrid – combines modeled loss and industry index approaches, or uses other combinations

Market size and characteristics

Large U.S. primary insurers drive the market: 11 of the top 15 U.S. insurers by premium volume have accessed the cat bond market. Approximately 78% of outstanding cat bond capacity is exposed to U.S. perils and 66% is exposed to U.S. hurricane.

continued

Cat bonds *from previous page*

Pricing

Cat bond pricing varies based on risk, as measured by the modeled probability of attachment and expected loss. Traditional (re)insurance pricing also influences cat bond pricing. Other factors include the complexity of the trigger, returns on comparable investments and the availability of capital. For indemnity triggers, investors also examine traditional (re)insurance underwriting criteria, including loss experience, type of business, underwriting and claim handling practices. A more diversifying peril (e.g., Australian earthquake) will generally reduce the cost.

Deal structure

In the classic structure, a special purpose reinsurer (SPR) is set up solely to issue the bond. The SPR is typically set up in Bermuda or Ireland. The special purpose nature of the reinsurer makes it "bankruptcy remote" from the sponsor and protects the bondholders against changes in the sponsor's credit rating or financial position. The SPR issues notes (the ILS) to investors and simultaneously enters into a (re)insurance contract with the sponsor. The terms of the notes issued by the SPR mirror the terms of the (re)insurance contract. (Re)insurance recoveries cannot exceed the principal amount of the notes.

The SPR deposits the note proceeds into a trust account to collateralize the (re)insurance contract. It then invests the note proceeds in high-quality, short-term securities (typically U.S. Treasury money market funds or AAA-rated, government-backed assets such as puttable notes issued by affiliates of the World Bank). Over the term of the bonds, investors receive quarterly interest payments from the SPR that consist of two parts: the premiums paid by the sponsor and the collateral investment returns. At the maturity, assuming no catastrophes have occurred causing a payout, the principal is returned to investors just as with other fixed-income investments. If an event occurs, the bond proceeds fund loss payments to the sponsor under the (re)insurance contract.

The sponsor perspective

Sponsor considerations include:

- Time: Cat bonds take between two and three months to execute.
- Cost: Structuring costs (legal, modeling, rating agency), although dependent on the structure, add to the overall cost as do the underwriting fees paid to the arranger. Limits of less than $75 million are generally unlikely to be viable for a classic cat bond structure.
- Quantifiable risks preferred: For cat bonds, cover is more feasible for quantifiable risks that can be "robustly" and independently modeled owing to investors' heavy reliance on model output.
- Basis risk: Non-indemnity triggers introduce basis risk, and sponsors must consider the trade-off between the lower cost of a less complex and more transparent index trigger (e.g., pure parametric), and the higher degree of risk that recoveries from the bond may deviate from the expected recovery. Indemnity triggers may still introduce basis risk through hours clauses, exclusions and commutation provisions.
- No reinstatement: Unlike traditional (re)insurance, ILS do not easily support a reinstatement. Instead, ILS feature a single coverage limit over their (usually multiyear) term.

Pension funds that hedge their liabilities typically have their return-seeking portfolios referenced against LIBOR and would generally be satisfied with investment returns of around LIBOR plus 3%.

This is unlikely to be affected if LIBOR increases. Many ILS are referenced or linked to LIBOR, so securities that are collateralized would have an interest earning component that would rise in tandem with any relevant interest rate increases. Even though real returns on other asset classes may increase further if interest rates rise, the diversification and real return objectives of pension funds invested in ILS suggest that a significant shift out of ILS would be unlikely.

Cedants also value diversification (*Figure 3*, next page), ranked as a primary attraction by nearly three-quarters of organizations, followed in importance by pricing and credit quality.

Broader risk classes

Natural catastrophe risk has driven ILS market growth, but momentum is building to broaden risks packaged as ILS investments. Recent transactions, for example, have included exposure to areas such as wildfire liability and motor third-party liability.

Most ILS market participants say this trend will continue. Although ILS funds surveyed said they expect property catastrophe risk to still drive market growth, nearly three-quarters believe their investors are supportive of investments in other risk categories, such as cyber and marine *(Figure 4)*. Over half of cedants said they would consider using ILS capacity for non-property catastrophe risks, and around one in 10 have already done so.

Transparency and governance

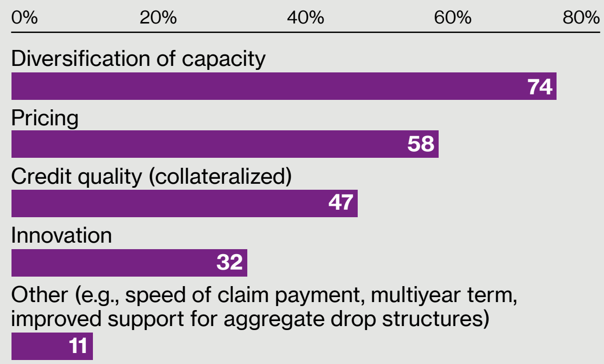
The survey shows that ILS market sentiment has survived a stiff test from 2017's catastrophe losses.

The losses have, however, highlighted the growing importance of valuing illiquid assets, since alternative (re)insurance capital has grown from $23 billion at the end of 2011 – the last year of significant loss activity before 2017 – to $88 billion at the end of 2017.

One area in which there may be room for improvement is early post-event loss estimation, given that ILS funds usually report net asset values on a monthly or more frequent basis. This was illustrated by Hurricane Maria, where two of the property cat model vendors estimated non-overlapping loss ranges. When cedants' initial estimates started to come in, some were closer to the ultimate estimate than others. There was nothing particularly new in this, but the 2017 events were a reminder that estimation techniques need to adapt to the context, such as the type of event (e.g., hurricane, wildfire or earthquake), time elapsed after the event (e.g., use of exposure methods, claim development methods or a blend), the local legal and claim environment (e.g., assignment of benefits and demand surge in Florida post-Irma), and cedant valuation philosophy.

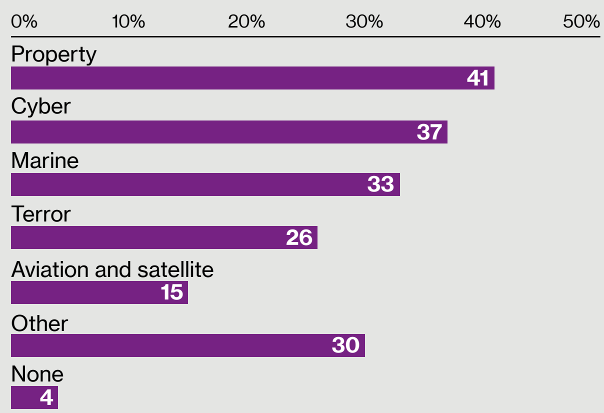
Overall, while valuation practices are better than the "Wild West" we observed a few years back, there is still work to do on improving some of the technical aspects, such as valuation of losses close to attachment points or aggregate excess of loss contracts, the operational efficiency of internal valuation processes post-event, and the governance and overall transparency. Notably, our survey shows that only a third of ILS funds are currently using independent third-party valuation for illiquid (level 3) assets, although we have seen this demand increasing. Funds that can demonstrate a more robust, transparent and efficient valuation process than their peers, all else being equal, should be able to assume more market share over time.

Figure 3. **Cedants' reasons for investing in ILS – multiple responses**



Source: Willis Towers Watson 2018 Global ILS Market Survey Report

Figure 4. **Areas of non-life risk seen as most attractive for further ILS market growth**



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Market update: ILS expected to deflect recent body blows

ILS market capacity has stabilized, placing interim pressure on risk spreads as higher returns post-2017 losses did not materialize as anticipated. Loss creep has trapped additional capital, while 2018 has seen substantial losses from wildfire.

Some ILS products, most noticeably aggregate catastrophe and retro covers, have performed poorly for investors – although this is balanced by other ILS products that have continued to deliver acceptable returns. The variation of individual ILS funds' exposures to different product types is starting to impact the ability of many funds to attract new investors. However, as outlined in our survey, this is likely to be a challenge the industry overcomes, as the long-term interest in ILS, particularly from pension fund managers seeking diversification, remains strong.

Recent developments would suggest that cedants place an increasing emphasis on counterparty reputations and relationships compared with, for example, size and analytics alone, and also, where those confidences are established, on the scope and clarity of contractual terms. Often it is assumed that the ILS market acts like rated (re)insurance, where relationships can have a substantial influence on the nature of contracts on an ex-post basis. The additional factor to consider with ILS is that material contract adjustments leading to additional claim payments are often problematic. This is because the ILS fund managers, unlike employees of reinsurers, typically have much less discretion to make changes after an investment is made than a corporate officer (e.g., a reinsurer's underwriter) managing reinsurer funds would have with respect to endorsing (re)insurance contracts.

As such, it is critical that ILS-backed contracts are transparent and well understood by both sides up front. This helps avoid any surprises after the fact that may become difficult to address, notwithstanding an otherwise good relationship and reputable parties on both sides.

The ring of options grows

These issues cannot obscure the contributions to a positive market outlook that the growing understanding and acceptance of the risk/reward profile of ILS among pension fund trustees and other investors in more mature markets are creating. It's not an overstatement to say that ILS are becoming mainstream – rising through the insurance investment ranks from lightweight to middleweight.

Future growth opportunities will present some new challenges for the market. These include enhancing how risk is directed in a mutually convenient way from cedants to investors, associated requirements such as educating (re)insurers about how ILS can contribute to an efficient (re)insurance program, and creating more innovative structuring solutions. And the appetite for packaging a wider range of risk classes as ILS will be best served by matching cedants and investors that share compatible risk needs. The availability of robust modeling or valuation techniques for this broader range of risk classes is also likely to smooth the path to growth.

But what's clear from our survey is that ILS are increasingly front and center in the ring of options for future insurance investment and risk transfer.

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