

Twelve Capital Research Spotlight | May 2019

The Opportunity in Cat Bonds after the Repricing

- The Cat Bond market has significantly repriced recently with spreads now indicating levels last seen over five years ago.
- Diversification possibilities within the Cat Bond market are now the highest since the asset class was created due to the market's larger overall size and new perils being covered.
- Additionally, there is plenty of supply in primary and secondary markets allowing for quick entry into the asset class and for a satisfactory level of investment degree.
- In Twelve Capital's view, the market currently offers a good entry point for new investors looking for a diversifying asset class or for existing investors with the capacity to top-up.



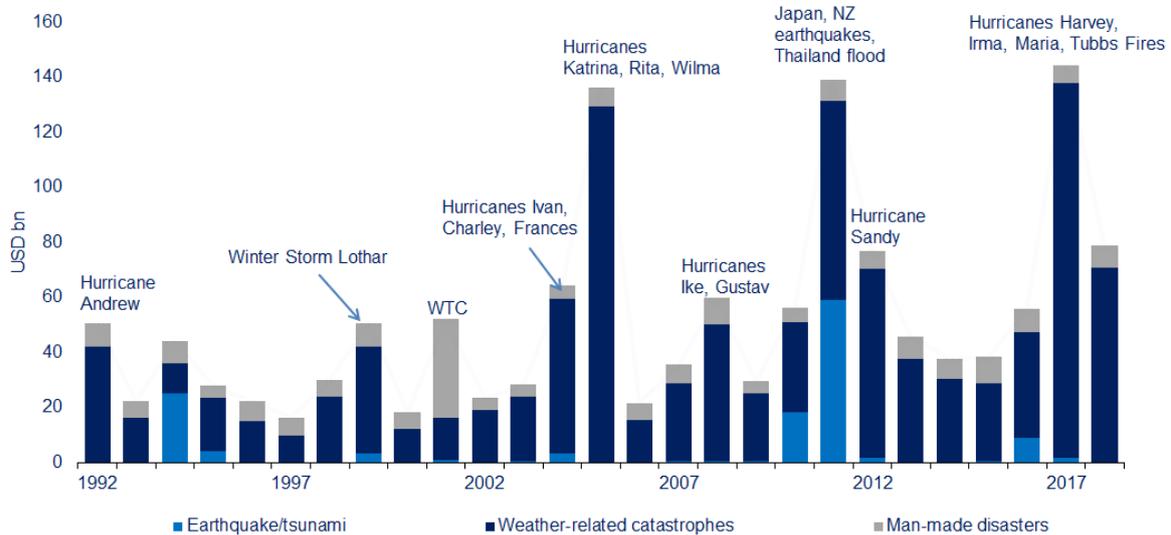
Florian Steiger, the portfolio manager responsible for Cat Bond strategies at Twelve Capital, answers questions from investors on the Insurance-Linked Securities (ILS) market, in particular Cat Bonds. These questions cover recent performance, pricing levels and the medium-term outlook. Twelve Capital manages in excess of USD 1.7bn in insurance-linked investments both in Cat Bonds as well as in Private ILS (Collateralised Reinsurance) and in aggregate USD 4bn in insurance related investments.

You still refer to the events in 2017 as market changing. Why was that year so important for the Cat Bond market and what is your view on these events today, with the benefit of hindsight?

After almost a decade of muted catastrophe activity and, therefore, strong performance for Cat Bonds, the last two years presented the first major challenge for this asset class. The Mexican earthquakes, Hurricanes Harvey, Irma and Maria (HIM), the record-breaking wildfires in California and various smaller storm events all led to 2017 being the most expensive year for the reinsurance industry on record. Worldwide-insured losses in 2017 totalled over USD 140bn¹. This was a significant proportion of the reinsurance capital available in traditional markets, which is estimated to stand at around USD 600bn¹. Naturally, this has led to some meaningful losses in ILS markets representing around USD 100bn of the overall reinsurance market, with Cat Bonds accounting for around USD 38bn of this in total. Despite this, many Cat Bond funds held up fairly well and ended 2017 only slightly down or, in some cases, even slightly positive.

¹ Source: AON. <https://www.reinsurancene.ws/global-reinsurance-capital-resilient-despite-two-years-of-losses-aon/>

Figure 1: Insured catastrophe losses worldwide 1992 – 2018 in USD billion at 2017 prices



Source: Swiss Re Institute. As at 31 December 2018.

The above chart shows a long-term comparison of insured losses and should be considered in light of the continued growth of the market for reinsurance capital. Since 2008, global reinsurer capital has increased from approximately USD 340bn to about USD 600bn in 2018. This is a result of the long-term growth trend of insurance proliferation in developed markets, the emergence of ILS, the increase in asset values as well as population growth in regions exposed to natural catastrophe risks. Furthermore, the sector has also expanded because of further risk categories covered in the reinsurance market such as pandemic risks, extreme mortality risk or cyber.

With heavy losses from the various 2017 events, why did rates at the December 2017 renewals not increase by as much as some people had hoped?

The high level of insured losses in 2017 led many market participants to expect a substantial uptick in reinsurance rates in 2018, as had been seen after major events in the past. However, what was not taken into account was the increased availability of alternative capital through ILS. After previous catastrophes, it took some months - even years - to rebuild the reinsurance capital base. However, ILS allow investors to deploy capital almost instantaneously. If ILS were to be considered a 'disrupting technology' in a market that had been inefficient in rebuilding capital after major events, then it could be argued that ILS actually make the reinsurance market more efficient. This could lead to the reinsurance cycle behaviour potentially changing for the foreseeable future.

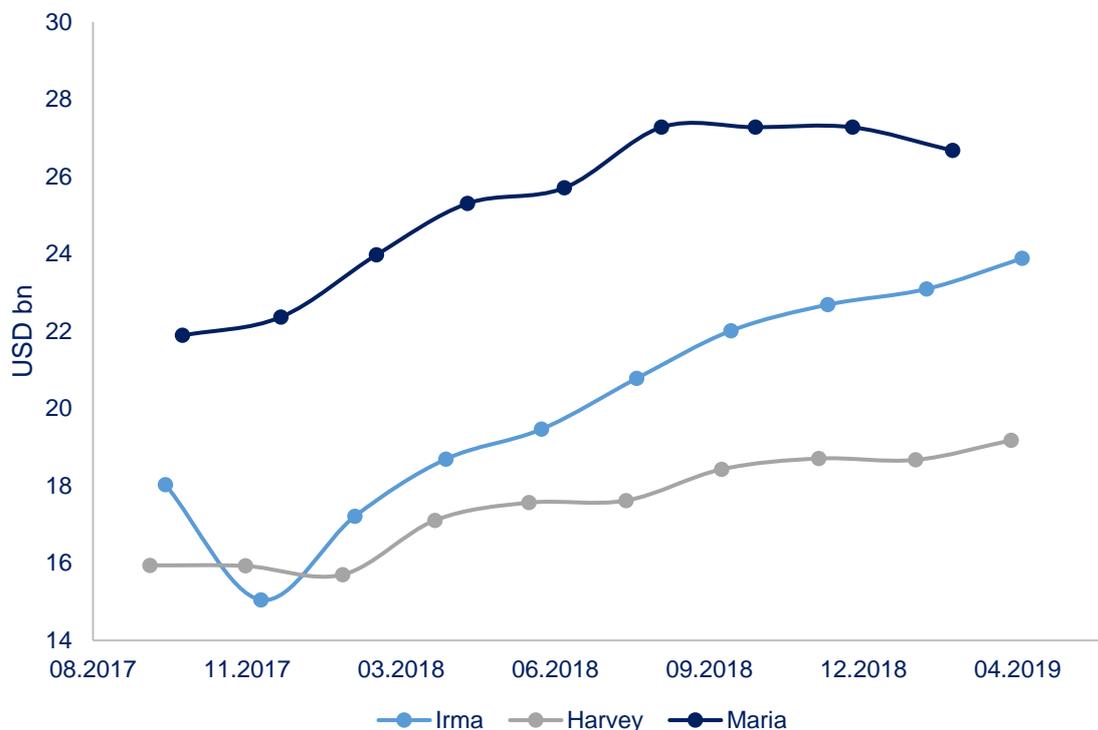
In the case of the 2017 losses, investors who had been waiting for an attractive entry point to the asset class quickly replaced any lost or trapped capital. Correspondingly, Twelve Capital observed that rate increases for the January 2018 renewals were muted and Cat Bond issuance activity continued at a high level, with only moderate increases in risk-adjusted spreads.

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The events of 2017, understandably, led to losses in ILS portfolios. Some investors were disappointed by the 2018 results too, especially given the perceived lack of new catastrophes. Why was 2018 such a bad year? How is loss creep from the 2017 events playing a role?

After 2017, investors in ILS were hoping for a quieter 2018. Unfortunately, the reality did not live up to that hope. Several new catastrophes occurred during the year, notably hurricanes Florence and Michael, as well as the Californian wildfires. 2018 also brought a steady increase in loss estimates from the events of the prior year. The combined insured loss from the HIM hurricanes in 2017 was initially estimated at USD 53bn in late 2017. Current estimates² of these events are at almost USD 70bn. This combined increase of USD 17bn is higher than the entire initial estimate for the insured loss caused by Hurricane Irma alone.

Figure 2: The evolution of industry insured losses from Hurricanes Harvey, Irma and Maria



Source: Property Claim Services (PCS). As at 11 April 2019.

The increase in loss estimates was already significant at an industry level, however, the effect was even more pronounced at an individual level for certain insurance companies. For example, Heritage, the sponsor of Citrus Cat Bonds, increased their loss reserves several times by a multiple of their initial estimate.³ This development had a substantial performance impact on Cat Bond prices generally throughout 2018 and into the first quarter of 2019.

² As at April 2019.

³ Company loss reports via Intralinks.

What was the impact of ‘new’ natural catastrophes of 2018 on Cat Bonds?

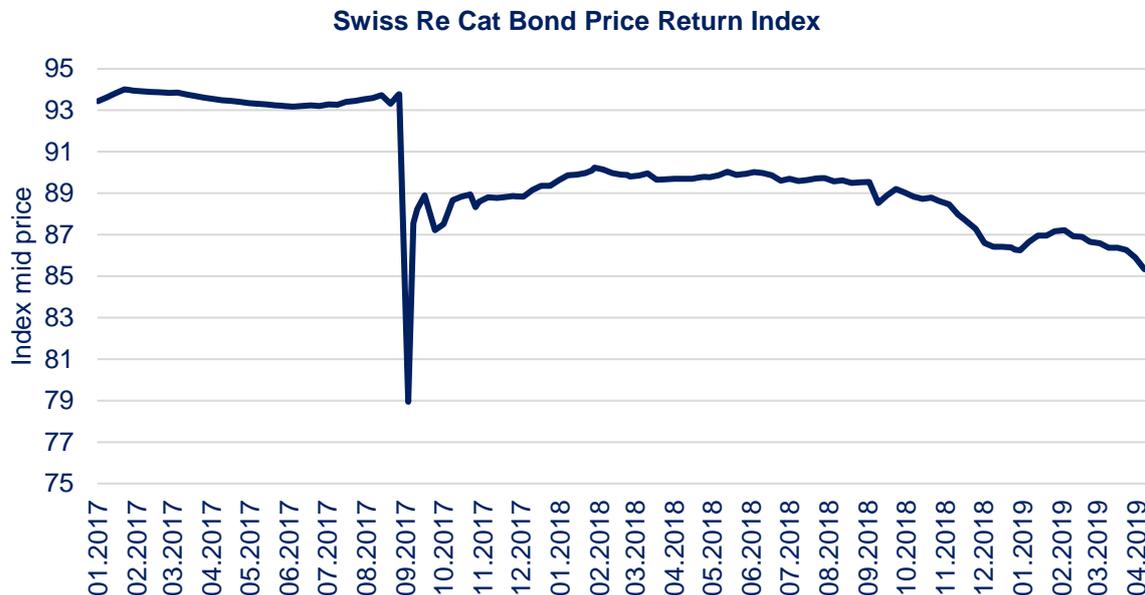
The overall effect of these 2018 events on the Cat Bond market was, in the main, limited to specific situations, such as the likely default of the Cal Phoenix Cat Bond issue due to the California wildfires in November 2018. Overall, apart from the impact of 2017 loss creep, Cat Bonds performed well throughout the year.

Towards the end of 2018, there was substantial volatility in Cat Bond prices and negative performance across most Cat Bond funds. What was the reason for that?

Despite the lack of new events, Cat Bonds experienced major price falls in the last two months of 2018, with the Swiss Re Cat Bond Price Index⁴ dropping by almost 2.7% from 1 October to 31 December 2018. This is contrary to the typical ‘seasonality’ pattern that generally occurs, by which Cat Bond prices tend to be stable or increase as the Atlantic basin hurricane season comes to its end⁵, and the expected risk over the months ahead reaches its annual low.

The main reason for this sell-off was of a technical nature and driven by a general shortage of capacity across Cat Bond and Private ILS funds. Mixed ILS funds investing in collateralised reinsurance as well as in Cat Bonds struggled to replace lost or trapped collateral. Therefore, they had to sell Cat Bonds in order to generate the necessary liquidity for the January 2019 renewal cycle. Not surprisingly, protection sellers were able to secure higher reinsurance premia during these renewals.

Figure 3: Cat Bond prices in general decline since February 2018



Source: Bloomberg, Twelve Capital. As at 18 April 2019.

⁴ Swiss Re Cat Bond Price Return Index, calculated by Swiss Re Capital Markets, is a market value-weighted basket of natural Cat Bonds tracked by Swiss Re Capital Markets, calculated on a weekly basis.

⁵ The official hurricane ‘season’ in the Atlantic basin runs from 1 June to 30 November, with the peak of the season from mid-August to late October.

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Do you believe this change in price levels to be temporary or a persistent long-term shift?

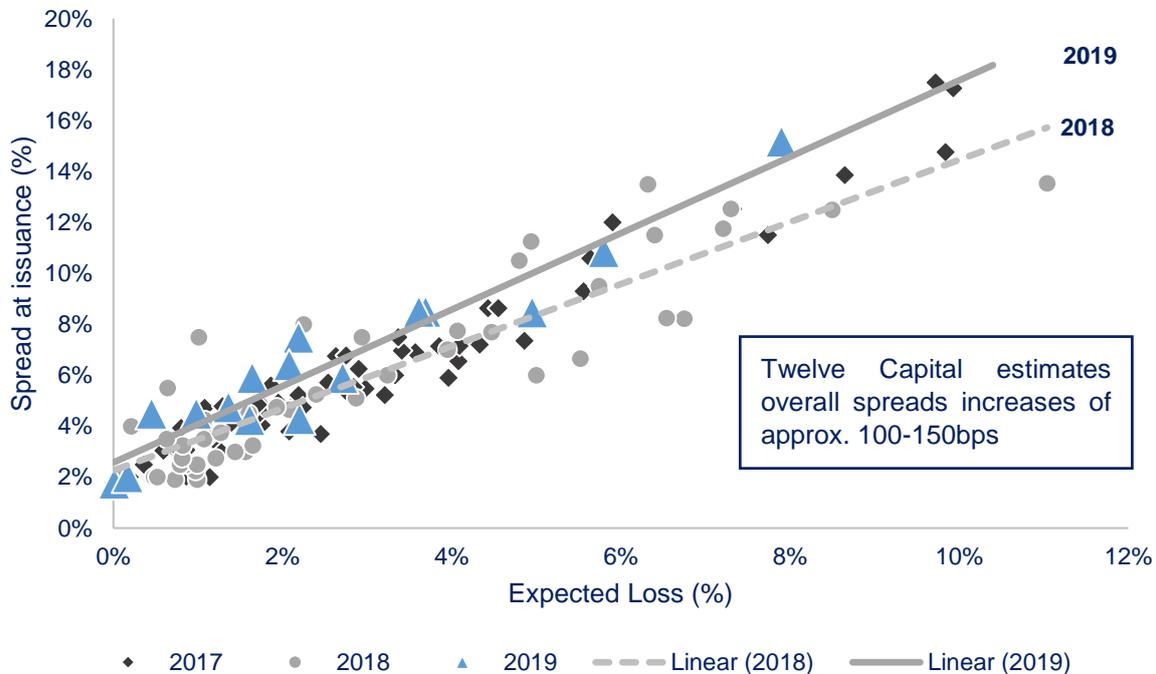
After the price falls in the secondary market in late 2018, investors were keen to see if this would lead to a hardening in Cat Bond primary markets as well or if the correction would turn out only to be a short-lived opportunity. Twelve Capital believes that investors would actually see more benefit from a long-term change in price equilibrium than from a short-term rebound in prices.

2019 started on a promising note. During January, Cat Bond prices jumped by around 0.6%⁶ and reversed some of the mark-to-market losses from previous months. Subsequently, this rally reversed during February and price weakness extended into March. In Twelve’s opinion this can be partially attributed to further loss creep from certain Cat Bonds exposed to Hurricane Irma and to one particular transaction suffering losses from Typhoon Jebi.

However, the majority of the price action occurred independent of any catastrophe events and was more a reflection of the expectation that reinsurance rates would continue to increase during the June renewals, particularly for US wind risk. This assumption is further supported by the outperformance of reinsurance stocks and an underperformance of Floridian primary insurance stocks. This change in secondary market Cat Bond prices also found its way into recent primary market transactions. New Cat Bonds came in at the top end of their price guidance and some were even pulled from the market, as they could not attract sufficient interest from investors.

Putting this into a long-term context, the prices of Cat Bonds are now at the lowest level seen for quite some time. Of course, distressed bonds have made a certain contribution to these falls, so any comparison needs to account for that. Nonetheless, even after taking these effects into account, Twelve Capital believes it is clear that Cat Bonds have rarely traded at more attractive levels over the last five years.

Figure 4: Spreads have increased over the past year



Source: Twelve Capital. As at 26 April 2019.

⁶ Swiss Re Cat Bond Price Return Index.

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Not only did price levels move considerably towards the upside, but general negotiation power has also shifted in favour of investors this year - a stark contrast to the first half of 2017. Twelve Capital sees this as a healthy development even if it might lead to of a short-term drag on Cat Bond prices due to the spread-widening of existing transactions.

Summarising all these various aspects, are you satisfied with recent performance across the funds you manage?

Cat Bond investment performance has been disappointing for the past two years. However, the Cat Bond price performance market needs to be put into perspective given the magnitude of losses and events that occurred in 2017 (the most expensive year on record for the (re-)insurance industry⁷) and in 2018, which will certainly make the top five most expensive underwriting years.

While wider financial markets experienced substantial volatility in 2018, most Cat Bonds lived up to investors' expectations and acted as diversifiers across portfolios. Investors who held Cat Bonds over the past two years as part of their strategic asset allocation to alternative assets generally earned higher risk-adjusted returns compared to portfolios without any ILS exposure despite the number of natural catastrophe events. Twelve Capital believe that ILS and Cat Bonds have proven why they should be considered as part of a diversified portfolio.

Recent loss creep seems to be one of the major themes currently in the industry. Has this had any influence on your portfolio construction?

One of Twelve Capital's current convictions includes the view that, on a general level, industry index-linked Cat Bonds appear more attractive than indemnity bonds. Indemnity bonds, due to their structural nature, exhibit higher idiosyncratic risks - as well a greater degree of informational asymmetries between investor and cedant - compared to index-linked Cat Bonds. A large number of the Cat Bonds that were affected by loss creep over the past two years are indemnity bonds. To compensate for these additional risks, indemnity bonds have historically traded 50-100bps wider compared to index-linked bonds in terms of spreads. More recently, Twelve Capital estimates that the additional spread on these structures has diminished to a range of 30-60bps, which means that these structures seem less attractive in terms of risk and reward.

How have diversification possibilities within the Cat Bond market evolved over the past two years?

Many new perils and regions have come to the market and the overall market size in existing peak perils has also grown. For example, the first Cat Bond covering terrorism risk was brought to the market in 2019. Elsewhere, the World Bank issued a huge Cat Bond programme earlier last year covering earthquake risk in certain emerging economies. From a portfolio management perspective, this is positive as it gives more optionality to portfolio managers. Twelve Capital can buy these new bonds if they are attractive, but is not forced to invest if not convinced by, for example, the modelling quality. Overall, diversification possibilities within the Cat Bond market have increased considerably in the last two years.

⁷ Source: AON. <https://www.reinsurancene.ws/global-reinsurance-capital-resilient-despite-two-years-of-losses-aon/>

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Your comments sound like the recent events have actually resulted in a significant change of outlook in a positive direction. Would you agree?

In Twelve Capital's view, the current environment offers the long-term investor a good entry point into the Cat Bond market due to the following reasons:

1. Reinsurance rates have hardened over the past two years and Cat Bond spread levels were last seen at these levels more than five years ago.
2. Diversification possibilities within the Cat Bond market have increased significantly, in terms of perils and structures resulting in more robust portfolio construction opportunities.
3. Meanwhile, supply in secondary markets appears sufficient for diversification purposes and allows for the absorption of even large inflows into the asset class.
4. As the wind season approaches, this time of year has tactically been a good entry point for investors as seasonality aspects typically result in the strongest Cat Bond performance between June and October.

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Twelve Capital AG

Dufourstrasse 101
8008 Zurich, Switzerland
Phone: +41 (0)44 5000 120

Twelve Capital (UK) Ltd

Moss House, 15-16 Brook's Mews
London W1K 4DS, United Kingdom
Phone: +44 (0)203 856 6760

info@twelvecapital.com
www.twelvecapital.com

About Twelve Capital

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