Trend Review
March 14, 2022

# Re-underwriting and De-risking in the Insurance-Linked Securities Market

**Rate increases are no longer a panacea for improving underwriting results and satisfying skittish investors**

The global insurance-linked securities (ILS) market remains saddled with prior catastrophe losses, a decline in assets under management (AUM) for some prominent ILS funds, and a drop in the overall performance of ILS funds despite another year of a record cat bond issuance. According to Trading Risk, the top-tier ILS managers lost more than USD2 billion, approximately 6% of their AUM, in the second half of 2021, because of catastrophe activities and redemptions. In response, ILS fund managers are re-underwriting and de-risking their portfolios, as rate increases are no longer a panacea for improving underwriting results and satisfying skittish investors.

Issues that were especially relevant for the reinsurance and ILS markets in 2021 include the following:

- Catastrophe losses in 2021 were the highest since the record high in 2017, with notable events including Hurricane Ida, Winter Storm Uri, the Bernd floods in Europe, and the December tornado outbreak in the US.
- Losses associated with secondary perils continue to receive increased attention from reinsurers and ILS managers due to their magnitude.
- COVID-19-related claims reserve trends are leveling off and stabilizing.
- Increased catastrophe loss experience is driving the market to improve underwriting, tighten coverage language, and seek rate increases.
- The retro market remains challenged by capital constraints.
- The poor performance of some ILS sectors contrasts with the positive performance of cat bonds.

## Heightened Catastrophe Losses in 2021

The ILS market experienced the highest catastrophe losses since the record high in 2017. Munich Re estimates insurance industry losses from natural catastrophes in 2021 at USD120 billion, and Swiss Re, at USD112.3 billion (excluding the US tornado outbreak in December 2021) (**Exhibit 1**). According to Swiss Re, insured losses in 2021 far exceeded the average of USD86 billion losses the past ten years.

Exhibit 1
**Global Insured Losses**
(USD billions in 2021 prices)

| | Amount |
|---|---|
| 2017 | 161.1 |
| 2018 | 99.0 |
| 2019 | 66.5 |
| 2020 | 99.2 |
| 2021 | 112.3 |
| **10 Year Average** | **86.0** |

Note: 2021 losses exclude the December US tornado outbreak.

Source: Swiss Re

Major catastrophe events in 2021 include Winter Storm Uri, Hurricane Ida, Bernd floods in Europe, and the December US tornado outbreak. Winter Storm Uri, in February 2021, brought about unusually cold and record low temperatures in the US. The storm caused power grids to fail across the US, resulting in blackouts for over 5.2 million homes and businesses, the vast majority of which were in Texas. Swiss Re estimates the insured losses at USD15 billion, mostly in Texas. However, about

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130 insurance companies are suing the Electric Reliability Council of Texas (ERCOT) and dozens of power-generating entities for grid failure, so successful litigation will reduce insurers' losses.

In late August/early September, Hurricane Ida, a destructive Category 4 hurricane, caused widespread infrastructure damage in Louisiana and heavy flooding in the Northeast coastal areas, including New York and New Jersey. Munich Re estimates losses of at least USD30 billion, while PCS estimates approximately USD26 billion. At this point, there is no consensus about potential insured losses and a great deal of uncertainty exists, as initial estimates from various catastrophe model vendors range from USD20 billion to USD44 billion, including offshore losses.

The costliest event of 2021 in Europe was flooding in July, caused mainly by the Bernd weather system. The flooding affected mainly Germany, Belgium, and nearby countries, causing up to USD13 billion in insured losses, per Swiss Re. It was among the costliest natural disasters in Europe since 1970 and is on pace to be the world's second-highest flood event in insured loss, trailing only the 2011 Thailand flood.

The December US tornado outbreak was a massive convective storm that affected five states in the US (Arkansas, Missouri, Illinois, Tennessee, and Kentucky). It spawned over 70 tornadoes, including a pair of devastating long-track EF4 tornadoes. Munich Re estimates insured losses at USD4 billion.

### Total ILS Capacity a Bit More Elusive

Total ILS capacity has become a bit harder to measure over the past few years—ascertaining how much ILS capacity is untrapped and deployable is difficult. Guy Carpenter and AM Best estimate that ILS capacity was about USD94 billion at the end of 2021. According to Aon, ILS capital was USD97 billion as of June 2021. The ILS capacity figures and reporting periods can diverge considerably amongst industry observers. The only ILS sector that can be objectively determined is the catastrophe bond market.

## Secondary Perils Accounting for a Growing Proportion of Losses

Secondary perils such as wildfires, tornadoes, severe convective storms, and flooding account for a large share of the losses from catastrophe events from 2017 to 2021. These perils are generally small to medium-sized events or secondary events that follow a primary peril. The most common and destructive secondary events include hurricane-induced flooding, storm surges, hailstorms, and fires following an earthquake. Other secondary perils, such as torrential rainfall, thunderstorms, drought, and wildfire, are considered independent events and are not always modeled.

In recent years, secondary perils have become a concern for both the reinsurance and the ILS market. Losses from secondary perils are now equaling or exceeding losses from primary perils. For example, Winter Storm Uri, the Bernd floods, and the December US tornado outbreak were considered secondary perils, with current losses estimated at approximately USD32 billion, accounting for more than a quarter of 2021 insured losses.

There are some vendor models for several secondary perils (at least for US risks), but recent experience has demonstrated that these models need refinement. For example, much of the damage associated with Winter Storm Uri was related to the effect of the power outages, which were not necessarily taken into account in the loss modeling.

Some ILS managers adjust their vendor model results in an attempt to account for such perils by either (1) adding a load to the loss associated with the primary perils or (2) using their internal

model to estimate the losses from secondary perils. However, increasingly, some are tightening contract language to exclude such perils or placing loss limits to mitigate the impact on their loss figures.

### Impact of COVID-19 Not as Severe as Anticipated

COVID-19 related claims reserves continue to level off and stabilize. However, incurred but not reported (IBNR) losses remain a significant component of COVID-19 claims, so ILS managers are pushing back on what they perceive to be excessive trapped capital—in some cases, going through arbitration for resolution. ILS investors do not expect to cover business interruption claims resulting from COVID-19, as the intent of contracts was never to cover these events. Coverage tightening and exclusions of communicable disease remained factors in January 2022 renewals, but price and attachment point increases have much greater impact on the negotiation process.

In the UK, the business interruption cases due to the COVID-19 pandemic have tended to favor insureds, whereas in the US, pretrial rulings have tended to favor insurers—to date, the limited number of appellate court case rulings have affirmed the lower court rulings.

### Pricing, Terms, and Conditions at 1/1 Renewals

The substantial losses of recent years have made clear that rising rates are not enough to improve underwriting results for ILS managers and reinsurers. These losses have also led to a diminution of available capacity, particularly for aggregate reinsurance and retrocession. As a result, for the January 2022 renewals, the ILS and reinsurance industry has focused negotiations on terms and conditions, restructuring coverage features such as adding per-event caps in aggregate covers and raising attachments and deductibles. A report from Gallagher Re characterized the January 2022 renewal negotiations as “tense,” often involving senior management of reinsurers in capacity deployment decisions typically left to underwriters, making compromises on future pricing negotiations harder to reach.

Reinsurers were far less willing to assume risk in the low-attaching layers, forcing primary carriers to retain more risk on their balance sheets. This shift has led to de-risking throughout the value chain, primary insurers now more selective of their policies to avoid any significant risk concentrations. Increased premium rates, higher retentions at the primary level, and stricter contract wordings are intended to better protect the ILS and reinsurance markets from the increased frequency and severity of events.

ILS managers generally operate in the remote layers; however, protection buyers have a strong desire to seek coverage in the low-attaching layers. This mismatch in the supply and demand of capital has led to protection sellers receiving preferential treatment from reinsurance brokers if they are willing to provide coverage for lower-attaching layers. With sound re-underwriting and de-risking, ILS managers are taking advantage of current market conditions to rebuild ILS portfolios, with the potential to deliver their target returns but with lower volatility.

Aggregate cover share has been down due to a shift in the risk appetite of protection sellers. Supply for aggregate cover has contracted and was more challenging to place than occurrence cover. Buyers had to retain more risk, and bought higher attachment points during the January 2022 renewals.

Aggregate retro capacity was particularly limited, especially for hurricane- and wildfire-exposed contracts. Aggregate retro capacity has been more difficult to source than occurrence retro capacity and remains in retreat in the US, after dominating the retro market in previous years. However, buyers retained their appetite for aggregate retro cover at the January 2022 renewals. As

in the broader industry, there was a move toward higher attachments and deductibles, as well as specific terms around how many events are required to trigger any payouts.

Rates in the January 2022 renewals rose across the board for the retro and reinsurance segments, especially in loss-affected programs, such as Germany, Belgium, and the nearby countries, which were affected by the devastating Bernd floods. **Exhibit 2** shows the various rate increases in selected regions.

Exhibit 2

**January 2022 Renewal Rate Increases in Selected Regions**

(%)

| Region | Market | Non-Loss Affected | Loss Affected |
|---|---|---|---|
| US | Reinsurance | 0 to 7.5 | 10 to 20 |
| Europe | Reinsurance | 0 to 10 | 10 to 50 |
| Worldwide | Retro - Occurrence | 5 to 10 | 10 to 20 |
| Worldwide | Retro - Aggregate | 10 to 20 | 20 to 40 |

Source: AM Best research and data

According to Trading Risk, rates on line for industry loss warranty (ILW) contracts rose 5% to 10% year over year at the January 2022 renewals. The price increases were due to a few factors, such as losses in the latter half of 2021, trapped capital delays for some renewals, and moves by protection sellers toward covering specific named perils as opposed to using all natural perils (ANP) contracts. ILW triggers were sought for remote aggregate and occurrence covers. Capital for riskier Gulf and Florida ILWs declined from prior years.

Exhibit 3

**Monthly Returns for Various Indices, 2021**

(%)

| | Barclays US Corporate High Yield Total Return Index | Swiss Re Global Cat Bond Return Index | Eurekahedge ILS Advisers Index |
|---|---|---|---|
| Jan-21 | 0.33 | 0.34 | 0.13 |
| Feb-21 | 0.37 | -0.32 | -0.60 |
| Mar-21 | 0.15 | 0.65 | 0.26 |
| Apr-21 | 1.09 | 0.34 | 0.27 |
| May-21 | 0.30 | 0.68 | 0.57 |
| Jun-21 | 1.34 | 0.42 | 0.31 |
| Jul-21 | 0.38 | 0.32 | 0.18 |
| Aug-21 | 0.51 | 0.28 | -0.43 |
| Sep-21 | -0.01 | 0.98 | -0.47 |
| Oct-21 | -0.17 | 0.25 | 0.20 |
| Nov-21 | -0.97 | 0.49 | 0.40 |
| Dec-21 | 1.87 | 0.39 | 0.23 |

Source: Bloomberg, Eurekahedge

The sidecar market faces diminished capacity, as sidecar investors steer away from these vehicles. The base of investors withdrawing from sidecars was broad, including the typical ILS sidecar investors, mutual funds, rated insurers, and direct pension funds. The reduction in capacity led to a shift in market dynamics and a push by investors to lower ceding commissions—in some cases, by as much as a third.

## Divergent Returns

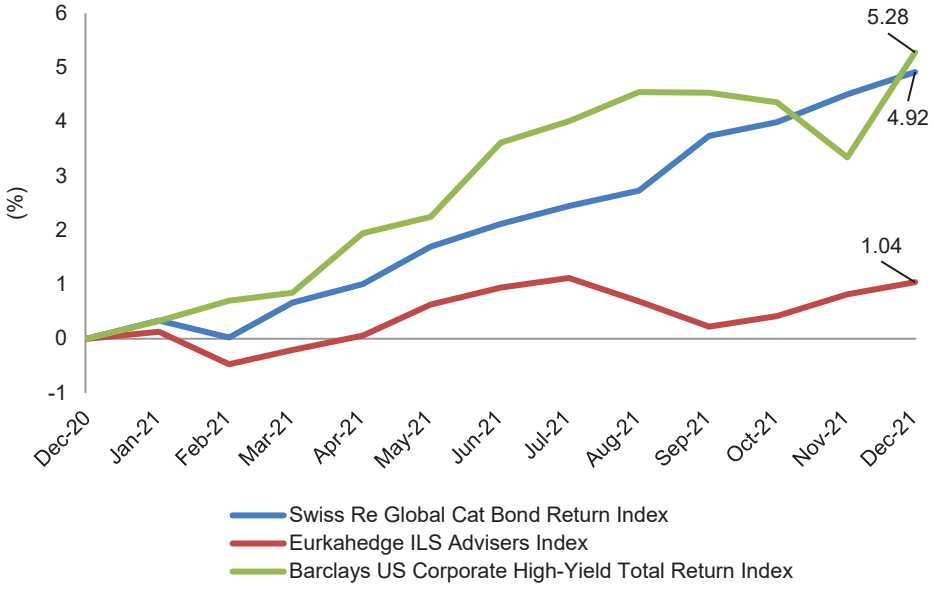
**Exhibit 3** shows the monthly returns for the Barclays US Corporate High Yield Total Return Index, Swiss Re Global Cat Bond Return Index, and the Eurekahedge ILS Advisers Index.[1] The Swiss Re Global Cat Bond Return Index increased every month in 2021 except February, when it declined 0.32% due to Winter Storm Uri. The Eurekahedge ILS Advisers Index was more volatile, falling by 0.60% in February, 0.43% in August, and 0.47% in September. The declines were due mainly to Winter Storm Uri in February, Bernd floods in July, and Hurricane Ida in August and September.

**Exhibit 4** shows that the Swiss Re Global Cat Bond Return index and Barclays US Corporate High Yield Total Return Index outperformed the Eurekahedge ILS Advisers Index in 2021. Eurekahedge ILS Advisers Index showed a cumulative return of 1.04% in 2021; Swiss Re Global Cat Bond Return Index, 4.92%; and Barclays US Corporate High Yield Total Return Index, 5.28%. Cat bonds are attractive to investors due to the transparency of these structures, liquidity, contract certainty, a clearer understanding of potential exposed losses, and limited exposure to the pandemic.

[1] Eurekahedge ILS Advisers index provides a measure of the performance of underlying hedge fund managers that explicitly allocate and invest at least 70% of their portfolio in non-life insurance-linked investments.

Exhibit 4

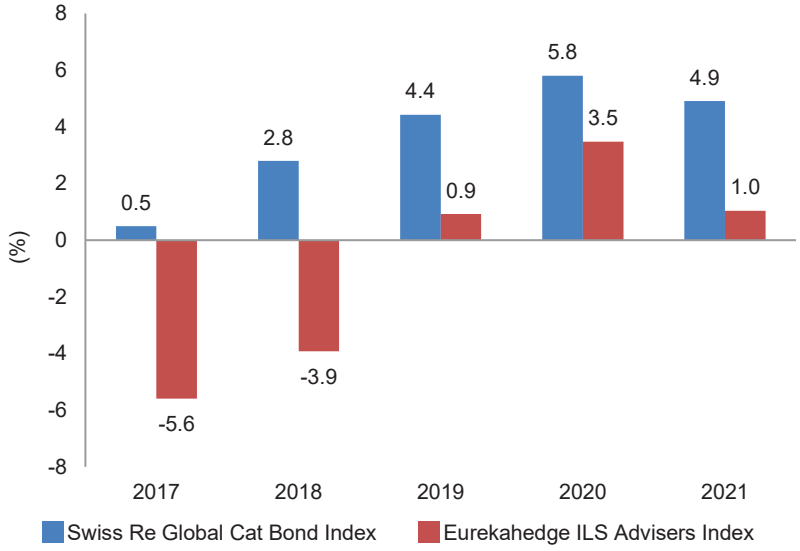
**Cumulative Returns, December 2020-December 2021**




Source: AM Best research and data

Exhibit 5

**Swiss Re & Eurekahedge Returns, 2017-2021**




Source: AM Best research and data

**Exhibit 5** shows that the Swiss Re Global Cat Bond Return Index has consistently outpaced the Eurekahedge ILS Advisers Index from 2017 through 2021. The Swiss Re Global Cat Bond Return Index shows losses triggered in the cat bond market associated with peak perils such as named storms and earthquakes, while the Eurekahedge ILS Advisers Index, which includes collateralized reinsurance, generally incorporates COVID-related losses and other secondary perils losses through aggregate contracts in addition to named perils losses.

## Retro Market Facing Capacity Issues

The retro market remains one of the most capital-constrained and loss-affected sectors. Insurance industry experts estimate the retro market at USD20 billion and believe the ILS market supply about 50% of that capacity. The ongoing rate increases in the last few years reflect the underpriced retro cover and the difficulty of appropriately pricing to the level of risk. The market faces a capacity problem for various reasons: elevated losses due to the increase in frequency and severity of catastrophe events, including secondary perils, since 2017; ILS trapped capital; and ILS investors' diminished appetite for writing aggregate cover.

Exhibit 6

**Soft Retro to 144A Cat bonds**

(USD millions)

| | Soft Retro | 144A Cat Bonds | % of Soft Retro to 144A Cat Bonds |
|---|---|---|---|
| 2017 | 3,152 | 10,345 | 30.5 |
| 2018 | 1,500 | 9,084 | 16.5 |
| 2019 | 2,240 | 5,344 | 41.9 |
| 2020 | 3,708 | 11,024 | 33.6 |
| 2021 | 2,655 | 12,530 | 21.3 |
| **Total** | **13,255** | **48,327** | **27.5** |

Source: AM Best research and data

The retro market is constrained due to losses and to the challenges of raising capital because of such losses. For example, Markel Corporation wound down its retro manager, Lodgepine Capital Management Limited, because of the difficulty raising capital. In addition, during the January 2022 renewals, Renaissance Re's Upsilon retro vehicle offered less than half the limit than it did in 2021, reflecting the impact of losses and trapped capital. Overall, traditional retro players such as Aeolus, AlphaCat, and Lancashire experienced losses that have shrunk capacity.

The challenges related to capacity availability and the appetite for writing aggregate retro have left some buyers in a more difficult position. The January 2022 retro renewals saw numerous delays, even beyond those seen at recent renewals. This market has been bogged down by capacity problems from time to time because of loss events and underpricing. Not only has capacity contracted, but whatever capacity is available is shifting to more risk-remote layers. As a result, protection sellers' appetite for a lower-attaching layer of excess of loss retro was limited. Retro protection sellers focused on restructuring coverage features rather than prices. Protection buyers have to either restructure their retro programs for the benefit of all or, if feasible, turn to soft retro cat bond programs issued by reinsurers with industry-loss index covers as a lower-cost alternative. Although retro buyers seeking this alternative to their usual indemnity retro covers leave themselves open to basis risk, taking on this risk is likely preferable to not having any coverage at all. **Exhibit 6** shows soft retro cat bonds issued from 2017 through 2021.

## Record Issuance of Cat Bonds in 2021

In 2021, issuance in the 144A cat bond market reached a record amount of approximately USD12.5 billion, exceeding the previous annual record set in 2020 by almost USD2 billion.

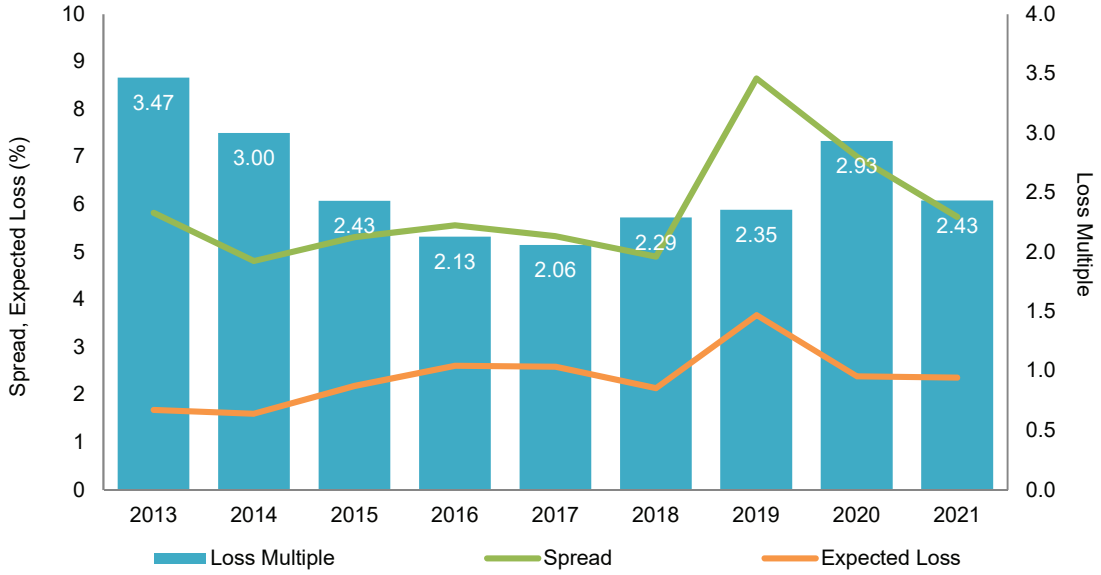
There was great interest in cat bonds from the ILS investor community due to the relatively attractive return, liquidity, transparency, and contract certainty offered by cat bonds. Capital remained abundant to satisfy the rise in issuance of cat bonds and, in many cases, led to the upsizing of issues, and some deals pricing down.

Despite the strong inflows of new capital, investors were disciplined and clearly demanded appropriate risk-adjusted returns, establishing a floor on pricing. As a result, cat bond returns were reasonably stable in 2021.

One metric ILS investors use to gauge the perceived reward/risk scenario is the loss multiple—the ratio of spread to expected loss. The spread is the compensation or premium to investors. The loss multiple has fluctuated from as high as 3.47x to as low as 2.06x during the past nine years.

Exhibit 7

**Loss Multiple = Spread to Expected Loss**




| Loss Multiple | |
|---|---|
| 1Q21 | 2.38 |
| 2Q21 | 2.35 |
| 3Q21 | 2.53 |
| 4Q21 | 2.61 |

Note: Spread and expected loss are dollar-weighted.
Source: AM Best research and data

**Exhibit 7** shows the loss multiple from 2013 through 2021. It declined steadily from 2013 to 2017, when it bottomed out at 2.06x. It then rose over the next few years, peaking at 2.93x in 2020 due to substantial cat losses. In 2021, the loss multiple fell to 2.43x, the same as in 2015, driven mainly by high investor demand for cat bonds.

The change in the loss multiple in the four quarters of 2021 reflects investor demand. The dollar-weighted loss multiple was 2.38x in the first quarter, 2.35x in the second, 2.53x in the third, and 2.61x in the fourth. Given solid investor demand for cat bonds, the number of transactions rose slightly in the first two quarters of 2021, with pricing at the lower end of guidance, but moderated during the last two quarters.

## AUM Down for Many ILS Fund Managers

By some estimates, the performance of some of the top-tier ILS fund managers declined at the end of 2021. ILS fund managers faced a challenging fundraising environment in 2021, which is likely to continue in 2022.

AUM at some funds declined at the beginning of 2022. As the data from Trading Risk in **Exhibit 8** shows, AUM at a number of ILS fund managers declined in 2021—Nephila Capital's AUM declined the most, to approximately USD8.8 billion in January 2022 from USD10.2 billion in July 2021. Cat bond specialist Fermat Capital moved into the second spot after Nephila. This reflects the demand for cat bonds due to the relative liquidity, transparency, and certainty of expected losses the cat bond market provides. Credit Suisse Asset Management's AUM has declined since the beginning of 2020, as losses and redemptions continue. ILS fund managers Aeolus Capital Management, AlphaCat Managers, and Stone Ridge Asset Management, which are heavily involved with retro or sidecars, also saw declines in their AUM.

## ILS Investors Adjusting Their Strategies

The ILS market remains attractive to investors due to its low correlation with the broader capital markets, providing a valuable source of diversification. However, investors are understandably

fatigued by the poor performance of some ILS sectors. For example, the Pennsylvania School Employees Retirement System (PSERS) plans to divest its ILS holdings, estimated at around USD835.2 million as of June 30, 2021, as part of a broad reallocation of its portfolio to public equities. In addition, the Arkansas Teachers Retirement System (ATRS) reduced its allocations in Nephila Capital Management ILS Fund and wound down investments in an Aeolus Capital management fund last year. The Dutch pension fund manager, PGGM, reportedly withdrew its mandate from an ILS fund in the second half of 2021 but increased its mandate with a few other ILS fund managers in the first quarter of 2021. Time will tell if investor fatigue is going to affect the overall ILS market.

Exhibit 8

**ILS Fund Managers with More than USD2 Billion Assets Under Management**

(USD billions)

| | Jan-22 | Jul-21 | Jan-21 | Jul-20 | Jan-20 |
|---|---|---|---|---|---|
| Nephila Capital | 8.8 | 10.2 | 9.6 | 9.5 | 10.4 |
| Fermat Capital Management | 8.2 | 8.0 | 7.6 | 7.0 | 7.0 |
| LGT Insurance-Linked Partners | 7.6 | 8.2 | 8.0 | 7.8 | 8.0 |
| Leadenhall Capital Partners | 6.2 | 6.4 | 6.4 | 5.6 | 5.6 |
| RenaissanceRe Capital Partners | 5.6 | 6.0 | 6.0 | 5.4 | 4.9 |
| Elementum Advisors | 4.3 | 4.4 | 4.4 | 4.1 | 4.3 |
| Securis Investment Partners | 4.1 | 4.1 | 4.5 | 4.8 | 5.4 |
| Schroders Capital ILS | 4.0 | 3.8 | 2.8 | 2.6 | 2.9 |
| Credit Suisse Asset Management | 3.9 | 5.2 | 5.8 | 6.2 | 7.2 |
| AlphaCat managers | 3.5 | 3.8 | 4.1 | 4.2 | 4.3 |
| Aeolus Capital Management | 3.3 | 4.0 | 4.0 | 4.0 | 4.2 |
| Stone Ridge Asset management | 3.1 | 3.4 | 3.8 | 4.1 | 5.1 |
| Hudson Structured | 3.0 | 2.6 | 2.6 | 2.1 | 2.0 |
| Scor Investment Partners | 3.0 | 2.9 | 2.4 | 1.7 | 1.5 |
| Pillar Capital | 3.0 | 2.5 | 2.3 | 1.9 | 1.8 |
| Neuberger Berman | 2.4 | 2.2 | 2.2 | 1.9 | 1.6 |
| Amundi Pioneer | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |

Source: Trading Risk

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