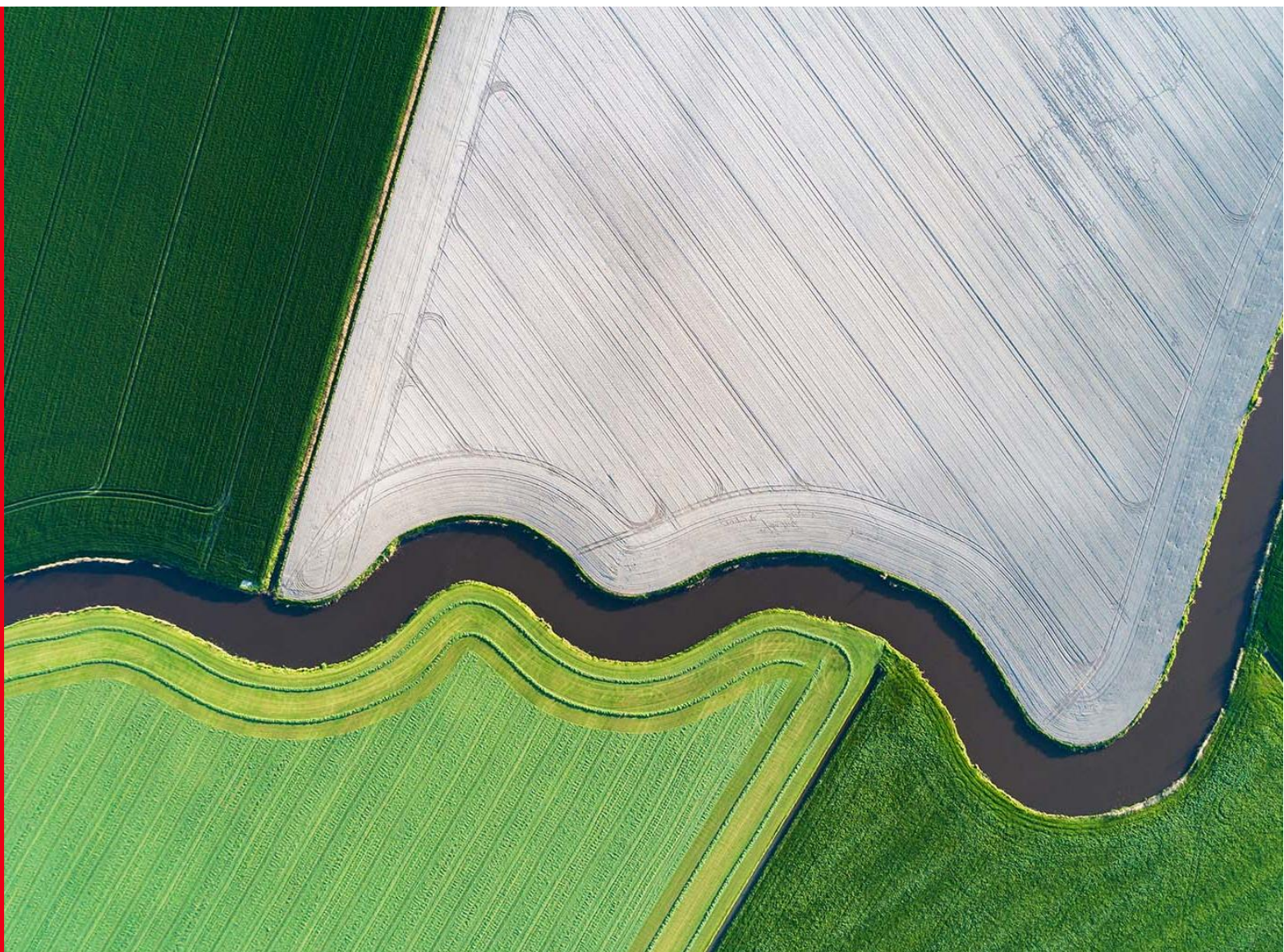




# ILS Annual Report

September 2024



## Executive Summary

Welcome to the eighteenth edition of the ILS Annual Report drafted by Aon Securities.

The past twelve months have been busy and exciting for all industry stakeholders. With record breaking catastrophe bond issuance in three of the past four quarters, the size of the market grew to \$45.6 billion, nearly 18% greater than where it stood as of the last publication of this report.

The market has benefited from capital inflows since early 2023, following Hurricane Ian's landfall in September 2022, the impact of which was far less significant than initially feared. Investors have benefited from wider risk margins while the diversification merits of insurance-linked securities continue to be clearly articulated to end allocators. Investors ultimately posted record returns in 2023, a trend which has continued into 2024. The sector's outperformance has also been well timed for insurers, reinsurers, corporates and governments: demand for additional ILS capacity has been unprecedented, as protection buyers contend with higher pricing in both the insurance and reinsurance markets. These dynamics combined to create an environment ripe for new issuance from Q4 2023 through Q2 2024.

New issuance came from all corners of the market with a record-breaking 64 sponsors bringing 76 transactions in the past year. Issuing entities coming to this market for coverage for the first time along with several who brought their first transactions in a decade drew investor interest with more diverse offerings, and new perils all together. Indeed, the introduction of cyber risk to cat bond investors for the first time ever was a groundbreaking step forward for risk buyers and seekers, alike. This new frontier lays the foundation for further growth in the ILS market, driven by a peril anticipated to be of increasing concern to businesses globally for years to come.

Beyond cyber, investors benefited from more geographically diverse portfolios and a wider array of risk types (commercial and specialty risk), increasing the attractiveness of a market whose primary draw remains a lack of correlation to broader financial markets.

The growth of the ILS market comes at a time when risk transfer needs are at their greatest. Inflation, evolving weather trends, and ambitious moves to close the protection gap have all driven a need for greater insurance and reinsurance capacity. Allocators to this space, now more than ever, have realized the substantial benefits of uncorrelated, consistent returns, strengthening the broader construction of their portfolios. Those in need of protection have benefited from the expanding capital base of the ILS market, a market which has outpaced growth across all other corners of the insurance industry. The growth in capital, driven by more diversified portfolios of risk on offer, serves to strengthen the resiliency of the insurance industry, an outcome we as industry stakeholders can all be proud of.



**Richard Pennay**, CEO Insurance-Linked Securities, Aon Securities LLC



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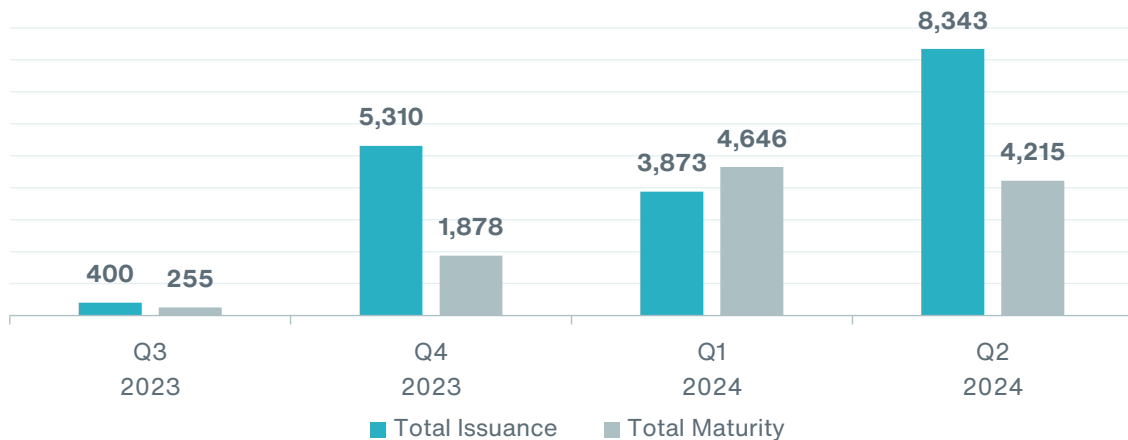
## Section 1. Update on the Market

### Overview & Market Size: A Year of Records

The past twelve months can be characterized as a year of records for the catastrophe bond market: record breaking issuance for three of the past four quarters, including the largest-ever first half issuance volume for a calendar year, resulting in over \$12.2 billion of new transactions coming to market. Cumulatively, the twelve months beginning July 2023 to June 2024 ended with issuance volume totaling over \$17.9 billion across 76 transactions.

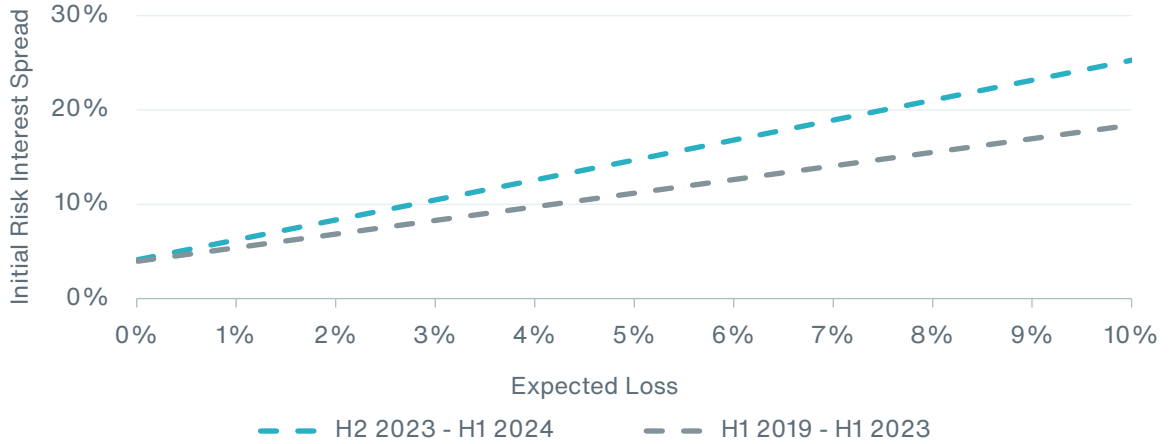
Record issuance was supported by overwhelming growth of the cat bond market. With nearly \$11.0 billion of maturities over the same twelve months, the market required over \$6.9 billion of growth to sustain the issuance volume over this period (see Exhibit 1 below, noting that quarterly issuance outpaced maturities in three of the past four quarters). Growth was driven by both coupon earned on outstanding issuance—estimated at roughly \$6.2 billion over the twelve-month period—and inflows of new capital chasing attractive spread levels. As shown in Exhibit 2 below, risk margins for the past twelve months were wider on average than they had been during the prior five-year period.

**Exhibit 1** Total Issuance vs. Maturities, H2 2023 – H1 2024



Source: Aon Securities.

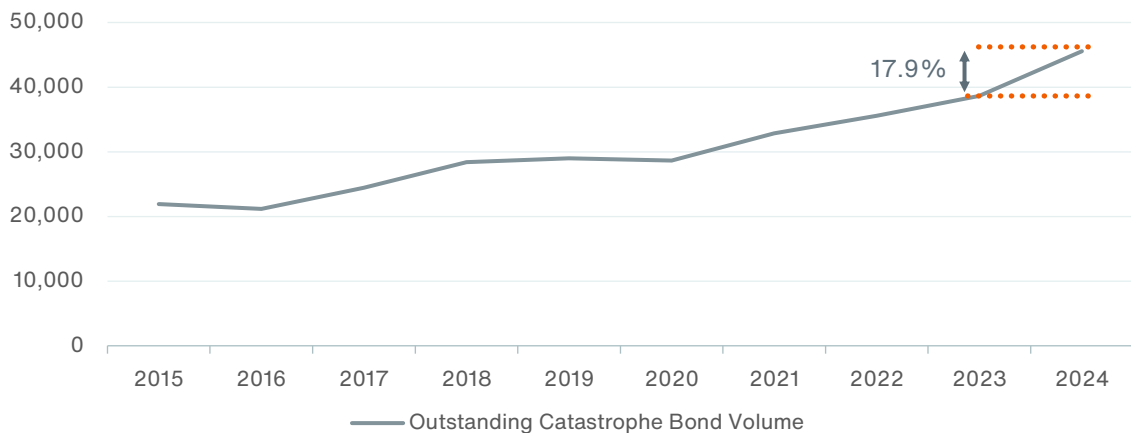
**Exhibit 2** Linear Trendline of Initial Risk Interest Spread Across All Transactions (excl. Life & Health)



Source: Aon Securities.

The widening risk premium in cat bonds aligned with an environment of rate hardening seen across the broader property reinsurance market throughout 2023. Sponsors, noting the relative value of the cat bond market to traditional reinsurance and the well-known benefits of purchasing cat bond protection (e.g., multi-year capacity, collateralized coverage, price discovery, etc.) seized the opportunity to bring new deals to market, ultimately leading to a demand for capital that outpaced supply by mid-year 2024. An environment of heightened inflation—while reduced from the twelve months beginning July 2022 to June 2023—added to clients’ risk transfer needs, further fueling new issuance. As a result, outstanding catastrophe bond capital reached \$45.6 billion as of June 30, 2024, a 17.9% increase from the same time last year.

**Exhibit 3** Outstanding Property Catastrophe Bond Capacity as of June 30, 2024

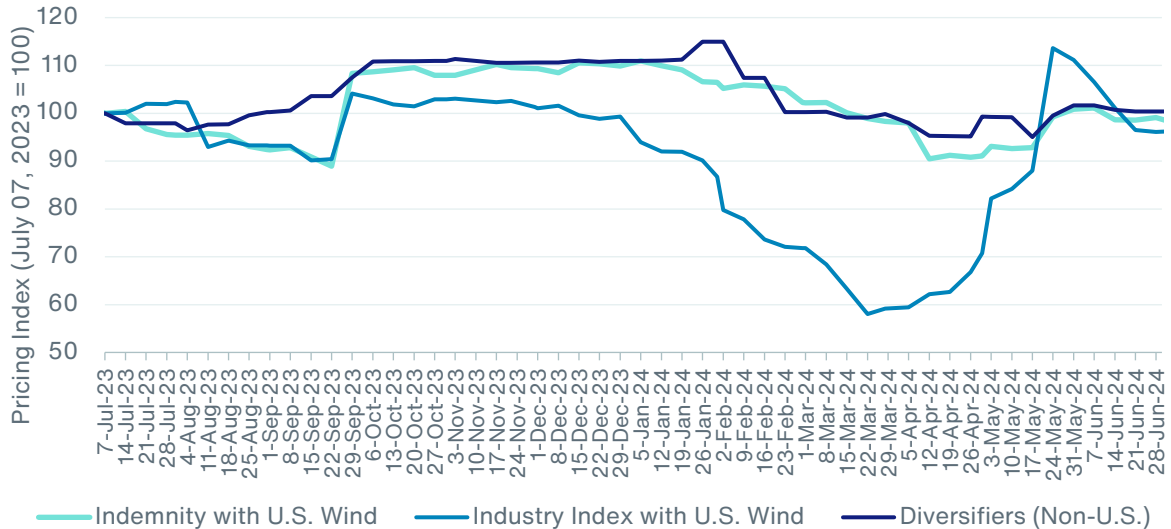


Source: Aon Securities.

As demand for capital outstripped supply, prices in the secondary market responded in due course. The trend was particularly pronounced with index deals, where secondary spreads indexed to July 7, 2023,

tightened first by 44.3% (in response to the supply of capital), and then spiked over 95% before mid-year 2024, as illustrated by the light blue line below.

**Exhibit 4** Aon Pricing Index



Source: Aon Securities.

Apart from the record setting issuance volume for the year, the past twelve months have also featured a diversity of sponsors and risks covered, including the arrival of the first-ever 144A cyber catastrophe bond. All told, five cyber catastrophe bonds were issued in the past year, totaling \$575 million in issuance. While cyber risk accounts for just over 1% of the outstanding risk in the market, the development of a structure which supports the cession of systemic cyber risk to ILS investors represents a monumental feat, many years in the making. Further, the structure sets the foundation from which sponsors can build on to bring more cyber risk to market, further diversifying investors' portfolios.

As was to be expected, several longstanding sponsors continued to leverage this market, including USAA, Allstate, American Family, Heritage, and Nationwide, all with takedowns of existing programs. Further, we witnessed an influx of government sponsors—a topic for further discussion later in this report. In addition to the familiar names, however, there were several first-time entrants to this market, and others who had been absent for some time. To name a few:

- Selective Insurance Company of America** – Selective Insurance, a super-regional insurance carrier writing primarily standard commercial lines business as well as a small percentage of excess and surplus lines and standard personal lines, came to market in December 2023 with its first-ever catastrophe bond offering. Signaling investors' appetite for diversifying regions and risks (with a significant amount of the total insured value coming from New Jersey, Pennsylvania, and other northeast and mid-Atlantic states), the transaction upsized from the initial announcement size of \$200 million to \$325 million. The transaction covers the suite of natural hazard events, including named storms, earthquakes, severe thunderstorms, winter storms, wildfires, meteorite impacts and

volcanic eruption (excluding California, Florida, Louisiana, and New York). The deal also priced within the initial guidance at 5.75% for 0.89% of expected loss.<sup>1</sup>

- **VKB Re** – Versicherungskammer Bayern Konzern Rückversicherung Aktiengesellschaft (“VKB Re”) became the first German domestic insurer to sponsor a catastrophe bond in the history of the ILS market. The debut cat bond offered protection against losses from windstorms, hail storms, floods and earthquakes affecting the Federal Republic of Germany on a per occurrence basis, representing another opportunity for investors to diversify their portfolios. As anticipated, demand for the transaction resulted in upsizing from the initial announcement size of €150 million to €175 million.
- **Beazley** – In a first of its kind transaction, London headquartered specialty insurance and reinsurance underwriter, Beazley, accessed the capital markets by way of the UK domiciled Lloyd’s of London Bridge 2 PCC Limited special purpose vehicle, marking the first time the vehicle was used to issue a catastrophe bond. The transaction serves to protect a wide array of risks including commercial property, high value homes, and other specialty risks from named storm and earthquake events in the U.S., Canada and certain Caribbean islands, thus providing investors with exposure to non-standard lines of business. Beazley secured \$100 million of protection at a risk interest spread of 10% for 2.63%<sup>2</sup> of expected loss.
- **Brookfield Property Group LLC** – In March 2024, alternative asset manager Brookfield, brought to market a transaction intended to cover substantially all of the properties owned on its balance sheet, and risks in vehicles managed by Brookfield Asset Management which are covered under Brookfield Property Group LLC’s insurance program in the U.S. and Canada. Similar to its peer, Blackstone (who similarly brought a deal in July 2023 covering assets in its real estate investment funds), Brookfield is one of the world’s largest real estate businesses with over \$270 billion of assets under management as of September 2023. The contribution to expected loss is driven largely by exposure to California earthquakes, and the second largest contributor is Hawaii named storm, resulting in yet another diversification play for investors.

Given the potential for growth in assets in the underlying insured funds, the deal includes mechanics intended to safeguard investors against unconstrained growth such that the coupon will be adjusted should the total insured value and corresponding estimated change in expected loss grow beyond a pre-defined threshold.

The transaction attracted abundant support from investors, resulting in price tightening from initial guidance of 5.75% to 6.50% down all the way to 5.25% for \$100 million in final size.

- **The Hartford** – At the end of 2023, The Hartford returned to the cat bond market for the first time since 2011, demonstrating the appeal this market has for newcomers and those who have been absent for a period of time. The \$200 million transaction furthered the theme of bringing diversifying risk to investors, with a significant portion of the risk coming from commercial properties in the northeast U.S. As expected, the offering was met with significant demand, pricing at the tighter end of initial guidance—6.25% for 1.43% of expected loss<sup>3</sup>.

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<sup>1</sup> Based on AIR’s Warm Sea Surface Temperature Conditioned Catalog

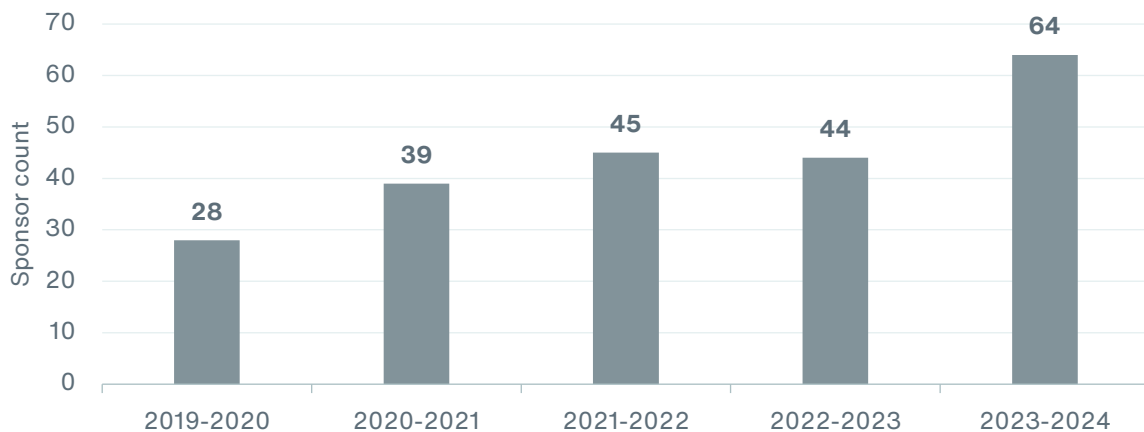
<sup>2</sup> Based on RMS’s North Atlantic Hurricane Model Medium Term Rates

<sup>3</sup> Based on AIR’s Warm Sea Surface Temperature Conditioned Catalog

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The aforementioned transactions are just a handful of the record-breaking 64 sponsors that came to market during this twelve-month period, 20 more than the prior year, as noted in the exhibit below. The demand for risk transfer capacity from the ILS market speaks to a trend in which sponsors observed relative value for the price of risk compared with traditional markets, and further, the overall growth in risk transfer capacity needs that resulted from several years of cumulative inflation and growth in the underlying insurance market.

**Exhibit 5** Property Catastrophe Bond Sponsor Count (July 1 to June 30)

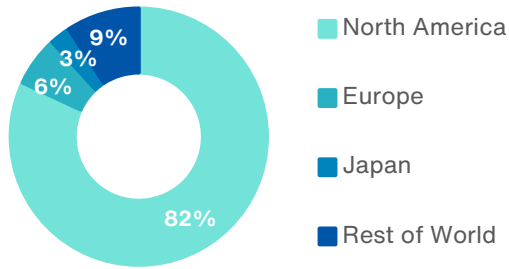


Source: Aon Securities.

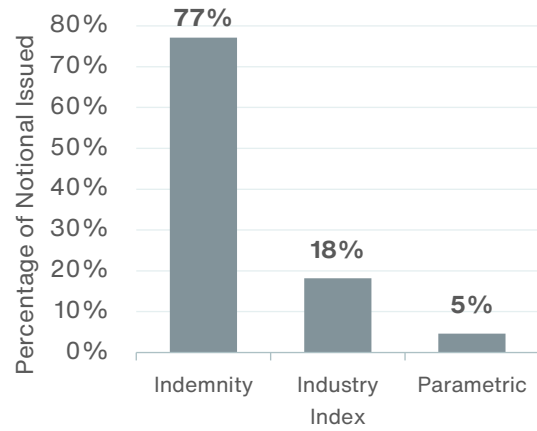
Investors supported record-breaking growth with new funds raised and redeployment of premiums earned, and then ultimately benefited from portfolios with greater diversity of risk, both with respect to peril and geography—note Exhibit 6 below wherein the percentage of risk coming from North America has decreased to 82% this past year from 90% the year preceding. With outstanding cat bond capacity exceeding \$45 billion, we can anticipate a more broadly diversified cat bond market that is here to stay, particularly to the extent investors seek to reward diversifying risk. The presence of more diversified portfolios of risk is just one further attribute which serves to strengthen the resilience of this market.



**Exhibit 6** Geographic Breakdown of New Issuance (% of Issued Notional)  
July 1, 2023 to June 30, 2024

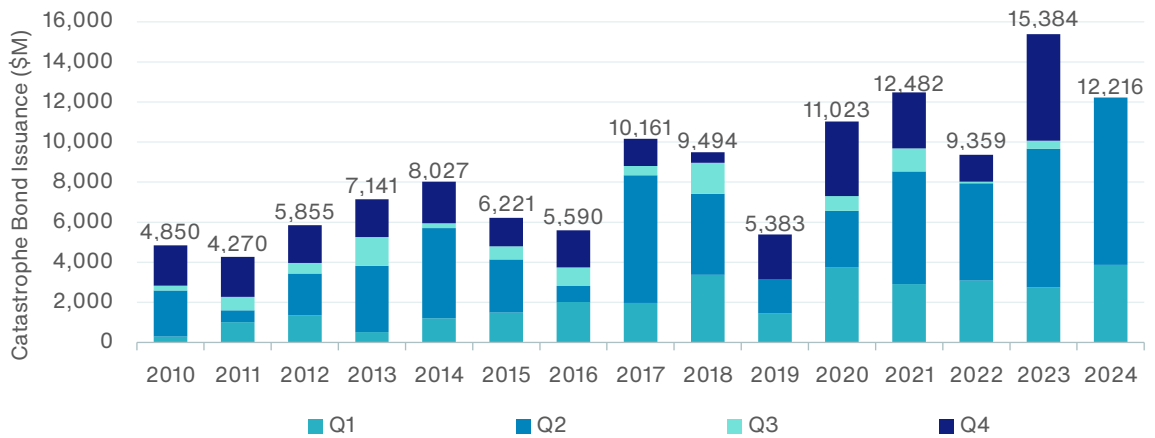


**Exhibit 7** Loss Trigger of New Issuance:  
July 1, 2023 to June 30, 2024



Source: Aon Securities.

**Exhibit 8** Property Cat Bond Issuance by Quarter: 2010 to 2024



Source: Aon Securities.

## Growth in ILS Sidecar Market

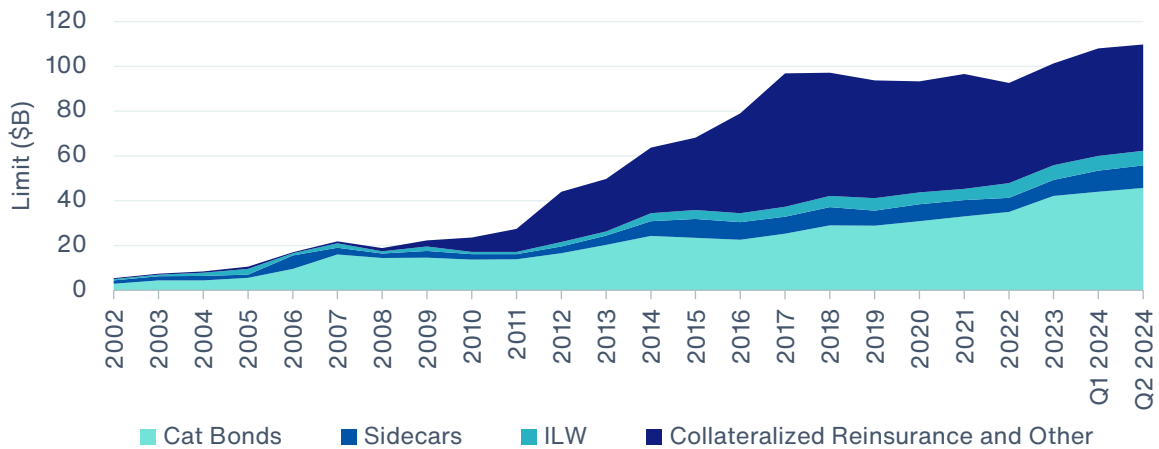
Apart from cat bonds, the new issue sidecar market continued its own reemergence as investors supported property portfolios similar to past cycles as well as innovative casualty structures. New issuance combined with the strong returns from sidecars already outstanding to push total outstanding sidecar volume to a new estimated record of \$10.0 billion compared to \$7.1 billion in 2023. This record surpasses the previous peak of outstanding volume: \$8.4 billion set in 2015. Growth of the sidecar market was facilitated by the return of past ILS investors who waited out the soft market cycle and new investors attracted by heightened returns.

Higher potential returns in property sidecars have been driven by historically elevated premium rates, more remote attachment levels for underlying treaties, and narrowed coverage definitions. Importantly, the property sidecar cycle is being driven not only by reinsurance portfolios but also insurance portfolios. Insurers are looking to sidecars as a source of proportional reinsurance to address the increased earnings volatility from higher excess of loss retentions.

Aon Securities is honored to have worked alongside Ascot Group Limited (“Ascot”) in developing a partnership with institutional investors through Ascot’s new Leadline Capital Partners platform. The initial transaction grants investors access to Ascot’s global property portfolio and simultaneously provides Ascot with collateralized reinsurance protection to support business growth. The ceded portfolio consists of global risk sourced by Ascot, including direct and facultative business, excess and surplus lines, and reinsurance treaty and retrocession. The transaction establishes a framework for future growth while delivering attractive risk-adjusted returns to capital partners.

Casualty sidecars have also developed as the combination of improved casualty insurance pricing, higher interest rates, and substantial risk spreads for private credit instruments make these structures possible. Investors are seeking structures which provide long-dated investment float to manage within their asset management platforms. This dynamic has allowed (re)insurers to negotiate attractive cession terms to supplement their traditional coverage.

**Exhibit 9** Alternative Reinsurance Capital 2002 to Q2 2024 (Limit in \$B)

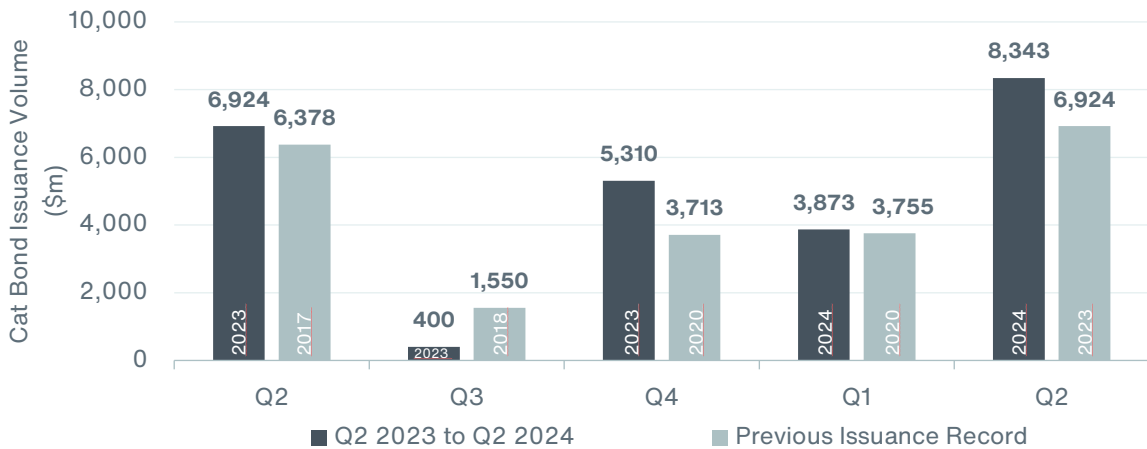


Source: Aon Securities.

## Primary Market: Record Issuance and Portfolio Diversity

Hurricane Ian and the broader macroeconomic events of 2022 resulted in a significant spike in reinsurance pricing, incentivizing abundant inflows of capital to the cat bond market from investors chasing record returns. With the supply of capital high, prices tightened leading into the second half of 2023, thus motivating sponsors to bring new transactions to market. These dynamics led to the largest twelve months of issuance volume in the history of the market, including record breaking issuance amounts for three of the past four quarters, as illustrated below.

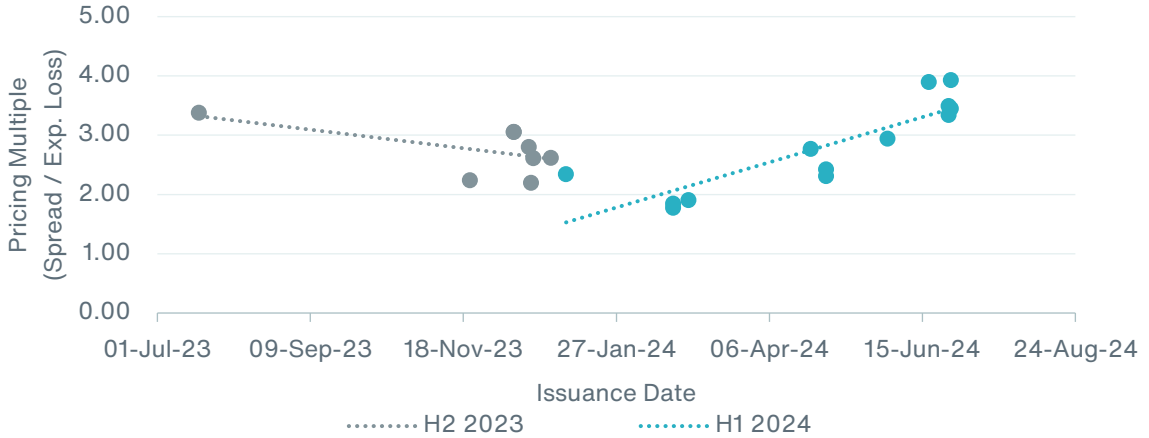
**Exhibit 10** Record Breaking Issuance Quarters



Source: Aon Securities.

The supply driven increase in dealmaking also created some interesting pricing dynamics in the new issuance market. Initially, the influx of capital resulted in tighter pricing, resulting in a slew of issuance later in the second half of 2023. The tightening trend in pricing (for index triggered cat bonds) is illustrated below in Exhibit 11, in gray. The increased level of issuance continued for the first half of 2024, initially at similar and even tighter levels than that of which was experienced at the end of 2023. As anticipated, however, the increase in dealmaking resulted in a tightening of the capital supply, and thus the widening of new issue spreads in H1 2024, as noted in light blue below.

**Exhibit 11 Industry Index Catastrophe Bond Issuance Pricing Multiples, H2 2024 – H1 2023**



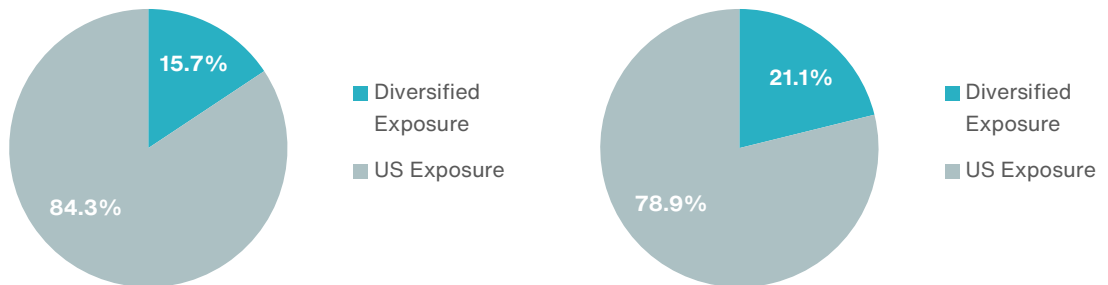
Source: Aon Securities.

Beyond the record-breaking issuance levels which were a highlight of the last twelve months, the diversity of risk ceded to the market has also been notable. In the past twelve months, fourteen sponsors brought transactions to market for the first time ever. Several other sponsors returned to the market after over a decade of absence issuing cat bonds, including Chubb, who came to market at the end of November with a cyber cat bond offering, The Hartford and Beazley. As a result, ILS investors now have cat bond portfolios with more commercial risk and a more geographically diverse footprint.

To illustrate this point, the pie charts below show the amount of non-U.S. diversifying peril exposure as a percentage of all issuance volume for the past twelve months versus the prior five years. The increase in non-U.S. diversified exposure—driven by seven issuances of purely European exposure totaling over \$1 billion in volume, two transactions out of Japan, and several issuances sponsored by the World Bank—serves to strengthen the appeal of a market that attracts investors on the basis of its lack of correlation to broader financial markets.

**Exhibit 12 H2 2018 – H1 2023 Market Diversity**

**Exhibit 13 H2 2023 – H1 2024 Market Diversity**

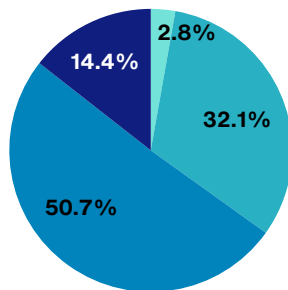


Source: Aon Securities.

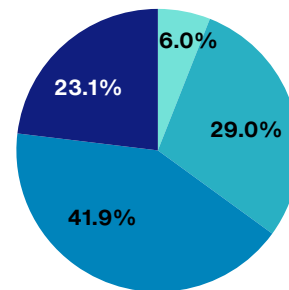
## Growth in Government and Insurer Sponsors

A highlight of the past year was the utilization of the cat bond market by government and multi-national sponsors, bringing risk often more geographically diverse than that of regular issuers. As illustrated below, over 32% of the issuance volume over the twelve months beginning July 1, 2023 and ending June 30, 2024 came from government sponsors, compared to 28.4% in the five prior years.

**Exhibit 14** Breakdown of Sponsor Type, H2 2023 – H1 2024



**Exhibit 15** Breakdown of Sponsor Type, H2 2018 – H1 2023



■ Corporate ■ Government ■ Insurer ■ Reinsurer    ■ Corporate ■ Government ■ Insurer ■ Reinsurer

Source: Aon Securities.

The nearly \$5.8 billion of issuance volume this year sponsored by government entities was led by a handful of cedents: the California Earthquake Authority (\$880 million), Citizens (\$1.1 billion) and the Texas Windstorm Insurance Association (“TWIA”) (\$1.4 billion, their largest issuance ever). Several issuances were also completed by the International Bank for Reconstruction and Development (“IBRD”) on behalf of Mexico and Jamaica, both nations of which have leveraged the cat bond market in prior years. The IBRD’s progress of bringing sponsors with meaningful risk transfer needs to this market helps to further close the protection gap in nation states where insurance penetration is shallower, all while creating further diversification benefits for ILS investors.

As illustrated by Exhibits 14 and 15 above, the market also benefited from a surge of primary insurer sponsored transactions. Issuance volume from primary insurers jumped to nearly \$9.3 billion from \$5.6 billion the year prior, driving home the point that insurers saw relative value in the ILS market compared to their traditional placements this year. With a significant number of new sponsors in the market as a result, we can expect to see many of these names return in future years as they realize the benefits of accessing diversified sources of capital, both from a cost and capacity perspective. In total, there were 36 distinct primary insurers who brought deals to market this year, compared with 25 the year prior, a 40% increase.

## 144A Cyber Cat Bonds: A New Frontier

In line with the theme of growing diversification within the cat bond market was the development this year of the 144A cyber cat bond product, a monumental step forward in the market for alternative risk

transfer. Aon Securities is proud to have brought to market the first-ever 144A cyber catastrophe bond on behalf of AXIS Capital, Long Walk Reinsurance Ltd. 2024-1 (“Long Walk”).

The transaction protects AXIS against the occurrence of systemic cyber events arising from a single point of failure and resulting in claims from multiple insureds. Systemic cyber events can be the result of non-malicious cloud outage events, malware attacks, data breaches, and extortion, to name a few. The event definition for this first cyber cat bond trade is intended to cover strictly systemic “cat” events, analogous to large natural catastrophe events in terms of market impact and newsworthiness. Such a definition ensures that the risk is truly short tailed in nature and that catastrophe bond mechanics designed with the claims development of natural disasters in mind are similarly applicable (e.g., extension period).

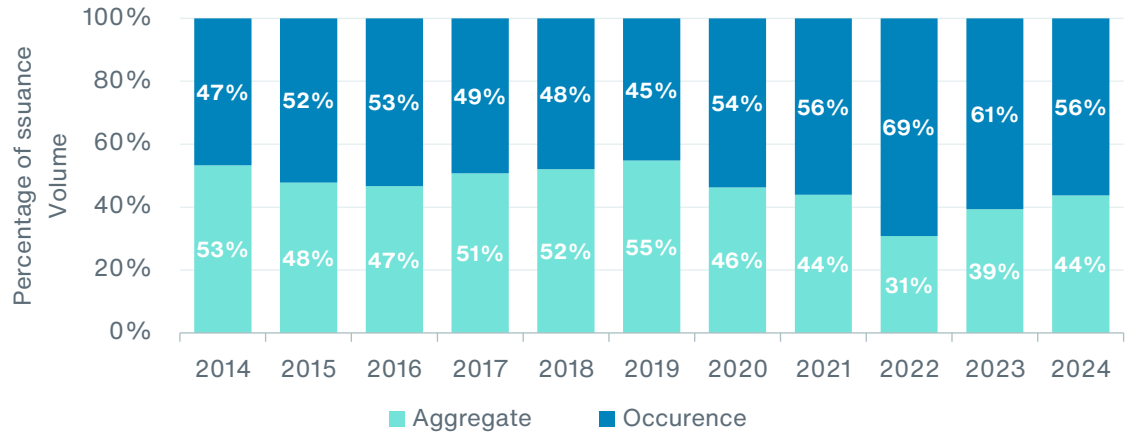
Long Walk attracted broad interest from ILS investors, pricing below the announcement guidance at 9.75% and closing at \$75 million in size. Q4 2023 ultimately featured four separate 144A cyber catastrophe bonds brought to market, highlighting cedents’ desire to develop alternative sources of capital for cyber risk and ILS investors’ appetite to gain access to a peril which is diversifying to existing concentrations of natural catastrophe risk. Across the twelve months ending June 30, 2024, a total of \$575 million of limit has been placed in the form of 144A cyber catastrophe bonds across five transactions and four sponsors. While still a relatively small footprint in comparison to the limit exposed to natural catastrophe events, the completed transactions lay the foundation and framework from which to increase the level of cyber risk ceded to the ILS market, thus expanding the pool of capital available for an increasingly relevant and growing peril.

## Catastrophe Bond Market Characteristics

### Aggregate Issuance Follows Softening Markets

While a healthy amount of apprehension continues to surround the U.S. multi-peril aggregate structure—subject to triggering from the accumulation of attritional severe convective storm, winter storm and wildfire losses—we have seen growth in aggregate transactions follow years of softening markets. As illustrated in the chart below, aggregate issuance peaked in the 2018 – 2019 issuance year and declined steadily from then until June 2022 while the market hardened slowly, and then more abruptly from 2022 into 2023. Market consensus during this period was that risk takers had become increasingly sensitive to attritional losses from secondary perils. While a market for aggregate risk continued to exist during this period of rate hardening, such transactions were placed at prices with much wider margins over expected loss relative to occurrence transactions, and further with tighter terms and conditions (e.g., higher event deductibles to reduce the impact of attritional and non-modeled loss). Following the abrupt spike in rates on the heels of Hurricane Ian in 2022, and ensuing influx of capital, rates gradually softened, ushering in an increase in aggregate issuance. In June 2023 to June 2024, the percentage of aggregate bonds increased from 39% to 44%, indicating an increased openness amongst investors for exposure to secondary perils, though still well below historical peaks.

**Exhibit 16** Indemnity Trigger by Issuance Volume: 2014 – 2024 (years ending June 30)

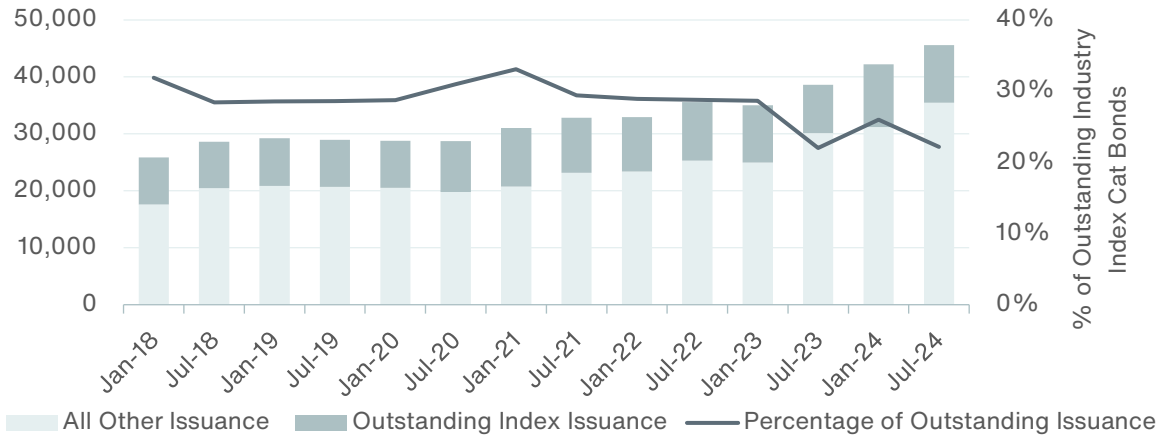


Source: Aon Securities.

## Proportional Reduction in Industry Index Trades

As illustrated below, issuance of industry index triggered cat bonds as a percentage of the market remained relatively flat at roughly 22% of the total cat bond market issuance volume. While the share of index bonds as a percentage of the overall market is down from its peak in 2021 at over 30%, the light gray below illustrates the larger message, which is that growth in the cat bond market has been driven by non-index triggered cat bonds. To put a number on it, the compound annual growth rate of all non-index triggered cat bonds since January 2018 is 11.4% vs. 3.2% for index-triggered cat bonds. While an increasing number of reinsurers have accessed the ILS market over the past five years (14 index trades in 2023 – 2024 vs. an average of 10 over the preceding five years), average deal sizes have decreased from \$218 million over the preceding five years to \$174 million this past year, resulting in a general reduction of industry index transactions as a percentage of the market. Conversely, primary insurers, corporates and government sponsors have fueled growth in overall outstanding cat bond capacity, driven by times when the supply of ILS capital resulted in relative value for sponsors in this market versus what was available from traditional reinsurers' balance sheets.

**Exhibit 17** Outstanding Industry Index Catastrophe Bonds as a Percentage of Total Outstanding Catastrophe Bond Market



Source: Aon Securities.

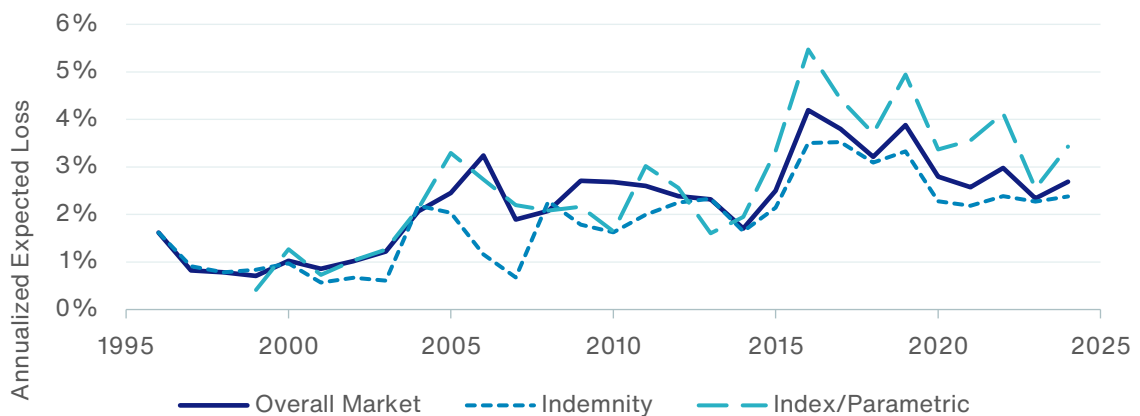


## Expected Loss Concentration

Average expected loss has stayed relatively consistent over the past several years, sitting between 2 and 3%, and down significantly since the peak in 2016 (over 4%), as illustrated below. The trend is even more pronounced for indemnity issuances, wherein over 80% of the total issuance volume this past year had less than 3% expected loss; for index / parametric transactions, on the other hand, over 60% of the total issuance volume this past year is higher, within the 2 to 4% expected loss range; another 32% is between 5 and 6% expected loss.

The rationale for the divergence in risk profiles is tied to the underlying sponsors. Indemnity cat bonds issued by primary insurers tend to sit atop cedents' risk transfer towers, resulting in greater concentrations of remote risk amongst indemnity-triggered transactions. Transactions with index triggers, however, are more typically sponsored by reinsurers who purchase retrocessional coverage across the risk spectrum, thus the prevalence of riskier layers amongst index trades.

**Exhibit 18** Average Annualized Expected Loss for New Cat Bond Issuance<sup>4</sup>



Source: Aon Securities.

<sup>4</sup> Where applicable, sensitivity view of the U.S. Hurricane catalog was used to generate view of modeled expected loss.

**Exhibit 19** Cat Bond Issuance: July 1, 2023 to June 30, 2024

Expected Loss Range	Indemnity	Index	Total
0.5 - 1.0%	17%	3%	15%
1.0 - 2.0%	41%	15%	35%
2.0 - 3.0%	25%	44%	28%
3.0 - 4.0%	10%	6%	9%
4.0 - 5.0%	1%	9%	3%
5.0 - 6.0%	4%	23%	8%
6.0 - 7.0%	2%	0%	2%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: Aon Securities

## Secondary Market

In the twelve months spanning July 2023 to June 2024, the secondary market once again acted complementary to the market for primary issuance.

The second half of 2023 began quietly, as is customary. By November 2023, however, the market experienced a steady flow of trading. As primary issuance picked up and bonds matured, trading activity also intensified. Over the final two months of the year the market saw a much more significant volume of well-balanced two-way trading.

The steady turnover of bonds continued into 2024; however, a later than expected pipeline for new issuance resulted in an imbalance (over-supply) of capital in the market and spreads began to quickly tighten. By the start of Q2 2024, a stream of new issuance came to market and balanced two-way flow was restored in the secondary market. April 2024 appeared to be one of the busiest trading months since the onset of the Covid-19 pandemic in Q2 2020, and signaled a turning point in the market.

Investors who had been flush with cash in early April suddenly found themselves thin on capacity after absorbing \$7.5 billion of new issuance across April and May, including three transactions of over \$1 billion in size. Secondary spreads widened rapidly in May and early June. Most bonds traded above par at the start of May but dropped well into the 90s by early June. One of the more notable price changes was on the Lightning Re bonds which hit its high in the mid-108s in March, only to trade as low as 98 in May. The Herbie bonds that were issued at the start of the year saw their pricing drop into the 80s just a few months after they were issued. The entire market continued to widen through early June with both high expected loss industry index bonds and Florida wind bonds experiencing the greatest widening, partially as a result of capacity constraints and also due to the general risk apprehension that came on the heels of ominous forecasts for the North Atlantic hurricane season.

Once the new issue pipeline ran dry and investors replenished their cash positions through maturities and coupon payments, investors again bid up in the secondary market, driving, once again, a tightening of spreads. At the time of this writing, the market continues to see strong bids in the market, particularly for bonds exposed to wind risk with low expected loss, as well as earthquake and diversifying risk. Barring any significant cat loss activity during the wind season, Aon Securities anticipates strong bidding to persist into the second half of 2024.

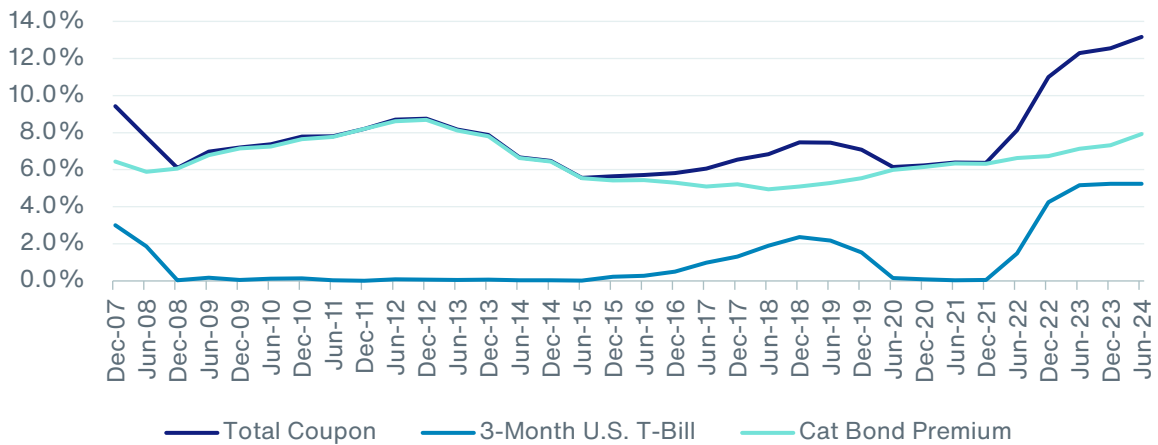
## Broader Market Impact

### Impact of Collateral on Overall Returns

Similar to last year, and as described earlier in this report, catastrophe bond spreads continue to offer significant total returns to allocators in this space. As illustrated below, while interest rates have more or less flattened over the past year (and thus interest earned on collateral invested in AAA-rated U.S. money market funds), the coupon earned on risk premiums over expected loss continued to grow, resulting in an estimated total annualized return of 13.2% for all outstanding cat bond issuance, compared with 12.3% at the same time last year. Barring any significant loss events, investors stand to earn meaningful returns, much of which can be reinvested into the market, resulting in the potential for further growth, setting aside any new allocations to the space.

The increased risk-adjusted spread levels, combined with a muted 2023 loss year resulted in catastrophe bonds generating the best returns of any alternative asset class last year<sup>5</sup>. While the good news is certainly welcome, it's just another feather in the cap for ILS as an asset class, which in addition to offering record-breaking returns, benefits allocators who seek uncorrelated return streams. As any reader of this report by now understands, the diversification benefits of ILS as an asset class are hard to beat amongst other alternative asset classes.

**Exhibit 20** Total Coupon Earned on Outstanding Catastrophe Bond Issuance—Risk Interest Spread *plus* 3-month U.S. T-Bills<sup>6</sup>



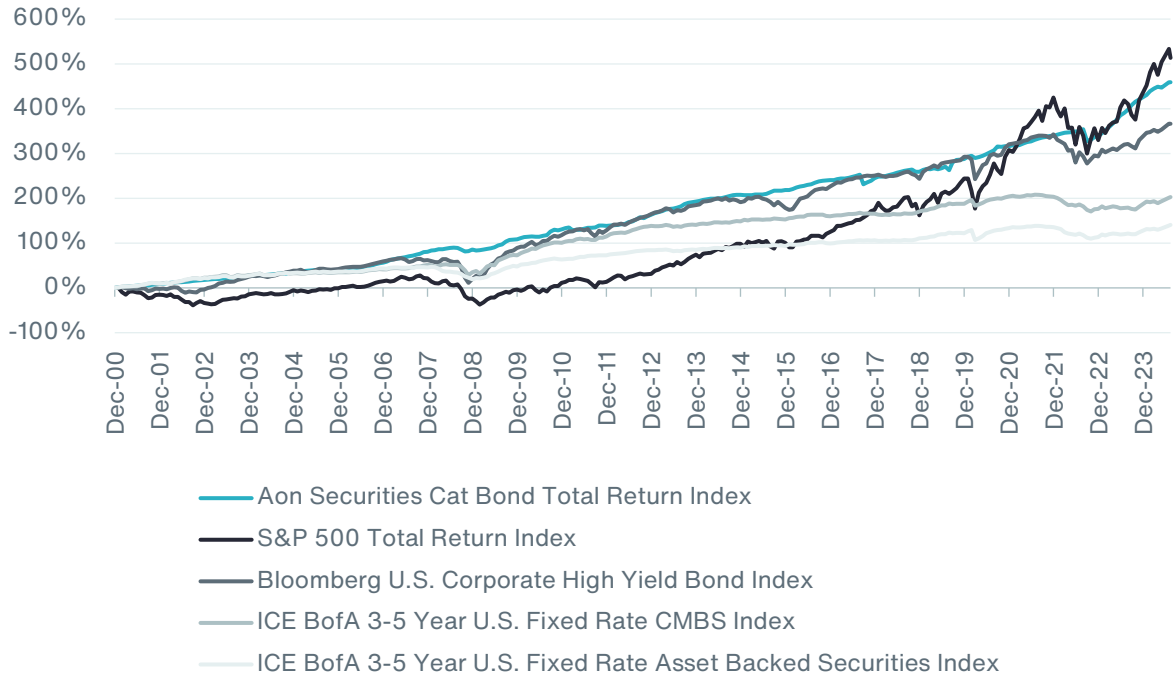
Source: Aon Securities and Federal Reserve Bank of St. Louis.

Further to that point, Exhibit 21 illustrates cumulative returns for the ILS market, represented by the Aon Securities Cat Bond Total Return Index, compared to equities, high yield bonds, commercial mortgage-backed securities and asset backed securities. While cumulative returns for the Aon Securities Cat Bond Total Return Index sits in between the S&P 500 and Bloomberg U.S. Corporate High Yield total return indices, the more remarkable point is the absence of volatility in cat bond returns relative to the S&P 500 and high yield debt. As illustrated below, on a relative basis, cat bonds remained largely unaffected by major economic disruptions (e.g., Covid-19, 2008 global financial crisis) whereas the other asset classes shown experienced significant swings in returns. As evidenced by this chart, the ILS market continues to offer investors a diversified and consistent return profile, exhibiting low volatility in times of global financial uncertainty.

<sup>5</sup> <https://www.bloomberg.com/news/articles/2024-01-21/hedge-funds-rake-in-record-profits-betting-on-catastrophe-risk>

<sup>6</sup> Cat bond premium calculated for each half year by taking the initial risk interest spread for each transaction and multiplying by the respective original principal amount and normalizing to the total issuance amount for the respective half year; 3-Month U.S. T-Bill rates were pulled from the Federal Reserve Bank of St. Louis.

**Exhibit 21** Aon Securities Cat Bond Total Return Index Versus Financial Benchmarks



Source: Aon Securities and Bloomberg.

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## Section 2. Significant Catastrophe Events

### 2023 Catastrophe Activity

According to Aon's 2024 Climate and Catastrophe Insight report, global natural disasters resulted in above-average economic losses totaling \$380 billion, driven by a few significant earthquakes and severe convective storm activity in the U.S. and Europe. The loss to insurers was \$118 billion in 2023, above the average for the 21<sup>st</sup> century, and driven by the earthquakes in Turkey and Syria, and severe convective storm activity, which was ultimately the most damaging peril for insurers. Notable events in the second half of 2023 were the severe convective storms in Europe in late July, the Hawaii wildfires in mid-August, totaling \$3.5 billion of insured loss, and Hurricane Otis in late October, resulting in \$1.4 billion of insured loss in Mexico.

2023's above-average catastrophe activity was driven largely by frequency of small-to-medium size events versus extremely costly hurricanes and earthquakes. In 2023, an unprecedented 37 total loss events exceeded \$1 billion of insured loss, 25 of which were severe convective storms, and 21 of which occurred in the United States. Conversely, no individual disaster resulted in insured losses above \$10 billion for the first time since 2016.

Cumulatively, the insured losses from severe convective storm outbreaks in the U.S. reached nearly \$58 billion, a record. The next costliest year on record for severe convective storms in the U.S. is 2020 at \$14 billion.

The Lahaina wildfire in Maui County, which made history as the worst natural disaster in Hawaii since its statehood, was another major insured loss event to impact the United States in H2 2023. The fire killed 100 people and resulted in insured losses of \$3.5 billion, reinforcing the danger wildfire events pose to the insurance industry, despite 2023 having been a relatively mild wildfire season.

Insured losses from hurricanes were nearly the lowest they've been in a decade. Hurricane Idalia, the first major hurricane to impact Florida's Big Bend region, made landfall as a Category 3 storm and caused widespread flood damage. However, given the remoteness of the area impacted, insured losses were constrained to approximately \$1.5 billion.

While the occurrence of high frequency small-to-medium size events is sure to impact insurers' balance sheets, the cumulative losses from those events wasn't enough to be real cause for concern to catastrophe bond investors. While aggregate covers are indeed subject to the cumulative impact of attritional losses, those structures have evolved over time to reduce the impact of smaller events. For example, larger event deductibles, event caps, and improved hours clauses serve to reduce noise and improve modeling for aggregate layers.

2023 remained a loss-free year, further fueling returns for cat bond investors and attracting the attention of other potential allocators to the ILS market.

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## 2024 Catastrophe Activity

According to Aon's H1 2024 Global Catastrophe Recap, insured losses in the first half of 2024 are expected to reach at least \$58 billion—above average for the first half of a year, though below that of the last three years during which global insured losses consistently exceeded \$60 billion by the end of June.

Those losses have been largely driven by severe convective storms—in fact, four of the five costliest events to the insurance industry in H1 2024 were severe convective storms in the United States. Severe convective storm related losses through June 2024 exceeded \$36 billion, the second highest figure on record through the first half of a year behind only 2023.

The losses were driven by handful of significant outbreaks. From May 6<sup>th</sup> to May 10<sup>th</sup>, over 165 tornadoes across the central and southern U.S. resulted in over \$5 billion of total economic damage. A separate Memorial Day weekend outbreak resulted in nearly 30 deaths and injuries to over 150. Texas, in particular, has been impacted by large severe convective storms throughout the first half of 2024, including a significant derecho event in downtown Houston, bringing gusts of up to 100 mph. Tornado activity is also up significantly—aggregations of preliminary tornado reports from the SPC bring the 2024 total to the third highest on record through the first half of the year.

While severe weather activity has been the primary driver of insured losses thus far in 2024, apprehension over the North Atlantic Hurricane season controlled much of the narrative across the ILS market. The major institutions responsible for compiling seasonal hurricane forecasts all coalesced around there being a high probability for a very active 2024 North Atlantic hurricane season, with the average number of hurricanes anticipated to be between 11 and 12. The driving factors for such an ominous forecast include the shift to La Nina conditions, resulting in a reduction in wind shear in the Northern Atlantic, and above average sea surface temperatures.

At the time of this writing, and as a potential sign of what's to come, Hurricane Beryl broke records as the earliest forming category 5 storm in the North Atlantic basin, long before the historical peak of hurricane activity in the basin (September).

As discussed earlier, investors have expressed general apprehension regarding the ongoing wind season, a feeling that seemed to, at least in part, translate to movement in spreads in the secondary market. Time will tell if such apprehension and trading were warranted, or if allocators will benefit from two sequential years of relative calm, at least with respect to loss from peak perils.

## Section 3. Transactions

### Transaction Spotlight

As alluded to in Section 1 above, this past year featured a long list of new sponsors (fourteen) as well as sponsors returning to this market who had been absent for many years. Further, government issuance was up again: nearly \$5.8 billion of issuance benefiting government sponsors—over 32% of the total issuance—came to market this past year. Aon Securities was honored to work with several government sponsors over the past twelve months, including the Government of Puerto Rico, Citizens, the CEA, and each of Jamaica and Mexico (by way of the IBRD). Below we have highlighted a couple of these transactions, notable in the case of Puerto Rico for bringing new sponsors to market (and thus leveraging the ILS market to help close the protection gap), and, in the case of Citizens, demand from investors driving the size of the transaction.

#### Puerto Rico Parametric Re Ltd. 2024-1

The Government of Puerto Rico secured \$85 million of ILS capacity to complement their broader risk transfer program and protect the island and its citizens from the devastating impacts of large earthquakes and hurricanes.

The structure features broad coverage across the entirety of Puerto Rico, including Culebra and Vieques, with payouts for hurricanes of category 3 windspeeds or greater, and earthquake magnitudes over 6.3 Mw. A smaller box around the perimeter of Puerto Rico’s more concentrated population hub (including San Juan) allows for payouts at lower intensities, whereas broader coverage is provided for at higher intensities.

Puerto Rico secured a total of \$85 million of parametric insurance coverage from ILS investors, an amount that supplements a broader parametric placement utilizing a hybrid of traditional and ILS markets for risk transfer capacity.

Starr was engaged on the transaction as the insurer to Puerto Rico, and Hannover as the reinsurer facing the special purpose vehicle directly. Aon Securities acted as the sole structuring agent and bookrunner.

#### **Puerto Rico Parametric Re Ltd. 2024-1: Summary of Terms**

Issuer	Puerto Rico Parametric Re Ltd.
Insured	The Government of Puerto Rico
Reinsured	Starr Indemnity & Liability Company (“Starr”)
Ceding Reinsurer	Hannover Rück SE (“Hannover”)
Notes Offered	\$85,000,000 Series 2024-1 Class A Principal At-Risk Variable Rate Notes due June 7, 2027
Trigger	Parametric, per occurrence





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Covered Event	Named Storm and Earthquake Covered Events
Risk Period	June 21, 2024 – May 31, 2027
Calculation Agent	Risk Management Solutions, Inc.
One-Year Modeled Attachment Probability	3.59%
One-Year Modeled Expected Loss	1.99%
One-year modeled exhaustion probability	0.84%

## Everglades Re II Ltd. Series 2024-1

In Q2 of 2024, Florida's Citizens Property Insurance Corporation issued a combined total of \$1.1 billion Principal At-Risk Variable Rate Notes through its longstanding Everglades Re II Ltd. vehicle, distributed across three classes of notes.

Everglades Re II Ltd. Series 2024-1 is the fourteenth issuance for Citizens Property Insurance Corporation since coming to market for the first time in 2012, cementing Citizens as a well-established repeat issuer in the ILS market.

The Series 2024-1 Notes trigger on an indemnity, annual aggregate basis covering Named Storm events in the State of Florida.

Despite being in the market during a particularly challenging time due to widening secondary cat bond spreads, the transaction gained significant support amongst investors, allowing Citizens to secure \$1.1 billion in reinsurance protection.

Aon Securities acted as joint structuring agent and joint bookrunner on the transaction.

### Everglades Re II Ltd. Series 2024-1: Summary of Terms

Issuer	Everglades Re II Ltd.		
Ceding Insurer	Citizens Property Insurance Corporation		
Notes Offered	\$450,000,000 Series 2024-1 Class A Principal At-Risk Variable Rate Notes due March 31, 2027 \$425,000,000 Series 2024-1 Class B Principal At-Risk Variable Rate Notes due March 31, 2027 \$225,000,000 Series 2024-1 Class C Principal At-Risk Variable Rate Notes due March 31, 2027		
Risk Period	June 1, 2024 – May 6, 2027		
Trigger	Indemnity, annual aggregate		
Covered Event	Named Storm		
Covered Territory	The State of Florida		
Calculation Agent	AIR Worldwide Corporation		
	<b>Class A Notes</b>	<b>Class B Notes</b>	<b>Class C Notes</b>
Modeled Annual Attachment Probability	1.34%	1.74%	2.06%
Modeled Annual Expected Loss	1.24%	1.51%	1.91%
Modeled Annual Exhaustion Probability	1.13%	1.34%	1.74%

## 2023 – 2024 Catastrophe Bond Issuances

### Q3 2023 Catastrophe Bond Issuance

Beneficiary	Issuer	Series	Class	Issue Size (\$M)	Covered Perils	Trigger	Recovery	Initial Expected Loss	Initial Issuance Spread
<b>Slide Insurance Company</b>	Purple Re Ltd.	Series 2023-2	Class A	100	FL, SC: NS	Indemnity	Occurrence	1.05%	10.00%
<b>Blackstone</b>	Wrigley Re Ltd.	Series 2023-1	Class A	100	US, DC, CAN (ex. CAL EQ): NS, EQ	Indemnity	Dual Trigger	0.56%	6.50%
<b>Blackstone</b>	Wrigley Re Ltd.	Series 2023-1	Class B	150	CAL EQ	Indemnity	Aggregate	1.03%	7.00%
<b>SageSure Anchor Re</b>	Gateway Re Ltd.	Series 2023-3	Class A	50	AL, LA, MS, NC, SC, TX, VA, NY: NS	Industry Index	Aggregate	2.22%	10.00%

Source: Aon Securities.

### Q4 2023 Catastrophe Bond Issuance

Beneficiary	Issuer	Series	Class	Issue Size (\$M)	Covered Perils	Trigger	Recovery	Initial Expected Loss	Initial Issuance Spread
<b>CEA</b>	Ursa Re Ltd.	Series 2023-2	Class E	230	CAL EQ	Indemnity	Aggregate	3.28%	9.25%
<b>Covéa Group</b>	Hexagon IV Re Ltd.	Series 2023-1	Class A	128	France, Monaco, Andorra: WS	Indemnity	Occurrence	4.35%	8.50%
<b>Covéa Group</b>	Hexagon IV Re Ltd.	Series 2023-1	Class B	26	France, Monaco, Andorra: WS	Indemnity	Occurrence	8.08%	16.50%
<b>USAA</b>	Residential Reinsurance 2023 Limited	Series 2023-2	Class 2	50	US, DC: TC, EQ (incl. Fire Following), ST, WTS, WF, VE, MI, OP (incl. Flood from Auto & Renters Policies)	Indemnity	Occurrence	5.91%	13.50%
<b>USAA</b>	Residential Reinsurance 2023 Limited	Series 2023-2	Class 3	150	US, DC: TC, EQ (incl. Fire Following), ST, WTS, WF, VE, MI, OP (incl. Flood from Auto & Renters Policies)	Indemnity	Occurrence	3.05%	8.50%
<b>USAA</b>	Residential Reinsurance 2023 Limited	Series 2023-2	Class 5	200	US, DC: TC, EQ (incl. Fire Following), ST, WTS, WF, VE, MI, OP (incl. Flood from Auto & Renters Policies)	Indemnity	Occurrence	1.25%	5.75%
<b>Allied World</b>	2001 CAT Re Ltd.	Series 2023-1	Class A	275	US, DC, PR, USVI: NS; NA EQ, EU WS	Industry Index	Occurrence	5.13%	12.50%
<b>NC Farm Bureau</b>	Blue Ridge Re Ltd.	Series 2023-1	Class A	200	NC NS	Indemnity	Occurrence	0.98%	5.25%
<b>NC Farm Bureau</b>	Blue Ridge Re Ltd.	Series 2023-1	Class B	200	NC NS	Indemnity	Occurrence	1.91%	8.00%
<b>AXIS</b>	Long Walk Reinsurance Ltd.	Series 2024-1	Class A	75	Systemic Cyber Events	Indemnity	Occurrence	1.971%	9.75%
<b>Safepoint</b>	Nature Coast Re Ltd.	Series 2023-1	Class A	150	FL, LA: NS	Indemnity	Occurrence	0.93%	10.00%

Beneficiary	Issuer	Series	Class	Issue Size (\$M)	Covered Perils	Trigger	Recovery	Initial Expected Loss	Initial Issuance Spread
Safepoint		Series 2023-1	Class B	45	FL, LA: NS	Indemnity	Occurrence	1.60%	13.50%
NN Re	Orange Capital Re DAC	Series 2023-1	Class A	82	Belgium and Netherlands: WS, ST	Indemnity	Occurrence	3.42%	7.50%
Pacifca	Taranis Reinsurance DAC	Series 2023-1	Class A	119	France, Monaco, Andorra; WS, Hail	Indemnity	Occurrence	3.53%	8.25%
Pacifca	Taranis Reinsurance DAC	Series 2023-1	Class B	54	France, Monaco, Andorra; WS, Hail	Indemnity	Occurrence	1.50%	6.00%
CEA	Ursa Re Ltd.	Series 2023-3	Class AA	300	CAL EQ	Indemnity	Aggregate	1.05%	5.50%
CEA	Ursa Re Ltd.	Series 2023-3	Class D	350	CAL EQ	Indemnity	Aggregate	2.68%	8.75%
Selective	High Point Re Ltd.	Series 2023-1	Class A	325	US, DC (ex. CA, FL, LA, TX): NS, EQ, ST, WS, WF, MI, VE	Indemnity	Occurrence	0.77%	5.75%
AXA XL	Galileo Re Ltd.	Series 2023-1	Class A	200	US, DC, PR, USVI: NS, NA EQ	Industry Index	Occurrence	2.10%	7.00%
AXA XL	Galileo Re Ltd.	Series 2023-1	Class B	175	US, DC, PR, USVI: NS, NA EQ	Industry Index	Occurrence	2.10%	7.00%
AmFam	Four Lakes Re Ltd.	Series 2023-1	Class A	125	US, DC: NS, EQ, ST, WTS, WF	Indemnity	Occurrence	0.63%	5.75%
AmFam	Four Lakes Re Ltd.	Series 2023-1	Class B	50	US, DC: NS, EQ, ST, WTS, WF	Indemnity	Occurrence	2.44%	9.50%
Allianz	Blue Sky Re DAC	Series 2023-1	Class A	274	AU, BE, DK, FR, DE, IE, LU, NL, NO, SE, CH, UK: EU WS	Industry Index	Occurrence	2.14%	5.75%
Liberty Mutual	Mystic Re IV Ltd.	Series 2024-1	Class A	300	US, DC, PR, USVI: NS; NA EQ	Industry Index	Occurrence	5.03%	12.00%
Hamilton Re	Easton Re Ltd.	Series 2024-1	Class A	200	US, DC, PR, USVI: NS; NA EQ	Industry Index	Occurrence	2.65%	7.50%
VKB Re	King Max Re DAC	Series 2023-1	-	192	Germany: WS, Hail, FL, EQ	Indemnity	Occurrence	0.81%	5.00%
Beazley	PoleStar Re Ltd.	Series 2024-1	Class A	140	WW Cyber Events	Indemnity	Occurrence	1.26%	13.00%
Beazley	London Bridge 2 PCC Limited	Series 2023-1	Class A	100	US, DC, CAN, Caribbean: NS, EQ	Indemnity	Occurrence	2.46%	10.00%
ASIG	Bonanza Re Ltd.	Series 2023-2	Class A	70	US, DC: NS, EQ (ex. Shock), ST, WTS, WF	Indemnity	Aggregate	2.28%	23.00%
Hartford Fire	Foundation Re IV Ltd.	Series 2023-1	Class A	200	US, DC, PR: TC, EQ	Indemnity	Occurrence	1.36%	6.25%
Chubb	East Lane VII Ltd.	Series 2024-1	Class A	150	WW Widespread Cyber Event	Indemnity	Occurrence	1.39%	9.25%
Hiscox	Ocelot Re Ltd.	Series 2023-1	Class A	125	US, DC, PR, USVI, CAN: NS, EQ	Industry Index	Aggregate	2.66%	7.75%
Swiss Re	Matterhorn Re Ltd.	Series 2023-1	Class CYB-A	50	US Systemic Cyber Event	Industry Index	Occurrence	1.72%	12.00%

Source: Aon Securities.

## Q1 2024 Catastrophe Bond Issuance

Beneficiary	Issuer	Series	Class	Issue Size (\$M)	Covered Perils	Trigger	Recovery	Initial Expected Loss	Initial Issuance Spread
Inigo	Montoya Re Ltd.	Series 2024-1	Class A	100	US, DC, PR, USVI: NS; NA EQ	Industry Index	Aggregate	4.46%	11.50%
Texas Farm Bureau	Fish Pond Re Ltd.	Series 204-1	Class A	255	TX: NS	Indemnity	Occurrence	0.11%	4.00%
Allstate	Sanders Re III Ltd.	Series 2024-1	Class A	400	US (ex. FL), DC: NS, EQ, SW, Fire, VE, MI	Indemnity	Occurrence	0.89%	5.75%
Aetna	Vitality Re XV Limited	Series 2024	Class A	140	US MBR	Indemnity	Aggregate	0.01%	2.50%
Aetna	Vitality Re XV Limited	Series 2024	Class B	60	US MBR	Indemnity	Aggregate	0.19%	3.50%
GeoVera	Veraison Re Ltd.	Series 2024-1	Class A	175	US, DC : EQ	Indemnity	Occurrence	1.00%	4.75%
Tower Hill	Winston Re Ltd.	Series 2024-1	Class A	250	FL NS	Indemnity	Occurrence	1.56%	10.25%
Tower Hill	Winston Re Ltd.	Series 2024-1	Class B	150	FL NS	Indemnity	Occurrence	1.97%	11.75%
Fidelis	Herbie Re Ltd.	Series 2024-1	Class A	100	US, DC, PR, USVI: NS, EQ	Industry Index	Aggregate	2.92%	6.00%
Fidelis	Herbie Re Ltd.	Series 2024-1	Class B	50	US, DC, PR, USVI: NS, EQ	Industry Index	Aggregate	4.51%	9.00%
Arch	Ramble Re Ltd.	Series 2024-1	Class A	100	NS: ME, NH, MA, RI, VT, CT, NY, NJ, PA, DE, MD, VA, WV, DC; EQ: US, DC, CAN	Industry Index	Occurrence	3.19%	6.25%
American Integrity	Integrity Re Ltd.	Series 2024-1	Class A	120	FL, GA, SC: NS	Indemnity	Aggregate	0.22%	10.50%
American Integrity	Integrity Re Ltd.	Series 2024-1	Class B	50	FL, GA, SC: NS	Indemnity	Occurrence	2.35%	13.25%
American Integrity	Integrity Re Ltd.	Series 2024-1	Class C	60	FL, GA, SC: NS	Indemnity	Occurrence	2.38%	17.00%
American Integrity	Integrity Re Ltd.	Series 2024-1	Class D	75	FL, GA, SC: NS	Indemnity	Occurrence	3.56%	23.00%
FEMA	FloodSmart Re Ltd.	Series 2024-1	Class A	475	US, DC, PR, USVI: FL	Indemnity	Occurrence	5.01%	14.00%
FEMA	FloodSmart Re Ltd.	Series 2024-1	Class B	100	US, DC, PR, USVI: FL	Indemnity	Occurrence	6.29%	17.25%
Tokio Marine	Kizuna Re III Pte. Ltd.	Series 2024-1	Class A	100	JP EQ	Indemnity	Aggregate	0.53%	2.75%
Heritage	Citrus Re Ltd.	Series 2024-1	Class A	50	AL, FL, GA, MS, NC, SC: NS	Indemnity	Occurrence	1.29%	9.25%
Heritage	Citrus Re Ltd.	Series 2024-1	Class B	50	AL, FL, GA, MS, NC, SC: NS	Indemnity	Occurrence	1.50%	10.50%
NCIUA	Cape Lookout Re Ltd.	Series 2024-1	Class A	450	NC: NS	Indemnity	Aggregate	2.56%	8.00%
SURE	Gateway Re Ltd.	Series 2024-1	Class AA	100	AL, LA, MS, NC, SC, TX: NS	Indemnity	Occurrence	1.10%	5.50%
SURE	Gateway Re Ltd.	Series 2024-1	Class A	150	AL, LA, MS, NC, SC, TX: NS	Indemnity	Occurrence	1.47%	7.50%

Beneficiary	Issuer	Series	Class	Issue Size (\$M)	Covered Perils	Trigger	Recovery	Initial Expected Loss	Initial Issuance Spread
UnipolSai	Azzurro Re II DAC	Series 2024-1	Class A	108	EU EQ	Indemnity	Occurrence	2.46%	6.50%
PURE	Ashera Re Ltd.	Series 2024-1	Class A	105	US, DC, CAN: NS, EQ	Indemnity	Occurrence	1.68%	5.00%
Mitsui Sumitomo	Tomoni Re Pte. Ltd.	Series 2024-1	Class A	100	JP: TY, FL	Indemnity	Occurrence	1.45%	3.25%
Mitsui Sumitomo	Tomoni Re Pte. Ltd.	Series 2024-1	Class B	100	JP: TY, FL, EQ	Indemnity	Dual Trigger	1.60%	4.00%
Brookfield	Aragonite Re Ltd.	Series 2024-1	Class A	100	US, DC, CAN: NS, EQ	Indemnity	Occurrence	0.59%	5.25%

Source: Aon Securities.

## Q2 2024 Catastrophe Bond Issuance

Beneficiary	Issuer	Series	Class	Issue Size (\$M)	Covered Perils	Trigger	Recovery	Initial Expected Loss	Initial Issuance Spread
Allied Trust	Sabine Re Ltd.	Series 2024-1	Class A	100	LA, NC, SC, TX: NS	Indemnity	Occurrence	1.48%	8.25%
Slide Insurance	Purple Re Ltd.	Series 2024-1	Class A	210	FL, SC: NS	Indemnity	Occurrence	1.06%	9.00%
SURE	Gateway Re Ltd.	Series 2024-2	Class C	130	AL, LA, MS, NC, S, TX, FL: NS	Indemnity	Occurrence	1.23%	8.25%
TWIA	Alamo Re Ltd.	Series 2024-1	Class A	500	TX NS, ST	Indemnity	Aggregate	1.42%	6.00%
TWIA	Alamo Re Ltd.	Series 2024-1	Class B	500	TX NS, ST	Indemnity	Aggregate	1.96%	7.75%
TWIA	Alamo Re Ltd.	Series 2024-1	Class C	400	TX NS, ST	Indemnity	Aggregate	3.29%	11.25%
Florida Peninsula	Palm Re Ltd.	Series 2024-1	Class A	150	FL, NS	Indemnity	Occurrence	1.78%	9.50%
American EU	Charles River Re Ltd.	Series 2024-1	Class A	125	MA, NJ, NY, SC: NS	Indemnity	Occurrence	1.87%	6.50%
American Coastal	Armor Re II Ltd.	Series 2024-1	Class A	200	FL, NS	Indemnity	Occurrence	0.77%	10.25%
IBRD	IBRD CAR	Series 132	Class A	225	Mexico EQ	Parametric	Occurrence	0.90%	4.00%
IBRD	IBRD CAR	Series 133	Class B	70	Mexico EQ	Parametric	Occurrence	5.84%	11.00%
IBRD	IBRD CAR	Series 134	Class C	125	Mexico NS	Parametric	Occurrence	5.69%	13.50%
Zenkyoren	Nakama Re Pte. Ltd.	Series 2024-1	Class 1	150	JP EQ	Indemnity	Aggregate	0.79%	2.35%
LA Citizens	Bayou Re Ltd.	Series 2024-1	Class A	200	LA NS	Indemnity	Occurrence	1.14%	8.50%
LA Citizens	Bayou Re Ltd.	Series 2024-1	Class B	75	LA NS	Indemnity	Occurrence	3.19%	18.50%
Aspen	Kendall Re Ltd.	Series 2024-1	Class A	225	US, DC, PR, USVI: NS; US, CAN: EQ; EU WS	Industry Index	Aggregate	1.04%	6.25%
Aspen	Kendall Re Ltd.	Series 2024-1	Class B	75	US, DC, PR, USVI: NS; US, CAN: EQ; EU WS	Industry Index	Aggregate	2.54%	7.75%
Nephila	Atela Re Ltd.	Series 2024-1	Class A	60	US, DC, PR, USVI: EQ, NS	Industry Index	Aggregate	5.15%	14.25%

Beneficiary	Issuer	Series	Class	Issue Size (\$M)	Covered Perils	Trigger	Recovery	Initial Expected Loss	Initial Issuance Spread
Nephila	Atela Re Ltd.	Series 2024-2	Class B	30	US, DC, PR, USVI: EQ, NS	Industry Index	Aggregate	8.36%	22.00%
IBRD	IBRD CAR	Series 136	Class A	150	Jamaica NS	Parametric	Occurrence	1.50%	7.00%
USAA	Residential Reinsurance 2024 Limited	Series 2024-1	Class 12	50	US, DC: TC, EQ (incl. Fire Following), ST, WTS, WF, VE, MI, OP (including Flood from Auto & Renters Policies)	Indemnity	Aggregate	2.04%	9.00%
USAA	Residential Reinsurance 2024 Limited	Series 2024-1	Class 13	75	US, DC: TC, EQ (including Fire Following), ST, WTS, WF, VE, MI, OP (including Flood from Auto & Renters Policies)	Indemnity	Aggregate	1.06%	5.75%
Nationwide Mutual	Aquila Re I Ltd.	Series 2024-1	Class A	125	US, DC: NS, EQ, ST, WS, WF, VE, MI	Indemnity	Occurrence	1.01%	5.50%
Nationwide Mutual	Aquila Re I Ltd.	Series 2024-1	Class B	100	US, DC: NS, EQ, ST, WS, WF, VE, MI	Indemnity	Occurrence	2.44%	9.00%
IBRD	IBRD CAR	Series 135	Class D	175	Mexico NS	Parametric	Occurrence	4.09%	12.00%
NCJUA	Longleaf Pine Re Ltd.	Series 2024-1	Class A	145	NC NS	Indemnity	Aggregate	5.68%	17.50%
State Farm	Merna Re II Ltd.	Series 2024-1	Class A	250	State Farm Fire: US, DC (Excl. CA, FL, TX): EQ, NS; State Farm Florida: FL: NS, SCS	Indemnity	Occurrence	2.08%	7.25%
State Farm	Merna Re II Ltd.	Series 2024-2	Class A	300	FL: NS, SCS	Indemnity	Occurrence	1.86%	8.75%
State Farm	Merna Re II Ltd.	Series 2024-3	Class A	450	US, DC (Excl. CA) WS, Hail, Tornado, HU, TC, EQ, WTS	Indemnity	Aggregate	1.79%	8.50%
Palomar Specialty	Torrey Pines Re Ltd.	Series 2024-1	Class A	215	CA EQ	Indemnity	Occurrence	1.58%	6.00%
Palomar Specialty	Torrey Pines Re Ltd.	Series 2024-1	Class B	130	CA EQ	Indemnity	Occurrence	2.34%	7.25%
Palomar Specialty	Torrey Pines Re Ltd.	Series 2024-1	Class C	75	CA EQ	Indemnity	Occurrence	3.32%	9.00%
Citizens Property	Everglades Re II Ltd.	Series 2024-1	Class A	450	FL NS	Indemnity	Aggregate	1.24%	10.50%
Citizens Property	Everglades Re II Ltd.	Series 2024-1	Class B	425	FL NS	Indemnity	Aggregate	1.51%	11.50%
Citizens Property	Everglades Re II Ltd.	Series 2024-1	Class C	225	FL NS	Indemnity	Aggregate	1.91%	12.75%
Beazley	PoleStar Re Ltd.	Series 2024-2	Class A	160	WW Cyber Events	Indemnity	Occurrence	1.26%	13.25%
Gallatin Point	Marlon Ltd.	Series 2024-1	Class A	100	FL NS	Industry Index	Occurrence	0.65%	7.00%
Gallatin Point	Marlon Ltd.	Series 2024-1	Class B	50	FL NS	Industry Index	Dual Trigger	0.92%	11.00%
SCOR	Atlas Capital DAC	Series 2024-1	Class A	175	US, PR, USVI, DC: NS; US, PR, USVI, DC, CAN: EQ	Industry Index	Aggregate	3.87%	12.50%

Beneficiary	Issuer	Series	Class	Issue Size (\$M)	Covered Perils	Trigger	Recovery	Initial Expected Loss	Initial Issuance Spread
Allstate	Sanders Re II Ltd.	Series 2024-2	Class A	74.50	FL NS, EQ, SW, Fire, VE, MI	Indemnity	Occurrence	16.32%	53.50%
Renaissance Re	Mona Lisa Re Ltd.	Series 2024-1	Class A	150	NS: US, DC, PR, USVI; EQ: US, DC, Canada, PR, USVI	Industry Index	Aggregate	2.22%	9.75%
Achmea	Windmill III Re DAC	Series 2024-1	Class A	108	EU WS	Indemnity	Occurrence	2.19%	5.25%
Puerto Rico	Puerto Rico Parametric Re Ltd.	Series 2024-1	Class A	85	PR: NS, EQ	Parametric	Occurrence	1.65%	9.00%
Safepoint	Nature Coast Re Ltd.	Series 2024-1	Class A	50	FL, LA, AL, MS, TX: NS	Indemnity	Occurrence	1.96%	14.75%
MA Property	Mayflower Re Ltd.	Series 2024-1	Class A	100	MA: NS, ST, WTS	Indemnity	Aggregate	1.059%	4.50%
Everest	Kilimanjaro II Re Ltd.	Series 2024-1	Class A	75	US, DC, PR, USVI, CAN: NS and EQ	Industry Index	Occurrence	1.67%	6.25%
Everest	Kilimanjaro II Re Ltd.	Series 2024-1	Class B	125	US, DC, PR, USVI, CAN: NS and EQ	Industry Index	Occurrence	2.03%	7.25%
Hannover Re	3264 Re Ltd.	Series 2024-1	Class A	80	CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT, VA, DC: NS	Industry Index	Occurrence	1.70%	7.00%
Hannover Re	3264 Re Ltd.	Series 2024-1	Class B	60	AL, LA, MS, TX: NS	Industry Index	Occurrence	4.78%	18.00%
SURE	Gateway Re Ltd.	Series 2024-4	Class A	60	AL, LA, MS, NC, SC, TX, NY, VA: NS	Industry Index	Aggregate	2.22%	16.00%

Source: Aon Securities.



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