Q4 2022 Catastrophe Bond & ILS Market Report

Rising prices drive spreads toward record levels

ARTEMIS

Focused on insurance-linked securities (ILS), catastrophe bonds, alternative reinsurance capital and related risk transfer markets.

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INTRO

The Artemis Q4 2022 catastrophe bond and related insurance-linked securities (ILS) market report examines an interesting period for the industry. Year-on-year, issuance fell, but an average number of deals came to market, while investors pushed for higher pricing amid the hardening reinsurance market landscape.

A combination of property catastrophe risk deals, privately placed transactions, and deals covering other, non-catastrophe exposures brought $1.6 billion of new risk capital to market in the final quarter of 2022. Of this, more than 88%, or $1.37 billion, provided cedents with protection against a range of catastrophe risks across numerous geographies.

All in all, 15 transactions were issued from mainly repeat sponsors, with GeoVera Insurance Holdings and PICC Property and Casualty Company being the only new sponsors to feature in the fourth quarter of 2022.

Together with 9M 2022 issuance of almost $9 billion, the solid albeit subdued level of issuance in Q4 has taken full-year 2022 issuance to approximately $10.5 billion, which is above the ten-year average by more than $700 million, as shown by the Artemis Deal Directory.

Throughout the past 12 months it's been interesting to see the evolution of pricing within the catastrophe bond space. On the back of consecutive loss years and ahead of what's expected to be an extremely late and prolonged Jan 1st reinsurance renewals season, capital markets investors pushed for and achieved strong pricing on deals.

As a result, the spread (coupon minus expected loss) is at its highest point since 2012, and the same is true for the average multiple (coupon divided by expected loss), which this report explores.

Artemis is the leading, freely accessible source of timely, relevant and authoritative news, analysis, insight and data on the insurance-linked securities, catastrophe bond, alternative reinsurance capital and related risk transfer markets. The Artemis Deal Directory is the leading source of information, data and analysis on issued catastrophe bond and insurance-linked securitization transactions.

Transaction Recap

During the final quarter of the year, 15 transactions comprised of 18 tranches of notes came to market. Of these, ten covered a range of catastrophe perils in numerous regions around the world, accounting for the bulk of quarterly issuance.

As the table shows, all but two of the traditional 144a cat bonds to feature in Q4 2022 came from repeat sponsors, with GeoVera Insurance's Veraison Re issuance and PICC Property and Casualty Company's Great Wall Re being the only debut transactions from cedents during the period.

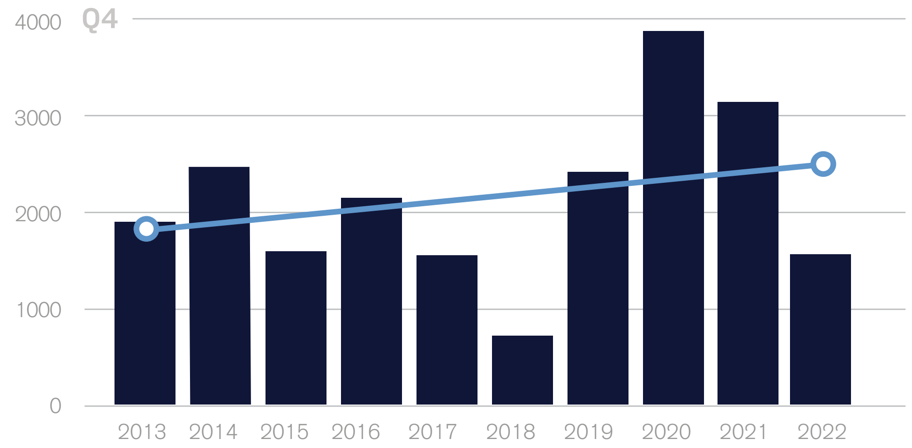
The quarter also saw four privately placed, or cat bond lite transactions come to market via the well-established Eclipse Re and Isosceles platforms, although these deals also provided protection against catastrophe risks.

Fourth quarter 2022 issuance also included the third Fidus Re transaction from Build America Mutual Assurance Company since 2018, the notes of which are exposed to losses to its financial guarantee insurance business.

ISSUER / TRANCHE	SPONSOR	PERILS	$M	DATE
Great Wall Re Limited	PICC Property and Casualty Company	China earthquake	32.5	Dec
Isosceles Insurance Ltd. (Series 2022-H)	Unknown	Unknown property cat risks	18.48	Dec
Four Lakes Re Ltd. (Series 2022-1)	American Family Mutual Insurance Co.	U.S. multi-peril	100	Dec
Sakura Re Ltd. (Series 2022-1)	Sompo International	International multi-peril	150	Dec
Mystic Re IV Ltd. (Series 2023-1)	Liberty Mutual	International multi-peril	150	Dec
Veraison Re Ltd. (Series 2023-1)	GeoVera Insurance Holdings, Ltd.	U.S. earthquake	150	Dec
Eclipse Re Ltd. 2022-04A	Unknown	Unknown property cat risks	10	Dec
Eclipse Re Ltd. 2022-05A	Unknown	Unknown property cat risks	13.875	Dec
Eclipse Re Ltd. 2022-07A	Unknown	Unknown property cat risks	5.662	Dec
Ursa Re II Ltd. (Series 2022-2)	California Earthquake Authority	California earthquake	305	Dec
Montoya Re Ltd. (Series 2022-2)	Inigo Insurance (Syndicate 1301)	International multi-peril	110	Dec
Sanders Re III Ltd. (Series 2022-3)	Allstate	U.S. multi-peril	100	Dec
Residential Reinsurance 2022 Limited (Series 2022-2)	USAA	U.S. multi-peril	195	Nov
Herbie Re Ltd. (Series 2022-1)	Fidelis Insurance	North American earthquake	80	Nov
Fidus Re Ltd. (Series 2022-1)	Build America Mutual Assurance Company	Financial guarantee risks	150	Nov

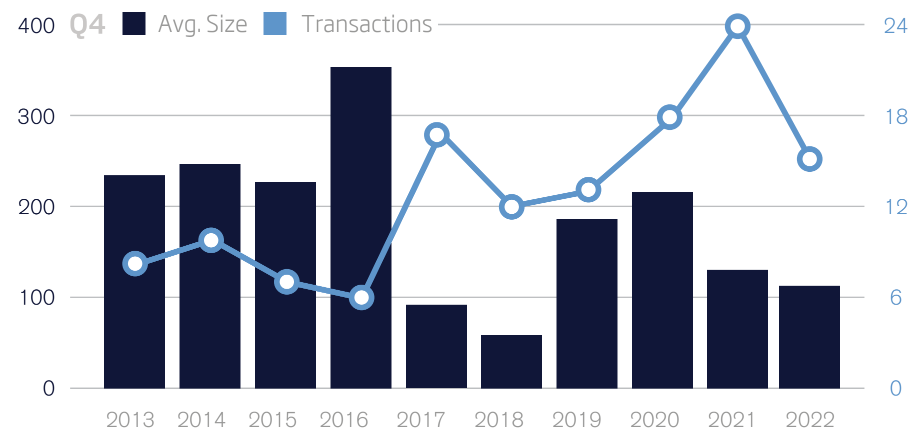
Q4 ILS issuance by year ($M)

When compared with the prior year period, catastrophe bond and ILS issuance fell by more than $1.5 billion in Q4 2022 to $1.6 billion, which is also roughly $560 million below the ten-year average for the quarter, as shown by the Artemis Deal Directory. However, the solid level of new risk capital brought to market means that for all but one of the last ten years (2018), Q4 issuance has exceeded the $1.5 billion threshold.



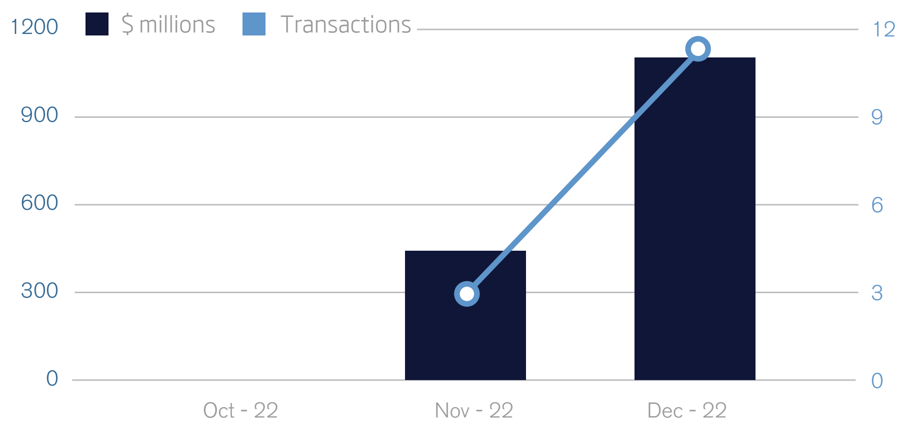
ILS average transaction size & number of transactions by year ($M)

Despite issuance volume falling year-on-year, the 15 transactions issued in the fourth quarter is slightly above the average for the quarter, although significantly lower than the 24 issued in Q4 2021. At the same time, at approximately $105 million, the average size of deals issued in the quarter is also down on last year, and well-below the ten-year average of $185 million.



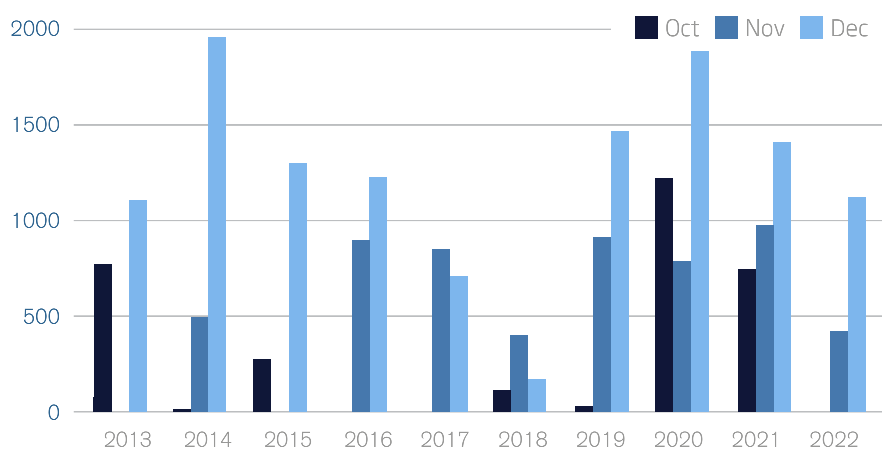
Number of transactions and volume issued by month ($M)

In terms of issuance by month, the fourth quarter of 2022 was a typical one, with the majority of new risk capital coming to market in December, with October being the least active month of the period. However, issuance in each month did come in below the respective ten-year average, as shown by the Artemis Deal Directory.



Q4 issuance by month & year ($M)

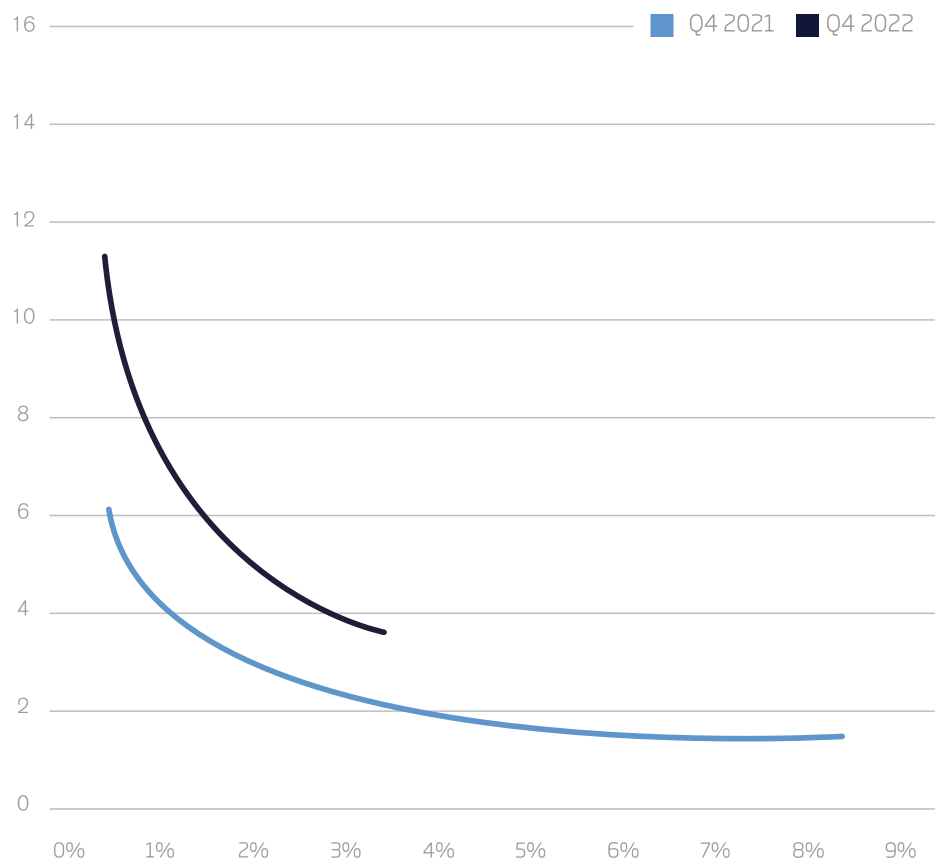
December was the strongest month of the quarter, both in terms of the number of deals, which hit 12, and the volume of risk capital issued from these transactions, which amounted to almost $1.2 billion. In November, just three deals came to market, bringing a combined $425 million of risk capital to market. For the third time in the past decade, no deals were issued in the month of October.



Q4 2022 expected loss & multiple year-on-year

Below, the dark blue line represents Q4 2022 and the light blue line Q4 2021. The chart plots the expected loss against the multiple (price coupon divided by expected loss) of quarterly issuance, showing that investors continue to demand higher multiples the lower the expected loss. In fact, at year-end 2022, the average multiple at issuance stood at 3.38, which is the highest it's been since 2012, and above last year's 2.53.

For Q4 2022 specifically, the average multiple of cat bond issuance was 4.93, which is the highest multiple seen in a single quarter since Q1 2013. Throughout 2022, the average multiple has increased for each quarter when compared with the prior, which shows the strong pricing achieved by investors, notably after Hurricane Ian.



APPLEBY

IT'S A DIFFERENT HARD MARKET, AND THAT COULD BE POSITIVE FOR EVERYONE: BRAD ADDERLEY

Fresh capital will enter the insurance-linked securities (ILS) market, but while catastrophe bond deals successfully closed for year-end, others failed to complete, suggesting there's no rush to enter the space, according to Brad Adderley, Bermuda Managing Partner, Appleby.

As this report shows, fourth-quarter catastrophe bond issuance significantly dropped year-on-year and came in below the ten-year average for the quarter.

As the market navigates what's expected to be a very late and prolonged reinsurance renewals season, the usual flurry of start-ups and capital raises is nowhere to be seen. After all, it's said that investor sentiment is cautious.

In light of this, we spoke with Appleby's Adderley about cat bond market dynamics and what this means for issuance in 2023.

"For me, the fact that certain deals have not been done this year-end, compared to the days where all deals would always get done, leads me to question if 2023 can be another record year," said Adderley.

"On top of this, it could also be the case that less people come to the market because they've heard stories that deals aren't getting completed," he added.

Reinsurance rates, notably for catastrophe-exposed lines, are expected to increase significantly at the January 1st renewals and beyond, and Adderley feels that price is playing its part in the cat bond market.

"I don't think, until people actually see the price and see the actual terms, that they really compute what they read in the press, to what they actually get. And, by the way, they also don't realise that if they don't accept the offer, there might not be another one.

"We've come from a market where the buyer drives the terms, right. Every year the buyer got better terms and every year the buyer got lower prices. Plus, the buyer always got coverage. So, it was a triple win. Now, you don't drive the terms, you don't drive the pricing, and by the way, you might not even get coverage.

"We were hearing of deals not getting done in June, and that was before Hurricane Ian, that was before more inflation and higher interest rates; June was before more escalation in Ukraine. So, if that was June, how many deals are not going to get done this January renewals?" said Adderley.

Expanding on this, Adderley told Artemis that he thinks it could also be the case that people are assuming it makes no difference whether or not they're in the market for 1/1, given the fact so many people are trying to make sense of the market.

"So, I wonder if buyers and capacity providers are first waiting to see what's going to happen. And, so, as a result, maybe this year you're going to see a lot more deals get done in January because people are thinking, well, we don't know what the right price is, we don't know how it's all going to play out, so we're going to wait and see what happens.

"However, if we all agree that there's less reinsurance capacity, then if you wait too long, there's even more of a reason why there's going to be less capacity," he explained.

In previous hard markets, a flurry of new Class 4s would launch in Bermuda, which alongside capital raises from existing players, would fill a sizeable portion of the gap left by prior year losses.

However, this just hasn't been the case this year ahead of 2023, although Adderley is confident that at some point, capital will enter the marketplace.

"I think that money will come in, but I don't think it is going to rush," said Adderley. "At the end of the day, I don't think there's enough information out for the investors."

Adding, "It's a beautiful, perfect storm and, obviously, more capital will come in, it will have to in order to account for the hundreds of billions of dollars that have been lost in the last four / five years.

"So, at a certain point, you can't have this industry continue to lose money and expect more money to come in. And even if $20 billion came in, is that really going to move the needle?

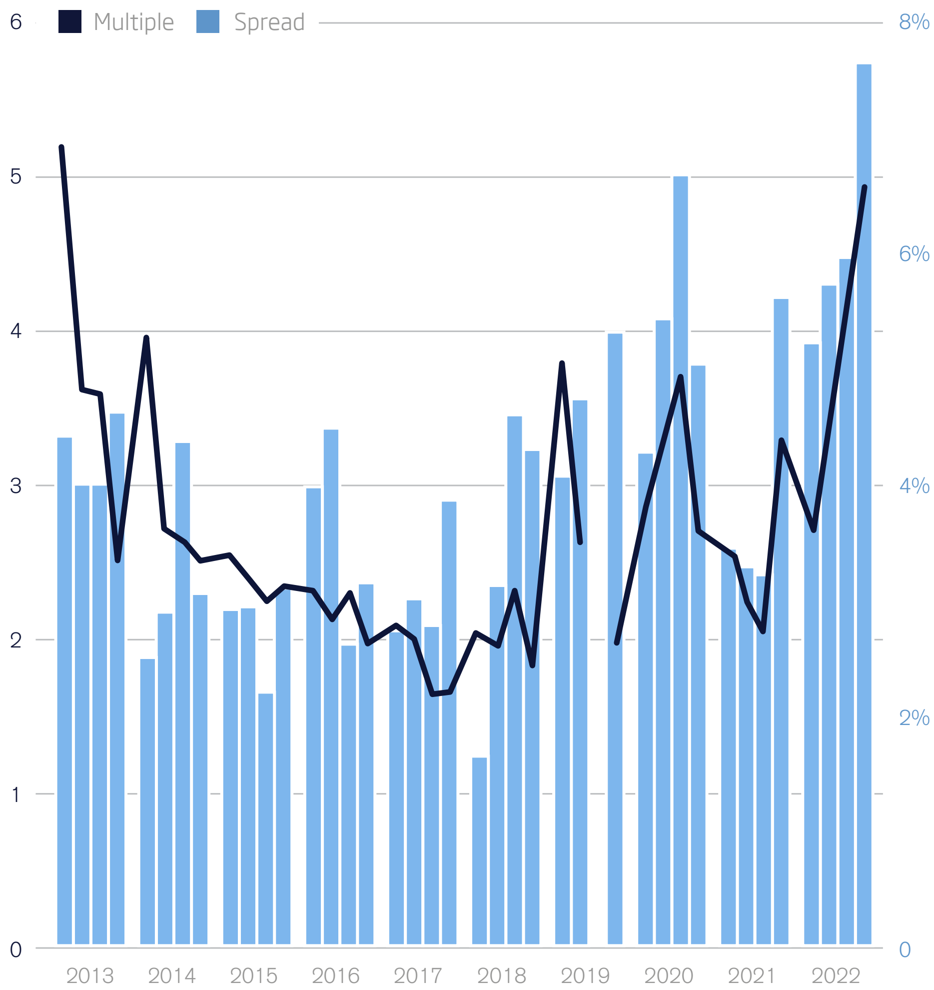
"I expect this hard market could last for three to five years so something to keep our eye on."

BRAD ADDERLEY
BERMUDA MANAGING PARTNER

Multiple and spread by quarter

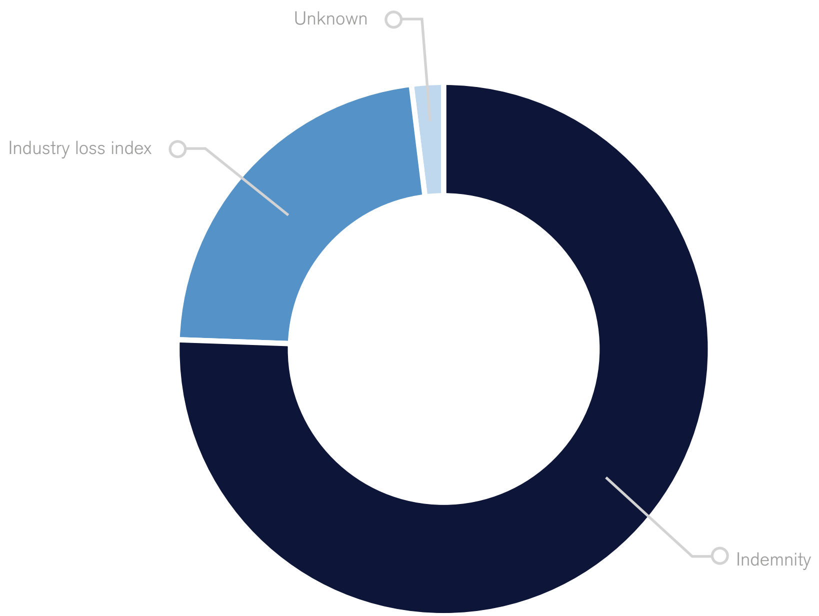
The chart below depicts the average multiple of quarterly cat bond issuance (the line) and the excess spread (the bars), so the gap between expected loss and coupon. It shows that the spread had been on the rise throughout 2022, hitting 7.62% in Q4, which is the highest quarterly spread of the past decade, and actually the highest spread seen in any quarter since Q2 2012.

Throughout 2022, as the spread increased so did the average multiple of cat bond issuance. Both of these trends reflect the higher pricing of notes issued, as capital market investor cost-of-capital has risen on the back of consecutive loss years and macro-economic volatility, exacerbated by the impacts of Hurricane Ian, which many have described as a tipping point, ultimately serving to amplify cat bond spread widening.



Q4 2022 ILS issuance by trigger type

Trigger diversification was lacking in the fourth quarter of 2022. As is typical of any Q4, indemnity triggers once again dominated issuance, with $1.18 billion of risk capital brought to market leveraging an indemnity trigger structure, accounting for 75% of issuance in the period.

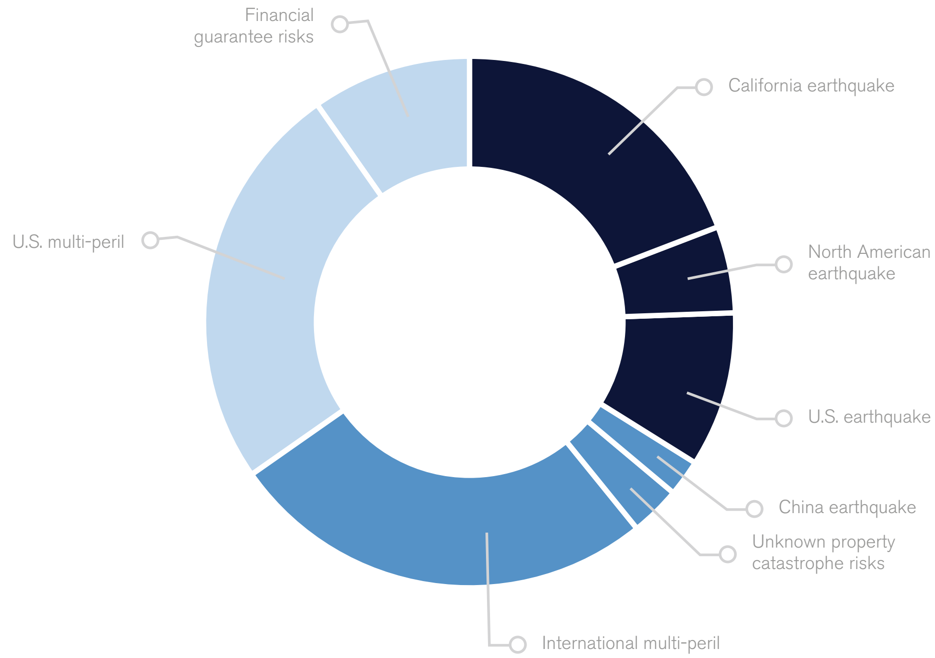


Three deals, with a combined value of $340 million, were structured using an industry loss index trigger in Q4 2022, representing 22% of issuance. For the four private cat bond transactions issued in the quarter we do not have the trigger information.

Q4 2022 ILS issuance by peril

Catastrophe risk focused deals dominated issuance in the final quarter of the year, and as shown by the Artemis Deal Directory, earthquake protection was a particular focus. In fact, $535 million, or roughly 34% of Q4 issuance offered protection against earthquakes in North America. $32.5 million of China earthquake risk also featured in Q4 from debut sponsor PICC Property and Casualty Company.

Further, all of the other traditional 144a deals witnessed in Q4 also featured some earthquake protection, although these deals covered a range of other U.S. and international perils, including named storms in North America and the Caribbean, severe weather, and tropical cyclones in the U.S., as well as wildfires, volcanic eruption, and even meteorite impacts in the states.



The only non-catastrophe risk focused deal issued in the fourth quarter of 2022 came from Build America Mutual Assurance Company, its third transaction provided it with protection against financial guarantee risks.

The four private deals issued in the quarter brought a combined, roughly $48 million of unknown property cat risk to market, accounting for around 3% of quarterly issuance.

SEAMLESS LIQUIDATION OF ILS VEHICLES ON MATURITY AND END OF LIFE

Bermuda is known for its robust insurance infrastructure that facilitates the smooth establishment and operations of ILS vehicles. Speed to market is a key characteristic of Bermuda's ILS market, but when setting up your ILS vehicle, it is also important to consider what happens at the end of its economic life. This should be as seamless as the creation of the vehicle. Louise Charleson, who acts as liquidator for solvent liquidations, provides an overview of the liquidation process in Bermuda.

The simplest way to wind up an ILS entity is to proceed with a members' voluntary liquidation (MVL). To commence an MVL, the directors of a company must pass resolutions recommending to the members that the company is placed in liquidation then authorise the execution and filing of the Declarations of Solvency with the Bermuda Registrar of Companies (ROC). Declaration of Solvency must be sworn by the majority of directors of a company confirming that the entity is in a position to pay its debts in full within a period of twelve months from the commencement of the winding up.

The members will then pass resolutions for the winding up of the company and appointing a liquidator. Where external legal advisors are instructed to assist with the MVL, the liquidator will typically be an individual from their liquidations team.

Once the liquidator has been appointed, his obligations are to conform to certain statutory procedures governed by the Companies Act 1981 which include advertising for creditors (a minimum of fourteen days' notice is required to be given), advising the ROC of his appointment, settling creditors' claims, distributing surplus assets, and calling a statutory final meeting for which one month's notice is required. At the final general meeting, the Liquidator's Statement of Account is approved by the meeting and the Company is dissolved.

In a straightforward liquidation, the whole procedure can take approximately 6 to 8 weeks from the date when the Declarations of Solvency are filed.

Should the ILS entity have any policies in place, these must be dealt with to ensure that all liabilities, whether actual, future or contingent, have or will be completely satisfied before the entity is placed into liquidation. The options to achieve this include:

- leaving the company in existence until the policies have completely run off with no possibility of any further claims being made against the company; or
- for each of the insureds to agree to release the company from all liability due by the company to the insureds under the terms of the policies; or
- entering into a commutation agreement pursuant to which a third party agrees to assume the liabilities of the company in respect of each policy and releases the company from any further liability with regard to the policies.

As part of the process, the company will have to de-register as an insurer, and if registered as a segregated accounts company (SAC), will also have to de-register as a SAC. Further, if there are any charges registered against the company, these will need to be settled or released and de-registered too.

The records of the company must be held for a period of ten years following the dissolution of the company. The corporate secretary, insurance manager and/or shareholder can take on this responsibility.

Ocorian is a global leader in corporate and fiduciary services, fund administration and capital markets. It has US$270bn in assets under administration and employs over 1,500 professionals.

For more information on how we can support your business, please contact a member of the Capital Markets team at capitalmarkets@ocorian.com.

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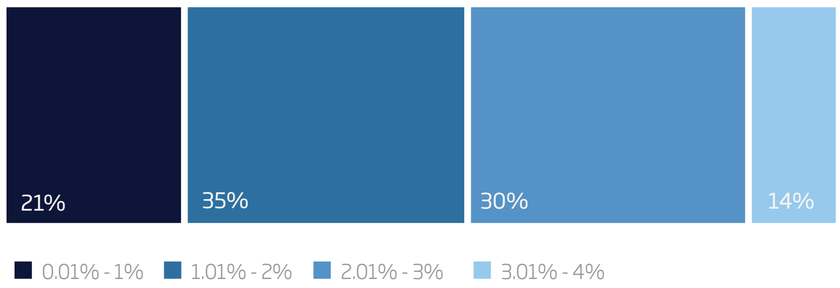
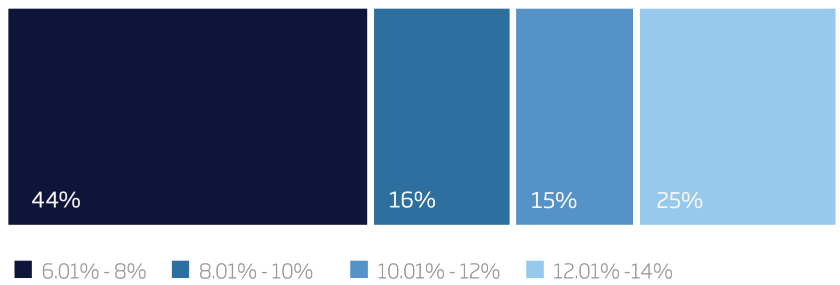
Q4 2022 ILS issuance by expected loss

We have expected loss data for $1.34 billion of Q4 issuance. Of this, more than 55%, or $745 million had an expected loss of below 2%, with $275 million of this slice having an expected loss of less than 1%. Over 44% of quarterly issuance had an expected loss of above 2% but less than 4%, representing $595 million of issuance in the period. The lowest expected loss in the quarter came from the tranche of Four Lakes Re notes, at 0.49%. The highest expected loss seen in the quarter, of 3.37%, came from the tranche of Herbie Re notes.



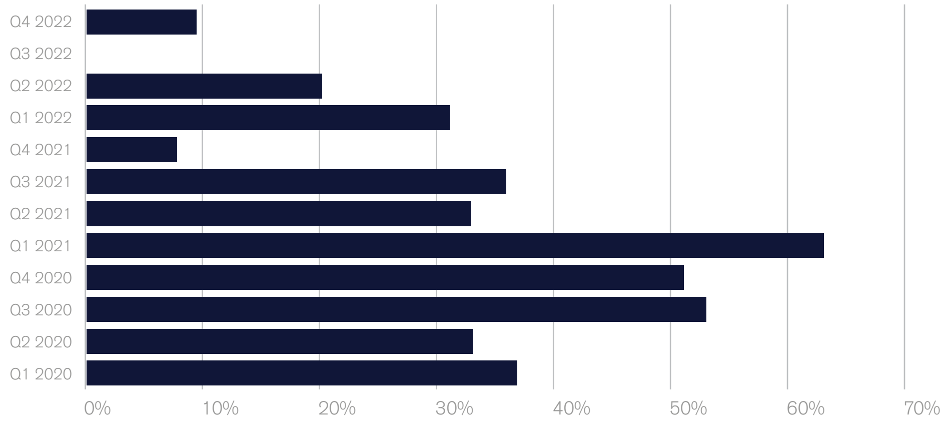
Q4 2022 ILS issuance by coupon pricing

We have pricing data for $1.34 billion of fourth quarter issuance, of which more than 44%, or $595 million paid investors a coupon of between 6.01% and 8%. In fact, none of the deals issued in the quarter paid a coupon of less than 6%, which reflects the higher pricing secured by investors when compared with previous quarters. Around 30% of issuance paid a coupon of between 8.01% and 12%, while 25% of issuance paid a coupon of more than 12% but less than 14%. The lowest coupon on offer came from the tranche of Sanders Re III notes at 6.25%. The highest coupon, of 14%, came from the tranche of Montoya Re notes.

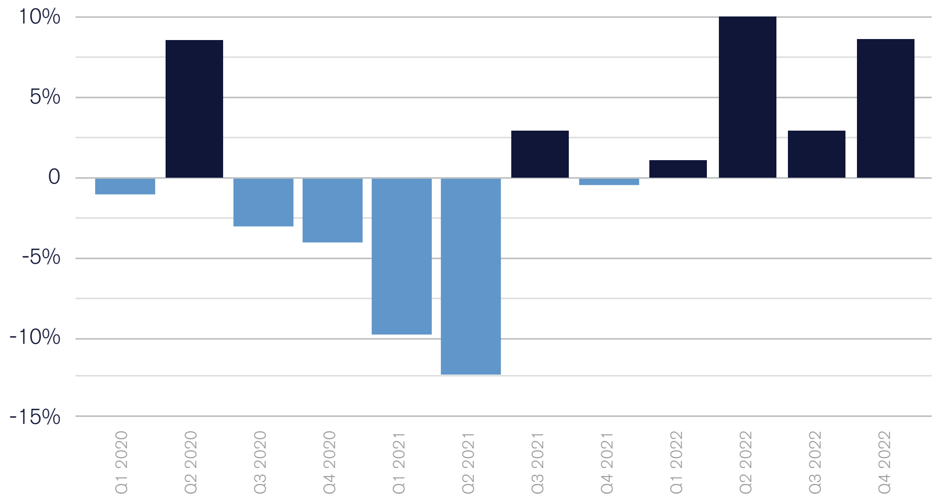


Issuance size and price changes

While less pronounced than in 2021, with the exception of the third quarter of this year, each quarter of cat bond issuance saw average deal sizes increase while marketing, which suggests continued demand from investors. In the fourth quarter, property cat bonds issued increased in size by an average of 9.5%, which is higher than the 7.9% witnessed last year, but way down on the 51% seen in Q4 2020.

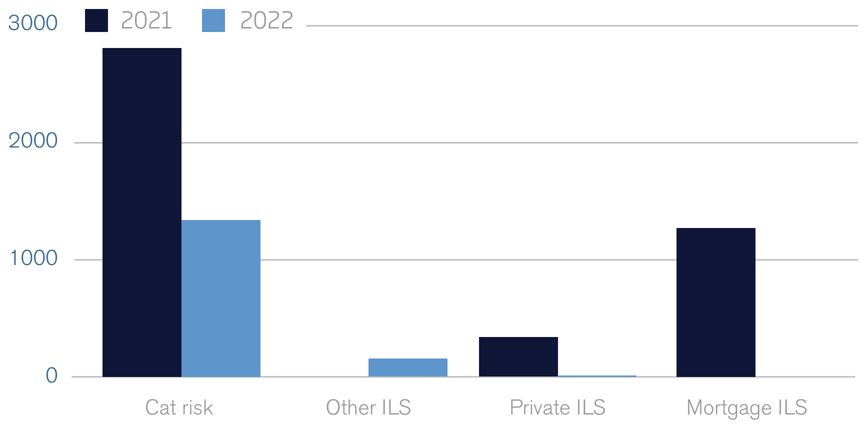


This year, all quarters experienced a positive average price change of property cat bond issuance, reversing the trend of the prior two years which, on average, saw more negative price changes while marketing than positive ones. In Q1 2022, the average price change of issuance was 2%, followed by 10.6% in Q2, 3.3% in Q3, and 9.1% in Q4. This suggests that investors pushed for higher pricing while deals were marketing, reflecting the elevated cost-of-capital for capital market investors.



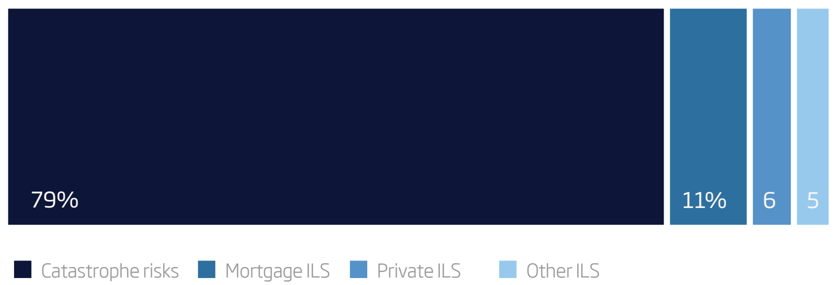
YoY Q4 ILS issuance split

Once again, traditional 144a property catastrophe bonds dominated fourth quarter issuance, accounting for 87%, or $1.37 billion of new risk capital brought to market. Year-on-year, this represents a dip from the $2.8 billion of property cat bonds issued in Q4 2021 but is still robust. Private ILS issuance fell from $344 million in Q4 2021 to over $48 million in Q4 2022. In a reverse of last year, no mortgage deals were issued during this quarter, while one deal brought $150 million of non-cat risk to market.



Full-year 2022 issuance split

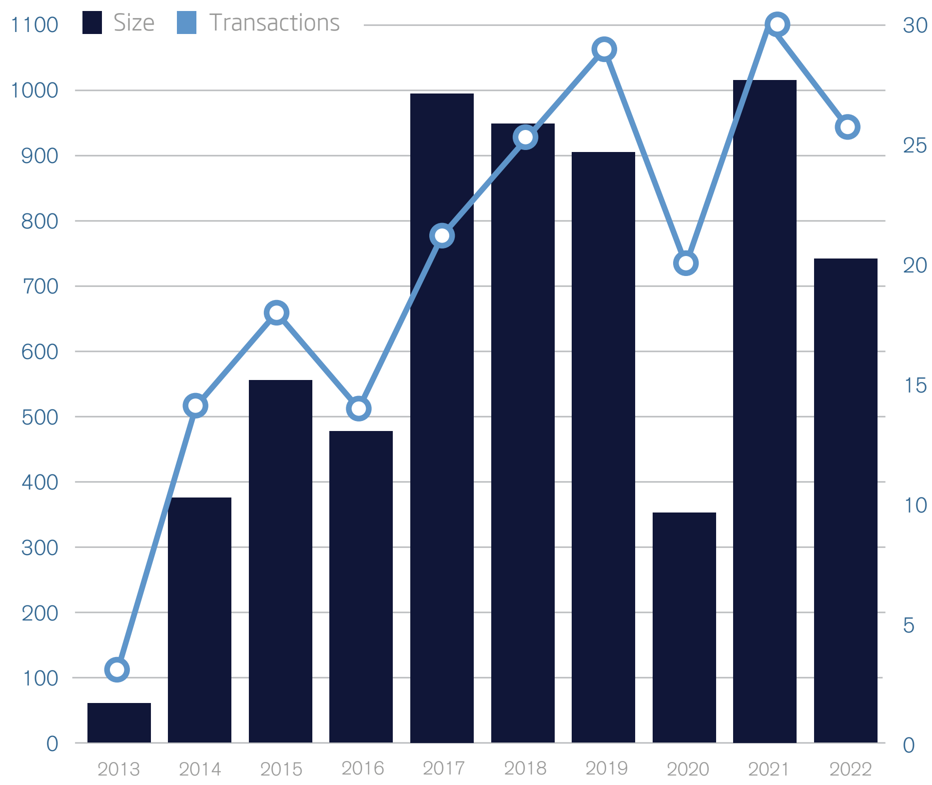
For the full-year 2022, catastrophe risk issuance hit almost $9.3 billion, which, while strong, is down on the record $12.5 billion seen in 2021. This year, cat risk deals accounted for 79% of issuance, and is back at the levels seen in both 2017 and 2018, as shown by the Artemis Deal Directory. Mortgage ILS issuance was subdued this year, accounting for 11% of issuance. Private ILS issuance almost hit $738 million for the year, while deals covering other ILS amounted to $481 million, accounting for 4% of 2022 issuance.



Private ILS issuance by year

During the past 12 months, the Artemis Deal Directory recorded 26 privately placed, or cat bond lite transactions, amounting to nearly $738 million of annual issuance. Artemis' data shows that this is above the ten-year average in terms of size, which is $642 million, and also above the average number of transactions over the past decade, which stands at 20.

However, 2022 cat bond lite issuance failed to keep pace with the previous year, which was a record for the sub-sector, when 30 transactions brought more than $1 billion of annual cat bond lite issuance for the very first time.



As the chart shows, 2020 experienced somewhat of a dip in private cat bond issuance, as it fell to $350 million from 20 transactions, reflecting a wave of smaller deals. In 2019, 2018, and 2017 cat bond lite issuance exceeded the $900 million mark, with over 20 transactions recorded in each of these years.

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'ILS Workspace' for the Fund Manager

The renewal period underway has proven to be a challenging one for both capital providers and those looking to place risks. Difficult negotiations on deal structures and terms and conditions are made even more complicated by inefficiencies in collaboration – both with the broker/cedent as well as internally within the ILS fund manager's operation. A well-integrated, effective software solution supporting ILS fund managers in navigating these challenges is essential for running the business of the future. Such a solution will digitise processes and information exchanges to increase productivity and reduce transaction costs while offering users a more seamless experience.

WORK SMARTER, NOT HARDER

No off-the-shelf software solution exists today to do this. As a result, various tools are used and they are not well integrated, resulting in inefficiencies such as duplicate data entry, system stops within processes due to a lack of integration and communication across multiple channels.

To deliver the desired business outcome (e.g., an investment decision, a claims update, etc.), workers today need to conduct a plethora of menial tasks. The time required for this is at the expense of value creating tasks.

For example, to arrive at an investment decision, information from various stakeholders including underwriters, modelers, portfolio managers, legal, and others is often needed.

The process of compiling the required decision inputs is often lengthy and culminates in a meeting. Such a meeting needs to be repeated each renewal.

A technology solution would streamline the collection of decision inputs while freeing up time for experts to focus on the decision analysis or other value-adding tasks.

'ILS WORKSPACE' – DIGITISING YOUR PROCESSES AND COLLABORATION

'ILS Workspace' delivers an improved collaboration experience, turnaround time, and overall a more efficient and effective environment for decision-making.

The current state prototype is built with technology that is flexible to accommodate the specific needs of a business and delivers a solution in form of productive software faster than if it were built by traditional development means.

While the current prototype is designed for front-office decision-making during the investment process, the solution is also capable of handling middle and back-office processes, such as claims management and technical accounting.

The solution offers key capabilities:

- End-to-end business process orchestration and task management
- Collaboration and communication capabilities
- Full audit trail and transparency
- Single data entry
- Integrations into system landscape with various systems – e.g. contract admin
- Appealing UI/UX

In summary, the 'ILS Workspace' is designed to enable ILS fund managers to rapidly deploy a highly customised solution that integrates with current systems and tools in order to improve decision-making and increase the time allotted for value-adding tasks.

If you want to find out more about 'ILS Workspace' or arrange a demo, get in touch with us.

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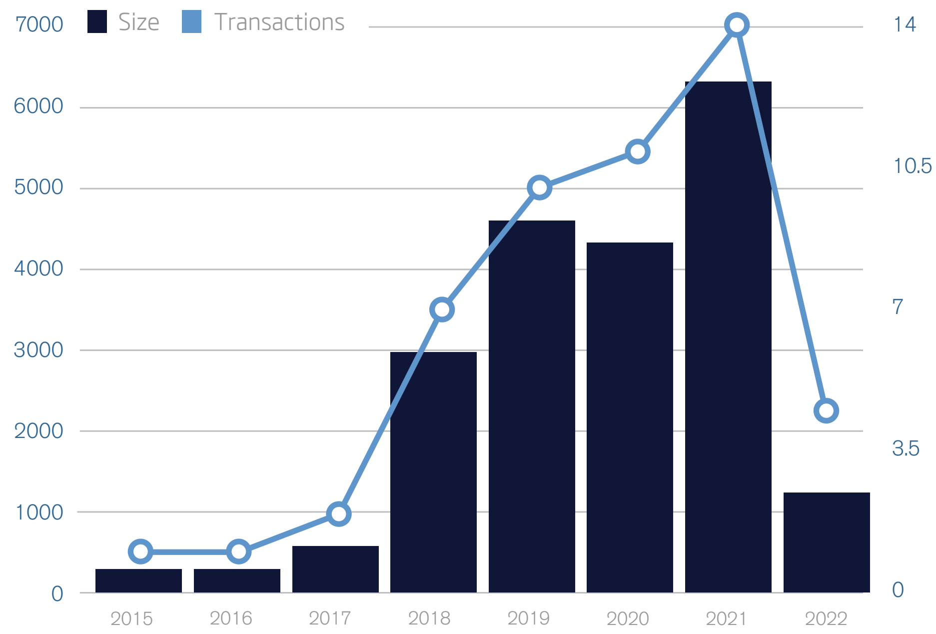
Mortgage ILS issuance by year

Both in terms of the number of transactions issued and the combined size of these, mortgage ILS issuance in 2022 was the lowest since 2017. Overall, four mortgage ILS transactions came to market in 2022, bringing a combined $1.195 billion of risk capital to market.

This is a stark contrast to the record $6.3 billion of mortgage ILS issuance seen last year, which came from a record 14 transactions. In fact, 2022 mortgage ILS issuance is the fourth lowest since 2015, when the first deal came to market.



The Artemis Deal Directory shows that since 2015, a total of 50 mortgage ILS transactions have been issued from a range of sponsors, amounting to almost $20.5 billion of issuance. Of the six different sponsors of mortgage ILS deals, Arch is the most prolific, with 19 deals bringing a combined $8.5 billion of mortgage ILS risk to market. Other mortgage ILS sponsors include Essent Guaranty, Radian Guaranty, MGIC Investment Corporation, National Mortgage Insurance Corporation, and Genworth Mortgage Insurance.

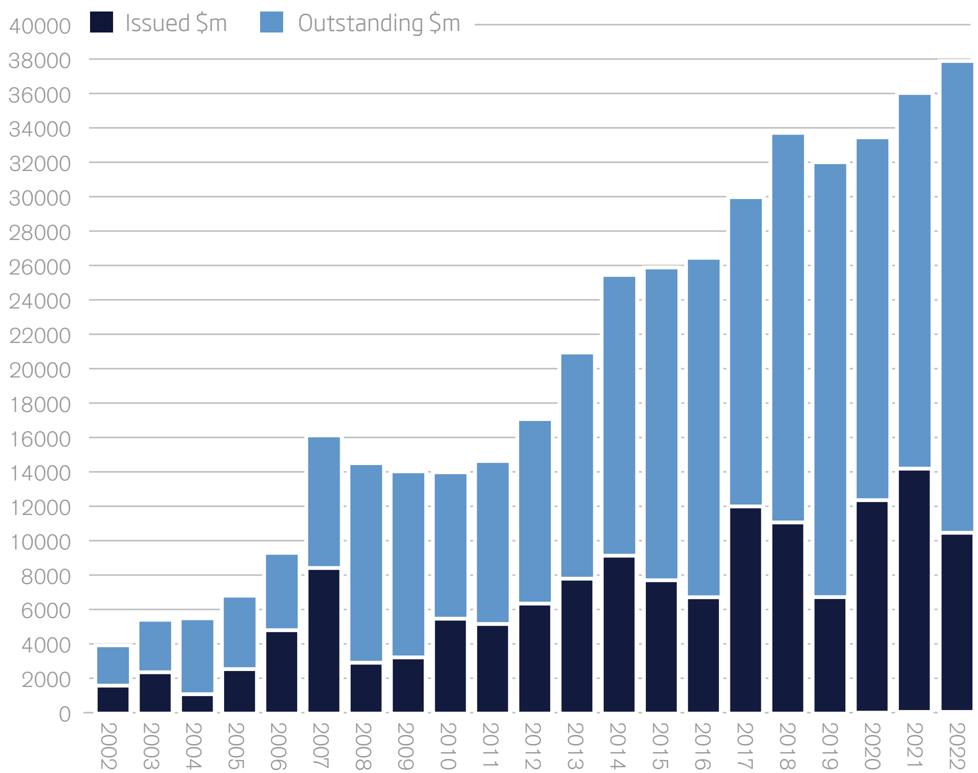
Issued / Outstanding

At $1.6 billion, catastrophe bond and related ILS (144a property cat bond, other line-of-business cat bond, and private cat bond) issuance ensured that the annual total for 2022 once again exceeded $10 billion, reaching $10.5 billion. Artemis' data shows that this is now the sixth consecutive year in which annual cat bond and related ILS issuance has surpassed the $10 billion threshold, although 2022's total is down on the record set last year by more than $3.5 billion.

In Q1 and Q2 and also the first half of this year, cat bond issuance was above the ten-year average, but a muted Q3 and subdued Q4 meant that, while still solid from an issuance perspective, 2022 failed to be a record year.

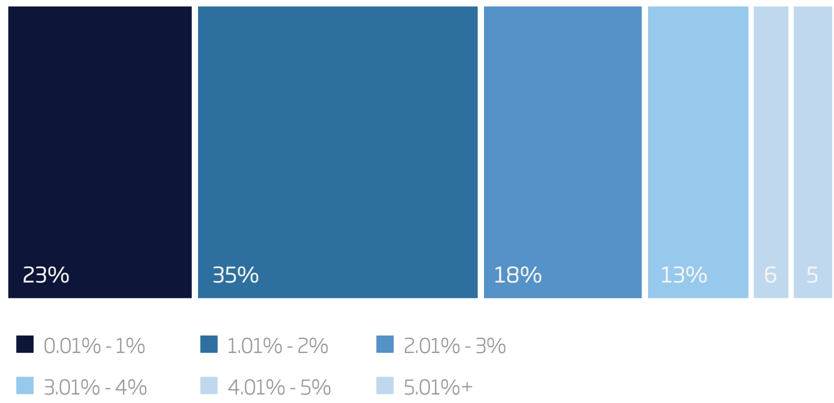
Despite this, the Artemis Deal Directory shows that over the past decade, average annual cat bond issuance has been roughly $9.7 billion, meaning 2022 was still an above-average year overall, despite the quieter second-half of the year.

At the same time, at the end of 2022, the outstanding catastrophe bond market size sits at a new year-end high of $37.9 billion (although this is not a record high for the outstanding market), which reflects outright market growth of over $2 billion from the end of 2021.

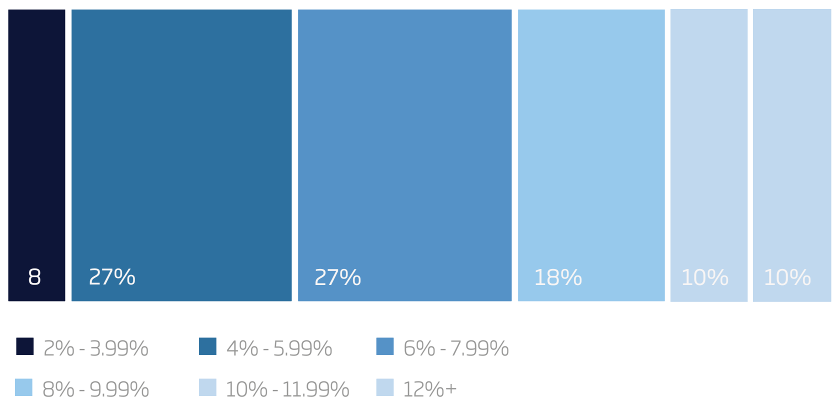


If you want to see full details of every catastrophe bond and ILS transaction included in the data in this report please visit www.artemis.bm/deal_directory/

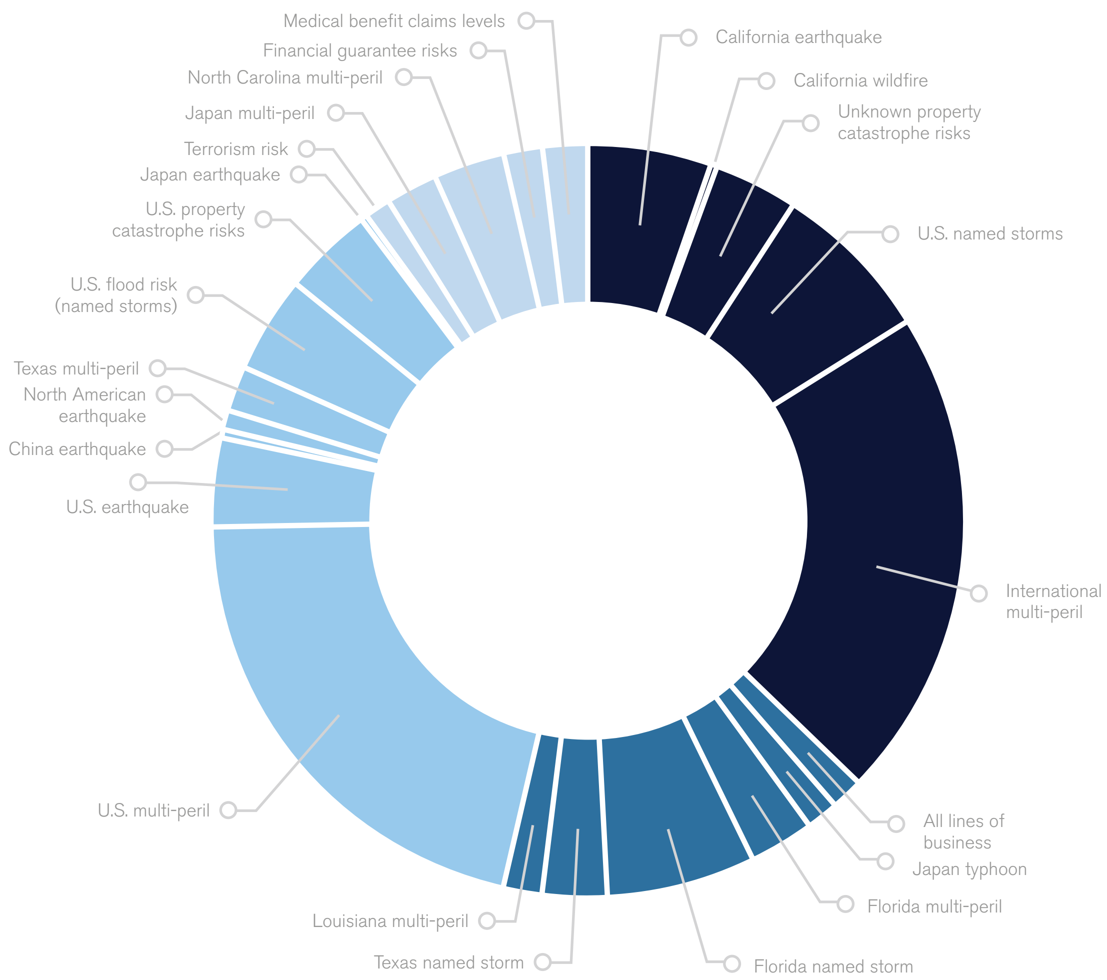
Full-year 2022 ILS issuance by expected loss



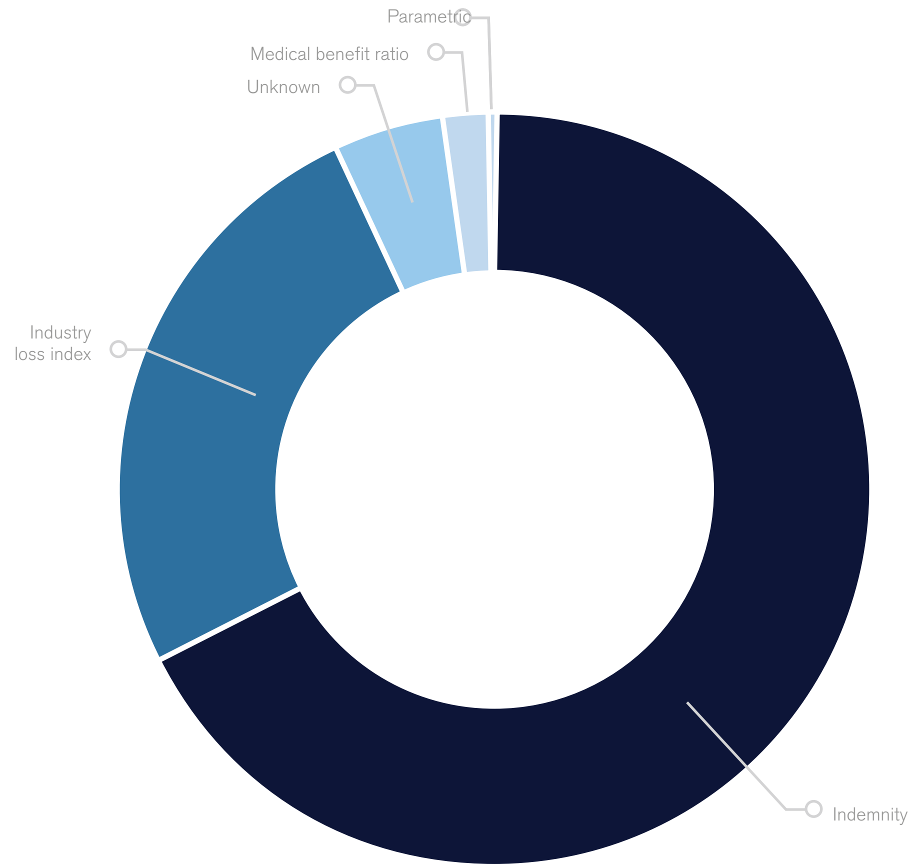
Full-year 2022 ILS issuance by coupon pricing



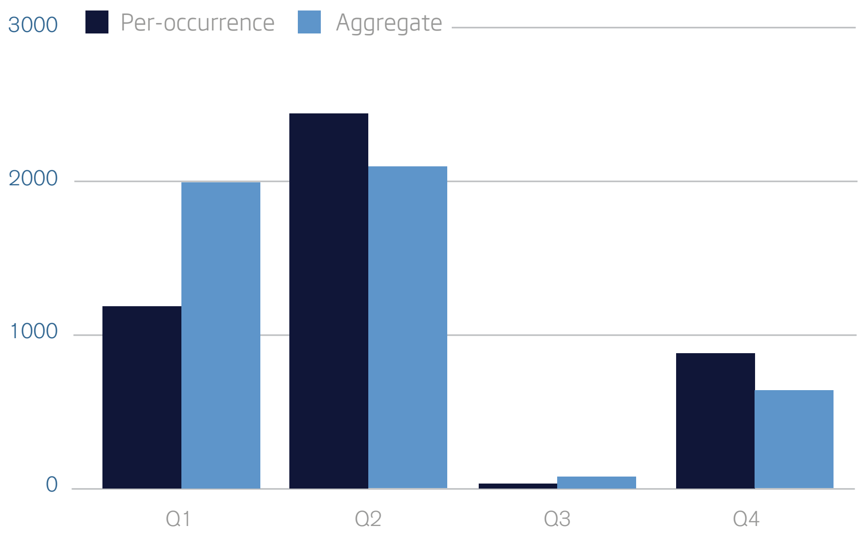
Full-year 2022 ILS issuance by peril



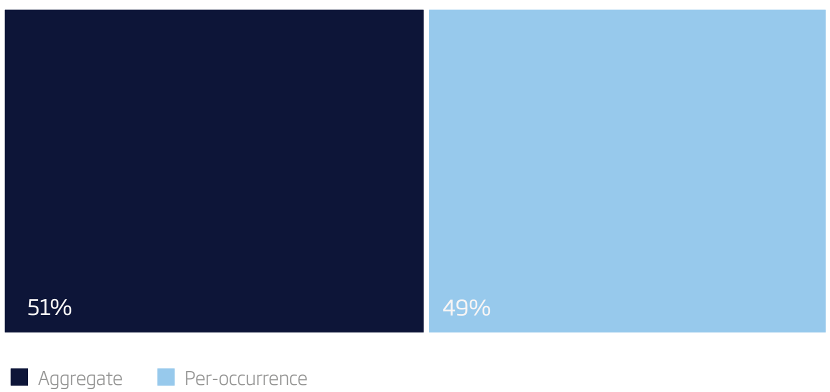
Full-year 2022 ILS issuance by trigger



2022 ILS issuance per-occurrence vs aggregate split by quarter



Full-year 2022 ILS issuance per-occurrence vs aggregate split

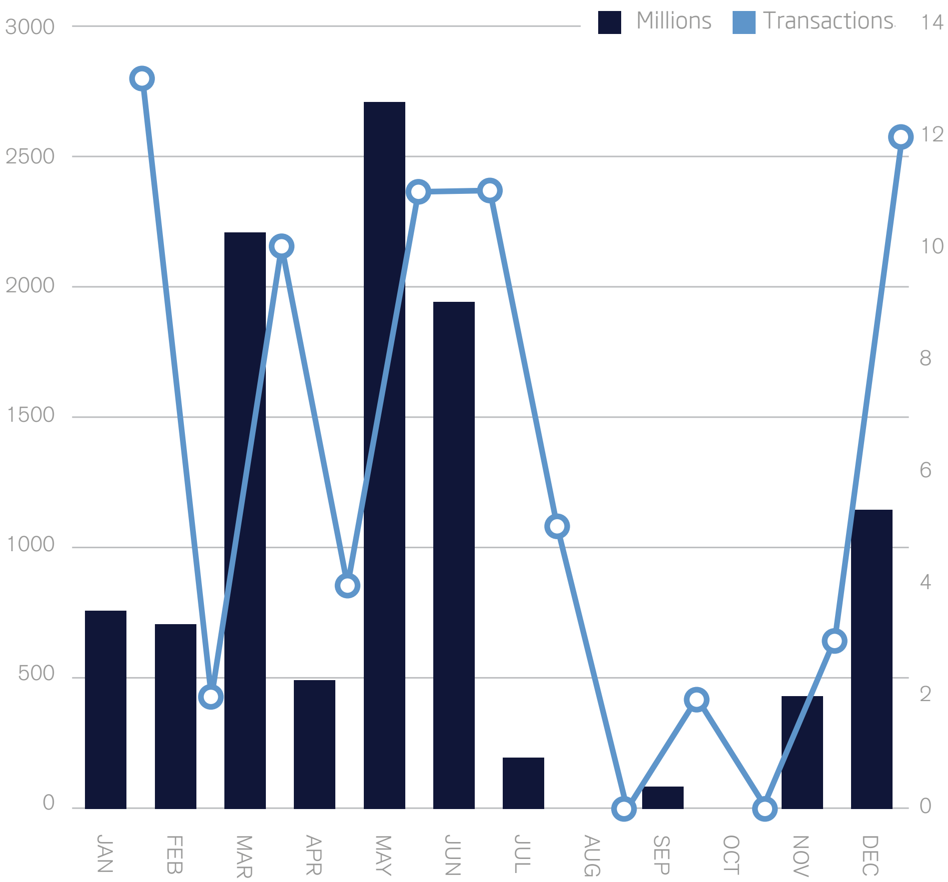


Full-year 2022 number of ILS transactions and volume issued by month

All in all, 73 new catastrophe bond and related ILS transactions were issued throughout 2022, which is down on the record of 84 seen last year, but still impressive and a sign of continued investor and sponsor appetite. Of these, the majority, or 51 came to market in the first half of the year, with just 22 transactions issued from July to the end of December.

The most active month, in terms of the number of deals, was January with 13, while both August and October saw no issuance in 2022.

In terms of risk capital issued, May was the most active month as 11 deals brought a combined $2.7 billion of new risk capital to market, while March was the only other month to see issuance levels exceed $2 billion. Issuance nearly hit $2 billion in the month of June, while December was the only other month that saw issuance levels of above $1 billion.

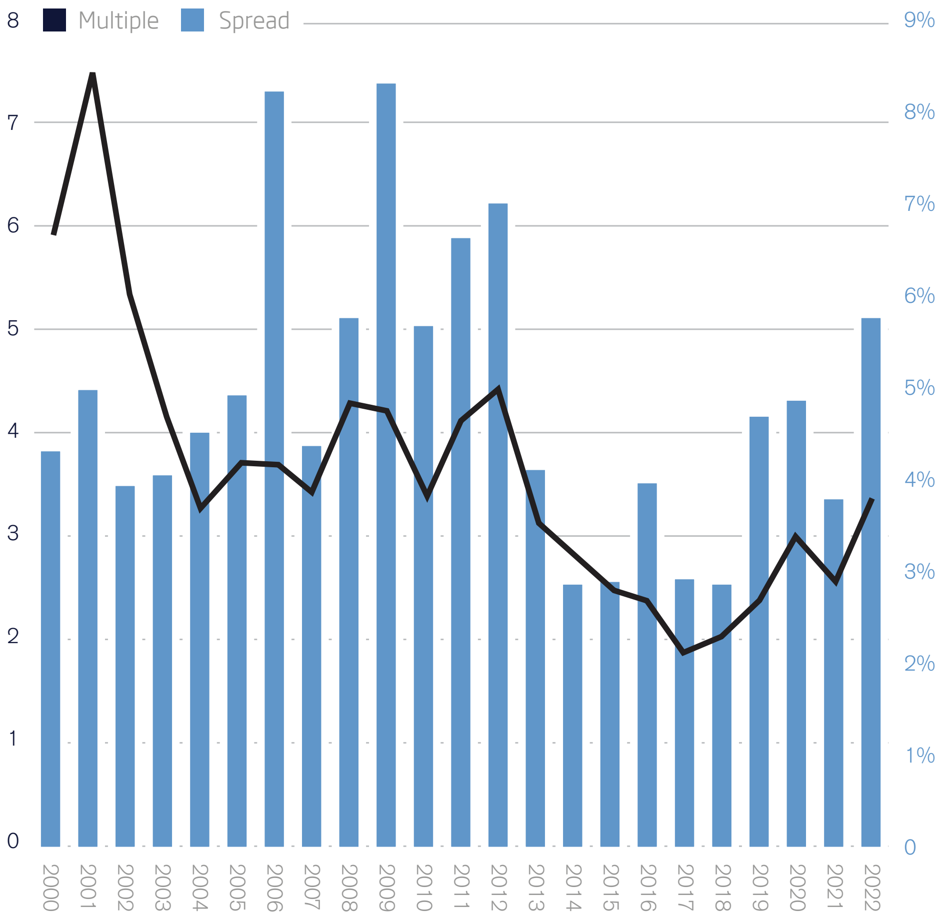


Average pricing multiples and spread

At the end of 2022, the average multiple (price coupon divided by expected loss) of cat bond and related ILS issuance was 3.38, which is the highest it's been at year-end since 2013. After reaching a low of 1.86 in 2017, the average multiple of issuance has been on the rise in the last four years but failed to breach 3 until 2022.

As the multiple elevated, so too did the spread, ending 2022 at 5.87%, which is the highest average spread of cat bond issuance at year-end since the 7.13% seen in 2012, which was arguably the last hard reinsurance market.

Since Hurricane Ian, the multiple at market paid to investors in cat bond notes has been on the rise, with many transactions seeing a substantial multiple against the initial base expected loss. As Artemis has reported through the year, investors were already demanding higher pricing for the risks they assume, and Ian only exacerbated the situation and provided more impetus for higher multiples.



All catastrophe bond and ILS issuance data sourced from the Artemis Deal Directory.

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