



Q3 2022 Catastrophe Bond & ILS Market Report

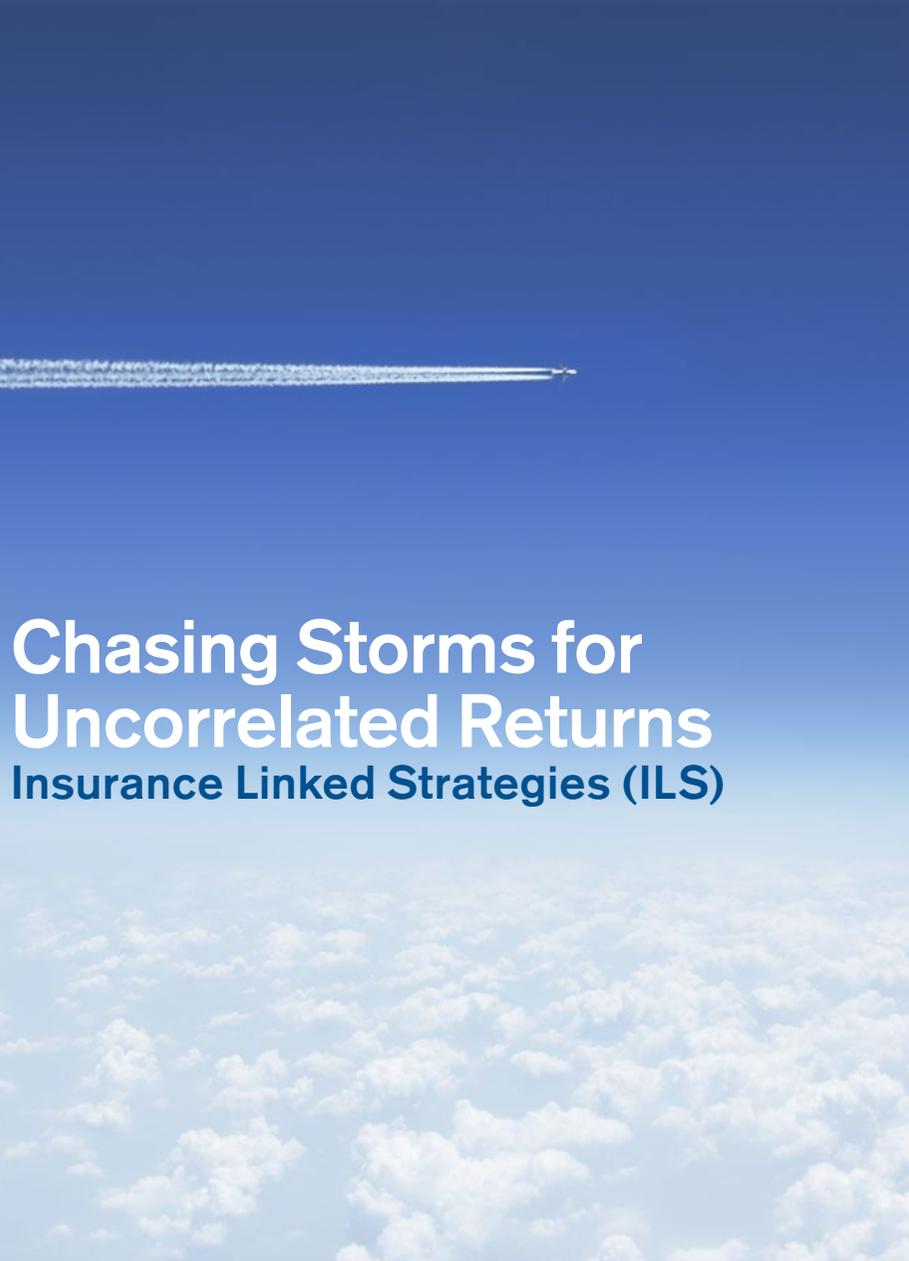
9M issuance strong despite
unusually quiet Q3

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INTRO

The Artemis Q3 2022 catastrophe bond and related insurance-linked securities (ILS) market report dissects a particularly quiet period for the sector dominated by privately placed deals. Although, as the following pages highlight, issuance for the first nine months of the year remains strong and is above-average.

Artemis' data shows that Q3 issuance in any year is typically the lowest of the quarters, being the only three-month period to see average issuance over the past decade sit below the \$1 billion mark. But at just \$266.5 million from seven transactions, six of which are private, or cat bond lite deals, Q3 2022 issuance is especially low, and comes in \$666 million under the 10-year average for the quarter.

Year-on-year, Q3 issuance is down by approximately \$1.1 billion. However, for the nine-month period it's a different story. Combined with the strong level of issuance seen in H1, the subdued third-quarter took 9M 2022 issuance to over \$8.9 billion. Artemis' data reveals that over the past 10 years, the average level of 9M cat bond and ILS issuance has been roughly \$7.6 billion, meaning that 9M 2022 issuance is still around \$1.3 billion higher than the average, despite one of the quietest Q3s on record.

The only traditional 144a cat bond to feature in Q3 2022 came from first time sponsor Canopus Group, which provides \$75 million of protection against U.S. named storms and earthquakes to its underwriting firms. Alongside this deal and the six cat bond lite deals issued in Q3, this report includes details of the two mortgage ILS transactions brought to market, the first since April.

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

Excluding mortgage, the \$266.5 million of Q3 catastrophe bond and ILS risk capital issued is comprised of nine tranches of notes across seven deals.

As the table shows, the \$191.5 million of privately placed deals make up the bulk of quarterly issuance, accounting for more than 71% of total risk capital issued in the period. Private ILS deals issued in the quarter, in terms of size, were dominated by the familiar Isosceles Insurance and Eclipse Re platforms.

The other private ILS deal issued in Q3 2022, Randolph Re (Series 2022-1), is the third ILS deal from the platform, and like its predecessors, covers California wildfire risks.

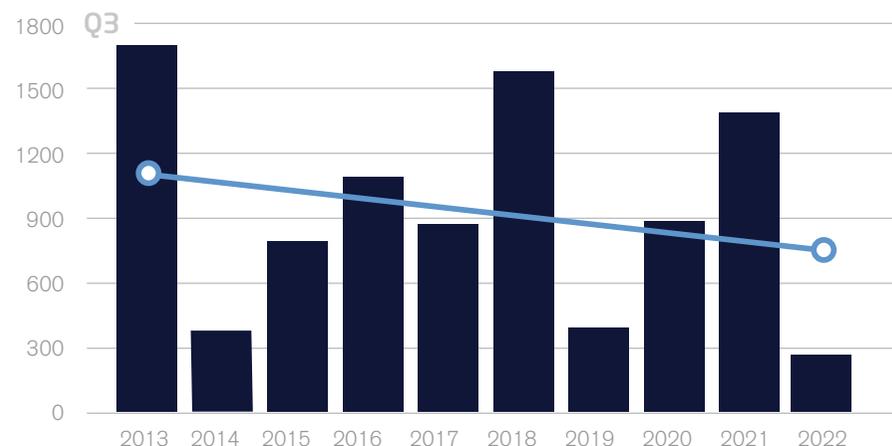
Despite the dominance of cat bond lite transactions, the 144a cat bond to feature in Q3 is the largest single transaction of the quarter, excluding mortgage deals. The \$75 million Finca Re Ltd., sponsored by Canopius Group – its market debut – will ultimately protect its underwriting entities against named storm and earthquake risk in the U.S.

After somewhat of a hiatus, prolific mortgage ILS sponsors Arch Capital Group and Essent Group returned at the end of Q3 with a placement each, amounting to a combined \$439 million of mortgage risk transferred to the capital markets.

ISSUER / TRANCHE	SPONSOR	PERILS	\$M	DATE
Bellemeade Re 2022-1 Ltd.	Arch Capital Group	Mortgage insurance risks	201	Sep
Eclipse Re Ltd. (Series 2022-6A)	Unknown	Unknown property catastrophe risks	11	Sep
Eclipse Re Ltd. (Series 2022-3A)	Unknown	Unknown property catastrophe risks	65	Sep
Radnor Re 2022-1 Ltd.	Essent Guaranty	Mortgage insurance risks	238	Sep
Randolph Re (Series 2022-1)	Mercury Insurance	California wildfire	25	Jul
Finca Re Ltd. (Series 2022-1)	Canopius Group	US multi-peril	75	Jul
Isosceles Insurance Ltd. (Series 2022-A)	Unknown	Unknown property catastrophe risks	60.5	Jul
Isosceles Insurance Ltd. (Series 2022-B)	Unknown	Unknown property catastrophe risks	11	Jul
Isosceles Insurance Ltd. (Series 2022-C)	Unknown	Unknown property catastrophe risks	19	Jul

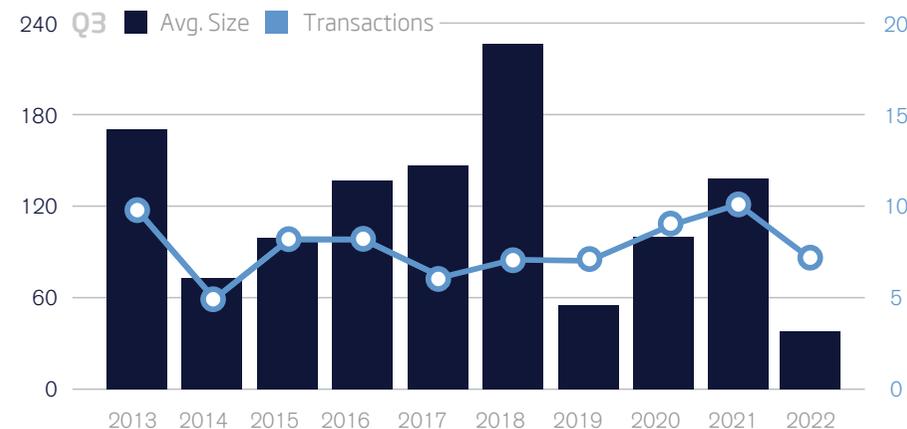
Q3 ILS issuance by year (\$M)

When compared with the third-quarter of last year, cat bond issuance has fallen by roughly 81% in Q3 2022 to \$266.5 million. It's actually the lowest Q3 of the past decade by some distance, and is significantly below the 10-year average for the quarter. The Artemis Deal Directory shows that Q3 is often the slowest period for the marketplace before issuance once again picks up in the final quarter ahead of the reinsurance renewals in January.



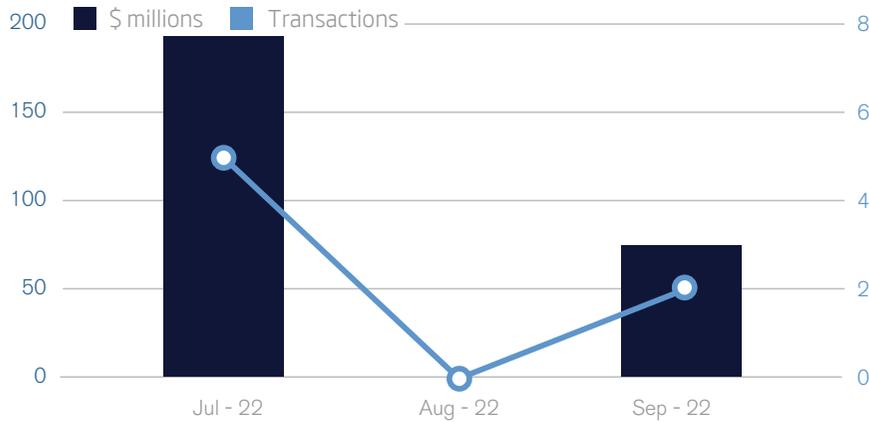
ILS average transaction size & number of transactions by year (\$M)

With the level of new risk capital brought to market in Q3 falling significantly, it's no surprise that the average transaction size of just over \$38 million is the lowest of the past decade, and significantly below the \$138 million seen in Q3 2021 and the 10-year average of \$118 million. Q3 2022 cat bond and related ILS issuance came from just seven transactions, which is the lowest for the quarter since 2019, and below the 10-year average of 7.7 for the period.



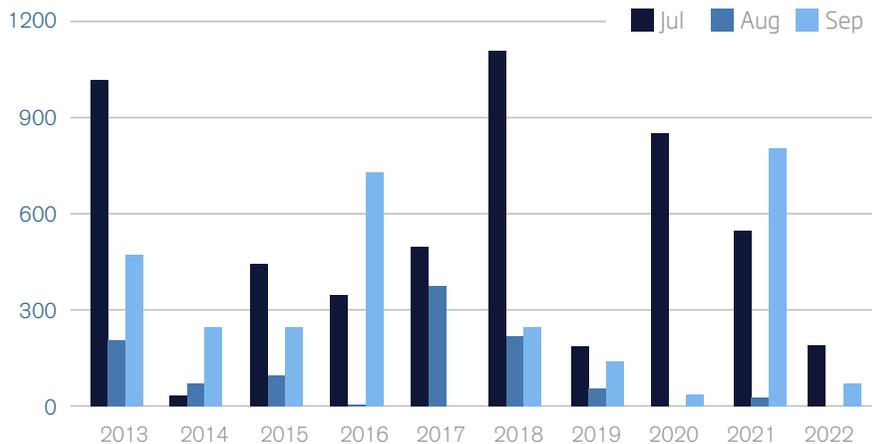
Number of transactions and volume issued by month (\$M)

As in 2020, no deals were issued in August, a month which has seen average cat bond issuance reach around \$107 million over the past decade, making it the least active month of any third-quarter. Most of the deals (five), and this includes the only 144a transaction, were issued in July, which is typically the strongest month of the quarter, with just two deals coming to market in September.



Q3 issuance by month & year (\$M)

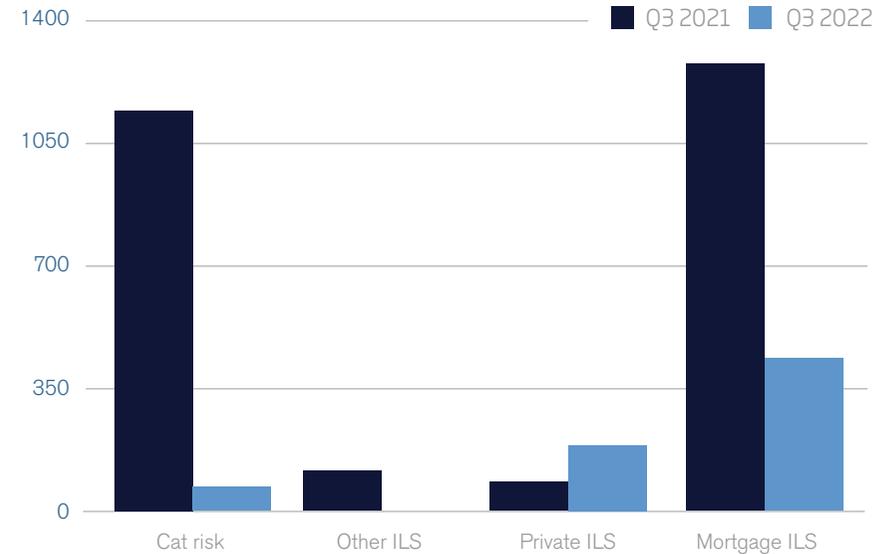
Artemis' data shows that July is often the most active month of any Q3, with issuance averaging roughly \$523 million over the past 10 years. But with the third quarter of 2022 being dominated by privately placed deals, which are usually smaller in size, the \$190.5 million of new risk capital seen in the month is \$332 million below the average, and \$355 million lower than last year. September issuance of \$76 million is also considerably down on last year, and \$226 million lower than the 10-year average.



Q3 ILS issuance by type

Year-on-year, private cat bond issuance is the only slice to have increased, from around \$84 million in Q3 2021 to \$191.5 million in Q3 2022. Cat bond lite issuance came from six transactions, comprised of eight tranches of notes, the largest being a \$65 million placement via the Eclipse Re platform.

With only one full, traditional 144a cat bond issuance coming to market in the third-quarter of 2022, it's no surprise that the volume of cat risk deals fell significantly year over year, from \$1.15 billion last year to just \$75 million in Q3 2022. Cat risk focused deals have dominated quarterly issuance in recent times, but in Q3 2022, amounted to just \$266.5 million if you include the private, property cat deals and wildfire transaction.



This Q3 also lacked the diversification sometimes seen through the transfer of non-cat risk to capital markets investors, such as mortality deals.

As shown by the Artemis Deal Directory, the issuance of mortgage ILS notes picked up again in Q3 2022, with deals from Arch Capital and Essent Group bringing a combined \$439 million of mortgage risk to market. Although, this is down on the \$1.3 billion seen in the comparable prior year quarter.

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

Unlike previous hard market cycles, some insurance-linked securities (ILS) managers eager to deploy more capacity are struggling to raise capital, and with startups reportedly more challenging to launch, Brad Adderley of Appleby questions if we're finally approaching a true hard market.

We spoke with Adderley, Bermuda Managing Partner at global law firm Appleby, shortly after the annual meeting of the reinsurance industry in Monte Carlo, to hear his thoughts on the catastrophe bond, ILS and broader re/insurance industry ahead of the key January renewals.

"Yes, the market is hard, but whether it's the best hard market or not, and if it's truly hard, well that remains to be seen," said Adderley.

In Adderley's mind, one sign of a true hard market is when deals don't get done at any price, and we know that one or two cat bonds failed to come to market in the second-quarter.

Another, perhaps more interesting and important sign, though, is the fact that Adderley has been hearing from some managers in the ILS space that they want to deploy more capital in the current market environment, but are finding it difficult to raise funds.

"In previous years, if you and I had this conversation during a hard market, we would be talking about how many new startups will emerge, right, and we're just not hearing that," said Adderley. "What I am hearing," he continued, "is that new startups are harder to form now because of the costs, the implementation, paying for the modeling and so on. All of these things just cost more money and take more time to implement.

"So, if ILS players are saying I wish I had more money to deploy than I have, and raising capital is not as easy as it was, then that says to me that it really is a hard market," said Adderley.

More importantly, according to Adderley, this suggests that investors have been stung so much over the last three years that they're still waiting to see if it's truly the case that it's a hard market.

"So, in a way, this all says that the hard market is going to get harder. It doesn't seem like we're going to see a wave of Class 4's come in," he said.

But while the lack of a new wave of startups might be a deviation from previous firming market cycles, Adderley explained that it could be a positive for the industry as typically, when more money enters the sector, the hard market doesn't last as long.

"Before, a hard mark would be more like climbing up a hill and staying at a plateau for a couple of years before it starts going down because you've got enough money coming in, and as a result, it would last for a couple cycles. Recently cycles have seen capital poured in so quickly that hard markets have only lasted a short period of time – they have been sharp peaks with no plateaus.

"Now, though, it's been building for the last couple of years and price and terms are improving, but compared to eight years or so of downward trend, we're still not where we need to be," said Adderley.

"I just think it's different than previous years, and I think this could be a positive for everyone. You might get people catching up to where they should have been years ago. The hard market might last longer, and maybe it gets even harder. And, then, that might help spur new vehicles in the future because now it's a properly hard market at a time where raising capital is more difficult, and people are pulling out of cat risk," he concluded.

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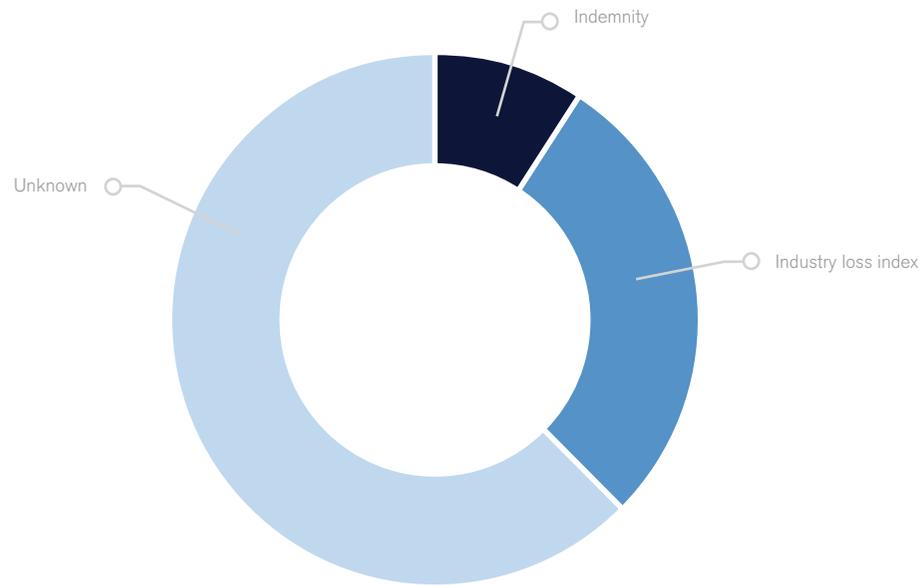


BRAD ADDERLEY

BERMUDA MANAGING PARTNER

Q3 2022 ILS issuance by trigger type

Reflecting the fact the majority of third-quarter 2022 issuance came from privately placed transactions, we do not have trigger information for approximately 63%, or \$166.5 million of issuance.

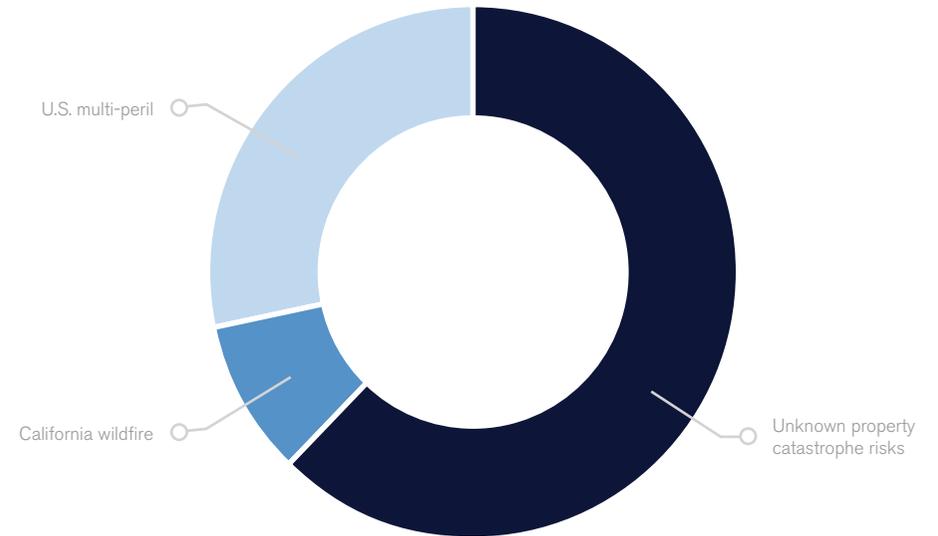


As regular readers of Artemis' quarterly cat bond and ILS market reports will be aware, Q3 issuance is usually dominated by indemnity structured deals. However, this year, just one private deal sized at \$25 million utilised an indemnity trigger, accounting for just over 9% of total issuance. The remaining 28%, or \$75 million of Q3 issuance leveraged an industry loss index trigger, and came from the 144a cat bond.

Q3 2022 ILS issuance by peril

When compared with the opening two quarters of this year and the third-quarter of 2021, Q3 2022 cat bond issuance lacked peril and geographical diversification. While U.S. risks are a common feature of third-quarter issuance, the Artemis Deal Directory shows that in recent years, investors have also welcomed cat-risk deals focused on Japan, Europe, and elsewhere, as well as some non-cat focused deals. In Q3 2022, however, this hasn't been the case.

U.S. deals do remain the focus, though. This includes a \$75 million U.S. multi-peril deal from new sponsor Canopi Group, which runs until the end of 2025, providing protection against losses from U.S. named storms and earthquakes, including Puerto Rico and the U.S. Virgin Islands.



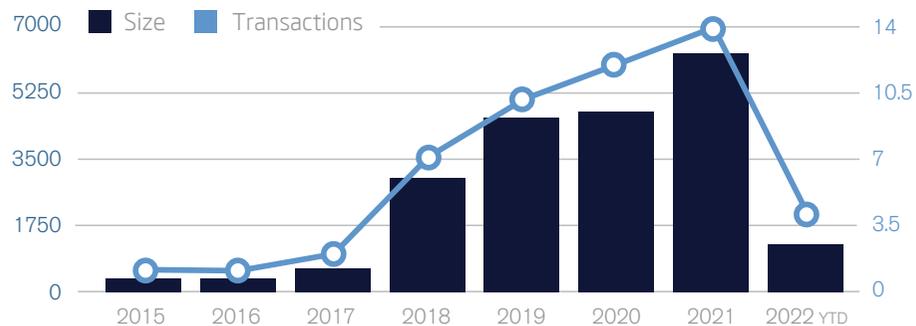
The third Randolph Re transaction in as many years came to market in Q3 2022. It's the smallest of the deals issued via Aon's private cat bond and ILS platform, adding \$25 million of California wildfire risk to market.

For both the Isosceles Insurance and Eclipse Re series issued in the third-quarter, it's clear that these provide a combined \$166.5 million of property catastrophe risk to market, although it's unclear exactly which perils and regions are included.

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Mortgage ILS issuance by year

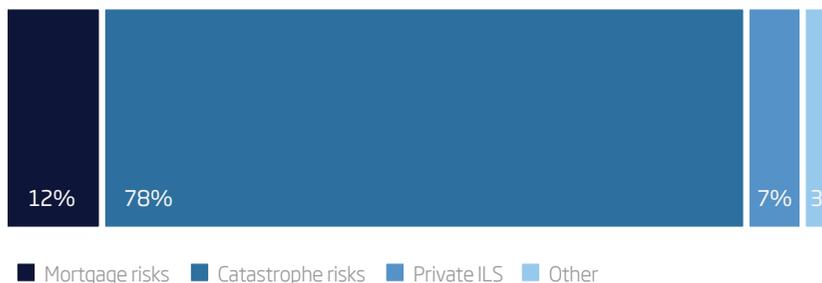
After a record breaking 2021 for the mortgage ILS market, which saw a yearly high of 14 transactions bring a combined \$6.3 billion of mortgage risk to market, issuance so far in 2022 has been somewhat subdued. However, with just one deal in each of the first and second quarter of the year, issuance has picked up again in Q3 2022, with two deals bringing \$439 million of risk to market, taking 2022 mortgage ILS issuance to roughly \$1.2 billion from four transactions.



9M 2022 ILS issuance split

In spite of the blip in the third-quarter, catastrophe risk focused deals dominated 9M 2022 cat bond and related ILS issuance, totalling more than \$7.8 billion, accounting for 78% of issuance year-to-date. In terms of volume of risk capital, this does represent a decline from the \$9.7 billion of cat risk deals seen in 9M 2021, although this only accounted for 61% of total issuance driven by a greater load of mortgage deals.

This year, mortgage deals account for almost 12% of 9M issuance compared with 32% in 2021, reflecting the lower level of issuance seen so far in 2022. Year-on-year, private cat bond issuance remains relatively flat at almost \$690 million, making up nearly 7% of 9M 2022 issuance compared with a 4% contribution in 9M 2021. The issuance of other ILS deals failed to materialise in Q3 2022, but deals did come to market in H1 taking 9M issuance for this segment to \$331 million, or more than 3% of issuance for the period.



INSURANCE & REINSURANCE

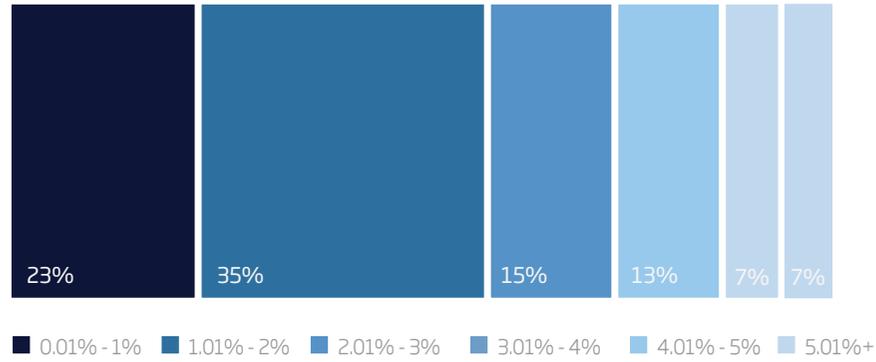
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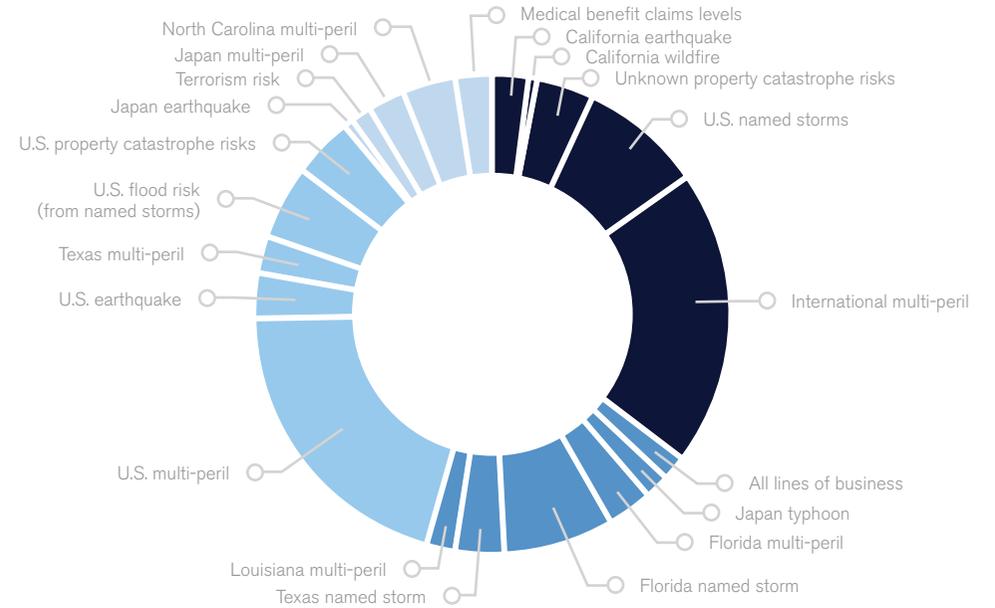
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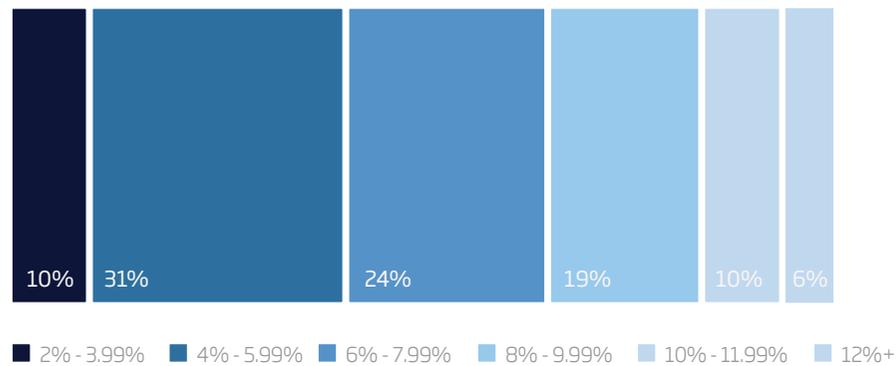
9M 2022 ILS issuance by expected loss



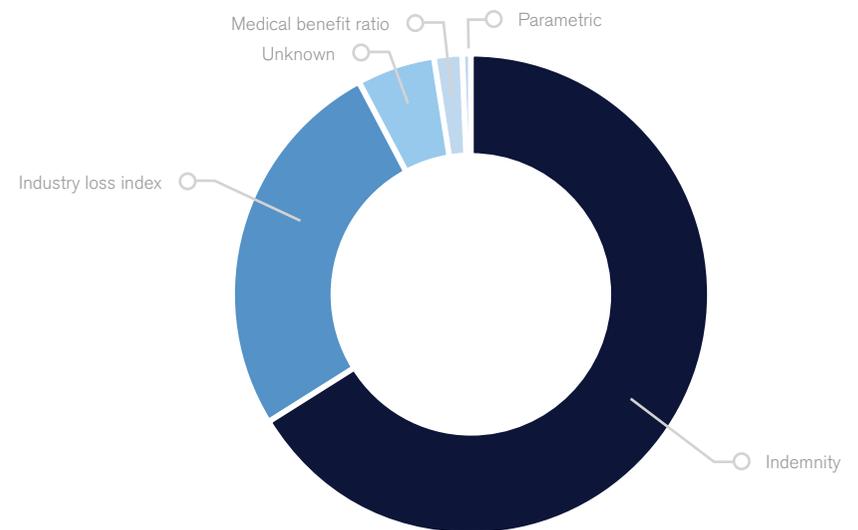
9M 2022 ILS issuance by peril



9M 2022 ILS issuance by coupon pricing



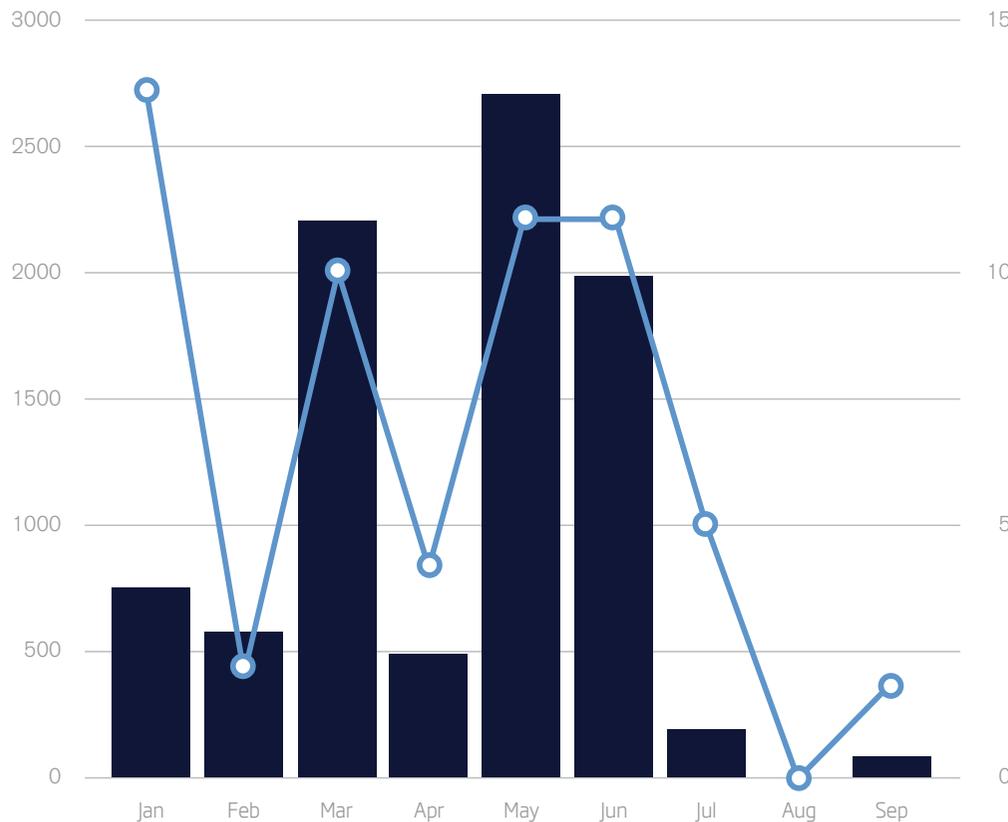
9M 2022 ILS issuance by trigger



9M 2022 number of ILS transactions and volume issued by month

Year-to-date, 58 catastrophe bond transactions have been issued, which represents a slight decline from the 60 seen in 9M 2021, but is still very strong for any year, as shown by the Artemis Deal Directory. So far in 2022, August is the only month which saw zero issuance, with the most active month, in terms of the number of deals, being the 13 issued in January. Other strong months of the year include May and June which both saw 11 deals, and then March with 10 deals.

In terms of risk capital issued, the \$8.9 billion seen in 9M 2022 is the fourth highest of the past decade. It comes in below the \$10.9 billion witnessed for the same period last year, but is above the 10-year average of \$7.6 billion by more than \$1.3 billion. With issuance being so low in all months of Q3, May remains the most active month of the year so far with total issuance of almost \$2.7 billion. With the exception of August, September has been the least active month of the year, with just \$76 million of risk capital coming to market.



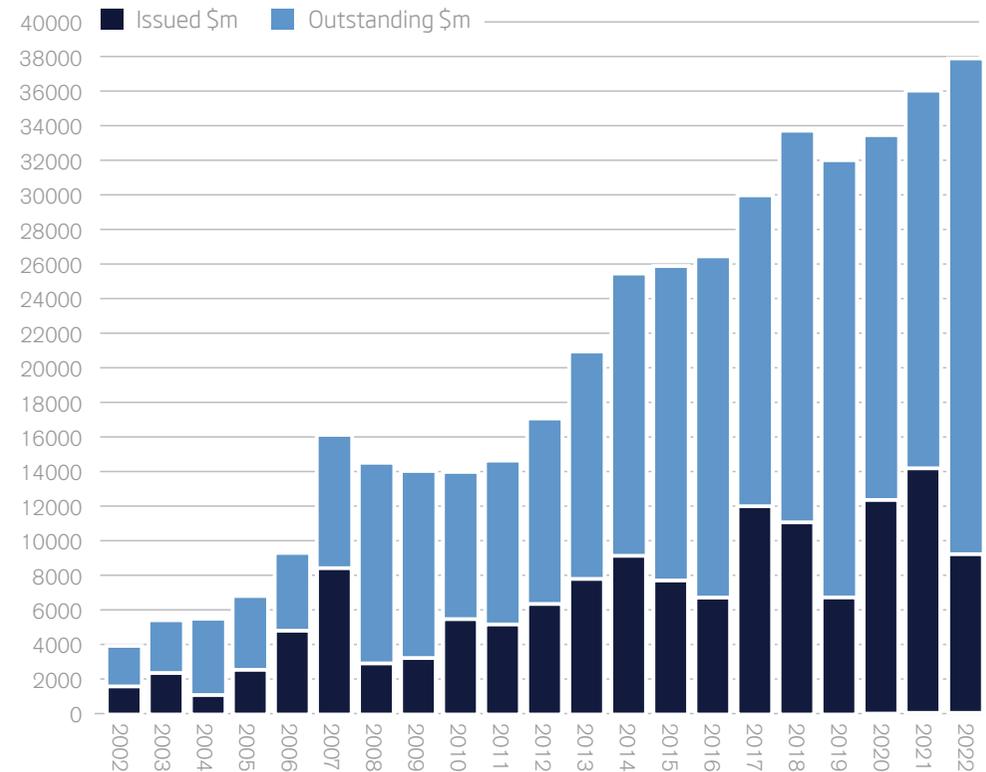
Issued / Outstanding

Following a busy opening six months of the year for the catastrophe bond and ILS market, the third-quarter was less active, and while this is typical in any year, it was unusually quiet this time around at \$266.5 million. Nevertheless, issuance for the first nine months of 2022 has reached an impressive \$8.9 billion, which is above-average and stronger than six of the previous 10 9M periods.

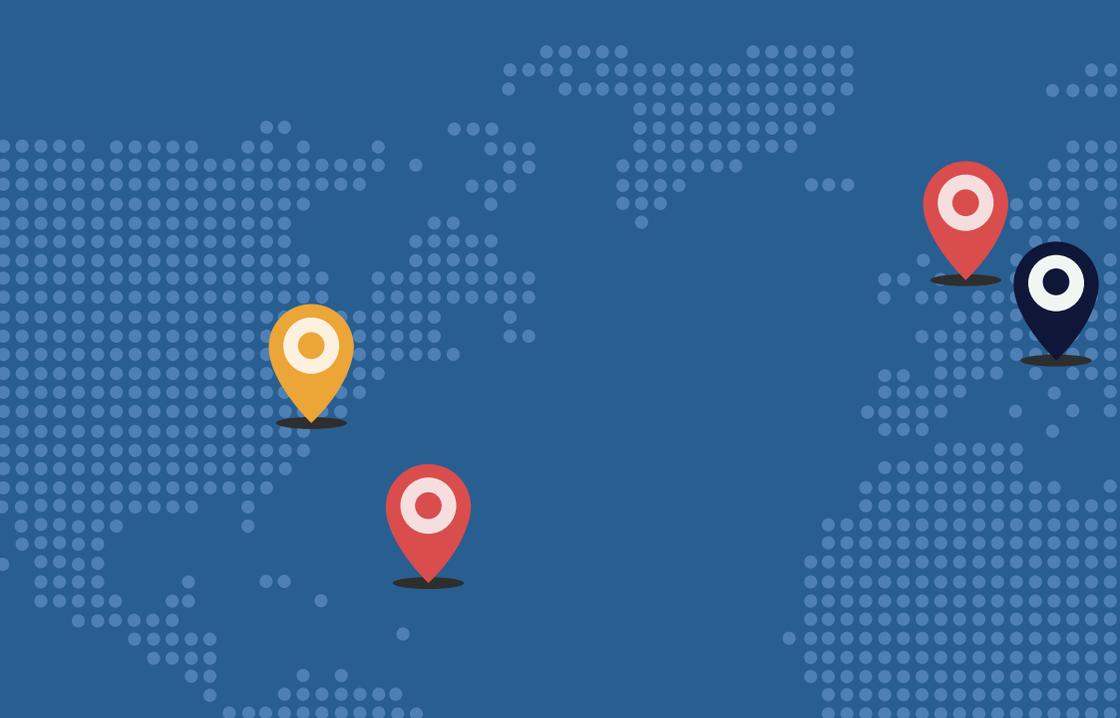
One thing the depressed, significantly below-average level of new issuance in Q3 does mean, however, is that the marketplace has failed to achieve outright growth, quarter-to-quarter, for the first time in a while. At the end of Q2 2022, the size of the outstanding market was roughly \$38.2 billion. Now, though, as of the end of September 2022, the outstanding cat bond market size is \$37.8 billion, meaning the market has shrunk by around \$400 million.

In spite of the dip from Q2 to Q3, the outstanding market size is more than \$1.9 billion higher than at the end of 2021, and is still an impressive \$4.7 billion larger than it was at the end of Q3 2021, as shown by the Artemis Deal Directory.

While lower issuance in the quarter and a dip in market size might suggest a change in appetite from sponsors and investors in light of current market, and macroeconomic conditions, Artemis understands that the pipeline is strong for Q4, a period which has averaged issuance of nearly \$2.2 billion over the past decade. Artemis' data shows that there's around \$1.7 billion of deals set to mature before the end of the year, so there's every chance market growth is sustained at year-end.



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/



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

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