



Q1 2020 Catastrophe Bond & ILS Market Report

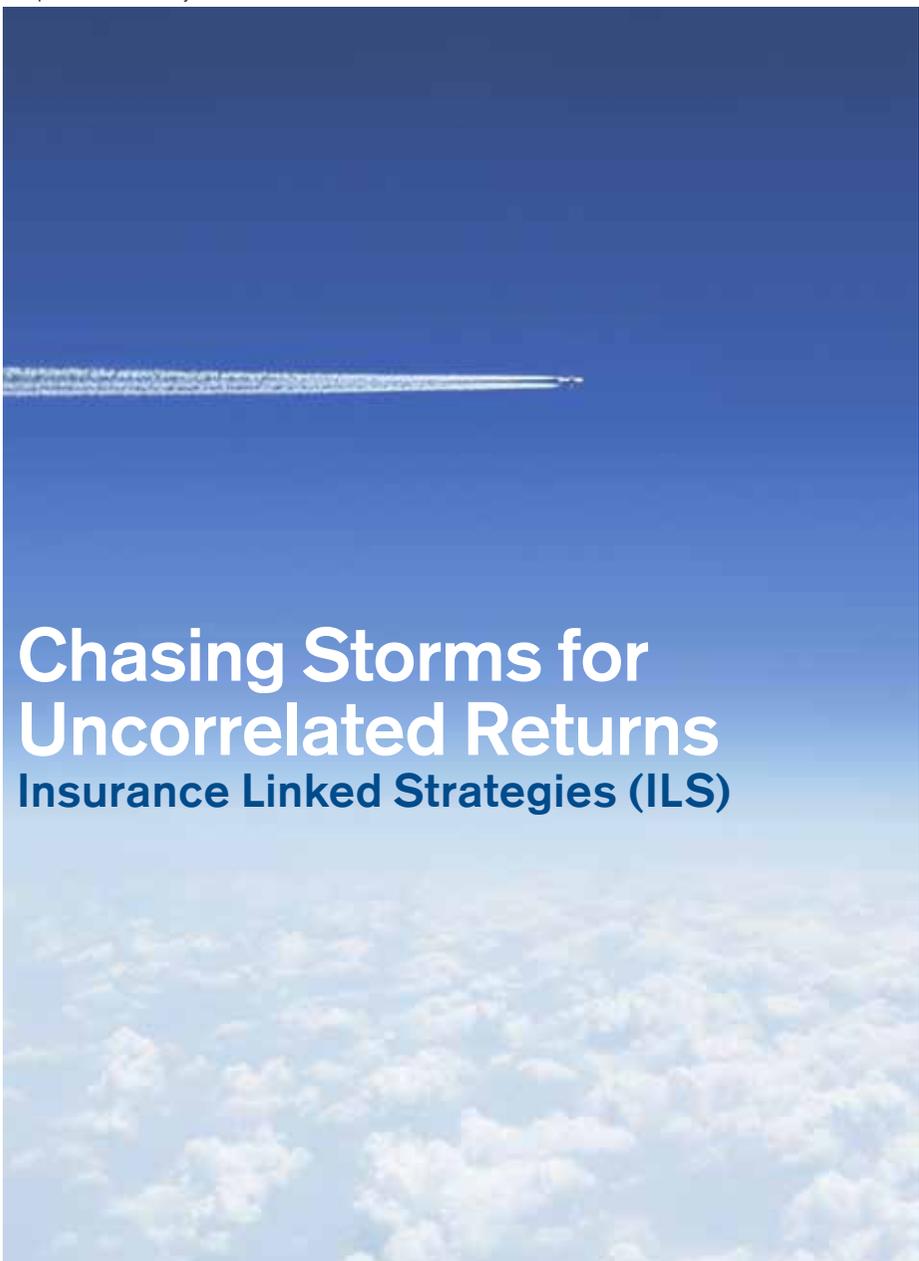
Record levels of catastrophe
issuance drives new market high in Q1

ARTEMIS

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

www.artemis.bm

For qualified investors only.



Chasing Storms for Uncorrelated Returns Insurance Linked Strategies (ILS)

For further information please visit www.credit-suisse.com

This poster was produced by Credit Suisse Insurance Linked Strategies Ltd. (together with its affiliates "CS") with the greatest of care. It is not investment advice, nor does it constitute an offer or invitation to enter into any type of financial transaction. It may not be distributed in the U.S. or to a U.S. person or in any other jurisdiction where distribution would contravene local laws or regulations. This material may not be reproduced, neither in part nor in full, without the written permission of CS.
Copyright © 2017 Credit Suisse Group AG and/or its affiliates. All rights reserved.

INTRO

This report reviews the catastrophe bond and insurance-linked securities (ILS) market at the end of the first-quarter of 2020, looking at new risk capital issued and the composition of transactions completed during the quarter.

For the first time in any first-quarter and a rarity in any quarter, catastrophe bond and ILS issuance exceeded \$5 billion in Q1 2020. As shown by the Artemis Deal Directory, the record level of issuance came from 27 deals consisting of 51 tranches of notes.

Also impressive, is the fact almost \$3.9 billion of new risk capital brought to market focused on catastrophe risk. In recent times, quarterly issuance has often strongly featured mortgage ILS deals, and while Essent Guaranty and Radian Guaranty both issued transactions in Q1, issuance was heavily dominated by pure catastrophe risk deals.

New sponsors entering the marketplace in Q1 included Markel Bermuda and Bayview Asset Management, while the quarter also featured a number of private deals from unknown sponsors. In terms of the number of transactions issued and the volume of risk capital issued, repeat sponsors dominated Q1 2020.

After huge levels of losses, subsequent trapped collateral and loss development challenges, investors and sponsors clearly remain attracted to the ILS space, for both catastrophe and non-catastrophe diversification.

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

The \$3.9 billion of Q1 catastrophe risk deals came from a mix of unknown, new, and repeat sponsors. Numerous private deals offered protection against U.S. and unknown property catastrophe risks, and both Turkey and Japan quake exposure.

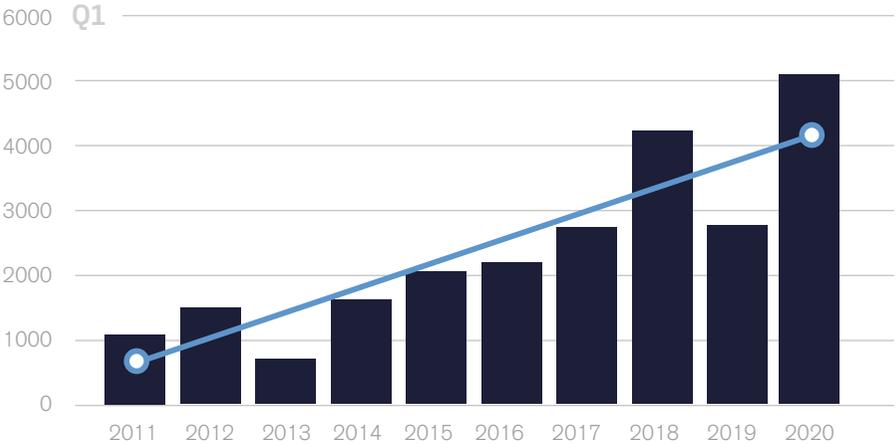
New sponsor Markel Bermuda issued \$100 million of U.S. multi-peril risks, and returning sponsors Allstate, Nationwide Mutual, and American Strategic also issued U.S. multi-peril deals. Bayview Asset Management entered the space with a \$225 million U.S. quake deal, while Swiss Re, American Integrity, and FEMA issued U.S. named storm and flood risk deals.

FONDEN brought \$485 million of Mexico quake and hurricane risk, while Zenkyoren issued a Japan quake deal and Mitsui Sumitomo a Japan multi-peril transaction. International multi-peril deals came from RenRe and Hannover Re. A small slice of issuance covered international mortality risks and medical benefit claims levels.

ISSUER / TRANCHE	SPONSOR	PERILS	\$M	DATE
Akibare Re Pte. Ltd. (Series 2020-1) Class A	Mitsui Sumitomo Insurance	Japan multi-peril	100	Mar
Integrity Re II Pte. Ltd.	American Integrity Insurance	Florida named storms	150	Mar
Sanders Re II Ltd. (Series 2020-1)	Allstate	U.S. multi-peril	250	Mar
Asaga II - White Rock Insurance (SAC) Ltd.	Unknown	Japan earthquake	18.3	Mar
IBRD / FONDEN 2020	FONDEN / AGROASEMEX S.A.	Mexico multi-peril	485	Mar
Caelus Re VI Ltd. (Series 2020-1 & 2020-2)	Nationwide Mutual Insurance	U.S. multi-peril	490	Feb
FloodSmart Re Ltd. (Series 2020-1)	FEMA / NFIP via Hannover Re	U.S. flood	400	Feb
Bonanza Re Ltd. (Series 2020-1)	American Strategic Insurance	U.S. multi peril	200	Feb
Nakama Re Ltd. (Series 2020-1)	Zenkyoren	Japan earthquake	200	Feb
ILN SAC Ltd. (ILN-TKY-Q-1)	Unknown	Turkey earthquake	7	Feb
Matterhorn Re Ltd. (Series 2020-2)	Swiss Re	U.S. wind / int. mortality	255	Feb
Eagle Re 2020-1 Ltd.	Radian Guaranty	Mortgage insurance risks	488.5	Feb
Radnor Re 2020-1 Ltd.	Essent Guaranty	Mortgage insurance risks	496	Jan
Vitality Re XI Ltd. (Series 2020)	Aetna	Medical benefit claims	200	Jan
3264 Re Ltd. (Series 2020-1)	Hannover Re	International multi-peril	150	Jan
Stratosphere Re Ltd. (Series 2020-1)	Markel Bermuda Limited	U.S. multi peril	100	Jan
Eclipse Re Ltd. (Series 2020-01A)	Unknown	Unknown property cat risks	10	Jan
Mona Lisa Re Ltd. (Series 2020-1)	Renaissance Re and DaVinci Re	International multi-peril	400	Jan
Matterhorn Re Ltd. (Series 2020-1)	Swiss Re	U.S. named storm	350	Jan
Sierra Ltd. (Series 2019-1)	Bayview Asset Management, LLC	U.S. earthquake	225	Jan
Seaside Re (Series 2020)	Unknown	U.S. property cat risks	74.5	Jan

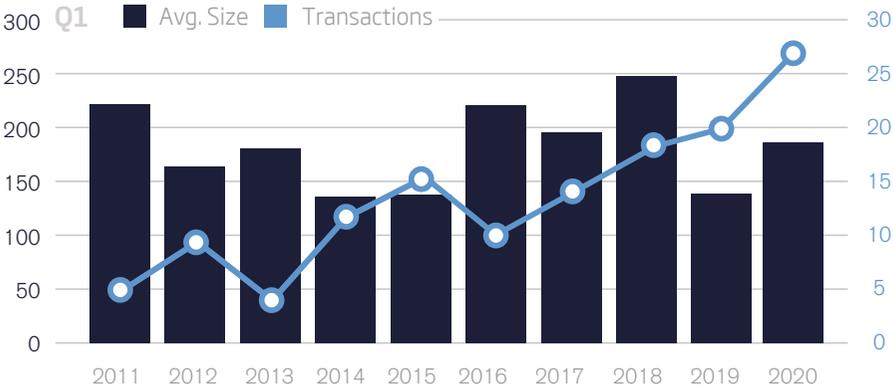
Q1 ILS issuance by year (\$M)

At \$5.05 billion, catastrophe bond and ILS issuance in Q1 2020 increased by 82% when compared with the prior year period, and is 19% higher than the previous Q1 record set in 2018. Q1 2020 issuance is \$2.6 billion above the ten-year average for the quarter.



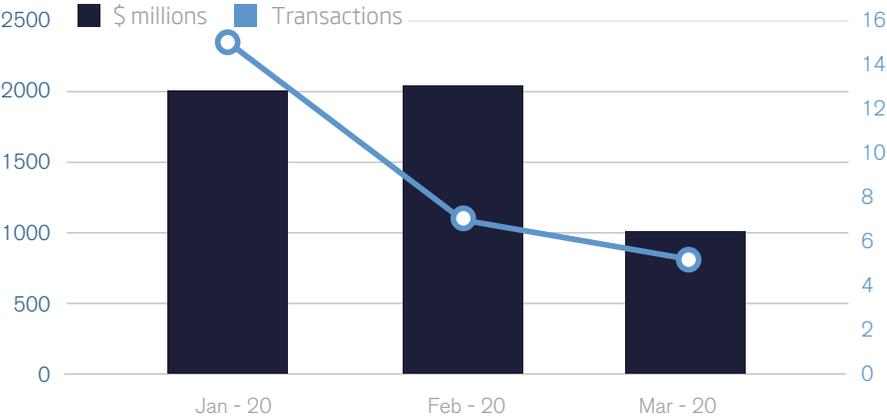
ILS average transaction size & number of transactions by year (\$M)

27 deals came to market in the first-quarter of 2020, making it the most active Q1 ever, in terms of the number of deals issued, above the ten-year average of 10. The average transaction size of Q1 2020 issuance reached \$187 million, falling below the record set in 2018 but slightly above the ten-year average for the period of \$184 million.



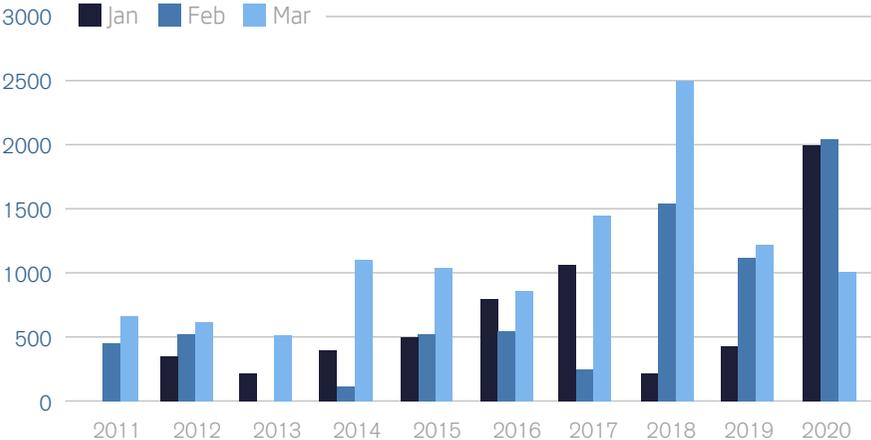
Number of transactions and volume issued by month (\$M)

As shown by the Artemis Deal Directory, catastrophe bond and ILS issuance surpassed \$1 billion in each individual month of the first quarter, which is a first. In fact, January issuance was more than \$1.5 billion above the ten-year average for the month, while February issuance exceeded the average by over \$1.3 billion. March issuance remained above \$1 billion, but fell below the ten-year average of \$1.1 billion.



Q1 issuance by month & year (\$M)

15 deals came to market in the first month of the year, making January the most active month of the quarter, in terms of the number of deals issued. In February, seven deals were issued and the final month of the quarter saw five deals come to market, as shown by the Artemis Deal Directory.



APPLEBY

**Intelligent and insightful offshore
legal advice and services.**
Delivered with perspective.

INSURANCE & REINSURANCE

Our Insurance & Reinsurance practice involves advising on the establishment, regulatory compliance and business operations of re/insurance companies (life and non-life), as well as re/insurance managers and brokers in international jurisdictions.

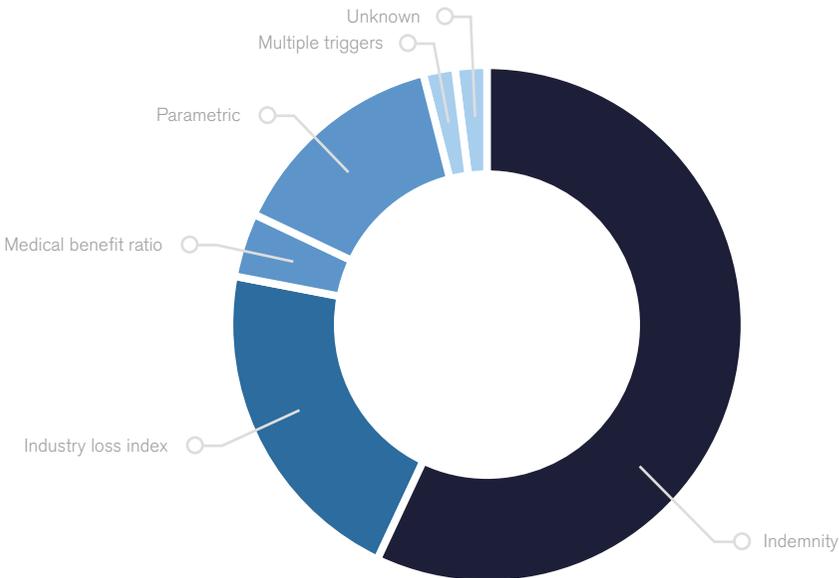
Our market-leading practice in Bermuda is renowned for its expertise in all aspects of re/insurance, including catastrophe bonds, SPIs, sidecars and other insurance-linked securities, in addition to capital raising, M&A and insurtech.

Visit applebyglobal.com to learn more.



Q1 2020 ILS issuance by trigger type

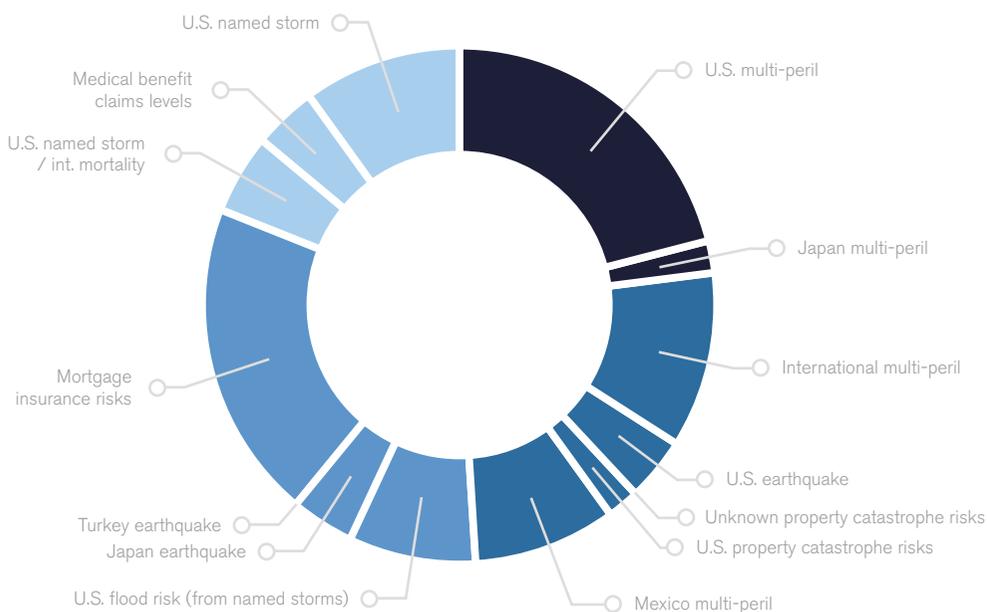
As is typical of first-quarter issuance, indemnity triggers dominated in 2020, with 57%, or over \$2.8 billion of issuance utilising an indemnity trigger structure.



Five deals with a combined value of \$1.1 billion leveraged an industry loss trigger in Q1 2020, accounting for more than 21% of issuance in the quarter. Investors were treated to some trigger diversification in the opening quarter of the year, with \$728 million of parametric structured deals and \$200 million structured using a medical benefit ratio trigger. One tranche of notes used a combination of triggers, while trigger information was unavailable for roughly 2% of issuance.

Q1 2020 ILS issuance by peril

Q1 2020 saw a strong return of catastrophe risk focused deals, amounting to approximately \$3.9 billion, or 77% of total issuance. U.S. multi-peril deals from Markel, American Strategic, Nationwide Mutual, and Allstate totalled \$1.04 billion, the largest slice of issuance. An unknown sponsor and a series of Seaside Re deals brought a combined \$84.5 million of U.S. & unknown property cat risks to market. Swiss Re sponsored two deals in Q1, covering U.S. named storm risks and international mortality exposures. FEMA returned with \$400 million of U.S. flood risk, while Bayview Asset Management's first deal offered \$225 million of U.S. quake diversification.



Deals from Zenkyoren and an unknown sponsor brought a combined \$218.3 million of Japan quake protection to market, while \$7 million of Turkey quake protection also featured. A \$100 million deal covering multiple Japan exposures was issued by Mitsui Sumitomo, and FONDEN brought some Mexico quake and hurricane exposure to market. RenRe and Hannover Re returned with a combined \$550 million of protection against multiple international perils.

Almost \$1 billion of issuance covered mortgage insurance risks in Q1, while Aetna returned for its usual \$200 million of protection against medical benefit claims levels.

BERMUDA - A RESPONSE TO COVID19

Sherman Taylor, Associate Director at Ocorian in Bermuda broadly reviews how Bermuda is responding to the required changes in business practices brought on by Covid 19.

Many regulated industries are required to have a Business Continuity Plan (BCP) in place and are assumed to conduct regular testing of such plan. This is particularly true of regulated industries that support the insurance space - including corporate service providers. This legislative backstop is critical in ensuring that Bermuda, being such an important jurisdiction in the Global insurance market, continues to function without meaningful disruption in times of market stress.

INDUSTRY - OPERATIONS

Given the need for companies to have a relevant, tested and functioning BCP in place, Bermuda businesses are able to adapt and adhere to the evolving requirements as these uncharted waters affecting markets and the jurisdiction are navigated.

It is essential to implement a BCP and have a management structure that can easily adapt. The malleability has become even more important, given the extraordinary speed of transmission, severity and supply shock that COVID-19 has caused on a global scale, as too has regular testing of the BCP.

From an operational perspective, even with the suspension of air travel to and from Bermuda, board meetings and annual general meetings continue to be held using electronic communication and video conferencing.

Even with the disruption caused, we continue to see insurance linked securities transactions from Bermuda issuers moving forward without interruption.

REGULATORS

Several regulators in Bermuda have issued industry notices, outlining temporary adjustments to policy and guidelines, with direct impact to the insurance and insurance linked securities industries.

The Bermuda Monetary Authority (BMA) recognized the pandemic was causing significant operational disruptions to business globally, and granted a one month filing extension for the year 2019 to all classes of insurers, insurance groups and insurance intermediaries.

The Registrar of Companies (ROC) acknowledged that some changes to Board composition may be required. The ROC stated that they will take this into account when assessing compliance, advising that entities should keep careful records of the effect of the pandemic on their businesses. Indeed, the ROC also has made commercial, pro-active changes to its ability to accept e-filings.

The Bermuda Stock Exchange (BSX) also acknowledged the impact of the pandemic and committed to remain open and trading. The BSX continues to process listing applications, and where rules require original documents to be filed, they are accepting electronic documents. The BSX advised that issuers should maintain hard copies of originals and makes these available to them when travel restrictions end. This is crucial to the insurance linked securities industry in particular as the BSX is a key part of many ILS deals.

GOVERNMENT

The Government of Bermuda continues to gather, review, and interpret sufficient amounts of data which is critical to correctly respond to the changing dynamics of the pandemic. Like most affected jurisdictions, once confirmed cases were identified, air travel was suspended, quarantines were implemented and orders to close non-essential retail businesses were issued.

CONCLUSION

Bermuda's preparedness and quick response to the pandemic has allowed business to adjust and continue operations with minimal disruptions. Given the large scale global impact on supply chains and need to function remotely, it will be interesting to see what changes will be instituted by regulators, or adopted organically by industry as solutions continue to be identified.



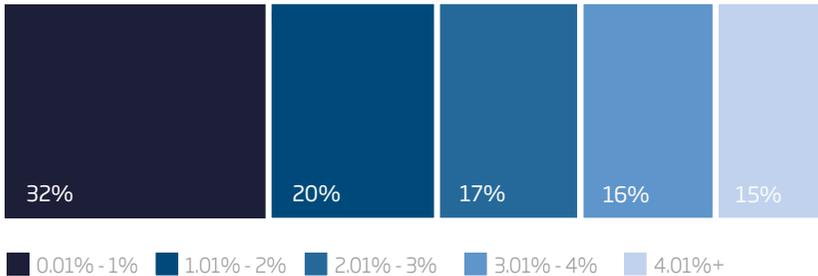
SHERMAN TAYLOR
ASSOCIATE DIRECTOR

O C O R I A N

ocorian.com

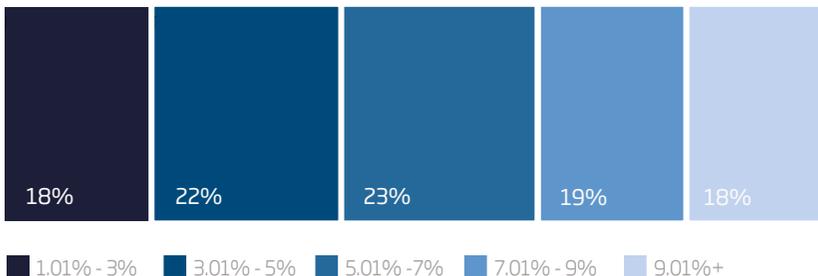
Q1 2020 ILS issuance by expected loss

For the \$3.95 billion of total risk capital issued that we have expected loss data for, approximately 32% had an expected loss of below 1%. \$2.1 billion, or 53% of Q1 2020 issuance had an expected loss of between 1.01% and 4%, while more than 15% offered had an expected loss of more than 4%. At 0.01%, the Class A tranche of Vitality Re XI notes offered the lowest expected loss of the quarter. The Class B of IBRD / FONDEN notes had an expected loss of 5.78%, the highest of Q1 2020.



Q1 2020 ILS issuance by coupon pricing

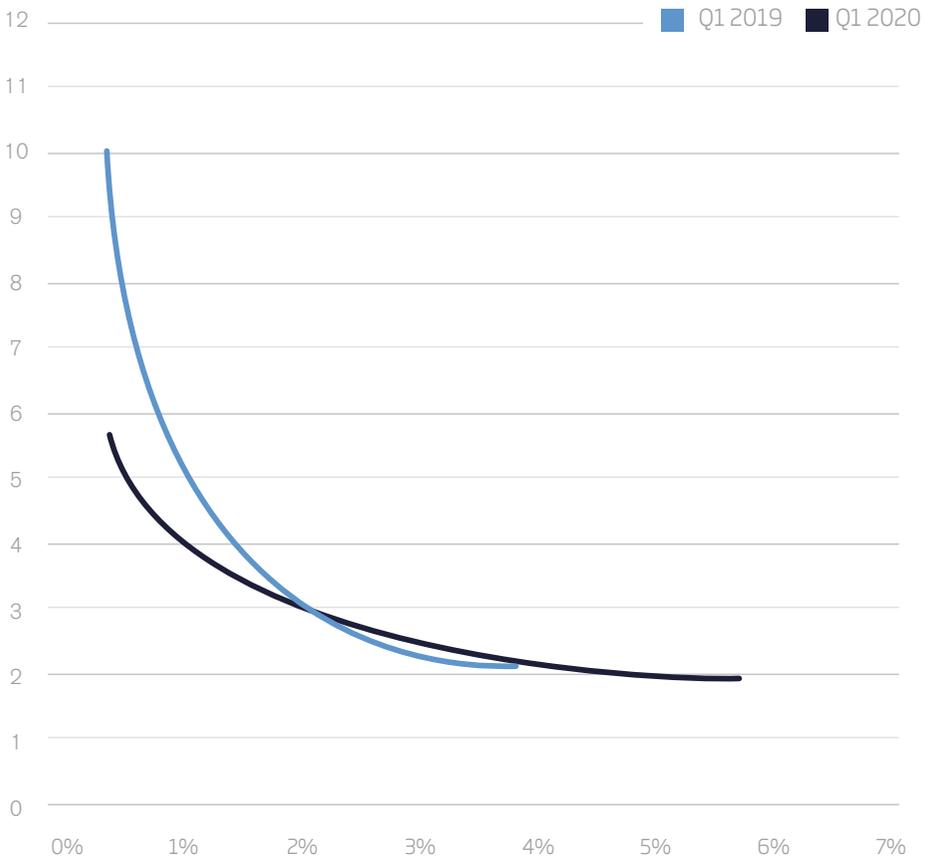
For the \$4.4 billion of first-quarter issuance where we have pricing data, 40% or \$1.8 billion paid investors a coupon of between 1.01% and 5%, with the slight majority of this offering a coupon of more than 3.01%. Over \$1.8 billion, or 42% of issuance offered a coupon of between 5.01% and 9%, while 18% of Q1 issuance paid a coupon above 9%. The highest coupon on offer during the quarter came from the Class B tranche of FloodSmart Re notes, at 14.5%. The Class A tranche of Vitality Re XI notes paid the lowest coupon, of 1.5%.



Q1 2020 expected loss & multiple year-on-year

The below chart offers another way to look at the risk-adjusted return of issuance in the opening quarter of the year, plotting the expected loss against the multiple (price coupon divided by expected loss). The light blue line represents Q1 2019 and the dark blue line Q1 2020, showing that generally, the multiple increased as the expected loss declined.

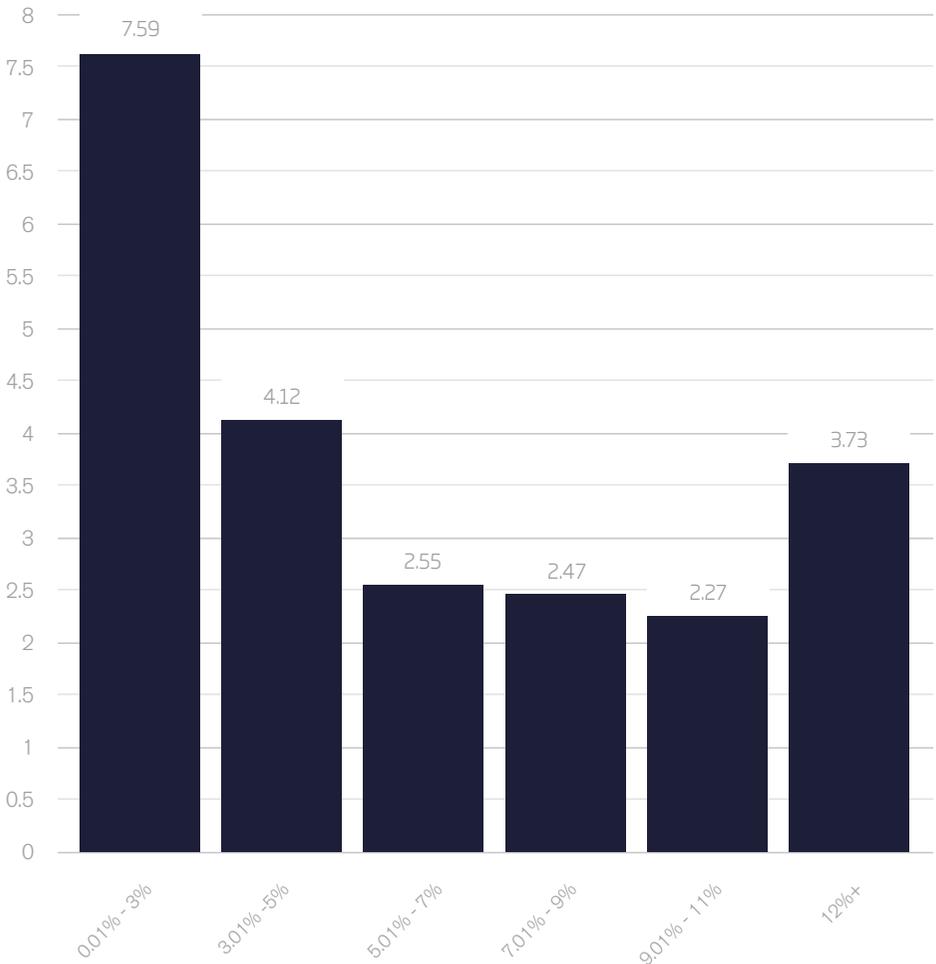
The chart shows that in line with Q1 2019, investors in the first-quarter of 2020 demanded the highest multiple for the lowest risk/return deals.



Q1 2020 average multiple by coupon pricing

Where we have both expected loss and pricing data, the average multiple of Q1 2020 issuance was 2.89, which is up on the 1.97 recorded at the end of Q4 2019 but down on the 3.65 posted a year earlier.

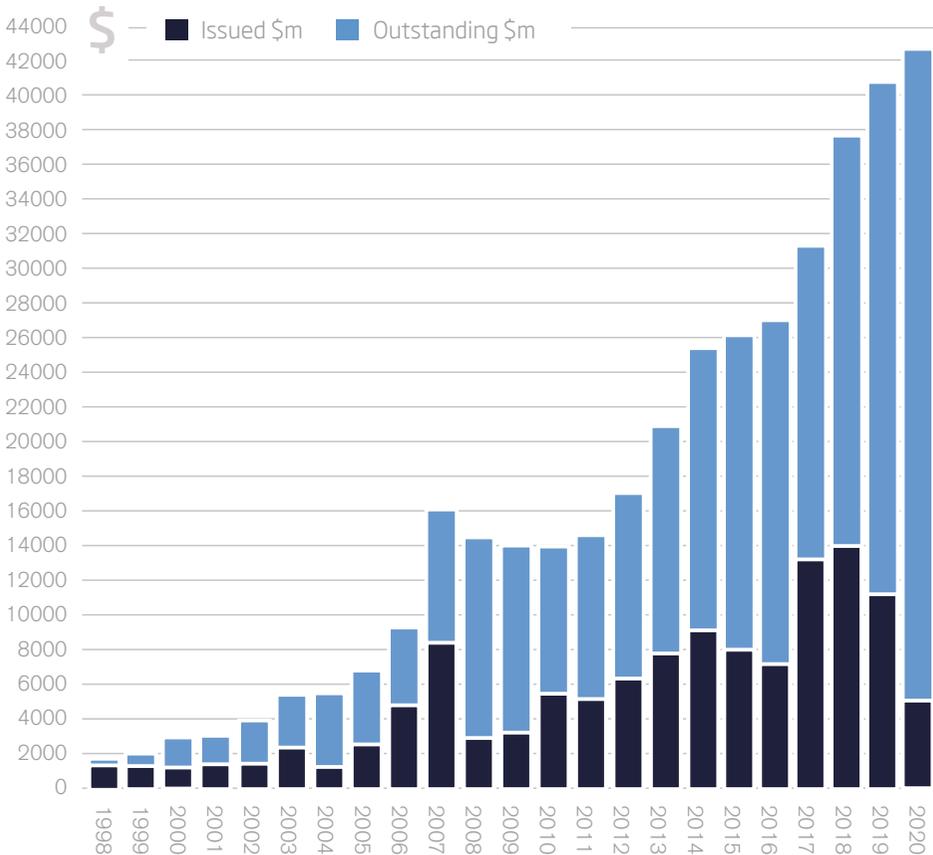
For the most part, investors achieved a higher multiple the lower the coupon on offer, with some of the highest priced deals being an exception to this in the quarter, as shown by the chart below.



Issued / Outstanding

\$5.05 billion of issuance in Q1 2020 is truly impressive, and even more notable is the fact that the large majority covered catastrophe risks. In fact, at \$3.9 billion, the volume of catastrophe risk deals issued is a record for the first-quarter, beating the previous record set in Q1 2018 by over \$250 million. The record-breaking level of issuance sees the outstanding catastrophe bond and ILS market size stand at \$42.4 billion as at the end of the first-quarter. This represents outright market growth of more than \$1.75 billion from the end of 2019, and takes the outstanding market to a new end-of-quarter high.

After heavy loss years, trapped collateral issues and sizable adverse loss development, the ILS community has responded well and both investors and sponsors have shown their commitment to the space. In Q2, some \$5.5 billion worth of deals are scheduled for maturity, according to Artemis' data. The average level of catastrophe bond and ILS issuance in the second-quarter over the last ten years is roughly \$3.5 billion, meaning an above-average quarter is required if the market is to grow from the end of Q1.



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.

Opportunities exist to work with Artemis to increase your profile to this segment of the global reinsurance and risk transfer market. Advertising opportunities, sponsorship, content development and partnership opportunities are available. Contact us to discuss.

CONTACT ARTEMIS:

Steve Evans, Owner/Editor
steve@artemis.bm
+44 (0) 7711 244697

To download a media pack visit:
www.artemis.bm/advertise/