



Heavy and Lite: PCS® First-Quarter 2015 Catastrophe Bond Report

OVERVIEW

First-quarter catastrophe bond issuance activity reached the \$1 billion mark for the second year in a row. Capital raised was flat year over year, with seven completed transactions leading to \$1.5 billion in fresh capital. This year's first quarter was the busiest in market history, topping 2012's record-setting \$1.3 billion. Transaction volume was up 17 percent.

Q1 2015 CATASTROPHE BOND ISSUANCE

According to data from the Artemis.bm Deal Directory, insurers and reinsurers issued about \$1.5 billion¹ in catastrophe bonds in the first quarter of 2015, up 23 percent from the same period last year. Average transaction size was up slightly to \$212 million.

Q1 2015 Issuance Activity

	Q1 2015	Q1 2014
PCS trigger use (\$ millions)	800	465
PCS trigger use (# of transactions)	4	3
North American issuance (\$ millions) ²	1,200	965
North American issuance (# of transactions)	6	5
Total issuance (\$ millions)	1,500	1,200
Total issuance (# of transactions)	7	6

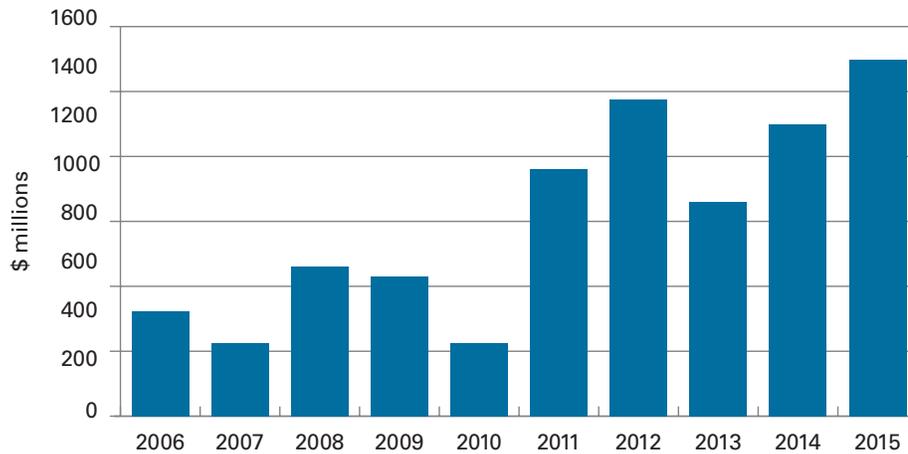
Sources: PCS, Artemis Deal Directory

1. This does not include cat bond lite transactions, private catastrophe bonds, or transactions not focused on lines outside property.

2. This includes catastrophe bonds that included the United States and other regions.

Six of the seven catastrophe bonds completed this year had exposure to North America. Atlas IX Capital Limited included the United States and Canada, and Galileo Re Ltd. added Europe to its North American exposure. With the inclusion of cat bond lite transactions, first-quarter capital raised would have been up 30 percent year over year. One catastrophe bond with no North American exposure came to market — an indemnity-triggered catastrophe bond focused on Japan.

Historical Q1 Issuance Activity



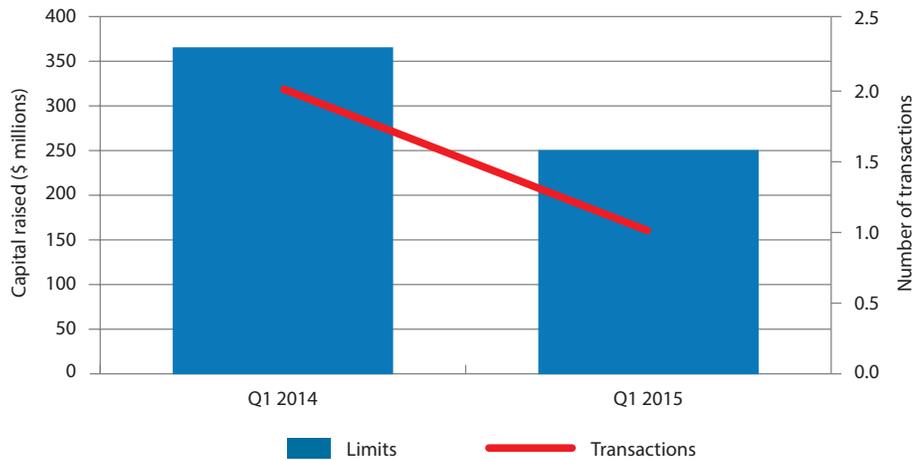
Sources: PCS, Guy Carpenter & Company, LLC

Use of PCS® data in first-quarter catastrophe bonds grew 72 percent year over year — to \$800 million from \$465 million. The number of catastrophe bonds using PCS data climbed from three to four. Three transactions using PCS had index triggers, representing \$550 million in fresh capital. Two of the index-triggered transactions covered the United States and Canada. The third catastrophe bond used PCS for independent catastrophe designation in an indemnity trigger.

CATASTROPHE DESIGNATION IN INDEMNITY-TRIGGERED TRANSACTIONS

Only one catastrophe bond in the first quarter of 2015 used PCS for independent catastrophe designation, representing 50 percent of the transactions completed. Last year, two first-quarter transactions used this approach, representing \$365 million in limits, compared with \$250 million this year. The decline comes in part from fewer indemnity-triggered transactions completed in first-quarter 2015. We'll need to wait for next quarter to see if the use of PCS for independent catastrophe designation continues to grow.

First-Quarter PCS Catastrophe Designation Use



Source: PCS

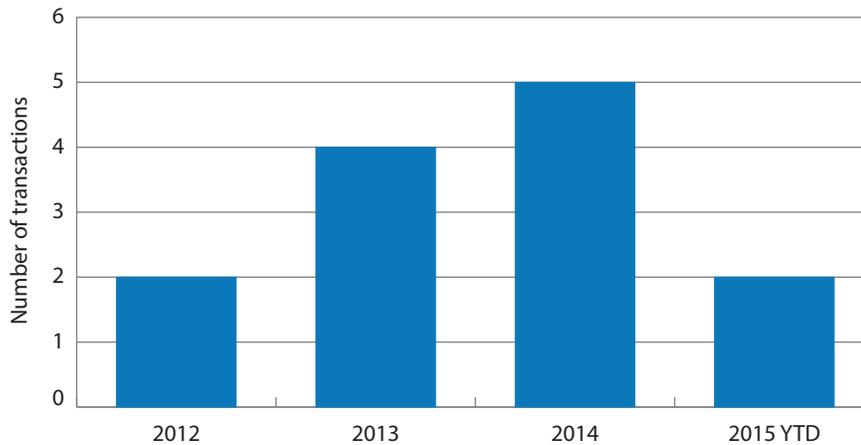
In 2014, four sponsors raised \$800 million in capital, which included PCS for independent catastrophe designation in indemnity triggers. In 2013, three sponsors used this approach to raise \$1 billion through four transactions.

For PCS to designate an event a catastrophe, it must generate an industry insured loss of at least \$25 million and affect a significant number of insurers and insureds. The PCS team reviews 40 to 50 events in North America every year that have the potential to become catastrophes. Last year, the team designated 37 catastrophes. So far in 2015, the PCS team has designated seven North American catastrophe events, all winter storms in the United States.

CATASTROPHE BONDS COVERING CANADA

Sponsors completed two catastrophe bonds with coverage for Canada in the first quarter of 2015, up from one in the same quarter last year. In 2014, sponsors completed three catastrophe bonds with exposure to Canada, five in 2013, and two in 2012. Both 2015 Canada-exposed catastrophe bonds used the PCS Catastrophe Loss Index, while the first-quarter 2014 transaction used PCS for independent catastrophe designation in an indemnity trigger.

Catastrophe Bonds with Exposure to Canada



Sources: PCS, Guy Carpenter & Company, LLC

The insurance-linked securities (ILS) market has yet to see a Canada-only catastrophe bond, although industry loss warranties (ILWs) with exposure only to Canada have been completed. Based on recent market discussions, it appears that the cat bond lite structure could be an effective alternative for Canadian insurers and reinsurers in accessing the capital markets, given the size of such transactions and lower frictional costs.

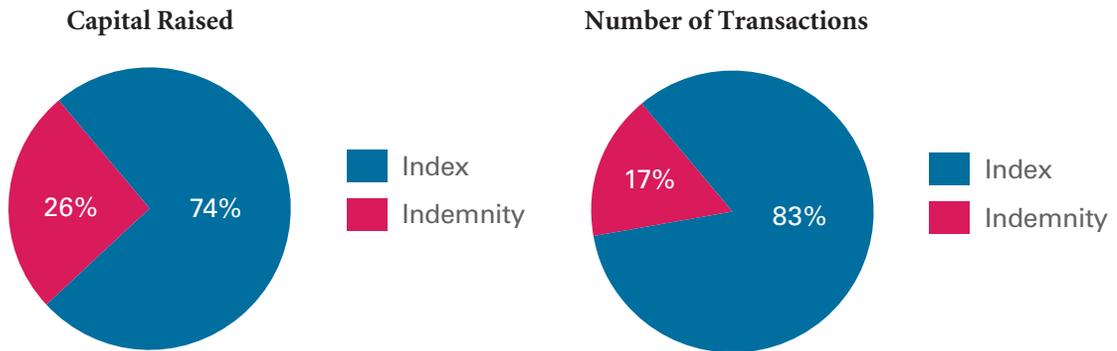
PCS launched its core service in Canada in late 2009, marking our first operation to estimate catastrophe losses outside the United States, Puerto Rico, and the U.S. Virgin Islands. Since then, PCS has designated 40 events as catastrophes in Canada, with aggregate insured losses of C\$8.5 billion. Five events occurred in 2014, with insured losses of nearly C\$900 million.

To get started with PCS Canada®, please contact **Don Hahn** at +1 201 469 3115 or dhahn@verisk.com.

CAT BOND LITE MOMENTUM CONTINUES

Cat bond lite momentum continued to grow in the first quarter of 2015. Following \$242 million in publicly revealed cat bond lite transactions in 2014, according to the Artemis Deal Directory, we've already seen seven this year with limits of nearly \$200 million. In the first quarter of 2014, four cat bond lite transactions came to market, totaling \$125 million. Year over year, notional is up 57 percent, with completed cat bond lites climbing 75 percent.

2015 Catastrophe Bond Lite Issuance by Trigger Type



Sources: PCS, Artemis Deal Directory

This year, six of the seven completed cat bond lite transactions used the PCS Catastrophe Loss Index, representing \$147 million in capital. Completed index-triggered lite transactions doubled year over year, with notional up 95 percent. Only one cat bond lite used an indemnity trigger; that and only one of the index-triggered instruments are renewals. As a result, it's clear that new capital has entered this market.

The use of cat bond lite structures could increase cedent access to — and participation in — the global catastrophe bond market. The structure, rigor, and discipline involved in issuing through a cat bond lite platform may give this form of issuance an edge over private catastrophe bonds.

The cat bond lite structure aims to provide a route to securitization that doesn't involve the onerous issuance requirements of traditional catastrophe bonds — while still providing the structural discipline and transparency that have characterized catastrophe bonds since the market's inception. As a result, sponsors can use increased flexibility to complete smaller and more targeted transactions quickly while managing their cost of capital. Additionally, the cat bond lite structure enables more participants to enter the ILS sector. Funds with a mandate to participate only in securitized transactions, for example, can use cat bond lite instead of collateralized reinsurance or ILWs to issue and consume risk.

Interest is growing in the cat bond lite structure across the market, with the greatest opportunities from traditional insurers and reinsurers interested in securitizing ILWs and other risk-transfer instruments. Inquiries to PCS about cat bond lite have grown significantly over the past year.

LARGE INDUSTRIAL LOSS RISK TRANSFER

Through market research conducted in conjunction with the new ISO reinsurance initiative, PCS's parent organization — Verisk Analytics — is exploring an index for transactions focused on fire and explosion events in commercial and industrial structures. This new endeavor, which uses exposure data from the ProMetrix® database by Verisk Insurance Solutions – Commercial Property, is likely to provide an exposure-based index down to the state level.

ProMetrix is the United States' largest suite of commercial property data and analytics, with construction and risk information on more than 3.5 million commercial properties and more than 6 million businesses. Our property information is field-verified by a nationwide team of more than 550 inspectors and provides physical building characteristics and 135 categories of occupancy, including sales volume and number of employees. We use the data to develop rating analytics and hazard index values to support underwriting decisions and operational strategies. We provide metrics that help our clients assess, measure, and manage the risk presented by insurers of commercial properties. The information is accessed through a secure web portal or with a direct host-to-host connection through an application program interface (API).

ISO is currently evaluating our ability to match claim data against the ProMetrix exposure database in order to develop the index. The tool will help insurers and reinsurers transfer man-made industrial loss risk from events that normally would not qualify as PCS-designated catastrophe events, lacking sufficient numbers of insurers and insureds affected.

For more information or to participate in developing the index, please contact **Tom Johansmeyer** at +1 201 469 3140 or tjohansmeyer@iso.com.

TREND TRACKING

The ongoing shift in underlying market trends over the past year shows how dynamic the catastrophe bond sector has become. Innovation, expanded geographical reach, and increases in market participation continue to shape the catastrophe bond market, opening more opportunities to both sponsors and investors.

The five key trends in the catastrophe bond market right now indicate increased flexibility and a strong foundation for future market growth:

1. Seasoned pros: Experienced catastrophe bond sponsors led issuance activity in the first quarter, with a first-time sponsor completing one of six transactions. While that could be a temporary hiccup, it may signal that cedents realize they have a range of strategic

alternatives and are exploring the full range of available choices, particularly with reinsurance rates still under pressure. The second quarter, which includes the run-up to the June 1 renewal, will more likely tell whether a shift in new market entry is in progress.

2. Cat bond lite continues: Cat bond lite innovation in 2013 led to rapid adoption in 2014, with \$242 million in publicly announced transactions completed. By the end of February 2015, the cat bond lite sector was already 80 percent of the way to last year's total, and several "lites" have yet to renew. Several factors should be considered in watching the market evolve. The use of cat bond lites by cedents, traditional reinsurers, and even corporates has been discussed across the market. In conjunction with the possible growth of the cedent base, new risk areas (for example, Canada comes to mind) could provide greater opportunity for market expansion.

3. Index uptick: Use of industry loss index triggers spiked in the first quarter of 2015, with prior users of the PCS Catastrophe Loss Index returning to the capital markets with that approach. Fifty-eight percent of the capital raised last quarter involved the use of PCS data, with 37 percent using an industry loss index trigger. Use of PCS data climbed 50 percent year over year for first-quarter issuance. Of course, this is the result of a slow-moving first quarter. Sponsor activity will also likely include indemnity trigger use in the second quarter. PCS remains agnostic on trigger type, as sponsors should use the most appropriate approaches for their strategic objectives.

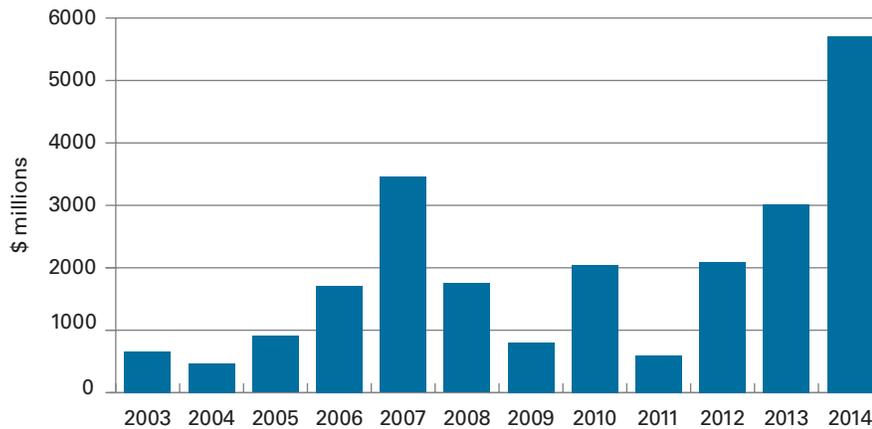
4. New market entry: While veteran sponsors dominated the quarter's issuance activity, talk across the market focused on the need for new risks and regions. This is clearly a significant concern for the market, particularly as investors seek to diversify. ISO and PCS have several initiatives under way to introduce tools for new risk areas and lines of business, and we encourage any suggestions you may have. It's clear that new indexes will be crucial to unlocking ILS market expansion opportunities.

5. Under pressure: As expected, the January 1, 2015, reinsurance renewal brought more downward pressure on rates, in large part because of another quiet catastrophe year. And again, that's led to tighter spreads in the catastrophe bond market. Declining pricing and increased competition created an opportunity to evaluate cover more thoroughly, which could constrain catastrophe bond market growth.

THE HURRICANE QUARTER

Historically, second-quarter issuance activity has been high, given the June 1 start of hurricane season. As Florida's interest in the catastrophe bond sector increases, especially with last year's \$1.5 billion Everglades Re transaction, the result could be more new market entrants and higher issuance volume. Other factors, including last year's quiet hurricane season, could also affect the use of the catastrophe bond market.

Historical Q2 Issuance Activity



Sources: PCS, Guy Carpenter & Company, LLC

Last year, total U.S. catastrophe losses reached only \$15.4 billion, according to PCS, and once again, Florida was not named in any catastrophe events, with only \$83 million in insured losses from catastrophe events. Louisiana sustained only \$99 million, with the state’s two landfalling hurricanes not causing sufficient insured losses for PCS to designate them catastrophe events. Losses in Florida and Louisiana last year were caused by events that PCS designated as “wind and thunderstorm.”

Without a doubt, the market has been watching the continued calm in the Atlantic over the past couple of years, which has contributed to the pricing pressures experienced across the global reinsurance and ILS markets. Whether this leads more sponsors to the catastrophe bond market remains to be seen, particularly given the broad range of strategic capital management alternatives available to them.



Contact PCS

For more information, please contact:

PCS methodology, data contribution

Joe Louwagie

Assistant Vice President, PCS

+1 201 469 3126

jlouwagie@verisk.com



ILS market solutions

Tom Johansmeyer

Assistant vice President, Reinsurance Services, ISO

+1 201 469 3140

tjohansmeyer@verisk.com

PCS data access

Don Hahn

Global Account Executive, PCS

+1 201 469 3115

dhahn@verisk.com

