June 2026

Opportunities in Catastrophe Bonds

INVESTMENT TALKS

Chin LIU
Director of Insurance-Linked Securities, Portfolio Manager

Joseph MORGART
Client Portfolio Manager, Fixed Income

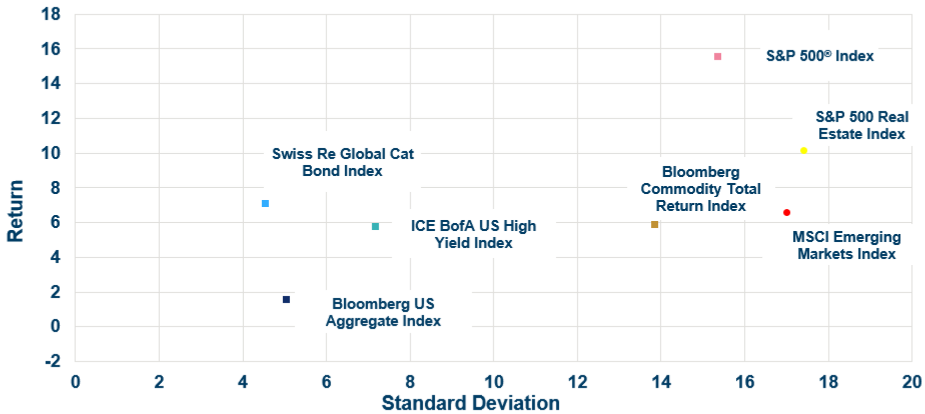
Executive summary

- *The performance of insurance-linked securities, including catastrophe bonds, is linked to low-probability but high-severity catastrophic events. As a result, their performance generally has a low to no correlation to traditional financial markets.*
- *The reinsurance industry has existed for over 150 years, and its benchmark, the Swiss Re Global Cat Bond Index, has delivered positive returns in 18 of the past 19 years[1].*
- *We believe the favorable outlook for cat bonds is supported by continued elevated multi-decadal pricing levels combined with the overall growing demand for reinsurance.*

Catastrophe (cat) bonds, a subcategory of insurance-linked securities (ILS), are outcome-oriented investments with low correlation to the broader capital markets. They are structured securities through which insurers or reinsurers transfer specific risks, typically those associated with severe events such as natural catastrophes, to capital market investors. These bonds were first introduced into the capital markets as a result of Hurricane Andrew in 1992, which caused record insured losses and challenged the solvency of several insurance companies. As a result, cat bonds and other ILS instruments were created to strengthen reinsurance companies' balance sheets and foster a more resilient industry.

Because cat bonds are generally dependent on climate-related events, they do not move in line with traditional financial markets such as stocks and bonds. As a result, these instruments give investors potential opportunities to diversify their portfolios. In addition, they have typically offered more attractive risk/return characteristics over the past 10 years (see Exhibits 1 and 2) than have many traditional asset classes.

Exhibit 1: Over the 10-year period ended June 30, 2026, Cat Bonds offered higher returns with lower realized risk than many other asset classes



Past performance does not guarantee future results. Data is not meant to represent the performance of any Pioneer Investments portfolio. Commodities are represented by **Bloomberg Commodity Total Return Index**. Event-linked (catastrophe) bonds are represented by the **Swiss Re Global Cat Bond Index**, which tracks the aggregate performance of all USD, EUR and JPY denominated Cat bonds, capturing all ratings, perils and triggers. US stocks represented by the **S&P 500® Index**, a commonly used measure of the US Stock Market. US aggregate bonds are represented by the **Bloomberg US Aggregate Index**. High yield corporate bonds are represented by the **ICE BofA US High Yield Index**. Emerging Markets are represented by the **MSCI Emerging Markets Index**. Real Estate is represented by the **S&P 500 Real Estate Index**. Indexes are unmanaged; their returns include reinvestment of dividends and other income but do not reflect management fees, transaction costs or expenses. It is not possible to invest directly in an index.

[1] See Exhibit 5 for Swiss Re Global Cat Bond Index return data.

20260728-5768412

Exhibit 2: Ten years of asset class returns

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	YTD (6/30/26)	10 Year
Russell 2000 21.3%	MSCI EM 37.3%	CAT Bonds 2.8%	S&P 500 31.5%	Russell 2000 20.0%	Real Estate 46.2%	Bank Loans -0.8%	S&P 500 26.3%	S&P 500 25.0%	MSCI EM 33.6%	MSCI EM 23.9%	S&P 500 15.5%
US HY 17.1%	MSCI EAFE 25.0%	Munis 1.3%	Real Estate 29.0%	S&P 500 18.4%	S&P 500 28.7%	CAT Bonds -2.2%	CAT Bonds 19.7%	CAT Bonds 17.3%	MSCI EAFE 31.2%	Russell 2000 23.6%	Russell 2000 11.6%
S&P 500 12.0%	S&P 500 21.8%	Treasuries 0.8%	Russell 2000 25.5%	MSCI EM 18.3%	Russell 2000 14.8%	Munis -8.5%	MSCI EAFE 18.2%	Russell 2000 11.5%	S&P 500 17.9%	Real Estate 11.5%	MSCI EM 10.1%
MSCI EM 11.2%	Russell 2000 14.6%	Bank Loans 0.6%	MSCI EAFE 22.0%	Glbl Bonds 9.2%	MSCI EAFE 11.3%	US HY -11.2%	Russell 2000 16.9%	Bank Loans 9.2%	Russell 2000 12.8%	S&P 500 10.2%	MSCI EAFE 9.7%
Bank Loans 10.4%	Real Estate 10.8%	US Bonds 0.0%	MSCI EM 18.4%	Treasuries 8.2%	Bank Loans 5.4%	Treasuries -12.9%	Bank Loans 13.7%	US HY 8.2%	CAT Bonds 11.4%	MSCI EAFE 9.4%	CAT Bonds 7.1%
CAT Bonds 6.6%	US HY 7.5%	Glbl Bonds -1.2%	US HY 14.3%	MSCI EAFE 7.8%	US HY 5.3%	US Bonds -13.0%	US HY 13.4%	MSCI EM 7.5%	US HY 8.6%	CAT Bonds 4.1%	Real Estate 6.5%
Real Estate 3.4%	Glbl Bonds 7.4%	US HY -2.1%	US Bonds 8.7%	US Bonds 7.5%	CAT Bonds 4.9%	MSCI EAFE -14.5%	Real Estate 12.4%	Real Estate 5.2%	Glbl Bonds 8.2%	Munis 2.3%	US HY 5.8%
US Bonds 2.6%	Munis 5.4%	Real Estate -2.2%	Bank Loans 8.7%	US HY 7.1%	Munis 1.5%	Glbl Bonds -16.2%	MSCI EM 9.8%	MSCI EAFE 3.8%	US Bonds 7.3%	US HY 2.0%	Bank Loans 5.7%
Glbl Bonds 2.1%	Bank Loans 4.3%	S&P 500 -4.4%	Munis 7.5%	CAT Bonds 5.8%	US Bonds -1.5%	S&P 500 -18.1%	Munis 6.4%	US Bonds 1.3%	Treasuries 6.2%	Bank Loans 1.2%	Munis 2.2%
Treasuries 1.1%	US Bonds 3.5%	Russell 2000 -11.0%	Treasuries 7.0%	Munis 5.2%	Treasuries -2.4%	MSCI EM -20.1%	Glbl Bonds 5.7%	Munis 1.1%	Bank Loans 6.0%	US Bonds 0.6%	US Bonds 1.5%
MSCI EAFE 1.0%	Treasuries 2.4%	MSCI EAFE -13.8%	Glbl Bonds 6.8%	Bank Loans 3.5%	MSCI EM -2.5%	Russell 2000 -20.4%	US Bonds 5.5%	Treasuries 0.5%	Munis 4.3%	Treasuries 0.4%	Treasuries 0.8%
Munis 0.2%	CAT Bonds 0.5%	MSCI EM -14.6%	CAT Bonds 4.4%	Real Estate -2.2%	Glbl Bonds -4.7%	Real Estate -26.1%	Treasuries 3.9%	Glbl Bonds -1.7%	Real Estate 3.2%	Glbl Bonds -0.2%	Glbl Bonds 0.4%

Source: Morningstar data, as of June 30 2026. **Past performance does not guarantee future results.** Yearly figures are for the calendar years ended 12/31. (Returns updated quarterly) Asset classes represented by: **US stocks** – S&P 500 ® Index, **small cap stocks** – Russell 2000 Index, **US high yield bonds** – Bloomberg US High Yield Index, **bank loans** – Morningstar LSTA Leveraged Loan Index**, municipals** – Bloomberg Municipal Index, **US Treasuries** – ICE BofA US Treasury Index, **US bonds** – Bloomberg US Aggregate Index, **global investment grade bonds** – Bloomberg Global Aggregate Index, **non-US developed stocks** – MSCI EAFE Index Index, **emerging market stocks** – MSCI Emerging Markets Index, **real estate** – S&P 500® Real Estate Index and **event-linked (catastrophe) bonds** – Swiss Re Global Cat Bond Index

Some long-term investors are looking to take advantage of the potentially favorable uncorrelated sources of risk, return, and liquidity offered by ILS and cat bonds.

Why add cat bonds to a diversified portfolio?

We believe that including cat bonds within a broader asset allocation can potentially have powerful diversification benefits while also offering total return potential. Portfolio returns for cat bonds are not driven by economic factors such as gross domestic product growth, interest rates, corporate profitability or trade wars. Instead, performance is driven by the occurrence of low-frequency, high-severity natural events such as earthquakes and hurricanes. This key distinguishing feature has resulted in the low correlation of cat bonds to other asset classes, which has exhibited itself throughout the history, particularly when the broader financial markets faced stresses.

Although cat bonds are typically structured as floating-rate securities and offer high levels of liquidity, investors are encouraged to use them as part of a strategic asset allocation with a long-term investment horizon, as all investments are subject to risk and possible loss of principal. Given these characteristics, we believe ILS and cat bonds may fit well within the fixed income or alternative asset class portion of an investor's portfolio. Portfolio-level volatility may be reduced by diversifying exposures across geographic regions and perils.

As asset allocators look to create diverse and resilient portfolios by accessing low or uncorrelated sources of risk, return, and liquidity, the value proposition of ILS has continued to gain market awareness and acceptance. ILS and cat bonds have continued to be a structurally uncorrelated asset class with potentially attractive risk- adjusted returns. This has been displayed in the current market, as well as over its long-term history.

Using the Swiss Re Global Cat Bond Index as a general proxy for the ILS marketplace, we evaluated the long-term impact from an asset allocation perspective – specifically, how adding a 5% or 10% cat bond exposure would affect the characteristics of a portfolio. This long-term analysis shows that, in most cases, the addition of cat bonds enhanced the return profile, reduced risk, improved the Sharpe ratio and reduced drawdowns, whether deployed in an US Aggregate Investment Grade Bond, US High Yield Corporate Bond or a diversified hedge fund portfolio (see Exhibit 3).

Exhibit 3: Where can catastrophe bonds fit into your portfolio?

Adding cat bond exposure to an asset mix helped improve portfolio characteristics*

	Increased Annual Return (over the past 19+ years)	Reduced Standard Deviation	Increased Sharpe Ratio	Reduced Drawdown Experience
US Aggregate Investment Grade Bonds[1]	YES	YES	YES	YES**
US High Yield Corporate Bonds[2]	YES	YES	YES	YES
Hedge Investments[3]	YES	YES	YES	YES

Source: Pioneer Investments, Bloomberg, January 1, 2007 - June 30, 2026. **Past performance does not guarantee future results. Not meant to represent performance of any Pioneer Investments portfolio.** *The chart shows that in most cases adding catastrophe bonds, which is represented by the **Swiss Re Global Cat Bond Index**, positively affected portfolio characteristics in the four categories listed. The ILS team analyzed portfolios at both 5% and 10% cat bond exposures and under all eight scenarios the statements are true. **With the exception of the period from Aug – Sept 2022. Indexes are unmanaged; their returns include reinvestment of dividends and other income but do not reflect management fees, transaction costs or expenses. It is not possible to invest directly in an index. See final page for index representations. [1]US Aggregate Investment bonds are represented by **The Bloomberg US Aggregate Bond Index**. [2]US High Yield Corporate Bonds are represented by **The ICE BofA US High Yield Index** . [3]Hedge Funds represented by **the Credit Suisse Hedge Fund Total Return Index**.

Entering the ILS market

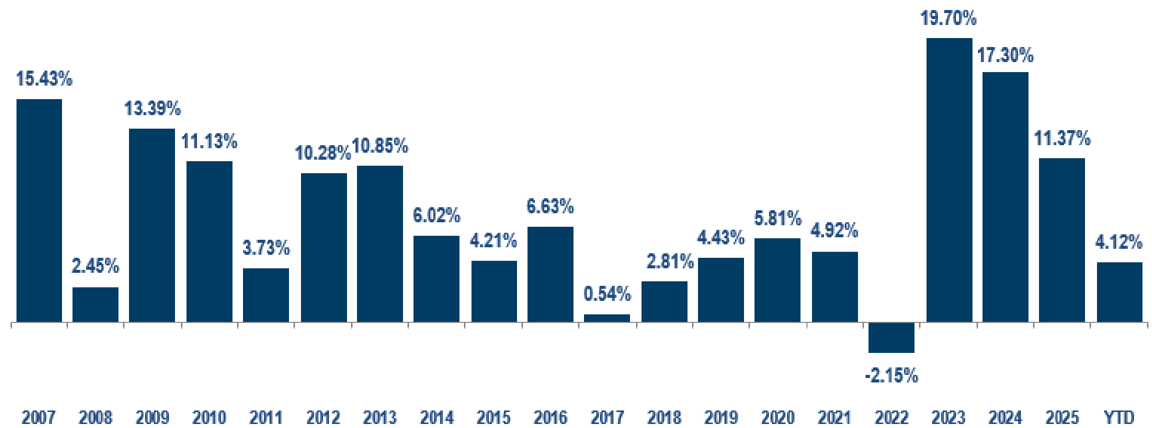
As with many investments, attempting to "time" the market with ILS and cat bonds may prove challenging from both a long- term and short-term perspective. Using the return history of Swiss Re Global Cat Bond Index (2007-2025) as a proxy for the reinsurance industry, we evaluated its three-year annualized rolling returns. The range of outcomes were from 2.58% to 16.07%. In 100% (17 of 17) rolling three-year periods, the index achieved absolute positive returns. In 100% (17 of 17) rolling three periods, the returns were in excess of 2%. Next, in 76% (13 of 17) rolling three periods, the returns were in excess of 4%. In 58% (10 of 17) rolling three periods, the returns were in excess of 6%. Finally, in 47% (8 of 17) rolling periods, the returns were in excess of 8%. (Past performance does not guarantee future results.) See Exhibit 4.

Exhibit 4: Rolling three-year returns of the Swiss Re Global Cat Bond Index

100%	100%	76%	58%	47%
Absolute positive returns	Over 2% annualized rolling 3-year returns	Over 4% annualized rolling 3-year returns	Over 6% annualized rolling 3-year returns	Over 8% annualized rolling 3-year returns

Source: Pioneer Investments and Swiss Re. **Past performance does not guarantee future results.** See Exhibit 5 for full index returns.

Exhibit 5: Swiss Re Global Cat Bond Index annual returns



Source: Swiss Re Global Cat Bond Index as of June 30, 2026. **Past performance does not guarantee future results.** Not meant to represent performance of any Pioneer Investments portfolio. **The Swiss Re Global Cat Bond Index** tracks the aggregate performance of all USD, EUR and JPY denominated Cat bonds, capturing all ratings, perils and triggers. The index seeks to hedge out the EUR and JPY currency risk at the inception of the bonds. However, the index does not reflect the full ILS market because it does not include private market securities (e.g., quota shares, collateralized reinsurance, and ILW).

Why now? Current market opportunities

Pioneer Investments continues to be encouraged by the trends we are seeing in the industry and we remain constructive on this low-correlated source of attractive returns. We believe the many of the primary drivers that resulted in favorable 2023, 2024, 2025 and year-to-date 2026 of attractive pricing combined with the continued capital demand for reinsurance could continue into the foreseeable future.

As reinsurance companies continue to seek non-traditional capacity, ILS and cat bonds are becoming an increasingly more important component in their reinsurance protection programs and capital planning. This has been evidenced by the strong pipeline for all ILS formats, including cat bond issuances, as well as the number of new sponsors who came to the market to seek ILS capacity.

In addition to the relative importance of the ILS market, we believe the overall demand for reinsurance capacity will continue to grow, driven by the impact from inflation, concerns on climate change, volatility of carriers' investment portfolios, and pressure from rating agencies. Florida, which accounts for the largest portion of re/insurance demand, has continued to see favorable effects from the property insurance legislative reforms passed in the past several years, leading to a healthier marketplace and certain carriers planning to grow their business in Florida.

As a result, these carriers should need more reinsurance capacity. We believe these trends will benefit the overall reinsurance industry and ILS marketplace, which continues to grow. Reinsurance broker Aon estimated the total market stands at approximately $141 billion[2] as of March 31, 2026. This is approximately 17% of the total global reinsurance capital. As of June 30, 2026, cat bonds represented approximately 46% of the overall ILS market.

Specifically, within the cat bond market, we are seeing a trend with some newer issuances towards more remote layers and stricter coverage for selected perils and regions that we believe could result in the avoidance of some secondary perils. Artemis recently published an article[3] estimating that over $18.0 billion of cat bonds were issued in the first half of 2026.

[2] Source: Aon, as of December 31, 2025, most current data available.

[3] Source: Artemis, Q2 2026 Catastrophe Bond & ILS Market Report, data as of Jue 30, 2026.

20260728-5768412

Conclusion

As a structurally uncorrelated source of risk and return, we believe cat bonds and ILS may permit investors to build more diversified and resilient portfolios. The rate-on-line (premium) for private ILS formats and the cat bond market spread has remained elevated and could provide attractive total yield potential.

We believe the combination of continued elevated pricing, combined with the ongoing demand for reinsurance, may present an attractive investment opportunity for the remainder of 2026 and beyond.

Index and Term Definitions

- Catastrophe bonds: High-yield debt instruments designed to raise money for insurance companies in the event that specific natural disasters, such as earthquakes or tornados, occur.
- Correlation: Measures the degree to which assets or asset class prices have moved in relation to one another. A correlation of -1 means prices moved in opposite directions; 1 means prices moved in lockstep; and 0 implies no relationship among prices.
- Event: Is a natural catastrophe or other triggering occurrence
- Insurance-linked securities: Financial instruments that allow investors to speculate on a variety of events, including catastrophes such as hurricanes, earthquakes and pandemics.
- Peril: Is a specific source of loss (hurricane, earthquake, or can be mortality)
- Rate-on-line: The ratio of premium paid to loss recoverable in a reinsurance contract.
- Reinsurance: The insurance that an insurance company purchases from another insurance company or investor to insulate itself from the risk of a major claims event.
- Insurance-linked securities are subject to risks, including but not limited to, issuer (creditor) default, illiquidity, price volatility and limited transparency in reinsurance investments.

Risks of Insurance Linked Securities

ILS include event-linked bonds, quota share instruments (also known as “reinsurance sidecars”), collateralized reinsurance investments, industry loss warranties and other insurance and reinsurance-related securities. A portfolio could lose a portion or all of the principal it has invested in an ILS, and the right to additional interest and/or dividend payments with respect to the security, upon the occurrence of one or more trigger events, as defined within the terms of the security. Trigger events may include natural or other perils of a specific size or magnitude that occur in a designated geographic region during a specified time period, and/or that involve losses or other metrics that exceed a specific amount. ILS may expose a portfolio to other risks, including, but not limited to, issuer (credit) default, adverse regulatory or jurisdictional interpretations and adverse tax consequences. The Fund has limited transparency into the individual contracts underlying certain ILS, which may make the risk assessment of such securities more difficult. The size of the ILS market may change over time, which may limit the availability of ILS for investment. The availability of ILS in the secondary market may also be limited. ILS may have limited liquidity or may be illiquid and, therefore, may be impossible or difficult to purchase, sell, or unwind. The values of holdings may go up or down, due to market conditions, inflation, changes in interest or currency rates, lack of liquidity in the financial markets or adverse investor sentiment. Reinsurance-related securities are typically below investment grade, or unrated, and are subject to greater-than-average price volatility, illiquidity, and possibility of default.

20260728-5768412

Important information

Unless otherwise stated, all information contained in this document is from Pioneer Investments, a Victory Capital Investment Franchise. Diversification does not guarantee a profit or protect against a loss. The views expressed are as of the date noted and are subject to change at any time. This material does not constitute an offer or solicitation to buy or sell any security, fund units, or services. **All investing involves risk, including the possible loss of principal.**

Past performance is not indicative of future results.

20260728-5768412