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INVESTMENT TALKS

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Opportunities in Catastrophe Bonds

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 events. As a result, their performance generally has a low correlation to traditional financial markets.*
- *The reinsurance industry has been in existence for over 150 years, and its benchmark, the Swiss Re Global Cat Bond Index, has delivered positive returns in 20 of the past 21 years[1].*
- *A supply/demand imbalance for reinsurance, compounded by recent events over the past several years, may have significantly increased the investment opportunity, and we expect these trends to continue into the foreseeable future.*

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 catastrophes or natural disasters, to capital market investors. These bonds were first introduced into the capital market 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.

Why add cat bonds to a diversified portfolio?

Because catastrophe bonds do not move in line with traditional financial stocks, these instruments provide potential opportunities for investors to diversify[2] their portfolios. In addition, they have offered more attractive risk/return characteristics over the past 10 years (see Exhibit 1) than have many traditional asset classes. In an index or broad portfolio of cat bonds, exposure is diversified across perils and regions. Regional exposure comes mostly from developed countries, since many emerging markets do not have much need for reinsurance coverage.

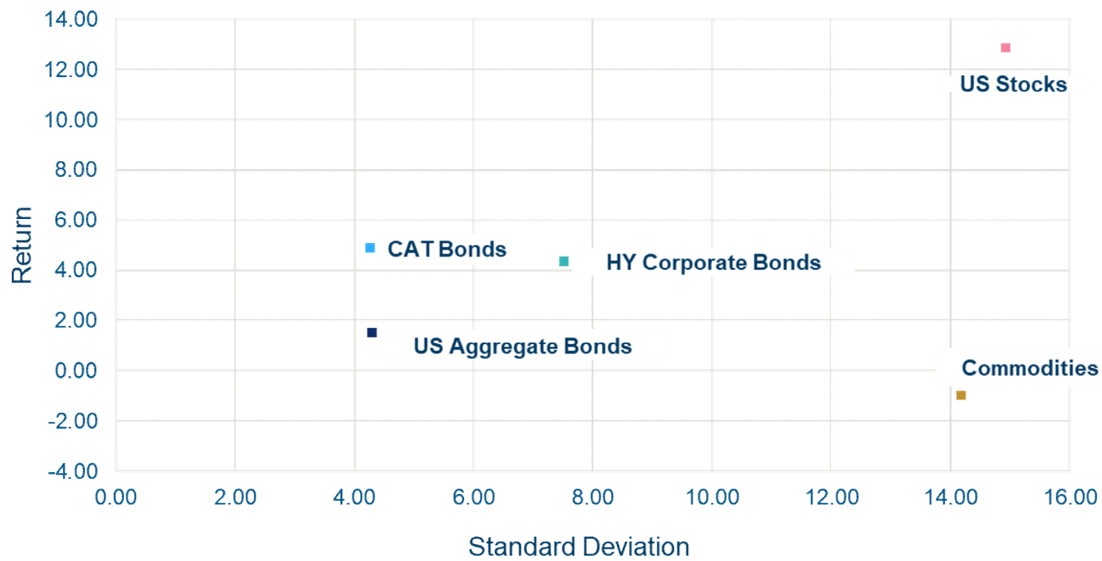
We believe that including cat bonds within a broader asset allocation can potentially have powerful diversification[3] benefits while also offering total return potential. Portfolio returns for cat bonds are not driven by economic factors such as gross domestic product growth, interest rates or corporate profitability. 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 a low correlation of cat bonds to other asset classes.

Although cat bonds are floating rate securities and offer high levels of liquidity, investors may wish to use this 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.

[1] See Exhibit 2 for Swiss Re Global Cat Bond Index return data.

[2] Diversification does not guarantee a profit or protect against a loss.

Exhibit 1: Over the 10-year period ended June 30, 2023, cat bonds offered higher returns with lower realized risk than many other asset classes.



Source: Morningstar as of 6/30/2023. Data is based on past performance, which does not guarantee future results. Data is not meant to represent the performance of any Amundi US portfolio. Standard deviation data is a measure of how often the price of an asset class varies from its 10-year average. Commodities represented by Bloomberg Commodity Total Return Index. ILS represented by the Swiss Re Global CAT Bond Total Return 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 represented by the Bloomberg US Aggregate Bond Index. High Yield Corporate Bonds represented by the ICE BofA US High Yield Index. Indices are unmanaged and their returns assume reinvestment of dividends and do not reflect any fees or expenses. It is not possible to invest directly in an index. Swiss Re has calculated index returns for the 5-years prior to the January 2007 inception of the index. There can be no expectation that the returns of the index will match pre-inception returns.

Some long-term ILS investors are now looking to take advantage of the factors that are potentially positive for catastrophe bonds.

Why now? Current market opportunities

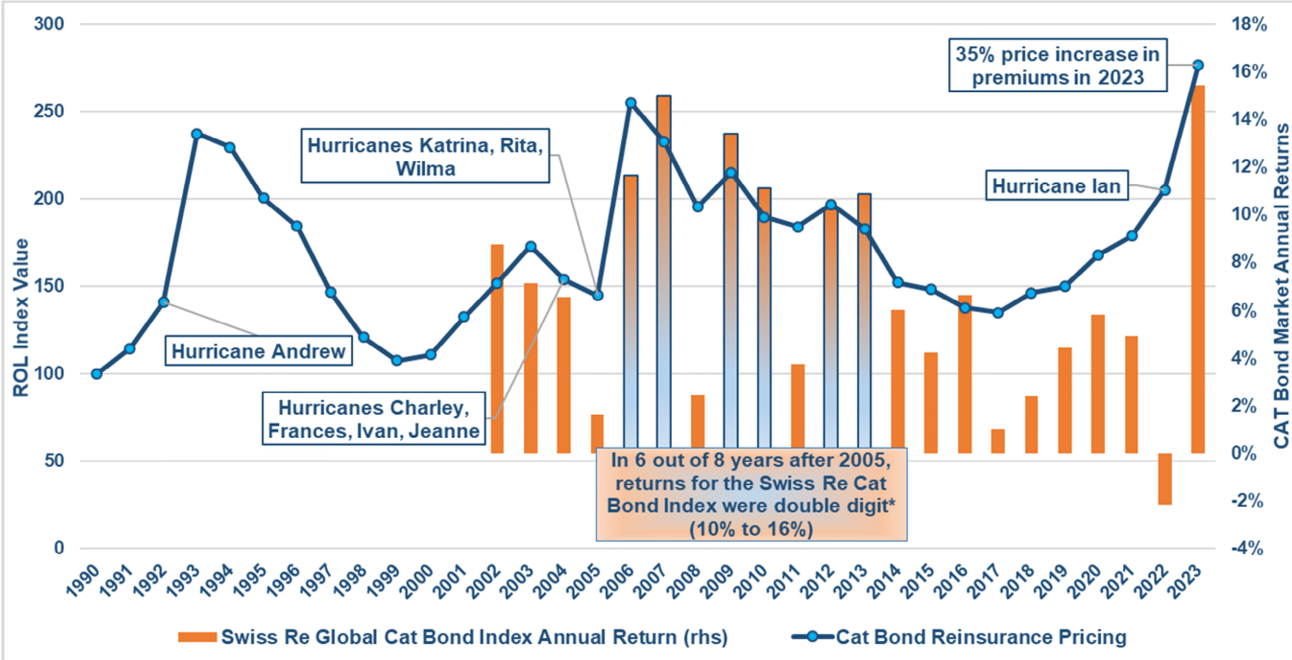
As a result of high demand for reinsurance funding following Hurricane Ian in 2022, the low correlation of catastrophe bonds to traditional markets exhibited itself particularly acutely throughout 2022 and throughout 2023. Even prior to Hurricane Ian, third-party market observers estimated a gap between available and needed capital of around $20 billion to $30 billion.

This supply/demand imbalance was largely the result of two factors. First, global inflation caused insurance companies to seek significantly more reinsurance coverage. Simultaneously, reinsurance companies, as well as ILS capital issuers, were unable to keep pace with this increased demand. Hurricane Ian only widened that gap, further increasing the supply/demand imbalance and raising the value of cat bonds.

An additional factor potentially benefitting investors is that as demand for reinsurance coverage increased, macro-economic forces and diminished investment returns caused many reinsurance companies to see a negative impact on their balance sheets, putting pressure on their funding costs. Many of the largest reinsurance companies lost between 20% to 50% of their equity value during the latter part of 2022. In addition, their balance sheets have been weakened as rising interest rates led to mark-to-market losses from their fixed income investments. Since the industry is under strict capital requirements by Solvency II and the National Association of Insurance Companies, its options to raise funding in the current environment are limited and expensive.

According to estimates by Guy Carpenter, a global risk specialist and provider of ILS sourcing and pricing information, the premium, or rate on line, of cat bonds increased by an annual rate of approximately 30% in January 2023, only the third time in three decades prices have reached such a level (see Exhibit 2). With investors demanding higher risk-adjusted returns following a challenging 2022, the average coupon of Q3 2023 issuance was 8.38%, which is higher than the 7.75% seen in Q3 2022, according to Artemis.

Exhibit 2: Highest pricing levels for cat bonds in more than 30 years



Source: Artemis, Guy Carpenter as of March 31, 2023 (updated annually). *Past performance is no guarantee of future results. Guy Carpenter's US Property Catastrophe Rate-on-Line (ROL) index is a measure of the change in dollars paid for coverage year-on-year on a consistent program basis.

We believe the combination of the continued hard market, supply/demand imbalances and the recent substantial price increases, may present an attractive investment opportunity throughout the remainder of 2023 and into 2024.

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.

As the market recovers from the difficulties of 2022, some long-term and opportunistic ILS investors are now looking to take advantage of factors that are potentially positive for cat bonds. We believe the combination of supply/demand imbalances and recent substantial price increases may present an attractive investment opportunity throughout the remainder of 2023 and into 2024.

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 two variables move in relation to each other. A positive correlation signifies similar movements; negative correlation indicates opposite movement.
- **Insurance-linked securities:** Financial instruments that allow investors to speculate on a variety of events, including catastrophes such as hurricanes, earthquakes and pandemics.
- **Longevity risk:** The chance that life expectancies and actual survival rates exceed expectations or pricing assumptions, resulting in greater-than-anticipated cash flow needs on the part of insurance companies or pension funds.
- **Mortality risk:** The risk associated with the variability in liability cash flows due to the incidence of death, resulting in greater-than-anticipated cash flow needs on the part of insurance companies or pension funds.
- **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.
- **Standard deviation:** A measure of the amount of variation of a set of values. A low standard deviation indicates that the values tend to be close to the mean, while a high standard deviation indicates that the values are spread out over a wider range.

Important information

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