

# Natural Catastrophes in Today's Climate

Disruptive Forces in Investing

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**Anu Rajakumar:** Natural disasters have become a prevalent and especially troubling part of life as of late. Since Hurricane Andrew hit Florida in 1992, causing a number of insurance companies to become insolvent and unable to pay claims, a noteworthy asset class has emerged in its wake, insurance-linked securities, better known as ILS. Since then, ILS has provided insurance and reinsurance companies an important risk transfer solution to protect against solvency testing natural catastrophe events. And to institutional investors, a fundamentally non-correlated source of risk premium. And with the increase and severity of natural disasters, the asset class only continues to grow. But with storms like Hurricane Ian that incurred tens of billions of dollars in loss, how can investors and reinsurers alike be best positioned for successful portfolio construction? My name is Anu Rajakumar, and today, I'm joined by a principal of our ILS group, Alex Conyers, to share more about the mechanics of the asset class and why today's market conditions could be the fabric of a great opportunity. Alex, thank you for joining me today.

**Alex Conyers:** A pleasure. Thanks for having me, Anu.

**Anu:** So, Alex, I've had a few of your colleagues on the show over the past couple of years, but for our listeners who are new, I'd love for you to start off by just catching us up on what's been happening in the insurance-linked security space and how the market dynamics of the last few years have really shaped this asset class.

**Alex:** Yeah, absolutely. So it's been a challenging environment over the last six years. No pun intended. Starting 2017, you had a string of large hurricanes, Harvey, Irma, Maria, wildfires, earthquakes in Mexico, and then it never really let up from there. 2020: COVID-19. And then, you know, 2021 Hurricane Ida and ending with Hurricane Ian last year. So really severe number of years and outsized natural catastrophe losses.

All with the backdrop of 2022, the macroeconomic conditions really restricting the supply of risk capital significantly because of balance sheet losses due to central bank actions, volatile FX markets, and a general pullback by investors from poor performance or rebalancing as their equity and fixed income allocations have dipped.

But the demand for risk capital has been increasing. The rating agency, the regulatory pressures for that risk transfer, hasn't gone anywhere. If anything, it's increased because of the inflationary impacts on underlying exposures. Those are the rebuilding costs of labor and materials, supply chain disruptions. And so, we've seen a huge dislocation between the supply and demand of risk capital to the tune of \$70 billion in our estimate. The upside for investors now is that premiums have doubled year-over-year and terms and conditions materially improved. So it's a really unique entry point opportunity for prospective investors.

**Anu:** All right. Perfect. That's a great starting point. Very helpful context. So now let's dive into the mechanics of insurance-linked securities. Alex, how does one actually invest in this investment asset class and also tell us how does an individual insurance-linked security investment actually work?

**Alex:** Yeah, sure. So investment is really restricted to fund vehicles mostly designed for sophisticated institutional investors. That is a relatively concentrated market dominated by specialist ILS managers that offer those vehicles. And they're out there building portfolios of insurance-linked securities. There's the privately-sourced deal side where you need an insurance company and a license to be able to transact. And then there's the more well-known tradable catastrophe bond segment where you need to be a qualified institutional buyer or QIB, which is defined as an institution with net assets of a \$100 million or greater. At the individual security level, there are a few things happening. You have a protection seller, which is the investor, and a protection buyer, which is any risk cedent. So it could be an insurer or reinsurer.

A group that's aggregated so much risk that they post solvency constraints and then need to transfer that risk-off balance sheet. And they come together to agree on the covered risks and the terms. They set up a segregated trust account or special purpose vehicle to hold the capital. The protection seller then post collateral, and the protection buyer pays a premium, and the capital sits ring-fenced from any other liabilities of each party to earn the risk-free rate for the duration of the deal.

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Remember, the investor is getting a capped upside, that is the premium. So as a protection seller, you have to have confidence you're getting paid adequately for the risk and the losses that you're willing to take on. Some have made comparisons to insurance being like running a casino or lottery where you expect to make lots of small bits of money but that should compensate you for the large payouts or losses that can happen.

**Anu:** All right. That's very helpful. And just to summarize those comments, number one, this asset class is currently designed for sophisticated institutional investors and qualified buyers. And secondly, you also mentioned it sounds like fairly high barriers to entry were those kind of few market participants? Is that accurate?

**Alex:** Yeah, I'd say that's very fair to say. Nothing is trading on screens in this market. It's heavily intermediated, and the nature of that is kind of in and of itself a barrier of entry. But also the quantification of risk, the understanding of events and the models that go into it and the science, is all quite unique and different than most traditional asset classes. So it's not an easy pivot to turn from trading equities and fixed income to diving into insurance and securities.

**Anu:** Perfect. And now you've also mentioned that, as the investor, you're getting paid a capped upside, which is the premium. Tell us about how the opportunity kind of merges with diversification, that we talked about in the opening, and what is it about today's challenges in the broader marketplace that makes insurance-linked securities a great diversifier now more than ever?

**Alex:** Yeah, I think it's really important to not lose sight of how important the diversification benefits of this asset class are. Traditional markets and its well documented, correlations on bonds and equities can quickly converge in times of extreme market stress. Inflation remains volatile, bonds and equities can also move in the same direction. For ILS, the outcome is exclusively tied to that specific risk exposure. So the occurrence of a hurricane or earthquake, which by definition cannot be triggered by the ups and downs of financial markets. It's a really fundamentally non-correlated asset.

Based on history during periods of structurally high inflation, government bonds are not as effective in diversifying portfolios and hedging equity drawdowns. So it's important for investors to look at the broader toolbox of strategies, which is why we feel ILS has an important role to play in institutional investors' broader asset allocation plans.

Another benefit is the fact that ILS is a floating rate return instrument, whereby investors earn in the risk for your rate regardless of outcome, which mitigates interest rate risk, and to some extent inflation risk too. So really important in the current environment.

**Anu:** All right. While we're talking about these catastrophe events, and we touched on Hurricane Ian earlier on. Could you quantify sort of how big of an event Hurricane Ian was just compared to history or other recent events?

**Alex:** Sure. So we estimate Hurricane Ian has caused about \$50 billion in insured industry loss. That excludes things like, flood, which is typically covered under the National Flood Insurance Program. But really, a very severe catastrophe. And in the absolute dollar terms, the single greatest industry loss in history. Inflation adjusted behind Hurricane Katrina 2005. But you know, when you're talking on those orders of magnitude, it's a really severe event.

**Anu:** And then a follow-up question is, again just for a layperson newer to the asset class, the claims that are made on Hurricane Ian, are those sort of closed off at the end of 2022, or do you still see those claims rolling in the months following the event and into 2023?

**Alex:** Yeah, so that's really important for investors to understand that there is kind of long tail risk what we term, where it can take a while for industry losses or claims to be wrapped up because the underlying is really driven by policies of individual insurance, companies and the homeowners and car and, you know, businesses that need to get paid for the losses they've incurred from an event. So for us, we are using an indexing to what is an industry loss reporting agent.

So when we get updates to their industry loss estimates from an event, then the counterparties can submit claims and we then pay them as quickly as possible to ensure that money is getting out to the hands and helping those that need it.

And that typically wraps up faster in the industry loss kind of index method, whereas a lot of the products are trading on an indemnity basis, which is how, about two-thirds of the catastrophe bond market trade and most of all of the collateralized re-segment of the ILS market. Which is more of a traditional reinsurance product, but on a collateralized form instead of written off balance sheet. But that can take quite a while because you do have the individual policy level negotiations or resolution to run through before claims can be considered completely settled.

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**Anu:** Excellent. Thank you very much. And just continuing on the theme of Hurricane Ian, how did you and the team think through those challenges given the vast amount of damage and the premiums that needed to be paid out?

**Alex:** Sure. So we are typically fully underwritten by the time the hurricane season comes around. So the portfolio gets built each year from scratch and then as we near the hurricane season we're really fully deployed. And so you're in a bit of wait-and-see mode and watching these events as they transpire. Not going to lie, it's pretty stressful to see large events, but you know these are devastating natural catastrophes and the money that our investors have at risk is going to pay for rebuilding costs in the wake of these natural catastrophes. So, had some losses and claims to pay, but you know, ultimately it is being paid out for good use.

**Anu:** All right. Terrific. And again for our listeners, I want to emphasize that that dynamic risk positioning led the team to be defensive last year, so some of those losses were able to be mitigated. So just good evidence of your team skill in this area. Do you typically look at the US only or do you have a global portfolio? And I say that, you know, knowing a devastating earthquake just hit in Turkey, with a huge loss of life there. But does your portfolio have exposure outside the US?

**Alex:** Yeah, it's a good question. So more traditional reinsurance, conventional wisdom is "diversify, diversify, diversify." We kind of take a different tact where we see this investment as a diversifier for our investors. And so our number one concern is that we can quantify the risk that we're taking and also be paid fairly for taking on those risks.

And also, that there's an independent trigger mechanism, namely that industry loss reporting agent or some other objective method for measuring whether there's going to be lost. Long-winded way of saying that that leads us to really build a portfolio in more developed markets where the data is best, where the regulatory and rating agency regimes are the most stringent, and therefore, the premium that you get paid for risk transfer is the highest.

And meeting some of those other industry loss reporting mechanisms and triggers, all leads us to build a portfolio that's heavily focused on US perils, namely hurricanes and earthquakes.

**Anu:** Great. Thanks very much for that, Alex. Another topic that I want to cover here is, of course, climate change. I imagine that is a factor that you think about as you are modeling and potentially forecasting here. How does that come into play when investing in the insurance-linked security space?

**Alex:** Yeah, so climate change has definitely had a profound impact on our world and definitely is going to shake up our industry a lot. One thing to bear in mind is that ILS is really a risk transfer mechanism. So it shows a lot of promise in being able to create what is resilience in the wake of natural catastrophes, right? What are we doing? We're quantifying natural catastrophe risk and then pricing it in order for that risk to be transferred from one party to another.

So you can imagine insurers and reinsurers use ILS a lot now because of rating agency and regulatory pressures. But imagine if operating companies, or you know, NASDAQ and S&P 500-listed companies had to publish and be transparent about the climate risk that they have on balance sheet. They might have to turn to ILS markets and reinsurance one day to be able to transfer that risk off of their balance sheet. And it can create a lot of solutions for doing so. So we're pretty optimistic despite the headwinds and the wider gloominess that is climate change.

**Anu:** Alex, are there any particular risks that you are concerned about in the next few years? I'm thinking one like regulatory risks or the other risks if, you know, Florida decides that they need to have state funded hurricane insurance policies or anything like that that comes to mind that you want to share.

**Alex:** Yeah, so one thing Hurricane Ian did do is it made it clear that there are some real cracks in the Florida insurance market that need to be dealt with. And the regulators and state legislative bodies did come together in December and made some important changes to assignment of benefits and one way attorney fees, which are forms of social inflation where lawyers or claims adjusters can game the system and it creates increased losses from events just due to those factors. And so outlawing that we think is a real positive and going to ultimately be healthy for the insurance industry and especially in Florida.

**Anu:** Excellent. Thank you very much. As we start to wrap up here, would love to just hear a little bit about your outlook for 2023 and beyond.

**Alex:** Yeah, absolutely. So our overarching takeaway for investors is that the opportunity for 2023 is unprecedented considering the diversification benefits of the asset class, the potential to generate attractive returns, and some of the ancillary benefits of the

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floating rate return component that mitigate interest rate and inflation risk. So we're really bullish on ILS and super excited about the opportunity set, as well as the solutions that it brings to the table and fixing a lot of things we spoke about.

**Anu:** All right. Perfect. Thank you very much. Now, Alex, I can't let you go away without asking you a quick bonus question. So we're recording this episode in February 2023, and as someone who is based in New York City, this is usually my least favorite time of the year when it's the most bitterly cold. It happens to be quite mild at the moment, thankfully. But Alex, my question for you is what is your favorite season of weather and why?

**Alex:** I would be a Spring and Fall fan. I like the change of the seasons but Summer, down in Bermuda, can be a little hot. I know, get your violin out.

**Anu:** [laughs]

**Alex:** And then wintertime, it just is a little dark, so Spring and Fall.

**Anu:** All right. Lovely. Well, certainly in New York City, those are lovely times of the season as well, so thank you very much. Alex, thank you for being on the show today to share some insights on insurance-linked securities, which really are seeing opportunity, particularly given the macroeconomic backdrop at the moment where so many investors are really looking for uncorrelated sources of return and diversifiers. This is one that we think has some great applicability into qualified investor's portfolios, so appreciate you coming on and sharing your thoughts on this.

**Alex:** My pleasure, Anu. It's been fun. Thank you.

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