

GUY CARPENTER
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The Convergence of Financial and Reinsurance Capital

How catastrophe bonds, sidecars and financial investors are redesigning the architecture of global reinsurance

By Laurent Rousseau, CEO of Global Capital & Advisory and EMEA



Introduction

Over the past few years, the reinsurance industry has witnessed significant growth in alternative capital: both in the catastrophe bond market and through sidecars more recently. However, the broader convergence of reinsurance and financial capital started over 20 years ago. Over this period, the attraction of financial investors to back (re)insurance risks has followed a straight line, largely decorrelated from reinsurance pricing. This would indicate financial capital has not yet found its equilibrium balance in the overall reinsurance industry, which raises a number of questions:

- Is the attraction of capital markets for (re)insurance risks structural or cyclical? Is it here to stay, or will it disappear during the next financial market crisis?
- What will be the equilibrium point from the current 20% share of the reinsurance industry, and what will be the ultimate capital architecture of the global reinsurance market?

As no one has a crystal ball, let's put the question differently: what are the conditions for capital markets to find (re)insurance risks sustainably attractive?

While alternative capital growth was largely driven by a demand shock in the early 2000s following large natural catastrophe events, the momentum has been sustained more recently by a supply shock. Indeed, with interest rates increasing since 2022, investors have been reminded that insurance premiums could also generate attractive investment float. These investors have a lower cost of capital than traditional insurers and reinsurers do, creating an attractive value proposition for the reinsurance industry.

This paper looks at how insurers, reinsurers and investors might consider positioning themselves in the broader marketplace, for the broader pools of capital to match the pools of risks in a sound and sustainable way.

I. The old world's limits

For most of the 20th century, the (re)insurance industry ran on a simple, vertically integrated model. A primary insurer—say, a Florida homeowners carrier or a Japanese earthquake risk underwriter—transferred a portion of its risks to a reinsurer. That reinsurer absorbed the risks (of two kinds: severity and/or frequency) onto its own balance sheet, backed by equity capital accumulated over decades and managed by actuaries who based their risk evaluation models largely on experience. This “on-balance-sheet” approach is also known as “Rhenan capitalism” and is one of the reasons why historical reinsurers are mostly German or Swiss (German).

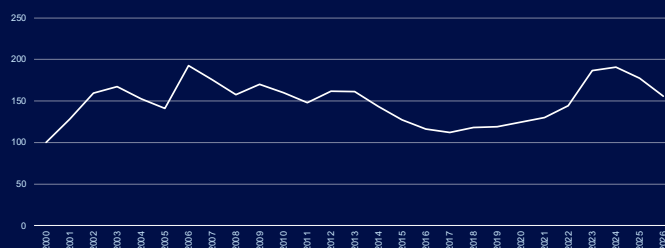
The model worked, until it wasn’t optimal anymore, with market stresses and ruptures showing the need for “alternative” sources of capital. There have indeed been a number of “demand shocks,” where natural and man-made disasters reached unseen levels.

The accumulation of catastrophes in 2001 (9/11), 2004-2005 (Hurricanes Charley, Ivan, Katrina, Rita and Wilma), and again in 2010-2011 (when earthquakes struck Haiti, New Zealand and Japan in quick succession), exposed a structural weakness: the entire system relied on a small club of balance sheets. When those balance sheets were stressed simultaneously, capacity evaporated precisely when demand was most acute.

Rate-on-line indices for property catastrophe reinsurance could spike over 100% in a single renewal cycle, leaving primary insurers with three unpleasant choices—accept the price, take more net risk, or shrink their book.

This situation happened again in 2022-2023, when the entire reinsurance risk transfer chain broke down after an accumulation of shocks (Ukraine war spurring an inflation surge and Hurricane Ian). The reinsurance market rupture left insurers with much-reduced options: many of them have been proactively looking for alternatives since then.

Figure 1: Global property catastrophe rate on line (ROL) index, 2000-2026.



Source: Guy Carpenter

The answer the market found was not to build bigger reinsurer balance sheets: the Global Financial Crisis showed there was no such thing as a “too big to fail” financial institution. The answer was instead to route around them entirely and adopt at scale a more “Anglo-Saxon capitalism” approach, looking at off-balance-sheet risk-taking, originating risks to then distribute them to financial markets investors, just as banks, and then alternative asset managers (“shadow banking”) have been building on credit risks.

II. Catastrophe bonds: turning tail risk into a bond coupon

The catastrophe bond was created in the wake of Hurricane Andrew (1992), building on decades of securitization that developed in high-frequency, low-severity credit risks (e.g., mortgages, consumer lending).

Here's how it functions:

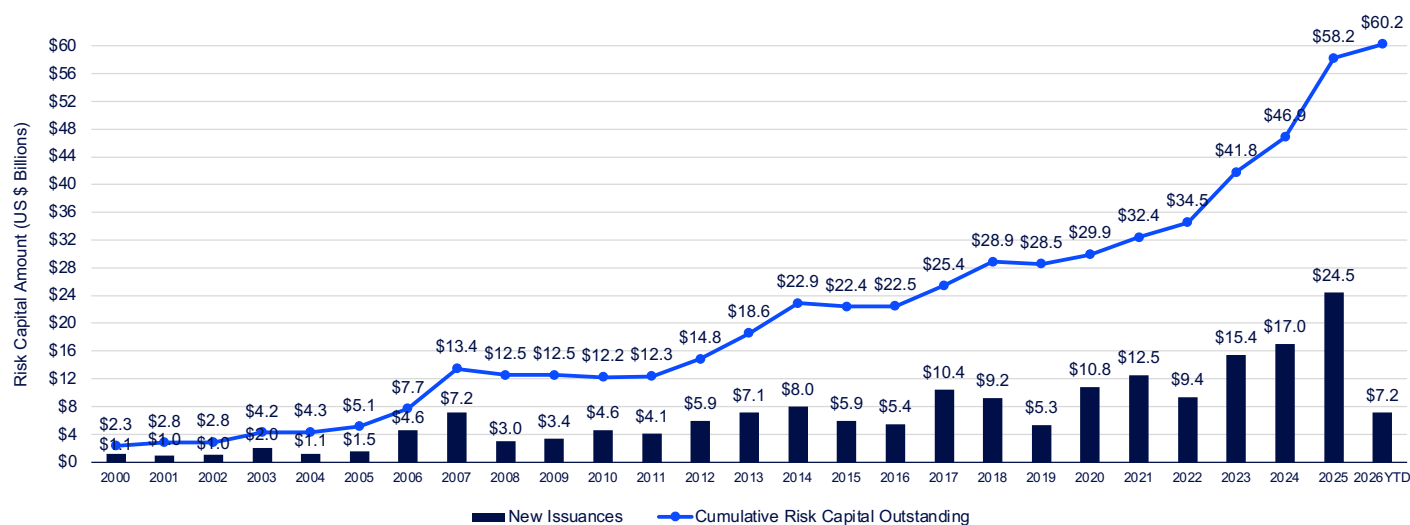
- An insurer sponsors a special purpose vehicle (SPV), typically domiciled in Bermuda or the Cayman Islands.
- The SPV issues notes to capital market investors and deposits the proceeds in high-quality collateral.
- The insurer pays a premium (the spread over the London Interbank Offered Rate, or LIBOR, or now the Secured Overnight Financing Rate, or SOFR).

- If a defined catastrophic event occurs, investors lose some or all of their principal; if it doesn't, they collect the coupon and are repaid at maturity.

Often, the cat bonds play out over a 3-year period. The risk is fully collateralized—there is therefore no counterparty credit exposure to a reinsurer with a stressed balance sheet. The market grew slowly through the 2000s; in a way that is largely decorrelated with the property catastrophe rates, as shown in Figure 1.

Investors who had been watching from a distance suddenly found cat bonds offering spreads 200-400 basis points above historical norms, with zero or limited correlation to equities, credit cycles or duration risk. Capital flooded in. The numbers in Figure 2 speak for themselves.

Figure 2: Outstanding and issued 144A catastrophe bond limits, 2000-2026.



Source: GC Securities

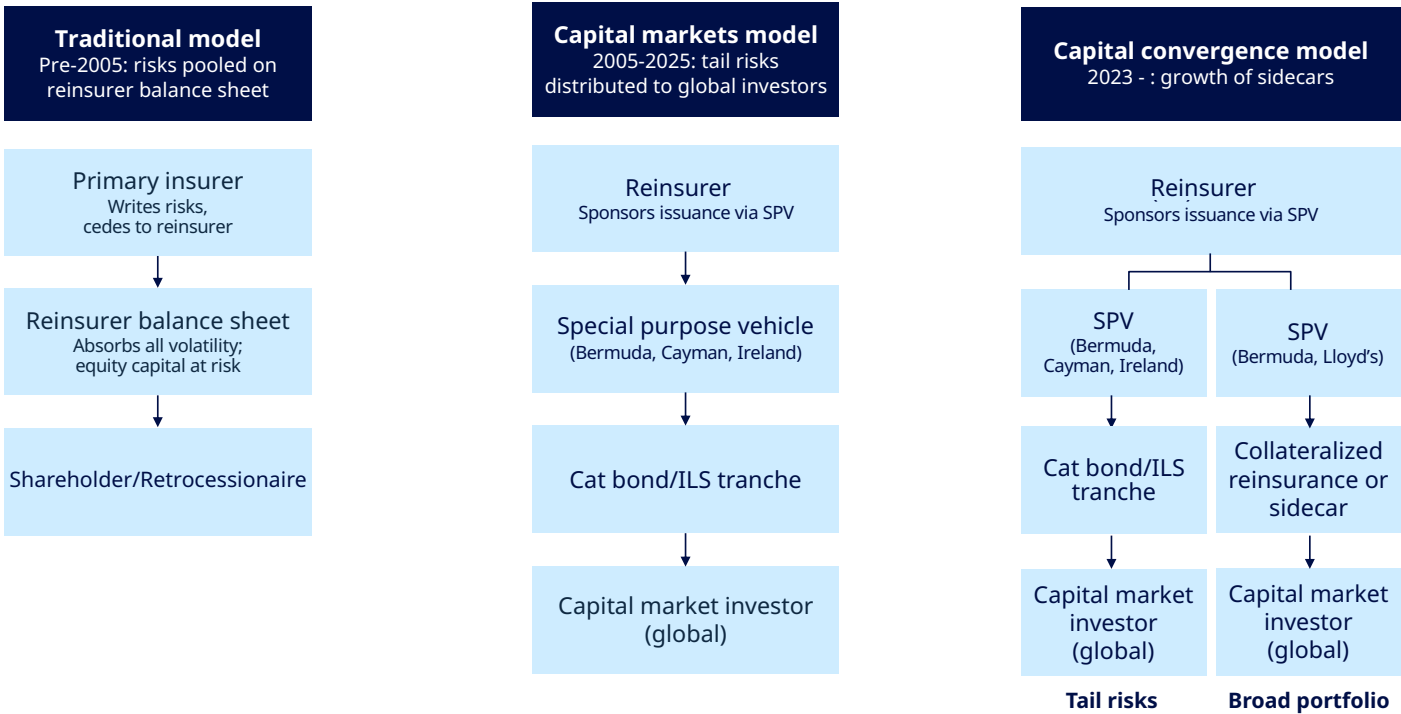
III. New balance sheet models: the SPV as an infrastructure

The traditional response to a lack of reinsurance capacity was the creation of de novo reinsurers, often in Bermuda. The last two most meaningful “classes” of reinsurers were in 2001 (after the 9/11 attacks) and in 2005 (after Hurricanes Katrina, Rita and Wilma). Since then, the usage of securitization through SPVs increased capital velocity in the reinsurance industry: the speed at which capital can flow in the reinsurance market and be put to work to back risks.

Creating an SPV to channel capital to risk can be done in a matter of weeks—this has been a key driver to dampen cycles and make the reinsurance market more efficient.

Figure 3 illustrates the core architectural change from the traditional model to the capital markets and convergence models. The reinsurer’s balance sheet has not disappeared—it remains central to the overall construct—but it is no longer the only available surface for absorbing catastrophe volatility.

Figure 3: Flow chart for traditional model, capital markets model, and capital convergence model.



Three structures have become load-bearing parts of the global risk transfer edifice.

1. Catastrophe bonds sit at the top of a reinsurance “tower”: the stack of capital that gets tapped into as the size of a claim increases. Cat bonds are therefore meant to provide cover to extreme events, and kick in after more traditional capital providers are hit.

In that respect, they take a “non-proportional” exposure to risks: they can absolutely not be triggered in case the claims reach a lower threshold than the bond trigger. Cat bonds provide multi-year coverage for tail events, and fully collateralized protection against specific, named perils (mostly wind and earthquake). They are tradeable, but there is limited liquidity in the secondary market.

Three critical parameters are required for these bonds:

- **Modellable:** Risks need to be modeled for investors to be able to quantify the risk-return profile. For this reason, floods are rarely covered by cat bonds, and wind or earthquake in specific areas (North America, Europe, APAC) predominate.
- **Sizeable:** Bonds need to come in tranches of a minimum size of US\$50 million, but ideally a few hundred millions. The largest issued cat bonds have reached total capacity of US\$1.5 billion.
- **Remunerative:** Bonds need to remunerate investors with at least c. 3% rate on risk capacity provided (rate on line), for investors to find the reward compelling.

In 2025, US\$25 billion of public (“144A”) cat bonds

were issued, resulting in a total of US\$58 billion in outstanding cat bonds (as most of them run over c. 3 years).

2. Sidecars are quota-share vehicles in which external investors participate directly in a reinsurer’s underwriting results for a defined period and peril set. The financial capacity provider sits alongside the traditional reinsurer (hence a “sidecar”).

Sidecars allow reinsurers to grow their gross written premium without consuming additional equity capital, effectively outsourcing a slice of their balance sheet to investors who want underwriting exposure but lack the operational infrastructure to underwrite directly. Reinsurers, therefore, swap an underwriting return for a fee, hence diversifying their earnings sources.

A sidecar picks up claims from the first dollar (“ground-up”): it receives a proportion of the overall premiums, and it pays the same proportion of claims. Sidecars are therefore proportional capacity providers and share the fortunes of the reinsurer.

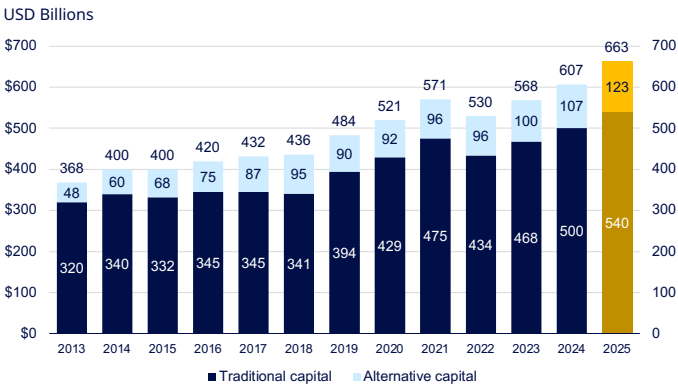
3. Collateralized reinsurance sits between the two—a privately negotiated contract in which the reinsurer’s obligation is fully funded up front by the investor, eliminating counterparty risk. Collateralization is just a financial means for financial investors, who do not have a rated balance sheet, to provide a reinsurance protection without creating a counterparty risk to the insured.

In 2025, sidecars and collateralized reinsurance capacity reached over US\$65 billion.

Together, these instruments represented a total of over US\$123 billion, close to 20% of the total reinsurance capital of US\$660 billion. Back in 2013, they were representing about 13% of reinsurance capital. They have fundamentally altered what it means to be a reinsurer, and how to add value in the risk transfer chain.

The modern reinsurer is increasingly an origination, structuring and distribution platform—sourcing risk from cedents, structuring it into tranches that match different investor risk appetites, and distributing those tranches into capital markets. The economics look more like investment banking than traditional insurance, with fees earned for structuring and placement layered on top of retained underwriting margins.

Figure 4: Dedicated reinsurance capital—2013 to 2025.



Source: Guy Carpenter, AM Best

Digital infrastructure risk transfer

The recent growth in digital infrastructure has raised a need for very large (re)insurance capacities to complement the traditional (re)insurance markets. The cat bond market is very efficient at transferring natural catastrophe risk to the capital markets. However, it has not yet developed to provide capacity for key data center risks, such as builders’ risk, contractor defaults, construction delays, power outage, cyber hacking or other operational risks.

Cat bonds could help isolate and hedge natural catastrophe risk while inuring to the benefit of the broader commercial insurance market for data centers, if the economics are sufficiently attractive for investors.

Provided sufficient risk diversification could be achieved in the underlying portfolios (i.e., avoiding too large an accumulation of property catastrophe risks), sidecars could be structured. However, the structuring complexities and ongoing macroeconomic environment uncertainties are such that no vehicle has been structured at the date of this publication.

IV. The investor case: uncorrelated, collateralized, and competitive returns

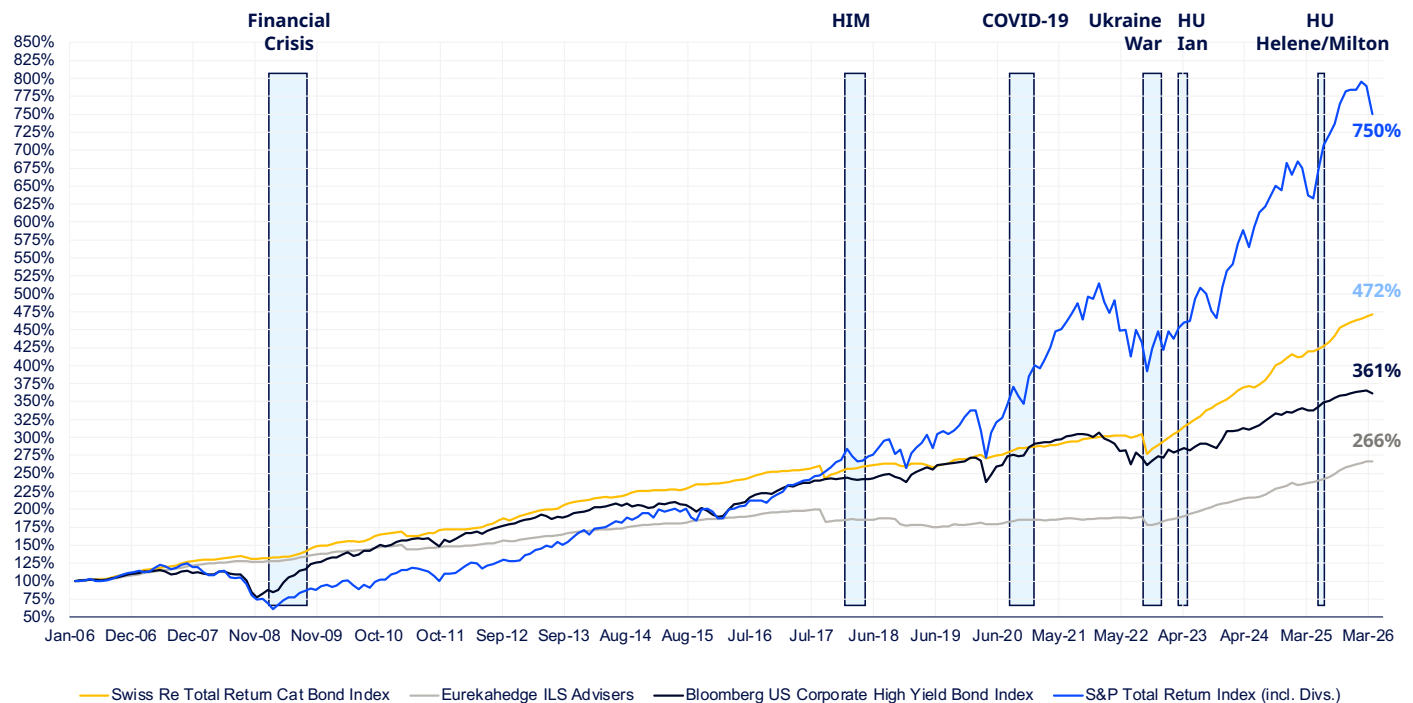
Global alternative capital leapt from US\$48 billion in 2013 to over US\$123 billion in 2025—a compound annual growth rate of 12% over 12 years. Over the same period, traditional reinsurance capital experienced a compound annual growth rate of 8%. The investors coming into the industry have not just been specialist ILS funds. Pension funds, sovereign wealth funds, endowments and family

offices began allocating to the asset class precisely because its return drivers—hurricane tracks, earthquake ground motion, wildfire behavior—have no structural relationship to the factors that drive equity valuations or credit spreads. In a world where institutional portfolios struggle to find genuine diversification, catastrophe risk has become a strategic allocation rather than a curiosity.

Figure 5: Insurance-linked securities performance over the past 20 years compared to traditional markets.

Historical ILS performance relative to traditional markets

Bond product remains attractive due to relative performance



Source: Guy Carpenter

2025's landmark structural development

The world's first catastrophe bond exchange-traded fund—the Brookmont Catastrophic Bond ETF—began drawing client money, reaching approximately US\$30 million in assets.

This is minuscule in the broader scale of the market, but it shows innovation continues in this space.

The growing interest from financial investors for (re)insurance risks will likely drive a “marketization” of risks: as Wall Street takes a greater share of the reinsurance market, secondary liquidity will likely increase, and the market will likely become even more efficient and effective.

Though banks have come together to create market utilities for various asset classes (foreign exchange, fixed income, commodities), the insurance industry has followed a different path. Insurers have not (to date) structured themselves with trading floors operating alongside the balance sheet risk-taking like banks have. In the (re)insurance industry, brokers control flows and have been more recently looking to harness technology. This trend is only just accelerating, with AI posing “innovators’ dilemma”¹ opportunities and challenges.

¹ Clayton Christensen's *The Innovator's Dilemma* (1997) explains why successful companies fail by focusing on high-end, “sustaining” innovations while ignoring new, “disruptive” technologies that appear inferior but later dominate markets.

V. Are investors looking for underwriting returns or to make an asset management play?

At a time of ultra-low interest rates, when central banks were artificially expanding their balance sheets to prop up the global economy, financial investors were attracted to P&C insurance risks, with yields (rates on line) in the 3-5% vicinity above interest rates (which were closer to 0%).

This is partly what drove cat bonds' growth between 2008 and 2022. The assumption at the time was that when interest rates would increase back to 4-5%, investors' appetite for cat bonds would dampen, as investors would revert to traditional credit risk.

But this has not been the case—as cat bonds spreads are over-floating rates (the spread over LIBOR or now SOFR), investors have kept their appetite for this de-correlated, diversifying asset class. Their focus has largely been on short-term, property catastrophe risks: as interest rates were close to zero, there was virtually no time value of money: investors would not be able to generate more returns by holding the premiums and investing them before claims would be paid over a longer period of time. Therefore, investors' appetite was driven largely by the ability to pay less claims than the premiums charged.

While alternative capital growth was largely driven by a demand shock in the early 2000s following large natural catastrophe events, the momentum has been sustained more recently by a supply shock. Indeed, with interest rates increasing since 2022, investors have been reminded

that insurance premiums could also generate attractive investment float. These investors have a lower cost of capital than traditional insurers and reinsurers do, creating an attractive value proposition for the reinsurance industry.

As interest rates have increased from 2022, a number of alternative asset managers have allocated meaningful amounts of capital to the (re)insurance industry based on a different value proposition. Large alternative asset managers have been looking for asset classes to deploy their capital. In a 4-5% interest rates environment, the value of insurance as free funding has significantly increased. Sidecars allow investors to sit behind (or alongside) a reinsurer and take a proportional share of premiums received and claims paid. Often, the underlying portfolio of risks are wider and diversified to achieve an average duration in line with the underlying risks' profile. This materializes into vehicles with 5 to 7 years fixed term.

In these instances, the true value creation for the sidecar partner lies in the asset management fees generated between the moment premiums are received and claims are paid out. This is the float that Berkshire Hathaway Chairman Warren Buffett has keenly advocated. In the current environment, instead of investing in equities, alternative asset managers deploy their insurance float in fixed-income instruments and charge their limited partners for asset management fees.

While “sidecar” vehicles are often painted with the same brush, these three types can operate quite differently from one another:

Direct Cession (incl. Casualty) Sidecars

- Typically set up as a quota share (QS) of the entirety or a subset of the (re)insurance portfolio of the cedant written by a special purpose reinsurer backed by investors
- Because of the length of the payment tail, it often involves an asset play involving private credit or similar strategies
- Considerations involve the capital level, investment guidelines, and how the ending reserves (“tail”) are managed

Multi-Treaty and Ceded Re Strategy Sidecars

- Ceded re strategy whereby set proportions of outwards reinsurance treaties are ceded to a sidecar vehicle backed by investors
- Historically, these have been done both as rated vehicles (i.e., ABR Re) or collateralized special purpose vehicles (i.e., Lifson Re)
- More recently, the Lloyd’s London Bridge platform has been utilized for these transactions (i.e., AIG and Allianz)

Wholesaler and MGA Sponsored Sidecars

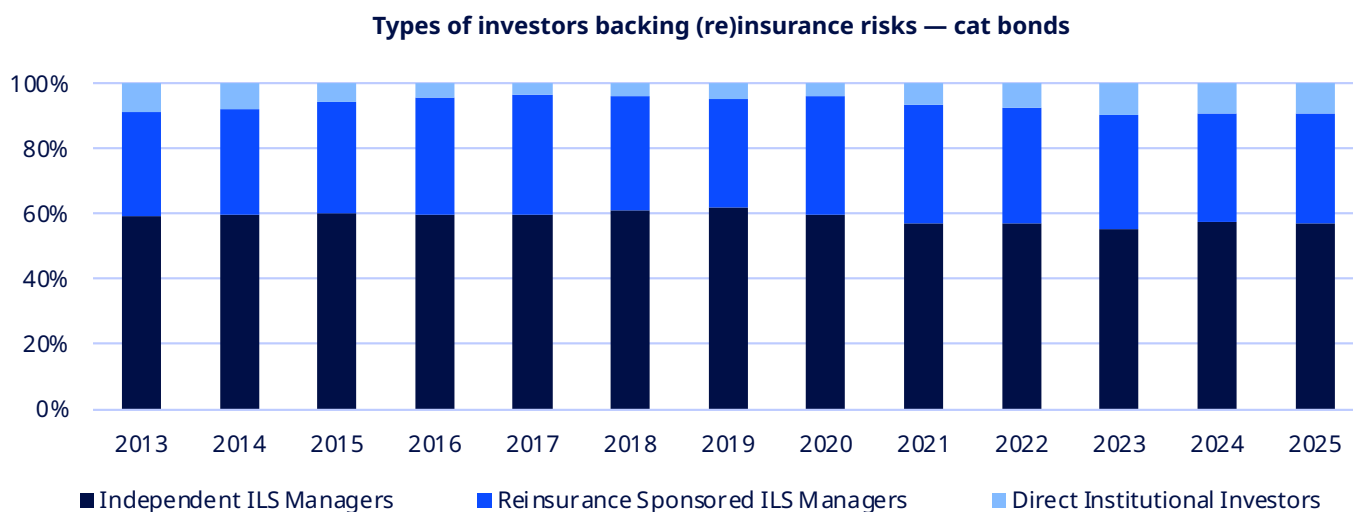
- Similar to other sidecars in that they are typically QS transactions written by investor-backed special purpose reinsurers
- However, the ultimate sponsor is a wholesaler and MGA with the motivation of additional capacity and improved economics
- Usually involves multiple classes and shorter-tailed lines of business (LOBs)

VI: Investors' universe

There are broadly 3 types of financial investors backing (re)insurance risks:

- **Specialized reinsurer-backed funds.** Many reinsurers would have their in-house alternative capital unit often invest on behalf of third-party investors. Reinsurers such as Swiss Re, Munich Re and Hannover Re would have their own cat bonds funds and would participate in the market as a financial investor.
- **Specialized insurance-linked securities managers.** The largest of these players would typically have over US\$10 billion in assets under management (e.g., Nephila, Fermat, Twelve Securis), while many other players would have about US\$5 billion.
- **Institutional investors.** A few large institutional investors have been key players in the cat bonds space (e.g., Schroders, Pimco, Pioneer) for many years now. More recently, a few large alternative asset managers have also been allocating significant capital in the form of sidecars (e.g., Blackstone with AXA and AIG, Oaktree with Allianz). These large quota shares are not included in the current market estimates, leading to believe they are on the conservative side. More recently, there has been a growing interest from many other, largely credit, funds. They have been attracted to the “float” of insurance: the insurance business has a negative working capital, whereby premiums come in upfront, and it’s only after a few years that the claims (“cost of goods sold”) are known. That duration has an economic value in a 4-5% interest rates environment.

Figure 6: Percentages of reinsurance risk backed by different investment sources.



Source: Guy Carpenter

Figure 7: Various types of investors show interest in (re)insurance risks.

	Private Equity Firms	Alternative Investment Managers	International Pension and Sovereign Wealth Funds	Traditional Investment Managers
Pros	- Can move quickly - Are usually able to invest in a preference share and sidecar structure – i.e., non-fund	- Can move quickly - Can be particularly attentive to opportunities to manage collateral assets	- Can offer significant ticket sizes - Tend to favor stable long-term investments	Can be particularly attentive to opportunities with collateral assets
Cons	- Exit multiple focused, which contradicts the underlying sidecar value proposition - Will look to maximize investment returns	Often are opportunistically motivated, rather than more stable capital providers	- Often require formalized fiduciary and fund structure and investment consultant intermediation - Can be particularly challenging on fee levels	- Typically, the more collateral management focused they are, the less tolerant they will be of cat risk - Limited product knowledge
Features	- Typical annual return target is over 20% - Typical capacity is \$50M to \$200M+ per investor	- Typical annual return target is 15% to 20% - Typical capacity is \$75M to \$100M+ of collateral per investor	- Typical annual return target is 6% to 8% - Typical capacity is \$50M to \$200M+ per investor – may grow meaningfully over time	- Typical annual return target is 6% to 10% - Typical capacity is \$25M to \$75M of collateral per investor
Example Investors	  	    	   	  

Source: Guy Carpenter

Digital Infrastructure — The Next Frontier for Capital Convergence

By Michael Moloney, Partner, Global Head of Insurance and Asset Management and Managing Partner, Actuarial, Oliver Wyman

The buildout of AI and digital infrastructure represents one of the largest coordinated capital formation exercises in modern economic history. JP Morgan estimates US\$5 trillion in global capital will be required between 2025 and 2030 to fund data center and AI infrastructure growth, with broader market forecasts extending to US\$7 trillion across the same horizon. The five largest hyperscalers alone are projected to deploy capital in excess of US\$800 billion in 2027. Individual campuses now routinely exceed US\$10 billion-30 billion in total insured value, drawing power equivalent to mid-sized cities and financed through capital stacks combining equity, senior secured debt, and project bonds placed with pension funds, sovereign wealth funds, and infrastructure allocators.

On the surface, this looks like precisely the environment in which insurance-linked securities (ILS) and sidecar structures should find natural application. The risks are large, the durations are defined, and the investor universe overlaps significantly with the existing ILS market. The reality is more complex—and the three conditions set out in the main body of this paper explain why.

Modellability is the hardest barrier. The ILS market is built on exceedance probability curves derived from decades of physical event data, validated by third-party catastrophe models.

Digital infrastructure risk—power supply interruption, Power Purchase Agreement (PPA) counterparty default, construction delay cascades, grid interconnection failure—has no equivalent actuarial foundation. The risk is also not stationary: the correlation structure between power supply disruption and data center revenue loss evolves as grid topology, contractual arrangements, and operational dependencies change. The primary insurance market has not yet accumulated the loss experience or developed the analytical frameworks that modeling at scale would require.

Sizeability is superficially satisfied but structurally complicated. Individual campus risks are large enough for bond tranching, but the portfolio diversification assumption underpinning cat bond structures—geographic and peril independence across a pool of risks—does not hold cleanly for digital infrastructure. Power supply chains concentrate around a small number of utilities and transmission corridors. Large-load interconnection access in the US is effectively controlled by a concentrated group of regulated utilities, regional transmission operators, and a handful of merchant generators. Correlated grid exposure across a data center portfolio is not diversifiable in the way that Florida wind exposure is diversifiable against Japanese earthquake exposure.

Remuneration is likely adequate—the yields available in a market with genuine supply-demand tension should prove attractive to ILS investors—but pricing requires the model, which returns to the first constraint.

The path to resolution

The cat bond market itself did not emerge fully formed after Hurricane Andrew. It required a decade of primary market development, loss experience accumulation, and modeling infrastructure before securitization became viable at scale. Digital infrastructure risk is likely to follow a similar trajectory, compressed by the scale of capital pressure and the commercial incentives to solve the problem.

Three developments would materially accelerate ILS entry into this space. The emergence of standardized primary insurance products with defined parametric triggers—particularly around power supply interruption and PPA performance—would begin generating the loss data and pricing benchmarks that modeling requires. Portfolio aggregation across multiple campuses and counterparties could create the diversification structures that make tranching viable even without geographic independence. And power supply agreements themselves—which in their most sophisticated current forms function as long-dated financial instruments with defined credit exposure—are structurally closer to the risk that ILS investors understand than the operational risks of the campus itself.

The broader point is one of sequencing. Capital markets cannot reach digital infrastructure risk until the primary insurance architecture exists to give them something to invest in. The ILS market did not create the reinsurance market; it securitized it. The same logic applies here.

Scale of the potential opportunity

The US\$123 billion currently held in alternative reinsurance capital represents two decades of gradual institutionalization of a risk class that already existed. The digital infrastructure risk pool is different in kind, not just degree. It is being created from scratch, at speed, with financing structures that treat risk transfer as a prerequisite for deployment rather than an optional enhancement. Institutional lenders and bond investors in the project finance capital stack require that the exposure profile of any asset they finance be defined, transferred and contractually managed before commitment. Risk transfer is not incidental to financeability in this market—it is part of the definition.

The demand dynamic that would drive ILS growth in this space is therefore structurally different from anything the market has previously experienced. The nat cat ILS market grew as capital markets discovered an existing, well-modeled risk class and gradually took share from traditional balance sheets. Digital infrastructure would work in reverse: the risk class is being created at a pace that outstrips the capacity of traditional balance sheets to absorb it, and institutional capital is already waiting at the door. The constraint is not investor appetite. It is the absence of the primary market infrastructure—the actuarial frameworks, the standardized products, the structured triggers—that would allow that capital to be deployed.

How quickly those conditions are met will depend less on the supply of capital, which is present, and more on the pace at which the insurance market develops the product architecture this new asset class requires. The sequencing matters. What is being built now in primary insurance markets is the foundation on which the next chapter of capital convergence will be written.

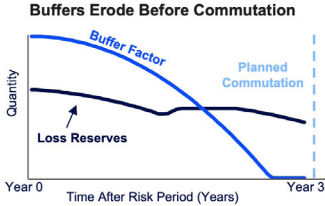
VII. Tensions and limits

The convergence between financial capital and the (re)insurance industry is not without friction. Five structural tensions deserve attention.

- 1. Modeling.** Traditional reinsurers price risk using decades of proprietary claims data and long-standing relationships with cedents. Cat bond investors price risk using third-party catastrophe models—RMS, AIR, Karen Clark—that are increasingly sophisticated but remain imperfect, particularly for emerging and secondary perils.
- 2. Trapped capital and liquidity.** When a catastrophe triggers or threatens a collateralized vehicle, the collateral can become temporarily unavailable—“trapped”—even if the ultimate loss is lower than feared. The collateral can also be subject to asset risk: while most market participants require collaterals to be invested in investment-grade assets, some investors have appetite for riskier assets, either from a credit or a liquidity point of view.
- 3. Softening pricing cycle.** The record capital market inflows of 2023-2025 have contributed to driving pricing lower. In that sense, insurance-linked securities track the evolution of the traditional reinsurance market, with prices trending downward since early 2024.

- 4. Capital markets culture versus real risks culture.** More generally speaking, there is another more qualitative risk: reinsurance and financial markets are built on different practices, habits and “culture.” The traditional reinsurance market is based on long-standing relationships, where reputation is critical, and the assumption is that reinsurance capacity is there when most needed: after a major event. This is radically different from financial markets, ruled by contracts and where liquidity can dry up in situations of market stress. A deep understanding of both paradigms (reinsurance and financial markets) is paramount for the risk transfer mechanisms to be sound and effective over the long term.
- 5. Complexity and opacity.** Finally, the growing importance of financial capital in the (re)insurance industry means the chain of risk transfer is becoming more complex and more opaque. It has become harder to see who ends up being the ultimate risk bearer. This has already been the case with credit risk, where circularity can happen. For this reason of opacity, it is actually very difficult to fully track the amount of financial (“alternative”) capital backing reinsurance risks. While the cat bonds market is relatively transparent, the number and size of sidecars is hard to track. For this reason, the Guy Carpenter quantified estimates are on the conservative side, and probably leave out some undisclosed and meaningful pockets of investments.

Figure 8: Where sidecars can go wrong.

	Scenario 1 – Casualty Joint Venture Asset and Liability Mismatch	Scenario 2 – Cat Sidecar Had Poor Buffer Factor Protection	Scenario 3 – Cedant Became Overly Reliant on One Investor and Aggressively Chased Growth
Situation	- The sponsor and investor entered a joint venture vehicle, with both parties having equity ownership and sharing fees. - The sponsor was able to meet the underwriting target on the liability side, but the investor did not properly manage the liquidity profile. - This resulted in sub-par asset returns due to forced sale of assets to meet claims payments, and hurt the long-term value of the entity for both cedant and investor. 	- The sponsor did not fully appreciate that there is no claw-back of capital after excess capital redemptions. - As a result, the original transaction had buffer factors reduced to zero before the anticipated commutation date. - Three years later, the sponsor discovered the sidecar was undercollateralized and would have a partial non-recovery of losses, due to continued quarterly excess capital redemptions, favorable loss development, and buffer factors decreasing towards zero. 	- The sponsor became overly reliant on one investor to feed growth in its underlying portfolio. As the sponsor raised more capital from their investor, they subsequently increased the size of their gross portfolio, without adhering to proper risk management. - Amid a backdrop of losses from 2017 to 2018, the investor decided to redeem out. This forced the sponsor to significantly cut back its portfolio, which led to reputational issues with underlying insureds as well as increased underlying expense ratios. 
Solution	- Fully thought-out investment management agreement that matches asset with liability duration. - Ensure partnership with the right capital provider and asset manager.	- Ensure buffer factors and capital release mechanisms are properly planned at inception. - Ensure commutation timeframe ties out with planned buffer on reserve decreases.	- Ensure a diversified panel amongst traditional and ILS partners, as well as diversified reinsurance purchasing from QS and excess of loss (XOL) products. - Ensure growth in the underlying portfolio is stable and follows proper risk tolerances.

Source: Guy Carpenter

VIII. Is the redesign structural or cyclical?

The temptation is to interpret the ILS boom as a cyclical phenomenon—capital chasing yield in a world of compressed fixed-income spreads, destined to retreat when rates rise or losses mount. The evidence suggested otherwise since interest rates increased back to 4-5% levels post 2022. As long as interest rates stay at current levels, we should expect sidecars to remain structural features of the (re)insurance industry.

Timeline of capital convergence	
Period	Development
1992	Hurricane Andrew triggers reinsurance capacity crisis
1996	First catastrophe bonds issued
2001-2005	Post-9/11 and Katrina accelerate alternative capital
2005-2015	Institutional investors enter and expand in ILS funds
2017-2022	Alternative capital becomes structural component of reinsurance
2022-2026	Sidecars ramp up in a higher interest rates environment

The growth of financial capital is likely to continue, most likely in a non-linear way: shocks and crises will continue shaping the structure of the market. Over the past 20 years, the investor base has become broader, more institutionalized and more permanent than it was at any previous peak. Several of these investors have gone through crisis, where claims were elevated (2005, 2011, 2018, 2022) and collaterals trapped. Investor know-how has been, and still is, increasing.

What is being redesigned is not just the financing of catastrophe risk. It is the very concept of what a reinsurer is—and who, ultimately, bears the weight of the world’s largest risks. The answer, increasingly, is everyone who holds a diversified portfolio of financial and real risks. The integration of insurance risk into the global capital market is, in this sense, a form of socialization of catastrophe exposures, distributed across millions of pensioners, sovereign savers and endowment beneficiaries who may never know they are, in a modest way, reinsurers.

The benefit for (re)insurers buying such protections include:

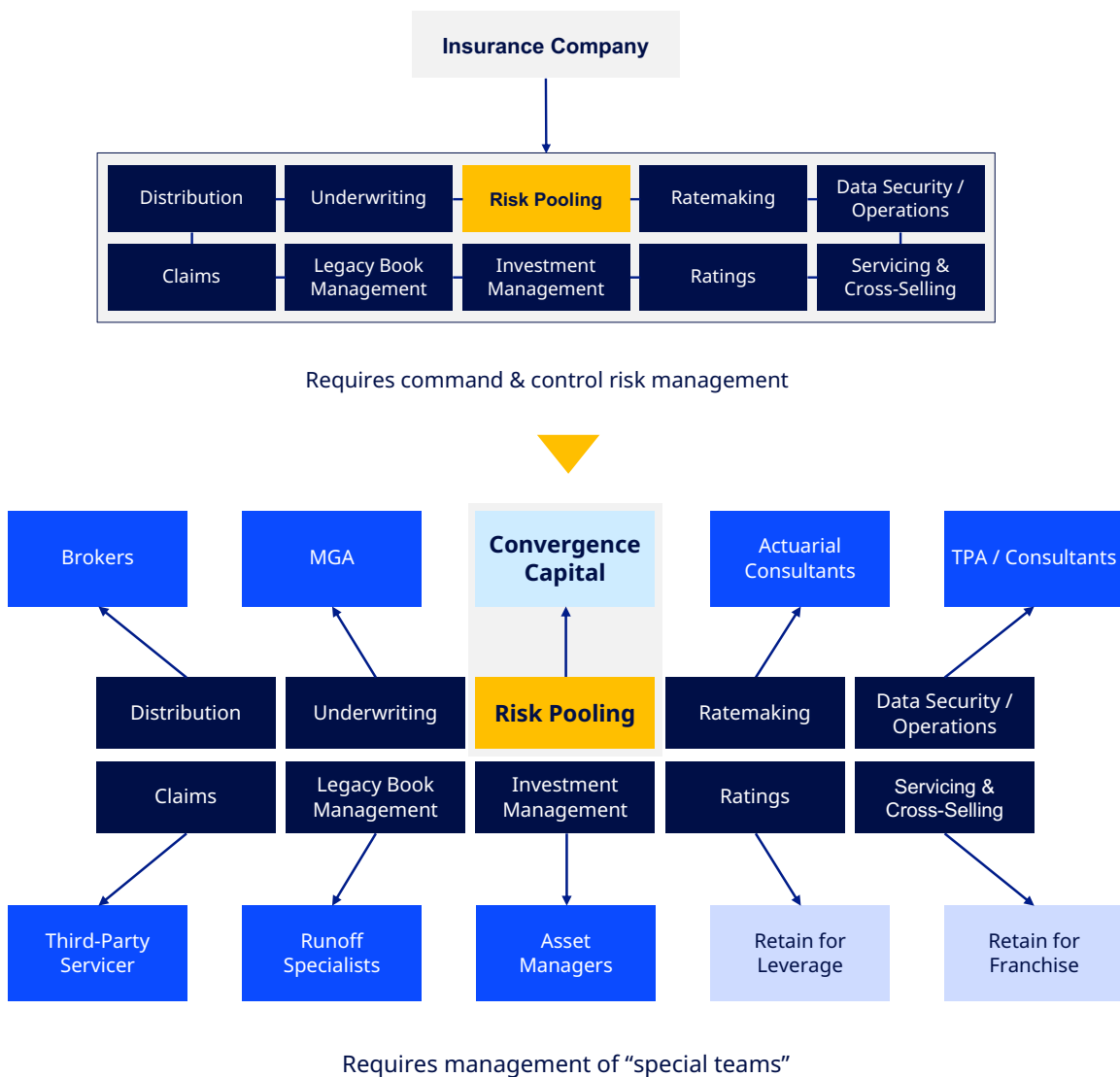
	Commentary
Manage P&L volatility/generate fee income	- The sidecar converts (by definition volatile) underwriting income into fee income - This reduces the volatility of the P&L bottom line and improves the ability to pay a regular dividend to shareholders - At the cedant's option, an extra profit commission can be tied to the performance of the collateral investment strategy, in exchange of a more risky collateral structure - A drawback is that the ceded margin to the investor reduces cedant overall profitability
Optimize internal capital allocation	- The sidecar reduces the capital requirements to write the business - This capital can be used elsewhere in the group, where increased return on capital can be achieved - It can also be used to lower broader capital requirements by optimizing the capital allocated to each LoB
Optimize cost of reinsurance	- By ceding a defined share of the outward reinsurance treaties of the cedant, a ceded re sidecar creates competitive tension with the existing panel of reinsurers - This is applicable only for a ceded re sidecar
Create positive equity story/enhance relationship with shareholders	- Shareholders tend to value fee income more than underwriting income resulting in greater book value multiples for cedants sponsoring a sidecar - Shareholders appreciate the due diligence performed by the investor on the reserves - Sponsoring a sidecar demonstrates the ability of the sponsor to engage with all forms of capital at strategic level

On the other hand, a number of risks come alongside these structures:

- **Basis risk:** The risk that the ILS payout may not perfectly match the insurer's actual losses if structured as an index.
- **Counterparty risk:** Exposure to the creditworthiness of ILS investors.
- **Complexity:** The structuring and ongoing management of ILS transactions can be more complex than traditional reinsurance.
- **Regulatory and accounting challenges:** Evolving regulatory and accounting frameworks for ILS.

The shift toward third-party (alternative) capital also has organizational consequences, consistent with the broader trends we have been seeing in the (re)insurance industry. As risks get ever larger, the traditional risk financing framework has been progressively evolving, from a "command and control" framework, whereby all functions are bundled within an insurance company, to a more "modular" model with greater external leverage. The "bundled" approach requires tremendous infrastructure and critical mass—size matters: the (re)insurer becomes an aggregator of all functions, with an "on balance sheet" model, which very few companies can afford.

Figure 9: Traditional risk finance framework versus emerging risk finance framework.



The “modular” model is more about “scalability” than “size”: size has never been a good proxy of performance in financial services and risk-bearing businesses. At some point, size brings diseconomies of scale, and deteriorating risk selection.

On the other hand, while scalable models bring dependencies, they allow to tap the best-in-class providers without creating an organizational burden and inertia.

IX: Conclusion

It would be foolish to predict the ultimate balance of traditional and alternative capacity. In the same way, approaching strategy in a deterministic way with binary outcomes is excessively risky: reinsurers might instead seek to maintain optionality, and position themselves in order not to miss potential market ruptures. And while the ultimate balance of alternative versus traditional sources of capital is not possible to predict, we know alternative capital will not go away. Its current share of 20% of the (re)insurance industry is probably largely underestimated, and current market conditions would lead to believe it will increase further before it stabilizes if not shrinks.

While most reinsurers have developed a third-party capital strategy, they have not fully structured themselves in the same way as banks have to trade risks. Most reinsurers would have a cat bond fund, but fewer would have a broader ILS platform. And even fewer would take an approach of being a nimble risk trader—able to partner with capital markets on the portions of risks that make most sense to be shared.

Most investment banks, on the other hand, would have trading desks, with varying degrees of risk taking, and take on risks on their balance sheets. The least nimble banks, which focused solely on on-balance-sheet lending activities, have faced severe competition from alternative asset managers, which engaged in direct lending.

There are fundamental differences between the ways banks and insurance companies operate, reflecting fundamentally different underlying risks covered: insurance risks are sticky, harder to securitize, and often more about fat tail events.

Yet, while history does not repeat itself, it rhymes. Reinsurers would often be well advised to look at how the broader capital markets are evolving to understand partnering with capital markets has long-term, structural value.

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Our experts bring together three key capabilities:

1. **GC Securities:** Our financing group, issuing catastrophe bonds and surplus notes on behalf of insurers and reinsurers.
2. **Capital & M&A:** Our insurance investment banking advisory group, advising clients on capital raising, and M&A transactions.
3. **Structured Solutions:** Our structured reinsurance broking activity, advising on prospective and retrospective reinsurance solutions, as well as life reinsurance transactions.

Guy Carpenter's Capital & Advisory teams are based in New York, London and Zurich. They provide strategic advice going beyond our core reinsurance broking activities, addressed to our clients' C-suite concerns.

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Laurent joined Guy Carpenter in 2023. He serves on the Guy Carpenter Executive Committee and the Marsh Senior Leadership Team. Before that, Laurent worked at SCOR, eventually becoming Group CEO. He started his career in insurance equity research at CSFB, then moved on to insurance investment banking at JPMorgan. A graduate of École des Hautes Etudes Commerciales in France, Laurent lives and works in London.



Appendix 1 – Combined ILS assets under management (AuM) (Source: Artemis)

Name	Location (HQ/domicile)	Date of launch	Assets*
Aeolus Capital Management Ltd	Hamilton, Bermuda	2006 (current status from 2011)	\$5.5 billion
Aizawa Asset Management Co., Ltd	Japan	Oct 2012	\$13 million
Alpina Fund Management	Luxembourg	1988 (formerly Falcon Fund Management Luxembourg)	\$56.6 million
Amundi US	Boston, MA, US	1928 (ILS inception in 2008)	~\$3.5 billion
Arch Underwriters Ltd.	Bermuda	2006	\$1.7 billion
Aspen Capital Markets	New York/Bermuda	Apr 2013	\$2.73 billion
AXA Investment Managers Paris	Paris, France	Sep 2007	\$1.035 billion
AXA XL ILS Capital Management	Bermuda	2013	\$1.1 billion
AXIS ILS	Bermuda	Dec 2013	\$1 billion
Azimut Investments SA	Luxembourg	Apr 2008	\$160 million
Cedar Trace ILS	Bermuda	Jan 2025	~\$500 million
Chard Re Investment Management	Bermuda	2019	\$420 million

Name	Location (HQ/domicile)	Date of launch	Assets*
Elementum Advisors, LLC	Chicago, IL, US	Dec 2009	\$3.8 billion
Embassy Asset Management	New Jersey, US	Ambassador Fund launched Q3 2021	\$701 million
Euler ILS Partners Ltd	Zurich, Switzerland	Nov 2003 (under Euler ILS Partners Ltd since October 2024)	\$2.1 billion
Fermat Capital Management, LLC	Westport, Connecticut, US	Aug 2001	\$9.9 billion
Gildenbrook Capital Management Ltd.	British Virgin Islands, Bermuda, Singapore	Jan 2021	\$850 million
Hampden Insurance Partners Management (Cayman) Limited	George Town, Grand Cayman	Oct 2014	\$697.6 million
Hiscox Capital Partners	Bermuda	Jan 2014	\$1.5 billion
Hudson Structured Capital Management Ltd.	Stamford / Bermuda	2016	\$3.38 billion
Icosa Investments AG	Switzerland	Jan 2024	\$1 billion
ILS Advisers	Hong Kong	Feb 2012	\$230 million
Integral ILS Ltd.	Bermuda	Jul 2020	\$3.5 billion
Jaffa Capital Management, LLC	Clifton, New Jersey, US	2022	\$350m
K2 Advisors	Connecticut, US	Jul 1994	\$283 million
Leadenhall Capital Partners LLP	London	Nov 2008	\$5.72 billion
Leine Investment	Luxembourg	Oct 2012	\$315 million

Name	Location (HQ/domicile)	Date of launch	Assets*
LGT ILS Partners Ltd.	Pfaffikon, Switzerland	May 2001 (LGT as from June 2012)	\$5.8 billion
Link Specialty Re, Ltd. (Link Re)	Bermuda	May 2013	\$40 million
Mt. Logan Capital Management, Ltd.	Bermuda	Jan 2013 for Mt. Logan Re; July 2024 for MLCM	\$2.5 billion
Nephila Capital	Bermuda	Nov 1997	\$7.7 billion
Neuberger Berman ILS	New York, Bermuda, and London	2009	\$3.3 billion
PartnerRe	Bermuda	Formalized third-party capital unit in 2020	\$1.1 billion
Perren Capital Management Ltd.	Bermuda	Nov 2024	\$300 million+
Pillar Capital Management Limited	Bermuda	Jun 2008	\$4.3 billion
Plenum Investments Ltd.	Zurich, Switzerland	Nov 2001 (2010 launched ILS/CAT business)	\$2 billion
Quantedge Capital Pte Ltd	Singapore	2011 (began investing in ILS)	\$550 million
Radix Insurance Linked Strategies (ILS)	Hamilton, Bermuda	2025	Not disclosed
RenaissanceRe Capital Partners	Bermuda	1993	\$8.24 billion
Resolute Global Partners	Hamilton, Bermuda	Jul 2011	\$270 million
Schroder Investment Management	London	Jun 2008	\$6.5 billion
SCOR Investment Partners	Paris, France	Sep 2011	\$5 billion

Name	Location (HQ/domicile)	Date of launch	Assets*
Solidum Partners AG	Zurich, Switzerland	Sept 2004	\$260 million
Stone Ridge Asset Management	New York	2012	\$10 billion+
Sussex Capital	Bermuda	Dec 2017	\$525 million
Swiss Re	Zurich	2007 (began managing capital via Sector Re sidecar)	\$5.1 billion
Tangency Capital Ltd.	London	May 2018	\$3.6 billion
Tenax Capital	London	2004 (ILS strategy launched in 2017)	\$175 million
Twelve Securis	Zurich, Switzerland and London, UK	2010 (Twelve Capital) and 2005 (Securis Investment Partners)	\$8.2 billion

*Note: Assets under management are prone to fluctuation so the figures here are either the best available or last submitted by included managers.

About Guy Carpenter

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