# Alternative capital and innovation in risk finance

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Insurance industry participants are exploring new methods of risk transfer. These methods have grown and developed in significant ways during the last two decades; they have the potential to provide financing for new classes of perils and to expand the overall scope of the insurance market by tapping the broader capital markets. Proponents argue that innovative risk finance can help match risk to capital more efficiently than traditional insurance/reinsurance contracts, and that these techniques could upend traditional insurance business models. Other leaders acknowledge that alternative capital has added capacity and flexibility, especially to the reinsurance and retrocession markets, but suggest that its impact is slight relative to the overall scope of the insurance sector. Improvements in modeling, pricing, transparency, and liquidity will be required for insurance-linked investments to have a significant impact on the overall insurance sector.

On March 5 in London and March 21 in New York, 2019, insurance industry leaders met to discuss alternative means of transferring and financing risk. In separate sessions, participants also discussed oversight of third-party risk and developments in China. (*See boxes on p. 7-8 and 10, respectively.*) This *ViewPoints* synthesizes these conversations, as well as discussions with participants held in advance of the meetings.

## Current scope and scale of alternative capital

The last two decades have seen the emergence of new structures by which insurance risk can be securitized and transferred to the capital markets. Catastrophe bonds (CAT bonds) were first issued in the 1990s, spurred by Florida's Hurricane Andrew, which caused $27 billion in damages, only $15.5 billion of which was covered by insurance.[1]

Since then, insurance-linked securities (ILS) and other forms of alternative capital have expanded, both in size and in the nature of perils covered. Current estimates of alternative capital vary, but analysts reckon that by late 2018, capital under management in ILS funds had surpassed $100 billion, with some pegging it as high as $150 billion.[2] Aon estimated in August 2018 that 16% of global reinsurance capital came from alternative sources.[3] Nevertheless, alternative capital still represents a small portion of an industry in which insurance gross written premiums globally stood at an estimated $4.8 trillion in 2017.[4]

In addition to growth in the amount of alternative capital deployed, recent years have seen other notable developments in the ILS market: addressing a broader range of perils, including life, motor, longevity, financial guarantee, operational risks, and mortgage insurance; playing a larger role in primary insurance; and increased geographic diversity. As a result, insurance-linked investments represent a much larger and more diversified component of the insurance landscape than they did when they emerged two decades ago.

## Current market dynamics

Several aspects of the current landscape in alternative capital emerged from the discussion, including the impact of ILS on reinsurance and retrocession capacity, the attraction of insurance risk as an asset class, and the impact of the heavy catastrophe losses of 2017-2018.

### Expanding options for (re)insurers

*"Overall, it's competitive capital and it takes the credit risk out of the equation."*

—Participant

The most significant impact of alternative capital has been additional capacity in the reinsurance market, resulting in increased competition. As IGLN members pointed out, the impact has been particularly strong in retrocession, as reinsurers are increasingly deploying it as part of their approach to capital management. S&P noted in late 2018 that "the retrocession market is increasingly dependent on third-party capital."[5] The expansion of capacity has exerted downward pressure on reinsurance rates. Even after two consecutive years of heavy natural disasters in 2017 and 2018, prices have not risen as much as anticipated. In January 2019, Swiss Re's CEO Christian Mumenthaler noted, "This is a sensitive area where the prices should go up but so far we have seen little movement after 2017."[6]

For insurers, insurance-linked securities provide attractive alternative options for laying off risk. One participant said, "*It's an alternative. We like the collateralized nature of it, which takes the credit risk out of it. Overall, it's competitive capital and it takes the credit risk out of the equation."* Reinsurers are feeling the effects of the expansion of alternative capital in reduced margins but are themselves able to tap third-partly capital to increase their capacity and optimize their portfolios.[7] Both insurers and reinsurers are deploying a mixed approach, tapping different sources of capacity for different risks. One participant suggested that *"the optimal business model is a traditional balance sheet, but also a third-party capital management program as well, which enables you to assess risks and put risks to capital that can best handle them."*

## New asset classes for investors

Insurance-linked securities remain attractive to investors, providing them with access to insurance risk in a way that allows them to be closer to a specific risk than they would by investing in the debt and equity of insurers. ILS offer high risk-adjusted returns relative to other fixed-income assets, while increasing portfolio diversification by adding risks uncorrelated to traditional asset classes.[8] However, if alternative capital begins to cover perils that have greater correlation with overall developments in the financial markets, such as operational risk, financial-guarantee risk, and mortgage insurance risk, institutional investors' appetite for ILS may lessen. There is also the potential for unexpected correlation—a major natural disaster may have effects that extend to the wider economy.[9]

## The impact of the losses of 2017-2018

*"The ILS funds need to better set investor expectations and provide education; there has been some investor exodus because of surprises arising from an expectation gap."*

—Participant

Industry observers and IGLN participants suggested that the major catastrophe losses of 2017-18 would dampen the alternative capital market. According to Aon, 2017 and 2018 were the costliest back-to-back years on record for economic losses due to weather-related events, estimated at $653 billion.[10] Over those same two years, insured losses across all perils stood at $237 billion, also a record.[11] Insured losses in 2017 were 163% higher than the average from 2000 to 2016.[12]

Despite the severe weather events of 2017, ILS funds reloaded at the beginning of 2018 and restored collateral trapped by those losses; the overall amount of capital in ILS funds increased. Nonetheless, "ILS fatigue" emerged among investors in early 2019, according to IGLN participants, and there is evidence of some investors exiting the market. One participant said, *"We were on a string of no large CATs having losses for 10 years, especially in Florida. So ILS investors had great returns over 10 years, and then saw large losses in 2017 and the same in 2018. Hedge funds wanted fast money, so they ran for the exits. Even pension funds were surprised by large losses two years in a row, even though they understood the risks better."*

Participants noted the importance of investor education in avoiding such surprises among investors: *"The ILS funds need to better set investor expectations and provide education; there has been some investor exodus because of surprises arising from an expectation gap."* The gap arises not simply from losses that ILS funds experienced as a result of 2017-2018, but the fact that rates did not increase significantly after those losses, much the same way that expanded capacity has dampened the reinsurance pricing cycle. ILS investors had been told that *"you'll see rates go through the roof,"* but renewal rates were

*"The question is, are the frictional costs greater or less than in a traditional insurance market?"*

—Participant

relatively flat. In this way, ILS funds have been the victims of their own success, attracting enough capital into the industry to keep renewal rates low despite two years of record losses. Indeed, some IGLN participants suggested that the losses of 2017-2018 would be salutary for the industry, as the losses might read to more rational pricing and impose some discipline on the market, which had seen some overexuberance after years of little to no losses.

## Potential growth in alternative capital

Proponents suggest that alternative capital can fundamentally transform the insurance-reinsurance value chain by providing a more direct connection between insurance risk and capital. But some participants questioned whether insurance-linked securities and other forms of alternative capital really represent a better or more efficient way to match risk to capital than the traditional insurance/reinsurance model. As one member said, *"I have the feeling that people are dreaming up something to sell, but is it a better mousetrap?"* Another participant, while acknowledging the idea that *"risk will flow where it is most efficiently absorbed,"* said, *"The question is, are the frictional costs greater or less than in a traditional insurance market?"* Another member suggested that what allows ILS to be more efficient is that they don't face the same legacy systems and costs or regulatory burdens as traditional (re)insurers: *"You could start a reinsurer tomorrow that could be as efficient or low-cost, except for regulation."*

Participants discussed both potential sources of growth for alternative capital and challenges that impede further development.

*"Today, it's difficult to plug certain risks into an ILS product—those longer-tail ones tend to reside on a traditional balance sheet because they would eat into an investor's return."*

—Participant

### Covering new perils and closing insurance gaps

Proponents argue that ILS are well-suited to provide cover for perils that traditional (re)insurers are reluctant to cover. It is unclear, however how strong the appetite is for these perils, particularly if highly correlated risks mean that they don't actually increase portfolio diversification. Moreover, certain risks are more conducive to securitization and transfer to capital markets than others, especially short-tailed risks that are well-modeled. One participant noted, *"Today, it's difficult to plug certain risks into an ILS product—those longer-tail ones tend to reside on a traditional balance sheet because they would eat into an investor's return."*

Cyber risk provides a good example. Cyber is often cited as a class of peril with significant potential for ILS, because there is a substantial protection gap because insurers have been slow to provide cover. However, uncertainty around how to model and price the risk raises challenges for investors. In addition, cyber risk could be correlated to other market risks, making it less attractive to ILS investors seeking diversification.

In addition to covering new perils, participants noted alternative capital's potential to expand insurance protection to geographies and market segments that lack cover. One participant asked, *"What about applying these instruments where the market isn't turning to us at all?"* Another participant cited the recent example of Cyclone Idai's impact in southern Africa, which caused over $2 billion in economic loses, according to the World Bank.[13] Very few of those affected had insurance coverage, the participant continued, noting *"a CAT bond would have been ideal there."*

## Trading insurance risk

Introducing secondary market liquidity and a mechanism for price discovery on different insurance risks could ameliorate some of these concerns and make long-tail or difficult-to-model risks more viable for transfer to capital markets. A marketplace for trading insurance risk could provide those features, but the development of such a market is very much in its early days. The goals of such a marketplace would be to facilitate price discovery; to create a clearing facility or mechanism (rather than relying on over-the-counter transactions); and, ultimately, to add capacity to the industry. Such a marketplace might, for example, address the issue of trapped capital by allowing investors to *"crystallize a loss and move on."*

Several questions emerged: could a new marketplace truly increase liquidity, add capacity, and open up new classes of risk? Could such a market accurately price risk in the absence of adequate models? Would there be enough buyers and sellers to create a market-clearing price?

## Shifting to originate-to-distribute raises concerns

The growth of alternative capital, combined with a marketplace for secondary trading of risk, could drive significant changes in insurers' business models. One participant said, *"Insurers could become originators and distributors of risk, rather than buyers and holders of risk."* Another member agreed: *"Risk originators could start to look more like capital-light models: They originate the risk, then they transfer it to capital and get paid a fee for doing that."*

This potential shift toward an originate-and-distribute business model raises concerns about systemic risks analogous to those created by widespread securitization of mortgages in the run-up to the financial crisis. One member said, *"This has all the characteristics of an accident waiting to happen."* Others argued that systemic risk is low because a very small portion of investor capital is invested in ILS funds. A participant suggested that the threat of systemic risk could be reduced by combining a marketplace with an integrated clearing mechanism or a structure akin to Lloyd's central fund to ensure that adequate capital is held to match the risk portfolio.

*"If the reinsurers struggle to write this, it's hard to see ILS being a better channel."*

—Participant

In addition to the potential for systemic risk, participants expressed concerns about separating those who originate insurance risk from those who ultimately bear it. In traditional reinsurance, the ceding insurer always retains a portion of the risk, ensuring alignment of interests. Any kind of originate-to-distribute model requires investors to increase their diligence on assessing the risks they are buying. As one participant said, *"The more you get into these exotic products, and if you have a manager with no exposure, you need extreme due diligence."* Another member said, *"The key is to make sure that there is no cherry-picking [of] risk—that you're not putting bad risk in the fund and offloading it to investors, while keeping the good bits on the cedant's balance sheet."*

## Obstacles to growth

The primary limit on the growth of the alternative capital market is a shortage of attractively priced and appropriately packaged risk, rather than a shortage capital to take it on. While sophisticated models exist for common perils, the lack of robust models for new perils such as cyber risk presents an obstacle for covering those risks, for capital markets investors as well as insurers. The question remains whether investors will be able to arrive at proper pricing. But insurance-linked investments ultimately depend on models in the same way insurers do. Another member commented, *"ILS was built on the backs of models."* So, as one participant said, *"If the reinsurers struggle to write this, it's hard to see ILS being a better channel."* Information asymmetry remains a concern, despite the fact that investors are sophisticated professionals. Are investors in ILS and similar vehicles fully aware of the risks they are assuming?

## Third-party risk management (TPRM)

The third-party ecosystem for insurers and other financial institutions is becoming more and more complicated, as the array of entities that organizations partner with has expanded. Insurers, in particular, depend on a vast number of third-party providers. One IGLN participant said, *"An insurance entity is a capital allocator—it depends on a horde of third parties and other institutions to get the job done. More than in many industries, insurance depends on third parties."* IGLN participants identified several critical aspects of managing third-party risk.

**Identifying and measuring the most critical risks.**

Faced with a large array of vendors, it is essential to identify which are critical to a company's operations and which pose the greatest risks. One participant suggested paying special attention to third parties that will pose bottlenecks or attract adverse reputational risks. Another emphasized third parties that may have access to the insurer's IT systems.

Establishing metrics to assess third-party risk is difficult. One participant noted, *"Historically, people looked at spend: Where you spend the most, it's the riskiest."* That may be true for operational risk, but with compliance, reputational, and conduct risk, companies can struggle to identify their most significant exposures. One participant noted, *"For us, it involves a precise identification of all the different relationships you have with entities and what risks those relationships can present. Trying to put a price tag on risks associated with those relationships is one of the hardest things we do."*

**Cloud providers and other information technology partners loom large**

The growing use of technology providers, particularly cloud providers, is a major factor driving the growth in use of third parties. One participant noted an example: *"In the last five or six years, there has been so much innovation around markets and products with sensor-based info, which brings in more third parties. There is data flowing between multiple third parties. How do you control that as an insurer?"* Proliferating data sources and the need to share data outside the organization heighten the risks of compromised privacy, cyber breaches, and the like. New privacy regulations make sharing data with third- and fourth parties even riskier since an organization is responsible for the protection and use of its data even as it flows across multiple third parties, raising the question on participant voiced: *"How do I know where my data goes? You can't really follow it."*

## Third-party risk management (TPRM) *contd.*

Participants agreed that the trend of outsourcing IT operations will continue, including the growing use of cloud providers. Moving from company-operated computers to the cloud brings an array of risks and requires sustained effort to manage. However, participants suggested that the potential efficiency gains and cost savings to be achieved from migrating from what one participant called *"disparate, out-of-date systems"* to a single, modern platform are compelling. There are also benefits to security, since major cloud providers are able to invest greater resources in cybersecurity. As one participant said, *"There is risk there, but less than where we are coming from."*

### Tactics for managing third-party risk

Participants discussed several ways to strengthen organizational capacity to oversee third-party risk effectively:

- **Developing new skills.** One participant said, *"It requires an entirely different skillset to manage third-party risk. We are trying to build a whole system for managing outsourcing that, if done well, will be a competitive advantage for us. To do this, we have to cover everything from procurement to monitoring to internal audit."* While oversight often lies with a centralized group, ownership of TPRM has to extend throughout business leaders and operating personnel.
- **Defining the board's role**. Boards are increasingly paying attention to third-party risk as part of their responsibility for risk oversight. Multiple directors reported receiving reports on TPRM at every board meeting—or at least every meeting of the audit or risk committees. One director said, *"The board has to evidence that it has done everything reasonable to protect client data."*
- **Easing the oversight burden**. Participants noted the burden that third-party risk oversight places on both insurers and their counterparties, as insurers demand increasing visibility into their many third-party providers, which in turn struggle to provide information to all of their clients. One participant said, *"It's unsustainable—we need to recognize that we are all depending on third parties and there needs to be a standardization of assurance coming from these providers."* One possible solution comes from the emergence of industry consortia that provide standardized risk assessments, although some participants pointed out the tension between a standard certification and the varying needs and expectations of companies and their regulators.

## The future of alternative capital

Whatever its exact scope and scale, it seems clear that alternative capital will remain an important mechanism for risk transfer in the future. A 2018 survey of Lloyd's managing agents, for instance, found that 80% want to see insurance-linked securities remain a permanent part of the insurance and reinsurance landscape, while 100% believed that ILS would expand to cover more risks over the next three years.[14]

> *Third party capital will keep coming into the business. It's not a static situation; lots of people are looking for ways to deploy money."*
>
> —Director

Although the current scale of alternative capital deployed is modest relative to the overall insurance market, there are vast amounts of capital that could potentially be deployed to cover insurance risk. One insurance broking and risk management firm estimated that in 2017, there were $1 trillion in pension fund assets alone that could potentially be allocated to insurance-linked investments.[15] In addition, J.P. Morgan Global Alternatives recently estimated that alternative investment managers and funds have $1 trillion in undeployed capital, for which insurance linked investing is one of a few attractive asset classes.[16]

Overall, participants agreed that the market would continue to be robust—as long as returns are attractive. Asset managers are looking for alternative ways to deploy capital in order to generate the returns their investors are seeking. One director said, *"Never underestimate the inventiveness of capital holders in finding ways to intersect with insurance. Third party capital will keep coming into the business. It's not a static situation; lots of people are looking for ways to deploy money."* But insurance-linked investments are subject to the same dynamics as any other investment, needing to generate returns high enough to justify the risks. As one member said, *"ILS money is more fluid and goes where it gets the better returns. If returns aren't adequate, then the money will go elsewhere. Whether risks are correlated or not, if the returns stink, the money will go elsewhere."*

## China and the West

The growth of China's economy has challenged widespread assumptions in the West about the incompatibility of capitalism and a one-party communist state. In fact, the Chinese leadership sees the market as *"a tool to sustain one-party rule."* To the extent that market reform has fostered economic growth and prosperity, it has enabled the party to strike an implicit bargain with the people of China that allows it to retain control.

As with internal market reform, China's leadership has accepted the rules-based trading regime that has been the price of its integration into the global economy in order to deliver economic growth and prosperity. Participants suggested that China will continue to support the current world system as long as it fosters party interests. An increasingly assertive and powerful China, however, is working to change the rules of engagement with the rest of the world. China sees itself as a great power in a bipolar world and has begun to exert its influence abroad. Nonetheless, China continues to depend on the current open trading regime for its growth; it cannot succeed in isolation. As one participant said, *"China needs us more than we need them."* This is in part to provide markets for China's excess capacity in many manufacturing sectors, and in part to provide a shortcut to more technological advances like those that have hastened China's growth as an economic power.

The key to China's future lies in its middle class, with its rising incomes and consumption power. Estimated at between 100 million and 800 million strong, one participant it called *"the greatest economic resource the planet has."* To retain power, the Chinese government will have to address the aspirations of this vast and growing middle class. It is unclear that the government will be able to do so without significant reforms.

# Appendix: discussion participants

On March 5 in London and March 21 in New York, 2019, Tapestry and EY hosted paired IGLN meetings on alternative capital and innovations in risk finance. In the meeting and in preparation for it, we conducted numerous conversations with directors, executives, regulators, supervisors, and other thought leaders. Insights from these discussions inform this *ViewPoints* and quotes from these discussions appear throughout.

The following individuals participated in these IGLN discussions:

## IGLN Participants

- Kerry Brown, Professor, Chinese Studies and Director, Lau China Institute, King's College London
- Jan Carendi, Non-Executive Director, Lombard International Assurance
- Bill Connelly, Chair of the Supervisory Board, Aegon
- Dante Disparte, CEO, Risk Cooperative
- Will Dove, CEO, Extraordinary Re
- Mark Ellman, Non-Executive Director, Aegon
- Arno Gartzke, Vice President and Director of Strategic Development, Global Reinsurance, Liberty Mutual
- Doug Johnson, Lead Director and Audit and Risk Committee Chair, Aflac
- Sue Kean, Former Group Chief Risk Officer, Old Mutual
- Tim Keaney, Risk and Finance Committee Chair, Unum
- Scott Kennedy, Senior Advisor, Center for Strategic and International Studies
- Joan Lamm-Tennant, CEO, Blue Marble Micro Ltd and Non-Executive Director, Hamilton Insurance Group
- Mike Losh, Audit Committee Chair, Aon
- Monica Mächler, Non-Executive Director, Zurich
- Roger Marshall, Non-Executive Director, Old Mutual
- Mike Morrissey, President & CEO, International Insurance Society
- Debra Perry, Non-Executive Director, Assurant and Genworth Financial
- Nick Prettejohn, Chair, Scottish Widows
- David Rule, Executive Director, Insurance Supervision, Prudential Regulation Authority (UK)
- Ted Shasta, Non-Executive Director, Chubb
- Eric Spiegel, Audit Committee Chair, Liberty Mutual
- Doug Steenland, Chair of the Board, AIG
- Bob Stein, Audit Committee Chair, Assurant
- Gregor Stewart, Audit Committee Chair, Direct Line
- Rolf Tolle, Risk and Capital Committee Chair, QBE

- Jillian Williams, Chief Underwriting Officer, Leadenhall Capital Partners
- Henri Winand, CEO, AkinovA
- John Young, Non-Executive Director, USAA

## EY

- Ed Majkowski, Americas Insurance Sector and Advisory Leader
- Peter Manchester, EMEIA Insurance Leader
- Matt Moog, Global Third-Party Risk Leader, Financial Services
- Craig Redcliffe, Partner, Financial Services Office Assurance
- Simon Woods, Global Head of Insurance Optimization

## Tapestry Networks

- Eric Baldwin, Senior Associate
- Jonathan Day, Vice Chair
- Anna Seleny, Senior Associate
- Simon Wong, Partner

## About *ViewPoints*

*ViewPoints* reflects the network's use of a modified version of the Chatham House Rule whereby names of network participants and their corporate or institutional affiliations are a matter of public record, but comments are not attributed to individuals, corporations, or institutions. Network participants' comments appear in italics.

## About the Insurance Governance Leadership Network (IGLN)

The IGLN addresses key issues facing complex global insurers. Its primary focus is the nonexecutive director, but it also engages members of senior management, policymakers, supervisors, and other key stakeholders committed to outstanding governance and supervision in support of building strong, enduring, and trustworthy insurance institutions. The IGLN is organized and led by Tapestry Networks, with the support of EY. *ViewPoints* is produced by Tapestry Networks and aims to capture the essence of the IGLN discussion and associated research. Those who receive *ViewPoints* are encouraged to share it with others in their own networks. The more board members, members of senior management, advisers, and stakeholders who become engaged in this leading-edge dialogue, the more value will be created for all.

## About Tapestry Networks

Tapestry Networks is a privately held professional services firm. Its mission is to advance society's ability to govern and lead across the borders of sector, geography, and constituency. To do this, Tapestry forms multistakeholder collaborations that embrace the public and private sectors, as well as civil society. The participants in these initiatives are leaders drawn from key stakeholder organizations who realize the status quo is neither desirable nor sustainable and are seeking a goal that transcends their own interests and benefits everyone. Tapestry has used this approach to address critical and complex challenges in corporate governance, financial services, and healthcare.

## About EY

EY is a global leader in assurance, tax, transaction, and advisory services to the insurance industry. The insights and quality services it delivers help build trust and confidence in the capital markets and in economies the world over. EY develops outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, EY plays a critical role in building a better working world for its people, for its clients, and for its communities. EY supports the IGLN as part of its continuing commitment to board effectiveness and good governance in the financial services sector.

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# Endnotes

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