

GR GLOBAL [RE]INSURANCE

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REINSURANCE 2030

Global Reinsurance celebrating seven years of partnership in association with the Dubai International Financial Centre Authority



Special report of a roundtable debate hosted by Global Reinsurance at the Monte Carlo Rendezvous-De-Septembre 2019. Written by David Benyon, Consulting Editor, Global Reinsurance.

Reinsurance 2030

The global re/insurance sector is in tremendous flux. The sector is undergoing a period of unprecedented innovation, disruption and consolidation. The insurance business is facing new risks and opportunities, new rivals to its traditional business models, emerging threats and emerging markets. Technology is among the most significant drivers changing the landscape.

The transformational impact of technology is already being felt. And everybody wants to glimpse what the future will look like, once the tectonic plates have shifted, in order to do the right things in 2020, and position organisations' business models for the long term.

That's why at this year's Monte Carlo Rendezvous-De-September, the biggest meeting of minds in the global reinsurance calendar, Global Reinsurance and the Dubai International Financial Centre wanted to get beyond talk of renewals pricing and capacity deployment and convene some of the sector's leading thinkers around a table to discuss the many threads that together will continue to weave new patterns, trends and developments for the future of the re/insurance sector.

Underwriting transformed

"We have a saying that the underwriter is dead but long live the underwriter," said Jonathan Spry, Co-founder and CEO, Envelop Risk Analytics, using artificial intelligence (AI) for cyber risk reinsurance. "Everything we do with machine learning and artificial intelligence involves the underwriter as part of the model development process. Some people refer to it as augmented intelligence rather than black box."

He thinks part of the problem at present is a communications barrier between underwriters and technologists in the sector.

"We believe that the underwriting has a very bright future if technology can enable the underwriters," Spry said. "The only way you can bring those together is in a sort of partnership model, which is why we work with MS Amlin, rather than trying to adopt software as a service or sell our technology elsewhere."

Both underwriters on the managing general agent's (MGA) Bermuda team are actually actuaries by trade performing an underwriting role, fulfilling a technical hybrid role combining skills from both disciplines.

"We tend to want to use underwriters who are very technically skilled, and can interface with data scientists," he said. "What we want is a proprietary tool, which is underwriter based, and uses the machine human loop, and if you like, constantly updating and constantly asking the underwriter to help steer the ship as well, and to be informed by what the data is telling them."

According to Spry, while consumer facing business are already data driven and will be mostly automated, the

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Jonathan Spry, Envelop Risk Analytics

nature of specialty business will remain more reliant on underwriting, but lean on big data, analytics and AI to overcome the gaps in data and radically expand the possibilities.

"I'm open to the idea that personal lines can be completely automated, with some level of checking, but I think specialty underwriters will remain specialty underwriters," Spry said.

"It's the volume of data, which even if an underwriter had access to it, what could they do with it without AI? Underwriters will have the opportunity to do a lot more if they're given a new toolkit, which includes AI. Some of what human minds have been doing is very similar to what AI can do, just that AI is on a much grander scale," he added.

For David Piesse, chief risk officer and advisory board member at Guardtime, based in Hong Kong, it's all about data. He's interested in the "exponential potential" between Blockchain and AI, and thinks distributed ledger tech will bring major benefits for underwriters.

"AI has to make Blockchain sometime," Piesse said. "It will provide benefits from using trusted data and having data integrity. You can do data-driven underwriting, and without data-driven underwriting, we struggle to underwrite those emerging and intangible risks which are so important to the future of the sector, and the securitised data assets for investment portfolios, that can only be achieved that way. Data-driven underwriting is my pitch," he added.

Simon Burtwell, Partner Insurance, EY, emphasised his company's experience working with data sensor on container ships, linked to blockchain. "If you've got 40 sensors live-streaming data you know exactly what's happening onboard ships," said Burtwell. "You have the same on aircraft, which massively changes the ability to underwrite effectively. That means the way in which we've traditionally

underwritten and the products based around it are going to change, because when you have real-time data you will get to the point when people no longer want an annual concept, but use-based products."

Preventative risk mitigation measures are also made more possible by the data-driven switch to use-based covers, most notably through Telematics and the Internet of Things, encouraging the insured to change their behaviour, becoming less risky in turn.

"One of the roles of the insurance and reinsurance market is to put a price on risk, and once we're doing that real time, you can also begin to affect behaviour," said Greg Richardson, chief risk and strategy officer at Trans Re.

"This kind of technology will contribute to public safety in a profound way, making driving automobiles safer, for example, because once people are monitored all the time, it affects you behaviour," Richardson said.

Matthew Fosh, chairman of Axis Capital in Europe, summed up these developments by seeing what he called a "creeping up the value chain" of more sophisticated data capture, which is getting closer and, in some cases, already changing specialty insurance and reinsurance business.

"We've had data driven underwriting for decades," Fosh said. "We've got to honest about what's specialty and what's not. It's a process that's been underway and we've struggled to make that leap, established 30 years ago in the UK market by RBS and DirectLine, with the underwriter grasping and analysing data from a widening field."

"We're gathering more sophisticated data and being able to do more AI-inspired underwriting. But maybe it helps to see it in that way, and that we're seeing is more sophisticated data capture allowing us to underwrite further up the value chain, until it gets to that very top 10%, when it'll always need more of a human interface," Fosh added.

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Matthew Fosh, Axis Capital Europe



Reinsurance 2030: what will it look like?

GR commissioned a study in association with DIFC to ask what the re/insurance sector will look like a decade from now. Of more than fifty responses, a third came from reinsurers, another quarter were brokers, and the remainder was made up of primary insurers, industry group representatives and other services firms.

What will be the biggest forces of disruption? The data-driven technology giants – the likes of Amazon, Microsoft, Facebook, Google and Alphabet – perhaps predictably topped the list. However, for a reinsurance-focused perspective, alternative, third-party capital and collateralised reinsurance were a close second.

Peer-to-peer Insurance startups, such as Lemonade, were down in fifth place, below conventional “slow to respond” re/insurance companies on the radar. “Every mutual is essentially peer to peer,” wrote one respondent. “Lemonade is wasting a ton of money to gain a small share of consumer data.”

When asked which links of the risk transfer chain are most vulnerable to the forces of disruption, traditional reinsurance underwriting came out as most threatened, along with legal services. Reinsurance broking was labelled as third ranked in vulnerability to disruption. Primary insurers and consultants selected reinsurers as at greatest risk, while reinsurers tended to label legal services under threat.

All classes of business have their own characteristics, meaning some might be riper for disruptive than others. Respondents thought property, terrorism and business interruption covers were susceptible, followed by marine lines. Intangible risks such as cyber and reputational risk followed, then casualty/liability classes, such as D&O and financial lines.

Asked which lines are set for rapid growth, respondents – somewhat

predictably – picked intangible classes, such as cyber and reputational risk crises, for the greatest potential expansion. Next came property, terrorism and business interruption, followed by financial lines, then aviation and aerospace.

After several years and several waves of re/insurance broker mergers and acquisitions (M&A), the study asked whether we can expect more to come. More than 70% of respondents thought so. The remainder thought not, or that such trends are cyclical, mega-brokers creating demand in turn for smaller brokers.

Almost two-thirds of respondents agreed more mergers are due among re/insurers. The remainder thought it had already happened as we go into 2020, and that remaining smaller players are necessary for market competition.

Technologies driving change in reinsurance and reinsurance broking were led by Big Data, followed on the underwriting side by machine learning and artificial intelligence (AI), and on the broking side by cloud computing and software as a service.

While technology is a major driver of change in the re/insurance sector, plenty of other factors are in the mix. Asked to rank which non-tech drivers are prominent, respondents picked climate change first. Second-most came politics and regulation, followed by convergence with other financial markets.

For commercial lines primary insurance business, big data, followed by machine learning and AI, and then predictive analytics were ranked as most likely to transform business. Distribution is expected to be disrupted primarily by mobile devices and smartphone apps, followed big data, and then the cloud.

Respondents expected claims to be transformed foremost by big data, followed by AI, followed by robotic process automation.



Property just cruising

From a broker's perspective, Marc Beckers, Head of EMEA and a partner at TigerRisk emphasised the high costs still required to make the technology work. He also questioned why AI is cropping up for specialty lines such as aviation and cyber instead of the core reinsured lines of business.

“Nobody is talking about the line where the margins are highest from a reinsurance perspective, which is property catastrophe business. Why can't we get AI for that business right?” Beckers asked.

“Reinsurers and brokers make most of their revenues on property cat, and we still haven't figured that out. Instead we're looking at cyber and aviation for AI and blockchain, which is fantastic, but not in the places where reinsurance is most prevalent and most modelled. For me, that's puzzling,” said Beckers.

Yet little has changed for the huge property cat placements, he explained. Richardson agreed with this sense of frustration, asking why despite the riches of property-related data available, more has not been achieved already.

“It's remarkable to me that despite the rise of satellite imagery, Google cars driving around photographing the world, that there is no universal database of every single property, and I

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Marc Beckers, TigerRisk

don't know why that hasn't emerged,” Richardson said.

The only answers to why such an asset register has not emerged, the panellists agreed, are a mix of self-interest and that there is “simply too much money to be made” without having to focus on transforming the business. Industry-wide initiatives, such as B3I, have fallen into this trap, because property is so intensely competitive, panellists thought.

On the other hand, classes such as aviation and energy have been under intense pricing pressure, but this has resulted in innovation, emphasised Laurent Lemaire, founder and CEO of Elseco, the Dubai-based aviation, power and satellite insurance MGA.

“They were barely profitable, and we had to find ways to access the business more cheaply, get more information and transform it,” Lemaire said. “We're not the property cat guys, but possibly the property cat money has been too easy, so they've enjoyed a profitable life just by cruising along.”

Aviation business has meant a focus on big data for Lemaire to gain a competitive edge by gaining a better understanding of the risk. “So now, we're following 140 million flights, all the runways, all the airports, all the middle points, everything, in order to have a better view than the rival underwriter who's renewing that business based on a four page PDF document,” he said.

Claims transformed

Claims represent one area slated for technological transformation which might benefit by being less competitive in nature. Fosh highlighted the importance of making efficiencies, cutting the expense ratio, which has been a drag on the Lloyd's market in particular.

“There are going to be many claims, just like there are underwriting risks, that are very similar and can therefore be commoditised with a technological solution to get the cost down,” he said. “For the average insurer or reinsurer, whether you settle an individual claim



for \$70,000 or \$70,500 is really not very important, relative to your ability to manage claims as a commodity.”

Several technologies, developed separately, are converging to help manage claims more efficiently. Optical character recognition is a basic form of robotics to help automate how claims forms are read. Drone technology and the commercialisation of space for satellites market have enabled greater imagery to serve loss adjustment.

Blockchain has the potential to automate the messaging and settlement of claims data between counterparties.

Beckers notes that while there is no shortage of data, it can be a struggle to determine which data are more relevant than others, which again puts the onus on technology to sift through huge volumes of information at a speed to stay relevant.

“And that's where I would machine learning,” Spry said. “We're data hungry, so if we had 1,000 times as much data to work with, the AI would still find a way to manage it. We're maybe five years away from commercially viable quantum computers, and when that happens, nobody in the insurance industry will worry about having too much data to work with.”

Risk landscape shift

The risks being underwritten in the next five to ten years are expected to change dramatically. Intellectual property (IP), reputation, cyber risks and business interruption (BI) - all of which are intangible - are expected to transform the risk landscape. Some 84% of the value of the S&P 500 of leading listed US companies, or \$21trn, is based on intangible assets.

“If we're looking at 2030, property cat is not going to be the big risk in ten- or 20-years' time. Of course, it isn't going to disappear, but the big new risks faced are those created by the new age economy,” Fosh said.

“That is all about IP theft, reputational harm, non-damage BI, and other intangibles. Non-damage BI is going to be the biggest capacity risk I think we have in ten- or 20-years' time. That is the story of the generation. Technology, all the forensic accounting and the system interrogation needed in that value chain, are going to be technology-driven, because otherwise we won't understand the risks at all,” he said.

The frustration among many multinational companies and their asset manager owners is that the re/insurance sector has not offered



solutions to the huge intangible risks they have within their businesses.

“They’re screaming out,” Fosh said. “They’ve got all their all these companies they own and this massive risk implicit in what they do, but they can’t protect it, and we’re not really offering a solution yet.”

David Piesse noted that the history of the re/insurance sector is built on bricks and mortar but agreed that its future is increasingly based on IP, highlighting Asia’s growth markets. “With 1,000 patents a week coming out of China, it’s going to be a massive,” he added.

Beckers noted the importance of regulatory risks, whether due to accounting standards changes or initiatives relating to climate risk and environmental, social and corporate governance (ESG).

“I agree that intangible risks are big, but there are other risks which are very hard to put AI on, such as regulatory risk. “Accounting, ESG and regulation are going to determine which products you want to sell, how you want to sell them, and what the impact is, and that has nothing to do with data, and with real economic growth.

Spry suggested that physical and intangible risks are becoming increasingly interlinked as we get

nearer to the insurance landscape of 2030, due to legislative as well as technological changes.

“Look at how autonomous vehicles are going to transform the auto insurance market. It’s over a year since the law passed in the UK, for example, giving a reasonably clear of where the liability is going to lie. I think it’s this collision of the real world and intangible world that the insurance industry needs to get its head around,” he said.

For those firms keen to innovate, specialty insurtech may turn out to be an easier sell than the retail distribution sort, which aims to convert sceptical buyers through consumer experience.

“Most people hate buying insurance. They view it as a tax and having to download an app is unlikely to change that. You don’t have that problem in specialty; what you have is the desire to underwrite more and more,” said one roundtable participant.

“What we really need is a bigger insurance industry, which manages its capital better, and links technology to capital, so that it can underwrite more. I think the biggest problem with the insurance industry is the protection gap, of not insuring enough around the world,” the participant added.

This report is published as the period of the industry’s major international conference events for 2019 draws to a close. The Singapore International Reinsurance Conference recently emphasised a theme of “winds of change” blowing through the industry. For some, unable or unwilling to adapt for the future, they are headed into a storm, and for others, those re/insurance firms embracing change, the gusts will provide trade winds will be advantageous.

“We’re lucky in this industry, because we can still adapt and make choices at this point,” said Piesse. “In contrast, just look at retail banking, which has nowhere to go and has faced real disintermediation. To sum up with a quote from William Gibson: ‘The future has already arrived; it’s just not evenly distributed.’” ■

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David Piesse, Guardtime

Global Reinsurance wishes to thank the Dubai International Financial Centre Authority, without whose welcome support such roundtable events and reports would be impossible.

We also wish to show our gratitude to all the Reinsurance 2030 roundtable participants for their precious time and unique insights. A full list of the roundtable participants is included below.



David Piesse, Chief Risk Officer and advisory board member, Guardtime



Greg Richardson, Chief Risk and Strategy Officer, Trans Re



Greg Carter, Managing Director, Analytics, AM Best



Jonathan Spry, Co-founder and CEO, Envelop Risk Analytics



Laurent Lemaire, Founder and CEO, Elsec



Matthew Fosh, European Chairman of Axis Capital



Marc Beckers, Head of EMEA, Partner, TigerRisk



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