

# FALLING DOMINO THEORY

**Simon Burton**, CEO of Greenlight Re, says re/insurers need to adapt to the changing world of risk

Imagine a scenario where individuals are exchanging paper documents to complete a deal; an entire industry of (primarily) men running around the city with briefcases stuffed with paper.

If you squint at that sentence you might mistake it for a recent-day description of re/insurance in the City of London. In fact, I'm describing the stock clearing mechanism of Wall Street in the 1960s. The multiple pressures of theft, fraud and inefficiency led to steady progress over the following 25 years as technology helped to usher in centralised clearing.

On the trading side, while many decisions today are made by humans, it is increasingly common to see artificial intelligence-powered black boxes executing trades with minimal human input. There is no doubt that the re/insurance industry is a long way behind our financial markets cousins in embedding readily-available technology in our day-to-day work.

Are we behind for good reason? We may claim that many classes of re/insurance business lack homogeneity of risk, but the complexity isn't all that different to evaluating the relative merits of Nike and Reebok stock. We feel on firmer ground in our claim that conforming to patchwork re/insurance regulation is complex and costly, although the public securities markets seem to freewheel through their regulatory burdens.

Perhaps the difference is that the public markets have large specialist firms that serve either as market makers providing liquidity or prime brokers to provide leverage and security, whereas our approach is to house these functions within each rated balance sheet.

Approximately 40% of every insurance premium dollar is absorbed by the expense chain, with 60% repaid to policyholders and, despite this, many of us still struggle to deliver a healthy return to shareholders. Surely that indicates an expense efficiency problem. The solvable problems don't stop there however: the 60% of premium that is repaid doesn't always go to the right recipients, with fraud continuing to play a major role in some classes.

Our inability to tackle these issues has created the condition where we are not only ripe for disruptive innovation but it may even be necessary for the survival of the industry.

So what forms will disruptive innovation take?

## Taking the path of least resistance

The simplicity of fund mechanisms where collateral is provided up to policy limits has neatly side-stepped much of the expense that rated companies carry. Their structure looks a lot like an attempt to emulate the public markets, with a focus on risk assessment instead of balance sheet leverage, and the attendant increase in regulatory and

rating agency oversight.

A fund investor can pick the investment leverage that suits them and arrange it externally quicker and cheaper.

The property cat class was the first to fall: rated reinsurers and their broad policy form are hanging on by acting as a transformer to the funds, but as the collateralised policy form becomes more appealing that "transformer for fees" role will become tenuous.

It's beyond doubt that rated reinsurers have lost all pricing power in the class – Exhibit A being the barely-better-than-flat cat renewals following record cat losses in 2017.

Collateralised funds have also succeeded in writing other specialty classes such as terrorism, and they are working hard on rolling collateral mechanisms to facilitate longer term casualty risk. Which dominoes will fall next?

## Focus on efficiency in the expense chain

Let's be clear, there is a role for re/insurance intermediaries. I'm just not convinced that it permanently entails making personal introductions and paying for customer entertainment. Expense efficiency is going to require much less duplication of effort: for example, teams of analysts at every reinsurer that identically perform data scrubbing and baseline analytics.

Intermediaries are well-placed to own centralised analytics and distribution, enabled by widespread use of platform placement. While this direction presents obvious operational headaches for intermediaries, there is peril in delaying; if they choose not to lead then somebody else will. Notably, Placing Platform Limited (PPL) is gaining support in Lloyd's by offering a digital framework to support risk placement from marketing to contract execution. I applaud Bronek Masojada's efforts to accelerate the adoption of PPL in Lloyd's, surely the last bastion defender of our traditional roots.



Technology-driven improvements in fraud control will benefit both the claim and expense side of the equation, but perhaps more importantly, will improve customer experience universally. A quick determination of claim validity means a less painful process for most claimants and may go some way to addressing the negative public perception that insurers spend too much time looking for ways to deny coverage.

### Technology that mitigates losses

There are many areas of work in innovation that are focused on improving welfare and products, some of which may have a significant impact on the re/insurance industry. Autonomous driving pioneers insist that vehicle-related injuries would plummet if only humans were kept away from the controls. Adoption is admittedly a challenge – bungee jumping might also be safer than driving a car, but it certainly doesn't feel safer.

We can assume that one day the best marketing minds will be brought to bear on selling the public on autonomous cars. But if we're confident in eventually solving autonomous cars, then autonomous boats are an easier problem. Surely the scenario of beaching a cruise ship on a reef or a major marine collision will soon be all but impossible. Less obvious perhaps is the proliferation of sensor technology that has the potential to make workplaces safer. If a suite of sensors costing \$2,000 can reliably detect liquid spillage and prevent workplace slips and falls, then underwriters are all going to be sharpening their workers' comp/EL pencils.

In many cases the hardware itself is relatively ancient – RFID tags, video, wearable devices, heat and moisture sensors etc. – so the barriers are those of agreeing hardware standards, data collection and advances in software to make sense of the data. Many companies are busy working on solutions in these areas. In the medium term, pricing inertia may help underwriting results as the risk in some classes improves rapidly, but over time the size of the pie will surely steadily reduce. This effect isn't new – we have seen technology improvements for 20 years in aviation that has just about propped up insurance profitability.

On the flip side, product liability may become more prominent as blame shifts from human error to tech failure. Sadly, advancements in technology also seem to expand the arsenal of tools for the bad guys before we find ways to contain the threat. Even today, we have little defence against the detonation of a nuclear device and that technology dates back over 70 years. Instead, we focus on containment of knowledge and nuclear material. I therefore expect that tech advances will fuel growth in cyber security and terrorism insurance classes.

As risk experts we may need to ask ourselves whether

entirely deferring to other industries, or the state, on risk mitigation is a defensible position – for example, in cyber and terror. Now may be the perfect time to broaden our risk financing focus to include risk mitigation.

### Making random events predictable

Almost every cause of loss, from distracted driving to terrorist acts, would seem much less random if only we had better data. The fact that so much that happens is beyond our predictive capabilities is what props up the demand for insurance products.

If uncertainty is the re/insurers' friend, then what will happen as the world seems increasingly less random? There are noble attempts by states and regulators, particularly in healthcare, to support the rise of medical technology to predict and prevent disease on the one hand, and on the other to disallow the transfer of that information to insurance carriers, for obvious reasons.

As it becomes harder for insurers to ignore that health problems aren't random after all, the role of market-driven risk financing in healthcare will likely diminish.

“Collateralised funds also have succeeded in writing other specialty classes such as terrorism”



Other sources of risk don't carry the same privacy concerns – for example, the earthquake peril. Predictive tools are improving, and the only question is how long they will remain sufficiently bad that earthquake is an insurable, i.e. 'random' risk? If, for example, technology advanced to the point that we could predict with 90% accuracy which fault line would slip in which decade, you would expect widespread property revaluation. So will mortgage classes become the new property cat?

### The big opportunity

Ask a millennial how they feel about a career in insurance and you're likely to get a tepid response that's formed in part by a perception that we're stodgy and lack diversity in our workforce, and in part reflects disdain for their experience as insurance consumers. It's jarring to go from managing your social life on various phone apps and then having to buy insurance by calling an agent who emails forms to print and sign.

Our industry has a great opportunity to use tech to transform the customer experience, whether by app at point of sale, or by efficient and simple claims processes. At the same time, we may be able to realign ourselves with the customer by using new-found data capabilities to embrace risk mitigation instead of helping us to decide which policy to non-renew. Risk pooling was a brilliantly simple idea over 300 years ago and I'm hopeful that the industry will embrace the disruptive challenges it faces and will choose again to lead the process from within.