3. Building greater resilience

3. Building greater resilience

Providing products and services for customers' risk needs over the medium term

COVID-19 has highlighted the limitations of both business resilience and traditional insurance products.

From traditional physical damage business interruption policies, through to motor vehicle, public liability, employers' liability and directors' and officers' insurance, customers are re-evaluating their risks in light of changing business practices, and the effectiveness of the protection offered by their insurers.

Specifically, Lloyd's research identified four main areas customers wanted insurers to provide new or different solutions for:

- More flexible insurance cover for a more volatile business environment
- Ways to increase the resilience of their global supply chains
- In-depth assessment and protection from cyber risk exposures
- Protection from digital economy liabilities

The global insurance industry must respond urgently to customers' changing needs. If it doesn't it risks losing customers who could seek to establish or increase their use of self-insurance through captives, or not buy cover at all.

Flexible coverage for a more volatile business environment

With levels of output varying significantly as firms ramp production up or down in response to government restrictions, and with others adopting more flexible business models, many industries are experiencing changes to their insured risk exposures.

Other businesses that have been forced to stop operating altogether, and for whom risk exposure has fallen considerably as a result, are questioning the value they are getting from their annual policies, which may not take this change of circumstance into account.

As a result, customers are seeking more flexible coverage with dynamic risk-pricing that reflects their real-time risk profile.

Although some insurance policies often include a component based on use – in aviation and employer liability/workers' compensation, for example - customers could seek coverage that adapts to varying exposures, possibly in near real-time, in more areas in the future. This could be offered through increased use of internet of things data (e.g. from sensors, telematics, mobile phones etc.), the provision of more on-demand policies, or simply by adding variable components to existing cover.

Case study

Emerging sectors like the sharing economy are already driving demand for flexible coverage[4]

There is already significant demand for more flexible insurance products - not least from the sharing economy.

In 2018 Lloyd's estimated that approximately 500 million people across the US, China, Germany, France, the UK and the UAE have shared their assets, possessions, or services in the past three years to earn a profit.

Post COVID-19, the landscape for the sharing economy is increasingly complex, with COVID-19 affecting user demand and risk profiles.

For users, the protection afforded by a sharing economy platform is a key consideration, in addition to the earning potential on offer. A growing number of platforms are therefore implementing mechanisms to protect their users, including guarantee schemes or insurance cover automatically embedded in transactions. Over the past three years, 57% of adults who have sold services or lent products in the sharing economy have been insured by transaction-embedded or personally owned cover.

3. Building greater resilience

Providing products and services for customers' risk needs over the medium term

Increasing global supply chain resilience

The COVID-19 pandemic has exposed the vulnerability of the global supply chain, with many industries, including automotive, manufacturing, consumer electronics and food, significantly impacted by the near total shutdown of goods transportation.

This global supply chain has worked well under regular conditions, but the pandemic has exposed its shortcomings. This is in part because from a cost-benefit perspective, companies have tended to prioritise cost (e.g. manufacturing) and speed (e.g. the food sector) above the potential risks associated with border closures and transport restrictions. Political tensions and border closures throughout the crisis have added further complexity.

As a result, businesses are now looking at the resilience and diversification of their supply chains, with some companies onshoring, near shoring or dual shoring production to increase flexibility and robustness.

While there are practical steps they can take, customers need insurance solutions that offer greater supply chain resilience and stronger protection against interruptions. For example, manufacturers may look to ensure their supply chains maintain comparable levels of risk management and insurance cover to their own.

Supply chain cover does exist today but can be complex to underwrite and costly to insure. Insurers need to develop a wider range of solutions that can fulfil this growing need, but to do this they will need the data to understand the networks that exist and the risks to which they are exposed.

Case study
Supply chain disruption in the auto and construction sectors[5]

Even in countries where restrictions are easing, manufacturers are still facing challenges. For example, the Nikkei Asian Review reports that China's auto industry remains stuck below 40% of production capacity, even with most of the plants back online, with parts shortages slowing production. Construction is also experiencing significant supply chain constraints, particularly from supply chains in China (e.g. 30% of US building products are imported from China), with liquidity and cashflow implications (e.g. from contract delays and associated penalties).

3. Building greater resilience

Providing products and services for customers' risk needs over the medium term

Protection for new cyber risk exposures

Businesses, employees and consumers are rapidly adopting new technologies to support different ways of living and working during the pandemic, and after lockdown ends. Whilst some industries will return to onsite working as before, many employers and employees will incorporate new ways of working in the future (e.g. more people remote working or transacting more business online).

This is changing and increasing their risk exposure, particularly cyber risk, making cyber security and data protection even more important for businesses. Cyber-attacks have increased since the pandemic began, with misuse of data becoming more prevalent as employees access sensitive data and systems via insecure networks or devices, and an increased volume of network traffic places a strain on businesses' infrastructure.

Customers, therefore, will need new solutions from brokers and insurers to assess, mitigate and transfer their growing cyber risk effectively. To cater for this need, the insurance industry will have to build on its already strong cyber offering by creating new solutions suitable for a greater and more dispersed cyber threat.

Case study

The changing cyber risk profiles of businesses

As businesses adapt to remote ways of working, their employees are increasingly making use of web-based video conferencing, file-sharing, home computers and private internet connections for sharing potentially sensitive information. Following the introduction of lockdown restrictions in the UK, peak internet traffic increased by approximately 17%, and hacking and phishing attempts rose by 37%.[6] The scope of these businesses' cyber risk has increased significantly, raising questions about the effectiveness of their cyber security. Brokers are already responding by advising customers on their changing risk profile.

Protection for new digital economy liabilities

Businesses are increasingly adapting to and taking advantage of digitised environments. This is a longstanding trend, with intangible assets comprising more than 80% of businesses' value today compared to just 32% in 1985 [7]. The speed of this shift is accelerating as a result of COVID-19, with digital transformation now taking weeks rather than months or years in some cases.

Primary industries, such as mining, whose production has been halted by lockdown restrictions, may make greater use of automated vehicles and machinery in future, with corresponding liability likely to shift from these businesses and their employees to the vehicle manufacturers. This rapid transition to digital working is potentially changing the risk profiles of businesses across the value chain.

Customers need insurance solutions that offer protection against the intangible risks and liabilities that derive from doing business digitally, and that more accurately reflect their assets and operations. While liability protection is well established, its development and customer support must match the increasing pace of evolving liability risks.

Case study

Digital liability in healthcare

Non-critical healthcare has digitised at a rapid rate in many countries with medical consultation and prescription services often carried out remotely. The prevalence of digital services (i.e. e-dispensing and delivery, e-consultation) varies by country. For example, Rwanda has leapfrogged more developed nations by developing specific solutions for acute issues, such as blood delivery using drones [5]. However, liability and risks associated with digital services, including virtual consultations and e-dispensing, are not well understood, are not uniform across the industry and are being interpreted differently by different firms. Some companies accept full liability just as they would for an in-person consultation; others assume little to no liability.

3. Building greater resilience

Providing products and services for customers' risk needs over the medium term

Creating new solutions for new risks

To support customers' fast-evolving needs in light of these new risks and changing business models, and to continue to offer a compelling value proposition, insurers and brokers must work together to put more time, effort and resources into developing relevant products and services, as well as the data and technology infrastructure to support them. For example, it is anticipated that brokers and insurers will need to collaborate to clarify protection for non-damage business interruption, either within property policies or as a standalone cover.

A proportionate regulatory environment that encourages innovation including, for example, regulatory 'sandboxes' or temporary policy dispensations, may be required to support new product development at the pace required.

For its part, Lloyd's is encouraging innovation by permitting syndicates to write an additional 2% of premiums on new product innovation on top of their business as usual plan. The Lloyd's market is also working with its Product Innovation Facility (see box) to accelerate product development and design in response to customers' changing risk profiles.

Lloyd's Product Innovation Facility

In 2019, the Lloyd's market launched the Product Innovation Facility (PIF) – an initiative with more than £120m of capacity designed to speed up (re)insurance product development for today's new and emerging risks.

The PIF, comprising 27 Lloyd's market participants, is a 'safe space' for underwriters to experiment with new ideas in a controlled way, which balances the need for appropriate oversight with the need to innovate quickly. It explores non-standard risks that might not fit the traditional market such as those relating to intangible assets, new technologies and others.

The PIF will initially focus on innovating products to respond to an accelerated shift towards intangibles-driven business models in response to COVID-19, through a series of product development sprints that are aimed at testing, learning and potentially scaling successful initiatives.

By working collaboratively, the PIF promotes different thinking and expertise to solve customers' problems.

3. Building greater resilience

Providing products and services for customers' risk needs over the medium term

Protection against systemic risks: developing industry-wide underwriting expertise to protect customers more effectively

COVID-19 will increase demand for pandemic products but there is not currently a significant commercial market for them in part because, pre pandemic, the risk was perceived as too remote. This is changing now, so the insurance sector and their customers would benefit from new centres of excellence to develop and share greater understanding of pandemics and other systemic risks. These would support the development of new insurance products, services and risk management solutions.

These services could either be delivered by individual insurers within Lloyd's or through a joint industry and government vehicle such as *Black Swan Re* (see Chapter 4). Capabilities could also be aggregated and made available to the global industry through an insights portal or application programme interfaces (APIs).

Such centres of excellence could include support for new product innovation, new technical capabilities and services to support insurers, and academic partnerships to develop a better understanding of systemic risks and customers' emerging needs.

As part of the next steps in this paper, Lloyd's will start developing the capabilities listed in Figure 4.

To kickstart this process, Lloyd's has asked the next cohort of its innovation lab to identify insurtechs that can provide some of these capabilities. The global scouting process received 50 applications from across the world, with applicants including an epidemic tracker to better evaluate pandemic risk, as well as solutions to help close the insurance gap for systemic risks.

Lloyd's has also shortlisted four early stage companies to join a three-day 'virtual hackathon' event, during which they will collaborate with key stakeholders from the Lloyd's market to develop a solution, design or prototype to help with COVID-19 protection.

Learning and development programmes to improve underwriting capability around systemic risks

By their nature, systemic risks such as pandemics are hard to evaluate and quantify. While new data sources and modelling will be vital to improving our understanding of these risks, the insurance industry will also require new skills and capabilities to make sense of the complex information available and make systemic risk more insurable.

Together with the Chartered Insurance Institute, the Lloyd's Market Association and other industry bodies, Lloyd's plans to launch a training and education programme to develop the skills and capabilities required to improve the assessment, quantification and underwriting of systemic risk in the UK/London insurance market. It could explore risks sometimes perceived as uninsurable, techniques for quantification and aggregation modelling, and the hazards and causes of loss. The programme could include launching a set of online learning courses, co-ordinating a series of seminars from cross-industry experts, and establishing relationships with academic, technological and clinical institutions.

Capability	Description	Option to explore as pilot at Lloyd's	Potential application across global insurance industry
New systemic risk modelling capabilities and platforms	New models and platforms to help insurers analyse their exposure to systemic risks, enabling better capital modeling, pricing and risk manangement	✓	✓
Data services for pricing and underwriting	Data services to support the pricing and underwriting of systemic risk, and development of new parametric triggers for pandemic products	✓	✓
Exploration of early warning indicators	Real-time monitoring of parametric triggers to assist customers' business continuity planning for a potential systemic event, and to enable fast and efficient claims settlement		✓
Risk management and other value add services	Services to enable more proactive prevention of losses to customers for their insured and wider uninsured risks		✓
Crisis management process improvements	Process improvements to help insurers continue to operate effectively during a future crisis e.g. a hurricane during a second wave of COVID-19	✓	✓
Learning and development	Learning and development programmes to improve systemic risk actuarial and underwriting capability across the market	✓	✓

Figure 4: Enhancing the industry's capabilities around systemic risk

3. Building greater resilience

Providing products and services for customers' risk needs over the medium term

Funding new pandemic risk products

While the insurance industry has the expertise to match pandemic risk to capital, it does not have the capacity to do this at scale due to the systemic nature of the risk. And yet, while the global commercial (re)insurance industry's total capital base sits at around $2 trillion,[8] the capital markets are estimated at around $180 trillion.[9] Currently a relatively small proportion of this is used to take on insurance risk as a diversifying investment to market risk. While there is some correlation between pandemic and market risk, the two are not fully correlated (whilst COVID-19 looks likely to have sparked a global recession, the reverse is not true - a recession will not lead to a pandemic).

The global (re)insurance industry has an opportunity to work with the capital markets and to access their capacity to offer parametric protection for pandemics and non-damage business interruption through structures such as pandemic catastrophe bonds. Initial research suggests capital market participants may have the appetite to underwrite products that offer protection against future pandemics; at the same time customer demand has increased significantly.

The Future at Lloyd's capital workstream is already working on ways to attract the type of institutional investors that would be interested in supporting pandemic risk. If Lloyd's is successful in setting up a multi-arrangement Insurance Special Purpose Vehicle under the UK regulations, it will be able to offer a way to access risk that investors recognise – an efficient Insurance Linked Securities (ILS) structure that gives the same economic and tax outcomes they are used to from similar non-UK ILS structures.

Lloyd's also intends to standardise as many of the contracts as possible to create a set-up process that becomes familiar over time to investors, legal advisers and regulators – reducing set-up times and costs.

While the capital markets provide an opportunity for expansion of commercial capital to support these risks, government partnerships are required for cover at a national level.

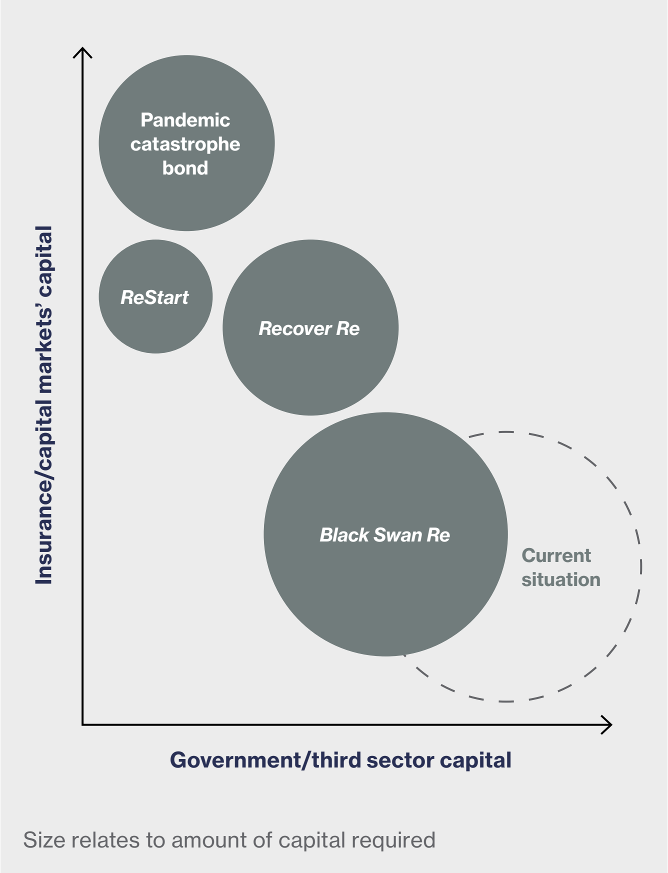

Figure 5: Capital sources for potential systemic risk solutions