4. Protecting the future

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Frameworks for government and insurance industry partnerships to protect society over the longer term

As society recovers from the impacts of COVID-19, it must do so in a way that makes it more resilient to the next systemic risk.

Systemic risks are challenging to predict and model, and are so large in scale they render traditional risk mitigation and transfer methods unfeasible, requiring financial resources far in excess of the global non-life (re)insurance industry's $2 trillion asset pool [8]. As of May 2020, global government fiscal support packages in response to the pandemic totalled $9 trillion, according to the International Monetary Fund,[10] but could reach up to $15 trillion by the end of 2020.

As the pandemic has shown, when a systemic event occurs, given the limited commercial cover, governments step in to protect their citizens. This has been effective – whether through business loans, assorted backstops or economic stimuli – and these remain a viable means of continuing to protect society from systemic risks. However, this approach does not change society's perception of systemic risks or incentivise greater understanding or mitigation of their impact, and means taxpayers and future generations end up paying the cost.

Although the global insurance industry does not have the capacity to absorb systemic catastrophic events ('black swan' events) on its own, it can help develop national or regional structures that could provide protection.

These structures could have several benefits. They could ensure more of the costs of systemic event impacts are paid for by those protected, that the risk is modelled and understood, and therefore that the price reflects the risk exposure and drives mitigating behaviour, and that there is a commercial capital layer before the risk falls to governments.

These structures could play a critical part in protecting businesses and society more broadly from future systemic risks, and, as Lloyd's research showed, there is demand for them.

The types of systemic events that could be covered

In order to identify the protection gaps an insurance industry and government partnership could address, there are two areas of risk to consider:

- Risks excluded by commercial covers
- Key risks on a government's risk register

For example, future black swan events could include:

- **Major public health emergency:** causing mass lockdown, resulting in a significant fall in economic activity and lost revenue

- **Widespread telecommunications or utilities failure:** this could take the form of a global cyber-attack impacting millions of devices across multiple industries and critical infrastructure, or space weather. An extreme geomagnetic solar storm could shut down critical electricity, GPS and transport infrastructure around the world for days or possibly months

- **Food or critical resources supply chain failure:** this could be a significant supply chain shock for critical resources that could have major global economic, political and social effects

- **Accelerated climate change:** this could act as a risk multiplier, amplifying the effect and frequency and severity of events such as wildfires, flooding and other natural perils, whilst extreme local temperatures could lead to permafrost melting or damage to infrastructure. This could lead to geopolitical tensions, and associated economic and investment market damage

While these scenarios may seem extreme, in our highly interconnected society, they may be more likely than people think. COVID-19 has demonstrated that society cannot remain complacent, and must prepare for catastrophes of a similar impact and duration.

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Two potential frameworks for insuring systemic risks

Lloyd's is proposing two national or regional frameworks that, if taken forward, could provide governments around the world with risk transfer models they could put in place immediately in partnership with the insurance industry.

Lloyd's has published these 'open source' frameworks to provide a blueprint for government and insurance industry partnerships that strengthen societal resilience in the face of black swan events.

The first government and industry open-source framework, *Recover Re*, is an 'after the event' insurance product that could provide small and medium size enterprises (SMEs) with a cash injection and recovery support, paid for over the long-term and backed by a government credit risk guarantee.

The second framework, *Black Swan Re*, could provide reinsurance for commercial non-damage business interruption cover for future systemic risks through industry pooled capital, backed by a government guarantee to pay out if ever the pool had insufficient funds.

These two structures could be used in combination. *Recover Re* could offer immediate positive impacts to a targeted portion of SMEs, whilst *Black Swan Re* could offer protection against the next crisis to a wider set of businesses, creating greater resilience to future systemic risks.

Government-backed risk pooling mechanisms are not new, and Lloyd's is looking at the lessons that can be learned for systemic risk pooling from the different approaches currently adopted around the world (see the supporting paper, Open source frameworks for systemic risk, for details). These highlight the design options and considerations required as a structure for black swan risks is developed.

Framework 1

Recover Re: insurance for immediate relief and recovery

Recover Re is an 'after the event' insurance product framework, which could provide immediate relief and cover for non-damage business interruption, including the current COVID-19 pandemic, and over the long-term. If implemented, this could be an efficient way to inject commercial and government funds into the economy, providing relief to customers with limited borrowing capacity. This framework could be implemented in any country where government has the resources and industry commitment to support it.

Customer benefits:

– Immediate cash injection and recovery support, paid for over the long term

– Non-damage business interruption coverage for future waves of the COVID-19 pandemic should disruption continue past a specified time period or losses exceed a specified excess

– Non-damage business interruption cover for future pandemics and possibly for other systemic events

Role of the insurance industry: to provide the risk management expertise and infrastructure to inject capital into the economy by directly supporting SMEs affected by the current pandemic and which are likely to be impacted by future waves.

Role of government: guarantee of premiums to mitigate the risk of customers defaulting on payments and, if required, provide initial cashflow to cover claims payments in the early part of the policy term.

Detailed policy design options are set out in the supporting paper, Open source frameworks for systemic risk.

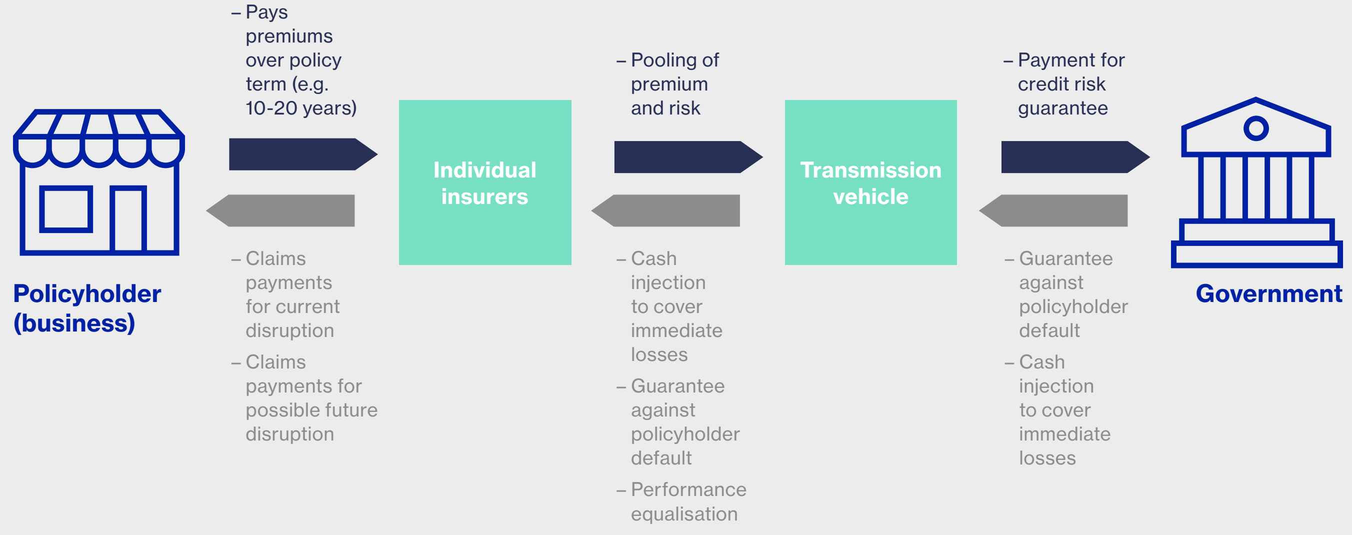

Figure 6: Illustrative cashflow for *Recover Re*

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Framework 2

Black Swan Re: a public/private partnership to better protect economies against systemic catastrophic events

Black Swan Re is a reinsurance framework for government and insurance industry partnership which could enable insurers to provide non-damage business interruption cover that offers customers more protection from the devastating and long-term impacts of systemic catastrophic events. If implemented, this structure would enable industry pooled capital to provide reinsurance for the impacts of future black swan events, backed by a government guarantee should the pooled assets become exhausted. The design of this structure includes the requirement for an initial commercial and industry pooled layer of funds, enabling faster pay-outs to customers, as well as a buffer for governments before they need to step in.

Customer benefits:

- Non-damage business interruption cover for a black swan event, certainty of cover and quick pay-out
- Could cover secondary impacts of future events such as supply chain disruption or ability to access lending to help the cost of relaunching a business following black swan event-related interruption

Role of the insurance industry: provide commercial non-damage business interruption cover, ceding risks to *Black Swan Re*. Provide the payment mechanisms that support risk mitigation and protection against systemic risks. Brokers would need to help customers understand the impact of more remote risks and encourage greater protection.

Role of government: provide financial guarantees to customers in the event industry capital is exhausted, as well as support insurers to provide policies covering future black swan events. There are potential efficiencies if it could be combined with other national risk taking pools.

By definition the costs of these types of events would be in the trillions of dollars and, as such, the contribution from any indusry partnership would be relatively small in the short term. However, the insurance industry can provide a commercial layer to pay claims to customers first and quickly.

Detailed policy design options are set out in the supporting paper, Open source frameworks for systemic risk.

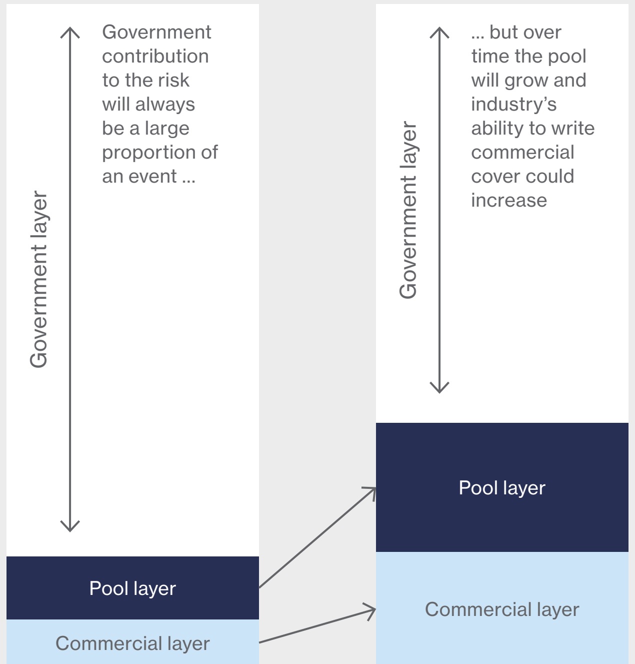

Figure 7

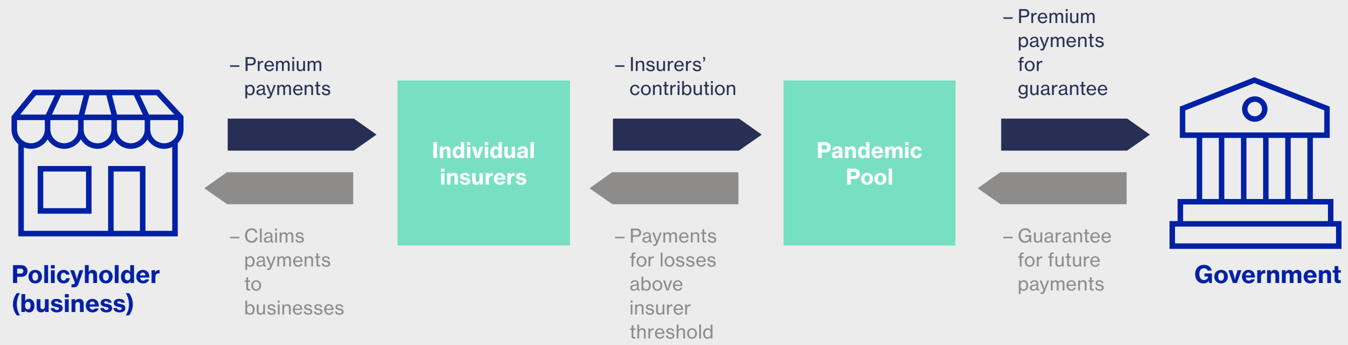

Figure 8: Illustrative cashflow for *Black Swan Re*

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Chapter 2 outlined a potential industry framework, *ReStart*, to pool insurance capital to provide targeted non-damage business interruption cover to insure against a second wave of COVID-19. However, more significant levels of commercial cover will require collaboration between government and the insurance industry. The table below compares the features of Lloyd's three potential solutions.

	ReStart	***Recover Re***	***Black Swan Re***
Overview	Insurance pool to offer non-damage business interruption coverage for future waves of COVID-19	'After the event' insurance product, providing immediate cover for non-damage business interruption including COVID-19, with premiums charged over the long term	Government-backed industry pool to reinsure systemic risk from commercial non-damage business interruption cover
Coverage offered	– Non-damage business interruption coverage for potential future waves of COVID-19	– Non-damage business interruption coverage for potential future waves of COVID-19 where commercial cover is not available – Non-damage business interruption cover for future pandemics – Could include other systemic events	– Government-backed reinsurance of non-damage business interruption cover for future systemic events where commercial cover is not available – Could also provide cover against secondary impacts of future events such as supply chain disruption – Would enable greater provision of non-damage business interruption cover
Pricing and affordability	– Premiums charged upfront for annual policy	– A flexible pricing mechanism would allow insurers to recoup upfront claims costs over a long period (e.g. 10-20 years), ensuring affordability for customers	– Full risk cost may not be passed to customers given government backstop

Figure 9: Comparison of key features of the three frameworks

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	ReStart	***Recover Re***	***Black Swan Re***
Structure and funding mechanisms	– Pooled capacity from insurers to provide targeted non-damage business interruption cover directly to businesses – Participating insurers could ensure the product is affordable to customers and manage their own exposure through risk pooling, variable limits, and industry or geographical diversification	– *Recover Re* is a direct non-damage business interruption product aimed directly at businesses – Multi-year contract or compulsory product, allowing insurers to recover their positions over time – Requirement for mandatory premium payments over the full term, or cancellation penalty to ensure insurers' upfront claims costs are recovered	– Industry-pooled capital would reinsure insurers offering primary cover for future systemic events – Backed by a government guarantee should the pooled assets become exhausted
Risk borne by the government	– No requirement for a government backstop	– Government may be required to guarantee policyholders' future premiums to mitigate the risk of them defaulting on payments – If early event of significant scale, government may be required to provide initial cashflow to cover claims payments in the early part of the policy term – Option for credit risk mutualisation to minimise government contingent liability	– Government would take on the excess claims for non-damage business interruption beyond whatever level the insurance industry carries
Scale, target segments	– Relatively small scale and targeted initially at smaller SMEs, with scope to expand over time – Optional for customers	– Targeted at specific SME economic segments to manage liquidity – Would either need to be a compulsory or long-term contract	– Broadest coverage – reinsuring all national systemic risk non-damage business interruption cover beyond fixed retentions – May need to be mandatory - to offer or to obtain - to ensure meaningful take up, otherwise there may be a presumption that government will continue to provide implicit cover