

The role of insurance supervisors in multi-stakeholder approaches to address pandemic protection gaps

September 2022

This note is prepared jointly by staff members of the International Association of Insurance Supervisors (IAIS) and the Access to Insurance Initiative (A2ii). The views expressed in the note are those of the authors and not necessarily the view of the IAIS or the A2ii.

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Executive summary

As part of a broader suite of lessons learnt from Covid-19, this note focuses on understanding where supervisors could play a role in the design, development and implementation of insurance-based programmes for pandemic risk.¹ The note considers the key characteristics of existing proposals – including Public-Private Partnerships (PPPs) and/or risk pools – and outlines the role(s) that supervisors can play as future initiatives are developed.

This note was prepared jointly by members of the IAIS Secretariat and the A2ii. The insights are based on: interviews with senior officials from supervisory authorities representing different regions and from international organisations; from IAIS and A2ii stakeholder events held throughout the second half of 2021; and a review of existing literature on pandemic protection gaps and insurability of pandemics.²

While the note does not preclude protection gaps such as health or mortality, the focus is on gaps in coverage for types of risk where diversification is more difficult to achieve, in particular coverage for non-damage business interruption (BI) losses in the context of pandemics. In this regard, the note draws parallels with supervisory approaches to address other types of risk that challenge the principle of diversification.

The main takeaways from the review covered in the note include:

- Supervisors can play an important role in helping to ensure that a balance of policyholder protection and market development considerations are built into the design and implementation of future multi-stakeholder insurance-based programmes to address pandemic risk. Ideally, supervisors would be involved in the development of such programmes from the outset to ensure the design incorporates the insight and expertise that supervisors can bring.
- The role of supervisors will vary according to their respective mandate; supervisors with a financial inclusion or market development mandate may take a different approach to purely prudential and conduct authorities. In some cases, supervisors may be well-positioned to play key coordination or administration roles. In other cases, the supervisor may provide input into a broader multi-stakeholder approach.
- There will be no “one size fits all” approach to addressing pandemic risk protection gaps, and any approach will be shaped by the environment in the given jurisdiction.
- A key role for supervisors includes providing technical and other advice to government on prudential risks associated with any insurance-based programme developed to address pandemic risk and the regulatory framework under which such a programme could operate.

¹ An outline of the IAIS’ broader response to the Covid-19 pandemic is articulated in the [2021-2022 IAIS Public Roadmap](#). The topic of this note was proposed as a priority issue for consideration, by an advisory group established to steer the IAIS’ Covid-19 response – the Covid-19 Virtual Small Group.

² Asian Development Bank, Comisión Para El Mercado Financiero (Chile), Superintendencia General de Seguros de Costa Rica, European Insurance and Pensions Authority (EIOPA), Insurance Regulatory and Development Authority of India (IRDAI), US Federal Insurance Organisation (FIO), and South African Financial Services Conduct Authority (FSCA). Input was also provided by the IAIS Virtual Small Group on Covid-19, taken from the IAIS Covid-19 Repository of Supervisory and Policy measures, and from the 2021 IAIS Annual Conference Panel, [Pandemic Risk: The role of supervisors in addressing future pandemic risk](#), and A2ii Public Dialogue, [Pandemic Risk: Opportunities to Improve Insurability](#).

- Supervisors could act as a bridge between the insurance sector and government, playing a role in advising on the risk-sharing implications that such initiatives could have on insurers from both a micro- and macroprudential perspective. Supervisors could potentially play a role in the collection, analysis and sharing of relevant data in order to assess any cumulative potential impact on the insurers' operations.
- Taking on board lessons learnt from several high-profile cases relating to policy wording for BI coverage, supervisors can play an essential consumer protection role as future coverage for pandemic risk is developed. This can be through providing clarity on expectations with respect to fair treatment of customers, as well as through setting and implementing product oversight and governance requirements around market conduct risk.
- There may be scope to consider supervisory initiatives aimed at building prevention measures into pandemic risk coverage to enhance resilience against future pandemics. In this regard, lessons could be learnt from risk reduction or prevention measures that have been implemented to address other types of risk, such as natural catastrophe risk.
- In readiness for future pandemics, supervisors could play an influential role in fostering certain conditions for local markets to enable multi-stakeholder initiatives aimed at expanding coverage for pandemic risk. Some examples could include: enabling a range of distribution channels and delivery strategies and demonstrating an openness to innovative forms of insurance.
- Concepts presented in this note, in the context of pandemic risk, could also be applicable to initiatives aimed at bridging protection gaps for potentially systemic risks, such as wide-scale cyber disruption or catastrophic climate-related events.

1 Introduction

The Covid-19 pandemic has caused devastating health and societal effects worldwide. It also triggered a significant shock to the world economy, the full effects of which are yet unknown. In response to the pandemic, the insurance sector has played an important role by partly cushioning the financial impact through the payment of claims, as well as contributing through risk mitigation and risk management activities and assisting with recovery.

Covid-19 has, however, exposed vulnerabilities in society's preparedness for, and resilience to, systemic risks of this scale and nature. This has been particularly relevant where the second-order effect of the pandemic, in the form of government-imposed restrictions on travel and lockdowns, has had a severe impact. Measures taken to curb the spread of the virus have been particularly disruptive to the business continuity of small and medium-sized enterprises (albeit the impact has been asymmetric – with some sectors, such as entertainment, hospitality, and transport being hit harder than others) and on the informal sector, ie micro and small enterprises, particularly in Emerging Markets and Developing Economies (EMDEs).

In more developed insurance markets, BI coverage is available to cover loss of revenue. However, BI policies typically require that the interruption be due to physical damage at the insured property. In recent years, policies have also generally excluded loss due to contagious disease. The vast majority of losses caused by government-enforced measures to curb the spread of contagion, therefore, are generally not covered in existing insurance contracts, creating a significant

protection gap. Furthermore, in many EMDE markets, any insurance coverage options to limit the effect of Covid-19, such as BI, can be very limited or not available.

In response to the mounting losses incurred as a result of Covid-19, a number of proposals emerged during the pandemic – across a range of jurisdictions – for insurance-based programmes that would build resilience and close the protection gap(s) for future pandemics. Some of these programmes have been proposed by government, others by industry. Common to all programmes is the fact they would require a multi-stakeholder approach, bringing together consumers, the private sector, governments and supervisors.

The environment has shifted since many of these programmes were originally conceived (mostly throughout the course of 2020). For the most part, they have not yet been implemented.³ In some cases, proposals have now been abandoned.⁴ Nonetheless, pandemics remain an extant and evolving risk.⁵ Furthermore, societies will be faced with other types of emerging and potentially systemic risks – such as wide-scale cyber disruption or catastrophic climate-related risks – that will challenge traditional models of insurance coverage and will highlight the limits on the types of coverage that can reasonably be offered by the insurance sector alone.⁶

As insurance-based programmes are proposed – or implemented – that aim to provide coverage for risks that are more challenging to diversify, supervisors will need to consider where they can play a role. For programmes predicated on a risk-sharing arrangement between insurers and government, supervisors may have a role in assessing whether the risk-sharing being taken on by insurers is sustainable from a micro- and macroprudential perspective. Supervisors can also have a key role in advising governments and insurers on supervisory and regulatory implications. Depending on their mandate, supervisors may also have a role in assessing whether an insurance-based programme will be effective in improving access and coverage for consumers; in other words, whether such a programme would be effective in addressing protection gaps.

For the purposes of this note, descriptions of some key (interrelated) concepts are outlined below.

Pandemic risk

The Covid-19 pandemic has affected different lines of insurance, including health, mortality, trade credit, event cancellation and BI. While other accumulation events, including natural catastrophe and terrorism risk, are generally confined to a certain area or region, a pandemic is

³ This could be due to a range of factors, including that governments are now looking at more targeted coverage, rather than broad-based BI coverage; vaccination rates have brought down hospitalisation rates and mortality; and businesses have also learnt to adapt to the challenges caused by the pandemic, and have adapted their business continuity planning thus mitigating their BI losses. Some governments may also believe that an ex-post fiscal response can be more efficient than an ex-ante insurance system, in terms of addressing pandemic risk.

⁴ For example, the Swiss Federal Department of Finance announced in March 2021 that it would not pursue the concept of a pandemic insurance for companies. See [Konzept einer Pandemieversicherung wird vorerst nicht weiterverfolgt](#) (1 April 2021).

⁵ Over the last decades the frequency, severity and economic impact of disease outbreak risk (epidemic and pandemic) has increased. See Kraut and de Kuiper (2021), [Epidemic and pandemic risk transfer solutions and options for public sector support](#), pg. 1-2.

⁶ For example, the Geneva Association contends that the systemic characteristic of cyber risks, in particular the potential for multiple losses from a single event or a campaign of attacks linked to hostile cyber activity (HCA), mean that the scale of accumulated losses may exceed levels that can safely and sensibly be absorbed by the private (re)insurance sector. Ultimately, some form of government backstop or PPP to finance extreme cyber risks will be needed to foster the development of a sustainable private cyber (re)insurance market and boost economy-wide resilience. See The Geneva Association (2022), [Insuring hostile Cyber Activity: In search of sustainable solutions](#).

– by definition – global in nature. In this regard, pandemics and pandemic risks differ from epidemics and epidemic risk, as an epidemic occurs within a certain community or region; although it is important to consider that an epidemic can spread to become a pandemic if not contained. While pandemic risk is not a new concept for insurers, who have considered such events in their planning for many years, the scale and severity of Covid-19 was unprecedented.

Pandemic protection gaps

The share of uninsured losses in total economic losses is often referred to as a protection gap. Arguably a more meaningful measure, however, is the notion of the insurance protection gap, defined as the difference between the amount of insurance that is economically beneficial for both insureds and insurers, on the one hand, and the amount of coverage actually purchased or offered, on the other.

The protection gaps caused by Covid-19 have been particularly severe in terms of the impact on the property and casualty segment (BI), in large part due to the fact that exclusions for contagious disease have generally been written into BI policy wording.⁷

An account of the protection gaps caused by Covid-19 across BI, health and mortality can be found in the Geneva Association's research paper *An Investigation into the Insurability of Pandemic Risk* (pages 9-15).⁸

Insurability of pandemic risk

As noted above, by definition, pandemics are not confined to a geographic region but rather spread across the world. In the case of Covid-19, the virus has also affected households and businesses across a range of sectors concurrently, affecting policyholders simultaneously and over an extended period of time. These factors challenge a key tenet of insurability, that of diversification, because under these conditions the principle of risk diversification no longer applies; the simultaneous "losses of the many" cannot be diversified and mutualised across risk pools. Also important to note is the sheer scale of the total economic losses from the Covid-19 pandemic, which dwarfs not just the global BI premium volume, but rather the entire global Property and Casualty Insurance premium volume.⁹

This has prompted debate as to whether the scale of accumulated losses may exceed levels that can safely and sensibly be absorbed by the private (re)insurance sector.

Box 1: Pandemic risk protection gap descriptions

2 Initiatives to address pandemic risk – global landscape

The following section provides an overview of some of the more prominent proposals to address pandemic protection gaps developed in response to Covid-19, drawing out some of the similarities and differences in scope, structure and risk transfer arrangements. A more detailed overview and

⁷ There are indications that Covid-19 has also exacerbated protection gaps related to health and mortality. See IAIS (2020), [GIMAR Covid-19 edition](#). However, in contrast with Property and Casualty policies, there are generally no exclusions for pandemics or other common causes for extreme mortality events such as terrorist attacks or natural disasters.

⁸ See The Geneva Association (2020).

⁹ The OECD estimated in 2021 that global economic losses of a one month hard lockdown is approximately US\$1.7 trillion, which roughly equates to the capital base of the world's Property and Casualty premium. See OECD (March 2021), [Responding to the Covid-19 and pandemic protection gap in insurance](#).

comparison can be found in the European Insurance and Occupational Pensions Authority's (EIOPA) staff paper *Measures to improve the insurability of business interruption risk in light of pandemics*.¹⁰ The US Federal Insurance Office's (FIO) Federal Advisory Committee on Insurance has also developed a comparison of *Pandemic response revenue replacement mechanisms* in the US.¹¹ The OECD also provides an overview of proposals in its paper *Responding to the Covid-19 and pandemic protection gap in insurance*.¹²

The intention is not to assess the relative merits of proposals, or responses, underway in different jurisdictions,¹³ but rather to provide insight into the options proposed by governments and the insurance sector. Proposals to address future pandemics, or other potentially systemic risks, may share common characteristics with existing proposals. As lessons continue to be learnt from Covid-19, it is therefore instructive to consider the implications of such initiatives for supervisors, and the potential role(s) of supervisors in their development and implementation.

Some other insurance-based responses to the pandemic, including targeted schemes (by line of business) and capital market products, are also referenced.

2.1 Insurance-based programmes for pandemic risk

In response to the unprecedented losses incurred by businesses as a result of the Covid-19 pandemic, governments and the insurance sector in a number of jurisdictions established working groups, developed legislation and made various proposals for insurance-based programmes aimed at building resilience against future pandemics, and expanding availability and accessibility of pandemic coverage.

The majority of the more prominent examples were developed in European jurisdictions or the US and focused on creating non-damage BI coverage for businesses, to cover losses from future pandemics. It should be noted that the environment has shifted since many of these programmes were originally conceived. The proposals listed have not been implemented and are unlikely to be implemented in their current form. Nonetheless, they provide an interesting case study for response options proposed to address emerging and potentially systemic risks.

Most schemes envisage some form of PPPs, under which insurers participating in the programme would offer coverage for businesses for non-damage BI losses incurred as a result of a pandemic, supported by a government guarantee (a "backstop"). The proposed risk-sharing arrangement between government and insurers varies across the different programmes.¹⁴ This, alongside factors such as the length and scope of coverage, could be an important consideration for prudential supervisors in assessing the sustainability of such a programme:

- Under some proposals, for example the Business Continuity Protection Program (BCPP) in the US, the government would pay all claims and the insurance sector would be responsible for administration of policies and claims handling only.

¹⁰ EIOPA (2021).

¹¹ US FIO, [Pandemic response revenue replacement mechanisms](#).

¹² OECD (March 2021).

¹³ Such analysis can be found for example, in the context of the US, in Dixon and Morikawa (2021).

¹⁴ A number of possible options relating to risk-sharing arrangements is outlined in The Geneva Association (2021), [Public-Private Solutions to Pandemic Risk: Opportunities, challenges and trade-offs](#).

- In other cases, such as the CATEX (catastrophes exceptionnelles) proposal in France or the Indian Pandemic Risk Pool, insurers and reinsurers would provide a contribution to the initial capacity of the programme/pool, but would be supported by a government backstop for excess claims.

The target (ie consumer) for the coverage, scope of coverage (ie inclusions) and length of cover varies across proposals. The proposal for a Pandemic Risk Pool in India, for instance, focuses (in the first phase) on non-damage BI for micro-, small and medium-sized enterprises (MSME), and also for migrant workers. In future phases, the Indian Pandemic Risk Pool envisages extending to other lines of business such as health or life insurance. The proposed Pandemic Reinsurance Act (PRIA) in the US proposes cover for event cancellation insurance as well as non-damage BI.

Other differences between the programmes include:

- Type of peril covered – some propose coverage for epidemics or infectious disease in addition to pandemics, albeit with different triggers.
- Scope of coverage – most propose coverage based on a proportion of operating expenses, whereas others proposed broader coverage for losses incurred.
- Length of cover – some proposals specify up to three months of coverage while others, such as the PRIA legislation in the US, propose coverage for the period when the public health emergency is in place.
- Some proposals envisage a mandatory offering of cover from participating insurers, all propose a voluntary take-up of the insurance by consumers.
 - The Pandemic Business Interruption Program (BPIP), proposed by Chubb in the US, would see all Property and Casualty (P&C) insurers currently writing BI insurance being required to offer the programme to small businesses, while for medium and large businesses, participation by businesses and insurers would be voluntary.
 - The Indian Pandemic Risk Pool proposed a mandatory offering from insurers for any sectors covered in the pool.

In the UK, Lloyd's proposed an evolution of solutions that would provide: a first phase of short-term cover for future waves of Covid-19; a phase of medium to long term coverage for non-damage BI for further waves of Covid-19 or future pandemics that disrupt business; and ultimately, in the longer term, creation of a reinsurance pool backstopped by a government guarantee providing coverage for broader systemic non-damage BI losses.¹⁵

EIOPA have also proposed a framework for shared resilience solutions, which recognises that private insurance solutions alone will not be sufficient to protect society against the financial consequences of future pandemics. The proposal outlines options for different insurance models and coverage, and the way in which the public and private sectors could work together. The shared resilience solutions are underpinned by four key elements: risk assessment (including data sharing and modelling); risk prevention (including reflecting prevention measures in non-damage BI insurance premiums and policy conditions); product design (investigating possible solutions for offering affirmative non-damage BI cover for pandemics); and risk transfer (ie participation of both private and public sector). The shared resilience solutions framework also envisions that this

¹⁵ See Lloyd's (2020) [Supporting global recovery and resilience for customers and economies: The insurance industry response to Covid-19](#).

concept could be expanded to consider further resilience gaps stemming from systemic cyber risks, climate change impact in natural catastrophes, and terrorism.¹⁶

2.2 Targeted schemes

Government backing for trade credit insurance was an important tool at the outbreak of the pandemic in efforts to keep the economy moving during the uncertainty of Covid-19 (albeit these schemes became less relevant as other measures were implemented to prevent the failure of businesses).¹⁷ In Europe, at least 11 countries rapidly designed and implemented reinsurance schemes in 2020, with most concluding by mid-2021.¹⁸ In 2020, the European Commission introduced an amendment of the state aid framework to temporarily declare all Member States as non-marketable risk countries for trade credit insurance. The measure was aimed to provide financial support for trade credit insurance.¹⁹

- In Italy, the Italian Export Credit Agency (SACE) was authorised in 2020, on behalf of the Commercial Credit Insurance Companies authorised to operate in Italy, to grant a guarantee on liabilities generated by exposures relating to trade receivables. This involved a co-insurance system under which 90 per cent of the commitments deriving from Italian State Insurer's insurance activity for non-marketable risks were assumed by the Italian State and the remaining 10 per cent by SACE, thus freeing up to a further EUR 200 billion of resources to be allocated to supporting firms' financial needs and export activity. The legislative decree provides the Italian Institute for the Supervision of Insurance (IVASS) with a consultative role on specific issues and operations.

Government-backed, targeted, reinsurance schemes were also established to support specific vulnerable sectors. For example, a reinsurance scheme was set up in the UK to support festivals, conferences and live events against cancellation costs.

2.3 Capital market products

Capital market products to finance the costs of disease outbreak response already existed prior to the Covid-19 pandemic. The most well-known example is the World Bank's Pandemic Emergency Financing Facility (PEF)²⁰, which placed epidemic and pandemic risk – with a focus on developing economies – in the insurance and capital markets. The PEF was based on tranches of catastrophe bonds that paid out under specified conditions. As coronaviruses were a covered pathogen group under the scheme, the PEF paid out almost USD 200 million early on during the course of the Covid-19 pandemic to support the covered countries in their response.²¹ The PEF officially closed on April 2021 amid criticism that the scheme was too slow to pay out to developing economies

¹⁶ See EIOPA (July 2020).

¹⁷ Typically, these schemes were structured in a similar way to quota-share reinsurance, with the insurers promising not to retract underwriting nor tighten terms and conditions unreasonably, in return for sharing premiums and claims costs with governments, see Insurance ERM (April 2021): [Governments win in Covid-19 trade credit reinsurance programmes](#).

¹⁸ See Financial Stability Board (April 2021): [Covid-19 support measures: Extending, amending and ending](#).

¹⁹ IAIS Covid-19 database.

²⁰ See World Bank (October 2021), [Pandemic Emergency Financing Facility](#).

²¹ See G Kraut and R de Kuiper (2021) and Geneva Association (2021).

suffering from the Covid-19 outbreak, with no plans to launch a subsequent product.²² Another current example, focused on epidemics, is the Outbreak and Epidemics programme of the African Risk Capacity Group. There also exist examples of risk transfer to capital markets of insurance-related pandemic risk, for example of excess mortality (including from pandemics).²³

2.4 Insurance-based programmes for other types of risk

A range of insurance-based programmes, including PPPs, have been successfully implemented to develop markets and provide expanded coverage for other types of risk. This is perhaps most notable in the context of natural catastrophe risk, where there are numerous examples of programmes – including partnerships between (re)insurers, governments and multilateral institutions – designed to help countries absorb the financial consequences of catastrophic events. An analysis of catastrophe risk insurance programmes, including those targeting natural catastrophe risks and terrorism risk, can be found in the OECD paper *Enhancing financial protection against catastrophe risks: the role of catastrophe insurance programmes*.²⁴ There are several countries where the government directly funds insurance cover for natural disasters, either through a public insurer or through a dedicated public insurance fund. Some examples can be found in the A2ii's report on *The Role of Insurance Supervisors in Climate Risk Insurance*.²⁵

Across the world, there are numerous government-supported schemes aimed at filling the shortfall in risk transfer options for terrorism risk – interestingly a risk that was, in the aftermath of the 9/11 attacks, perceived in some quarters as uninsurable. An overview of terrorism insurance programmes in selected countries can be found in the Pool Re/Terrorism Risk Insurance Pools/Willis Towers Watson *Terrorism Pool Index*.²⁶

There are also examples of programmes or entities that provide coverage against multiple perils, such as Spain's Consorcio de Compensación de Seguros (CCS), a government direct insurer that covers risks such as natural catastrophes and terrorism, including cyber terrorism.²⁷

²² EIOPA (2021), pg. 17. See also C Hodgson, "World Bank ditches second round of pandemic bonds", *Financial Times*, 5 July 2020 and R Hartwig and G Niehaus, [Insurance for economic losses caused by pandemics](#), *the Geneva Risk and Insurance Review*, no 45, September 2020, pg. 134-170.

²³ An example are notes issued by [Vita Capital VI Limited \(Series 2015-1\)](#).

²⁴ OECD (October 2021).

²⁵ A Camargo (October 2019), pg. 27.

²⁶ Pool Re/Terrorism Risk Insurance Pools/Willis Towers Watson, [Terrorism Pool Index](#).

²⁷ See The Geneva Association (2022), pg. 26.

2.5 No “one size fits all”

Addressing pandemic risk protection gaps poses a significant set of challenges given the nature of the risk and the sheer scale of the protection gap. There will be no “one size fits all” approach, and any approach will be shaped by the environment in the given jurisdiction. In jurisdictions where the insurance sector is not as well-developed, stabilisers such as health insurance, can be absent or have low penetration. Consequently, the impact of a pandemic on health protection gaps can be more pronounced.²⁸ This could be an important consideration for supervisors with a market development mandate, in assessing whether an insurance-based programme will be effective in addressing the most pronounced protection gap(s) in their jurisdiction.

3 Role of supervisors in multi-stakeholder approaches to address pandemic risk

Drawing on case studies from IAIS member jurisdictions, this section outlines a range of areas where supervisors could play a role in the design and implementation of multi-stakeholder approaches to address pandemic risk. As response options are developed, ideally supervisors would be involved from the outset to ensure the design incorporates the insight and expertise supervisors can bring. This can be a complex challenge in circumstances like the Covid-19 pandemic, where governments and other stakeholders are operating in a setting of crisis response. Interviews with IAIS members indicated that their supervisory authority was not always included in discussions pertaining to the development of pandemic risk coverage programmes in response to Covid-19, or was brought into discussions quite late, after proposals had already been developed.

3.1 Supervisory mandate, role and institutional framework

The mandate of the supervisor, and the institutional framework within which the supervisor operates, will influence the role that supervisors can play in approaches to address pandemic protection gaps.

Insurance Core Principle (ICP) 1 (Objectives, Powers and Responsibilities of the Supervisor) requires that: “primary legislation clearly determines the objectives of insurance supervision, and these include at least to:

- Protect policyholders;
- Promote the maintenance of a fair, safe and stable insurance markets; and
- Contribute to financial stability.”

²⁸ IAIS Annual Conference Panel (November 2021).

The associated ICP guidance material further notes that: “The precise supervisory objectives and their respective priority can vary by jurisdiction. In some cases, supervisors have a clear mandate – sometimes entrenched in law – to promote and increase financial inclusion, financial consumer education and/or insurance market development, in addition to their roles and responsibilities around promoting prudential soundness, financial stability and fair market conduct.”

There are a range of other factors that could also influence the approach taken in different jurisdictions. In particular, the maturity of the insurance market in a given country (ie the capacity of local insurers to contribute to a solution such as a risk pool) and the capacity of a country’s government to provide sovereign wealth to create conditions under which options such as a PPP may become viable. This may be a key reason for the limited number of examples of proposals from EMDE jurisdictions for a broadly accessible insurance-based programme to address pandemic.

In some cases, supervisors may be well-positioned to play key coordination or administration roles in the establishment or oversight of an insurance-based programme. In other cases, supervisors may not have a direct role in regulation or supervision of the programme.²⁹ In yet other cases, supervisors may rather provide input into a broader multi-stakeholder approach. A number of contrasting examples from IAIS member jurisdictions are outlined below.

3.1.1 Coordination between government and the insurance sector

Supervisors can leverage their established links with insurers and understanding of the insurance sector to enhance coordination of a broader government response to address pandemic risk. In the case of India, the Insurance Regulatory and Development Authority of India (IRDAI) was well-placed – given its market development mandate – for a central coordination role in a study assessing the feasibility of establishing a Pandemic Risk Pool in India.

- In 2020, a working group was established to examine the requirement and rationale for setting up an Indian Pandemic Risk Pool. The working group was coordinated by the IRDAI at the request of the Indian Ministry for Labour and Employment. The IRDAI was able to draw on its existing relationships to develop a comprehensive report and recommendations comprising input from life and non-life insurers, reinsurers, international market experts and industry associations. The Pandemic Risk Pool is still under consideration by the Indian government. The Chair of the working group also envisaged a coordination role for the IRDAI if the Pandemic Risk Pool were to come to fruition. For instance, working under the assumption that sovereign wealth (in the form of government funding) would be required to set up the Pandemic Risk Pool, the regulator could act as a bridge between the pool administrator (which under the proposal would be the Indian State Reinsurer, GIC Re, which has experience in managing the Indian Terrorism Pool and Indian Nuclear Pool) and government, noting the large amounts of capital that would be required.

²⁹ The OECD note that most catastrophe risk insurance programmes (ie. for natural catastrophes and terrorism) that operate as insurers or reinsurers (rather than pooling arrangements) are supervised by the national agency responsible for insurance supervision. Programmes that operate as co-insurance (ie. PPPs) and reinsurance pools do not appear to be regulated or supervised by the insurance supervisor, possibly due to their limited direct exposure to solvency risk. OECD (October 2021).

Supervisors have taken a leading coordination role in solutions to address other types of risk, for example in Indonesia and Macedonia, where supervisors were instrumental in bringing together relevant stakeholders – both public and private – to discuss the potential solutions for agriculture insurance to address climate risk.³⁰

3.1.2 Coordination across government

The establishment of an insurance-based programme requires strong coordination across supervisory authorities and government, and will likely involve entities such as Finance Ministries/Treasuries. Where multiple authorities may have a role, supervisors should consider the mechanism through which coordination of supervisory matters is arranged. Supervisors should also consider coordination arrangements with government, given the close cooperation that will likely be required.³¹

- For instance, in South Africa, the Central Bank convenes a standing Financial Stability Committee that considers systemic risks such as pandemics, but also other risks, such as infrastructure and cyber risks. Both the South African Prudential Authority and the Financial Sector Conduct Authority are represented on this committee to provide the prudential and market conduct supervisory perspectives. Pre-existing mechanisms of this nature could be used to consider a coordinated response to systemic risks and remain abreast of any response options.

3.1.3 Ongoing administration and evaluation

Supervisors could potentially play an important role in administering and/or evaluating insurance-based programmes, for example to assess the effectiveness of a programme in improving accessibility and availability of coverage. In the US, the PRIA proposal was introduced to Congress in 2020, modelled on existing mechanisms to cover terrorism risk. At the time of writing, the PRIA is yet to be passed. While acknowledging that, ultimately, there may be significant differences in the design of an insurance-based programme providing coverage against terrorism compared to pandemic risk, the administrative framework surrounding the US Terrorism Risk Insurance Program (TRIP) nonetheless makes an interesting case study. The US FIO – housed within the US Treasury – plays a key role in the administration of the TRIP.

- The US FIO assists the Treasury Secretary with administration of the TRIP. The TRIP was established under the Terrorism Risk Insurance Act (enacted in 2002) in part because of the economic impact of a widespread unavailability of terrorism risk insurance following the September 11 attacks. Following the attacks, insurers and reinsurers began to exclude coverage for terrorism risk from commercial P&C policies. In serving this role, the FIO undertakes a biennial analysis of the overall effectiveness of the TRIP, including through managing a collection and analysis of data from participating insurers. The analysis of this data informs FIO's biennial reports on the TRIP, which include, among other objectives: an analysis of the overall effectiveness of the programme; an evaluation of the availability and affordability

³⁰ A Camargo (2019), pg. 27.

³¹ ICP 1 states that “where there are multiple authorities responsible for insurance supervision, the main responsibilities of the respective authorities and a basis for cooperation and coordination should be clearly set out in primary legislation”.

of terrorism risk insurance; and an evaluation of any changes or trends in the data collected, such as those related to cyber insurance and ransomware.³²

3.2 Supervisory expertise – assessment and monitoring of risk

Supervisors have a range of experience and expertise that can assist in the design and implementation of initiatives to address pandemic risk. Supervisors could provide data and guidance and undertake monitoring to inform insurers of the implications of their involvement in any initiative to provide coverage against pandemic risk.

Supervisors could also act as a bridge between the insurance sector and government, playing a role in advising governments on the implications that involvement in such initiatives could have on insurers, from both a micro- and macroprudential perspective.³³

3.2.1 Risk-sharing arrangements

A key barrier to any kind of insurance-based programme aimed at providing more accessible pandemic coverage, is solvency risk for participating insurers. In this regard, the structure of any programme, such as a PPP or risk pool, and particularly the risk-sharing arrangement between the (re)insurer and government, could have significant implications on the risk born by participating insurers. As outlined in section 2, there could also be a range of variables with relation to the nature of the coverage offered under the programme – for example the scope and length of coverage, or whether coverage is a mandatory or non-mandatory offering from insurers – could also have a significant bearing.³⁴

Supervisors could play an important role in assessing the capacity of the industry to absorb risks – in particular tail risk – which could, in turn, support the design of any public-private risk-sharing scheme. Understanding when a risk may introduce solvency risks for the industry can help governments determine the point at which a financial guarantee should kick in. Furthermore, supervisory authorities can help governments understand the capacity of the reinsurance sector to accept risks, which may influence the design of any programme.

3.2.2 Quantification of risk

Another significant challenge for insurers and supervisors alike, is in assessing exposure to pandemic risk. ICP 16 (Enterprise Risk Management for Solvency Purposes) notes that “different

³² See FIO (2022), [Report on the Effectiveness of the Terrorism Risk Insurance Program](#) and FIO (June 2021), [Study of Small Insurer Competitiveness in the Terrorism Risk Insurance Marketplace](#).

³³ Although developed to address a different type of risk, the Asian Development Bank (ADB) Natural Catastrophe Diagnostics Paper provides an interesting synopsis of the importance of the insurance supervisory system within governments’ broader contribution to effective disaster resilience. The ADB highlights the value of supervisors’ close links with the insurance sector whose specific skills, capabilities and experience include mapping, modelling, calibrating, pricing and underwriting disaster risks with bespoke solutions. In addition, a wide range of laws and regulations related to Insurance-Linked Securities (ILS) treatment, recognition of new technology in underwriting and claims servicing, taxation, procurement and contracts, among others, are needed to facilitate the deployment of the insurance sector capacity. See Asian Development Bank (2020), [Assessing the enabling environment for disaster risk financing: A country diagnostics tool kit](#), pg. 10-11.

³⁴ A clear definition of triggers for coverage would also be important. In the case of a pandemic, existing proposals generally indicate that a trigger for claims payouts would likely be the declaration of a pandemic by a local health authority, potentially on the basis of advice from the World Health Organisation. The trigger may be more difficult to define if coverage was to extend to epidemics also. For an account of the (potential) use of triggers, including parametric triggers for pandemic risk, see EIOPA (2021).

approaches to measuring risk may be appropriate depending on the nature, scale and complexity of a risk and the availability of reliable data on the behaviour of that risk”.

In this regard, pandemic risk poses a particularly difficult challenge for insurers. During the Covid-19 pandemic, significant non-damage BI losses were incurred as a result of government-imposed measures to limit the spread of the virus (lockdowns/travel restrictions etc.), meaning that understanding what data to collect and data modelling of the risk(s) is difficult. The lack of relevant data and limited predictive capacity of insurance models when it comes to assessing socio-economic and behavioural risks under a pandemic – arguably with the exception of mortality and morbidity – makes this a significant challenge. Another challenge in modelling pandemic risk is the heterogeneity of the impact on different businesses – for some sectors, like the entertainment, hospitality and transports sectors, or the informal sector, the impact has been particularly acute. For other businesses, particularly those able to transition business online with less disruption, the impact has not been as severe.

Some parallels can be drawn with the challenges for insuring cyber risk. The potential for a single major cyber incident or campaign of cyber attacks to trigger losses across multiple policies and insurers leading to significant accumulated losses, could present a systemic risk if certain conditions are met. For example, a scenario of global attacks on internet infrastructure or cloud service providers). This characteristic makes cyber accumulation risk different from other insured perils – and analogous to pandemic risk – because the degree of diversification that insurers can achieve by building large and geographically diverse cyber risk insurance portfolios is limited.³⁵ Furthermore, as with pandemic risk, modelling cyber risk as an input for underwriting decisions remains underdeveloped.³⁶

Underdeveloped modelling and a lack of data as inputs for underwriting decisions could present a barrier, precluding (re)insurers from participating in a multi-stakeholder initiative, such as a PPP, to address pandemic risk. Other implications could be that coverage provided under such an initiative is priced at a prohibitive cost to consumers, or that coverage is not priced accurately.

3.2.2.1 Data collection and analysis

To address the challenges associated with assessing the risk to insurers, the expertise of supervisors in collecting and analysing data – including non-public information – could provide a useful tool, including to assess any cumulative potential impact on the operations of insurers.

Data – collected in an efficient and proportional manner – could be a useful building block in the development of a sustainable and prudentially sound approach to the provision of pandemic risk coverage. Such data could assist in the quantification of pandemic risk, and in monitoring possible accumulation risk for insurers. There have been some relevant supervisory initiatives in this regard.

³⁵ See, for example, The Geneva Association (2022), pg. 20.

³⁶ This is related to the evolving nature of cyber risk, due to factors such as the expansion of digitalisation and interconnectedness; limited loss experience and comparative shortage of reliable cyber risk data; and, non-affirmative coverage of cyber risk, which can create uncertainty in adequately measuring and assessing risk. See IAIS (2020), [Cyber Risk Underwriting](#) and OECD (October 2021).

For example, the US National Association of Insurance Commissioners (NAIC) undertook a BI data call in 2020.³⁷

Collecting and analysing data on the existing BI insurance provides a better understanding of the existing BI market, and loss experienced on existing BI policies as a result of the pandemic. However, the datasets required to support modelling of pandemic risk would need to be broader. Modelling of non-damage BI losses – which are generally not covered in existing BI policies – would also be key to understanding the magnitude of the protection gap and would be essential in the development of insurance solutions aimed at expanding the availability of pandemic risk coverage.³⁸

3.2.2.2 Data sharing

Supervisors could be proactive in developing mechanisms for sharing data across public and private entities, to inform insurers' own assessment of risk. One such example – albeit developed to inform a different type of risk – is EIOPA's *Pilot dashboard on insurance protection gap for natural catastrophes*, based on data gathered from (European) national supervisors, public authorities and the (re)insurance sector.³⁹ The dashboard provides a historical view of natural catastrophe protection gaps and also uses modelling to provide an estimate of current protection gaps. The aim of the dashboard is to represent the drivers of a climate-related insurance protection gap, in order to identify measures that will help in decreasing society's losses in the event of natural catastrophes. A more holistic basis of data sources upon which to undertake modelling would assist in ensuring that any future pandemic insurance is properly priced and reflects the underlying risk.⁴⁰

3.2.2.3 Data collection and analysis to assess programme effectiveness

Collection and analysis of data by the supervisor could be an important element of the ongoing assessment of any initiative to provide pandemic coverage once established, including assessment of the effectiveness in addressing protection gaps. For example, under the TRIP in the US – as explained in section 3.1.3 – the Treasury Secretary is required to collect data related to the Programme on an annual basis.

3.2.3 Capital requirements

Data collection and analysis could also support a supervisor's approach to managing capital requirements for insurers offering pandemic risk insurance products. Setting adequate capital

³⁷ In the US, insurers are not required to report financial data for BI insurance on a separate line-item basis for their statutory filings, which can create challenges in fully understanding the US BI market. Partly in order to address this issue, the NAIC issued a BI data call requiring insurers to disclose BI premium, claim and loss data (in 2020). See NAIC (2020), [Business Interruption Insurance and COVID-19: coverage and Issues and Public Policy Implications](#), NAIC Journal of Insurance Regulation, vol 39, no 5, and NAIC (2020), [COVID-19 Property/Casualty Data Call](#).

³⁸ In its [Issues paper on shared resilience solutions for pandemics](#), EIOPA contends that spending significant effort in improving the modelling of non-damage BI risks is key as it will help insurers price risk and quantify the benefit of mitigation measures to reduce the economic impact. However, this remains challenging – not many models exist currently as it requires not only modelling the pandemic risk but also the associated non-damage BI risk, which can arise directly from the pandemic but also from decisions taken to mitigate these risks. The Issues Paper puts forward a number of options to improve access to data and ensure proper modelling of non-damage BI risk associated with pandemics.

³⁹ EIOPA, [Pilot dashboard on insurance protection gap for natural catastrophes](#).

⁴⁰ See, for example, Qui, Joseph, [Pandemic risk: Impact, modelling, and transfer](#) (November 2020). American Risk and Insurance Association, pg. 303.

requirements ensures that insurers can absorb unforeseen losses and provides for degrees of supervisory intervention. ICP 17 (Capital Adequacy) requires the supervisor to establish “regulatory capital requirements at a sufficient level so that, in adversity, an insurer’s obligation to policyholders will continue to be met as they fall due and requires that insurers maintain capital resources to meet the regulatory capital requirements”. Supervisors can identify risk accumulation measures and partly require, directly or indirectly, limits on coverage.

In response to Covid-19, the IAIS has undertaken some initial analysis to compare Insurance Capital Standard (ICS) risk factors for mortality risk against the mortality associated with Covid-19, based on available data. Further analysis may be undertaken based on more comprehensive data as it becomes available, in the context of the ICS monitoring period.⁴¹

In a September 2021 brief, the Bank for International Settlements’ (BIS) Financial Stability Institute (FSI) contends that, while insurers have not been adversely affected by higher deaths arising from Covid-19, insurance supervisors can take this opportunity to review capital and other relevant requirements for pandemic risk, particularly business lines that have been badly hit, such as event cancellation and BI. To achieve this objective, further work is needed to define more clearly the scope of pandemic risk based on credible sources and consideration on insurability of such global risks. Clarification may also be needed to specify whether epidemic risk is covered in existing frameworks.⁴²

The challenges outlined with regard to measuring pandemic risk – in particular non-damage BI – could present an obstacle for (re)insurers offering pandemic coverage, as well as supervisors, in determining the adequate amount of capital required to protect themselves from unexpected losses.⁴³ If pandemic risk coverage was provided through a PPP or risk pool, including a risk-sharing arrangement between (re)insurers and government (ie if supported by a government backstop), supervisors could possibly consider differentiated treatment in the determination of capital requirements of pandemic risk due to limited – or defined – direct exposure of insurers.

3.3 Balancing fair treatment of customers with financial stability

During the Covid-19 pandemic, a number of high-profile cases emerged relating to policy wording for BI coverage and the retroactive payment of BI losses. These cases required supervisors to navigate between the core supervisory roles of ensuring the fair treatment of customers while maintaining the financial soundness of individual insurers and sector-wide financial stability. This note does not seek to explore the various cases in-depth, however, there are lessons from these developments that can inform supervisory approaches to future initiatives so as to expand access to pandemic coverage.

⁴¹ The IAIS is currently undertaking a (five-year) monitoring period for the Insurance Capital Standard ICS, to determine its appropriateness ahead of its adoption and subsequent implementation as a group-wide Prescribed Capital Standard. The EU’s Solvency II also has a pandemic sub-module that is part of the health catastrophe risk calculation.

⁴² FSI Brief 15 (2021). Munich Re also contends that market development for risk transfer solutions for epidemic and pandemic risk could be further facilitated by the overarching role of the (local) financial industry regulators (EIOPA, Basel, Solvency II, etc.) which could influence capital streams by recognising disease outbreak risk as a model risk, embedded in the standard models, so that capital relief could be achieved if this risk is (sufficiently) managed. G Kraut and R de Kuiper (2021), pg. 13.

⁴³ The OECD contends that the cost of capital requirements – which are usually higher for low frequency events, would not benefit from any significant deductions as a result of diversification and would need to account for the high-level of uncertainty regarding frequency and severity – would add a substantial amount to the premium requirement. OECD (March 2021).

Throughout the course of the pandemic, a number of initiatives emerged across various jurisdictions that sought to require insurers to retroactively cover Covid-19-related BI losses. In response, a number of supervisory authorities expressed concern over such action, noting that this could create material solvency risks and ultimately threaten policyholder protection and market stability.⁴⁴ The IAIS also issued a statement on the matter, outlining that in cases where pandemic coverage is specifically excluded in insurance contracts, insurers should not be required to retroactively cover Covid-19 related losses. The costs of claims against these losses have not been built into the premiums that policyholders have paid for their insurance; therefore requiring insurers to cover such claims could create material solvency risks and significantly undermine the ability of insurers to pay other types of claims.⁴⁵ The IAIS statement also stressed, however, that in circumstances where pandemic risks are covered by a policy, it is important that insurers pay out such claims in a prompt and efficient manner. This sentiment was publicly echoed by a number of supervisory authorities.⁴⁶ Subsequently, there have been other examples where insurance regulators and supervisors have submitted or sponsored cases for legal interpretation to address some of the uncertainties related to BI coverage, some of which are ongoing at the time of writing. For example, the UK Financial Conduct Authority (FCA) brought a test case to the Supreme Court in order to appeal on behalf of policyholders where there were issues of contractual uncertainty.⁴⁷ The OECD provided an overview of test cases and legal interpretations on coverage applicability in its policy paper on *Responding to the COVID-19 and pandemic protection gap in insurance*.⁴⁸ EIOPA is also undertaking an analysis of exclusions in policy wording during the pandemic.⁴⁹

The Covid-19 BI test cases demonstrate the essential consumer protection role supervisors can play, through being clear on expectations with respect to fair treatment of customers, as well as through setting and implementing product oversight and governance requirements around market conduct risk. This could be a relevant consideration for supervisors in the context of an insurance-based programme to address pandemic risk, if a standardised form of coverage is offered by participating insurers. For example, supervisors could potentially play a role in regulating consistent policy wording or terminology across such coverages.⁵⁰

The test cases exposed, in some instances, ambiguities in policy wording around the limits of certain BI coverages, and differences in consumer expectation for the product purchased. Ultimately, however, the effect of the test cases will not necessarily bridge protection gaps caused by the pandemic – in terms of total economic losses on one hand and the availability or accessibility of pandemic risk coverage on the other. This is due to the fact that there is currently only a very limited existing market for insurance coverage for non-damage BI losses (ie the entire existing BI market makes up only a small fraction of the losses incurred during the pandemic).

⁴⁴ The NAIC is one example (January 2022): [Business Interruption Insurance/Businessowner's Policies](#).

⁴⁵ IAIS Statement (May 2020): [IAIS facilitates global coordination on financial stability and policyholder protection during Covid-19 crisis](#).

⁴⁶ See for example EIOPA (April 2020): [Call to action for insurers and intermediaries to mitigate the impact of Coronavirus/COVID-19 on consumers](#).

⁴⁷ See UK FCA (March 2022), [Business interruption insurance test case](#).

⁴⁸ OECD (March 2021).

⁴⁹ EIOPA (2022), [Consultation on the supervisory statement on exclusions in insurance products related to risks arising from systemic events](#).

⁵⁰ Another challenge that may need to be navigated is the potential for overlapping coverages between pandemic cover (ie. non-damage BI cover) and other types of insurance policies, such as cyber insurance policies.

Furthermore, the result of the BI test cases could, in fact, lead to more restrictive contract wording and more exclusions for pandemics from insurance policies, making coverage less available and accessible.⁵¹ In this regard, there are parallels that can be drawn with developments in the cyber insurance market. The Geneva Association, for example, contends that “amid heightened uncertainty about prospective cyber attacks, especially the potential for ransomware and supply chain incidents to have widespread impacts, (re)insurers have recently sought to tighten policy language and withdraw risk-absorbing capacity in order to protect their balance sheets. Measures include coverage exclusions, higher self-insured retentions and more stringent limits/sublimits”.⁵²

3.4 Risk prevention and risk reduction measures

While risk prevention and risk reduction is not the sole role of insurance, the insurance sector can play a role in building broader system-wide resilience. As risk experts, insurers can offer products and services that do not just transfer risk, but also encourage integrated risk management approaches in order to avoid or reduce losses. This could potentially extend to private or public-private approaches, to provide coverage against pandemic risk. For the part of the supervisor, the role could be in assessing insurers’ business plans or underwriting strategy where risk mitigation plans (such as agreed local or national prevention measures) to enhance resilience against pandemic risk have been implemented.

There is a precedent for implementing risk reduction or prevention measures into business plans and underwriting strategies for other types of risk. This, in turn, can have the effect of improving policyholder awareness of risk and incentivising investment in risk protection measures, thereby building overall resilience. For example, in the context of natural catastrophes, risk prevention and reduction measures could include requirements such as making insurance coverage conditional on the enforcement of construction standards for buildings to withstand natural catastrophes such as fires or floods.

Insurers have also integrated loss prevention tools to educate clients and further develop their resilience against cyber attacks and assist with recovery efforts. The intent being that cyber insurance then brings benefits in the form of greater policyholder awareness and stronger risk management practices, and progressively helps reduce the protection gap.⁵³

There are also existing examples where prevention measures have been explicitly included in public-private initiatives, including for mechanisms to address climate risk and terrorism risk, as outlined in EIOPA’s staff paper on measures to improve the insurability of BI risk in light of pandemics, and the OECD’s paper on the role of catastrophe risk insurance programmes.⁵⁴

Engagement with IAIS members and stakeholders revealed few concrete examples of supervisory initiatives to promote risk prevention requirements in the context of pandemic risk. Indeed, this may be because there is less scope for actions that insurers can implement to incentivise policyholders

⁵¹ See EIOPA (2021), There is evidence to suggest this is already occurring. Marsh, for example, has noted that insurers are restricting cover for renewing insurance programmes by imposing broad disease exclusions: [Communicable Disease Exclusion Clauses](#).

⁵² The Geneva Association (2022), pg. 11.

⁵³ See IAIS (December 2020): [Cyber Risk Underwriting](#), pg. 7.

⁵⁴ See EIOPA (2021), pg. 13-14 and OECD (October 2021), pg. 23, Box 2.3.

to reduce their risk of pandemic losses, compared to other types of perils. However, existing literature on pandemic risk does identify some areas that could be considered:

- Risk prevention is a key element of EIOPA's concept of shared resilience solutions. EIOPA proposes that measures could be implemented by insurers to improve policyholders' awareness of pandemic risk and incentivise investment in risk prevention. In turn, insurers could make a premium reduction conditional on further requirements taken by the policyholder to demonstrate that such risk mitigation measures have been implemented.⁵⁵
- The OECD contends that possible risk prevention measures that could be implemented in the context of pandemic risk include insurers requiring policyholders to have business continuity plans or other risk mitigation measures in place that support the continuity of operations. Insurers could also integrate requirements to implement measures to limit the spread of the virus – such as a strengthened capacity for remote working and improved cybersecurity measures.
 - The BCPP proposal in the US, for example, includes a recommendation that adherence to federal health guidance be a condition for access to compensation.⁵⁶

3.5 Creating regulatory conditions conducive to multi-stakeholder approaches

Currently there is only a very limited existing market for insurance coverage for non-damage BI, but this may change in the future as insurers' business models continue to evolve.⁵⁷ In readiness for future pandemics, supervisors could play an influential role in fostering certain conditions for local markets to enable multi-stakeholder initiatives aimed at expanding coverage for pandemic risk. Some examples could include:

- Access to *global reinsurance* – Given the scale of the protection gap for pandemic risk, reinsurers, including global reinsurers, would likely need to play a crucial role in the development of any pandemic insurance solution by providing reinsurance capacity to local insurance markets. In some cases, reinsurers may also be able to provide expertise that may not be available locally, such as technical support in product design and pricing, risk modelling and innovative business models. The OECD contends that, in the context of natural catastrophes for example, global reinsurance markets can contribute to risk management by enhancing the capacity of primary insurance markets to offer coverage and supporting their ability to manage catastrophe risks. There is also evidence that reinsurance coverage has had a positive impact on reducing the economic disruption of past catastrophe events and reducing post-catastrophe disruptions in primary insurance markets. For supervisors, there may be scope to review current requirements for reinsurance to ensure a balance between enabling

⁵⁵ See EIOPA (2021), pg.14.

⁵⁶ See OECD (October 2021).

⁵⁷ Qiu contends that while the immediate impact of Covid-19 on P&C insurance markets has been to intensify a pre-existing "hard market" characterised by a tightening of underwriting criteria and sustained upward trend in pricing, at the same time, insurers are planning for the future. Some capital, raised during the pandemic will likely be allocated to new product offerings that involve pandemic risk. See Qiu (2020). Kraut and de Kuiper also articulate how a market for epidemic and pandemic risk transfer solutions, including with public sector support, could be developed. G Kraut and R de Kuiper (2021). Lloyds focused its fifth "Lloyd's lab" innovation accelerator on working with a variety of start-up firms to expedite Covid-19 related products and innovations, and to improve understanding of how to model and create products that better protect customers against future pandemics and other systemic risks. Lloyd's (2021), ["Lloyd's Lab: Our fifth cohort"](#).

the potential benefits of international reinsurance markets, while also ensuring that risk transfer to international reinsurers does not lead to significant risks to insurers' ability to meet their obligation to policyholders.⁵⁸

- Enabling a range of *distribution channels and delivery strategies* – A number of the proposals for insurance-based programmes for future pandemics, as outlined in section 2, envisage a central role for insurers in the distribution of claims payouts. Supervisors could play a role in ensuring that regulatory requirements are proportionate and allow a range of distribution channels and innovative transaction platforms. This could be particularly relevant in EMDE jurisdictions, where traditional distribution mechanisms may be limited.
- Demonstrating an openness to innovative forms of insurance, such as *index insurance*, subject to the ongoing achievement of supervisory objectives of policyholder protection – Index, or parametric, insurance can allow for quick settlement in accordance with a pre-agreed event parameter or index value and, therefore, has the potential to pay out more rapidly than indemnity-based insurance. Index insurance has often been effective in providing natural catastrophe coverage, where the trigger for payouts has been modelled on certain weather events or conditions. A parametric trigger could potentially form an element of any PPP or risk pool mechanism for pandemic cover – for instance the Indian Pandemic Risk Pool envisaged claims payment on a parametric basis. In this regard, supervisors could play a role in ensuring there exists clear regulation that allows index insurance.⁵⁹
 - As an example in the context of natural catastrophes, the Comisión Para El Mercado Financiero (CMF) in Chile proposed a bill empowering the CMF to regulate parametric insurance, which would allow companies to offer more accessible coverage against events of a catastrophic nature. These products would have a lower premium and expedited settlement. At the time of writing, the bill has not yet passed, meaning that insurers cannot sell parametric insurance, as it does not comply with the compensation principle established in the Chilean Commercial Code.⁶⁰

4 Concluding remarks

The development and implementation of initiatives aimed at improving accessibility and availability of insurance coverage against pandemic risk – or other types of risk where diversification is difficult to achieve – presents a unique challenge for governments, insurers and supervisors alike.

In response to Covid-19, governments across the world, embarked on large-scale relief plans in an attempt to alleviate the devastating losses to households and businesses. For future

⁵⁸ The OECD assesses that most jurisdictions impose regulatory or supervisory requirements on the issue of reinsurance, normally (but not always) with the aim of mitigating the counterparty and executions risks that could materialise as a result of risk transfer to reinsurers without a local presence or locally-based assets. Some of these requirements may be creating other risks by impeding the market's ability to manage catastrophe. The OECD suggests that other approaches, such as ensuring that reinsurers are appropriately supervised in their home jurisdictions and enhancing supervisory cooperation and information exchange across jurisdictions, could offer better ways of managing risks. OECD (October 2021), pg 7.

⁵⁹ The IAIS (June 2018) [Issues Paper on Index Based Insurance, particularly in Inclusive Insurance Markets](#) outlines some of the key challenges.

⁶⁰ Parametric insurance that would indemnify all homes in a particular area against catastrophic earthquake – provided the established trigger has been exceeded – even including those homes that do not present damage after the earthquake, was interpreted as violating the compensation principle contained in the Chilean Code of Commerce.

pandemics, multi-stakeholder initiatives, such as PPPs and risk pools, could potentially better “share the load” and draw on the experience that insurers have to offer.

As initiatives are considered, supervisors can play an important role, particularly in ensuring that the risk-sharing being taken on by insurers is sustainable from a micro- and macroprudential perspective. Supervisors may also have a role in ensuring such initiatives are suitable and appropriate in addressing a broader segment of policyholder needs and emerging risks unique to traditionally underserved segments of the population, including lower income groups and small/informal businesses that are most vulnerable to losses or slow financial recovery in these circumstances.

There are several related issues that are not covered within the scope of this note – for example, cross-border or regional approaches to addressing pandemic risk, or multi-peril approaches that would diversify through bundling pandemic risk with other types of risk.

Going forward, the IAIS will continue to monitor the landscape as different approaches and initiatives aimed at closing pandemic protection gaps are considered and developed. Pandemic risk will also be considered in the context of protection gaps more broadly, recognising that protection gaps in some areas are growing – or will likely grow – and, as a result, supervisors and insurers are becoming more aware of the risks. The IAIS and A2ii will also consider possible follow-up work and opportunities for dialogue and collaboration on certain issues arising from the note, including for example:

- Issues and opportunities with regard to the role of supervisors in the establishment and monitoring of PPPs, or other co-insurance models considering not just pandemics but also other types of risk, such as natural catastrophe/climate risk and terrorism risk; and
- Supervisors’ role in market development and capacity building for pandemic risk coverage – as well as other types of risk – with a focus on EMDE markets.

Learning from the response to Covid-19 can assist supervisors to be prepared when faced with future pandemics or other types of systemic risks that challenge traditional models of insurance coverage.

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