

ISSUES PAPER ON SHARED RESILIENCE SOLUTIONS FOR PANDEMICS

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1. INTRODUCTION

Insurance relies on risk pooling. If, as in the current pandemic, the event affects an overwhelming proportion of society, and on a worldwide basis, insurance cover will not be supplied by private insurance undertakings at any price since the risk cannot be pooled or diversified geographically. One estimate is that current business interruption premiums in some markets would need to be collected for over 100 years to cover two months of COVID-19-related business interruption costs. The lock-down measures, by which national or local authorities have restricted movement of (parts of the) population, have augmented the risk of business interruption.

On the demand side, inability to insure has significant wider economic and social consequences such as businesses and individuals being unable to obtain loans and mortgages. This may well be an important second round effect of the Covid-19 crisis.

There is in addition often a differential impact. For example, small businesses may find it harder to obtain cover (“availability) or only at an extreme price (“affordability”). Moreover, business interruption insurance for pandemics is not commonly offered in European markets, nor has there been any demand for such a cover before current pandemic.

Thus in circumstances such as the current Covid-19 crisis there are at least in the future likely to be market failures in respect of the provision of private insurance of both supply and demand.

In addition, pandemic risk exhibits so-called accumulation potential across several lines of insurance business, for example life and health, credit, travel, liability and others. Moreover, the asset side of an insurer’s balance sheet is also affected by the adverse market conditions caused by the economic impact of the response to a pandemic. According to the insurance industry these factors constrain the supply of insurance. Therefore it is evident that cover for pandemic risk cannot be provided solely by private commercial insurance and reinsurance systems. If the further availability of this cover is deemed necessary, some additional solutions should be found.

This paper identifies issues and options for developing possible shared resilience solutions addressing business interruption risk in the context of a pandemic. Crucial elements in increasing society’s resilience will be proper risk assessment, risk prevention and balanced solutions for risk transfer across private and public parties.

The issues paper is an EIOPA staff paper and does not necessarily reflect the opinions of all national supervisory authorities. The paper does not aim to set out a specific course of action, but highlights options that could be explored at national and European level. At this stage therefore issues such as legislative changes required are not considered. Nor of course does the paper make any assumptions regarding changes to the EU Treaties, the principle of subsidiarity, or competition laws.

The paper is based on discussions held with representatives of the insurance industry and commercial insurance buyers, including Insurance Europe, FERMA and Marsh&McLennan. It also benefitted from input from Bipar, AMICE, and the Reinsurance Advisory Board.

Views are invited on this issues paper until Friday 25 September 2020. Please send any comments to: sharedresiliencesolutions@eiopa.europa.eu

2. ELEMENTS AND PRINCIPLES OF A SHARED RESILIENCE SOLUTION

2.1 Elements

A shared resilience solution would build on four key elements:



Figure 1: Elements of a shared resilience solution

2.2 Principles

The following four principles would underlie the development of a shared resilience solution for pandemic risks:

1. A shared resilience solution would require the sharing of costs and responsibilities across the relevant parts of the private and public sector in a meaningful manner (“skin in the game”).
2. An efficient shared resilience solution will require an element of central coordination across public and private entities.
3. Any solution involving public and private sector would be conditional upon implementing efficient and effective prevention and adaptation measures.
4. A shared resilience solution can only insure against a portion of the economic costs.

3. OPTIONS FOR A SHARED RESILIENCE SOLUTION

3.1 Risk assessment

Description: The current pandemic has shown that there is a significant protection gap for so-called non-damage business interruption insurance (NDBI). To be able to assess the NDBI risks associated with pandemic events, it is necessary to have access to relevant data and risk modelling tools. A number of relevant data come from public sources such as data on the pandemic itself (type of virus, contagion development over time...) or lock-down data from the government. However, a number of data to understand NDBI risks might also not be available publicly, such as granular data of NDBI losses per company.

Spending significant effort in improving the modelling of NDBI risks is key as it will help insurers price risk and quantify the benefit of the mitigation measures to reduce the economic impact. Modelling NDBI risks associated with pandemics is very challenging. Not many models exist currently as it requires not only modelling the pandemic risk but also the associated NDBI risk. NDBI risks can arise directly from the pandemic but also, indeed perhaps more so in the current pandemic, from the decisions taken to mitigate these risks, such as for example the administrative decision from national or local authorities to implement a lock-down. The latter is particularly difficult to model as there are no legally binding rules for enacting a lock-down.

Options to improve access to data and ensure proper modelling of NDBI risks associated with pandemics:

3.1.1 Establish an EU expert group for data sharing and risk modelling

(+) To improve the understanding of NDBI risks associated with pandemics, many (new) data, which might not have been collected so far by the (re)insurance industry, are needed. A collective effort to make this type of data available would speed up the development of new tools to assess the associated risk. Bringing relevant people together would also help to develop standards and/or harmonise the approach to assess NDBI risks for pandemics. As mentioned, understanding NDBI risks also requires including data from governments and data from the private sector. It might be beneficial for all parties to work on similar data to model the risk. If such a group were established it would be necessary to define its deliverables and governance structures.

(-) However, it is important to consider that the interests might vary between the different stakeholders, which could reduce the efficiency of the group. Some data to assess the NDBI risk for pandemics are available from public entities but many data are also company data, which might be confidential.

3.1.2 Use current cat models to model NDBI risks related to pandemics.

(+) Most of the current catastrophe (cat) models provide risk modelling for (1) life and/or mortality associated with pandemic events or (2) business interruption coverage largely as a function of the material damage loss calculation (following an earthquake, for example). Some models developed by insurers and risk managers model BI losses, which includes consequential BI losses of interdependent parts of the production chain, which were unaffected by the initial material damage (Interdependency BI) or where the BI loss is caused by the inability of a supplier to deliver due to a material damage there. Some reinsurers also model the effects

of pandemic risk and data collected during the COVID-19 crisis will need to be used to back-test current models.

(-) These models might however not be sufficient for modelling NDBI risks linked to pandemics. BI losses in most of the current cat models are usually only triggered by physical damage and the BI vulnerability functions typically do not differentiate between 'loss of profit' and 'loss of revenue' coverage and do not adequately capture factors driving the expected duration of interruptions, which may depend on the recovery capacities of the affected region and its economy. Most commercial cat risk models considering pandemics do model mortality risks for example but do not make the link with BI losses.

To model NDBI risks associated with pandemics, it will be necessary to link pandemic models with more sophisticated modelling of BI losses being able to capture governmental lock-down scenarios for example. However, the strong dependency on government actions make the risk very difficult to measure and model accurately.

3.2 Risk prevention

Description: As part of risk prevention, mitigation includes measures to minimise existing and avoid new catastrophic events. Adaptation includes measures to limit the impact of a future event, and can include measures to control the losses upon materialising. While adaptation measures can be taken by policyholders and (re)insurers, some of these prevention measures are largely in the remit of public authorities. Measures addressing business continuity and health prevention will both contribute to limiting the economic consequences of a pandemic. Measures by public authorities in that regard are setting the frame in which risk prevention at company level operates, going beyond these public prevention measures to optimise the risk prevention according to the needs and capabilities of the company.

Private initiative, from citizens and businesses, but also from insurers and reinsurers, can reinforce and implement measures by public authorities, as well as provide additional sources of resilience. Early education of policyholders about risks, by for example the European Risk Management Associations, and also by insurers, brokers or consumer organisations, can contribute to awareness and effective implementation. Monetary incentives (reductions of premia for investment in risk prevention) may prove more efficient than fines, in particular where policyholders would already face financial constraints due to the materialisation of the risk.

In putting in place prevention measures, it is important to recognise which would be efficient measures and how they are best put in place across the different layers of risk owners. For example, if a risk transfer solution involved reinsurance from a public entity, an option may be that a portion of the premia collected from the private insurers are invested in public prevention measures (e.g. rescue capabilities, hospitals or cyber defence units), to strengthen the resilience of European society as a whole. The monitoring of the efficiency of prevention measures will be important to assess effective risk reduction. A risk-based pricing process supports risk prevention measures, as it relies on identifying critical risks, consulting on appropriate prevention measures and, once put in place, factor the prevention measures in the premium of the insurance product. However, full risk based pricing may be challenging to implement given the likely costs to high risk business categories even factoring in risk prevention measures.

The level of integration and interdependency of the highly integrated European economy, be it via supply chains within industries and cross-sectoral dependencies, as well as across different company sizes, may benefit from a joint integrated holistic approach, because isolated loss prevention measures on company level have a quite limited effect if these are not aligned with public sector measures.

Options for embedding risk prevention in shared resilience solutions:

3.2.1 Reflect prevention measures in NDBI insurance premiums and policy conditions

(+) Pro-actively reducing the insured risk, in particular if this is a pre-condition for insurance coverage, would contribute to making insurance affordable on a long-term basis and support the resilience of the European economies by minimising risks and losses. Private sector initiatives can include businesses implementing business continuity planning, ex ante, including protective measures at the workspace, the possibility of teleworking or adapted cyber security policies. Where risk-based pricing is implemented, insurers can provide risk-based premiums or deductibles reflecting the risk reduction of certain preventive measures.

(-) Policyholders may have difficulties in assessing the true value of costly risk prevention measures vs. the insurance premium spent. They may not be sufficiently informed of the type of prevention measures they could take. Insurers may lack tools and data to measure the efficiency of the prevention measures and reflect the effect in the premium or policy conditions. If models are not available to properly reflect the prevention measures, such a reduction could be estimated only subjectively.

3.2.2 Create a platform for public and private coordination on prevention measures.

(+) Better coordination of risk prevention measures between private and public sector representatives may prevent misalignment of measures taken at the different levels. An example of coordination in another context was a commitment to public expenditure on flood defences. Such coordination could contribute to more efficient and targeted risk reduction, which would promote the recovery from the pandemic. Public prevention initiatives can range from containment measures (incl. testing, modelling, contact tracing or lock-downs to contain the spread of a disease) to measures for strengthening the public health system. Combining the knowledge from the public sector with the knowledge from the private sector could result in more optimised containment measures, for example.

(-) Traditionally, sectoral interests, the need for expedient action and the lack of a holistic risk assessment across the market made such coordination difficult. In some cases, the interest of the market and public interests may also not coincide (example of the lock-down, which creates a business interruption protection gap).

3.3 Product design

Description: NDBI insurance in general is not commonly offered in European markets. NDBI insurance for pandemics is generally excluded or mostly non-affirmative (i.e. silent or unintended, hence no premiums

collected and provisions made). To improve insurance coverage, there is the clear need to explore possible solutions for offering affirmative NDBI cover for pandemics.

Options to improve the insurance coverage of NDBI risks associated with pandemics:

3.3.1 Provide simple and transparent NDBI coverage for pandemics

(+) A simple product would allow policyholders to get quick coverage and would allow policyholders to understand the product and against what they are covered for. A clear statement of the conditions of the NDBI coverage, such as triggers and scope, as well as on the exclusions is therefore essential. Furthermore, if the premium is risk-based, it can be used as a transparent indicator of the risk and thus for monitoring how the risk evolves over time. It is also possible to reflect risk prevention measures in the premium, incentivising the policyholder to invest in risk prevention. By bundling the cover with other insurance products (e.g. fire and property), pandemic insurance would be made more accessible and there may be a possibility to benefit from some risk diversification. Bundling would also simplify the access to NDBI insurance, as policyholders would be automatically covered if they get a property insurance product, for example.

(-) Pandemics are difficult to insure because of the challenges associated with the accumulation of the risk (across geographies and across various lines of businesses), which prevents the private insurance industry from offering widespread BI coverage for pandemics. Pandemics are also difficult to insure because some of the negative economic consequences result from administrative decisions to impose economic shutdowns, rather than from the actual pandemic itself – as has been seen during the COVID-19 pandemic. This separates pandemic risk from other similar systemic risks, as governments have a direct role in the risk. There is a lack of data on pandemic risk, which prevents non-life underwriters from accurately pricing the products. This means that, in turn, the level of cover offered would likely be very limited. Setting a risk-based premium requires some claims history for calculating the severity and average frequency of expected events. In addition, NDBI might be too complex for offering via a simple product. For certain policyholders, coverage and deductible need to be adapted to their business. If bundled with other products, i.e. not offered as a stand-alone product, the risk assessment made for NDBI might not be very transparent. Certain policyholders (economic sectors) might also need specific policy conditions, which may not be well reflected in a bundled product. Finally, more thought needs to be given to current definitions of BI coverages as different aspects of BI-related losses, such as loss of turnover, loss of profit, increased cost of working etc. need to be reflected in the NDBI product. Combining an NDBI coverage with typical BI coverage could be difficult to handle if there is different reinsurance and state protection cover for the NDBI part.

3.3.2 Target NDBI products at small and medium enterprises (SMEs)

(+) The economic shutdown has greatly affected the smaller commercial businesses (SMEs) that do not have the financial capability to withstand any sustained shut down of activity. The solution therefore may need to first address the most vulnerable SMEs. Larger companies might have more capacity to resist this type of crisis and might also have the possibility to take prevention or risk transfer measures (such as captives), or have access to public funding.

(-) The impacted entities by the current pandemic crisis have been of all sizes. The size and interconnectivity of the economic losses makes it challenging for any company to survive the crisis. Covering more actors could also help to mutualise the risks.

3.3.3 Offer parametric insurance cover for NDBI risks related to pandemics.

(+) Parametric insurance can offer the advantage of a quick settlement as the payment structure has been pre-agreed based on an event parameter or index value. This would avoid the complexity based on loss adjuster assessment. A hybrid solution could be created, where the product is parametric but the waiting period is variable, depending on risk measures and mitigation adoption. In addition, there might also be the possibility to use parameters to calculate the compensation as done in the CATEX proposal of the French insurance industry.

(-) The parametric trigger is typically an “objective” parameter, such as an earthquake magnitude. There can be significant basis risk as a result, when the trigger for the payment is not well correlated with the actual loss suffered. There could be strong dissatisfaction if an arbitrary parameter resulted in inadequate payments. If the trigger of the parametric insurance is designed to be government action, a government is likely to have an interest in when and whether insurance pays out, potentially creating moral hazard, depending on the capacity provided by national governments in the third layer. Therefore, it is important that clear and legally binding definitions of triggers are agreed upon that avoid conflicts between taking preventive measures and risk taking in each layer of risk transfer. Parametric triggers are very difficult to link to risk management achievements at company level, since they are based on an external parameter that applies to all insured. Another key consideration with parametric insurance is the trade-off between fairness of coverage versus the need for swift pay-out.

3.4 Risk transfer

Description: A shared resilience solution comprises public and private sector participation, enabling a residual risk transfer between different layers of risk owners, on top of private companies or individuals: (1) insurance industry, (2) reinsurance industry or capital markets, (3) national government and (4) Europe. The measures that are taken – or not taken – at one layer will affect the efficiency and the impact of measures taken at another level. For example, the extent to which prevention measures have been put in place at the level of private risk owners may affect the need for transferring risk to the public level. The lack of data collection and sharing across different levels may also impede the overall understanding of risks developing. It is possible that the intervention at European level would first have to build on national solutions.

The choice can be made between funding-type or (re)insurance-based solutions. Public subsidy may pose a risk of moral hazard, by reducing incentives for risk assessment and risk prevention and development of private market solutions. By reflecting risks in the cost of (re)insurance, (re)insurance-based solutions can counter this moral hazard. Public reinsurance solutions may be less costly, but also depend on the willingness of the private insurance market to insure in the first place. In return, the capacity and willingness of (re)insurers to take on part of the risk may depend on the extent of public intervention.

By involving all layers of risk owners, the risk of moral hazard, assuming that the next level will cover the risk, can be reduced (“skin in the game”). The appropriate level of risk retention at each level of the transfer mechanism therefore needs to be clear, as well as the trigger for involving the next layer of risk transfer. Some retention of risk by businesses e.g. by limiting sum insured and applying an adequate waiting period, may also help to prevent moral hazard and create the right incentives for risk prevention. A risk transfer mechanism is not necessarily static: private risk appetite may start off at a limited level requiring considerable public participation; as risk assessment and reinsurance capacity from the private sector improve over time, public intervention may decrease over time. Through public-private co-insurance, governments can also take part of the risk, from the moment losses arise, for a given percentage. This may improve alignment of interest between public and private actors.

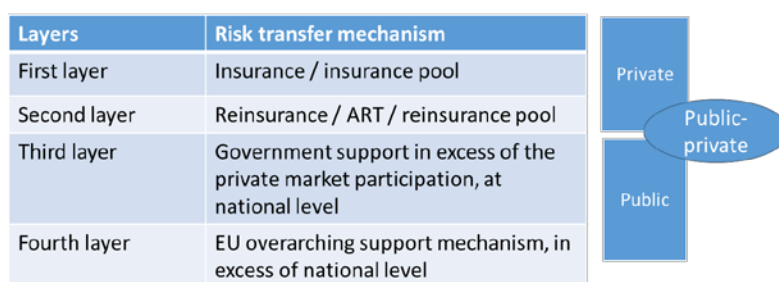


Figure 2: Layers of risk transfer

The options below partially build on the options regarding risk assessment, prevention measures and product design set out above.

3.4.1 Require mandatory cover for NDBI insurance

(+) Based on the assumption that insurers would be required to develop insurance products to cover BI risk in a pandemic, mandatory take-up of the cover could mitigate adverse selection, by which only potential high-risk profiles would buy insurance. Lack of awareness and behavioural aspects preventing consumers from buying insurance would matter less when insurance is mandatory. By collecting premia, insurers build up financial capacity for covering losses. Mandatory cover would ensure that the shared resilience solution would aim at the full range of commercial enterprises, irrespective of their size.

(-) Mandatory insurance would mean less exposed policyholders would de facto subsidise more risky profiles. Imposing mandatory coverage would not ensure affordability of the insurance solution: high risk-based premia will reflect high risks. Mandatory coverage could be an expensive overhead for businesses, potentially reducing competitiveness. Even if mandatory, the amount of premia collected may also not be sufficient (in the short term, but also in the longer term) to provision for NDBI losses for a future pandemic.

In addressing the pros and cons of the option, to achieve affordable cover for small and medium enterprises, some elements of public enhancement (in the form of subsidised premia, but conditional upon risk prevention measures) may need to be established as part of the subsequent layers of risk transfer. Based on risk assessment and due consideration of (financial) implications, businesses may also decide to opt out, potentially conditional upon the implementation of preventive measures or alternative solutions (e.g. captive

insurance) thus barring them from external state support, at least up to a certain level. Based on a projection of the maximum insurable loss, the risk exposure of the insurance market may be capped, for example, as a fixed percentage of losses, allowing the financial capacity to grow over time.

3.4.2 Implement national insurance and reinsurance pooling

(+) By setting up a joint entity for pooling different risks or a joint reinsurance entity which is funded by premiums paid by the insurers, (re)insurance pools can increase market capacity by diversifying risks among a broader base of insurers, or providing capacity for buying reinsurance cover in particular for “extreme” risks, such as terrorism, natural catastrophes or cyber risks. Pools can be of a temporary nature and can be constituted as private or public-private entities. In the latter case, such pools can benefit from government support above a certain limit.¹ Pools promote the sharing of risks and knowledge among different market participants and/or with the public sector. Pools can be used to incentivise on a broader scale the adoption of prevention measures by policyholders and improving coordination of preventive action at national level.

(-) National pools’ coverage is usually limited geographically to the Member State. Pools face limits in diversifying risks to their liabilities and assets in the event of a systemic or pan-European pandemic. The scale of current pooling arrangements for NAT CAT or terrorism is very small compared with the potential losses of a pandemic.²

3.4.3 Develop capital markets solutions for diversifying pandemic risks

(+) Alternative risk transfer mechanisms, modelled as insurance linked securities (e.g. nat cat bonds) can provide a layer of risk transfer and diversification in addition to (re)insurance solutions. Some of the EU instruments for the pandemic recovery under the Next Generation EU will seek to raise additional financing in the financial market.

(-) Pandemic risks with a large business interruption component may prove to be correlated with traditional financial markets. The experience of natural catastrophes bonds may therefore not apply in creating a pandemic risk solution. The use of special-purpose vehicles through which reinsurers cede premiums associated with a book of business to investors may suffer the same challenges as any investment when the economy slows down and diversification effects disappear. Industry loss warranties, based on industry loss

¹ Example for public insurance pools: Natural Catastrophe Insurance of Iceland (NTI) with unlimited government guarantee, or the French public terrorism risk insurer GAREAT reinsured by French state-owned Caisse Centrale de Réassurance (CCR). Example for private insurance pool: terrorism risk insurer Extremus AG, with government backstop. Example of public reinsurance pool: French CCR with unlimited government guarantee. Example for private reinsurance pool: Nederlandse Herverzekeringsmaatschappij voor Terrorisemeschaden, with government backstop up to 50 mio EUR, or Oesterreicher Versicherungspool zur Deckung von Terrorrisiken, without government support.

² In France, the terrorism pool would have an annual claims experience for property fire damage and associated business interruption losses covered by the insurance contracts of 2 mio, with 0,2 bn EU of average annual premiums and a 2,2 bn EUR liability threshold for government to step in. The estimate business interruption losses due to COVID 19 would amount to 75 bn EUR so far, with only 0,3bn BI insurance premiums collected in FR.

experience instead of insurer-specific losses, may allow for diversifying risks across sectors. However, insurance linked securities (ILS) are complex and expensive to structure, more so than conventional insurance.

3.4.4 Role of the European Union in a shared resilience solution

A layer including an EU-wide intervention could be justified by the pan-European nature of the pandemic crisis. The type of involvement could range from encouraging or promoting risk prevention and incentivising and coordinating national measures, to providing financial support for the recovery from the pandemic, through a funding-type mechanism or based on a reinsurance-type mechanism. EU interventions may have to consider solutions in place at national level, in order not to create or deepen economic fragmentation across Member States in the wake of a crisis.

3.4.5 Set a blueprint for national pooling arrangements

(+) Currently, at national level in Europe, not all Member States have (re)insurance pooling arrangements in place for catastrophe risks or existing pooling arrangements do not cover pandemic risk. The EU can facilitate and coordinate the establishment of national (or regional) insurance pool initiatives. This can stimulate Member States to prepare better at national level, in particular if pooling arrangements are required to integrate prevention measures in their set-up. Consistent implementation of pooling mechanisms across EU Member States may minimise the overall disruptive effect of a pandemic risk at EU level and limit the risk of economic fragmentation across the EU. Building on examples across Member States, best practices (a “blueprint”) can be identified to enable a consistent approach across Europe in defining triggers for the payment of losses at national level as well as the scope of coverage of national insurance or reinsurance pools. This may inform and facilitate overarching EU funding initiatives, in a fourth layer of risk transfer. For example, the identification of protection gaps across Member States could be made part of European Semester conversations between the European Commission and Member States, on the basis of a risk dashboard for catastrophe risks. EU funding, in the form of grants or loans, can be made conditional upon the implementation of measures to reduce the protection gap, such as for example national pooling arrangements. Member States that have low protection mechanisms will be encouraged to introduce reforms.

(-) National pooling mechanisms and government intervention may reflect challenges specific to the Member State such as insurance penetration, social and labour markets, as well as economic conditions. The inherent challenges apply of pooling arrangements facing interconnectivity of risks during a pandemic.

3.4.6 Establish a national/EU funding mechanism for pandemic risk coverage

(+) EU funding might be used to support the building up over time of national public and private capacity to deal with pandemics. EU intervention could provide a framework, and incentivise insurers and national

governments' risk prevention and risk sharing. The current EU Recovery Plan for the pandemic³, which addresses the risks from the current crisis, can inform views on future (structural) financial support for pandemic risk. Building on the example of these recently established support mechanisms as well as existing disaster management mechanisms (see Annex), some key elements of future EU financial funding for pandemic risk can be formulated, setting out the objective, conditions and mechanisms for funding.

(-) The implementation of national solutions in a non-coordinated manner may render the EU funding mechanism difficult to implement in a coordinated manner. Public funding-type solutions, which were not risk-based, would disincentivise the private market from developing risk-based insurance solutions and investing in risk reduction (moral hazard). This will add to the challenge of assessing the appropriateness of the risk retention at the different layers, and may prevent a fair and consistent treatment across the EU. To counter the risk of an adverse selection, additional measures may be needed, such as conditions for accessing EU funding or limiting the grants to a certain level. Conditions may consist of requiring national recovery and resolution plans or the assurance on the viability of companies when sector-specific funding is envisaged.

3.4.7 Design a European reinsurance solution for pandemic risk coverage

(+) A mechanism by which the EU would act as reinsurer above a certain threshold of accumulated losses at national level, in return for a percentage of premiums collected by (re)insurers and funded by Member State guarantees, could provide a solution, which builds on the steps taken in the first and second layer to increase insurance capacity. The solution would require insurance-based risk assessment and modelling tools, in turn incentivising the role of risk-based solutions. Objective triggers for involving this fourth line of defence could be e.g. a fixed percentage of GDP to be covered by an EU guarantee sourced from EU Member States committed guarantees.

(-) The solution is dependent on the capacity of insurers, and state-level support (e.g. in national pooling mechanisms), which in the short term, is limited. As noted previously, the investment risk of the EU reinsurance entity also correlates with the financial markets.

³ See Recovery plan for Europe, https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/recovery-plan-europe_en.

4. CONSIDERATIONS ON SYSTEMIC RISK

A global pandemic event can result in significant systemic risk, i.e. the possibility of creating severe instability or collapse of an entire sector or the economy.

As the global economy relies on interconnected infrastructures and uninterrupted supply chains, other potentially systemic risks, such as cyber, climate change or terrorism risk also have the potential of being widely disruptive. Terrorism risks in particular, but to some extent also climate change risks and other risks, need shared resilience solutions in order to enable insurability. In many jurisdictions for example, governmental guarantees and similar schemes have already been implemented so that consumers have access to protection against terrorism risks as the market does not provide enough reinsurance capacity for such risks.

Looking ahead, and building on the lessons learned from the current pandemic, further analysis on the treatment of systemic risks may prove of great relevance. Exclusions of pandemic risk from other lines of business than business interruption may also increase.

Therefore, based on the elements and principles of a shared resilience solution as set out in this paper, the opportunities for risk assessment, prevention and risk transfer measures for systemic risks could be further explored, beyond pandemics and NDBI insurance.

Such analysis could address the question whether a multi-peril approach, covering losses caused by pandemic, cyber, climate change and terrorism events could offer better diversification effects, ultimately improving society's risk bearing capacity and effectiveness. One possibility would be to establish a platform of private and public authorities.

Any solutions to these systemic risks should be inherently part of sustainable economic recovery plans and reforms for green, digital and social resilience.

ANNEX 1: SUMMARY OVERVIEW OF EU RECOVERY PLAN FOR THE PANDEMIC CRISIS

The current EU Recovery Plan builds on (1) a reinforced EU budget (1.1 trillion EUR), (2) the Next Generation EU recovery instrument (750 billion EUR, see Figure 1) and three additional safety nets (SURE, Pan-EU Guarantee Fund and the Pandemic Crisis Support for Member States, 540 billion EU). Reinforcement of other programmes, such as Horizon Europe (for health and climate-related research and innovation activities) or the Digital Europe programme (to boost the Union’s cyber defences and support the digital transition), can also indirectly contribute to making the EU more resilient in addressing challenges and consequences of the pandemic (in particular in supporting risk assessment and risk prevention). The instruments aim at (a) supporting Member States to recover, repair and emerge stronger from the crisis, (b) “kick-starting” the economy and helping private investment, or (c) learning lessons of the crisis and addressing Europe’s strategic challenges.

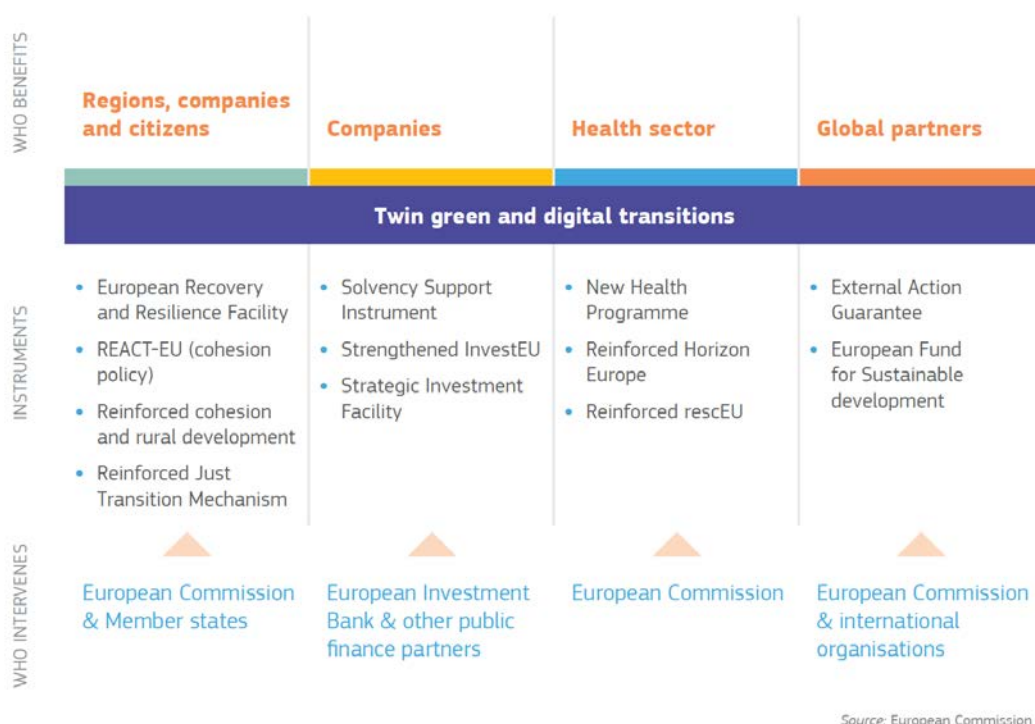


Figure 3: Key instruments supporting the recovery plan for Europe, as part of Next Generation EU⁴

⁴ https://ec.europa.eu/info/sites/info/files/factsheet_2_en.pdf

ANNEX 2: SELECTED INSTRUMENTS FROM THE EU RECOVERY PLAN FOR THE PANDEMIC AND EU DISASTER MANAGEMENT MECHANISMS

EU Recovery and Resilience Facility	Solvency Support instrument	Support to mitigate unemployment risk in an emergency (SURE)	Union Civil Protection Mechanism (UCPM)	European Solidarity Fund (EUSF)
Objective to be used for				
<ul style="list-style-type: none"> ▶ Support to both public investments and reforms notably in green and digital, which make EU countries' economies more resilient and better prepared for the future 	<ul style="list-style-type: none"> ▶ Mobilise private capital support equity support to companies with solvency problems 	<ul style="list-style-type: none"> ▶ Acts as a second line of defence, supporting short-time work schemes and similar measures, to help Member States protect jobs and thus employees and self-employed against the risk of unemployment and loss of income. 	<ul style="list-style-type: none"> ▶ Instrument for emergency response coordination to a more comprehensive framework incorporating also prevention and preparedness activities. 	<ul style="list-style-type: none"> ▶ Respond to major natural disasters (including public health threats), by funding a share of public expenditure on emergency and recovery operations.
Mechanism				
<ul style="list-style-type: none"> ▶ Temporary pandemic recovery solution ▶ EU members ▶ Embedded in European Semester. ▶ Support will take the form of grants and loans to Member States 	<ul style="list-style-type: none"> ▶ Temporary pandemic recovery solution ▶ EU members ▶ New instrument in the framework of the European Fund for Strategic Investments (EFSI), Consists of provisioning of an EU budget guarantee to the European Investment Bank Group 	<ul style="list-style-type: none"> ▶ Temporary pandemic recovery solution ▶ EU members ▶ Loans to Member States and guarantees voluntarily committed by Member States to the EU budget. 	<ul style="list-style-type: none"> ▶ EU Member States, Iceland, Norway, Serbia, North Macedonia, Montenegro, and Turkey. 	<ul style="list-style-type: none"> ▶ Permanent. ▶ EU Member State or accession country ▶ Grant-based and allows for advance payments
Conditions/ distribution key/ trigger				
<ul style="list-style-type: none"> ▶ Demand driven ▶ Loans or grants are conditional upon national Recovery and Resilience Plans, which should be 	<ul style="list-style-type: none"> ▶ Viable companies from all economic sectors, operating in Member States ▶ Sectors which are more 	<ul style="list-style-type: none"> ▶ Demand driven ▶ Member State activation of short-term work schemes to preserve employment 	<ul style="list-style-type: none"> ▶ Regularly exchange information on disaster risks, exercise to be better prepared for emergencies 	<ul style="list-style-type: none"> ▶ Financial aid is determined based on the total direct damage caused by a disaster in relation to the affected

<p>submitted to the Commission.</p> <ul style="list-style-type: none"> ▶ The maximum allocation of grants to a Member State would depend on population, GDP per capita or e.g. unemployment rate. ▶ The maximum amount of a loan would be calculated as percentage of the gross national income. 	<p>economically impacted by the pandemic,</p> <ul style="list-style-type: none"> ▶ Where national solvency support is more limited 	<p>and assist self-employed.</p> <ul style="list-style-type: none"> ▶ Commission consults with MS on the terms of the loan, based on evaluation of increase in public expenditure 	<ul style="list-style-type: none"> ▶ Pool rescue teams and equipment that can be rapidly mobilised when 	<p>country's or region's wealth (GNI and GDP respectively)</p>
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