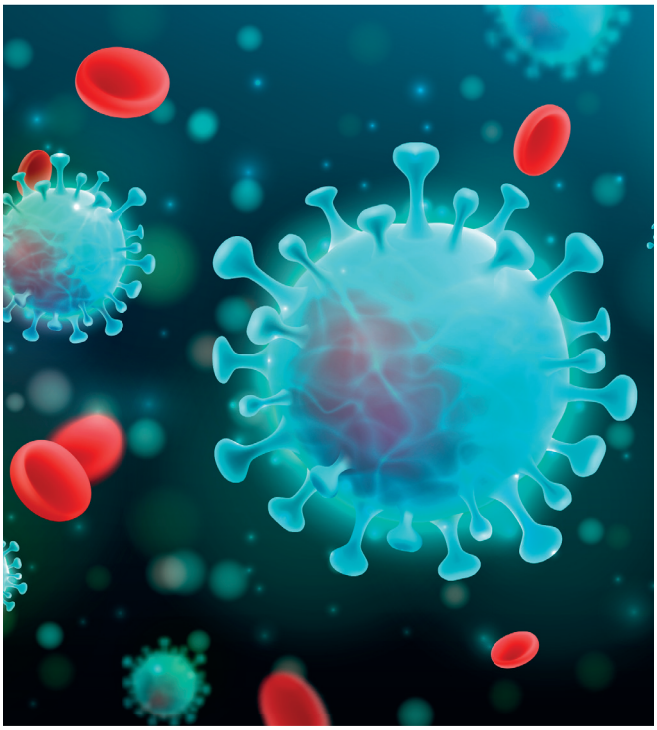
Co-creating a pandemic risk sharing platform

Building more successful companies, more resilient economies, and a more sustainable future by identifying risk transfer and investment solutions generated by pandemic risks. An invitation to establish an 'Epidemic Risk Markets platform'.



By *Dr. Gunther Kraut* and *Raymond de Kuiper*

Epidemics and pandemics are becoming more frequent and severe

The question is not whether society will be hit by the next accumulative systematic risk, but when. Epidemic risk is a highly probable, high impact, yet neglected threat (a 'Grey Rhino'). Epidemics are increasing in frequency[1]. The trend of outbreaks per year has increased over the last six decades. On average, 200 epidemic outbreaks and five newly emerging infectious diseases are reported per year. Between 2010 and 2018 the World Health Organization (WHO) notified of 1.483 epidemic outbreak events in 174 countries. Scientific evidence suggests that emerging infectious disease outbreaks occur with ever greater frequency because of mostly man-made environmental shifts such as deforestation, urbanisation, and global mobility.

As epidemics and pandemics will become more frequent, the demand for insurance solutions will only increase, beyond a scale the (re)insurance industry is able to bear on its own. Therefore, epidemic and pandemic risks, like other accumulative systematic risks such as cyber and climate risk, need to find a suitable position in the wider capital markets. The concept is akin to the genesis of Insurance Linked Securities (ILS) related practices.

Spreading accumulative systematic risks across insurance and capital markets

This article serves to articulate an initiative to establish an Epidemic Risk Markets platform for the exchange and sharing of accumulative systematic risk across a wide variety of stakeholders, including capital market participants. Therefore, this piece of writing should be read as an invitation to all stakeholders to actively participate in the creation of an open market for epidemic risk management. All have the opportunity to work together and leverage expertise to better address the impact of epidemics, as well as to efficiently reallocate risk between suitable parties to create a resilient financial ecosystem for the future, to manage a risk so far often qualified a 'non-financial' risk and therefore also non-rewarded as a potential alternative asset class.

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Which objective, efficient and transparent trigger mechanisms can be used?

The initial stage involves creating a new, clear, non-damage trigger for business impact, which requires methods to establish the time of an outbreak and to agree on the scale. The World Health Organization (WHO) definitions and procedures are used as a starting point, with 'epidemic' defined as: 'The occurrence in a community or region of cases of an illness, specific health-related behavior, or other health related events clearly in excess of normal expectancy. The community or region and the period in which the cases occur are specified precisely. The number of cases indicating the presence of an epidemic varies according to the agent, size, and type of

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population exposed, previous experience or lack of exposure to the disease, and time and place of occurrence.' In addition, a pandemic can be defined as 'an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people.' The WHO applies a trigger/warning system to indicate the existence of both epidemic and pandemic threats. In the early stages, outbreaks are reported in Disease Outbreak News (DON). If the situation escalates, and after careful consideration with legal protocols, governance committees, ultimately authorized by their Director-General, the WHO may declare the outbreak a Public Health Emergency of International Concern (PHEIC), which can be considered the second stage of the trigger mechanism.

The third and final stage involves pinning an epidemic outbreak to the geographical areas that impact a business income stream, or that have a financial impact. Governmental authorities around the world will respond to the PHEIC declaration and may restrict the movement of people or the operation of businesses in order to mitigate the health impact on society, better known as the 'Lock Down'. These restrictions form a localized observable trigger that completes the non-damage triggers.

Reallocate insurance risks into a premium paying asset class

COVID-19 has put the epidemic and related perils that business, society and globally connected economies face, into stark relief. It has also sparked demand for epidemic and pandemic (business interruption) cover. Such cover has not been widely available to date. Capital market participants are unclear of the risk they are exposed to, because they cannot quantify it, but neither are they rewarded for bearing it. The reinsurance industry could play a vital role in facilitating the transfer of risk concentrations found on balance sheets, to pockets of capital for whom the bearing of such risk is attractive. As a result, it will be possible for participants to actively (and consciously) take such risk and be rewarded accordingly, thus improving the risk/reward position of a portfolio, both from an economic as well as from a regulatory standpoint. Establishing an alternative risk class that can be shared across a broad financial ecosystem supports Sustainable Development Goals, enhancing economic resilience and preparedness for the next pandemic[2].

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What could the Epidemic Risk Markets platform result in?

Known risks are regulated, measured and monitored by various stakeholders from business owners to rating agencies and (financial) regulators. Capital market participants and (re)insurers play a key role in actively measuring, monitoring and distributing risks according to appetite and with appropriate risk versus reward ratios. If a risk is unknown or poorly measured and monitored, the resulting impact could exceed existing smoothing mechanisms. This has happened with sovereign credit, systemic cyber and now COVID-19. This risk class represents a new branch of the ILS market, addressing the economic impacts of epidemic outbreaks on business around the world, promoting better management and mitigation of the risk, which in turn will enable better measurement, monitoring and mitigation of the risk across the whole financial ecosystem.

The impacts of epidemics and in particular pandemics go beyond the economic damage to business into areas that are currently uninsurable, and also require government participation as additional support system and capacity provider of last resort. ■

1 Amongst many other publications and available proprietary tools, for an overview of an open-source risk assessment to systematically evaluate novel wildlife-origin viruses in terms of their zoonotic spillover and spread potential, see the recent PNAS research article by Grange et al., 2021: https://doi.org/10.1073/pnas.2002324118

2 For more details we refer to academic working paper (https://ssrn.com/abstract=3888337), written by Dr. Kraut and De Kuiper: 'Epidemic and pandemic risk transfer solutions and options for public sector support'.

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SUMMARY

As epidemics and pandemics will become more frequent, the demand for insurance solutions will increase, beyond a scale the (re)insurance industry is able to bear on its own.

Stakeholders are invited to leverage expertise to better address the impact of epidemics, as well as to efficiently reallocate risk between suitable parties to create a resilient financial ecosystem for the future.

The reinsurance industry could play a vital role in facilitating the transfer of risk concentrations found on balance sheets, to pockets of capital for whom the bearing of such risk is attractive.

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