

The Covid-19 pandemic shines a spotlight on the systemic risk to global business



Commentators have suggested that the global economy and just about everything else will be irreversibly changed as a result of the coronavirus pandemic. There will be a before-coronavirus and an after-coronavirus world. Ironically, with a few exceptions (for example, [Goldin and Muggah, 2020](#)), virtually no person or agency making such claims predicted the coronavirus pandemic itself. Nor is it clear if they are referring to how people think about the global economy or to changes in material circumstances, or perhaps both. One truth that has been made manifest is that businesses have been operating slightly blindly in an interconnected, integrated, complex and dynamic world for some time now, and that these tendencies are accelerating and creating radical uncertainty and systemic risk for both the global and business environments.

Such tendencies were always inherent in, and in fact a defining feature of, the third wave of globalisation from the 1980s to the present. Globalisation brings risks, and these have become increasingly systemic. The obvious examples of likely impacts are the financial crisis that swept through Southeast Asia in the late 1990s, the financial crisis that started in the US in 2008 and moved around the world, and the 2020 pandemic that impacted economies globally and interconnectedly, affecting areas such as economic growth, social and personal lives, work, supply chains and financial stability.

The pandemic crisis, then, is usefully taken as a metaphor for our general failure to entertain, let alone take actions to mitigate, global systemic risk. For coronavirus itself was a disaster foretold. As [Goldin and Muggah](#) suggest, infectious disease specialists had been raising the alarm about the accelerated pace of outbreaks for decades. Since 1980, more than [12,000 documented outbreaks](#) had infected and killed tens of millions of people around the world. One thing that must be different after the coronavirus experience is a change once and for all in our approach to assessing and mitigating global systemic risk, wherever it lies.

Globalisation and technological change have raced ahead of our institutional capacity, and how we shape, assess and respond to our changing human-made and natural environments. By the beginning of the third decade of the 21st century, as governments, firms and individuals feel overwhelmed by complexity and uncertainty, one major understandable trend has been to turn towards localism and short-termism. It is unlikely to be a sustainable response.

[Goldin and Mariathasan \(2016\)](#) look at how globalisation (allied with information and communications technologies) has generated systemic risk. Their evidence sweeps across the financial crisis of 2008/9, previous pandemics, and multiple examples of supply chain, infrastructure, ecological and social risks. They make a convincing case that we live in a more connected, complex, and uncertain world that we are largely responsible for creating, but, at best, are only half prepared for. We are set up (imperfectly) to deal with previous contexts and problems. Today we address the fundamentally changing environment and its related challenges with old, learned ways of seeing, behaving, and outdated solutions. In my view, this passes on to how global business is conducted.

Many businesses tend to have an optimism bias, and a bias towards dealing with today's revenue generation and performance rather than the future. Such biases create risks. Observe how these biases played out across previous economic cycles. Though the existence of economic cycles is very well known, it is startling how many businesses have assumed that economic growth will always continue, that the down cycle does not need much preparation for, and that resilience in the face of a deeper, longer term downturn is an unnecessary expense impinging on present financial health. All this leads to a risk attitude that downplays the serious use of even the risk assessment methods available.

This does not even begin to prepare such businesses for coping with the systemic risks that [Goldin and Mariathasan](#) delineate. Nor with the changing nature of risk. Traditionally risk is seen as quantifiable and predictable. But uncertainty also encompasses unidentified and/or unexpected threats. Systemic risks and uncertain events and threats derive from increased interconnectedness (more linking between things), and more interdependence (one thing depends on and is affected by another). The complexity and integratedness that results make redundant the old risk assessment assumption that causal links between actions and events are, or can be known. The normal distinction between certainty and uncertainty unravels. Approaches to risk are needed that can deal with the prospect of a breakdown in the entire system, as opposed to the breakdown of individual parts.

So what can international businesses do? A major learning from the 2020 crisis is that systemic risk and uncertainty require systems thinking to build resilience. Let's unpack this rather abstract statement. Organisations are open systems linked to many other systems. Indeed the organisation's systems will be part of, and interdependent with, many, much larger systems. Environments are full of systems e.g. government and legal systems, transportation systems, energy infrastructure – that link with the organisation and its activities. The more immediate task environment of a business includes its supply chain systems, public and private IT infrastructure, strategic alliances, while, internally, the organisation has multiple systems – financial, business process, HR, procurement, as well as those explicitly called IT systems. In business writing it is normal to emphasise the importance of alignment between the environment, strategic positioning, and operations. The assumption here is that effective organisational performance depends on efficient interconnectivity and coordination. An international business is indeed a complex set of interdependent systems striving to optimise business outcomes. But this creates systemic risk. How?

The work of Charles Perrow ([1984](#), [2011](#)) helps us here. He studied natural and human-made accidents and disasters to find out what caused them. He concluded that tightly coupled and highly complex systems create what he called the 'normal' – by which he meant inevitable – accident. A system is tightly coupled when there is little slack or buffer amongst its parts. The failure of one part, however small, can easily affect the others, or the whole system. In such tightly coupled systems it's not enough to get things mostly right. But isn't that just what we have been building with lean systems, just-in-time approaches, hyper-fast global supply chains, and automated financial trading systems? Then there is complexity that both creates and obscures latent risk. A complex system – think of a nuclear or chemical plant, a global enterprise resource planning system – has parts that are intricately linked, can easily affect one another, and are more likely to interact in hidden and unexpected ways. In our organisations we enter the serious danger zone when we build or participate in tightly coupled, highly complex systems. In Perrow's words: "*A normal (i.e. inevitable) accident is where everyone tries hard to play safe, but unexpected interaction of two or more failures (because of interactive complexity), causes a cascade of failures (because of tight coupling).*" In this danger zone, small failures can create meltdowns. One should add that, if the system is working at full throttle and is under high pressure to perform – think of the underground and rail systems in capital cities around the world – this also increases the likelihood of catastrophic failure.

How can we mitigate such systemic risks? By not building brittle systems that operate close to breaking point. One of the learning points from the 2020 pandemic will be: build resilient organisations. In systems terms this means:

- Building slack into a system i.e. becoming less tightly coupled. 'Slack' may come in the form of more time,

resources, lowering connectedness, reducing pressure on the system, and/or putting default mechanisms in place. As one example, it may well be that the pandemic experience of mass home and remote working utilising technology will encourage organisations to adopt such mechanisms to protect against likely future crises.

- Lowering complexity i.e. making the system clear and reducing interdependence. Lower complexity will come from, for example, becoming more transparent, putting in place more controls and fail safes, process simplification, more modularity in designing systems, processes, products, software, and technology.

Whether or not businesses take on board these design principles will depend on whether managers view business continuity management and disaster recovery as things you activate once the crisis occurs, or believe that the risks can be mitigated by how you design systems in the first place. A further issue is whether managers are prepared to gamble to take the upsides from tight coupling and complexity e.g. fast, seamless, IT-enabled logistics, in the hope that the downsides are rare, and not that serious. Most of the evidence points to this being a gamble increasingly not worth taking. What may persuade managers otherwise is the likely higher cost of creating looser coupled, less complex systems and placing them under less pressure. Unfortunately, as we see below, under severe cost pressure following the economic downturn of 2020, many businesses would go into short-term coping mode, keeping cost down and 'sweating the assets', rather than changing practices.



Notes:

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