

## **Resilience post COVID-19**

In the UK we have designed our businesses, supply chains, market regulations, and public services in a way that systematically opens up our society to critical failures. We all know that Einstein once said that insanity is doing the same thing over and over and expecting a different result. Our current approach, perfected proactively over many decades through often very short-sighted cost cutting, is verging on the insane.

COVID-19 has put into sharp relief a shortage of NHS capacity (e.g. too few intensive care beds and ventilators) and a lack of food supply chain resilience (e.g. too little food stored at supermarkets and vulnerable just-in-time distribution systems). The current crisis will almost certainly highlight fragilities in other public services and parts of the economy.

These weaknesses being revealed simultaneously, across both public and private sectors, gives us an opportunity to see the scale and interconnectedness of the problem and finally make some structural changes.

Across our economy we focus on short-run cost optimisation, when what we need to do is build-in structural resilience, mainly in the form of some overcapacity, so we can efficiently respond to surge conditions. Over the long-run this is cost optimal in an age of risk and uncertainty.

Overcapacity to deal with unexpected events is critical when securing capacity takes time and is expensive. In most areas of modern society, the kind of capacity we need in a crisis is often a combination of complex capital-intensive tech and highly trained human capital. Securing this capacity takes time, often many years. It becomes invaluable in a crisis: as if to illustrate the point, Matt Hancock, the Health Secretary, said earlier this month that “if you produce a ventilator, then we will buy it,” and that “no number is too high”.

Over the last two years we have seen other examples of short-run cost optimisation resulting in significant costs to society. They include the widespread power outage in August 2019 caused partly by reductions in required capacity; the lack of Royal Navy frigates in summer 2019 and the capture by Iran of the British flagged *Stena Impero* in the strait of Hormuz; the recent impacts of flooding in England which is in part due to underinvestment in flood risk management over many years; and a shortage of prison capacity meaning it is much harder to properly isolate those convicted of terrorist offences.

There are other examples and ones we can easily imagine: lack of energy storage capacity to ensure security of supply; inadequate reservoir capacity to manage drought conditions; insufficient airport capacity to prevent flight delays and cancellations because of poor weather; and a lack of military equipment, personnel, and munitions to respond to any number of crises.

After the pandemic we need to review how to increase capacity and flexibility across the economy. That should mean new requirements on regulated industries to have higher capacity margins, as well as new requirements on some sectors where such requirements don't currently exist. We will also need to build more capacity into public

service provision so the public sector can more easily manage the next crisis, whatever and whenever that will be. To do this well, we will need independent advice on what capacity margins should exist across the public and private sectors, and what are the best ways of achieving it.

The world is getting more dangerous: climate change, pandemics, great power politics, and regional instability, among other things. We need to be much more resilient and that requires us to pay for and invest in capacity. We should hope that this capacity is never required, but we must have it just in case. We are now paying the price of not having learnt that lesson much earlier.

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This appeared first at [BusinessGreen.com](https://www.businessgreen.com) on 26th March 2020:  
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