

## THE COVID-19 PANDEMIC: STRESS TESTING THE SUPPLY SIDE

The Covid-19 pandemic shows that the supply side warrants greater attention when conducting macroeconomic analyses. Very long global value chains may be optimal from a cost and price perspective, but operationally may be very complex and, in particular, fragile. A more resilient supply side comes with a cost, both at the micro and macro level. Solving this trade-off in a market economy is difficult, which, to some degree, leaves a role for public policy.

Crises confront economists with the shortcomings of their models. In 2008, the economics profession came to realise that the banking sector and in particular the interconnectedness between banks via wholesale funding, needed to be better represented in the economic models. The COVID-19 pandemic reminds us that the supply side warrants greater attention when conducting macroeconomic analyses. When considering supply shocks, the focus is typically limited to large changes in the oil price or technical innovation. Another similarity with the Global Financial Crisis (GFC) is the call for more stress testing. Soon after the GFC, an elaborate system was put in place by the bank supervisors. "Stress testing involves putting a severe amount of pressure on an object or system, to test how resilient it is under extreme conditions."<sup>1</sup> This pretty fits what we're experiencing today on the supply side, the only difference being that it is live rather than simulation-based.

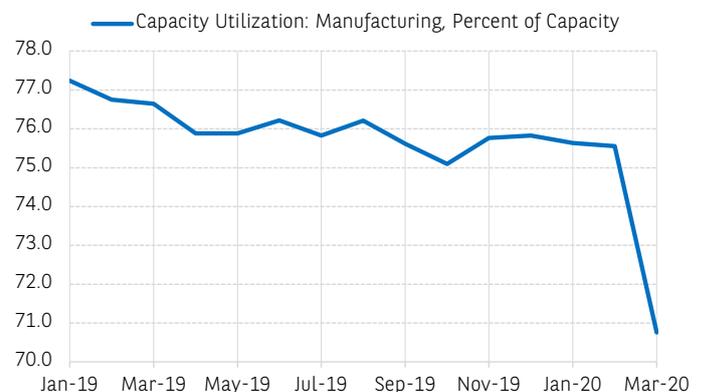
To continue down the line of the similarities, post the GFC, financial stability gained in importance as an issue to be taken into consideration in the conduct of monetary policy. In recent years, this has led to an approach known as 'growth at risk' (GaR). It "corresponds to the probability of future real GDP growth falling below a pre-specified threshold."<sup>2</sup> This implies that the entire distribution of future GDP growth is being considered, rather than the mean forecast. Macro-financial vulnerabilities can increase the likelihood of very negative growth episodes following excessive credit growth compared to income or the bursting of asset bubbles. As a consequence, in a GaR framework, policy-makers should assess whether it is appropriate to accept somewhat slower growth if this comes with a significantly lower risk of very negative numbers.

The pandemic crisis forces companies and policy-makers to apply this thinking to the organisation of the supply side of our economies. Very long global value chains may be optimal from a cost perspective, whereby the cost reduction is shared between the company and its customers, but operationally it may become very complex and, in particular, fragile. This has been clearly illustrated when China went into lockdown. Of course, one could argue that a pandemic only happens rarely, but supply disruption may also occur for other reasons such as climate-related events (drought, flooding, etc.) or cyberattacks. Admittedly, the economic impact should be far smaller -the absence of lockdown in these cases implies that the hit to demand will be far smaller- but this doesn't mean the risk is negligible.

A more resilient supply side comes with a cost, both at the micro and macro level. A given product may cost more or become less profitable. At the aggregate level, it may weigh on productivity growth. Solving this trade-off in a market economy is difficult, given the decentralised nature of decision making. It depends, amongst other things, on the price elasticity of demand but also on the preference of companies and their shareholders for profits or for profits subject to the constraint of limited downside risk. In finding this new equilibrium, there is undoubtedly a role for public policy, although the extent, the approach and in particular the right balance still need to be defined.

William De Vijlder

### US CAPACITY UTILIZATION



SOURCE: FEDERAL RESERVE BANK OF ST. LOUIS, BNP PARIBAS

1. *Stress testing of banks: an introduction*, Bank of England Quarterly Bulletin, 2016 Q3  
 2. *Growth at Risk: Concept and Application in IMF Country Surveillance*, IMF working paper 19/36, February 2019

“ A more resilient supply side comes with a cost, both at the micro and macro level. Solving this trade-off in a market economy is difficult, which, to some degree, leaves a role for public policy. ”

