



From: **NR**  
Ext: **NR**  
Team: MCS  
SCS: Dan Gallagher  
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**Submission: Economic Assessment of Coronavirus**

**For information**

**Issue**

You asked for advice on the economic impact of decisions taken i) the UK and ii) Europe in response to the outbreak of Coronavirus.

**Background**

1. As of 4 February, there were over 20,000 confirmed cases of Coronavirus globally, 99% are in China. There have been 2 confirmed cases in the UK.
2. Some countries including the US and Australia have closed their borders to foreign travellers who have recently visited China. Currently the FCO advises against all but “essential” travel to China and UK airlines have suspended flights to the mainland.

**Chinese and global economic effects**

3. As noted in previous advice, China, as the origin of the outbreak, is likely to experience the most severe economic effects. These will be dependent on whether the spread of the virus is contained geographically and whether the infection rate continues to accelerate or now subsides.
4. Estimates the Economist Intelligence Unit, Standard and Poor’s, ING and JP Morgan of the direct effect on China are necessarily rough, ranging from reducing annual GDP growth by 0.1ppts to 1.5ppts in 2020. The range depends on how widespread infection is within China and how long it takes for the infection rate to decline.
5. The outbreak is also likely to weigh on global economic growth, with the magnitude again being dependant on the duration and spread of the crisis.

6. The first order impact on the global economy is through the likely slowdown in China. As the second largest economy in the world and the largest global trader – and some four-times larger than at the time of SARS – a material slowdown in Chinese growth will directly affect the global economy, weigh on confidence and potentially affect others through supply chains. Efforts to contain the virus internationally would likely constrain economic activity (e.g. restricting the movement of people and goods). There may also be confidence effects more broadly, as firms anticipate any slowdown and potentially pause investment.
7. The World Bank in 2014 estimated that a severe pandemic – not specific to China – would reduce global GDP by just over 3%. Most of this is driven by behavioural changes to avoid infection. This measure does not include the intrinsic value from the loss of life resulting from a pandemic (which has been estimated to add 0.6% of GDP onto the cost). While this analysis can be regarded as a worst-case scenario, it does not include any effects caused by a loss of global economic confidence.

#### **UK economic effects**

8. The UK as an open economy is exposed to a slowdown in China and any wider global effects. If the outbreak is largely contained within China, the direct economic consequences for the UK economy are likely to be modest in aggregate terms. These will be driven by the effect of lower Chinese growth affecting global demand, any spillovers through financial markets and potential hits to general business and consumer confidence.
9. Analysis by the Bank of England<sup>1</sup> in 2018 suggests that a generalised economic shock, that reduced Chinese GDP by 3% over three years, would lower UK GDP by up to 0.5% inside two years. While not based on a virus outbreak – the nature and transmission of the economic shock caused by Coronavirus could well be materially different to the Bank scenario – this provides a sense of scale of the direct spillovers from a Chinese slowdown to the UK economy. If the effect on Chinese economic growth is broadly in the middle of the range of external estimates for 2020 set out in Paragraph 4, combined with the Bank of

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<sup>1</sup> Bank of England, 2018, From the Middle Kingdom to the United Kingdom: spillovers from China

England's analysis, we roughly estimate that UK GDP growth could be 0.1-0.2ppts lower this year than otherwise would have been the case.

10. Were any slowdown in China to affect global business and consumer confidence more than the average embedded in the Bank's generalised scenario, the spillovers to the UK would likely be larger.

**How could measures to stop the spread of the virus affect the UK economy?**

11. The Chief Medical Officer (CMO) has suggested that unilateral action by the UK such as a travel ban would have limited impact on preventing the spread of the disease. A more severe step such as preventing the movement of goods, is also unlikely to prevent the spread of the disease but would incur a greater economic cost.
12. The CMO also advises that while Europe wide action may slow the spread of the disease by up to 3-4 weeks, allowing crucial time for the NHS to move past the winter flu peak, it would not be enough time to develop a vaccine.
13. Limitations on the movement of people into the UK is unlikely to have a significant direct effect on the economy. Limits on the movement of goods would probably have a more material, but still limited direct effect.
14. In 2018, almost 400,000 Chinese tourists came to the UK, spending around £650m (representing c.1% of UK tourist visits and 0.03% of UK GDP). The direct effect of a travel restriction would therefore depend on how long it applied for and how long tourism rates took to recover.
15. Such restrictions on people could also have more material sector-specific effects, beyond tourism. For instance, Chinese students (around 120,000 in 18-19 and more than from any other nation) on average provide £102,000 of total benefits per student over the duration of their study or around £12bn in total. If travel restrictions affect applications for, or take-up of positions in, the new academic year, it would reduce income for the sector and have an effect on demand in local areas with large Chinese student populations. In



macroeconomic terms, these effects are relatively small. They would grow if the disease is not contained relatively quickly and the measure to contain its spread last for a sustained period of time.

16. UK goods exports to China equate to 5.4% of all goods exports, or around 0.9% of GDP. As such the direct effects of weaker goods demand from China is likely to be mild. Similarly, total services exports to China make up 1.5% of all service exports. In all, the direct impacts from weakening Chinese demand alone on UK net trade would be limited.
17. Sectoral analysis shows that some exporters are more exposed than others. For instance, almost 40% of UK exports to China are categorised as either road vehicles or petroleum/petroleum-based products. Medical and pharmaceutical products make up c.5% of UK exports to China.
18. Chinese goods imports make up 8.8% of UK goods imports (or approx. 2% of GDP). Some goods will be finished product destined for the retail market. Some will be inputs into UK manufacturing production for both domestic production and export. Limits to the movement of goods could therefore disrupt elements of the UK supply chain. This could be costly, causing firms to seek alternative suppliers or, potentially, halt production where no readily available alternative is available.
19. There is not yet a body of business intelligence on the potential scale of such effects. The latest survey on industrial production released by the CBI was collected prior to news of the outbreak in China. The PMI surveys for January manufacturing and construction activity and expectations did not flag Coronavirus as a concern raised by participants. We will work with BEIS, the FCO and DIT to understand how firms are preparing and what the effects on their supply chain could be.
20. Were restrictions on the movement of people and/or goods considered across Europe, the economic effects on the UK could at the margin be slightly larger. UK firms that are part of regional supply chains, rather than having a direct link to China, would start to experience the potential for delays or seeking alternative sources of inputs for production.