

THE CORONAVIRUS: PUTTING A NUMBER ON THE ECONOMIC CONSEQUENCES

Putting a number on the consequences of the coronavirus is a huge challenge. On some of the topics we have a satisfactory level of visibility of the order of magnitude: international spillover effects of the demand shock, repercussions of the global increase in uncertainty. The visibility is much lower concerning the effects of the supply disruption. This is even more the case for the impact on China. In the near term, data surprises –the difference between the consensus forecast and the outcome– should be higher than normal. However, provided that the peak of the epidemic is reached quickly, visibility should improve quickly and hence support confidence.

Given the Chinese weight in the global economy, assessing the consequences of the coronavirus for economic growth is of key importance. However, it also a daunting task. Macroeconomic data collected following the outbreak still need to be released. The ripple-effect of the supply chain disruption is an additional source of complexity. Then there is the role of psychological factors: to what extent will the drop in confidence impact spending, in China and abroad? Looking at the signals from financial markets provides little clarity. On Wall Street, the epidemic has merely caused a blip and the S&P500 has made new all-time highs. Indices in Europe have also done well. This probably reflects a view that production and demand should rebound quickly and that the fall-out for US or European companies should, on average, be rather limited. Obviously, the story is different for Chinese companies, which explains why the Shanghai index is still down compared to the level before the crisis hit. The psychology of individual investors will also play a role. The big drop in commodity prices (oil, copper) shows an expectation of a major decline in commodity demand, largely driven by China, but tells us little about what to expect in the rest of the world. US treasury yields have rebounded but have not fully recovered. Bond and equity investors are not exactly aligned in their assessment of the growth outlook, although the expectation that, if necessary, the Federal Reserve will cut rates could also play a role.

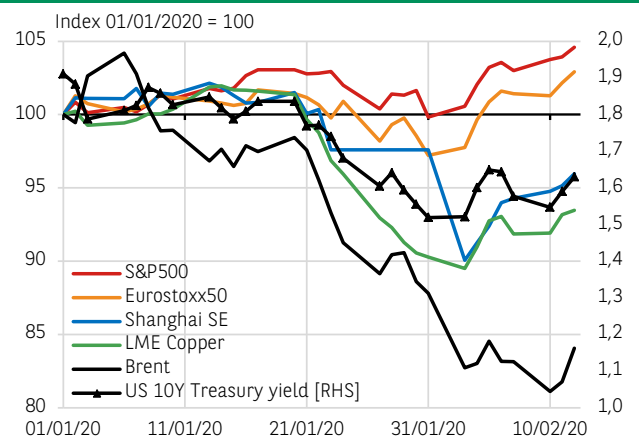
As discussed in the previous issue of Ecoweek, the epidemic combines a demand, supply and confidence shock. Assessing the supply shock is particularly difficult because of the lack of data. It depends on the specific organisation of value chains at the individual company level, on the level of inventories, on the (im)possibility to find alternative sources of supply. Anecdotal evidence points towards a considerable impact from supply chain disruption¹. Concerning the shock to demand in China, the task is hardly easier. The gross regional product of Hubei province, the epicentre of the epidemic, represents 4.2% of the country's total. Under the realistic assumption of a significant contraction in activity, one ends up with a non-negligible impact on the country as a whole, to which spillover effects should be added: a drop in demand in Hubei will entail fewer purchases of goods and services produced in

1. *Alibaba chief blames spread of virus for disruption to staffing and deliveries*, Financial Times, 14 February 2020.

the rest of the country. Confidence effects should also act as a drag on spending throughout the country.

Turning to the international repercussions, research by the IMF shows that a 1% decline in Chinese growth lowers European growth in the medium run with 0.2%². The number for the US should be even lower³.

MARKET DEVELOPMENTS (YTD)



SOURCE: DATASTREAM, THOMSON REUTERS, BNP PARIBAS

2. *China spillovers. New Evidence from Time-Varying Estimates*, Davide Furceri, João Tovar Jalles, and Aleksandra Zdzienicka, IMF Spillover Note 7, 2016

3. The IMF study does not report numbers for the US. However, another study calculates the effect on the export level from a 1 percent demand shock in China. For the US this corresponds to about 0.4%, in line with Germany but more than the EU (source: *Spillover implications of China's Slowdown for International Trade*, Patrick Blagrove and Esteban Vesperoni, IMF Spillover Note 4, 2016).

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For sub-saharan Africa the impact is -0.7%, for Asia about -0.3% and Latin-America and the Caribbean -0.4%⁴. Then there is the impact from the jump in uncertainty. Analytically this raises two challenges: quantifying the increase in uncertainty and estimating its impact. On the former, a recent analysis by the ECB⁵ shows the development of economic uncertainty and trade-related uncertainty since the mid-90s. This allows to gauge the impact of certain events (9/11, Iraq war, eurozone sovereign debt crisis, etc.) on uncertainty. With the exception of the collapse of Lehman Brothers, most shocks correspond to a move of the uncertainty measure of about one standard deviation. Obviously, this does not tell us where the coronavirus ranks but it does allow for a, admittedly very judgmental, comparison.

4. This is related to the impact on commodity exports (price and volume effect).

5. Box 1. *Tracking global economic uncertainty: implications for global investment and trade*, ECB Economic Bulletin, 1 2020. The ECB's measure of economic uncertainty is based on the forecast errors of models for a broad range of economic variables for 16 euro area trading partners, which together account for around 70% of world GDP.

Clearly, the jump in uncertainty will depend on the economic exposure, hence it will be far bigger in China than in Europe. Assuming a temporary one standard deviation uncertainty shock for the eurozone, the peak impact on growth should be about -0.3%⁶.

To conclude, on some of the topics we have a satisfactory level of visibility of the order of magnitude: international spillover effects of the demand shock, repercussions of the global increase in uncertainty. The visibility is much lower concerning the effects of the supply disruption. This is even more the case for the impact on China. This means that in the near term, data surprises –the difference between the consensus forecast and the outcome– should be higher than normal, which should be a source of market volatility. It could even push companies to adopt a wait-and-see attitude until a clearer picture emerges. To the extent that the peak of the epidemic is reached quickly, this should improve visibility of how demand and activity evolve and hence support confidence.

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6. Source: Box 1.1: *The economic impact of uncertainty assessed with a BVAR model*, European Commission, European Economic Forecast, Spring 2017

