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Economy

Coronavirus: how to handle a supply shock?

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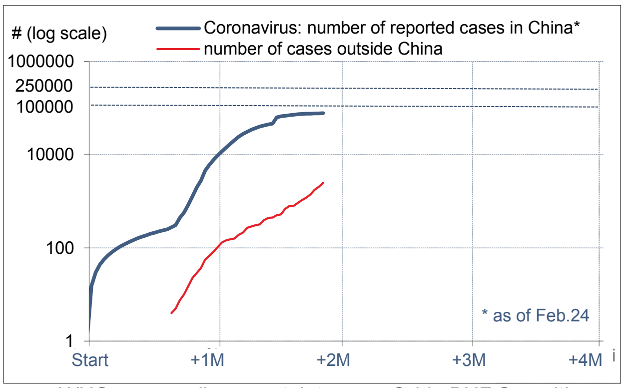
Based on Chinese health data, quarantine measures appear to be effective in curbing the spread of the coronavirus, but they are hindering all or part of the country's economic activity. This is typically a negative supply shock. At the macroeconomic level, this type of shock is quite rare. Most recessions are caused by negative demand shocks following a fall in the purchasing power of income or the value of assets. Over the decades, economic policy has made progress in supporting demand when necessary (fiscal stimulus, lowering rates). But what can be done to support supply?

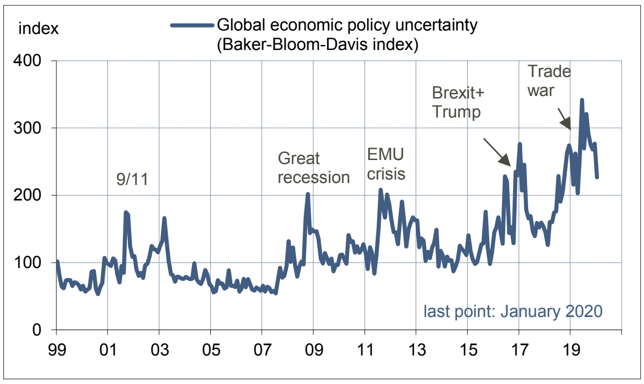
Uncertainty, a propagator of shocks

According to WHO daily reports, which compile data from national health authorities[1], the spread of the coronavirus epidemic is slowing in China, but in recent days it has tended to accelerate in the rest of the world (chart lhs). **China's drastic quarantine measures have limited the spread of the coronavirus. This is a very positive development from the health perspective. But these measures have also had the consequence of halting or severely curbing economic activity.** In China, anecdotal evidence, for example on real estate transactions or vehicle sales, looks alarming. China's entire economy has not ground to a standstill but given the number of lost working days and the delays in restarting, it would not be surprising if the quarterly growth rate in China fell by around 2%-points in Q1[2]. Globally, the direct impact would be a loss of around 0.5%-points (see our monthly report *Economy & Rates* dated of 14 February 2020: "The recovery in quarantine"). These estimates are, needless to say, highly provisional and would be turned upside down if other countries were forced to halt all or part of their production base. This risk must now be taken seriously into account as over the last few days, the number of people who have contracted the coronavirus has surged in South Korea, Iran and Italy. The quarantine of 50,000 people in Italy at the weekend spooked the markets more than the same measure on 50 million Chinese citizens since the start of the epidemic. **On top of the supply shock comes a confidence shock, at a time when economic uncertainty was already high (chart rhs). We examine what this means for the behaviour of economic agents and for reaction of policymakers**.

Number of coronavirus cases: China and outside China



Economic uncertainty index



Sources: WHO, www.policyuncertainty.com, Oddo Bhf Securities

[1] *https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/*
[2] *In 2019, Chinese real GDP was increasing by around 1.5% per quarter (6% over a year). A loss of around 2 points would mean stagnation or a slight contraction in real GDP in Q1 2020. The pace of year-on-year growth would slow from 6% to 4%.*

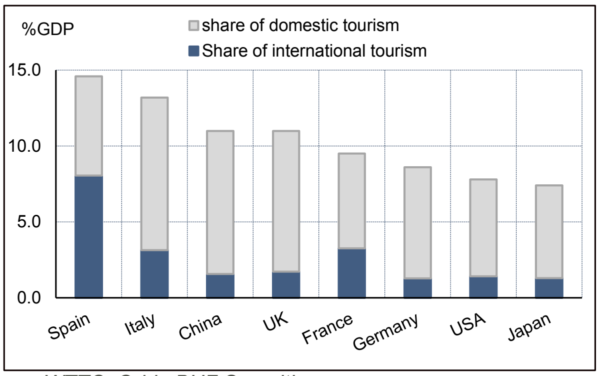
In economic analysis, it is standard practice to distinguish between whether a negative shock impacts supply or demand.

- **Demand shocks** are the most common cause of fluctuations in the business cycle. They occur, for instance, when households or companies see a contraction in their revenues or assets, such as during a credit crunch. Since this often highlights excessive debt levels, a clean-up period then sets in and spending drops accordingly. The financial sector tends to be the channel through which this spreads to all sectors of the economy. A demand shock ends up reducing production and price levels.
- **Supply shocks** are common on a sector scale, for instance if a company has to contend with an unexpected increase in the price of its input and/or a reduction in their quantity. On a macroeconomic scale, supply shocks are rarer. Examples from history include the oils shocks (example of the OPEC embargo in 1973) or wartime periods when the production of civilian goods is constrained by the need to produce military goods. A supply shock ends up reducing production levels and raising price levels (situation of a shortage).

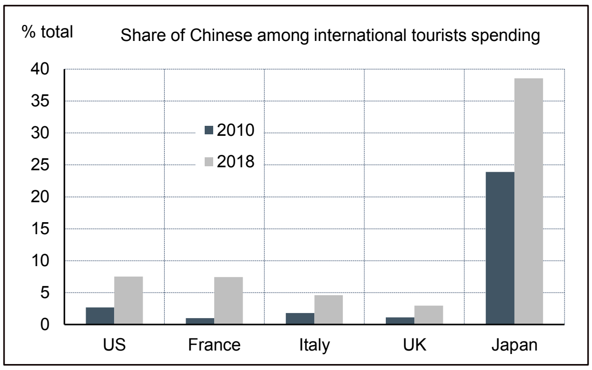
The coronavirus is primarily a supply shock because it creates temporary obstacles to production in China (travel bans, absenteeism and disruption to supply chains). Repercussions on the rest of the world will also materialise on the supply side (shortage of intermediate goods, delays in assembling finished goods).

Inevitably, demand is affected, but it is a secondary effect. If the Chinese no longer travel or buy cars or homes, it is not because of a drop in revenues or the credit supply suddenly drying up, but the consequence of administrative measures. **Some of this spending will simply be delayed but some will not be made up**. It is unlikely that once the epidemic is contained, the Chinese tourist will travel twice as much to make up for the confinement of the past few weeks. **In addition, the impact is extremely mixed depending on the sector**. In the current case, consumers who are the most exposed to the virus are replacing discretionary spending (travel) with precautionary spending (food or pharma products). **For the rest of the world, the immediate impact is a temporary evaporation of Chinese demand mainly in the tourism sector and other activities associated with tourism (air travel, leisure and catering)**. According to the *World Travel and Tourism Council*, the "tourism & transport" sector contribute to around 10% of GDP in large advanced economies (chart lhs). The share of international tourism only represents one-quarter on average. In this segment, the weight of China is still modest, at least outside Asia, but the Chinese contribution to the expansion of international tourism in recent years has been significant (chart rhs).

Transport & tourism sectors' share of GDP



China's share of international tourism



Sources: WTTC, Oddo BHF Securities

In the face of the coronavirus shock, the pattern that is most often retained is that of a severe but temporary decline in activity, principally in China followed by the countries with the closest links to the Chinese trade machine (South Korea, Taiwan, Japan), and then in a more diluted way in the rest of the world. There should be a significant catch-up effect once the epidemic is bought fully under control. Whilst there is no compelling reason to abandon this V-shaped model, it goes without saying that various influences could rapidly alter the situation. Four factors warrant special attention.

- **Household confidence** - The starting point is a health crisis the causes of which remain relatively unknown and, as such, it is an event that is given to all manner of wild theories. Social media can magnify this anxiety. We observed this phenomenon just last summer when a large number of investors began to fear that the US economy was poised to fall back into recession. For the time being there has been no move to panic, either in China or elsewhere, but it is clear that household confidence will be a key element in easing or, on the contrary, exacerbating the economic consequences of this shock.

- **Quarantine measures** - If public health imperatives mean quarantine measure are imposed on ever larger areas (cities or regions) and not just some hotels or cruise ships, it is clear, judging by the Chinese example, that disruption to production is set to spread. The latest developments in Italy are, in this regard, negative in their direct effects on the Italian economy and the indirect effects on the overall confidence climate (see above).
- **The economic policy response** - As we have said, the response to a demand shock is well-established. The monetary and fiscal authorities generally aim to ease financing conditions, stimulate public demand and underpin the income of private agents. But how useful are these measures in the current situation? **Cutting interest rates will do nothing to repair production chains, nor will fiscal stimulus. At best, this could help to accompany the machine once production has resumed and provide support for the business climate. In the short term, the risk is that a halt to production and trade will deplete the cash reserves of economic agents, eventually leading to wave of defaults. Direct aid to the companies affected, a moratorium on interest charges on loans or tax payments would probably be more useful than cutting policy rates. However, these types of measures are difficult to put in place in an emergency.**
- **Duration of the shock** - The fourth parameter and likely the most important is the duration of the health crisis itself, but this is an issue for the public health authorities not economic policymakers. The uncertainty shock is likely to last for as long as uncertainty remains on the controlling the epidemic, not to mention its treatment.

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