

# Research briefing | Global

## Coronavirus: Short-term pain but strong rebound likely

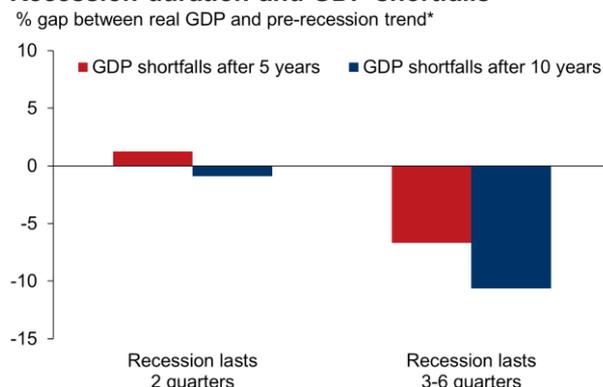
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- In recent weeks, attention has understandably focused on limiting the damage from the short-term effects of the coronavirus outbreak. But it's likely that, once disruption and uncertainty fade, the rebound in activity will be strong. It's important for firms to position themselves for such a recovery.
- Historical evidence supports this view, which is reflected in our baseline forecast and scenario analysis. In the past 200 years, short recessions have typically been followed by robust recovery. Long-term impacts from natural disasters have generally only been evident for specific hazards. With the notable exception of AIDS, longer-term pandemic effects also appear to have been contained.
- Surveys during the 2003 SARS and 2009 influenza outbreaks highlight one explanation for time-limited impacts. Public fears increased alongside rising infection rates, but they dissipated promptly as outbreaks came under control.
- Our modelling is consistent with these stylised facts. In our [coronavirus pandemic scenario](#), global growth grinds to a halt in Q2 2020 but then rebounds to a rapid 5% pace within a year. With much of the initial output loss recovered in a relatively short period of time, long-term impacts are limited.
- But there are risks to this view. The period of disruption could be longer than anticipated, depending on the potential spread and seasonality of COVID-19 and policy actions to mitigate the fallout. Opinion polls also highlight the potential risk of larger, more persistent effects for some countries.
- Moreover, coronavirus-related weakness and associated [financial distress](#) could expose other key vulnerabilities – for example related to deteriorating [corporate sector](#) balance sheets and [fragile trade relations](#). These would be expected to have persistent effects on global activity over the coming years.

**Figure 1: Short recessions are typically followed by robust recovery and not persistent output losses**

#### Recession duration and GDP shortfalls



Source: Oxford Economics/Haver Analytics  
\*Median based on 131 recessions in 25 advanced economies during past periods of global economic weakness over the past 30 years.

Examining recessions in 25 advanced economies at times of global economic weakness over the past 30 years, we found that short recessions don't typically result in persistent GDP losses. The typical GDP shortfall – the gap between the actual level of GDP and the level that would have prevailed with a continuation of pre-recession growth rates – is limited for episodes in which GDP contracted for two quarters.

## Historically, short recessions have had short-term impacts

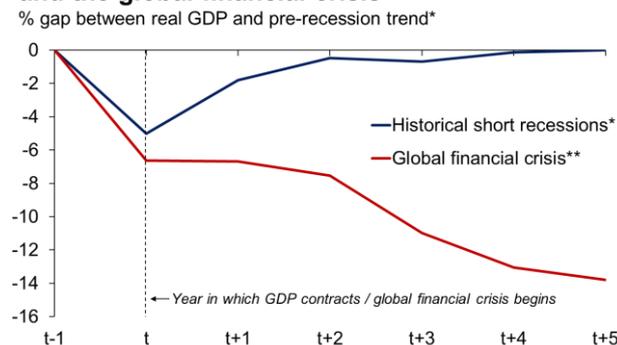
Contractions can harm longer-term economic health, as highlighted by the [IMF](#)'s warning of potentially persistent coronavirus impacts on activity. **But historical evidence suggests short recessions typically have only short-term impacts.**

We have revisited our earlier [analysis](#) on the nature of recessions in 25 advanced economies at times of global economic weakness over the past 30 years. Switching our focus to the subsequent recoveries, we examined the relationship between the strength of that recovery and the duration of the recession. **For recessions lasting two quarters, GDP is typically no lower after five years than the level that would have prevailed with a continuation of pre-recession growth rates (Figure 1).**

**A similar picture emerges from longer-run historical analysis.** We identified more than 400 'short recession' episodes, in which a GDP contraction in one calendar year was followed by a recovery in growth to at least the average pace seen in the years prior to recession. In these episodes, GDP shortfalls were again generally found to be short-lived – in sharp contrast with the experience following the [global financial crisis](#) (Figure 2).

**Figure 2: Over the past 200 years, short recessions have tended to generate only short-term impacts**

### GDP shortfalls after historical short recessions and the global financial crisis



Source : Oxford Economics/Haver Analytics/Maddison Project Database (2018)

\*Median across 410 episodes over the past 200 years in which GDP contracted in one calendar year before recovering to at least its pre-recession trend growth rate in the following year.

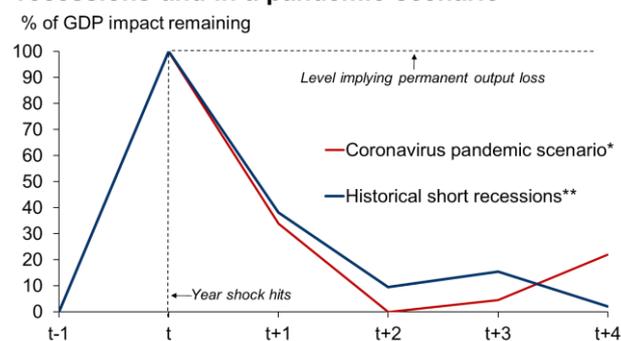
\*\*Median across advanced economies for which systemic banking crisis began in 2007/08.

Over the past 200 years, there have been numerous 'short recession' episodes, where negative GDP growth in one calendar year has been followed by a return to pre-crisis growth rates in the next. In the 410 episodes in our sample, recovery was typically robust with initial output losses quickly recouped – in stark contrast with the experience following the global financial crisis.

Our recently published [coronavirus pandemic scenario](#) broadly matches this historical evidence (Figure 3). In the scenario, infection rates become elevated globally, but initial GDP losses dissipate relatively quickly. After six months of disruption, adverse impacts on labour supply, expenditure, and financial markets recede as outbreaks come under control, and households and firms make up for lost spending.

**Figure 3: Longer-term output impacts are limited in our pandemic scenario, consistent with historical evidence**

### Dissipation of GDP impacts after historical short recessions and in a pandemic scenario



Source : Oxford Economics/Haver Analytics/Maddison Project Database (2018)

\*Median measure across countries. Comparison of GDP level in scenario with March baseline.

\*\*Median measure across 410 episodes over past 200 years in which growth recovered to at least trend in year following contraction. Based on comparison of GDP level with pre-recession trend.

Our modelling is consistent with the robust recovery typically seen following short recessions over the past two centuries. In our coronavirus pandemic scenario, the hit to GDP in 2020 (time t) quickly dissipates as households and firms make up for lost spending.

**Long-run effects following natural disasters are only evident for certain hazards**

**Impacts from natural disasters have typically been short-term**

An alternative approach is to examine economic activity in the aftermath of specific shocks to economies. For example, our analysis of the [2011 earthquake](#) in Japan suggests that, outside the auto industry, the impact on output internationally was relatively mild and short-lived.

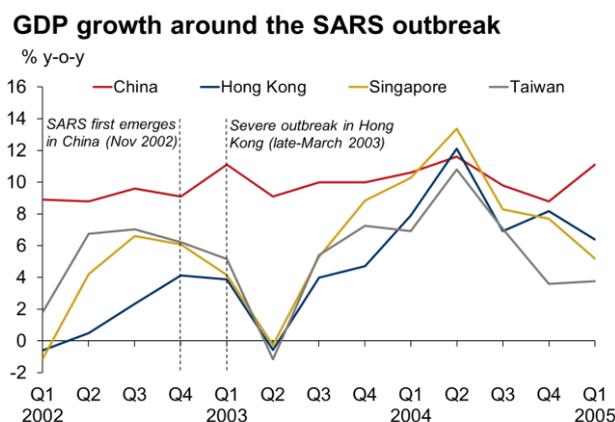
**More generally, whereas research consistently points to significant short-term economic impacts from natural disasters, signs of longer-term effects are far less evident.** As highlighted by [Bakkensen and Barrage](#) (2016), this may in part reflect the different, opposing impacts that natural disasters can have on long-term growth. For example, hurricanes may directly cause (potentially persistent) output losses, but they might also fuel future growth by increasing precautionary savings rates.

**Overall, natural disasters generally appear to have had short-term effects on economic activity.** As concluded by a recent [systematic review](#) of research in this area, negative long-run effects are observed only for certain hazards (such as hydrometeorological disasters).

**Long-term impacts from other pandemics have also been limited**

Evidence from previous pandemics also suggests economic effects are largely short-term (**Annex**). Oxford Economics research after the SARS outbreak noted the limited scale and duration of the impact, with effects largely transmitted via short-term developments in tourism, consumption and government spending (**Figure 4**).

**Figure 4: Even the most affected economies recovered strongly from the SARS outbreak**



[Research](#) highlights China, Hong Kong, Singapore, and Taiwan as particularly affected by the SARS outbreak in 2002/03. But where near-term economic weakness resulted, the subsequent rebound in activity was relatively rapid.

Source : Oxford Economics/Haver Analytics

**Studies suggest limited long-term impacts from severe historical pandemics**

Earlier evidence is more striking. [Research](#) on the Bubonic plague in 14<sup>th</sup> century Europe has suggested negligible long-term direct effects on productivity. A similar picture emerges from analysis of the 1918 influenza pandemic, which [infected](#) around 500 million people and resulted in 50 million deaths (and possibly even as many as [100 million](#)). The [Federal Reserve](#) Bank of St Louis concluded that **most of the evidence indicates that the economic effects of the 1918 influenza pandemic were short-term.**

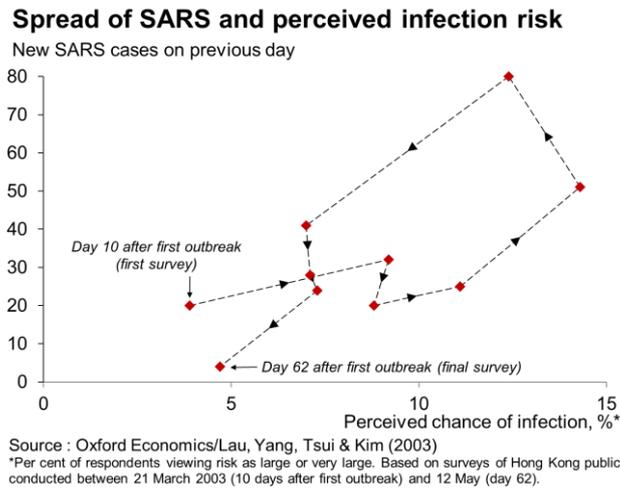
**The notable exception is the AIDS pandemic**, as highlighted by [Bell and Lewis](#) (2005). Consistent with the long-term nature of the disease, its concentration among productive workers and associated destruction of human capital, [numerous studies](#) estimate that AIDS has had substantial long-term macroeconomic impacts. This illustrates how challenging it is to draw conclusions about the current crisis from earlier episodes that differed greatly in scale, nature, and context.

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## Polling suggests attitudes generally react swiftly to changing risks

One reason why the fallout from earlier episodes has been relatively contained is public attitudes. [Survey evidence](#) on the 2003 SARS outbreak suggests that fears of infection among the Hong Kong public increased as new cases were confirmed, before easing as the outbreak came under control (**Figure 5**). Similarly, analysis of the [2009 influenza pandemic](#) suggests that perceived susceptibility to infection and perceived H1N1 severity were initially high but declined early in the epidemic, remaining stable thereafter.

**Figure 5: Public infection fears appeared to react swiftly to changing risks during the SARS outbreak**

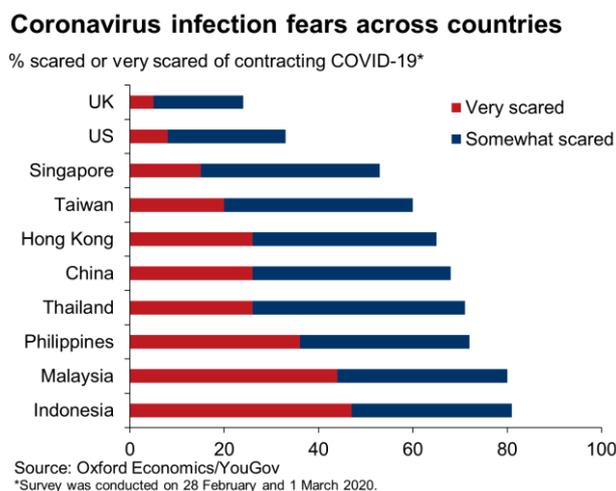


Surveys suggest that Hong Kong residents' perceptions and behaviours reacted swiftly to changing risks during the 2003 SARS outbreak. While public fears increased alongside rising infection rates, they also dissipated promptly as outbreaks came under control.

Moreover, attitudes also appear to have been based on [cumulative experience](#) of outbreaks, not just the very latest developments. As noted by the World Bank, the perceived risk of infection during the SARS outbreak appears to have been far higher than the infection rates that materialised in different countries. But the evolution of perceptions illustrates how the availability of timely information can help minimise unwarranted panic in outbreaks of infectious diseases. **It also accords with [other evidence](#) that the public tends to adopt responses that are proportionate to the risk.**

**Still, infection fears might persist in some countries.** Evidence suggests that fears over the coronavirus outbreak have varied dramatically around the world – even when comparing countries with vastly differing experiences. At the time of an international [YouGov survey](#) at the end of February and beginning of March, no cases had been confirmed in Indonesia. Yet, the survey suggested that the Indonesian public's fears over contracting COVID-19 were even higher than in China, which by that point had already confirmed almost 80,000 cases (**Figure 6**).

**Figure 6: Coronavirus infection fears vary greatly across countries**



Survey evidence suggests significant cross-country differences in coronavirus attitudes. A recent YouGov poll suggested the greatest concern in Indonesia, where 47% of respondents said they are 'very scared' of catching the disease – far more than the 26% figure for China, despite the countries' vastly differing experience during the crisis.

## But there is a risk that this time is different

Overall, evidence from past short recessions, natural disasters and earlier pandemics all point towards relatively short-term impacts from the current crisis. But we acknowledge the potential for more persistent effects, for example relating to the nature of the disease, the response of policy, and other key global risks.

**The nature of the disease:** Should COVID-19 become a recurrent, seasonal phenomenon – as hypothesised by [some scientists](#) – then the near-term impacts could be more limited than feared. For example, the virus might become less transmissible as temperatures and humidity rise in summer. But with COVID-19 returning on a seasonal basis, it would be expected to have more prolonged effects on activity.

This is consistent with other modelling exercises conducted to date. The V-shaped recovery in our pandemic scenario matches the broad profile of most other scenario estimates. But a clear outlier is a variant by [McKibben and Fernando](#) (2020) in which a mild pandemic is assumed to recur each year for the indefinite future; in this case, the (more contained) initial GDP impacts fail to dissipate in subsequent years.

**The response of policy:** Government policies could also have implications for the persistence of coronavirus effects on activity. This reflects in part potentially conflicting objectives. For example, [mitigation strategies](#) geared towards constraining peak demand for public health resources may lengthen the duration of the pandemic. In addition, some [research](#) suggests that social distancing and other measures might need to be maintained for longer than expected to avoid a rebound in transmission.

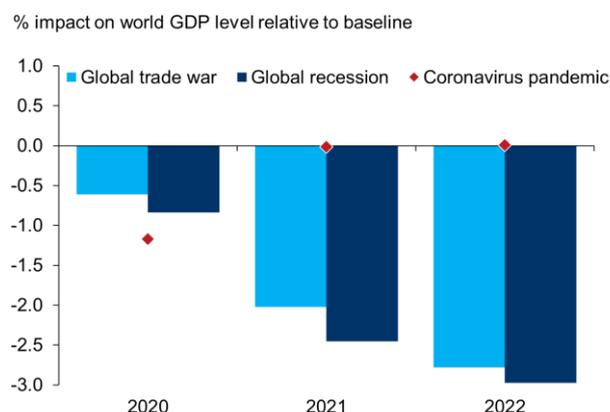
**Other key global risks:** Finally, coronavirus-related weakness could potentially coincide with – or even encourage – the crystallisation of other key risks. For example, the global economy is more interconnected than in the past. This highlights not only the potential for greater [supply-chain disruption](#) than seen historically, but also the risk that a retreat from globalisation would have long-term repercussions for global activity.

More generally, any shocks that amplify and extend the near-term disruption could have scarring effects that weigh on activity for some time. This is evident from the tepid rate of [recovery](#) since the global financial crisis and is in line with the historical relationship between recession duration and output impacts (**Figure 1**). It is also apparent from our latest [Global Scenarios Service](#), which models the fallout from trade policy and other shocks and finds persistent hits to global activity (**Figure 7**).

**A seasonal coronavirus would imply very different near-term and longer-term impacts**

**Figure 7: Other shocks could have more persistent effects on activity**

**Global GDP impacts in key risk scenarios**



Coronavirus-related weakness could interact with other shocks that have more persistent effects on activity. This is illustrated by our global trade war and global recession scenarios, the impact of which builds gradually over time. By 2022 the hits to global GDP are 2.8% and 3.0% respectively – more than twice the peak impact in the coronavirus pandemic scenario.

## Annex: The impact of key epidemics and pandemics

| Selected epidemics and pandemics* |  |                                       |   |
|-----------------------------------|--|---------------------------------------|---|
|                                   | Transmission   | Fatalities                            | Economic impact   |
| <b>SARS (2002-03)</b>             | Symptoms with 4-5 days; death within 48 hours in some cases  | 813 deaths (out of 8437 cases)        | Short-term impacts, eg via tourism and consumption (Oxford Economics; Noy & Shields (2019)) |
| <b>HIV/AIDS (1980s- )</b>         | Symptoms typically within 5-10 years. Increased survival rates with ART (life expectancy approaching that of the general population for some cohorts). | 32m deaths worldwide (as of end-2018) | Substantial impact on both productivity and growth for the most affected countries (UN)     |
| <b>Influenza (1918-19)</b>        | Symptoms within 48 hours; death within a few days  | 50m+ deaths worldwide                 | Most evidence suggests macroeconomic impacts were short-term (Garrett (2007))               |
| <b>Bubonic plague (14th c.)</b>   | Death within 3-4 days  | A third of Western Europe population  | Negligible long-term impact on productivity (Clark (2003)).                                 |

Sources: Oxford Economics/Bell & Lewis (2005)/Clark (2003)/Federal Reserve Bank of St Louis/Garrett (2007)/ILO/Maughan-Brown (2017)/Noy & Shields (2019)/Siu & Wong (2004)/WHO