GLOBAL ECONOMICS FOCUS

Lasting blow to supply capacity is not inevitable

- **It is by no means inevitable that the coronavirus crisis puts a big permanent hole in the supply capacity of economies (i.e. their ability to produce goods and services). With the right government policies, many economies should be able more or less to revert to the path of output they were on before the crisis. Nonetheless, with demand likely to be slow to recover fully, this could still take several years. And there will be several important exceptions to this generally optimistic picture.**
- The virus has caused a sharp drop in the supply capacity of economies, largely because lockdowns forced workplaces to close. Most of this capacity should return quickly as lockdowns are eased and people who were temporarily laid off go back to work. **Nonetheless, there are three main ways in which the coronavirus could result in permanent damage. These are destruction of the capital stock; a reduction in human capital; and an adverse impact on the efficiency with which economies operate.**
- As far as the capital stock goes, there has been no destruction of productive capacity as occurs in wars or natural disasters. And only in relatively small sectors like air travel are we likely to see the scrapping of productive capital that has been rendered redundant by the crisis. Moreover, while the crisis will force some otherwise viable firms to go under, generous government schemes should limit the scale of this.
- Meanwhile, although investment has fallen sharply during the downturn – denting the growth of the capital stock – the bigger problem would be if uncertainty about future demand and the burden of repaying emergency loans permanently weighed on investment going forward. But the crisis will increase the incentive for firms to invest *more* in areas like robotics and touchless technologies.
- The second channel through which the crisis could have permanent negative effects is via the labour force. **With the rise in unemployment, though large, likely to be mainly short-lived, a widespread loss of skills or big rise in discouraged workers should be avoided**. Perhaps the biggest risk is that the skills of young people will be permanently scarred by the disruption to both education and on-the-job training.
- Finally, there are ways in which the coronavirus might permanently reduce the efficiency with which the economy utilises its inputs. These include shorter supply chains and any lasting social distancing measures. But there are factors working the other way, including a reduction in commuting and business travel. And companies forced to try new methods of working during the crisis will hang onto those that have worked. **The net impact on efficiency might even be positive, depending in part on government policy.**
- **History suggests that we should not be too pessimistic.** Countries have not always managed to recover fully, by any means; for example, output in many countries is still more than 10% below its trend before the global financial crisis. But big permanent output losses tend to follow banking crises (not least as tighter credit conditions prevent firms from financing profitable investment opportunities) which, touch wood, should generally be avoided this time. In any case, the US's performance following the Great Depression suggests that it is possible for supply capacity to be very resilient despite a huge fall in output.
- **Overall, five years down the road, most economies stand a decent chance of getting broadly back onto their pre-virus path.** Some might even be *above* it. Exceptions to this generally optimistic picture include economies that *do* endure a banking crisis (perhaps Turkey); countries that fail to get the virus under control (e.g. Brazil, India and much of Africa); and countries where the virus exacerbates pre-existing problems (including Italy). **Finally, a widespread recurrence of the virus would raise the chances of permanent damage everywhere.**

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We have explained elsewhere that demand will take a long time to recover fully from this crisis, with firms and consumers likely to stay cautious about spending for some time.

Given time and sufficient policy support, demand should *eventually* recover. Once it does, then the economy could in theory still return to, and continue along, its pre-virus path. But that can only happen if the crisis has no lasting effects on the ability of the world economy to produce goods and services.

So in this *Focus,* we take a closer look at the long-term impact of the coronavirus on the supply side of the economy. Will there be a permanent one-off hit to supply from the crisis? And/or will potential growth be permanently reduced? These are crucial issues, not just for the outlook for output, incomes and living standards. If economies cannot produce as much as before, then inflation will pick up sooner than otherwise, while governments will be left with a black hole in their finances.

How might be a permanent effect be felt?

During the crisis itself, there has obviously been an abrupt reduction in capacity as shops and restaurants have closed, supply chains have been disrupted and workers have been sent home.

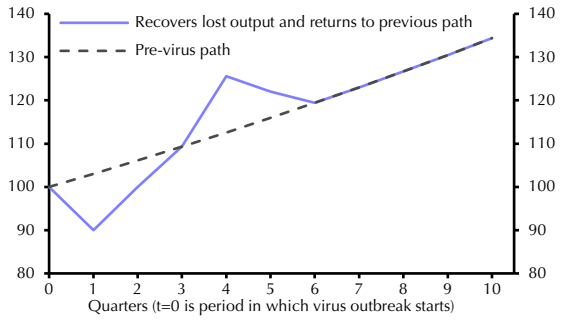
With restrictions in most countries now being eased, most of this reduction in supply capacity should now be reversed. Shops and workplaces are re-opening, and people are going back to work. And although our forecasts assume that the virus comes back in small, localised repeat outbreaks, we think that most countries will be able to dampen these down without having to impose renewed draconian lockdowns.

Nonetheless, there are three main ways in which the crisis could cause lasting damage to how much the economy can produce:

- It renders some of the capital stock redundant and/or results in weaker investment growth;
- It has persistent effects on the workforce, through a loss of skills and/or a permanent rise in unemployment or drop in the labour force.
- It reduces the efficiency with which a given amount of capital and labour are used together.

There is a variety of scenarios that could result. The most optimistic would be if the economy not only returned to its pre-virus path, but also made up the output lost during the crisis. (See Chart 1.) But that seems unlikely; people won't have two haircuts when restrictions ease because they missed one during the lockdown.

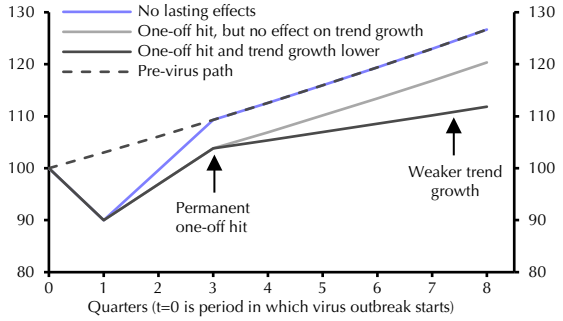
Chart 1: Stylised Example of Output



Source: Capital Economics

Accordingly, we think that one of the other scenarios shown in Chart 2 is likely. In all of these, the output lost during the shutdowns has been lost for good. The most upbeat is the blue line, where, once the crisis is over, there are no lasting effects and output returns to its pre-virus path. The most downbeat is the black line, where there is a one-off permanent hit to output and trend growth going forward is permanently lower. In between these two extremes is the grey line, where there is a one-off permanent hit to potential output, but trend growth is then unaffected.

Chart 2: Stylised Example of Output



Source: Capital Economics

To determine which of these paths lies ahead, let us return to the three ways in which the crisis could cause lasting damage, starting with the capital stock.

Damage to the capital stock

The first positive point to make on this front is that this crisis has not resulted in any outright destruction of capital, as happens in most supply-side shocks, such as wars or natural disasters.

True, some capital will nonetheless become redundant. This will partly reflect the fact that some sectors like air travel might never fully recover. In that case, the global economy simply will not need as many airports, aircraft etc as it did before. But the impact on the rest of economy need not be that large.

Admittedly, this depends on what we assume about people's behaviour. Imagine a pessimistic scenario in which, even when the virus is eventually contained, people continued to be fearful of it re-emerging and/or a similar pandemic in the future. Then large parts of the economy – including theatres, cinemas, indoor restaurants etc – would shut down permanently, leading to a lot of redundant capital. But more likely, in our view, is that people will fairly quickly revert to much of their previous behaviour. (See our *UK Economics Focus*, "Will the coronavirus permanently change behaviours?".) **Accordingly, we do not expect sweeping changes in the sectoral make-up of economies.**

More important will be any permanent changes in work patterns, including increased working from home and reduced business travel and meetings. These were trends that had already tentatively begun, and which we think the crisis will accelerate, even in an optimistic scenario whereby a vaccine is found very quickly for the virus and all social-distancing restrictions are removed quite soon. **These changes would result in superfluous office space, commuter infrastructure and business hotels.**

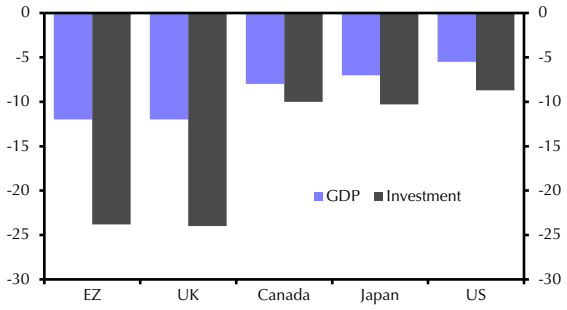
But this infrastructure is not productive capital stock in the sense that computers or factory machinery are. Indeed, they are more like costs that firms need to incur. If firms decide they can get rid of these costs and still produce the same output, then all the better. In fact, if some of that infrastructure could be deployed elsewhere, then the end result would be productivity-enhancing (i.e. the economy could produce more with the same inputs). Unwanted office and hotel space, for example, could be converted to other uses.

Another way in which this crisis might lead to some capital-scrapping is via a widespread rise in business failures. Of course, it is normal to see bankruptcies rise in a recession. But normally these are companies that were on the edge anyway; indeed, the Austrian school of economics goes so far as to believe that periodic recessions have a positive cleansing effect in getting rid of low-productivity firms and allowing the resources to be re-allocated to more productive uses. Following the recent long period of low interest rates, there may have been more of these "zombie" firms than normal to be cleared out.

The difference with this crisis is that, due to its nature, it could force many otherwise viable firms to go under. However, the substantial government support in the form of loans and grants should limit the scale of such insolvencies. Admittedly, support will have come too late for some, while some firms may prefer to shut up shop than to take on debt. Some of the capital of these firms will inevitably be scrapped. But, in time, new companies should form to take their place (in sectors where the demand is still there). Crucially, a significant tightening of credit conditions, which might have hindered this process, has been avoided so far.

It is not just the scrapping of existing capital that is important; **investment in *new* capital has taken a big hit in the crisis.** In most major economies, this has probably been even bigger than the drop in output. (See Chart 3 for the G7.) Some of the biggest falls will be seen in the UK and euro-zone, where we expect real investment to fall by about 25%. But given our estimates of the incremental capital-output ratio in these countries (the amount of extra capital required to produce an extra unit of output), this should reduce potential output by only 0.3% to 0.5%.

Chart 3: Real GDP & Investment
(% y/y, CE Forecast for 2020)



Source: Capital Economics

More worrying would be if investment going forward were *permanently* reduced by the crisis. This might reflect a desire by firms to build up precautionary cash buffers or the burden of repaying coronavirus loans. It might also reflect uncertainty about future demand – for example, a company might not want to invest in a new holiday park site when there was a risk of lockdowns being re-instated. The cumulative impact of this on the capital stock over time would soon become significant.

But the coronavirus could also give firms a reason to invest *more*. To the extent that this was just to safeguard against another pandemic in the future, then it might not make the economy more productive or people better off – one example being spare intensive care capacity in hospitals that would not get used for most of the time.

However, there are plenty of other types of extra investment which *would* boost the economy's potential. This might be on ways for employees to work more effectively from home, or on robotics and touchless technology to solve social distancing issues. Firms might also invest more in applying the innovations developed during the crisis; anecdotal evidence suggests that the lockdowns prompted a rise in innovation as people had nothing else to do!

Note, too, that the virus will generally not have changed the incentives that already existed before the crisis to invest in a host of other areas, from green technologies to artificial intelligence.

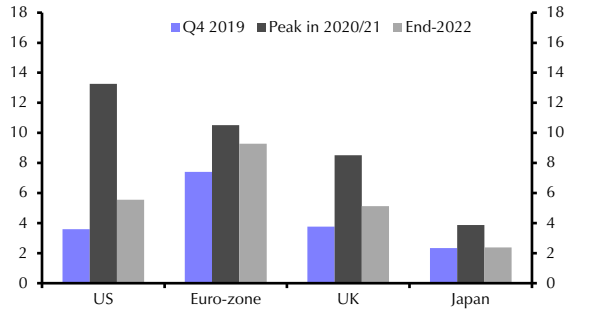
Young to bear the brunt of labour market impact

The second way in which the crisis could have a lasting impact is via its effect on the workforce. This could come about via a reduction in either the quantity of human input (employment) or its quality (skills).

Again, compared to wars, natural disasters or even some previous pandemics like the 1918 Spanish flu, there has been a relatively small loss of life and no major reduction in the size of the workforce.

Moreover, while we expect unemployment in most places to rise further than in recent recessions, it should reverse most of that rise quickly, as furloughed workers go back to work. (See Chart 4.) Indeed, early evidence on this (from the latest US and Canadian labour market figures, for example) has been encouraging. This means that we do not expect a significant loss of skills among those who lost their jobs, or an exodus of discouraged workers from the workforce.

Chart 4: Unemployment Rate (%)



Sources: Refinitiv, Capital Economics

That said, it is unlikely that unemployment will *fully* reverse its rise in the next year or two, not least because another wave of lay-offs might come when governments reduce the generosity of their wage subsidy schemes. Even this might still not be a concern for the economy's long-run prospects, if it just reflects the continued weakness of demand and will reverse over time – in part, as new firms form to replace those that have gone under. The key question is whether there will also be some *structural* rise in unemployment, as the underlying changes in the economy produce some mismatch between what workers can offer and what firms need.

Labour mismatch becomes a particular problem if the workers who have lost their jobs do not have the right skills for the new vacancies (for example, a pilot's skills are not easily transferrable to another job). This would be the case if there were a permanent shift away from big sectors like retail and cafes/restaurants, but we explained earlier that we are not expecting any new major changes in the sectoral make-up of the economy, akin to the de-industrialisation seen in many advanced economies in the 1980s. Even if there *were* a big permanent shift, workers such as bar-staff and waiters could presumably switch to other sectors fairly easily. **So a big upward shift in the equilibrium unemployment rate does not seem particularly likely.**

Some fear that unemployment will be permanently increased by firms replacing workers with robots to reduce face-to-face contact between staff and customers. But more likely is that robots and artificial

intelligence are brought in to complement, rather than replace, human labour. It is hard to see robots taking the place of the likes of hairdressers and waiters in the foreseeable future – partly because the technology is not (and may never be) advanced enough, and partly because customers will still want to interact with real people once all this has passed.

Even if people *were* replaced, they could find employment instead in sectors where robots are not so useful. The world has been through periods of automation before (most obviously the Industrial Revolution), none of which resulted in a permanent rise in the unemployment rate. That said, if the rewards from this use of robots accrued mainly to the owners of capital, then inequality could be increased.

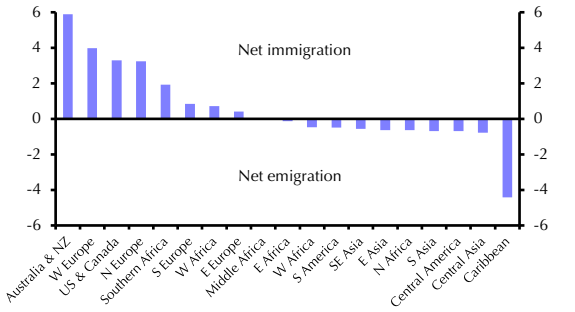
Perhaps, though, the nature of this crisis means that the main risk to human capital does not stem via the traditional route of a prolonged rise in unemployment. **Instead, it might lie in the damage done to the skills of the young and therefore their productive potential.** For a start, the quality of education might decline if pupils and students can only study online for a prolonged period (and many will not even have done this). The numbers of students might also decline if prospective students decide to delay until learning has returned to normal. Travel restrictions which prevent students from studying overseas would harm the learning of those whose domestic options for study are more limited.

Meanwhile, even during "normal" downturns, young people are disproportionately affected by the rise in unemployment which makes it harder for them to get their first job. But over and above this, even those with jobs might suffer from the change in working practices. Given that young workers are most reliant on gaining skills through on-the-job work, they might suffer from at-home working.

Finally, any long-term reduction in migration flows, while having no effect on the labour force at a global level, would affect it at the country level. We have argued before that while economic factors will provide a strong impetus for migration, political factors might prevent this from translating into actual migration flows. **The crisis might fuel the backlash against migration in many countries.**

In that case, those countries whose workforce is usually boosted by large immigration flows would see the growth of their workforce and GDP reduced relative to before. (The converse is that countries which normally see net emigration would see a boost to labour force.) Australia and New Zealand, for example, are countries that are both very reliant on immigration. (See Chart 5.) And countries with ageing populations need immigration if they want to maintain the growth of their workforce.

Chart 5: Net migration Per 1000 People (Annual average, 2015-2020)



Source: UN

Impact on efficiency could go either way

Finally, the third key way in which the virus might permanently harm the economy is by reducing the efficiency with which labour and capital are combined to produce goods and services. There are various ways in which this might happen.

For a start, if social distancing becomes semi-permanent, then some firms will see a lasting reduction in their productivity. For example, a given restaurant or theatre will be able to serve a lower number of seated customers. However, as we said earlier, we would only expect this to happen in a worst-case scenario where worries about the transmission of respiratory diseases led people to change their behaviour permanently.

Meanwhile, firms may seek to shorten, simplify and localise supply chains, even if that means higher costs and lower productivity. Admittedly, previous shocks that affected the supply of intermediate goods (for example, Japan's 2011 tsunami) did not stop the further fragmentation of supply chains. **But firms were already rethinking their logistics even before the virus came along.** This partly reflected environmental concerns about transporting goods long distances, as well as the development of new

technologies which make it profitable to reshore some production. Surveys suggest that, well before the virus struck, many firms were trying to shorten supply chains – both in terms of geographical distance and the number of links in the chain – to reduce risks, increase quality control and respond to consumer demand more quickly. (See our previous work on globalisation here.)

In addition, a reduction in migration flows of skilled labour would hinder a way in which technological knowledge is shared and applied across countries. And lastly, if investment were permanently reduced, this would not just lead to slower growth of the capital stock, but it could also reduce the efficiency with which that capital were used. After all, R&D is an element of investment that is perhaps most likely to be cut back in an era of heightened uncertainty, given its large upfront costs and uncertain returns.

However, there are some ways in which the crisis will have a lasting positive effect on efficiency. For a start, it could accelerate the take-up of digital technology. For example, many firms have been forced by the lockdown to set up new websites and online services – many of which will improve productivity going forward.

The permanent changes to the work economy that we expect to see are also likely to boost productivity. These include less daily commuting, less domestic and international business travel and fewer face-to-face meetings. Admittedly, more working from home makes it harder for employers to ensure that employees are working as they should; accordingly, it is most likely to have a positive effect on productivity in sectors where it is easiest to monitor the output of workers.

Of course, if all this will boost productivity and firms' bottom lines, the question is why they did not take these steps before the crisis. The answer is probably inertia and the fact that no-one else was doing these things. But the trend *was* already starting and it takes crises such as this one to jolt people into a new type of behaviour. Companies that have been forced to try new methods of working during the crisis will hang onto those that have worked. Research shows, for example, that a London Underground strike led to 5% of commuters finding a better route to work thanks to the experimentation the strike forced them into doing. (See the paper here.) As the authors say: "These results highlight the importance of implementing occasional routine breaks."

Meanwhile, we discussed earlier how there are unlikely to be any radical changes to the sectoral composition of economies. But even to the extent there are, these are only likely to draw activity away from less productive sectors like restaurants.

Accordingly, the net effect on efficiency could go either way and might well be positive. A key factor here is that, severe though the crisis has been, it has not (so far) involved a banking crisis which reduces the flow of credit to otherwise productive businesses and impairs the allocation of resources. On the contrary; bold action by policymakers via loan guarantee programmes etc. means that credit has been fairly widely available, albeit with some delay and/or gaps in coverage in some countries.

Note that the long-term impact of the virus on efficiency is not entirely pre-determined. **It will depend in large part on what route policymakers decide to take after the crisis.**

As far as micro-economic policy goes, they could turn the legacy of the coronavirus into a positive one by pursuing growth-stimulating agendas that incentivise investment in new technologies. They could ramp up re-training policies to help those workers that do permanently lose their jobs/skills. And they could remove regulatory barriers towards setting up new firms to aid the recovery process. **On the other hand, they could get distracted by populist calls for tax rises on the rich.** And they might cave into pressure to keep emergency support programmes going once the virus has passed, keeping unproductive firms in business. Even if they don't, they might come under pressure to revert to these programmes in future downturns, raising moral hazard and undermining the economy's dynamism.

Meanwhile, the virus could usher in a new era of co-operation; recent developments in Europe, for example, have suggested that the virus could prompt the euro-zone finally to take the steps needed to safeguard its future. But it is also possible that countries instead turn inwards in a wave of protectionism and accelerate the trend towards de-globalisation that we had already started to see.

Macro-economic policy matters too. For example, if central banks were to tighten policy too early, they would snuff out the recovery and increase the chances of permanent damage.

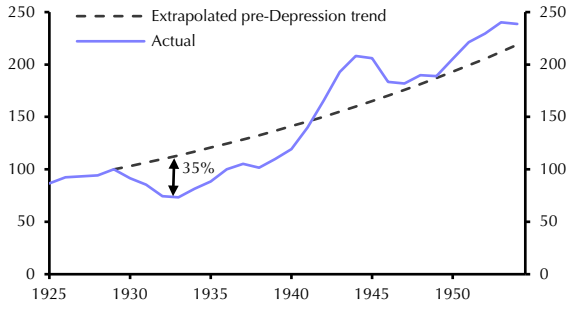
History is of some comfort

To sum up so far, external commentary tends to portray it as inescapable that a downturn this big will leave permanent scars on the economy. **However, we are optimistic that, given time, the economy can basically get back to where it would have been had the coronavirus not come along.**

A look back at what happened after past deep downturns suggests that this is certainly possible. That is not to say that economies have always bounced back fully after big shocks; far from it. But there are occasions when they have. Accordingly, there is nothing inevitable about there being a big permanent loss of output from all this.

The most hope comes from the US experience after the Great Depression in the 1930s. This saw an even bigger drop in output than most economies are likely to see now. From 1929 to 1933, US real GDP fell by almost 27%. By 1933, the US economy was operating around 35% below the level implied by the extrapolated pre-Depression trend. The recovery was by no means quick. Nonetheless, once barriers to expansionary monetary and fiscal policies had been lifted (including removing the constraints of the gold standard in 1933 and a huge increase in government spending in the run-up to US involvement in the Second World War), output did recover. **By 1941, real GDP was almost back to its pre-Depression trend.** (See Chart 6.)

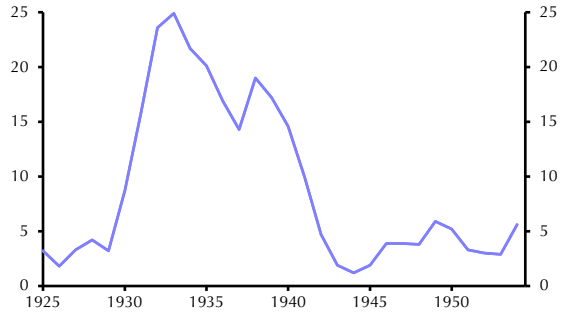
Chart 6: US Real GDP (1929=100)



Source: The Economist Book of Statistics. The pre-Depression trend rate is 3.2% per year. This is average US real GDP growth over the period 1899-1929, excluding 1916-21 when output was distorted by WW1 and its aftermath.

Meanwhile, the unemployment rate fell from a peak of 24.8% in 1933 to 9.7% in 1941, and then to 4.7% in 1942. (See Chart 7.) Moreover, there were few signs of a rise in price pressures, indicating that this recovery was not just due to an overheating of demand.

Chart 7: US Unemployment Rate (%)

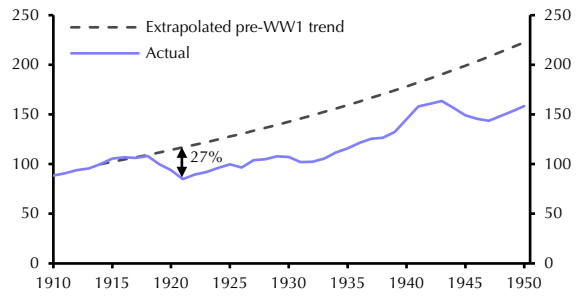


Source: The Economist Book of Statistics.

This occurred despite the Great Depression involving a sharp rise in the number of long-term unemployed, a 90% drop in real investment and a raft of bank collapses. **If an economy can recover fully against that backdrop, there is hope that it can do so now.** That said, the fact that it took so long (largely reflecting the lack of monetary and fiscal policy stimulus) highlights the importance of policies to help demand recover to meet that potential.

As we said, not all experiences involving major drops in output have been this reassuring. The performance of the UK economy following the First World War and 1918-19 Spanish flu would appear to suggest that a deep recession *can* have a permanent impact on supply capacity. After the war, demobilisation and a sharp reduction in government spending saw the UK economy contract significantly. Real GDP by 1921 was 27% lower than its pre-war trend. (Note that only a small part of this reflected the loss of life during the war. GDP per capita by 2021 was some 24% below its pre-crisis trend.) After the post-war recession came to an end in 1921, the economy began to grow again at its long-run average rate of around 2%. But output made no inroads into closing the gap with its pre-war trajectory. (See Chart 8.)

Chart 8: UK Real GDP (1913=100)



Source: Bank of England. Over the 20 years to 1913 average annual growth in UK real GDP is estimated to be 2.2%

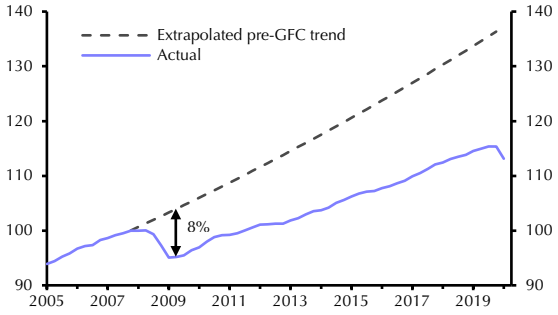
This partly reflected the impact on demand from the pursuit of austerity from the early 1920s and the return to the Gold Standard in 1925. **But even to the extent that the UK's relatively poor performance reflected damage to the supply side of the economy, this might not all have reflected the impact of the recession.**

According to the historian Nicholas Crafts, the UK's poor economic performance in the 1920s also reflected the impact of the war itself; changes in the world economic environment; and the policy choices made after the war. In particular, the UK suffered a loss of world market share after the war, resulting in permanently high levels of unemployment in key export industries. Meanwhile, policies such as tariffs and the use of cartels in manufacturing, which reduced product market competition, took a long time to fully reverse. And labour market flexibility was reduced by the boost that the war gave to trade union membership and collective bargaining, as well as the increased generosity of unemployment benefits.

This all highlights how important government policy is for the path of recovery. Indeed, note that the US *did* manage to get back to its pre-crisis path after the First World War and enjoyed stronger growth than the UK during the "roaring twenties", helped by policies to deregulate the economy and cut taxes.

Another seemingly less reassuring example is the global financial crisis, which seemed to have a big permanent effect on supply, in developed markets at least. Most economies failed to reverse any of the hit to output (relative to its pre-crisis trend) that happened during the crisis. (See Chart 9.) In fact, even worse than that, the shortfall has *widened*, as the potential rate of growth has fallen compared to before the crisis. US aside, this has mainly reflected weaker growth in capital per worker, suggesting that a lack of investment has been important.

Chart 9: Real GDP Of G7 Economies (Q4 2007=100)

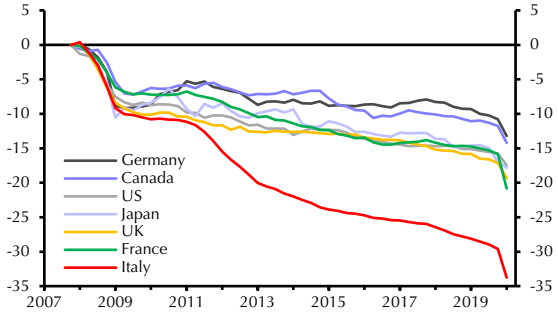


Source: Refinitiv

Admittedly, we need to take into account the fact that, even without the crisis, the growth rates seen before the crisis were probably unsustainable. Moreover, factors other than the financial crisis (e.g. demographics, slower technological change) may have contributed to the slowdown in trend productivity growth since. After all, the slowdown in some countries started before the crisis. (See here.) At the very least, though, the financial crisis appears to have exacerbated these factors.

Nonetheless, some countries have fared far worse than others. For example, by 2011, output in Germany was 5% below its pre-crisis trend, whereas in Italy, it was 13% below. (See Chart 10.) This suggests that, rather than being inevitable, the permanent reduction in supply capacity depends in part on government policy and countries' individual circumstances.

Chart 10: Real GDP (% Difference From Pre-Crisis Trend)



Sources: Refinitiv, Capital Economics

Indeed, there are three reasons why we might be optimistic that the recovery of supply capacity will be stronger than after the global financial crisis.

First, this crisis was not preceded by a boom and/or period of rapid credit growth. True, there were a few spots looking strained (namely high corporate debt in the UAE, high household debt in Australia and the growth of leveraged non-bank finance in developed markets). But in general, there was no large-scale misallocation of resources needing to be unwound.

Second, and relatedly, this is not a banking crisis (so far). Rafts of research suggest that downturns involving banking crises have a bigger permanent effect on output, not least as tighter credit conditions prevent firms from financing profitable investment opportunities. Yet thus far, a significant tightening of credit conditions has been avoided. That could change if defaults surge in the coming months. But the global banking system went into this crisis looking relatively well-placed to weather the economic disruption. (See here.)

And third, policymakers – both governments and central banks – have generally reacted extremely quickly. For example, there has been none of the dithering due to concerns about moral hazard that came before quantitative easing in the global financial crisis. And in most developed markets, in particular, governments have not let high debt levels get in the way of enormous stimulus packages. They have also been willing to blur the line between monetary and fiscal policy even more in order to ramp up their stimulus. Mind you, the policy measures that governments take next will prove just as important.

Some countries more likely to see a permanent loss

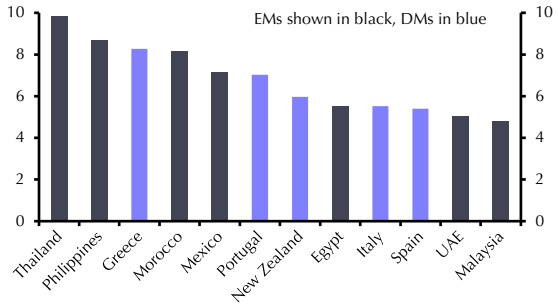
While the historical experience on the whole gives hope of at least some chance of a full recovery, it is notable that some economies have tended to bounce back better than others. We recently pointed out here, for example, that European economies have failed to recover lost ground even after mild downturns.

Indeed, some countries are less likely than others to get output back to its pre-virus path. We think that there are six groups of countries which are most at risk of a permanent loss of output (and some countries might fall into more than one category).

The first is those with the least flexible and competitive product and labour markets. This will hinder a reallocation of resources across firms and sectors in response to any structural shifts in the economy. This includes countries with poor labour mobility, a high level of red tape and a weak environment for business start-ups.

The second is those countries that are particularly reliant on the sectors which are unlikely ever to return to "normal". The tourism sector is the obvious one, which we discussed here. Some countries will replace international tourists with domestic ones. This will even *benefit* countries including Taiwan, Singapore, China and Korea, where people spend more money abroad than foreigners do in their countries. However, this is less likely to be the case for poorer emerging markets. Of the medium and large economies, travel and tourism accounts for the highest share of GDP in Thailand, the Philippines, Greece and Morocco. (See Chart 11.)

Chart 11: Tourism & Travel as a % of own GDP



Source: World Bank

The third is those where the crisis has worsened pre-existing problems. This includes Italy, where the rise in government debt associated with the coronavirus has obviously made its underlying sovereign debt problem worse. (See here.) Other countries where the virus is exacerbating underlying fiscal problems include South Africa and Brazil. Meanwhile, slower migration flows would put a dent in Japan's strategy to boost potential growth with higher immigration. And while China should be one of the first to return to its pre-virus path, its prospects further ahead could be dented by the fact its policy stimulus has centred on investment. This wave of state-mandated investment will worsen the structural misallocation of resources and contribute to a further decline in China's long-run potential growth. (See here.)

The fourth group of countries is those where a banking crisis *does* occur. This might be because of a weak banking sector and/or because governments fail to stand behind firms and households, leading to a big wave of defaults. Moreover, some EMs have high levels of external debt, making them vulnerable to a tightening of external financing conditions; we are particularly concerned about Turkey's banking sector. (See here.) And even if an outright banking crisis is avoided, the dent to banks' balance sheets from a rise in bad loans could hold back new lending for a while. This will hurt countries where bank lending makes up a greater share of overall finance, including much of Europe.

The fifth group is those that have failed to get the virus under control. Many are nonetheless lifting lockdowns, either because they are prioritising the economy (likely in Brazil or Mexico) or think that lockdowns are inoperable in their countries (which may be the case in India, Indonesia, Bangladesh and much of Africa). (See here.) However, there is a risk that they will have to slam the brakes on later, or that people stay at home of their own accord. At worst, these countries could suffer humanitarian crises.

The sixth is those countries whose governments take policy in the wrong direction. We have made it clear in this piece that policy will play a large role in determining whether economies get back on track or not. Some countries look vulnerable to populist tax rises, perhaps including the US. Others are unlikely to tackle the structural economic problems they face. **Table 1 pulls all of these points together.**

Table 1: Countries Most Likely to See Permanent Loss of Output

Reasons	Examples of countries
1a. Weak competitive forces.	Argentina, Brazil, South Africa, Turkey
1b. Inflexible labour markets.	Italy, France
2. Biggest tourism sectors.	Thailand, Philippines, Mexico, S. Europe
3. Pre-existing problems.	China, Italy, South Africa, Brazil.
4. Banking crisis.	Turkey
5. Virus not under control.	Brazil, India, Africa.
6. Policy goes in wrong direction.	US

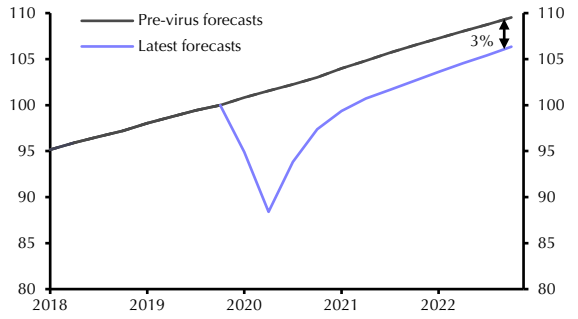
Source: Capital Economics

Conclusions

Overall, then, **we do not envisage a major one-off reduction in supply capacity, or a major reduction in potential GDP growth going forward.** Indeed, economies have, on occasion, bounced back from bigger knocks.

It will be a slow process, though. By the end of 2022, we think that global GDP will still be about 3% below where it would have been without the crisis. (See Chart 12.) **Even if the gap is eventually closed completely, as we think is possible, that could easily take until the middle of this decade or longer.**

Chart 12: World Real GDP (Q4 2019 = 100)



Source: Capital Economics

Of course, there are risks. A big, widespread return of the virus would prolong uncertainty, tip more companies into insolvency and prolong the rise in unemployment. Even if the virus is contained, if we are wrong and people do permanently change their behaviour to avoid crowds, the structural changes in the economy and associated loss of capital stock would be bigger. Meanwhile, policymakers could get it wrong. Moreover, the picture differs by country. Many will escape with little permanent damage, but others will not.

But the risks are not all to the downside. Let us end on a positive note. If the coronavirus provides firms with incentives to invest; turns government policy in a helpful direction; and prompts firms to undertake productivity-boosting measures quicker than they would otherwise have done, then some economies might even end up stronger as a result of all this.

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