



How does COVID-19 affect the economy? How can we recover?

By Joseph Lu for

COVID-19 Actuaries Support Group – Learn. Educate. Inform. Influence.

Summary

COVID-19 has hurt the UK's economy by forcing a lockdown to prevent spread. Pubs, shops and construction sites were shut. Many people are losing money daily despite some financial support from the government. Many workers have been furloughed and many jobs may go. Prolonged lockdown is bad for mental, physical and economic well-being. How the pandemic might progress is unknown. So, we need to return to a new normality safely. We must be successful in defeating COVID-19:

- At our borders to prevent imported cases without inhibiting necessary travel.
- On the streets, by considering alternatives to lockdown such as reducing spread by infected people without symptoms through testing or nose-mouth coverings.
- In the hospitals, using newly learned information.
- With decisions to ensure economic resilience against disruption of global trade.

What has COVID-19 done to the economy?

The UK's economy started the year with a rising stock market and house prices, said to be the continuation of a 'Boris Bounce' after a landslide election win that inspired business activity. By the end of January, the Brexit withdrawal agreement was concluded, bringing a degree of certainty for businesses. The UK then celebrated a 4.5% rise in number of property transactions between January and February, bringing some relief to a depressed housing market. Meanwhile, China locked down the city of Wuhan with about 11 million people to contain the new coronavirus outbreak, now known to cause COVID-19, in late January.

As the disease spread globally, international markets began to jitter. Between mid-February and 11 March when WHO declared a pandemic, Brent crude oil prices nose-dived from \$50-55 to \$30, the lowest in 16 years, and the FTSE100 went from around 7500 to 5237, a figure not seen since 2009.

After COVID-19 cases rose rapidly from 85 on 1 March to about 11k on 23 March in England, the UK mandated a lockdown with social distancing, allowing only essential operations, such as health care, supermarkets and pharmacies. Apart from essential workers who were allowed out to work, people were banned from leaving their homes except to exercise once a day, buy essentials or get medical help. This was matched with economic rescue packages to furlough affected workers at 80% of their salaries. For businesses, there were tax deferral and lending schemes. The economic impacts are wide-ranging.

The number of jobs furloughed rose from 1.3m in April to 8.4m as of 24 May. This is about 20-25% of the workforce, consistent with an ONS survey for businesses. The accommodation & food service activities sector and construction sector had the highest proportions, 57% and 40% employees furloughed respectively. When employees were surveyed, 70% said coronavirus had reduced or was expected to reduce their household income^{1,2}. New claimants for universal credits increased by a factor of ten, from 94k in January to 950k in March.

The ONS surveyed 6,196 firms on impacts of coronavirus between 20 April and 3 May². Some businesses were interrupted, with one in five firms temporarily closed or pausing trading. Of those trading, turnover dropped, with 47% reporting more than a 20% fall. Only 4% reported an increase in

turnover. International trading fell, with 72% reporting a fall in exports (60% for imports). Some 85% had applied for government support, most commonly to furlough workers and defer VAT.

The combined economic effect of the lockdown was a fall in real GDP by 6% in March and 2% in Q1, but different sectors were affected in different ways^{1,3}:

- Mandated closure of pubs, bars and restaurants led to nearly 60% fall in sales in March.
- Stockpiling in March increased sales for most consumer products and groceries. For example, year-on-year groceries sales rose by 4-18% for major retailers including Tesco, Lidl and Morrisons. However, reduced retail shopping activities led to an estimated 1.9k shop closures and 21.5k job losses in March.
- Entertainment. As people stayed at home, they watched more TV but without leading to a rise in TV advertisement which fell by 4% year-on-year. The cancellation of sports event has cost money. For example, Premier League football is expected to lose an income of 1.3 trillion Euro. Sky Sports offered their customers a temporary pause in subscriptions as they were unable to offer them live sport. In contrast, Netflix enjoyed a rise in share price as the public subscribe to on-demand movies.
- As people cancel or defer holiday trips, 1m jobs are at risk in the tourism and hospitality sector this year.
- On balance, financial and insurance services are not expected to be markedly affected. For example, the Office for Budget Responsibility (OBR) estimated only a 5% fall in economic output for this sector in Q2 in its reference scenario of a 3-month lockdown.
- In the same OBR scenario, health and social activities are expected to see a rise in economic output by 50% to deal with this health crisis.
- As people shop online, we can expect gains in online sales and delivery services.
- Digital service usage has grown significantly. For example, video conferencing provider Zoom is now worth more than the 7 largest airlines in the world combined.

Different ways in which this pandemic has led to lockdown, state stimulus packages and economic slump have been seen in several countries in Europe, the US and elsewhere. Consequently, Q1 real GDP fell by 3.8% in Eurozone, 1.2% US and 2.0% in G7 countries. ⁷

Governments need to find ways to fund the costs and emergency financial packages for COVID-19. For example, the UK will need to make tough decisions on fiscal and monetary policies.

- UK's rescue packages are estimated to cost about £123bn (about £1,800 per person with 68m population) in the 'coronavirus reference scenario' of the Office for Budget Responsibility (OBR) in May. The cost may rise if business activities are hampered further than expected. There would be tough and unpopular decisions on how to pay for the cost, such as tax rises, pension cuts, benefit cuts or austerity.
- The Bank of England cut interest rates twice to reduce rates from 0.75% to 0.1% and approved £200bn of quantitative easing in March, aiming to stimulate business lending. Businesses and investors will need to amplify their existing competitive advantages in various areas including financial services, bio-medicine, brands, English language or legal expertise. They need to carve new advantages through innovation.
- The UK's Public Sector Net Debt for 2020-21 is expected to rise from 'pre-corona' budget of £1.8 trn (77% of GDP) to £2.2 trn (96% GDP) in OBR's forecast in May. As a percentage of GDP,

this is lower than estimates in some developed countries before the coronavirus crisis including the US (107%), France (99%) and Italy (133%). However, the increase in debt is still an economic challenge and the government needs to pay the debt by generating revenues, reducing borrowing costs or allowing inflation to erode the debt.

What's next?

We can expect the UK and many other affected countries to move into recession following two consecutive months of GDP fall. However, it is uncertain as to how economies might progress going forward. This recession may progress in different 'shapes'.

Several agencies including the IMF, OECD have suggested a potential 'V' shape where economies bounce back rapidly in 2021.

Global real GDP forecasts^{4,5}

	2019 (observed)	2020	2021
OECD, March 2020: World	2.9%	2.4%	3.3%
IMF, April 2020: World	2.9%	-3.0%	5.8%
IMF: US	2.3%	-5.9%	4.7%
IMF: Euro Area	1.2%	-7.5%	4.7%
IMF: UK	1.4%	-6.5%	4.0%
IMF: China	6.1%	1.2%	9.2%

The V-shape recovery would be consistent with some scenarios including:

- A combination of successful stimulus policies, partially effective vaccines and treatments could work in concert to contain COVID-19 transmission, leading to a rapid restoration in public and business confidence.
- Herd immunity is achieved, where 50-60% of population are infected and obtained natural immunity.
- A combination of public policies, partially effective vaccines and treatments could work in concert to contain COVID-19 transmission, leading to public and business confidence.

The economy may progress in a 'W' shape – bouncing back only to be bearish again due to some bad news, then recovering. For example, this would be consistent with a scenario when a vaccine is available, leading to an economic bounce. But the virus mutates too quickly for the vaccine to be effective, causing next waves of epidemics and subsequent bear markets. New medical and public health interventions then become available to contain the virus, leading to economic rebound. The "W" may also occur where there is recovery in the northern hemisphere summer months followed by a second wave of infection in winter 2020/21. The vaccine then drives sustained recovery.

We may see a 'U' shape when the economy is suppressed over a period of time and slowly recovers. This would be consistent with some scenarios including:

- A delay in the invention of vaccines or treatments, suppressing economic activities.
- Vaccines or treatments are not available for a long period, but the population slowly builds up herd immunity while the virus is slow to mutate.
- Vaccines or treatments are available but not sufficiently effective to stop subsequent waves, leading to on-off economic activities.

- Vaccines or treatments are available but insufficient or unaffordable for all in the world. The virus can find refuge in pockets of the world to propagate and mutate. This would continue to threaten countries with vaccines or treatments through travel, until these medical solutions are available to all.

The economic journey might end up as an 'L' shape – a long-term downturn such that GDP remains below pre-COVID-19 levels. This is unlikely but examples of how it might happen would be:

- Vaccines and treatments are not found. The virus mutates to avoid natural immunity, with epidemics further amplified by seasonal cycles. The world keeps combating the virus through travel bans and lockdowns, leading to an economic 'ice age'.
- Countries unwind globalisation of services and goods, losing efficiencies achieved through trade.
- Distrust between nations, leading to hostilities in trade or diplomacy which damage economic activities.

This pandemic has highlighted how inter-connected the world is. Globalisation of the economy has brought efficiency, prosperity and sometimes controversy before the pandemic. But now, we see the complex web of supply-demand chains is only as strong as the weakest part. The shutdown of electronic factories in one country could result in delay in assembling computers required for work from home in another. Concentration of the manufacturing of viral testing kits in one country could be subjected to regulatory changes that limit their exports to much needed parts of the world. Inability to produce personal protective equipment could lead to tragic deaths.

Various countries may want to reconsider the tension between international trade and national interests. For example, relationships in the European Union have been tested to the hilt when harder-hit countries such as Italy, Spain and France wanting more financial help from the trading bloc, but resisted by some countries in the Union. After much wrestling, a bail-out package of 750 bn Euro was recently announced, which is reported to be part of a 1.8trn Euro package⁹. Over-concentrated supply or demand partners may be diversified. Buying from other countries may be reduced, favouring subsidised production within the country. Is this the beginning of the end of world trade?

Let's fight back

Prolonged lockdown is damaging to mental, physical and economic wellbeing. Countries that have reduced COVID-19 spread to reasonable levels, including the UK, have taken steps to ease lockdown, yet fearing subsequent waves of infection. An immediate challenge is to find the balance between a health crisis and an economic one. Children and younger adults have to return to education safely. Workers to their work. All need to return to normality while containing the epidemic.

Without vaccines and treatments, countries need to be successful in fighting COVID-19 on various fronts:

- *At their borders.* Infections have declined, following exhaustive efforts by many. However, new cases from abroad could spark new outbreaks, especially with rising new or existing infections in many countries. Some countries have introduced quarantine, temperature checks or testing of visitors. However, quarantine would hamper air travels and tourism. Effective yet pragmatic solutions need to be explored. Testing with results on the same day and temperature checks, isolating only the infected and those in closer contact, rather than all, could inspire confidence in travel. This would in turn help badly affected sectors such as tourism, hospitality and aviation. Recovery in these sectors would also help other sectors including oil & gas.

- *On the streets.* In addition to shielding and isolating the more vulnerable and symptomatic patients, we have discussed the potential role of test-and-trace in a bulletin to replace a complete lockdown. Nose and mouth coverings, e.g. face masks, have been recommended or mandated in public places in countries like Germany to reduce transmission from infected people without symptoms. Practical rules to avoid over-crowding and improve ventilation could also limit transmission. All these could be considered by the public and employers to create a safer environment for daily activities.
- *In the hospitals.* One of the main objectives has been to ensure that health facilities, especially the ICUs, are not overwhelmed so that the very ill can be treated. This should continue. Frontline workers need to be well-equipped and trained for incoming patients. With increased data, algorithm and apps could be built to assess those at higher risks to help prevention and prioritise treatments. Some countries isolate infected people in specialist places, such as hospitals, to prevent them from infecting others and to monitor them for early treatment. Could facilities be made available, like Nightingales hospitals, to isolate and monitor those with milder symptoms to reduce death rates? International success stories show that isolation away from home in medical facilities is more successful than self-isolating at home.
- *Prepare for contingency economic scenarios.* While 'V' and 'U' shape recoveries are more likely, countries may need to consider L-shaped scenarios. Collaboration with trading partners need to be considered alongside the potential of disruptions in supply and demand of products, services and labour. Countries may look into diversifying trading partners to ensure a more robust system where buying and selling would not fail just because a handful of countries are hit by an epidemic. Instead of globalising products and services to race prices to the bottom, there may be advantage in building some production capability at home, even at higher prices, to ensure resilience of daily life to further disruptions.

Joseph Lu
1 June 2020

References

1. Coronavirus: impact on the UK economy (May 2019). Statistica
2. <https://www.ons.gov.uk/businessindustryandtrade/business/businessservices/bulletins/coronavirusandtheeconomicimpactsontheuk/21may2020>
3. <https://obr.uk/coronavirus-analysis/>
4. Coronavirus: impact on the global economy (May 2019). Statistica
5. <https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020>
6. <https://www.bankofengland.co.uk/-/media/boe/files/monetary-policy-report/2020/may/monetary-policy-report-may-2020.pdf>
7. <https://commonslibrary.parliament.uk/research-briefings/sn02784/>
8. <https://worldpopulationreview.com/countries/countries-by-national-debt/>
9. <https://www.euronews.com/2020/05/27/eu-bailout-package-would-be-a-game-changer-for-europe-analyst-says>