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# Introduction

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The world has been an unusual place since we published our first VoxEU/CEPR eBook on COVID-19, *Economics in the Time of COVID-19*, on 9 March 2020. The number of COVID-19 cases and deaths have soared globally. Europe is now the centre of the pandemic but the US, given its huge population (330 million) and lack of national leadership, is on course to become the next centre. Stock markets gyrate 5 to 10% a day, sometimes up but mostly down. Other financial markets are equally volatile. Governments in Europe have imposed public health containment measures that would seem extreme in any other circumstances. Containment policies in the US are spreading without coordination or coherence as cities and states fill the leadership void. But not everything is becoming more uncertain.

The COVID-19 crisis has become more predictable in a sense. What was widely viewed as a ‘Chinese problem,’ and then an ‘Italian problem’ has become an ‘everybody problem’. With few exceptions, governments initially downplay the disease until sustained community transmission takes hold. Then they impose severe social distancing policies, work and school closures and the like. This inevitably leads to almost immediate economic hardship, which then leads governments to propose increasingly bold anti-recession measures. This was the pattern in Europe and looks set to be the pattern in the US and many other nations. All this is due to the highly contagious nature of the virus, and the inexorable implications of its explosive spread during the ‘acceleration phase’ of the epidemic.

This eBook is an attempt to collect the thinking of leading economists on what is to be done. In addition to contributing to analysis of the rapidly evolving policy reactions, we hope this eBook will help nations get ahead of the curve – to think ahead on the medical and economic policies that will be needed. The collected wisdom of our authors also points to another critical aspect of this crisis. Without care, solutions to one set of economic problems could – for some nations – turn this economic crisis into a financial crisis, or a debt crisis, or a foreign exchange crisis, etc. Care must be taken to ensure that temporary solutions don’t create long-lasting problems.

The size of the economic damage is still very uncertain, but it is certain that it will be large. Governments now need to focus on mitigating that damage. This is the time to bring out the big artillery; this is not a time to be timid, but to do whatever it takes, fast.

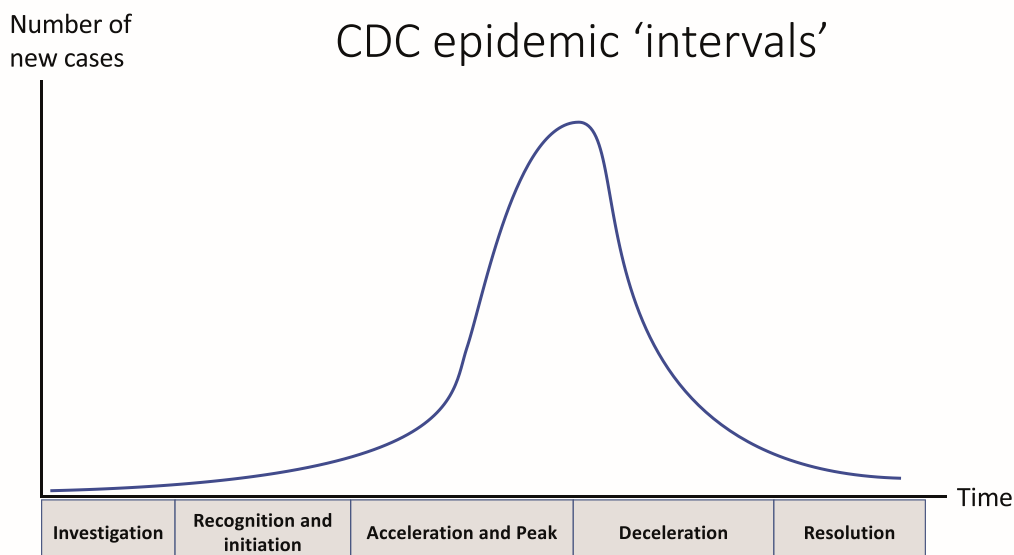
## **What's the problem? Medical and economic shocks**

COVID-19 is a particular disease. It is highly infectious but not particularly deadly – especially for the healthy and the young. It is also unusual in that it has hit all the major economies of the world at the same time. Countries accounting for over two-thirds of the planet's output and income are engaging in containment policies that would – in normal times – seem extreme. But these aren't normal times.

COVID-19 as a medical shock to the economy

It started in China with the first death on 9 January 2020, but spread quickly. The first case outside China was confirmed on 13 January (in Thailand). All the G7 economies saw their first cases by the end of the month (except Canada, whose first case was on 7 February). By the end of February (Italy) or early March, all the G7 nations had entered the accelerating phase of their 'epidemiological curve' (Figure 1 plots the number of new cases per day against time).

**Figure 1** Intervals, or phases, in an archetypical epidemiological curve



Source: CDC.gov, [www.cdc.gov/flu/pandemic-resources/national-strategy/intervals-framework-508.html](https://www.cdc.gov/flu/pandemic-resources/national-strategy/intervals-framework-508.html)

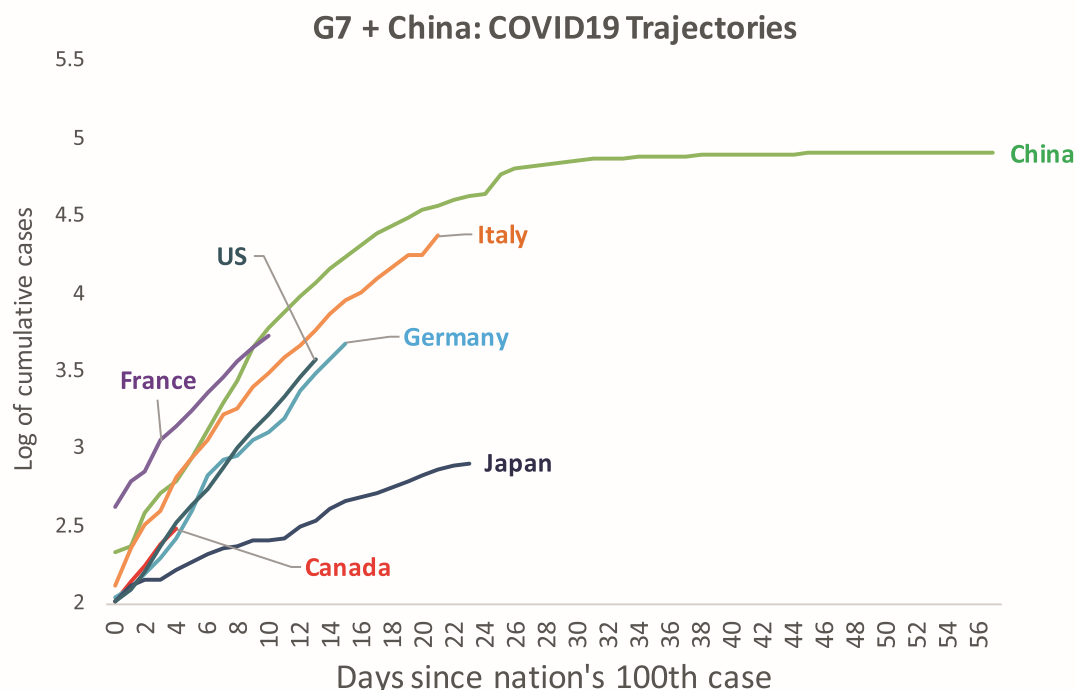
The epidemiological curve, which is widely used by public health officials, is not an exponential curve but looks like one during the accelerating phase.<sup>1</sup>

*It started in China with the first death on 9 January, but spread quickly... All the G7 economies saw their first cases by the first week of February. By early March, all the G7 nations had entered the accelerating phase.*

‘Epi charts’ are noisy given the inherent medical randomness and measurement and reporting problems. The size of the medical shock is easier to see in a different curve, call it the COVID trajectory chart (Figure 2). This plots the log of the cumulative number of cases on the vertical axis and, on the horizontal axis, the days since each country reached the (somewhat arbitrary) threshold of having 100 cases. The ‘log scale’ means that a straight line in this chart indicates the number of cases (cumulative) is rising at a constant growth rate. Given the nature of the epi curve, the slope is steeper during the acceleration phase and then flattens for nations moving into their deceleration phase. The relationship between the epi curve and the trajectory curve is illustrated in Box 1.

As is clear from Figure 2, China and all the G7 nations have followed a similar progression once the disease is entrenched; Japan is the sole exception among the G7.

**Figure 2** Progression of COVID-19 in G7 economies and China



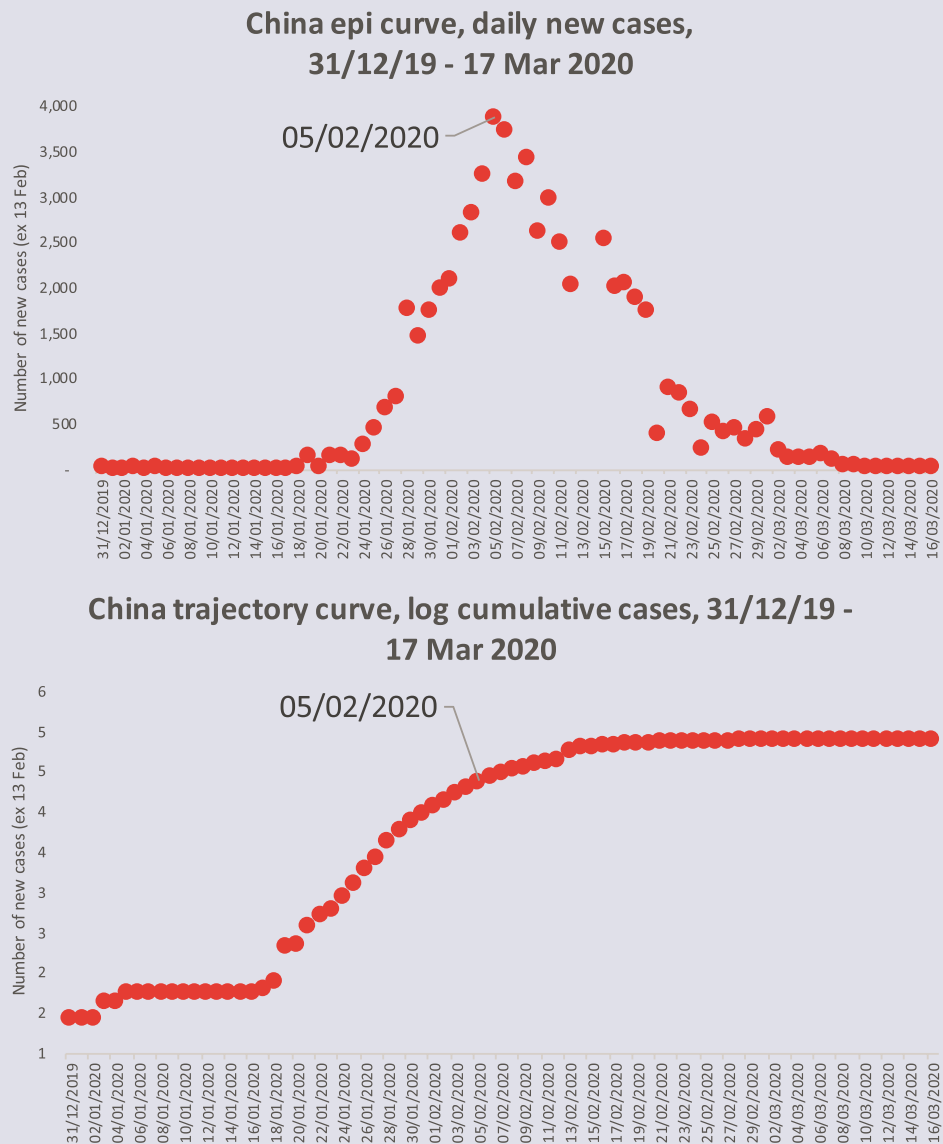
Source: Authors' elaboration based on ECDC online data (download 17 March 2020).

1 See <https://www.cdc.gov/training/QuickLearns/epimode/>

### Box 1 Epi curves and trajectory curves

The epi curve plots the growth of cases, i.e. the number of new cases per day. The trajectory curve shows the cumulative cases, and, to make the growth path clearer, it plots the logarithm of the cumulative number of cases. How do the two curves relate to each other?

**Figure 3** China's epi and trajectory curves



Source: Authors' elaboration of ECDC online data. ECDC.europa.eu.

Figure 3 shows the two curves for China – a country that has worked its way past the decelerating phase. Put simply, the epi curve is the daily change in the number of cases, while the trajectory curve shows the cumulative cases. Since the epi curve is hump-shaped, the trajectory curve has a 'lazy-S', or logistics shape.



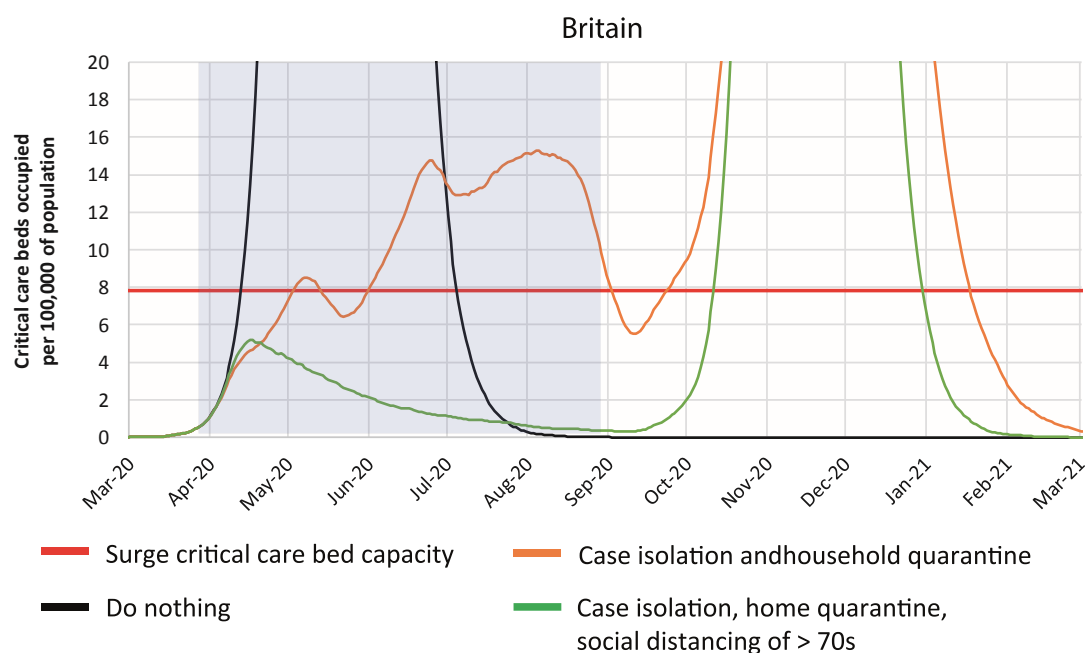
What Figure 2 shows is that COVID-19 follows a fairly predictable path, by and large. The shock hit China in January, Italy four weeks later, Germany and France five weeks later, and Britain the week after that. For weeks, some governments pretended that this was someone else's problem, but as of 17 March 2020, all of them know what is coming down the tracks unless they take extreme containment measures immediately.

While the curves look similar at this macro level, containment policies have had a major impact on slowing the disease in the countries that practiced them. This shows clearly in Japan's trajectory. Singapore and Hong Kong (not shown) have also managed to avoid explosive growth so far. Surely there are lessons here, public health lessons, but we stick to the economic aspects. From that angle, it is useful to note that the public health containment policies are inseparable from the economic impact.

## A second wave?

There is a danger of subsequent waves of infection, as was the case with the Spanish Flu that hit most nations in three waves from 1918 to 1920. A recent simulation study of COVID-19 by epidemiologists at Britain's Imperial College suggests as much. Using simulation analysis, the team at Imperial projected the epi curve for Britain and the US without any containment policies and with various combinations of public health measures.

**Figure 4** Imperial College simulations of COVID-19 epi curves under various containment strategies



Source: Ferguson et al. (2020).

The black line in Figure 4 shows the likely path of the epidemic with no public health controls in place – as measured by the number of hospitalisations. The coloured lines illustrate possible paths with different control measures in place. The red line shows the hospital bed constraint. The study presents an equivalent figure for the US (not shown here).

The Chinese government is clearly worried about a second outbreak (see the chapters by Yi Huang et al. and by Shang-Jin Wei). China took it as an affront when the US, Australia, and others blocked travellers from China; now the restrictions may appear in the opposite direction. As Shang-Jin Wei writes in his chapter: “Now with the appearance of ineffective controls of the virus in some of these countries, the Chinese may not be eager to resume these flights any time soon.”

Singapore is also worried about another outbreak. It had managed to keep the cases below 100 for almost a month – using rigorous testing, tracking and isolating. But the island state has seen an acceleration recently. Many of these are imported cases from the new epicentres. In reaction, the Singapore government increased travel restrictions this week and imposed a mandatory 14-day stay-at-home period for returning citizens. Importantly, the government is openly communicating about the possibility that this shock may not be as transitory as many first thought based on China’s experience. The public health policies may remain in place for a long time. It is preparing the population that there may be no return to normality for a year. The Foreign Minister, speaking on CNBC, put it this way: “We should assume the worst, even if we are hoping for the best.”

## **Slowing the spread of the disease**

Controlling the epidemic means ‘flattening the epidemiologic curve’. This is done by slowing the rate of infection by, for example, reducing person-to-person contact overall via work and school closures, and travel bans (‘social distancing’). This was the approach taken in Wuhan and it is now being taken in Europe and the US. Another approach is to identify and remove infected people from the population by quarantining them.

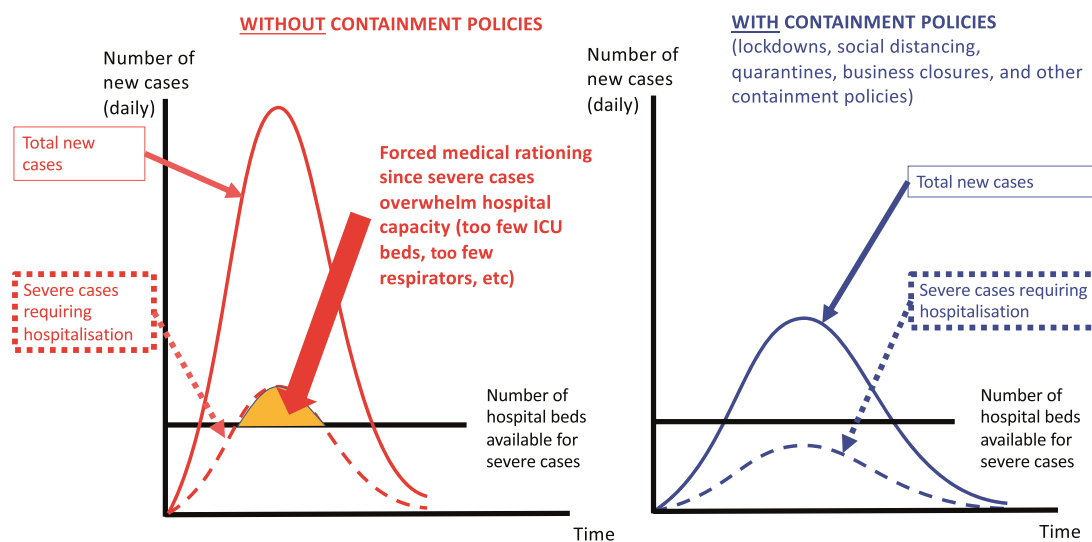
The social distancing policies are purposefully inducing an economic slowdown. A pandemic like COVID-19 would have a sharp impact on economic output for obvious reasons. But the containment policies worsen the economic recession, and this is on purpose.

What are governments thinking when they do this? The point is simple: a flatter curve saves lives. Here's the logic. Given there are no 21st century tools to fight the virus, the key is to 'flatten the epi curve' to avoid bottlenecks in the healthcare system that result in suboptimal treatment (and thus more deaths). During the acceleration phase, the number of people needing hospitalisation grows in leaps and bounds – so fast that it can overwhelm a nation's healthcare system. This is happening right now in Italy, and it happened in Wuhan.

The desire to reduce the sort of 'wartime triage' going on in hospitals today is why Italy is now taking what may seem to many like extreme measures. Only they are not extreme compared to the nightmare alternative of overwhelmed hospitals unable to provide the care people need to survive the disease. By reducing the frequency with which people who are infectious meet people who are susceptible, containment policies lower the speed at which the disease spreads. This, in turn, slows the flow of people showing up for hospitalisation. The goal is to keep the flow of daily severe cases to within the capacity of the hospital system for new admissions. This 'flatten the curve' point is illustrated schematically in Figure 5.

**Figure 5** Epi curve flattening saves lives by avoiding hospital overloads

Containment & social distancing policies save lives by avoiding medical rationing

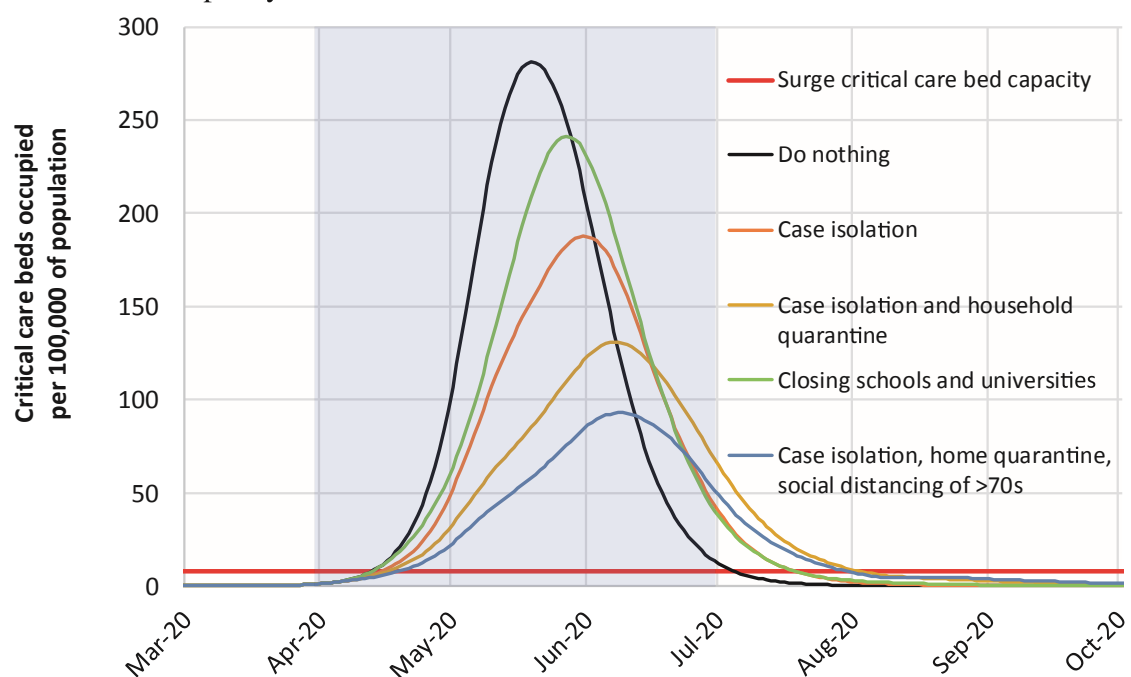


Source: Based on Baldwin (2020c)

The left panel shows what the epi curve might look like if no containment policies are undertaken. The number of new cases spikes – along with the number of severe cases needing hospitalisation. In the case of Italy and China, the spike in hospitalisations swamped capacity. The results were tragic. The right panel illustrates how flattening the epi curve might avoid this sort of tragedy.

The bad news is that some epidemiologist estimate that hospitals will be overwhelmed even with containment policies (Figure 6). The chart show simulated epi curves simulated by Imperial College's COVID-19 Response Team (<https://www.imperial.ac.uk/news/196234/covid19-imperial-researchers-model-likely-impact/>). Looking at the uncontrolled case (black line) and various combinations of containment policies (coloured curves), they find that even the “optimal” mitigation policies “would still result in an 8-fold higher peak demand on critical care beds over and above the available surge capacity in both GB and the US”.

**Figure 6** Imperial College epidemiological simulations, COVID19 and hospital capacity



Source: Ferguson et al. (2020).

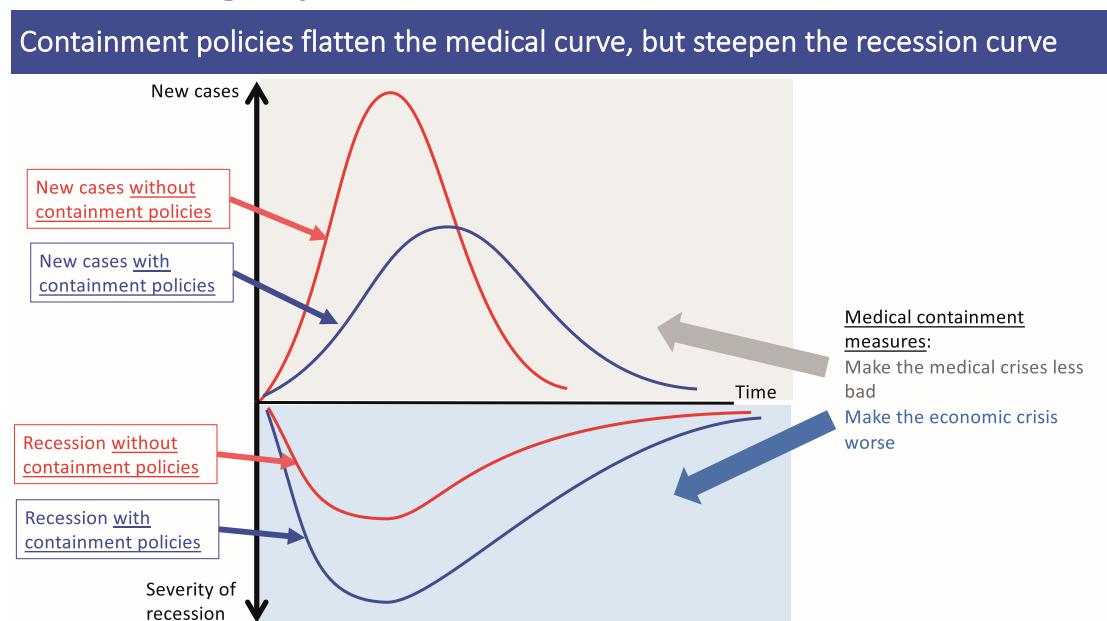
## The economic recession is a public health measure

Efforts to flatten the epi curve reduce economic activity. The recession, so to speak, is a necessary public health measure. Keeping workers away from work and consumers away from consumption both reduce economic activity. This is illustrated schematically in Figure 7, which has a top panel (medical) and a bottom panel (economy).

*Efforts to flatten the epi curve reduce economic activity. The recession, so to speak, is a necessary public health measure.*

In the top panel (the medical outcome), the red curve suggests what the epi curve would look like without containment policies; the blue curve suggests what it would look like with containment policies. The blue curve is a flatter version of the red curve due to containment policies. In short, containment policies flatten the epi curve.

**Figure 7** Containment policies and epi and recession curves – flattening and steepening



Source: Author's elaboration, inspired by illustrations in the chapter by Gourinchas.

In the bottom panel (the economic outcome), the red curve illustrates the economic losses (negative growth) when there are no containment policies; the blue curve suggests the recession's evolution when containment policies are imposed. The blue curve is steeper and deeper than the red curve in the bottom panel, i.e. just the reverse of the top panel. As Pierre-Olivier Gourinchas puts it: “flattening the infection curve inevitably steepens the macroeconomic recession curve.”

This unavoidable trade-off is surely behind some leaders delaying containment policies.

### Three types of economic shocks from COVID-19

The COVID-19 pandemic creates all manner of economic shocks; to organise thinking about them, it is useful to put them into three bins, as we did in the last eBook (Baldwin and Weder di Mauro 2020a).

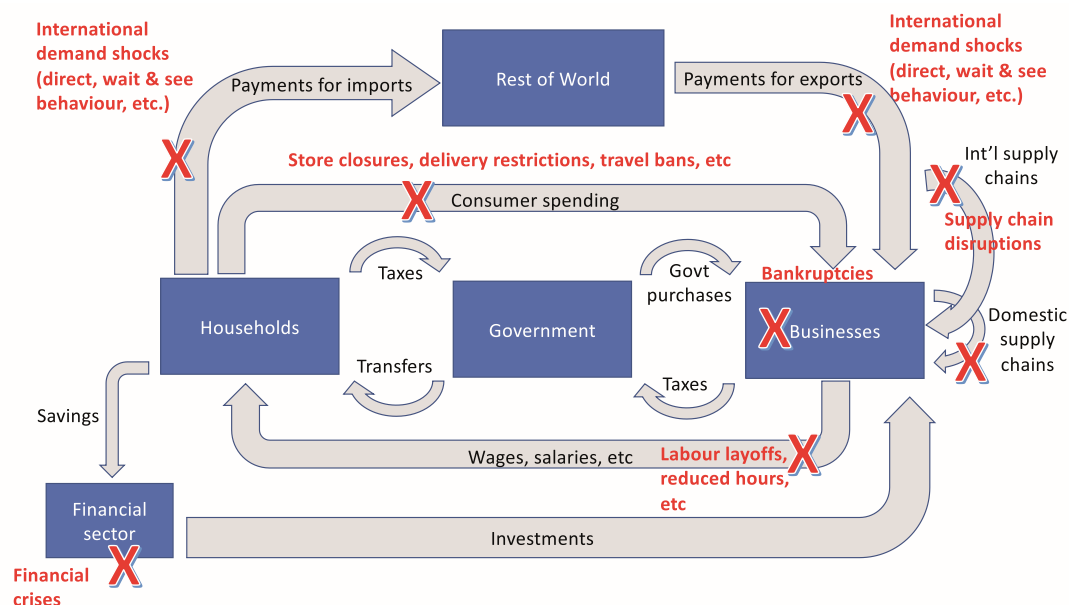
- First are the purely medical shocks – workers in their sickbeds aren't producing GDP.
- Second are the economic impacts of containment measures.
- Third are the expectation shocks.

As in the Global Crisis of 2008-09, the COVID-19 crisis has consumers and firms all around the world putting off spending; they are in wait-and-see mode.

## How do the virus-linked shocks affect the economy?

Pierre-Olivier Gourinchas answers this question elegantly in his chapter: “A modern economy is a complex web of interconnected parties: employees, firms, suppliers, consumers, banks and financial intermediaries. Everyone is someone else's employee, customer, lender, etc.” If one of this buyer-seller links is ruptured by the disease or containment policies, the outcome will be a cascading chain of disruptions. This point is illustrated in Figure 8.

**Figure 8** COVID19's multiple strikes in the circular flow of income diagram



Source: Based on Baldwin (2020b).

The diagram is a version of the well-known circular money flow diagram that is found in most introductory economic textbooks. In simplified form, households own capital and labour, which they sell to businesses, who use it to make things that households then buy with the money businesses gave them, thereby completing the circuit and keeping the economy growing. In short, a flow disruption anywhere causes a slowdown everywhere.

The red crosses show where the three types of shocks are disrupting the economy. Starting from the far left and moving clockwise, we see households who don't get paid experience financial distress and thus slow their spending. Second, the domestic demand shocks hit the nation's imports and thus the flow of money to foreigners. While this doesn't reduce domestic demand directly, it does reduce foreign incomes and thus their spending on the nation's exports (the cross in the top-right corner). The reduction in demand and/or direct supply shocks can lead to a disruption in international and domestic supply chains (the two crosses on the right). Both lead to a further reduction in output – especially in the manufacturing sectors. The hit to manufacturing can be exaggerated by the wait-and-see behaviour of people and firms. Manufacturing is especially vulnerable since many manufactured goods are postpone-able (the cross in the bottom-right corner).

Business bankruptcies are another point of disruption. Businesses who loaded up on debt in recent years (BIS 2019) are especially vulnerable to reductions in the cashflow. The bankruptcy of the British airline Flybe is a classic example. This sort of strike can create a cascade. When creditors and workers don't get paid, they spend and invest less. Indeed, the bankruptcy of one firm can put other firms in danger. This sort of chain-reaction bankruptcy has been seen, for example, in the construction industry during housing crises. Finally, there are the labour layoffs, sick leaves, quarantines, or leaves to care for children or sick relatives directly related to containment policies or other medical necessities. Workers who lose their jobs spend less.

This sort of disruption was very much in evidence in the greatest pandemic of the 20th century – the Spanish Flu (see Box 2 based on Barro et al. 2020).



## Box 2 How bad could it get? Barro on the Great Influenza Pandemic (Spanish Flu)

The so-called Spanish Flu pandemic, or Great Influenza Pandemic, circled the world from 1918 to 1920; it killed about 2% of humans (about 43 million). The pandemic came and went three times. The three waves were: (1) spring 1918 (the final year of World War I); (2) September 1918 to January 1919 (the deadliest), spread in part by troops first crowded together and then sent home; and (3) February to December 1919. Many famous people died in this pandemic – most notably for today’s events, this list includes the grandfather of US President Donald Trump.

Table 1 shows the excess mortality for the world (based on data from 43 nations).

**Table 1** Death totals during the Great Influenza Pandemic, 1918-1920 (millions)

	Waves			Sum
	1918	1919	1920	
43 countries estimated	23.5	8.4	2.8	34.6
Inflated to world population	26.4	9.4	3.1	39.0

Source: Barro et al (2020).

A simple extrapolation of the Spanish Flu death rates to today’s pandemic – which is unlikely but helps establish an upper bound – suggests staggering mortality numbers. A death rate of 2% today would correspond to 150 million deaths. That’s an unlikely outcome.

What was the economic hit? By exploiting variations in flu intensity from 1918 to 1920 across countries, Barro et al. estimate effects on GDP. The results are sobering, but not alarming. The Great Influenza Pandemic reduced real per capita GDP by 6.0% in the typical country. For comparison, they estimated the impact of World War I as negative 8.4%.

## Light at the end of the tunnel

Europe and the US are heading into what many commentators are calling a steep economic downturn. Many governments, however, are viewing this as a transitory economic shock – and with good reason. An analysis of the Chinese case suggests that there is indeed light at the end of the tunnel. Box 3 provides the facts. That is the

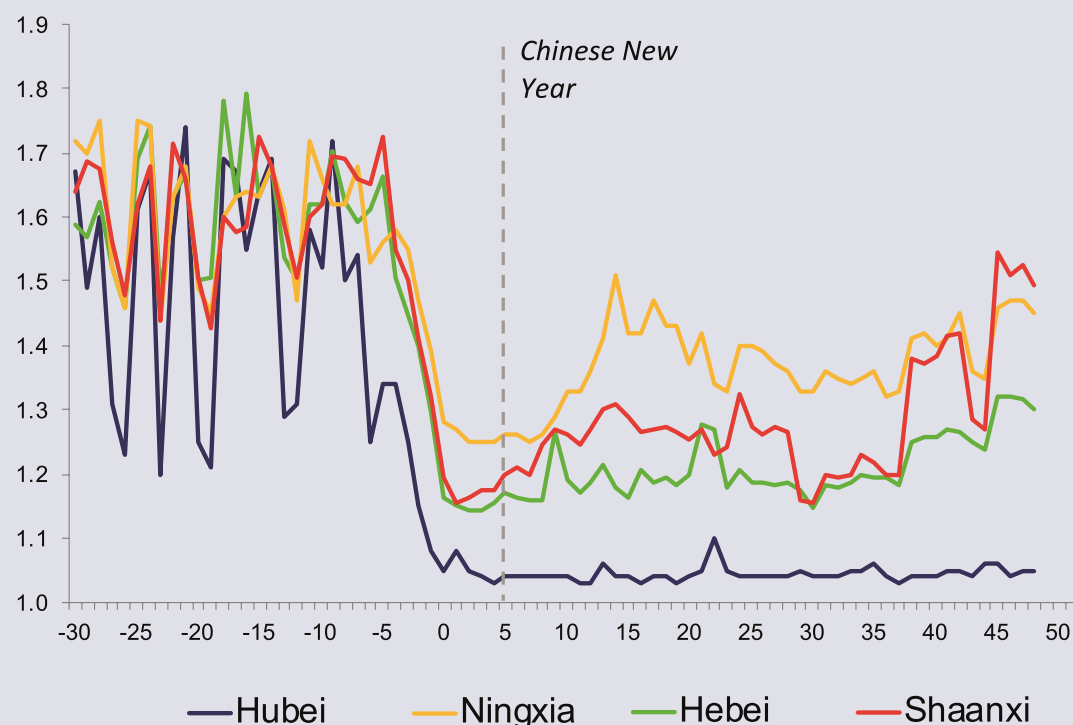


good news; the bad news is that the first wave of this pandemic may not be the last. Reoccurrence is common phenomenon with epidemics – as we saw with the Spanish Flu (Box 2).

### Box 3 China's L-shaped recovery: News from ground zero

Following 50 days of lockdown, China is slowly rebooting. The full account of the economic losses is not complete, but it is evident that the losses were larger than many analysts expected. Industrial production fell 13.5% in January and February versus a median estimate of -3%, according to Bloomberg.

**Figure 9** China's traffic congestion index, 2020



Source: UBS

Things in China are far from normal, but transportation is starting to be congested again and air pollution levels are rising – both clear indicators that economic activity is resuming, as Figure 9 shows.

The recession is a medical necessity. That's a given. But governments can and should try to flatten the economic recession curve.

## How can we flatten the recession curve?

The consensus among the authors in this eBook – and indeed among most leading economists who are writing on this – is quite simple. It’s in the title of our eBook: “Act fast and do whatever it takes.” Governments should deploy policies that ‘flatten the recession curve’ while avoiding long-lasting damage to our economies. Governments should do whatever it takes to ‘keep the lights on’ until the recession is over.

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As Italian Finance Minister Roberto Gualtieri declared: “Nobody will lose their job because of the virus.” To which we could have added: “And if someone loses her or his job, they will be guaranteed an income to support them until they find a new one”, as Alberto Alesina and Francesco Gavazzi put it in their chapter. The principle indeed is analogous to Mario Draghi’s famous statement during the euro area crisis that the ECB would do “whatever it takes” to save the euro. Since people believed this statement, expectations were recalibrated back to a world where the euro area would not fly apart. The switch in expectations, in turn, became self-fulfilling. This is what policymakers should be aiming for today with respect to the COVID-19 crisis.

This advice is premised on two simple points:

1. The medical shock is transitory. It will dissipate; doctors will develop a vaccine and curative treatments.

China, for example, has worked its way down the epi curve in about three months (by deploying draconian containment measures). That may be optimistic for less controlled societies, and the virus may well come back (see Box 2), but eventually the weapons of 21st century medicine – especially a vaccine – will end the pandemic.

2. The economic damage could be persistent. Without preventative measures, jobs may not be there when the recession passes, many firms might go broke, and bank and national balance sheets could be impaired.

The key is to reduce the accumulation of ‘economic scar tissue’ – reduce the number of unnecessary personal and corporate bankruptcies, make sure people have money to keep spending even if they are not working. A side benefit of this would be to subsidise the sort of self-quarantine that is needed to flatten the epidemiologic curve.

## **The ‘whatever it takes’ moment for economic policy**

Jason Furman, who was President Obama’s chief economist, adds some guiderails to the ‘do whatever it takes’ idea. His advice comes in six points: (1) better to do too much rather than too little; (2) use existing mechanisms as much as possible, (3) invent new programmes where necessary; (4) diversify and do not fear duplication or unintended ‘winners’ in the response; (5) enlist the private sector as much as possible; and (6) ensure the response is dynamic and persistent.

The basic idea is to address all the red crosses in Figure 8. Nations around the world are scrambling to put together recession curve-flattening packages to minimise the damage that this temporary shock does to the economy. The policies can be usefully grouped into six bins:

- Fiscal policies;
- Monetary policies;
- Financial regulation policies;
- Social insurance policies;
- Industry policies;
- Trade policies.

The particulars of policies in each of these can be found in the chapters of this eBook. Several of the chapters present complete plans of action. These include the multiple author pieces (Bofinger et al. and Bénassy-Quéré et al.) as well as the chapters by Christian Odendahl and John Springford, Gita Gopinath (IMF Chief Economist), Shang-Jin Wei, and Luis Garicano. Adam Posen’s chapter looks at all the policy category with a special emphasis on the multilateral cooperation dimension. As he writes: “international economic policy cooperation in response to the COVID-19 pandemic is not going to be an easy sell, [but] ... We should not give up on the power of concerted action...”

Another set of chapters concentrate on individual nations. Huang et al. present a comprehensive dissection of the impact of the virus on the Chinese economy, the policy reaction to date and recommendations for economic policymaking going forward. Jonathan Anderson’s chapter puts the Chinese leadership’s actions in the context of developments over the past few years. The chapters by Nora Lustig and Jorge Mariscal and by Furman focus on packages for the US. The chapter by Inkyo Cheong relates the experience that Korean policymakers have had to date in combating the recession and suggests what more they could do.

The chapter by Philip Lane (a Member of the Executive Board of the ECB and former governor of the Irish central bank) focuses on monetary policy. The chapter by Thorsten Beck proposes a set of measures that should be considered for banks, markets, and other financial institutions.

One of the boldest policies comes from Jordi Gali – using ‘helicopter money’ to pay for the ‘whatever it takes’ packages. His argument is simple: society has a pressing need for a massive increase in government spending, but the already stretched debt-sustainability levels of many European governments pose risks. The worse outcome would be the COVID-19 recession morphing into a COVID public debt crisis.

### Fiscal policy

During the Global Financial Crisis (GFC) central banks came to the rescue, and the same happened during the euro crisis of 2011. For the COVID-19 crisis, monetary policy has not been very effective. Despite major cuts in interest rates, expectations of the depth and duration of the crisis seemed rather unaffected – at least judging from the historical drops witnessed in the financial markets.

This time, fiscal policy should be the first to the rescue because the main shock is coming from the real economy. But as with monetary policy in the GFC and euro crisis, governments should also be prepared to do ‘whatever it takes’.

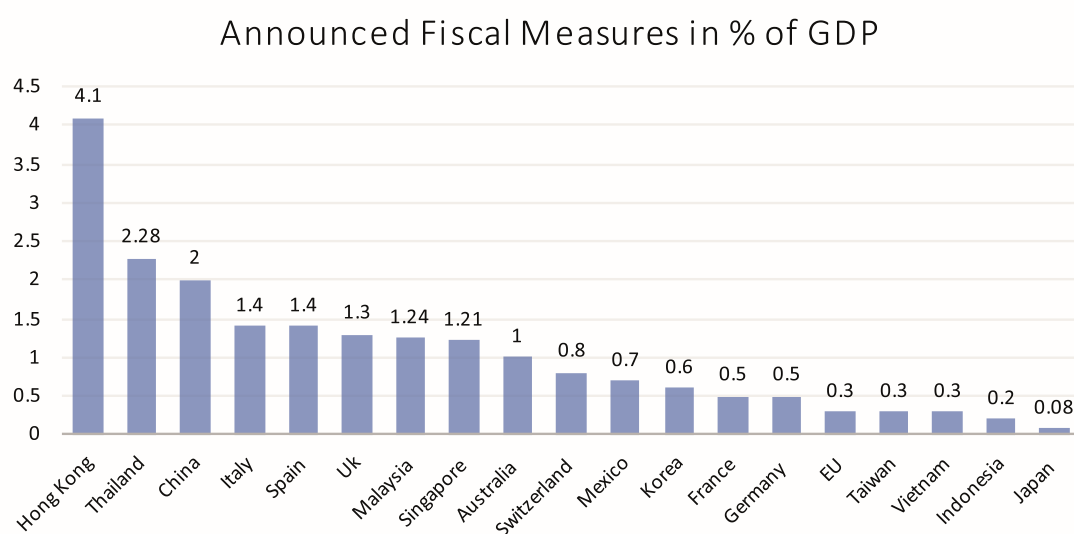
Governments have already reacted with fiscal force (Figure 10). The largest package of measures announced so far is in Hong Kong, amounting to 4% of GDP. Italy, Spain, and the UK have all put programmes of about 1.5% of GDP on the table, mostly with targeted fiscal support for households and firms. The measures include income subsidies for affected workers, tax deferrals, social security deferrals or subsidies, debt repayment holidays, and state loans or credit guarantees for companies.

The German programme of 13 March, entitled “A protective shield for employees and companies”, includes unlimited loan guarantees to support firm’s liquidity from the state-owned bank Kreditanstalt für Wiederaufbau (KfW).<sup>2</sup> The German Minister of Finance dubbed this programme a “big bazooka”.

<sup>2</sup> See [https://www.bundesfinanzministerium.de/Content/DE/Standardartikel/Themen/Oeffentliche\\_Finzen/2020-03-13-Schutzschild-Beschaefigte-Unternehmen.html](https://www.bundesfinanzministerium.de/Content/DE/Standardartikel/Themen/Oeffentliche_Finzen/2020-03-13-Schutzschild-Beschaefigte-Unternehmen.html)

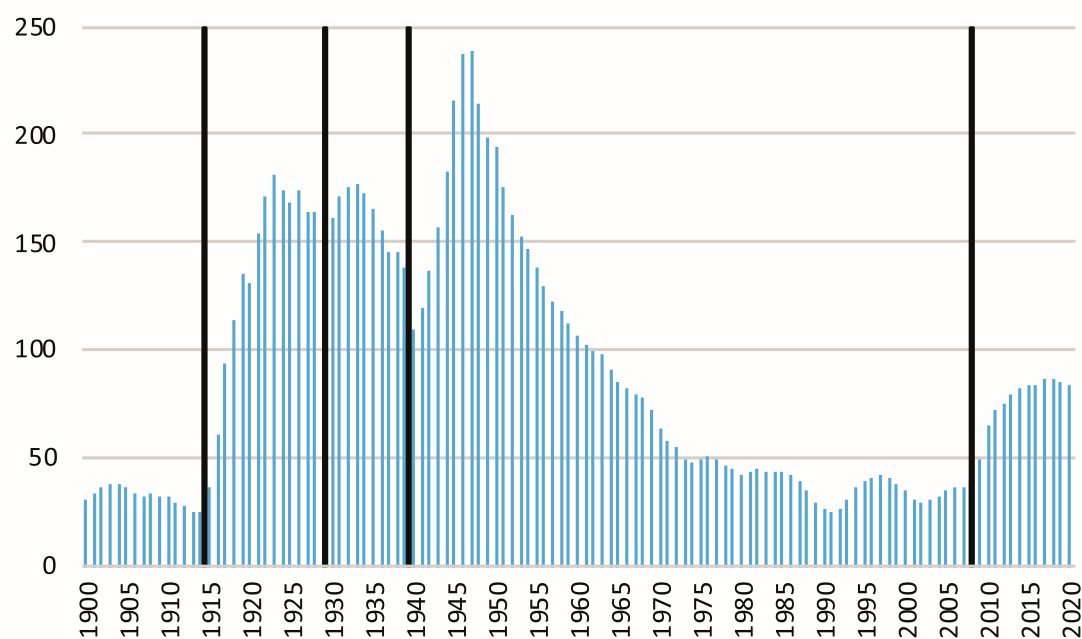
Big spending means big increases in government debt. Should we be worried? Wars, disasters, epidemics and deep recessions are textbook examples for running large fiscal deficits and accumulating debt. For instance, the UK used debt financing backed by monetisation to finance World War II, increasing debt to a peak of almost 250% of GDP (see Figure 11). In the chart, the vertical bars indicate the beginning of World War I, the Great Depression, World War II, and the Global Financial Crisis.

**Figure 10** Fiscal measures already announced



Source: Author's Elaboration based on UBS.

**Figure 11** Debt-to-GDP ratio in the UK (1900-2020)



Source: Panizza based on Bank of England

The fight to flatten the curve of medical contagion has been called a “war” by President Macron. The fight to reduce the fallout on the economy may ultimately also necessitate measures that would never be contemplated in normal times.

While fiscal policy should be on the front line, monetary policy has to first play a supporting role, guaranteeing the liquidity of the financial system (not the equity market).

### **Fixing Europe’s roof while it is raining – focusing on today’s epicentre**

When Christine Lagarde was managing director of the IMF, she frequently called on European policymakers to fix the roof while the sun was shining. She was not alone with this call – to the contrary, there was a chorus of experts warning that the roof of the euro was still leaky and that the reform needed to be completed before the next rain. Now it is raining, hard.

The vengeance of the unfinished reform agenda is that the euro has no meaningful fiscal stabilisation tool and no common safe asset, it is missing a common deposit insurance, and it still suffers from the ‘doom loop’ (e.g. Alogoskoufis and Langfield 2018). Fighting the crisis will mean sharply higher debt levels everywhere, but in countries with already high debt levels this can trigger spiking sovereign spreads and a vicious circle. Fears of financial fragmentation and redenomination risk could lead straight back into a euro crisis and a sudden stop of capital flows. This is not something the world needs in the midst of a pandemic.

The instruments and institutions that the euro area has created over the course of the last ten years are not designed for this type of crisis. They are designed for an asymmetric shock to a single country (or a series of small countries), originating in the financial or public sector. The main protective shield of the euro is the Outright Monetary Transactions (OMT) programme, which enables the ECB to buy bonds of an individual sovereign but only if this country has agreed to enter into a European Stability Mechanism (ESM) programme of the type Ireland agreed to during the 2011 euro crisis. Such programmes entail stigma and conditionality (usually fiscal consolidation). None of this fits the present situation. This is a symmetric shock, a common shock and one that requires higher fiscal deficits.

Also, moral hazard – one of the main concerns to common European action in normal times – does not apply for a pandemic-caused disaster, which is a fully exogenous shock. Moral hazard would presuppose that countries applied insufficient fiscal discipline in order to benefit from help in a pandemic. Clearly this logic does not apply, or as Pierre Olivier Gourinchas puts it in his chapter: “After all, the RNA strand that constitutes the virus cares little about incentives, or borders for that matter.”

*This is a symmetric economic shock since it is a symmetric medical shock. The RNA strand that constitutes COVID-19 cares little about incentives; it has never heard of moral hazard, and it has crossed every border in Europe and most of them beyond. This common economic shock requires a common economic policy effort.*

There should be no debate on whether the crisis is a national problem or whether it requires EU action. The economic fallout from the crisis is clearly a European problem since Europe has a common fiscal framework and the euro area has a common currency that constrain what a country can and cannot do in response to the crisis. In addition, there are strong positive and negative externalities of the containment measures on neighbours. The lockdown in Italy did not stop the virus, but it did slow down the contagion to others and bought the rest of Europe a few weeks of (largely wasted) preparation time.

What Europe has put on the table so far will quickly prove to be insufficient. The European Commission acted rapidly by making full use of the flexibility in EU fiscal and state aid rules and mobilising the European budget. The Eurogroup welcomed the Commission’s proposal for a €37 billion Corona Response Investment Initiative and to make a further €28 billion of structural funds fully eligible for meeting these expenditures. The Eurogroup also welcomed the Commission’s initiative to mobilise the European Investment Bank (EIB) to support working capital lending for European firms, but they did not announce any coordinated or decisive policy actions.

A more comprehensive European approach is needed on two levels.

1. An ambitious ‘Catastrophe Relief Plan’ to share the burden and support the efforts of member states in combatting the pandemic;
2. A stronger ‘roof’ for the euro, since financial fragmentation at this point could trigger a dangerous cascade of political, economic and social effects.

This is a time for the old adage: better safe than sorry.



The EU needs an ambitious Catastrophe Relief Plan

Bénassy-Quéré et al. call for a EU-level ‘Catastrophe Relief Plan’ to support the combined efforts of the member states in combating the pandemic. The EU would take responsibility for managing and financing a meaningful share of the overall emergency effort, in particular to:

- Help finance the direct cost of improving hospital infrastructure (especially the number of intensive care beds) and paying for the extra workload of medical staff; and
- Help finance indirect expenditures related to public health measures, such as containment and school closures. Eligible expenditures could include security, partial unemployment schemes and support targeted at specific sectors.

Luis Garicano, in his chapter, proposes another ambitious plan. His idea is that European institutions help member states undertake their healthcare spending by increasing EU-wide healthcare spending by about 5%; that would cost around €50 billion. In addition, a financial backstop for companies, particularly small and medium-sized enterprises (SMEs), with the level of ambition of the German ‘bazooka’ should be provided. Assuming the level of leverage the EIB can achieve, this would require guarantees on the order of €275 billion. He also calls for a European-level Kurzarbeit programme – that is, a programme to support short-term employment protection facilities throughout member states. The main objective of these facilities would be to ensure firms have liquidity without having to fire workers. Instead of letting them go, companies would be able to reduce the hours of their workers (by 100% if needed). The state would compensate workers for (a significant part of) the lost wages.

How to finance an EU-wide bazooka

Garicano estimates the costs of such a comprehensive plan would be about €500 billion. That is a large number – large enough to raise national debt sustainability issues. How could they be financed on the European level? These are the options:

1. Reallocations within the EU budget.

The EU commission is already using this flexibility, but the amounts are limited. The EU budget is, after all, only 1% of EU GDP.



2. Cooperation among member states outside the framework of the EU budget.

This was the sort of financing that was organised during the Greek and euro crises, and the cooperation led to the creation of the European Financial Stability Facility (EFSF) and ultimately to the ESM. The drawback is that, being voluntary, it was difficult to organise due to free-rider problems. Things are more pressing now.

3. A ‘pandemic bond.’

This is the best answer in the present situation – joint issuance through a pandemic bond.

A number of our authors agree that common bond issuance is the proper response to the common shock. Pierre-Oliver Gourinchas proposes that the ESM issues common bonds for two specific purposes: to finance necessary health expenditures, and to prevent economic dislocation in the affected countries. Charles Wyplosz also argues that borrowing should be undertaken collectively through jointly issued bonds, but is sceptical whether countries will be able to agree.

The euro needs a stronger roof

The second priority is to reassure markets that the euro area will remain intact. Markets need to be convinced that European institutions and instruments are available to ensure that this is the case, even if debt increases on all levels. There are two possible solutions, the first being a credible OMT programme through an ESM programme for all EU members.

The existing instrument for this purpose could be some combination of OMT (which was the mechanism underpinning Draghi’s famously effective “whatever it takes” pledge) and an ESM programme that every EU member signs. As mentioned above, these instruments are not fit for purpose at the moment. At the very least, ESM conditionality would have to be amended and the stigma attached to signing up to such a programme would have to be reduced. Alternatively, countries will not choose this route in time.

The stigma problem of an ESM programme is similar to that faced during the banking crisis of 2009. Some euro area members found that accepting the aid was necessary to stabilise their economies and financial systems, but they found it carried a stigma. In the US, the problem was overcome by giving large banks no choice – the US federal government recapitalised all of them simultaneously. This eliminated individual stigma, doubts about solvency dissipated, and confidence in US banking system returned. In Europe, the stigma problem led to too little recapitalisation, a weaker system, and a prolongation of the banking crisis.

The analogous solution could be that all euro area members agree simultaneously on an ESM credit line. In fact, there are two existing lines which would have to be modified: the Precautionary Conditioned Credit Line (PCCL) and the Enhanced Conditions Credit Line (ECCL). Using these would reduce stigma and yet meet the legal requirements for deploying the OMT. This would create a confidence shield.

One of the problems of this option is that the credit line may not be used by all members and therefore some reallocation in favour of countries with higher needs would be desirable. Another problem is that this solution may prove divisive and could only work if there are no veto players.

As Jason Furman wrote in his chapter: “Invent new programmes where necessary.” The financing quandary: how can national spending, and thus borrowing, be ramped up massively without turning the COVID-19 crisis into a debt crisis? If the OMT is closed or too slow, a second financing option would be to create a new instrument: a common pandemic bond issued by the ESM or EIB (or a combination of both). The bonds would have to have a high rating, which might necessitate a capital increase of these institutions. The bonds would need to be structured to be targeted to the specific purpose of pandemic fight and limited to a case of extreme emergency.

The proceeds of this bond could be allocated pro rata to member states or they could flow to specific activities of the EIB or ESM. The service of the bond could be through the EU budget or take the form of an EU ‘special solidarity tax’ (to be levied only after the recovery).

An important advantage of this solution is that it constitutes supranational debt, and therefore does not add to the national debt levels, although governments would have a contingent liability through their capital shares in the ESM/EIB. The bonds would be eligible for ECB asset purchase programmes.

Overall, a pandemic bond would serve the dual purpose of helping to finance the costs of the crisis (see above) and sending a strong signal to markets, firms and citizens that Europe was united and working for the benefit of all. That, in turn, would boost trust.

## Watch this space – concluding with continuing remarks

If these were normal times, if the COVID-19 crisis were a normal crisis, our introduction would close with a rousing set of concluding remarks. It would sum up the main takeaway points, add a call to action and finish with a rhetorical flourish. These aren't normal times. These are not concluding remarks. Rather, they point out that the policy analysis and recommendations are rapidly developing.

Here are two examples of escalations that have happened as we rush to finish this introduction: the Spanish government has just announced a €200 billion package, which is equivalent to about 20% of GDP; and a group of concerned economists are calling for the EU to amend legislation and enable the ECB to engage in monetary financing of deficits. This call is quickly gathering support (see the manifesto on Vox here).

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