

MACROECONOMICS

C. The Covid-19 Pandemic and the Macroeconomy: A Primer

To the students of the Basel FS 2020 Macro Class:

Change of Syllabus



Needless to say in 2020, we live through an extraordinary period. The Covid-19 Pandemic has changed our entire way of life, not least our way of studying. We all face the necessity of huge adjustments.

Your macro module adjusts by adding a chapter on macroeconomic aspects of the pandemic, in the process cutting short the remaining material that was originally listed in the Syllabus.

The Pandemic is first and foremost a public health challenge. But addressing this challenge has enormous consequences for the economy – most of all macroeconomic consequences.

Therefore, we are currently witnessing an outburst of research activity by macroeconomists thinking about the nature of the economic effects of the pandemic and about the best way for public policies to limit the damage.

This Chapter surveys some of the insights gained so far, compiling some useful sources along the way. It will be updated as events unfold. It is to be studied just as any other regular chapter of the course: Read the required readings (→ next slide), study the slides, listen to the audios on ADAM.

Outline and Required Readings

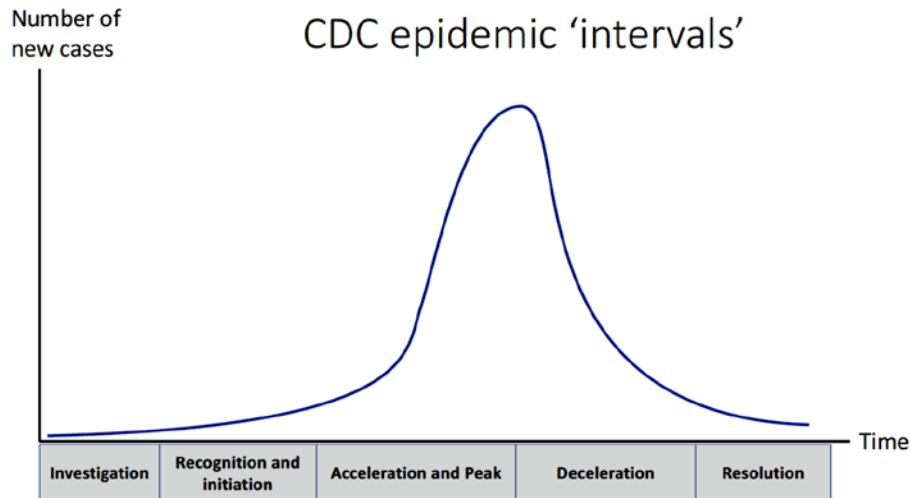
1. The Dynamics of an Epidemic
2. The Economic Fallout
3. The Economic Policy Response
4. From “Hammer” to “Dance”: How to Restart the Economy

Required readings:

- *Richard Baldwin and Beatrice Weder di Mauro, Introduction, in R. Baldwin and B. Weder di Mauro [Mitigating the COVID Economic Crisis: Act Fast and Do Whatever It Takes](#), 18 March 2020, pp. 1-24.
- *Pierre-Olivier Gourinchas, Flattening the pandemic and recession curves, in R. Baldwin and B. Weder di Mauro [Mitigating the COVID Economic Crisis: Act Fast and Do Whatever It Takes](#), 18 March 2020, pp. 31-39.
- *Olivier Blanchard, ["Whatever it takes." Getting into the specifics of fiscal policy to fight COVID-19](#) Peterson Institute of International Economics, Realtime Economic Issues Watch, 30 March, 2020.
- *Philip Lane, [The Monetary Policy Package: An Analytical Framework](#), The ECB Blog, 13 March 2020.

1. How a Pandemic Plays Out: The Epidemic Curve

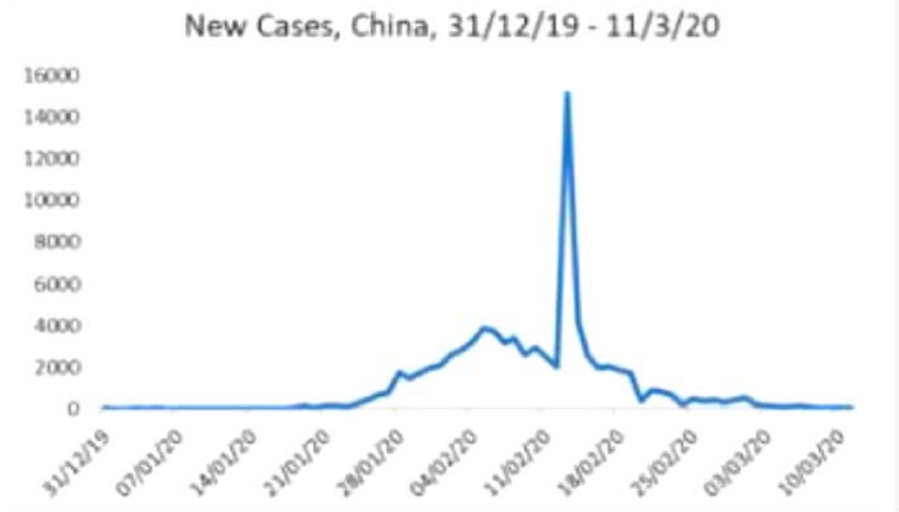
The Theoretical Model



The typical evolution of an epidemic follows the 'epi' curve: It starts slowly, then looks like exponential growth, passes a peak and gradually fizzles out thereafter.

Source: R. Baldwin and B. Weder di Mauro ,
[Mitigating the COVID Economic Crisis: Act Fast and Do Whatever It Takes](#), 18 March 2020, p. 2.

Covid-19, China 2020



The empirical data deviate from the model of unmitigated dissemination due to the drastic measures of suppression taken by China.

Source: R. Baldwin, [It's not exponential: An economist's view of the epidemiological curve](#), VoxEu.org, 12 March 2020.

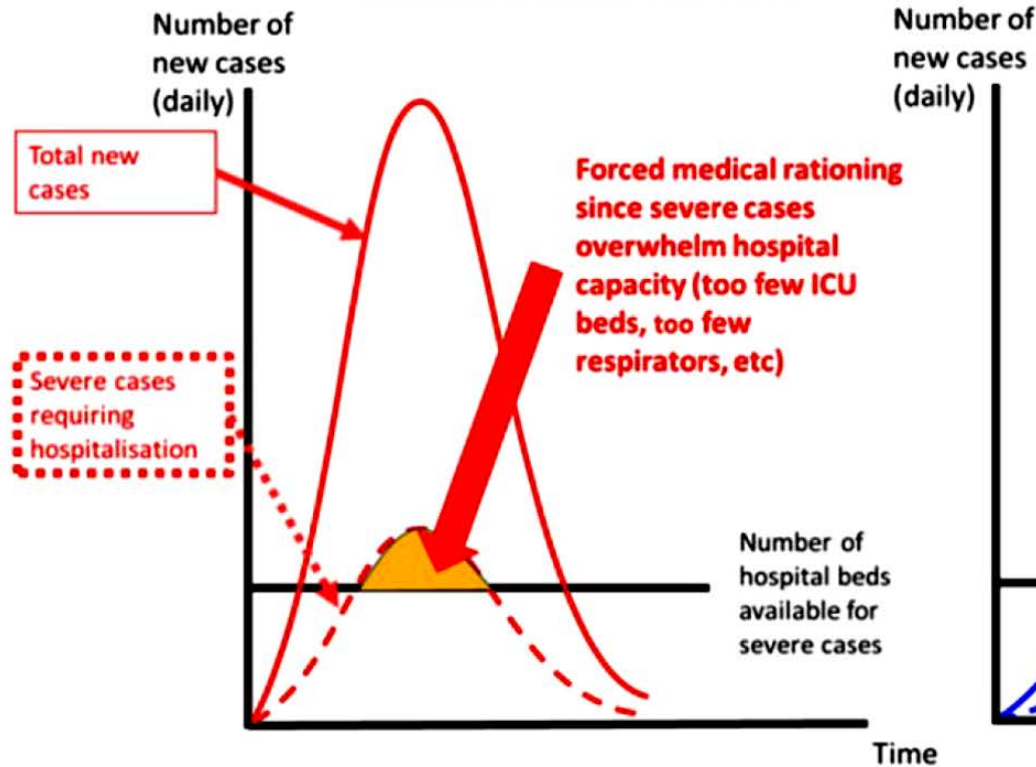
The Problem of Limited Hospital Capacity

- The model on the previous slide displays the evolution of new cases in the absence of any policy intervention.
- This is how most cases of mild flu play out, with at most some vaccination taking place.
- The case of Covid-19 is different: It is many times as infectious and it is more deadly than a run-of-the-mill flu.
- Hence, a large share of the population, in particular “the vulnerable risk group”, is threatened by suffering and death.
- Thus, containment of the epidemic becomes an urgent necessity - if only to keep the demand for intensive care from exhausting and exceeding the capacity of the health sector,.
- The aim of such containment is to flatten the epidemic curve as shown on the next slide.
- Containment means social distancing, shutting down places of mass human contact (schools, sports events, bars, production facilities) – up to a complete lockdown of the economy.

Flattening the Curve

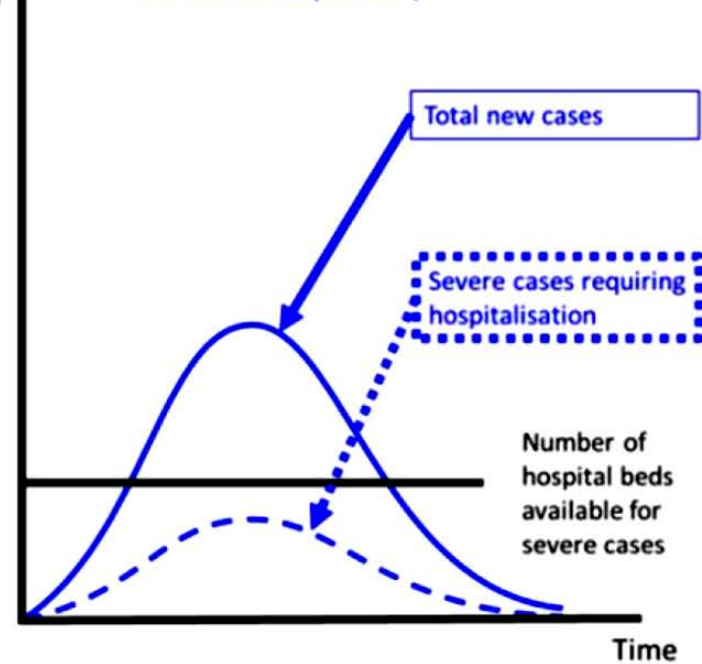
Containment & social distancing policies save lives by avoiding medical rationing

WITHOUT CONTAINMENT POLICIES



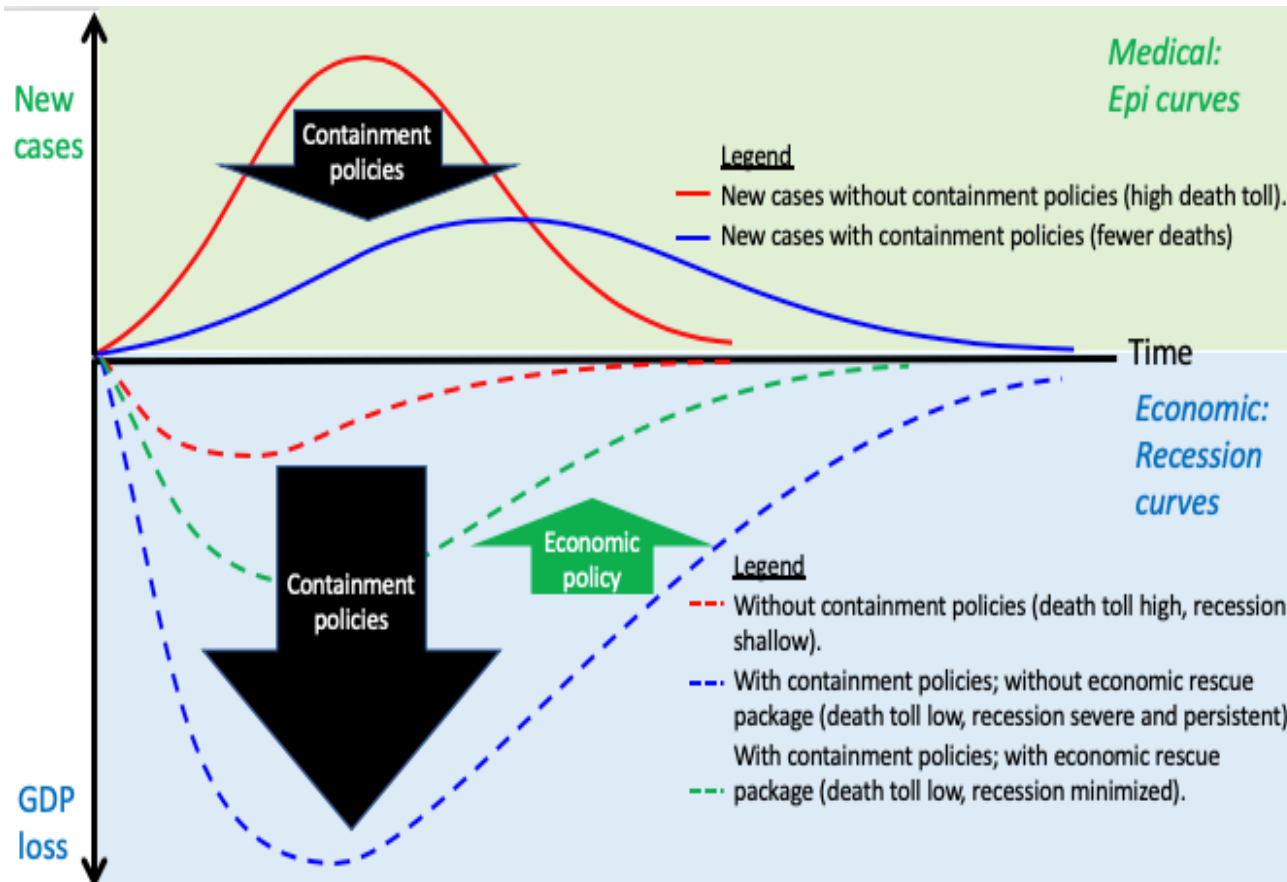
WITH CONTAINMENT POLICIES

(lockdowns, social distancing, quarantines, business closures, and other containment policies)



Source: R. Baldwin, [Inequality and pandemic make an explosive mix](#), VoxEu.org, 15 March 2020.

2. The Economic Fallout



The recession caused by the pandemic is unlike the demand-shock or supply-shock recessions we know from the macro textbook: It is the simple result of closing down part of the economy.

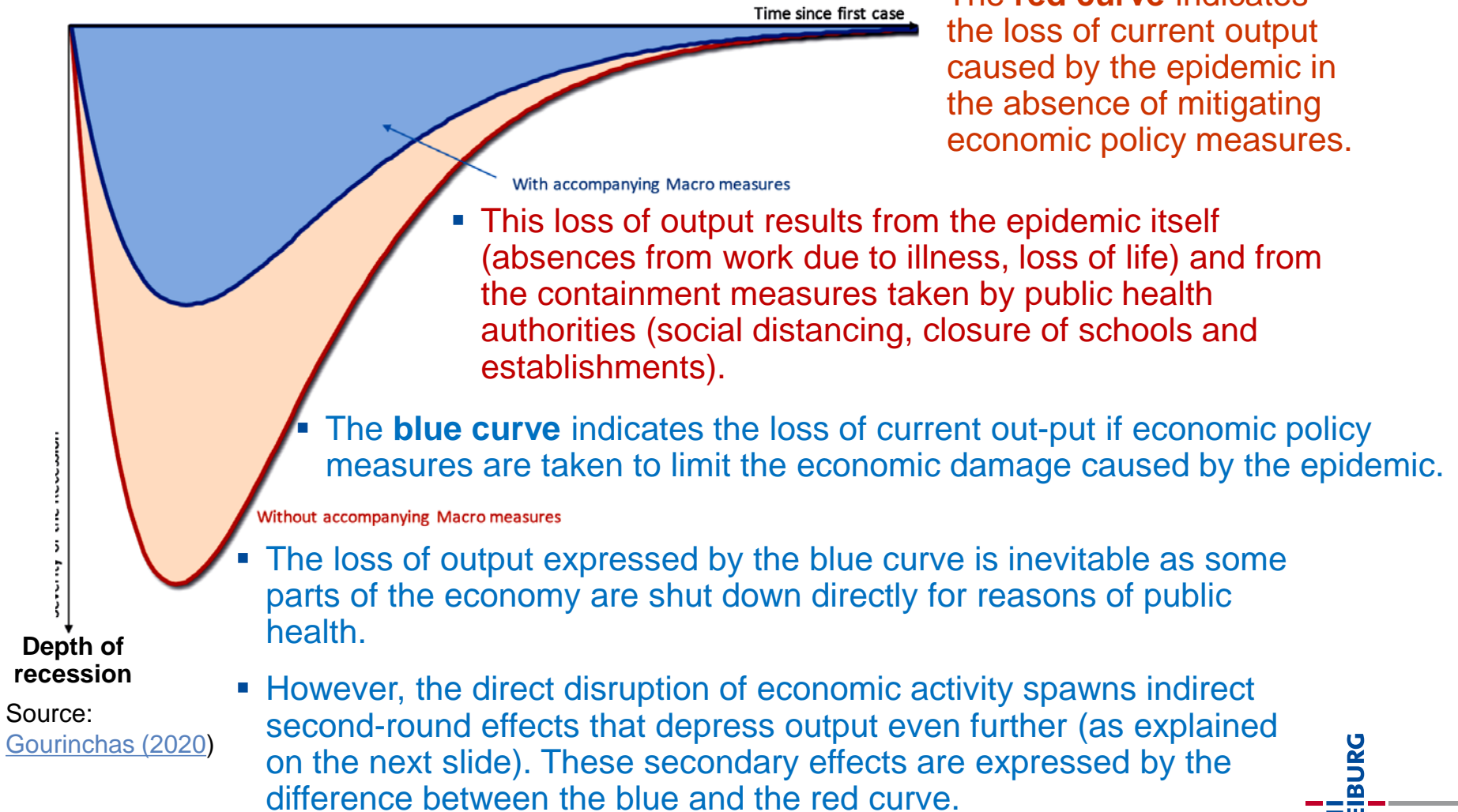
In deciding on the timing and the extent of containment measures, authorities face a short-run trade-off between containing the spread of the virus and limiting the economic fallout.

Source: R. Baldwin, [The supply side matters: Guns versus butter, COVID-style](#), VoxEu.org, 22 March 2020.

Flattening the Recession Curve

- Much as public health policies are required to flatten the epidemic curve, economic policies are required to flatten the recession curve.
- Analytically, there is a common denominator, **externalities** ([Gourinchas 2020](#)):
 - In the *health sector*: Beyond the curative function of treating infected patients, containment measures are required because individuals do not have the proper incentives to practice *social distancing* on their own. The risk of being a carrier of the virus and infecting other people is an externality. Hence, public policy must force individuals to internalize this externality.
 - In the *economy*: Firms and households are intimately linked via goods markets, factor markets and financial markets. Any initial shock to money flows is amplified as agents reduce their outlays - purchases of goods and services, employment of labor, disbursement of loans – when they experience, or just expect, their cashflow to suffer from the original health shock. Again, an externality is involved which prevents the market system to absorb the shock optimally in the absence of a public policy intervention: In your decision making, you do not internalize the fact that your decision to cut your outlays reduces someone else's cashflow. Hence, public policy must step in, not do undo the original shock, but to prevent it from starting a cumulative cascade of contracting economic activities.
- Note that whereas for public health, *social distancing prevents* an adverse externality, for the economy, it **creates** an adverse externality ([Gourinchas 2020](#))!

Flattening the Recession Curve



Source:
[Gourinchas \(2020\)](#)

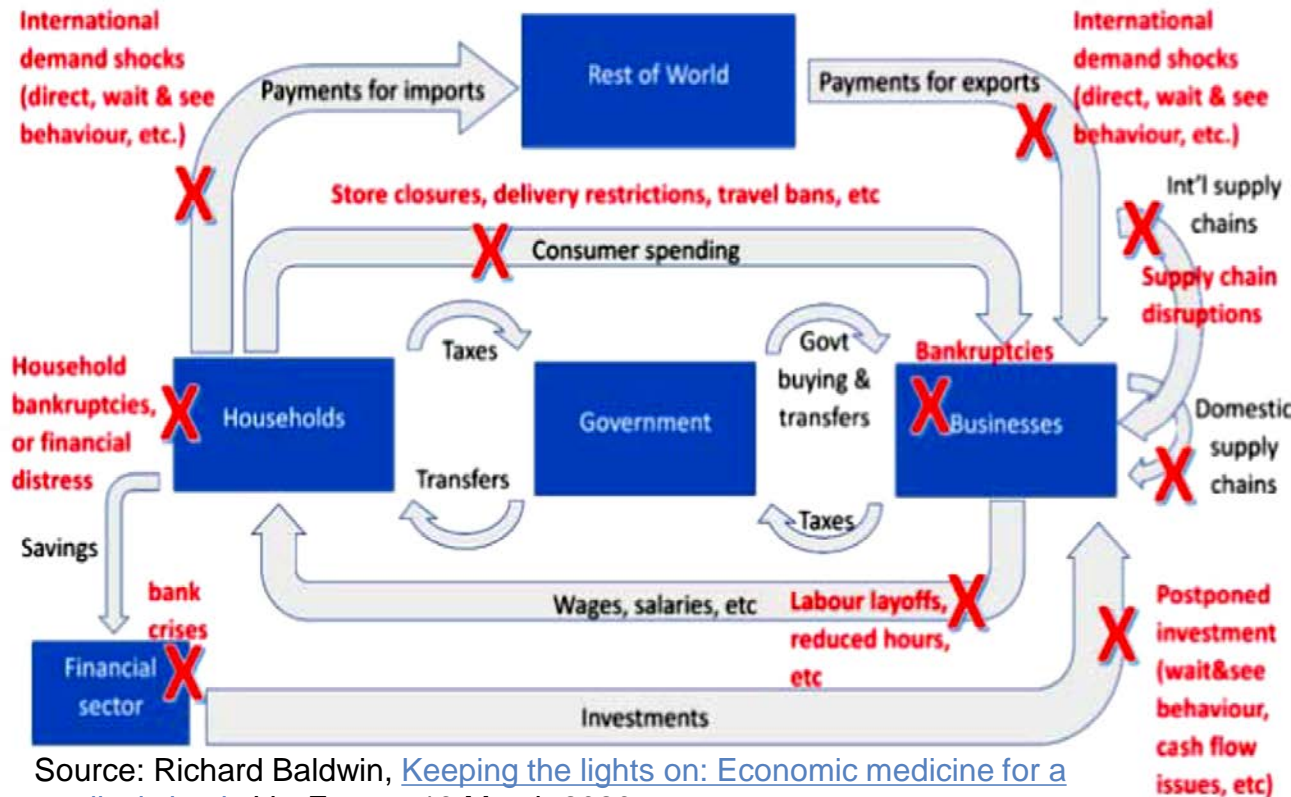
Mechanisms of Economic Contagion

Numerous propagation mechanisms have the potential of amplifying the direct disruptions of economic activity caused by the public health crisis:

1. Faced with the abrupt stop of their production, firms are hard pressed to maintain **wage payments**.
2. The loss of wage income forces households to reduce their **consumption spending**, which entails another round of revenue losses for producers.
3. Corporate debt has increased significantly in the recent past and thus makes firms particularly vulnerable to any reduction of their cashflow. **Debt service** gets suspended, bankruptcies may set off a chain reaction among firms and banks that are tightly linked by supply chains and credit relations. Financial stability is threatened.
4. **Lockdowns and closed borders** disrupt local and global supply chains, which passes the damage on to sectors, both national and international, that are not directly hit by the epidemic.

Adapted from Richard Baldwin, [Keeping the lights on: Economic medicine for a medical shock](#), VoxEu.org, 13 March 2020.

A Loss of Cash Flow is Contagious, Too



Source: Richard Baldwin, [Keeping the lights on: Economic medicine for a medical shock](#), VoxEu.org, 13 March 2020.

The diagram visualizes the well-known circular flow of income and expenditure.

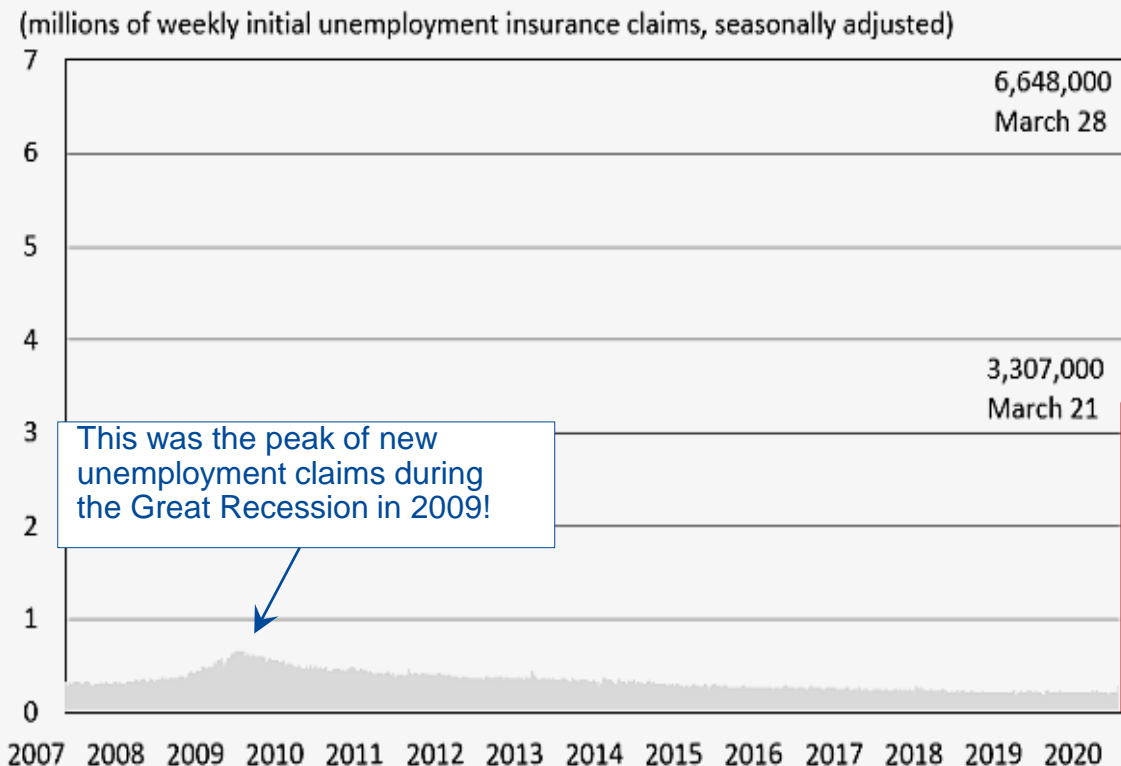
Each **red X** marks a direct impact of the epidemic and the containment measures. They can be seen to “congest” the pipes through which the flows of consumer spending, export revenues, wage payments, debt service etc. are channeled so that all subsequent activity is stifled as well.

Economic policy interventions, while powerless to do anything about the unavoidable direct impact, should aim at “decongesting” the pipes of the circular income and expenditure flows in order to suppress the avoidable second-round effects on economic activity as much as possible.

Immediately Visible: Stillstand

Jobless claims soar

New unemployment claims in the United States soared in the second half of March.



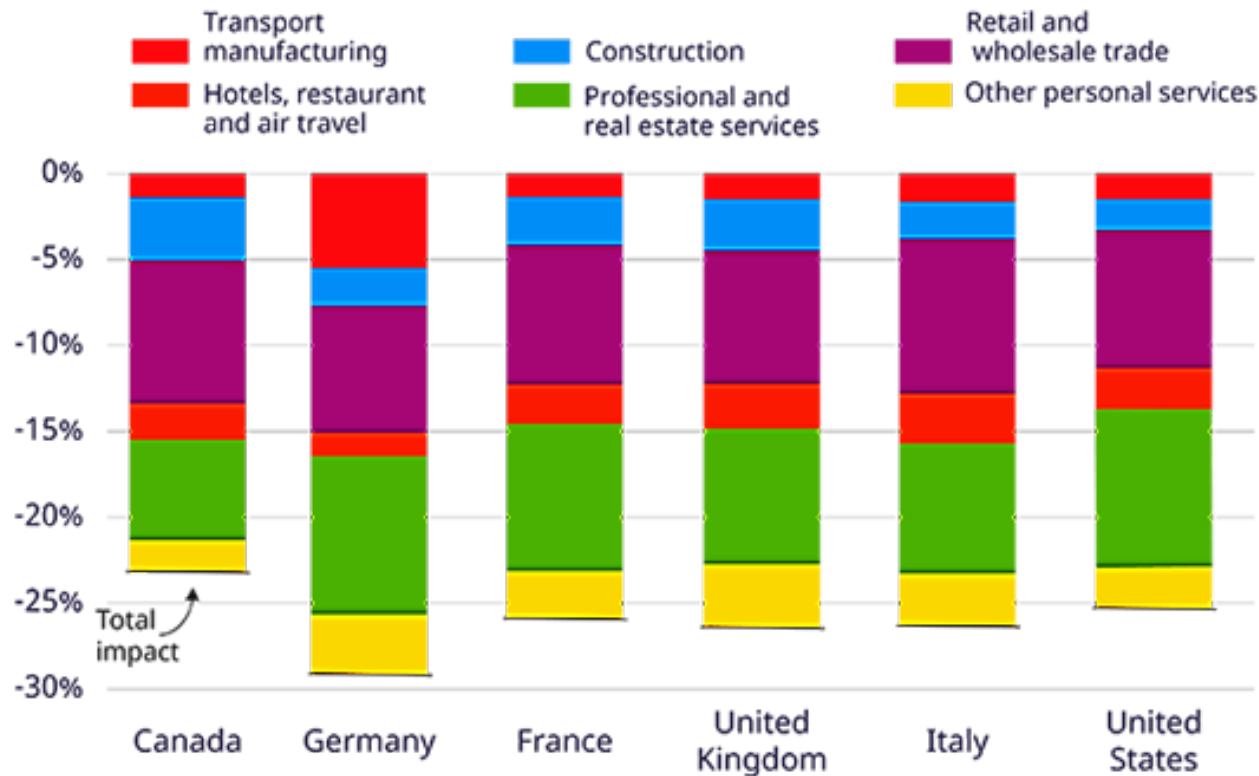
Note: Due to differences in the design of labor markets and the social protection of workers, what shows up as an explosion of unemployment in the U.S.A. shows up as an explosion of short-time work in many places in Europe (Germany, in particular).

Source: John Bluedorn, Gita Gopinath and Dmaiano Sandri, [An Early View of the Economic Impact of the Pandemic in 5 Charts](#), IMF Blog, 06 April 2020.

The Economic Cost: Visible, but Hard to Estimate

OECD estimate of potential immediate impact of widespread shutdowns

Selected G7 countries, in % of GDP at constant prices



Source: OECD Annual National Accounts; and OECD calculations.

Source: OECD, March 27, 2020,
<http://www.oecd.org/newsroom/oecd-updates-g20-summit-on-outlook-for-global-economy.htm>

Note:

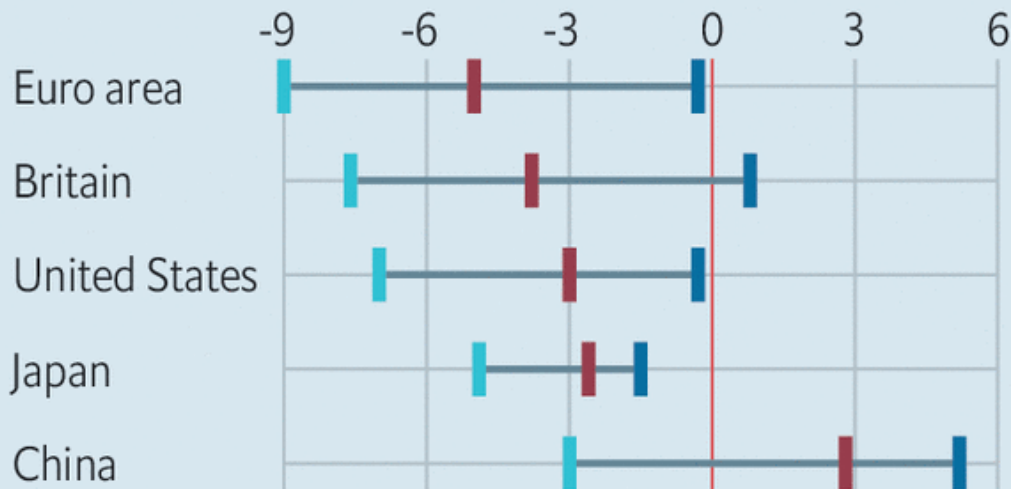
1. This is the immediate impact of the pandemic. Total loss of 2020 GDP will depend on how long the containment measures will be in force.
2. Sectoral impacts are expressed in % of GDP (i.e. weighted by each sector's share in total GDP)

Forecasting 2020 GDP: Pure Guesswork

Doom and gloom

Economists' forecasts* for GDP, 2020
% change on a year earlier

Low Median High



Sources: *The Economist*; 18 investment banks and economics consultancies

*Made in March 2020

The impact of the pandemic on GDP growth in 2020 depends on many unknowns – most importantly on the duration of the pandemic itself, on the duration of the lockdown, and on the design of the exit.

Source: [The Economist, 04 April 2020](https://www.economist.com/finance-and-economics/2020/04/04/economists-gdp-forecasts-2020)

3. The Economic Policy Response

- The first priority clearly is to keep people as healthy as possible. All resources that can be mobilized to boost health systems and to provide personal protective equipment, screening, diagnostic tests, and additional hospital beds should be mobilized.
- The guiding principle for thinking about the proper policy response: **This is not a recession like any other.** The normal instinct of stabilization policy to keep aggregate demand as close as possible to the level of potential output does not apply under current circumstances. Rather, economic policymakers must accept the loss of output that is directly caused by the pandemic and by the containment measures. The focus must be on
 - Avoiding the second-round effects described above; which means targeting households and businesses hit by a loss of income, helping them to meet their current obligations;
 - Preserving the existing production capacities so that they can be restarted again when the scare is over.
- The bottom line: What it takes is not a run-of-the mill stimulus package, but a “**catastrophe relief plan**” ([Bénassy-Quéré et al. 2020](#)).

The Instrument of Choice: Fiscal Policy

In line with the economic policy priorities outlined above, Blanchard (2020) defines three key tasks for fiscal policy:

1. **Infection Fighting:** spending as much as needed both to deal with the infection now and to give incentives to firms to produce tests, drugs, and vaccines, so that the pandemic can be both brought down and kept under control.
2. **Disaster Relief**, providing funds to liquidity-constrained households and firms. Many households do not have the cash to survive the next few months without financial help. Many firms do not have the cash to avoid bankruptcy without help. Providing financial relief is essential to avoid extreme suffering and permanent damage to the economy.
3. **Support of Aggregate Demand**, if necessary, once the economy gets going again (precautionary saving and a reluctance to invest might hold demand down for quite some time).

Adapted from Olivier Blanchard, "Whatever it takes." Getting into the specifics of fiscal policy to fight COVID-19, <https://www.piie.com/blogs/realtime-economic-issues-watch/whatever-it-takes-getting-specifics-fiscal-policy-fight-covid>

Grants or Loans? Or Equity?

Policy options

Policies in support of households, businesses, and the financial sector involve a mix of liquidity and solvency measures.

	LIQUIDITY	SOLVENCY
HOUSEHOLDS	Suspension of mortgage payments, student loans	Cash transfers
	Tax and social security contribution deferrals	Unemployment insurance
		Meal vouchers for students who are away from school
BUSINESSES	Extension of loan maturities	Equity injections
	Tax and social security contribution deferrals	Subsidies for maintaining employment
	Purchase of commercial paper and bonds	Direct subsidies based on past sales (tax based)
	Direct credit provisions by central bank	
FINANCIAL SECTOR	Credit guarantees	
	Liquidity provision for financial intermediaries	Equity injections
	Actions to preserve market liquidity	Government guarantees

Note: Liquidity measures include loans or payment deferrals.
Solvency measures include transfers, payment waivers, and non-refundable goods or services

- First and foremost, households and firms need to be protected from an immediate **liquidity squeeze** as large parts of the economy are shut down.
- Where lost revenues can be recouped later on, **loans** are appropriate.
- Where lost revenue cannot be recouped later on, **grants** are required to maintain solvency.
- Since these two cases are hard to distinguish ex ante, **equity-type** funding schemes, could be used (e.g. non-voting stocks for corporations; or cash in exchange for a temporary increase in the future corporate profit tax rate for SMEs).
- Such risk-sharing schemes could go a long way towards **limiting the level of debt** incurred in the process by both firms and governments – which in turn would reduce the risk of future financial instability. (For more details, [see SAFE Policy Letter No. 81](#), March 2020).

Source: INTERNATIONAL MONETARY FUND

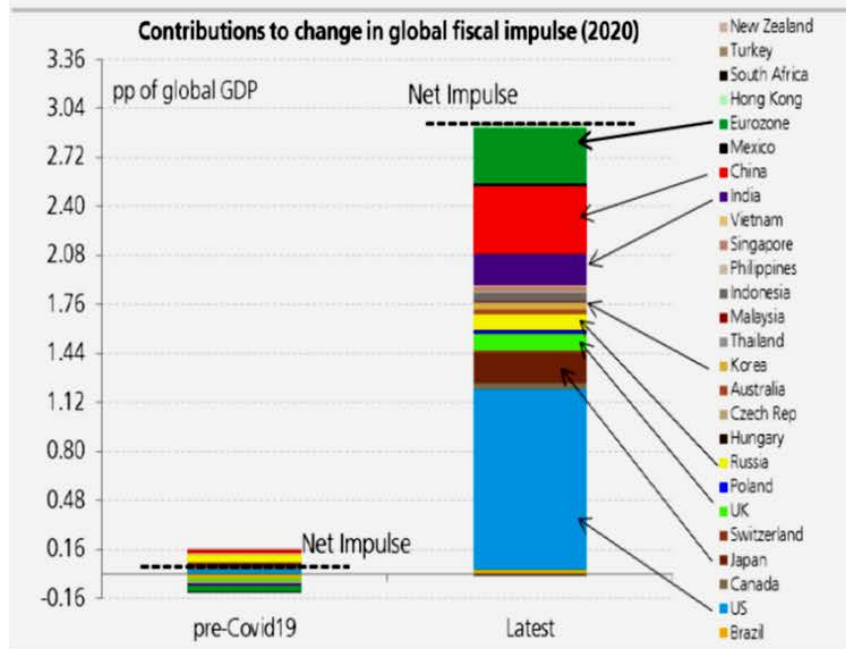
A High Priority: Effective Labor Market Policies

- A key link in the potential chain of economic contagion is the labor market.
- In the absence of a decisive economic policy response, the widespread lockdown of economic activity would entail immediate mass layoffs.
- In a run-of-the-mill recession, the loss of some jobs is unavoidable. Due to structural change, the new jobs created in an eventual recovery will not exactly match those lost in the preceding recession. Unemployment benefits mitigate the blow for the laid off workers.
- In the case of a standstill that is due to an epidemic, however, the name of the game is to conserve the existing structure. What was viable before the standstill, should be ready to resume operation as soon as the standstill is over. First and foremost, this means preserving existing employment relations.
- The instrument of choice for this latter purpose is short-time work. Firms reduce the working time of their employees, down to zero if necessary, with a proper fraction of the wage bill (in Switzerland 80%, up to a maximum of Fr. 196 per day) being replaced by the government.

A good discussion of the essential features of a short-time work scheme is given by Giulia Giupponi and Camille Landais, [Building effective short-time work schemes for the COVID-19 crisis](#), VoxEu.org, 01 April 2020.

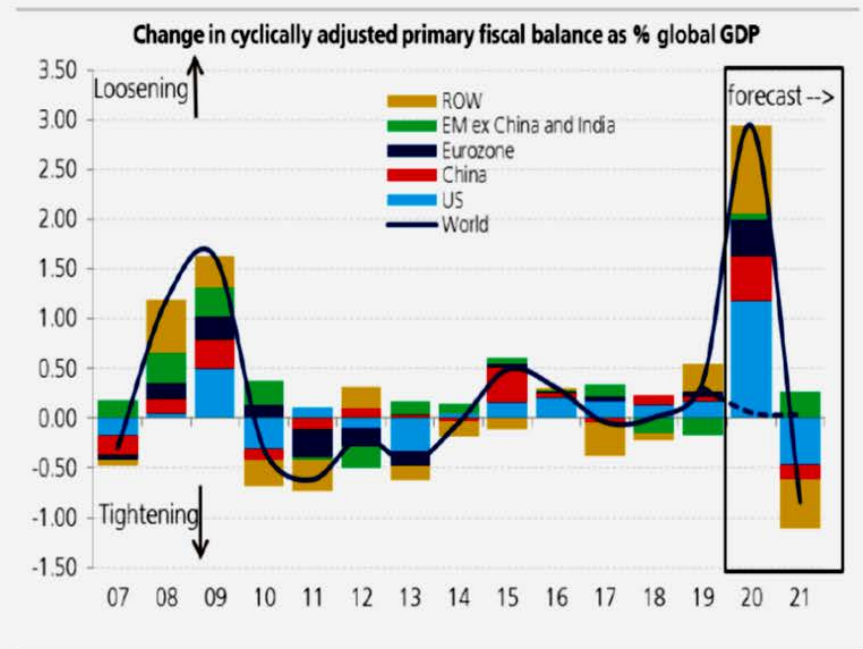
The Global Fiscal Policy Response Is Massive

Figure 1: Expected global fiscal stimulus (2.9% GDP)



Source: UBS, Haver, European Commission, CBO

Figure 2: The most expansionary year since '09



Source: UBS, Haver, European Commission, CBO

By courtesy of UBS Investment Research, 06 April 2020

Can We Afford Such Large-Scale Fiscal Intervention?

- Do not forget the basic logic of the situation. This is not a resource grab by the government. Rather, this is **large-scale social insurance** in action, this is disaster relief.
- The pandemic hits firms, households, individuals in a most uneven way. The government debt, in contrast, is fundamentally owed by us all. The means for servicing the debt is mustered according to the democratically determined features of the tax code.
- The cost of the epidemic is essentially exogenous for economic policymakers. It is imposed by the pandemic and the public health intervention. The fiscal burden expresses the cost of the epidemic in accounting terms. Fundamentally, affordability is not an issue as long as the principle of risk-pooling and the need to conserve production capacities are generally accepted.
- That said, some technical criteria of debt sustainability do exist:
 - The size of the debt-to-GDP ratio
 - The growth-interest-rate differential
 - The availability of a central bank providing a financial backstop

Blanchard on Fiscal Sustainability

- Blanchard's summary on the sustainability issue:
"In advanced economies, the answer must be that, short of a defeat in the fight against the virus, debt will remain sustainable. (And if we lose that battle, debt sustainability will be the least of our problems.)"
- Servicing the debt in the future is facilitated by record-low interest rates (currently negative e.g. for the U.S., Germany and Switzerland). With increased precautionary saving and investment hampered by uncertainty, the downward pressure on interest rates is highly likely to persist once the plague is over.
- Fiscal space is more of an issue in many developing and emerging economies. Rich countries should be generous towards them – in their own interest.
- Fiscal space may also be an issue for regional governments in federal states (States, Cantons, Länder). They need full backing from the federal government.
- Fiscal space is also an issue for euro area countries with high inherited debt and, of course, no central bank of their own.

Adapted from Olivier Blanchard, ["Whatever it takes." Getting into the specifics of fiscal policy to fight COVID-19](#)

How Much of a Union is the European Union?



“This is not only an economic crash test, but also a test of European unity” ([Bénassy-Quéré et al. 2020](#)).

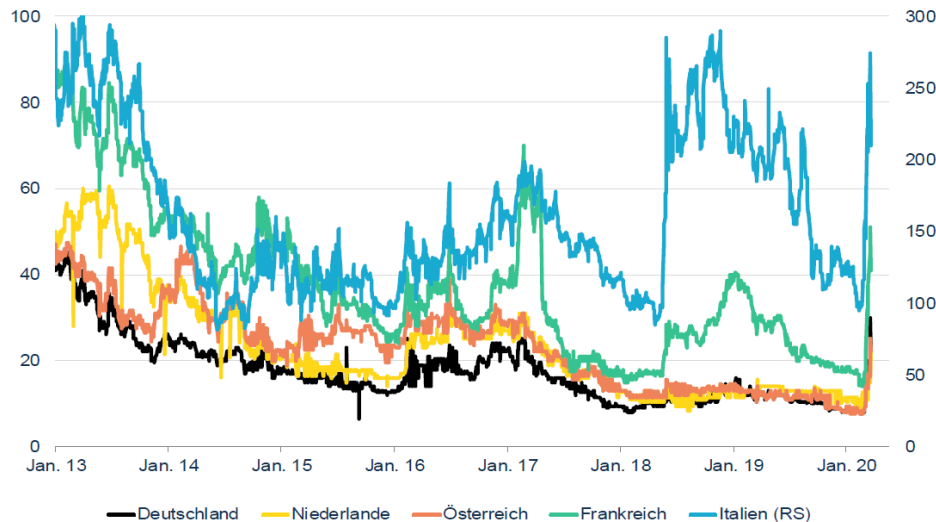
The case for European rather than national action is overwhelming, both economically and politically:

- “The overarching **economic** rationale is that the health shock is common to all, and if some countries don’t respond adequately, the cascading of defaults and drop in consumption would affect all. Some countries can provide this liquidity with national funds, while others cannot, but all will suffer if some fail to do it. Moreover, in times of great stress for financial markets, involving the EIB and the ECB is required: in the Euro area the ECB is the only liquidity provider, so that any Europe-wide liquidity injection, especially on the scale envisaged here, must rest on its full involvement.”
- “**Politically**, citizens across Europe are wondering whether at times of need they can count on the EU as their “common home”. If the EU will not rise to this challenge, and only national solutions are offered, many citizens will question the European project and drift to nationalist parties.”

Markus Brunnermeier et al., [Throwing COVID Liquidity Life-Line](#), memo, 17 March 2020.

CDS Premia as Indicators of Financial Fragility

5Y CDS Premia for selected eurozone member states



Source: Bloomberg, LBBW Research
by courtesy of LBBW research

A major communication blunder



"We are not here to close spreads,"
Christiane Lagarde, 12 March 2020

In a stunning reversal of her predecessor Mario Draghi's „whatever it takes“ stance, ECB president Christiane Lagarde cast doubt on the ECB's resolve to backstop national governments in their efforts to fight the pandemic. Spreads shot up within minutes. Soon after, the ECB could be seen back-pedaling hastily .

What's Wrong in This Picture?

	Anzahl Corona-Fälle ¹	Staatsverschul- dung in % BIP ²	Kredit- würdigkeit ^{2,3}	Nothilfepaket in % BIP
Italien	110'574	135,5	BBB	8,2
Spanien	104'118	97,0	A	9,8
Deutschland	77'981	61,7	AAA	36,6
Frankreich	57'763	98,4	AA	13,5

¹ Stand 2.4.2020
² Staatsverschuldung und Kreditwürdigkeit aus Zeiten vor Corona
³ nach Rating v. Standard & Poor's: AAA = sehr sicher, BBB = unsicher
 Grafik: mre/Quellen: John Hopkins University, Standard & Poor's, IWF, Bruegel

Source: Basler Zeitung, 03 April 2020

In the absence of a concerted European fiscal response, and with ECB backing in doubt, it appears that the size of national fiscal interventions is related less to the scale of the public health problem than to the health of public finances.

→ **How does the EU set its priorities?**

Alternative Views on How to Organize European Solidarity

Many economists have called for the emission of Eurobonds with the exclusive purpose of financing the pandemic:

- An initiative of well over 1000 European signatories calls for „[European Renaissance Bonds](#)“.
- Another group of economists ([Bénassy-Quéré et al. 2020](#)) proposes a Covid Credit Line in the European Stability Mechanism ESM, „with allocation across member states proportionate to the severity of the public health and economic challenges encountered.“
- [Grund, Guttenberg and Odendahl \(2020\)](#) demonstrate how funds can be raised in bond markets “backed by guarantees...” and “how this is could work under EU law.”
- [Gros \(2020\)](#) argues that many countries hit hardest by the COVID-19 crisis already have too much debt and thus should not be burdened by further debt, neither via the ESN nro via Coronabonds. Instead, “European solidarity should take the form of transfers, ... [which] could be organised via the EU budget.”

Central Banks Inject Huge Amounts of Liquidity



- The Necessity of a Social-Insurance/Disaster-Relief Mechanism as described above is primarily a task for fiscal policy, broadly defined, i.e. including the entire tax and transfer system of a society.
- Where does monetary policy come in, if at all? As it happens, central banks were quick to open their floodgates and to promise near-unlimited amounts of liquidity to keep the economy afloat. The [U.S. Federal Reserve Bank took the lead](#), lowering the target range for the federal funds rate to virtually zero between March 3rd and March 15th 2020 and promising practically unlimited amounts of liquidity to U.S. financial institutions.
- [The European Central Bank followed suit](#) on March 18th with a €750 bn PEPP (***P**andemic **E**mergency **P**urchasing **P**rogramme*) and other measures designed to keep the banking system liquid.
- [The Swiss National Bank provides liquidity](#) to financial institutions against loans secured by government guarantees.

The Role of Monetary Policy

In order to stop the immediate impact of the pandemic from generating second-round effects, fiscal policy is first in line, as described above.

But this does not make monetary policy redundant. They are called upon to serve as a second line of defense, primarily in two ways:

1. “Companies with large fixed costs that suffer a sudden fall in income will quickly face financial difficulties, or even bankruptcy. When that happens, the banks and other entities that have lent money to these companies will also be in trouble. That is why massive economic shocks often can lead to banking crises” ([De Grauwe 2020](#)). As a consequence, central banks should be ready to backstop a financial sector facing a massive wave of non-performing loans.
2. As governments are forced to drive up their deficits, some will find it easy to raise the necessary funds on bond markets (think U.S., Germany, Switzerland). For others, it may be more of a stretch (e.g. highly indebted member states of the eurozone). They need the backing of a central bank reassuring markets that governments remain solvent.

Time for Helicopter Money?

- The extreme liquidity need generated by the lockdown of large parts of the economy sheds new light on the notion of “*helicopter money*”, a concept explored in the 1960s by Milton Friedman as a way for central banks to create money by directly distributing it to the public instead of taking the conventional route of buying financial assets and thereby channeling liquidity to banks.
- As [Galí \(2020\)](#) puts it: “If ever, the time for helicopter money is now.”
- Of course, the idea is not literally to drop money from helicopters – although the indiscriminate distribution of lump-sum transfers to households comes close. The point is rather to have governments do „whatever it takes“ to contain the economic fallout while their central banks stand ready to absorb whatever amount of government debt is necessary to keep public finances safely sustainable.
- Why is „helicopter money“ taboo under normal circumstances? Because it might end up destroying the value of money if a government prints money to pay its bills without limits. Right now, however, the operation is to be strictly limited to the duration of the emergency.

A Balancing Act for the European Central Bank



For the European Central Bank (ECB), the pandemic raises difficult questions because the nature of the problem clearly requires a response which must not be constrained by the fiscal space of governments and which also precludes bank failures due to loans going sour. At the same time, the ECB is legally barred from supporting individual governments, e.g. by directly absorbing their newly issued debt.

The ECB has responded to this challenge by

- greatly expanding its liquidity support to financial institutions;
- considering “collateral easing measures” ([Lane 2020](#)) in order to make sure that bank lending to those affected most by the spread of the coronavirus is upheld;
- increasing the amount of government bond purchases while applying “*flexibility in the implementation of our asset purchase programme*” ([Lane 2020](#)) – which is ECB-speak for lending special support to weaker eurozone governments so as to keep their funding costs low.

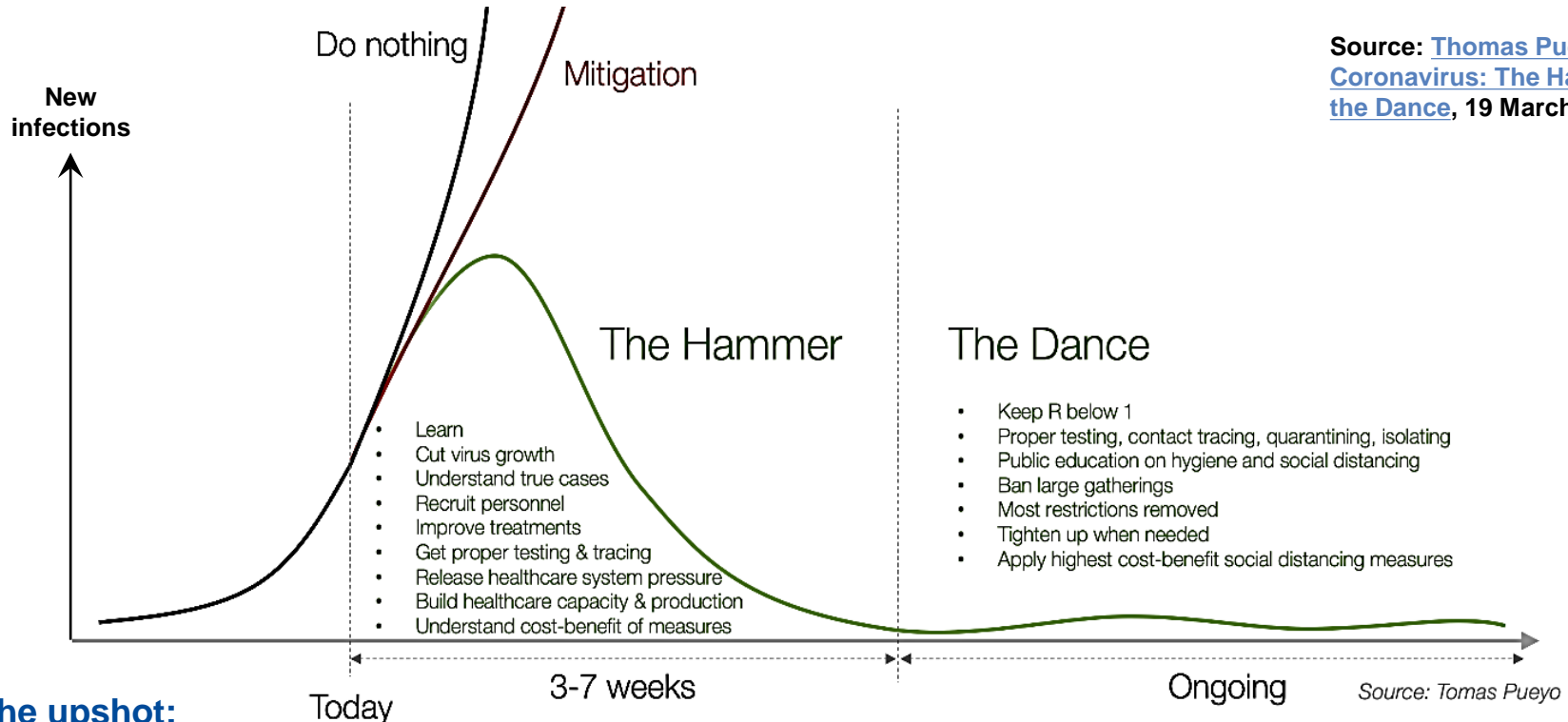
The ECB refrained from lowering any of its policy rates which were at or below zero even before the outbreak of the pandemic.

4. From “Hammer” to “Dance”: How to Restart the Economy

- Some governments have initially toyed with the idea of letting the epidemic run its course without taking containment measures, except for isolating risk groups – in the hope of achieving “herd immunity” of the population within a short time while avoiding the high cost of **“The Hammer”**, i.e. the lockdown on a large part of the economy.
- In almost all cases, this idea was dropped when it became clear that this strategy would likely **overwhelm the capacity of the health system** to deal with emergencies, as explained above.
- As country after country progresses on its particular Epidemic Curve, the economic cost of containment measures is rising disproportionately. Thus, the **political pressure to exit** from the lockdown will rise.
- The problem, of course, is that the initial application of “The Hammer” will have left large parts of the population without immunization and thus vulnerable to infection in the future. Indeed, **evidence from earlier epidemics** confirms that infections rise and fall in waves.
- Restarting the economy thus amounts to a **“Dance”** on a ridge, fine-tuning the demands of businesses for relaxing restrictions against the risk of a new wave of infections threatening again to overwhelm the health system.

A Few Weeks of “Hammer” May Do

Source: [Thomas Pueyo, Coronavirus: The Hammer and the Dance](#), 19 March 2020.



The upshot:

1. The do-nothing strategy, betting on rapid herd immunity, is the surest way of avoiding echo cycles, but takes a staggering human toll.
2. **The Hammer** (tight lockdown) bends down the epidemic curve within a few weeks, buying the time to prepare for a gradual, guarded reopening of the economy.
3. Key requirement during **the Dance** is keeping $R < 1$ (R : average number of people catching the virus from an infected person). Striking a balance between restarting the economy and maintaining necessary social distancing to ensure $R < 1$ will require continued trial and error.

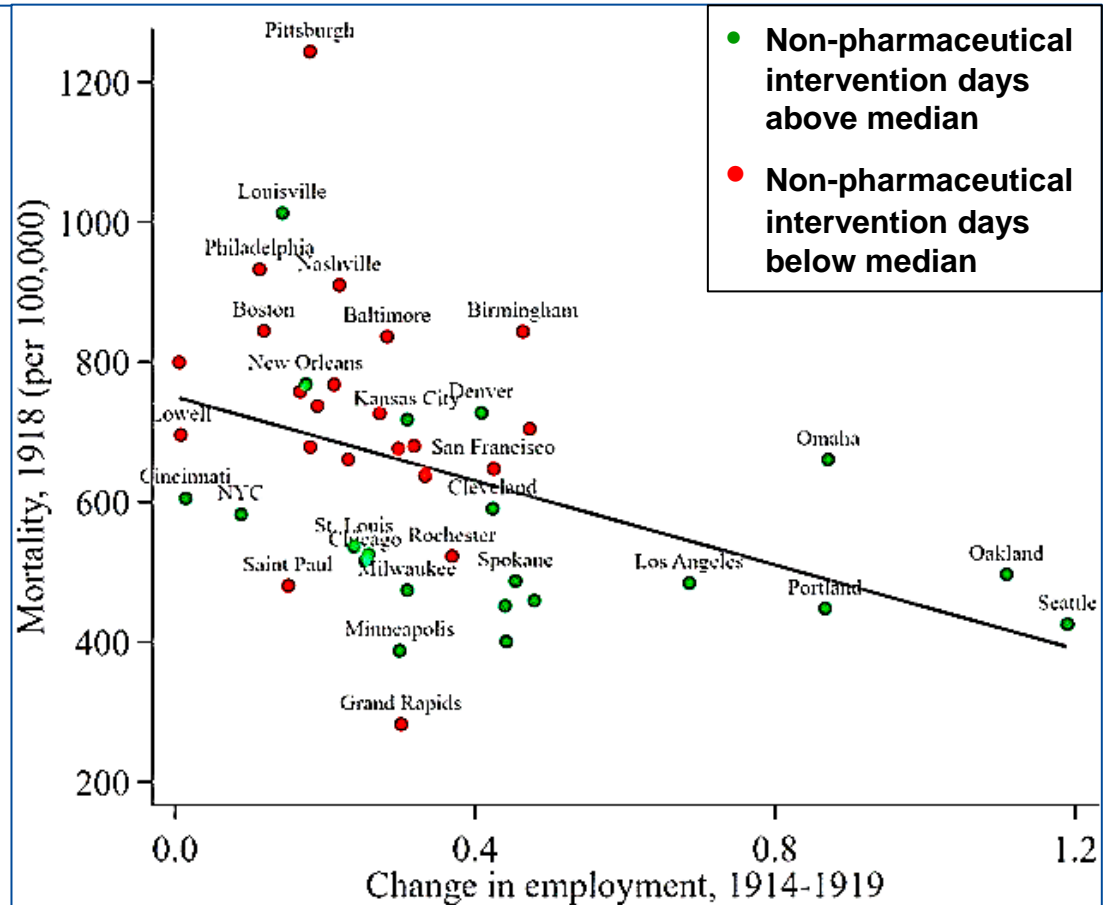
Is the Cure Worse Than the Disease?

- When President Trump, in characteristic bluntness, said: “*We can’t let the cure be worse than the problem itself*”, he directed attention to the **inevitable trade-offs** involved in all public-policy decisions towards the corona epidemic.
- The most basic trade-off to be considered is the one between human lives saved and economic output lost due to the containment measures. Although politicians are reluctant to value human lives in terms of money, they do so all the time implicitly, e.g. when deciding on traffic safety measures or on budgets for the health sector.
- Apart from the sensitivity of the issue, the large uncertainty surrounding the effects of all the measures that are currently taken makes it hard to take any decision with much confidence.
- Evidence compiled for historic precedents of this pandemics point to the importance of considering trade-offs in a dynamic perspective: Whereas in the very short run, there may well exist a trade-off between public health and the material value produced by the economy, it appears that in the longer term, the two are rather complements than substitutes.
- A widely cited study of the 1918 Spanish Influenza pandemic by Correia, Luck and Verner (2020) concludes “**Pandemics Depress the Economy, Public Health Interventions Do Not**”.

“Pandemics Depress the Economy, Public Health Interventions Do Not”

This is the key diagram from the [Correia/Luck/Verner](#) study on the effects of the 1918 Flu Pandemic across the U.S.A., conveying the two key insights:

1. The correlation between the incidence of mortality and the change in economic activity across U.S. cities is strongly negative - i.e. the pandemic has depressed the economy.
2. Cities that intervened earlier and more aggressively (**green dots**) do not perform worse and, if anything, grow faster after the pandemic is over. Thus, Public Health Interventions not only lower mortality; they also mitigate the adverse economic consequences of a pandemic.



Source: [Correia/Luck/Verner](#) (2020)

The Challenge: Restarting the Economy While Keeping the Pandemic in Check

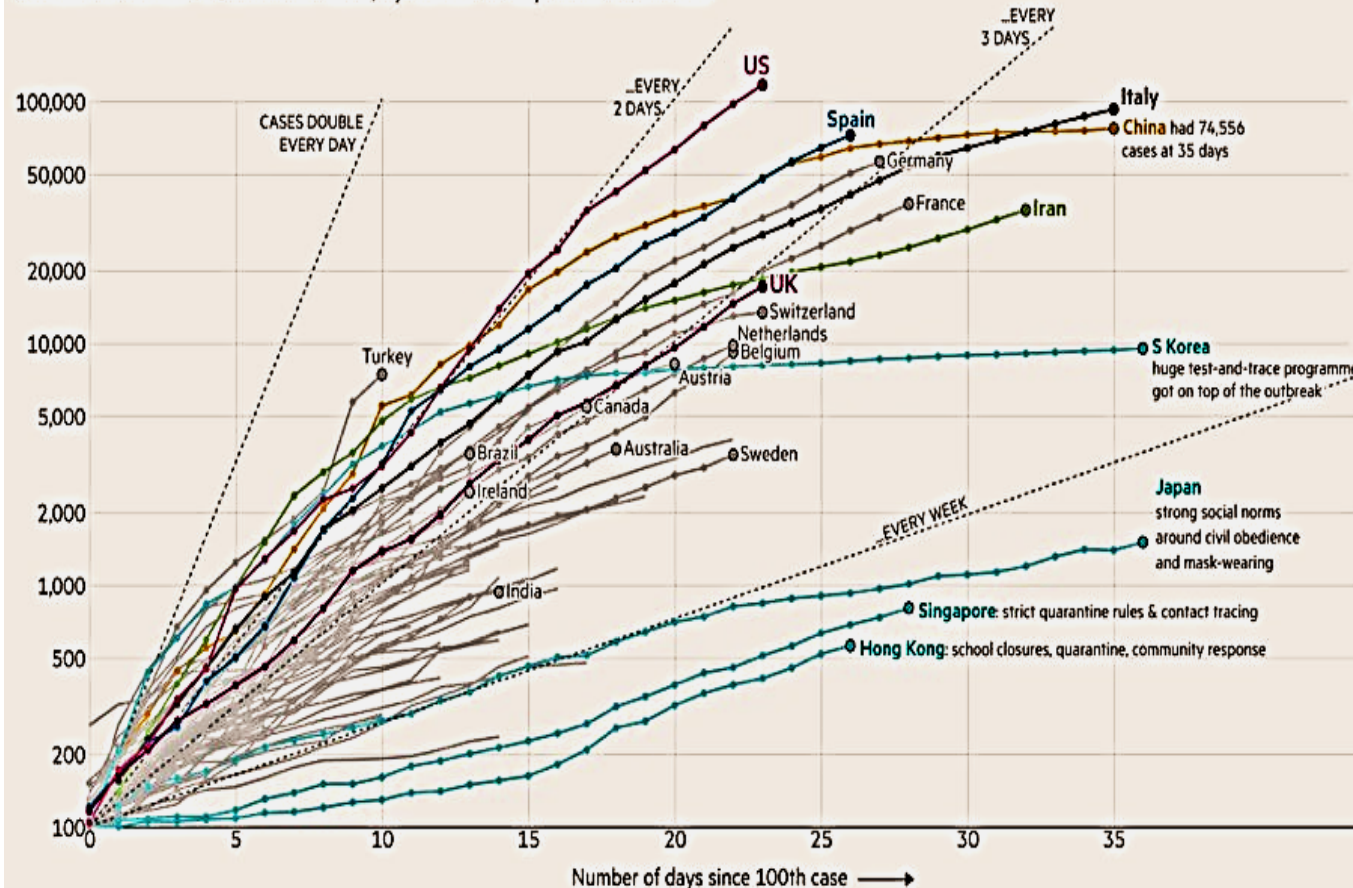


- So far, the **blanket measures** taken to achieve social distancing, while being judged fairly successful in lowering the number of new infections (see next slide), are massively disruptive to economic activity.
- Social distancing is disruptive because it is **not targeted** on those who can actually spread the virus and on those who are at risk of getting it.
- It is not targeted because **we lack the required data** on who is infected, who is not infected, and who has been infected and hence is immune.
- We lack the required data because **test capacity is too low**.
- With more data, stemming from a **large-scale testing**, the uninfected could go back to work and resume their daily activities while minimizing the risk to others.
- Where **protective gear is scarce**, increasing its supply – most urgently to the staff of the health services caring for the infected - is an equally high priority.
- The bottom line: **Massive investment** in test capacity and **effective isolation** of the infected and the high-risk groups, will allow to reconcile the containment of the pandemic with the restart of the economy.
- The contribution **contact tracking** could possibly make to improving the efficiency of the transition is subject to some controversy (see Paul Romer [here](#)).

Adapted from [Paul Romer and Alan Garber, Will Our Economy Die From Coronavirus?](#), New York Times, 23 March 2020.

How to Flatten the Coronavirus Case Trajectory

Country by country: how coronavirus case trajectories compare
Cumulative number of confirmed cases, by number of days since 100th case



Source: Financial Times, March 29, (regularly updated)

Note:

1. A comparison of absolute case numbers is not informative since the data are not scaled by population size.
2. The scale on the vertical axis is logarithmic. Thus, slopes are comparable.
3. The countries most successful in flattening their case trajectories appear to be those with strong and early social distancing, effective contact tracking and strict quarantining.

Conclusion

- The Corona Pandemic is **a first-order public health challenge**
- Its potential for **economic disruption** could easily exceed that of the Great Depression
- Economic measures currently adopted by many countries are designed to **protect individuals** who have lost their source of income, to **preserve production capacities**, and to **maintain financial stability**.
- The **distribution** of the economic cost among firms, households and individuals is a big question **yet to be resolved** once the virus is conquered.
- The world economy after the virus will not be the same as the world economy before the virus. **Globalization has taken a hit** that is likely to linger for an extended period of time. Reopening borders may well prove tricky in view of the **national fragmentation** and the lack (even in Europe) of international coordination of policies.
- The **structural changes** that are in store – will airlines fully recover? Will global tourism fully recover? – will require the focus of economic policies to shift from bailing out firms to **protecting people**.
- The next step: Design an **efficient exit strategy**. At the center of any such strategy: massively **more testing**. If negative: back to work (with precautions). If positive: self-quarantine (and treatment, if necessary).

This set of slides completed
on 06 April 2020

... to be updated as events unfold