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**Research Report**

## The world economy after the coronavirus shock: Restarting globalization?

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# KIELER BEITRÄGE ZUR WIRTSCHAFTSPOLITIK

The World Economy  
after the Coronavirus  
Shock: Restarting  
Globalization?



*No. 26 June 2020*

*Edited by Gabriel Felbermayr*

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# THE WORLD ECONOMY AFTER THE CORONAVIRUS SHOCK: RESTARTING GLOBALIZATION?

*Edited by Gabriel Felbermayr*



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# PREFACE

At the time of writing, around the world, almost 7 million persons have become infected by the novel coronavirus, SARS-CoV-2. About 400,000 infected persons have died with or because of COVID-19, the disease caused by the virus. The virus has spread to 215 countries, virtually covering all areas of the world.<sup>1</sup> While the virus has first emerged in the Chinese province of Hubei, from the beginning of 2020, it has spread to the Middle East, then Europe, diffused in the US and now ravages emerging markets. While diagnosed cases are comparably rare in developing countries, the number of unreported cases is probably particularly high there. The world is in a health emergency.

Due to the risk of infection, many individuals have adjusted their behavior. They avoid contacts, cancel trips, work from at home. This behavior reduces economic activity but it is individually rational, as long as the risks are correctly assessed. However, relying on voluntary adjustment is not sufficient because of externalities. Individuals do not internalize the effects on others that their behavior may entail. For this reason, it is collectively rational and necessary for governments to enact restrictions. This further reduces economic activity but saves lives and, from a holistic perspective, is required to maximize welfare. Of course, this does not preclude discussions about the depth and duration of such measures. According to data from the University of Oxford, since the start of the pandemic, more than 170 countries have enacted various restrictions to contain the virus. Events have been cancelled, schools closed, many businesses shut down, social distancing rules have been imposed.

The virus diffuses internationally via the cross-border mobility of people. Moreover, when countries are connected by trade in goods, when a lockdown closes factories in one place of the world, essential inputs go missing in other places. And when a corona-induced recession hits one country, or when that area closes its borders for precautionary reasons, sales of goods or receipts from tourism by other countries go down, driving them into an economic crisis even when their own infection rates may be low.

Hence, and as the term suggests, a pandemic is a global phenomenon. But the situation is inherently complex. Countries interact in many ways, and this interaction is shaped by global institutions, national governments, and individual behavior. Various actors are likely to adapt: trends predating the crisis may be sped up or stop, entirely new perceptions and perspectives may arise. In this volume, researchers from the Kiel Institute for the World Economy (IfW) provide answers to the pressing questions: how does the crisis change our world? Will there be lasting effects on our economies and on our societies at large? What does this mean for well-being around the world? In this volume, they shed light on these questions from various angles, but always maintaining the global perspective.

Broadly speaking, globalization has come under additional criticism. Indeed, over the last thirty years, our world has become very strongly interconnected. Indeed, as the example of North Korea shows, autarky may protect a country from infections originating abroad. But the same example shows that a natural disaster that hits the country, such as bad weather leading to crop failures, can lead to enormous loss of life. Being less connected helps only if a country is less affected by the direct consequences of a disaster than the rest of the world. For sure, this is rarely systematically the case. In

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<sup>1</sup> According to data from the Johns Hopkins University, as of June 5th, only a few Pacific island states, North Korea, and Turkmenistan have not reported any cases.



this volume, we discuss various issues around the globalization debate. The general conclusion is that, in face of disasters, globalization can act as an insurance device. It is helpful, not harmful. But firms must have the right incentives to invest enough into resilient supply chains. In a series of individual chapters, IfW researchers discuss these issues.

In a globalized world, the well-being of every country depends positively on the well-being of others. This is the essence of the positive-sum logic that receives enormous support in the theoretical and empirical literature. It implies that rich industrialized country should worry about outcomes in other, maybe poorer countries. This is why this volume dedicates space and effort to the question how countries in the Southern Hemisphere are affected by the crisis. IfW researchers develop ideas how to make the entire world more resilient, for example, by providing a global safety net in form of a global basic income. While this idea may be far from politically feasible, we still hope to trigger a necessary and important debate.

Reflecting the current research focus of the Institute, we look at scenarios for Africa, study the debt situation in poor countries, the role of China, and the implications of capital flow reversals. We also draw on research from our MEDAM project to discuss the long-run implications of the corona crisis on international migration.

Economic crises often fuel populist political movement—these may have long-lasting effects on countries' economic performance and the general well-being of populations. For this reason, and drawing on fascinating research conducted at the Institute, this volume sheds light on whether populist governments have responded differently to the crisis than nonpopulist ones.

Finally, there is a deep link between the pandemic and the global climate crisis. During the lockdown measures, global emissions have fallen strongly, but so have incomes. What does this mean for global efforts to curb CO<sub>2</sub>-emissions more permanently? In the volume, IfW researchers study this important question and provide conclusions.

This volume is the outcome of a collaborative effort at the Kiel Institute. Many colleagues have contributed to the drafting of the twelve chapters, including coauthors and friends from outside the Institute. We are proud to count Harvard professor Carmen Reinhart, the new chief economist of the World Bank, amongst the authors, Marc Fleurbaey from Princeton University, or Dennis Novy, from Warwick University in England. Special thanks goes to them. Great thanks to Klaus Schrader and to his editorial team—Ilse Büxenstein-Gaspar and Kerstin Stark—without whom the project would not have been possible.

I am grateful that the Institute can present twelve pieces of analysis in a time where information and advice should be most valuable. I do hope that this volume contributes to a constructive debate in Germany, Europe and beyond.

Kiel, June 2020

Gabriel Felbermayr

# IMPLICATIONS OF COVID-19 FOR GLOBALIZATION

Gabriel Felbermayr and Holger Görg<sup>\*</sup>

## Summary

- World goods trade and its institution were in a deep crisis before the corona crisis hit.
- The crisis exacerbates this trend. Achieving “decoupling,” regaining “economic” or “technological sovereignty,” and of reshoring production has become an objective in many countries, including the EU.
- At the same time, digital trade and trade in digital products (software, licenses, etc.) is more resilient and expected to grow after the crisis.
- These trends are troubling for the EU and for Germany in particular, as their traditional comparative advantage industries will come increasingly under pressure.
- The EU must do much more to defend an open multilateral trade order and to develop appropriate rules in the area of digital trade.

**Keywords:** COVID-19, globalization, global supply chains, international division of labor, trade

## 1 Introduction

December 2019 will be remembered by many people as the month when China reported the first infections with the then unknown coronavirus SARS-CoV-2. The number of infections causing the coronavirus disease 2019 (COVID-19) increased slowly at first, but then spread throughout the country, reaching 12,000 at the end of January 2020 and 80,000 a month later. From mid-January, the virus also spread rapidly to other countries and continents; on 11 March 2020, the World Health Organization (WHO) declared a global pandemic. By the end of May 2020, almost six million cases of COVID-19 had been confirmed around the world. With more than 1.7 million cases, the United States has by far the highest number of confirmed infections, followed by Brazil, Russia and a host of European countries such as Spain, the United Kingdom, Italy, France, and Germany.

The Chinese authorities responded to the outbreak of infection by imposing strict restrictions on the movement of people and by imposing curfews and quarantines throughout the country from the end of January. This also affected economic activities, as many manufacturing plants, but also many services industries (retail, restaurants, etc.) were closed to reduce possible contacts between

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*Remark:* The authors are very grateful to Saskia Mösele for excellent research assistance.

<sup>\*</sup> Gabriel Felbermayr, Kiel Institute for the World Economy; Holger Görg, Kiel Institute for the World Economy.

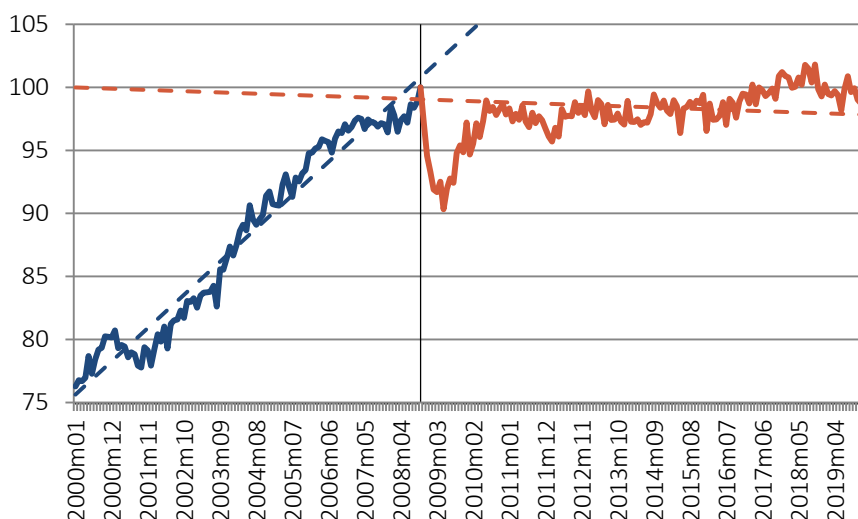
individuals and prevent the spread of the virus. Similarly, though not necessarily equally restrictive, measures were also imposed in most other affected countries from mid-March onwards. These restrictions on personal and economic activities are known as “lockdowns.”

## 2 The global division of labor before COVID-19

Long before the corona crisis, globalization—characterized by a faster growth of international transactions relative to domestic ones—entered a phase of slowdown. While some observers talk about deglobalization, the term “slowbalisation,” a neologism of the *The Economist* (2019), is probably more appropriate. Indeed, after the major international economic and financial crisis of 2008/09, a long period of globalization of goods markets has turned into a period of stagnation.

Figure 1 shows an indicator of openness that relates a price-adjusted index of global goods imports to a volume index of industrial production. This index shows a structural break shortly after the collapse of Lehman Brothers. Before the crisis, the index rose sharply; the growth of imports exceeded that of industrial production by an average of 3 percentage points annually. After that, there was no measurable difference between the two growth rates and the index moved sideways, with a slightly negative trend. The term “deglobalization” is misleading because, despite the stagnation of the Globalization Index, world trade grew significantly between 2009 and today. In contrast to the period of “hyperglobalization” from 1990 to 2008 (Rodrik, 2011), however, trade did not grow faster than industrial production.

**Figure 1:**  
Index of goods market globalization since 2000



Notes: The index is constructed as the quotient of a quantity index of global imports (mgz\_w1\_qnmi\_sn) and global industrial production (import weighted; ipz\_w1\_qnmi\_sm); normalized to 100 for October 2008.

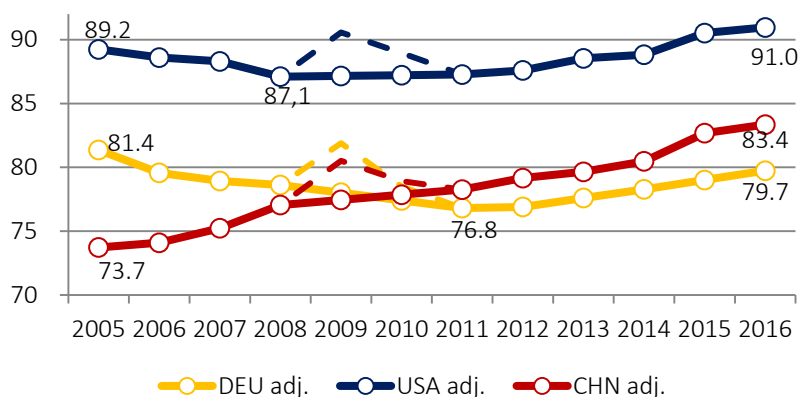
**Source:** Centraal Planbureau (CPB), World Trade Monitor; own calculation and illustration.

This trend was presumably driven by various influencing factors. As Evenett (2019) shows, since the 2008 crisis there has been return of protectionist policies, initially very much by stealth, in recent years very explicitly. In the early years of this era, industrial policy instruments such as the provisions

of the “Buy American Act” in President Barack Obama’s 2009 economic stimulus package and trade defense instruments such as the European Union’s antidumping duties were used. Since Donald Trump took office as President of the United States, average global tariffs have been rising again after a decade of reduction (Evenett and Fritz, 2019). This dynamic is fueled both by growing mistrust between China and the United States and by the increased use of foreign economic instruments to pursue power policy goals (see Harris and Blackwill, 2017). In addition, since its foundation in 1995, the World Trade Organization (WTO) has repeatedly failed to modernize the global system of trade rules (Felbermayr, 2018).

In the past decade, weaker dynamics of world trade have been accompanied by a shortening of value chains. Figure 2 shows the share of domestic value added of exports from Germany, the United States and China. This share has risen in all countries since 2011. This means that foreign inputs have tended to become less important for the production of domestic goods.<sup>1</sup> This was particularly pronounced in China, which has pursued a very active policy of increasing the share of domestic value added at least since 2005—and probably much earlier. Because China has such a large weight in the world economy, its policy also shapes the global situation. The two graphs show very clearly that for about ten years—beginning well before President Trump took office—the global economy has been in a new mode in which international transactions do not grow faster than domestic ones.

**Figure 2:**  
Share of domestic value added in the value of exports (in %)



Notes: The values for the crisis years 2009 and 2010 have been interpolated.

Source: OECD (2020); own calculations and illustration.

While the dynamics of trade in goods slowed down considerably over the past ten years, international trade in services grew much faster. The same can be said for the dynamics of other dimensions of globalization—cross-border data flows, international tourism—as The Economist magazine (2019) has shown.

<sup>1</sup> It is assumed that the value-added share of a country's sectoral exports in one year corresponds to its production of goods.

### 3 COVID-19 affects global value chains

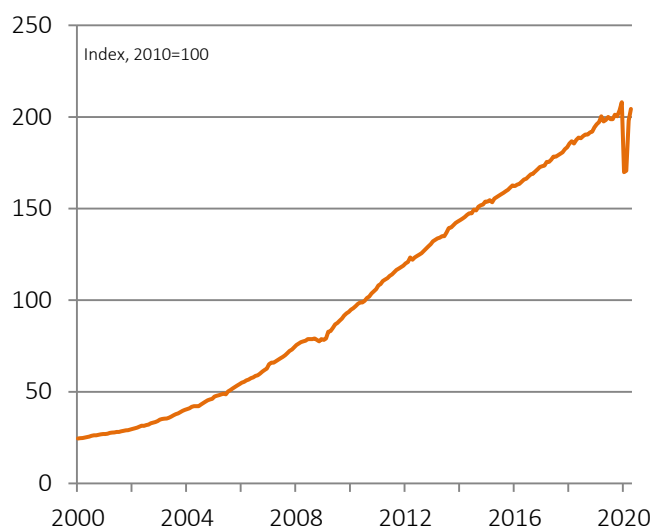
The fact that the globalization process has decelerated in recent years does not change China's central role in global value chains, in which raw materials and intermediate products from various countries are shipped around the globe for processing, assembled at another location, and the finished products are finally exported to end consumers in both industrialized and developing and emerging countries. In such global value chains, China plays a role as a primary producer of various products and components, as a major purchaser of global raw materials and intermediates for further processing and assembly, and as a major market for consumer and capital goods.

Foxconn, a contract manufacturer for electronics, is a well-known example that illustrates China's position in global value chains. Its assembly plants located in mainland China produce for many of the world's leading electronics companies, including Apple, Intel and Sony. It imports raw materials and intermediate products from various countries and exports the processed products all over the world.

The pandemic, as well as the measures taken to stem its spread, have a negative impact on the economy in general and global value chains in particular. Two phases can be distinguished—the outbreak of the virus in China, and its further spread around the world.

The first phase dates back to the outbreak of COVID-19 in China, which caused a significant decline in economic activity in the country. The negative impact on the economy is reflected in the data on industrial production in China. As can be seen in Figure 3, this fell by around 13% year-on-year in January and February.<sup>2</sup> This drop in production is serious, especially when put into a longer-term perspective: Neither the SARS outbreak in 2002/2003 nor the financial crisis in 2008/2009 were associated with such a sharp drop in industrial production. Similarly, China's gross domestic product fell by 6.8% in the first quarter of 2020 compared with the previous year, according to official figures. This is the first decline that China has recorded since these figures were first published in 1992.

**Figure 3:**  
Industrial production in China



Notes: Monthly data on industrial production in China, seasonally adjusted, in constant 2020 dollars.

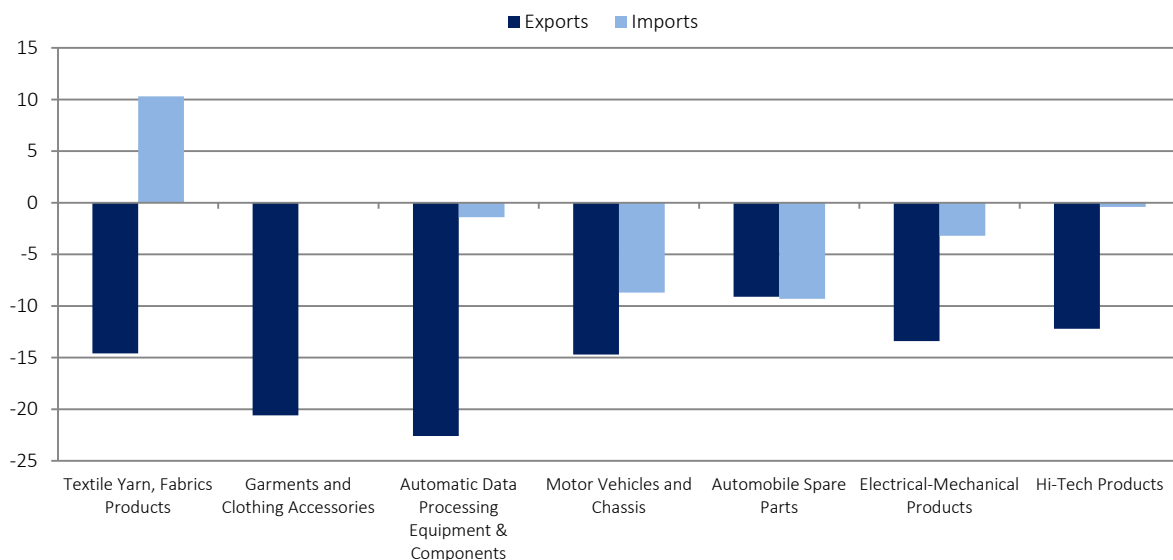
<sup>2</sup> Because of the Chinese New Year, the authorities in China only publish figures for January and February together published by the Chinese authorities.

**Source:** World Bank, GEM Database; own calculations and illustration.

While production began to be ramped up again in March (as can be seen from the Figure), such a slump in economic output in the country often referred to as the “extended workbench of the world” necessarily has an impact on global value chains. The fact that the decline in production is also associated with a sharp contraction in international trade flows illustrates China’s position at the center of many global value chains. The country’s imports (measured in US dollars) fell by 4% in January and February compared with the same period last year, while exports fell by 17% in the same period, according to China’s official trade statistics. By March, exports had fallen by only 6.6% and imports by 0.9%.

As shown in Figure 4, there have been significant decreases in imports of products used as intermediate products in production, such as electronic and electrical products and automotive parts. Similarly, exports of these goods and exports of textiles and clothing have also fallen sharply.<sup>3</sup>

**Figure 4:**  
Chinese Exports and imports of selected products



Notes: Nominal exports and imports, first quarter of 2020, percentage rates of changes relative to first quarter 2019.

**Source:** General Administration of Customs, China; own calculations and illustration.

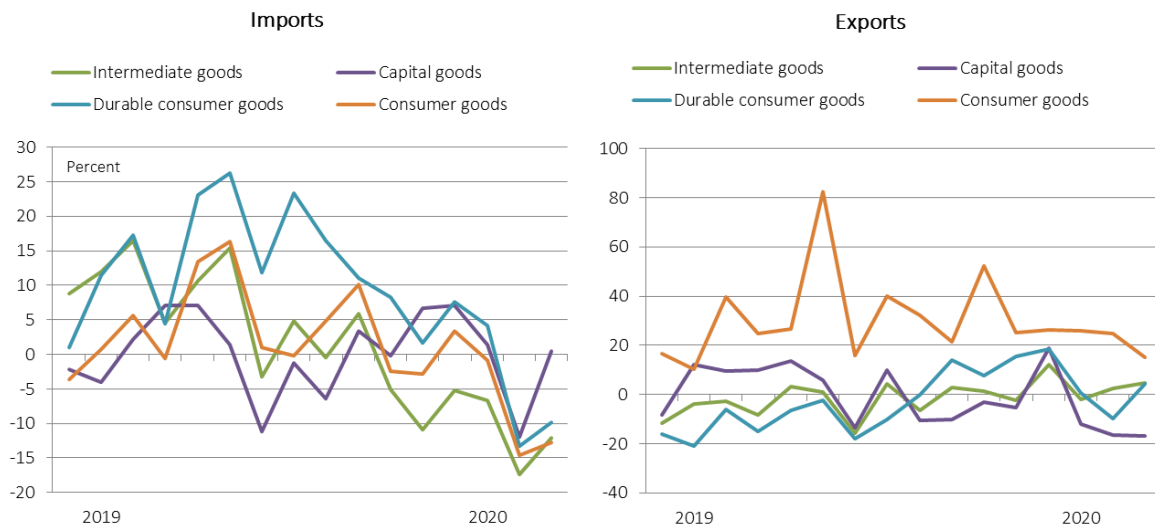
The collapse of production activity in China, the heart of many global value chains, has had an impact on producers and consumers in countries at the upstream and downstream stages. In Germany, according to the Federal Statistical Office, imports fell by a total of 2.9% in February 2020 compared with February 2019, while exports rose by 0.4%. Exports to China fell by 8.9% compared with February 2019, while imports from China fell by 12.0%. In comparison, exports to EU countries increased by 0.8% while imports fell by 1.9%.<sup>4</sup>

<sup>3</sup> The products included in the figure are those for which China's importance in global value chains is particularly high, see UNIDO (2018).

<sup>4</sup> Via Internet (26.5.2020): <[https://www.destatis.de/DE/Presse/Pressemitteilungen/2020/04/PD20\\_125\\_51.html](https://www.destatis.de/DE/Presse/Pressemitteilungen/2020/04/PD20_125_51.html)>.

A breakdown of trade data by goods groups shows that Germany's imports from China of intermediate goods recorded the most severe year-on-year decline of around 17%, with capital goods, consumer durables and goods for capital goods also losing ground in trade volume. Exports to China fell most sharply in the capital goods sector.

**Figure 5:**  
Nominal bilateral trade between China and Germany in selected groups of goods



Notes: Change (in %) relative to last year.

Source: Destatis, Aus- und Einfuhr (Außenhandel); own calculations and illustration.

The negative effects of the pandemic outbreak in China will be multiplied in a second phase by the fact that many other countries, like China, have taken lockdown measures from which they are only gradually emerging. This has led to further production stops in many countries that produce intermediate products, which in turn results in a lack of these products for further processing in other countries where production is still going on, or is being resumed. Furthermore, the production stops and the decline in demand for many services, for example in the catering industry, cause job losses and income losses for many employees. This leads to a decline in the aggregate demand for consumer goods and capital goods.

## 4 Implications for international trade and investment

It is of course too early to fully quantify the impact of the lockdowns caused by the coronavirus pandemic. However, there are initial indications and estimates that these could be substantial. According to a recent study, the WTO expects world trade to be around a third less this year than it would have been without the crisis.<sup>5</sup> A survey of representatives of special economic zones around the world shows that 90% are already noticeably affected by the loss of trade as a result of the pandemic (Gern and Möhle, 2020).

<sup>5</sup> Via Internet (25.5.2020): <<https://news.un.org/en/story/2020/04/1061342>>.

It is also already becoming apparent that foreign direct investment—an important vehicle for multinational companies active in global value chains—will decline significantly. UNCTAD estimates that, similar to trade, they will shrink by around 30 to 40% as a result of the pandemic. Investments through mergers and acquisitions will be particularly affected; UNCTAD expects a decline of 70%. At the same time, according to UNCTAD, multinational companies have revised their profit expectations from foreign investment downwards by around 30%. The most pessimistic assessment of the situation is in industrialized countries, especially in the United States and Europe, where profit expectations have been revised downwards by an average of 35%. Apart from the energy and aviation industries, the automotive industry has been hit hardest, with profit expectations being reduced by 47%.<sup>6</sup>

Germany will not escape unscathed either. According to a survey of German companies abroad conducted by the DIHK (German Chamber of Industry and Commerce), 79% of the companies surveyed expect a drop in sales. 58% expect demand to decline, while 47% expect planned investments to be postponed or cancelled. In connection with this, around one third of the companies expect liquidity problems caused by the pandemic.<sup>7</sup>

Do these findings mean that the globalization of production networks has gone too far because it has increased the vulnerability of the world economy?

## 5 Globalization and resilience

Many economists would agree that economic openness can have a positive effect on the average income of a country's citizens. The question of whether the positive effects on average income come at the price of higher inequality (in a cross-section) and greater volatility (over time) is much more controversial (Helpman, 2018).

Caselli et al. (2020) show in a recent and very convincing analysis that the effects of openness on output volatility depend on the nature of shocks. In a model of comparative advantage (and hence sectoral specialization), macroeconomic volatility increases in the degree of trade liberalization when the shocks are sectoral in nature. If, on the other hand, the shocks are predominantly country-specific, international trade has an insurance function and macroeconomic volatility decreases as the cost of trade declines. Caselli et al. (2020) show that country-specific shocks are quantitatively much more important than sectoral shocks.

It is clear that the corona pandemic is a systemic shock that affects all countries and sectors of the economy. It is therefore not clear that a less pronounced international division of labor would make it easier for individual countries to deal with the shock. Moreover, higher trade barriers would reduce the average efficiency of economies, which would hardly strengthen the functioning and capacity of health systems.

Natural disasters provide a good example of how diversification through international trade has a stabilizing effect. However, it is also clear that this only applies ex ante. When a country is hit by an adverse shock, the economic effects, such as higher prices (improved terms of trade) for the country's export good, spread to its trading partners. The costs are thus spread over many shoulders and are

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<sup>6</sup> Via Internet (25.5.2020): <[https://unctad.org/en/PublicationsLibrary/diaeiainf2020d3\\_en.pdf](https://unctad.org/en/PublicationsLibrary/diaeiainf2020d3_en.pdf)>.

<sup>7</sup> Via Internet (25.5.2020): <<https://www.dihk.de/resource/blob/22910/886f512e661aed87cf4c0889d4c96fd6/ahk-world-business-outlook-fruehjahr-2020-data.pdf>>.



easier to bear. If the affected country were to be self-sufficient, the other countries would not suffer these costs in the event of a disaster, but they would be poorer on average over time because of the lower division of labor. As in any insurance context, there is an incentive for those insured who do not have a claim themselves, to refuse to pay other insured who have suffered damage. The benefits of insurance only become apparent when you yourself are affected by a claim. However, this does not call into question the sense of insurance *ex ante*, as it were “behind the veil of ignorance.”

Experience with catastrophic interruptions of supply chains also shows that, although adverse shocks to individual suppliers do spread to production networks and cause considerable damage to customers, especially when specific inputs are involved (Barrot and Sauvignat, 2016), companies with a well-diversified global supplier structure are more resilient. The latter is shown by Todo et al. (2015) for the case of the tsunami in Japan in 2011 and Kashiwagi et al. (2018) for Hurricane Sandy in 2012.

The management of companies makes conscious decisions on whether they produce their inputs themselves or purchase them on the market, on the number and geographical distribution of suppliers, on the optimal amount of storage and on the contractual relationship they enter into.<sup>8</sup> Each individual relationship is associated with fixed costs, so it is typically appropriate to limit the number of suppliers. On the other hand, companies suffer painful production losses if they are unable to work due to interruptions of supplies. For optimization, the level of fixed costs and the distribution of interruption probabilities are crucial. As is so often the case, this distribution is not known with certainty. Especially the probability of extreme events is difficult to determine (“fat tail problem”). The global corona pandemic is an example of this. It will certainly lead to a reassessment of the interruption probabilities.

But it is highly uncertain what this means for the globalization of production networks, because the pandemic is a systematic shock that affects all countries, sectors and companies equally. Suppliers that are geographically closer to the production site are therefore not necessarily safer, unless the long transport routes in particular are interrupted by a shock. It is therefore not clear that shortening supply chains necessarily leads to greater security of supply. Rather, it is to be expected that companies will operate more warehousing than before; they will try to reduce the fixed costs of supplier management, which should be possible with the help of digital technologies; and they will reduce the specificity of inputs wherever possible. All these measures will increase resilience to shocks, but are not necessarily linked to regionalization or nationalization of supply chains.

This is also true in the medical sector, which is a hotly debated issue in the current crisis, also from a trade policy perspective (Braml et al., 2020). This market in particular is characterized by a particularly pronounced density of regulation. The approval and pricing of medicines, apparatus, protective clothing etc. is not currently decided on the “free market.” Often the number of participants is small (oligopolistic pharmaceutical industry, health insurance companies, authorities). The relative importance of price, quality and delivery reliability in procurement processes is therefore within the sphere of influence of governmental or quasi-governmental bodies. Here, it is to be expected that, based on the experience with the corona crisis, supply security will be given greater weight in the future. In the medical sector, however, this will not necessarily be achieved by renationalizing production, but rather by more diversification of procurement systems and higher local stockholding.

The world economy has achieved high welfare gains during the phase of rapid globalization. The distribution of these gains between and within countries may not correspond to the ideas of justice of all observers, but their presence is undisputed (Helpman, 2018). Especially in a global economic crisis

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<sup>8</sup> The extant economic literature on this topic is summarized by Antràs (2020).

it would be downright negligent to forego these benefits. In recent weeks, the lessons of the major crisis of 2008/09 have often been drawn. One of these lessons was that the defense against protectionist policies has played an important role in crisis management.

## 6 Risks for developing and emerging economies

If companies were to shorten or regionalize their supply chains, this would have potentially significant negative effects on the economic development of emerging and developing countries. For example, the integration into global value chains of countries that are currently strongly integrated into global production networks could decline. Southeast Asian emerging and developing countries would be particularly affected (UNIDO, 2018). Similarly, integration into global value chains could become more difficult for countries that are not yet highly integrated in the current phase of globalization. This applies in particular to some countries in Africa, which generally have the potential for integration.

For developing countries, integration into global networks offers the opportunity to benefit from the capital flows associated with value chains and access to international markets, human capital and knowledge, to increase the value added of their own production and thus to sustainably boost their economic growth (UNIDO, 2018; Görg, 2016; Görg and Hanley, 2018). If this option were to be abandoned, industrialization efforts would almost certainly be dealt a severe blow and the socio-economic progress that has been achieved in many developing regions in recent years would be hampered.

The challenge for development policy here is therefore to ensure, through targeted measures, that these countries have alternative ways of increasing the value added of their own products and thereby making them more competitive internationally. For example, training and further education programs aimed particularly at the management level would be desirable. An exchange between experts from developed countries and managers and entrepreneurs from developing countries could generate new product ideas and marketing strategies. Increased cooperation in the “Aid for Trade” framework may also be an option, on the one hand to promote access to developed markets, but also to improve the cross-border movement of goods between the developing countries of a region—especially in Africa. Greater regional integration facilitates access to a larger market, which in turn makes it possible to give companies sales prospects for newly developed products that can contribute to the sustainable growth of developing countries. Increased regional integration also makes the region more attractive as a location for foreign companies seeking access to this enlarged market (Glitsch et al., 2020). In connection with this, foreign investments in developing countries should also be promoted, for example by extending the investment guarantees of the German Government and similar instruments of other European countries.

## 7 Policy conclusions

### 7.1 International Investment

In recent years, the German Foreign Trade and Payments Regulation (Außenwirtschaftsverordnung) has been repeatedly amended. The basis for this was the political effort to ensure that the state can

review takeovers of domestic companies by foreign investors, at least in critical sectors, and impose conditions or even prohibit them if necessary. Until recently, Germany had one of the most liberal investment regulations in the world and has done well so far. This reorientation is to be understood above all against the background that some countries are now increasingly pursuing ambitious national industrial policy goals that could be at the expense of other countries, including Germany. This undermines confidence in these countries as reliable cooperative partners in the global economy. In the meantime, the corona crisis has already led to the next tightening of the Foreign Trade and Payments Regulation. For example, the health sector was added to the list of particularly security-relevant industries in which the German government reserves the right to review and prohibit foreign investments.

At a time when nationalism is clearly on the rise again in large countries such as the United States, China, Brazil and India, it is understandable that representatives of economic policy are concerned that opportunistic foreign actors could abuse domestic dependencies for their own ends. However, economic policy interventions such as the tightening of the Foreign Trade and Payments Regulation should not be based on mere suspicion or the lobbying of certain social groups. Rather, it is necessary for policy to be based on evidence and to make this evidence available to the public as transparently as possible. Monitoring of the Foreign Trade and Payments Ordinance could, for example, be entrusted to an independent authority along the lines of the Monopolies Commission. Such a delegation of economic policy responsibility could ensure that the Regulation is not abused in a populist manner.

## 7.2 International Trade

At the beginning of March 2020, Germany and France temporarily imposed new barriers to the export of respirators and other medical articles, in disregard of the rules of the European single market. The neighboring countries Switzerland and Austria protested vehemently in Brussels. The European Commission responded by allowing export controls to third countries and in return enforcing their removal in intra-European trade. Although this measure could well be covered by current WTO law, it puts pressure on European trading partners, who have in turn also introduced export controls: Evenett (2020) shows that more than 50 countries have already introduced such measures. He criticizes the strategy of using export restrictions to improve the availability of critical medical products at home in the short term as a “sicken-thy-neighbor policy.” In fact, the introduction of such restrictions does not change the fundamental problem of a lack of international production capacity for certain medical devices that are currently in high demand. On the contrary, such measures prevent output-maximizing production based on the international division of labor. Fortunately, the controls have been taken back by now.

Nonetheless, Germany and the European Union should make a strong commitment to reducing existing tariffs and trade barriers as quickly and significantly as possible, especially in connection with critical medical devices, and to outlaw new export restrictions (Bown, 2020; and Gonzalez, 2020). This is all the more important given that in recent weeks many countries, including Russia, India and Turkey, have imposed export restrictions in other important areas, such as grain supply. Food shortages in developing countries that rely on food imports may lead to shortages there that could cause more deaths than COVID-19.

As in the case of foreign direct investment, in international trade too, importing countries should be able to rely on foreign suppliers and their governments not acting opportunistically in crises. The greater this danger, the more necessary it is for countries to build up and maintain stocks of critical

goods and to ensure that there is sufficient diversification of sources of supply from an economic perspective. This would make it possible to compensate for the loss of one or more suppliers. This is economically more advantageous than foregoing the advantages of the international division of labor and using subsidies and restrictive conditions, which may, incidentally, be against WTO law, to boost domestic production that could not prevail on free markets.

### 7.3 International migration

The coronavirus is not transmitted from one country to another through trade in goods, nor does it spread through international capital movements or data mobility. Its cross-border spread, however, has to do with the international mobility of people, for example with the tourists who unwittingly brought the virus from the Tyrolean ski resort of Ischgl to German cities, or with business travelers who worked for German companies like Webasto in the Chinese province of Hubei. And there is the hypothesis that the close links between the northern Italian fashion industry and China caused the early spread of the virus in Italy. Even if it is difficult to prove such causal connections, it is to be expected that in the future many countries will carry out more stringent health checks at their borders. This may lead to delays, slowing down immigration processes and thus shake up another pillar of globalization: the relatively free movement of tourists and business travelers. The latter are essential for the functioning of global value chains.

The International Health Regulations (IHR) exist within the framework of the World Health Organization (WHO). These are binding rules binding which serve to “prevent and combat the cross-border spread of diseases, to protect against them and to take measures to protect health against them in a manner which is proportionate to and limited to the risks to public health and avoids unnecessary interference with international transport and trade” (Art. 2 IHR). These rules were amended in 2005 in view of the increasing globalization and international spread of infectious diseases such as SARS. Germany has ratified the rules. However, this set of rules cannot be compared with what the World Trade Organization WTO provides for trade in goods in the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS). There are notification requirements, transparency rules and clearly defined legal procedures to ensure that SPS measures are proportionate and nondiscriminatory. The WTO supports developing countries in the context of capacity building to meet SPS standards. With regard to the cross-border mobility of people, the set of rules is much less ambitious. This should be reviewed.

The EU members in particular, and here especially those countries that have a common external border in the Schengen area, should coordinate and agree. This could also require the EU to make financial resources available, similar to what it is doing in the Frontex program to protect the external borders from illegal border crossings. If the EU members do not succeed in establishing confidence in the quality of external border controls, the corona pandemic could contribute to the erosion of the Schengen area and thus of the internal market, which could result in considerable economic costs (Felbermayr et al., 2018).

Overall, the coronavirus pandemic poses major challenges for the global economy, which will have long-term consequences even after the virus has been overcome. International cooperation will therefore be increasingly called upon to grease the wheels of the global division of labor and to promote sustainable growth in industrialized, developing and emerging countries through integration into the global economy.

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# COVID-19—SIX LESSONS FOR INTERNATIONAL TRADE

Dennis Novy<sup>\*</sup>

## Summary

- Trade is more volatile than the general economy. Expect therefore a sharper fall in international trade than GDP.
- The COVID-19 slump is a combined supply and demand shock. Expect disruptions for global supply chains and pressure from squeezed trade credit.
- The big danger of a prolonged slump is the disintegration of trading networks. The longer the COVID-19 disruption lasts, the more likely trading relationships between firms will break down, preventing a swift recovery.
- Rethinking extreme events and resilience: static vs. dynamic efficiency. Cost minimization in good times might not be a sustainable model for long-term economic success.
- Will COVID-19 make firms scale back international value chains? Not necessarily. A more resilient network could mean more international diversification.
- Will protectionism lead to less international trade? It depends on how successfully elected leaders face up to the challenges of the crisis.

**Keywords:** international trade, COVID-19, global supply chains, trade credit, resilience, dynamic efficiency, diversification, protectionism

## 1 Introduction

International trade is experiencing its biggest slump since at least the Great Depression. The World Trade Organization anticipates an “optimistic scenario” in which global merchandise trade would drop by 13% in 2020, and a “pessimistic scenario” with a 32% drop (see Figure 1). These numbers are unprecedented in modern times.

As we live in a world more dependent on international trade than ever before, we have to heed the lessons from previous trade slumps, in particular the Great Trade Collapse of 2008/09. Given the severity of the COVID-19 shock, policy-makers and researchers alike might have to rethink their approach to international trade in fundamental ways.

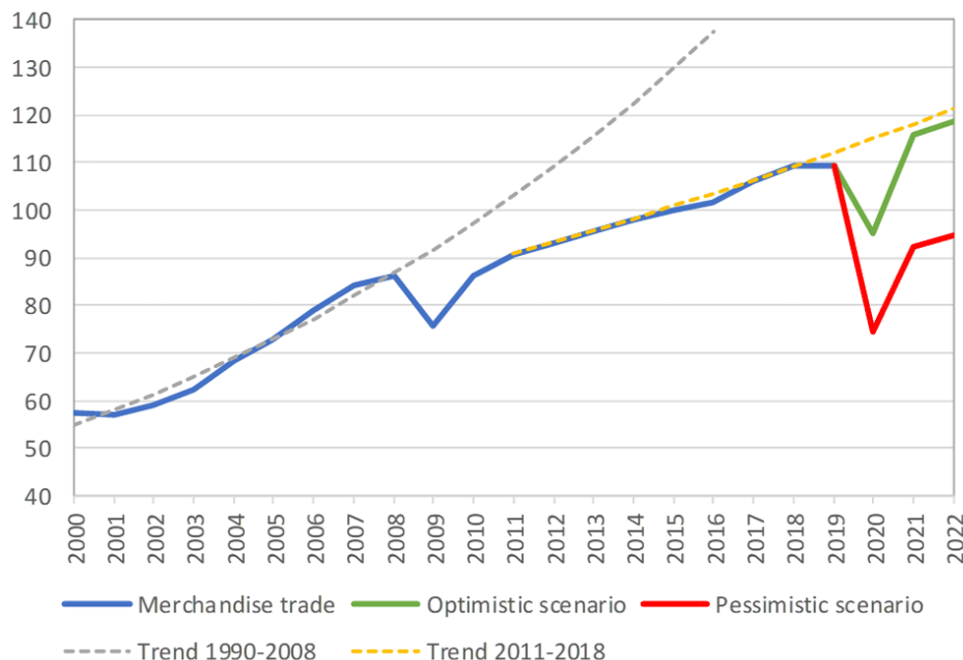
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Below, I highlight six crucial aspects. I conclude by discussing policy implications.

**Figure 1:**  
World merchandise trade volume, 2000–2022



Source: WTO (2020).

## 2 Rethinking international trade

Trade is more volatile than the general economy. Expect therefore a sharper fall in international trade than GDP.

The composition of international trade is different from the composition of GDP. When the economy enters a slump, consumers cut back most strongly on durable goods and big-ticket items such as cars and furniture. Those are precisely the types of goods that are heavily traded internationally, both as final products and in terms of their intermediate inputs in global supply chains (car parts, raw materials etc.) This composition effect was one of the main reasons why international trade declined much more than GDP in the Great Recession of 2008/09, also dubbed the Great Trade Collapse (Bems et al., 2013). We should expect the same to happen in the COVID-19 recession eventually.

Moreover, international trade is vulnerable to financial frictions. Trade credit is an essential part of many international transactions, and banks become more hesitant to provide such credit in times of economic distress, not least because they fear difficult enforcement across borders. These financial frictions were another important factor behind the Great Trade Collapse (Amiti and Weinstein, 2011; Chor and Manova, 2012). There is additional evidence of economic uncertainty hitting international trade disproportionately hard (Novy and Taylor, 2020).

In contrast to trade, GDP in advanced economies largely consists of services such as housing, finance, education and healthcare. On average these are more sheltered from the ups and downs of the



business cycle. But there are important exceptions in the COVID-19 crisis, notably travel, restaurants and brick-and-mortar retail (Hacioglu et al., 2020).

**The COVID-19 slump is a combined supply and demand shock. Expect disruptions for global supply chains and pressure from squeezed trade credit.**

The trade slump of 2008/09 was first and foremost the result of a negative demand shock. As the fallout from subprime mortgages and shadow banking spread around the globe, consumers cut back spending, and firms cut back investment. Without doubt we will see similar cutbacks with COVID-19 once average incomes start to fall.

However, in the first instance the arrival of COVID-19 was a supply shock. Those parts of the economy that could not shift to working from home had to halt activity, and rightly so, to stop transmission of the virus. Many factories became idle. Social distancing necessitated the shutdown in particular of travel, tourism and retail. Most governments of advanced economies responded by making wage payments to workers and opening up credit facilities for companies. This was the right response, and we should think of it as disaster relief.

Regarding international trade, the COVID-19 supply shock raises issues of synchronization within global value chains. If a producer shuts down, this has knock-on effects not only further down but also further up the supply chain. As we learned from the 2011 Japanese earthquake, even locally confined shocks can significantly disrupt production networks (Carvalho et al., 2016). What's more, different countries imposed lockdowns at different times (China first, Europe and America later). We could therefore see waves of supply chain disruption. The upshot is that firms might struggle to offer their products in the short run even when customers are ready to buy them.

At the same time, it is likely we will see persistent changes in demand, for example stronger demand for personal protective equipment and a further shift towards online services such as e-commerce and video gaming. Even when the COVID-19 crisis has passed, these changes might lead to a reallocation of production factors within and across countries. This adjustment will come with inevitable frictions.

Further trouble is brewing if banks cut back business lending and trade finance, and balance sheets worsen due to rising liabilities and lack of cash flow. Supply chains represent financial networks. This is where policy-makers need to think about externalities: by allowing firms to go under, they may weaken the entire network, triggering softer aggregate demand and exacerbating the crisis. The policy response needs to internalize such effects, not just domestically but also internationally. This requires a consideration not solely of the costs but also the benefits of supporting workers and saving businesses.

**The big danger of a prolonged slump is the disintegration of trading networks. The longer the COVID-19 disruption lasts, the more likely trading relationships between firms will break down, preventing a swift recovery.**

Although firms reduced traded quantities with existing foreign partners during the Great Trade Collapse of 2008/09, these relationships for the most part survived. That is, firms rarely gave up relationships altogether. In technical language, trade economists would say that adjustment took place along the intensive margin, not the extensive margin (Behrens et al., 2013).

Keeping up trading networks after the 2008/09 recession was possible largely because countries experienced a synchronized recession with demand slumping at roughly the same time. This allowed for a swift recovery of international trade once the trough of economic activity was reached.



With COVID-19, however, we face asynchronous supply shocks with different countries imposing lockdowns at different times. In addition, business travel will likely prove impractical for the foreseeable future. These developments might facilitate the breakdown of trading relationships, resulting in a drawn-out trade slump and preventing a fast recovery.

**Rethinking extreme events and resilience: static vs. dynamic efficiency. Cost minimization in good times might not be a sustainable model for long-term economic success.**

Economists like to think of international trade in terms of comparative advantage and specialization. If countries focus on what they are relatively good at producing, then all of them can gain (at least in the aggregate). These Ricardian forces have been a key driver of globalization.

They even hold at the domestic and personal level. During the lockdown, we all had to produce lots of services ourselves that we normally trade with others. Most people probably spent more time than usual on cooking, cleaning and home-schooling and would have happily outsourced some of those activities.

In other words, most economists think of international trade in terms of static efficiency. While the logic of comparative advantage will continue to hold, COVID-19 forces us to think more about tail events. Does short-term cost minimization guarantee long-term success? What if rare but extreme shocks render just-in-time production uneconomical?

To deal with extreme shocks, perhaps firms would be well advised to invest more in inventory and the diversification of supply chains, re-assessing the trade-off between low costs on the one hand and long-term resilience on the other. Likewise, trade economists might gain from thinking more about dynamic efficiency. We can learn from researchers in other fields such as asset pricing and the economics of climate change. They have long grappled with issues of dynamic efficiency and have developed tools that might turn out useful to trade economists. There are interesting questions to ask: has the market failed in providing resilient production structures? Are firms too short-sighted?

**Will COVID-19 make firms scale back international value chains? Not necessarily. A more resilient network could mean more international diversification.**

International trade can also serve as an insurance mechanism. To the extent that shocks are spatially uncorrelated, trade can help to diversify risk. Firms might therefore think about setting up a more diverse network of alternative suppliers and customers to improve resilience. Those partners could be international or domestic. Some firms could therefore decide to become more international in scope and outlook, not less.

Furthermore, as the COVID-19 experience demonstrates the importance of social distancing in the workplace, firms will likely explore processes that help to keep workers at a distance from each other, both in the office and on the factory floor. This could include further investment in online interaction as many office workers already work from home (“telemigration”).

Could the widespread use of online technology such as Zoom facilitate trade in services more generally? The quality of online communications technology has improved so much that workers’ services can be separated more and more from their location. A radiologist in Brazil can read X-rays of patients scanned in a British hospital. An accountant in India can work remotely for a real estate company in Canada. The forced experimentation with online working through COVID-19 might make firms see services trade in a new light, but of course that remains to be seen.

**Will protectionism lead to less international trade? It depends on how successfully elected leaders face up to the challenges of the crisis.**

To the surprise of many observers at the time, trade policy restrictions such as import tariffs and antidumping duties did not play a major role during the Great Trade Collapse of 2008/09 and did not contribute to the trade slump in a major way (Kee et al., 2013). International policy coordination held up reasonably well, and countries by and large refrained from giving in to protectionist instincts and lobbying.

In face of the recent US–China tariff hikes, the global trade policy backdrop looks less favorable today. We cannot yet assess the trade policy response during the COVID-19 crisis, but early indications suggest widespread export bans in some strategic industries, in particular medical supplies such as facemasks and ventilators. (If anything, the trade policy instrument of choice during the Great Trade Collapse was to subsidize exports, not to ban exports.)

Economists tend to be sceptical of trade restrictions because they typically lead to efficiency losses and retaliation by other countries, and better policies such as targeted subsidies might be available. Does this argument apply in the COVID-19 crisis? The answer is generally yes. But there may be some important exceptions. For example, if supply is rationed, does the market deliver a desirable allocation of essential medical products? For developing countries in particular we might have to consider exceptions for humanitarian reasons. For instance, it may be reasonable for a poor country to ban the export of ventilators. Once sold, it is unlikely they will be able to afford replacements as prices jump up and supply might not respond in the short run.

In any event, it seems likely the COVID-19 crisis will be exploited politically by nationalists and populists, arguing that the virus was spread by foreigners and that international trade is inherently flawed, especially if voters struggle to see the advantages to the domestic economy. We do not yet know whether politicians will react by leaning towards more protectionism. A lot will depend on how effectively and competently elected leaders face up to the challenges of the crisis.

Politicians across many countries have already argued for self-sufficiency in the production of essential products such as personal protective equipment, pharmaceuticals and perhaps food. While this might sound intuitive, it is not clear this is a sensible response from an economic point of view. Perhaps building up large-scale inventories would be more efficient than creating purely domestic production structures.

### **3 Conclusions**

Historical evidence tells us that trade policies are typically “sticky” and remain in place much longer than the issue they are meant to address. To take a recent example, tariffs between the US and China will be difficult to wind down even if US voters were to usher in a new administration with a mind-set of international collaboration.

In the current crisis policy-makers do not only face the challenge of dealing with COVID-19 on a day-to-day basis. They also need to set the stage for a healthy recovery. If governments put in place trade restrictions including misguided industrial policy initiatives and do not let them expire swiftly, then this will hinder a fast return to normal economic conditions. Similarly, if government bailout measures disproportionately favor large or politically connected firms, it might be harder for other firms to weather the crisis and contribute to economic growth afterwards.

We therefore need international cooperation to shape a future global trading system that does not get bogged down by emergency measures inherited from a crisis. If countries are not clear about that long-run strategy, the risk is that we stumble into a new form of protectionism that ultimately few people want. The time to coordinate is now.

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# THE THREATS OF PROTECTIONISM IN DEEP CRISES

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## Summary

- During deep crisis the temptation to enact protectionist measures is especially strong.
- Protectionist measures are hard to draw back once installed.
- Therefore, it is crucial withstand the temptation of protectionism and to defend the open rules-based order of international trade with all strength.

**Keywords:** protectionism, tariffs, trade war, dynamic adjustment, deep recession, effective lower bound

## 1 Introduction

During times of deep economic crises, the lures of protectionist policies are especially strong. Workers suffer from unemployment or job insecurity, firms experience lower profits or even losses, and protection from foreign competition might appear as a quick and easy solution. Coupled with the strong protectionist tendencies that took hold already before the COVID-19 crisis, this poses a serious threat to the system of free international trade. It is crucial to contain these temptations now because once installed protectionist measures are hard to withdraw and tend to persist.

This article focusses on two separate but related aspects of international trade cooperation (or lack thereof): (i) protectionist measures are hard to draw back once installed, and (ii) during deep crisis the temptation to enact protectionist measures is especially strong. Together these two aspects pose a severe threat to the current rules-based trading system that could imply severe welfare losses for all countries, but especially Germany that is strongly integrated in the world economy.

In Section 2, I will explain why import tariffs can be so persistent. The setting of import tariffs in an international context is influenced by strategic interactions and externalities that imply that the optimal strategy from the point of view of a single country is not the optimal strategy for the world economy. Trade agreements seek to overcome these externalities to the benefit of all, but deviation can remain attractive as current experience suggests.<sup>1</sup>

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<sup>1</sup> Already prior to the COVID-19 crisis, the USA under Donald Trump has raised or threatened to raise tariffs vis-à-vis China, the EU and other trading partners. However, the EU is also not innocent in this respect, e.g., having enacted export restrictions in the current crisis.

In Section 3, I will explain why the lures of protectionist policies are especially strong during deep economic downturns, even more so in an environment when monetary policy is constrained by the effective lower bound on nominal interest rates as is currently the case. In normal times a trade war, in which all countries raise their tariffs, is bad for all countries. Thus, the fear that other countries might retaliate can work as a check for politicians with protectionist tendencies. However, in times of deep crisis this need not be the case. While a trade war with permanent increases in tariffs is still bad for all countries in the long run, it might temporarily raise output in the short run.

Section 4 ends with lessons to be drawn. Because tariffs and other protectionist measures can be so persistent, it is crucial to withstand the lures of protectionism even though they might promise short-lived benefits.

## 2 Strategic interaction in international trade or why import tariffs are so persistent

The setting of an import tariff is subject to strategic interactions because it not only raises the price of imported goods and thus protects domestic producers from competition, it also affects the nominal exchange rate and the terms of trade.<sup>2</sup> The rise in import prices lowers the demand for imports which puts downwards pressure on the prices that foreign exporters can charge net of the tariff. Thus, even though consumers have to pay more, to the national economy imports still get cheaper because the reduction of demand depresses the world market price; i.e., the country's terms of trade improve. The difference between the lower world market price and the higher consumer price, of course is the tariff whose income accrues to the government that charges the tariff. The availability of cheaper imports coupled with the income generated by the import tariffs makes them so attractive.

The trouble is that the same reasoning also applies to foreign countries. From their individual perspective it is equally attractive to raise import tariffs as well. And if they do so the change in the terms of trade is offset. What remains is the harmful distortion to international trade, without a counteracting beneficial terms-of-trade externality. The restrictions to international trade make it more difficult to capitalize on international comparative advantages and global welfare goes down.

To determine the equilibrium in the context of such strategic interactions economists are using game theory. Here's an illustrative example. Suppose we want to analyze the strategic interaction between two countries (country blocks), the US and the EU. Both countries face the decision to keep tariffs low or to set tariffs high.<sup>3</sup> If both countries decide for low tariffs, international trade is relatively free and both countries can specialize production in the goods that they can produce relatively cheaply. Suppose in that case GDP is 100 in both countries.

However, if one country sets high import tariffs while the other country sets low import tariffs, the terms-of-trade externality implies that one country is benefiting at the cost of the other country (the country with the high tariff generates a GDP of 115 while the other country generates only 80). Finally, in the case that both countries charge high tariffs, no country can benefit from the terms-of-trade externality but both suffer from lower international trade. In this case both countries can only generate a GDP of 90.

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<sup>2</sup> There might also be business stealing effects (see Ossa, 2011).

<sup>3</sup> For this simple example we consider only two strategies for both countries, but the same argument applies if a continuum of tariffs is allowed for.

**Table 1:**  
**Strategic interaction in trade policy**

	EU-tariff low	EU-tariff high
US-tariff low	Trade deal 100/100	Unilateral tariff 80/115
US-tariff high	Unilateral tariff 115/80	Trade war 90/90*

**Source:** Own derivation.

Table 1 provides a simple and intuitive way to illustrate these kinds of strategic interactions. It shows the options of both countries and the outcomes in dependence of the choices of both countries. The first number in each quadrant is the outcome for the US, the second number the outcome for the EU. So, for example, if the US sets a high tariff while the EU sets a low tariff we end up in the lower left quadrant with outcome 115 for the US and 80 for the EU.

Using this diagram, it is intuitive to derive the noncooperative equilibrium when both countries do what is best from their own perspective. No matter what the other country does, the best strategy is always to charge a higher tariff. We end up in the trade war equilibrium (the Nash equilibrium) in which both countries are worse off than in the equilibrium where both charge low tariffs.<sup>4</sup> The externality implies that the competitive equilibrium is not efficient from a global perspective even though both countries act optimally from their own individual perspective.

It is exactly at heart of trade negotiations to overcome this “bad” equilibrium and to agree on the good, cooperative equilibrium in the upper left quadrant. However, this simple example illustrates how fragile such an agreement can be, since the incentives to deviate are very strong. In the following section, I illustrate that the incentives to deviate are even stronger in times of deep economic crises.

### 3 Dynamic adjustment or why tariffs are more attractive during deep crises

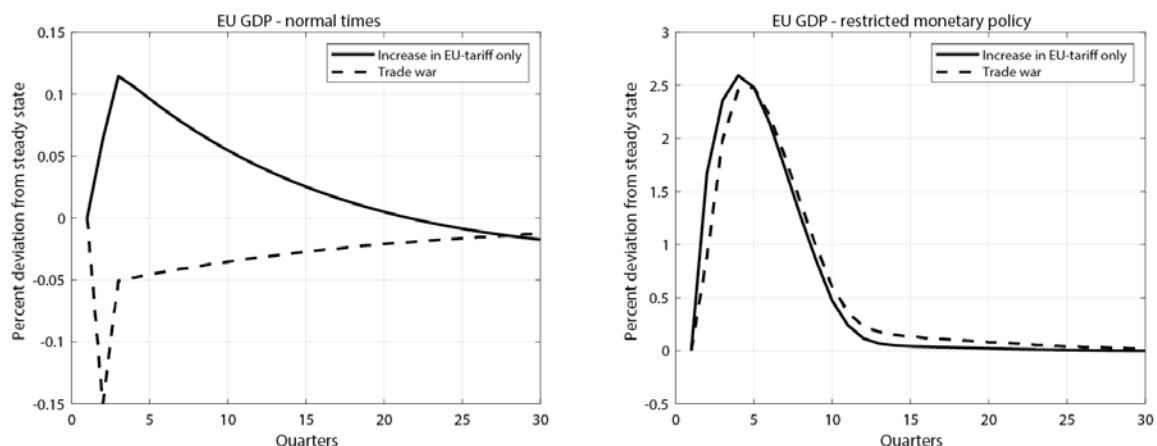
In the previous section we have seen that charging import tariffs can be an optimal strategy from an individual country’s perspective but suboptimal from a global perspective due to the terms-of-trade externality. This discussion, however, was focused on long-run equilibria, while an economy would certainly go through a prolonged adjustment period in response to changes in import tariffs. In this section, I show how the dynamic adjustment induced by changes in tariffs depends on the state of the economy, i.e., whether the economy is growing or in recession.

To illustrate the dynamic adjustment induced by changes in import tariffs I use a standard dynamic open-economy model of the business cycle that is extended to take account of import tariffs and non-tariff trade barriers. Importantly, the model also takes account of nominal price rigidities and thus can be used to analyze the role of monetary policy and deep crises that push the economy towards the effective lower bound on nominal interest rates (see Lechthaler, 2016, for a formal description of the model). For simplicity the model is very stylized and thus the numbers should not be taken at face value. The model is also restricted to two countries but the results would generalize to a more realistic setting with a larger number of countries. One can think of the two countries as stylized versions representing the US and the EU.

<sup>4</sup> This game is a variant of the well-known prisoner’s dilemma.

The left-hand panel of Figure 1 shows the effects of a temporary increase in import tariffs<sup>5</sup> on real GDP in the EU in ‘normal’ times, that is times at which monetary policy is not restricted by the effective lower bound on interest rates. The figure shows the effects of both a unilateral increase in the tariff (solid line) and a bilateral increase in the tariff of both countries (dashed line).<sup>6</sup> In accordance with Table 1, a unilateral increase in the tariff raises GDP in the country that raises the tariff, while a bilateral increase (trade war) lowers GDP (in both countries). The increase in domestic tariffs raises the price of imports and thus lowers the demand for imports. Demand is redirected towards domestic varieties, which tends to raise real GDP. However, at the same time the demand for exports is diminished which tends to lower real GDP. In case of a unilateral increase of the tariff this effect is generated by an appreciation in the nominal exchange rate. In the case of a trade war the effect is generated by the tariff-hike of the other country. The appreciation in the nominal exchange rate explains why in the scenario with the unilateral tariff-hike real GDP can increase—this is the terms of trade externality. In the trade war scenario, the nominal exchange rate does not change because the two countries’ policies offset each other’s effect on the exchange rate, so that only the reduction in international trade remains. This is bad for aggregate production and welfare in both countries.

**Figure 1:**  
Dynamic effects of import tariffs in normal times and times of deep crises



**Source:** Own simulation results.

Thus, for normal times the dynamic analysis confirms the conclusion of the previous section that trade wars are bad for all involved countries. However, these are not normal times for a number of reasons. An important exception in the current crisis that is especially important for this analysis is that it has hit many economies in a situation where the nominal interest rates is at or very near the effective lower bound.<sup>7</sup> Already in February 2009 during the financial crisis, Paul Krugman suggested in his New York Times column that in such extreme circumstances “there is a short-run case for protectionism.”

<sup>5</sup> For simplicity, the analysis is restricted to temporary changes, but permanent changes would yield similar results. For an analysis of the dynamic effects of permanent changes in import tariffs, see Larch and Lechthaler (2013) or Lechthaler (2017).

<sup>6</sup> For the figures, it is assumed that in the first period the tariff increases by 1% and then slowly converges back to the original level, following an AR1 with a coefficient of autocorrelation of 0.95.

<sup>7</sup> The policy rate in the Euro area was negative already before the crisis, but in the US the crisis pushed the Federal Reserve to lower the policy rate quickly to 0 as well.



The right-hand panel of Figure 1 confirms this view, at least to a certain extent. The figure illustrates the effects of a temporary increase in tariffs on real GDP in times of a deep economic crisis that pushes the economy to the effective lower bound.<sup>8</sup> This effect is measured as the difference between real GDP in the absence of a policy change and real GDP when tariffs are raised. Thus, the increase in real GDP does not mean that GDP in the crisis goes up but that it is higher when tariffs are raised than it would be without the policy change.

Two results stand out: (i) the beneficial effect of a unilateral tariff-hike on GDP is much larger; (ii) the drop in GDP during a trade war is overturned into a substantial increase in GDP. The difference is mainly explained by monetary policy. An increase in tariffs raises inflation, not only because imports become more expensive but also because the stronger demand for domestic products raises their prices, too. In normal times, monetary policy reacts by raising the interest rate. This induces downwards pressure on aggregate demand, thereby lowering GDP.

This is different during a deep economic crisis that has pushed the economy towards the effective lower bound. In this case, inflation is below target and monetary policy more restrictive than it should be because it is constrained. In such circumstances an increase in the inflation rate is actually good news because inflation comes closer to target and thus the central bank does not react by raising the nominal interest rate. From a different perspective, in deep crises the real interest rate (the nominal interest rate minus the inflation rates) is too high which depresses aggregate demand. A policy that pushes up the inflation rate can be stimulating because it lowers the real interest rate (which monetary policy cannot achieve because it is constrained).<sup>9</sup>

Note, however, that the stimulating effects of bilateral increases in tariffs are restricted to periods at the effective lower bound. It is still the case that a permanent trade war scenario would imply a permanent decrease in GDP and aggregate welfare. At best, the increase in tariffs can yield a temporary increase in GDP at the cost of lower GDP in the medium to long run. Nevertheless, for some politicians that tend to think in shorter time perspectives the lure of protectionist policies might be very strong. But in even in this case a better policy to follow would be to use expansionary fiscal policy that can also stimulate the economy, but without the risk of long-term damage to the economy.

An additional aspect of import tariffs is discussed in Lechthaler and Mileva (2017): the distributional consequences of import tariffs (see also Lechthaler and Mileva, 2019). Increases in tariffs typically imply shifts in sectors, benefiting import-competing sectors over exporting sectors and the workers employed therein. Increases in tariffs also tend to favor unskilled workers because they are more important in the production of import-competing sectors. Thus, while trade wars tend to hurt especially skilled workers they favor unskilled workers in import-competing sectors, especially in the short run.

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<sup>8</sup> Note that the right-hand panel of figure 1 shows the effects of a change in the tariff relative to the development

<sup>9</sup> This argument ignores quantitative easing. However, while quantitative easing might contribute to ameliorating the problem of the effective lower bound it cannot offset it and such the qualitative line of argument still goes through.



## 4 Conclusion

In Section 2 we have seen that import tariffs are hard to overcome because from an individual country's perspective (taking the actions of other countries as given) it is optimal to raise positive tariffs. Trade deals are hard negotiations that seek to overcome the prisoner's dilemma of trade interactions and to make possible the more beneficial cooperative outcome. Because these trade deals are so hard to accomplish they should not be put at risk for the potential short run gains discussed in Section 3.

Another aspect that tends to make tariffs persistent and that was not discussed so far is the lobbying effort of certain firms and sectors. For sectors that are exposed to foreign competition it is, of course, beneficial to be protected from this competition. They can then charge higher prices and generate larger profits. This comes at the cost of consumers who have to pay these higher prices. However, since the gains from protection are more concentrated and the costs diffuse and wide-spread it is much easier to organize the business-interest of sectors and thus lobby for protection than to organize the interest of consumers (see Grossman and Helpman, 1994, for an early analysis). Once installed protection is hard to roll back because it is fiercely defended by these lobbies.

For these reasons it is crucial to not fall for the siren call of protectionism but instead to defend the open rules-based order of international trade with all strength. The EU and Germany should always act as positive role models, resist temptations to restrict international trade and motivate others to do so as well, but even more so in times like these when protectionism appears more attractive than ever. The long-run costs that would follow are too severe.

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# THE ELUSIVE QUEST FOR TECHNOLOGICAL LEADERSHIP—WHAT REALLY MATTERS IN THE WORLD AFTER CORONA

Dirk Dohse and Julian Vehrke<sup>\*</sup>

## Summary

- The corona crisis has fueled the race for technological leadership and accelerated the digital transformation.
- Striving for technological leadership imposes a high social cost on the countries that advance the world technology frontier.
- For Germany, and for the EU as a whole, embeddedness in international research and production networks is crucial not only for innovation, but also to keep up its absorptive capacity that is needed to successfully apply knowledge created elsewhere.
- Better coordination among countries, at least at the European level, is needed when facing threats like pandemics in order to find collaborative solutions more efficiently.
- The European Commission's focus on human-centered Artificial Intelligence (AI) and its attempt to become the regulatory first mover in AI is to be welcomed.
- The creation of a Digital Single Market (DSM) is an important milestone in shaping the digital future, but more effort is needed to overcome fragmentation and to create better and larger space for digital enterprises to grow.

**Keywords:** corona crisis, technological sovereignty, technological leadership, international cooperation, innovation, regulation, digital single market

## 1 From trade war to tech war

Recent years have seen an increasing rivalry between the United States and China. Starting as a trade conflict motivated by the large US trade deficit with China, its focus has recently shifted to the issue of technology leadership. US technology is still dominating the digital world, but China is catching up.

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China's "Made in China 2025" industrial upgrading strategy and China's strive for leadership in artificial intelligence have alarmed US leaders and led to harsh reactions. The most prominent case in point is President Trump's campaign against Chinese tech giant Huawei, but one should remember that China has been banning most leading US Internet platforms for quite some time. The rest of the world is watching from the sideline. Russian President Putin described the US campaign against Chinese technology as "the first technological war of the coming digital era," and the European Commission seems increasingly uncomfortable with its spectator's role and has made "technological sovereignty" and "cyber sovereignty" a key priority on its political agenda.

The corona crisis is giving this ongoing discussion new momentum. We discuss how much technological sovereignty<sup>1</sup> is reasonable, and why the quest for too much of it can be harmful. Some reflections on the role of the EU in the digital world after corona conclude the paper.

## 2 How the corona crisis fuels tech-nationalism

The corona crisis has fueled the race for tech supremacy between the US and China. Both sides have increased their R&D efforts as they want to be the first to develop a COVID-19 vaccine, and they do not seem to be picky about their means.<sup>2</sup> Furthermore, the corona crisis has revealed the vulnerability of countries that depend on imports of ventilators, facial masks, life-saving drugs and other medical devices. The experience that crucial medical devices are unavailable when they are most needed has come as a shock and one has to consider the consequences. German Federal Minister of Health Jens Spahn has announced that Germany will have to reduce its dependence on Chinese drug imports to avoid similar bottlenecks in the future. A diversification of value chains as a form of risk diversification in such vital areas as the health sector definitely makes sense. However, other commentators want more and claim that a far-reaching national independence in all technological areas of strategic importance is necessary. In other words: The voices calling for tech-nationalism become louder.

Moreover, the corona crisis has accelerated the digital transformation and stressed the strategic importance and economic value of digital technologies. Many firms have adjusted their business and work practices at short notice. They use the available internet infrastructure to stay in contact and exchange information with their employees working from "home office." Even though people cannot meet physically, virtual team meetings take place on a scale never seen before and cloud solutions are rapidly on the rise. As Microsoft's CEO Satya Nadella put it straightforwardly (Microsoft, 2020): "We've seen two years' worth of digital transformation in two months." At the forefront of those tech companies that seem to be benefiting most from the corona crisis are the usual suspects Apple, Google, Facebook and the aforementioned Microsoft as well as some newcomers and niche providers like Zoom and Slack Technologies. These firms have substantially increased their market value, while

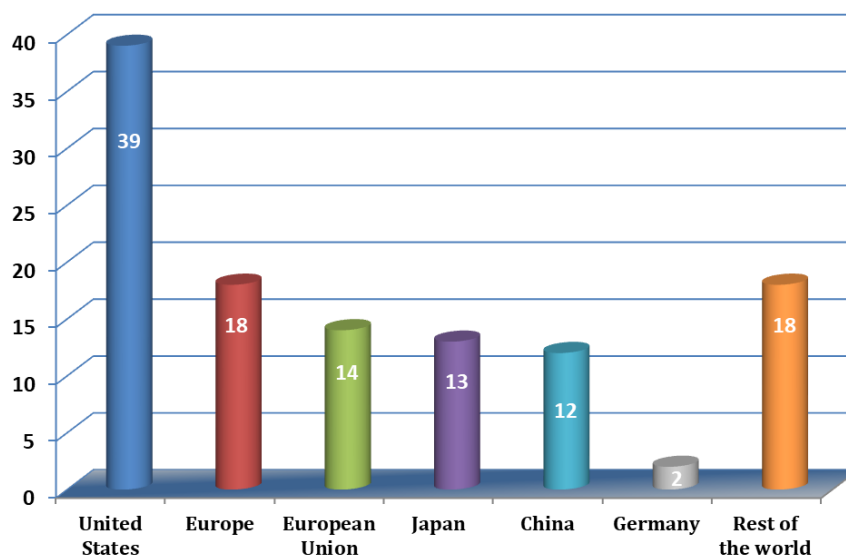
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<sup>1</sup> Technological sovereignty as the President of the European Commission understands it means that in the digital transformation we are witnessing Europe must be able "... to make its own choices, based on its own values, respecting its own rules." (Interview with Ursula von der Leyen in Irish Examiner, 2020). Others go further and use technological sovereignty as a synonym for technological independence from other countries or for technological leadership. Our own assessment of how much sovereignty is reasonable is developed in Section 4 of this article.

<sup>2</sup> As German newspaper Die Welt reported, US President Trump has offered the Tübingen-based biopharmaceutical company CureVac "large sums of money" to gain exclusive access to their work. Firm representatives have denied that there was a concrete offer.

the stock market value of traditional firms has decreased rapidly in most cases. Among the digital “superstar firms” benefiting most from the crisis are only few European firms, which is a matter of concern for European policymakers. This apparent weakness is, however, only a reflection of the minor role that Europe plays in today’s digital world. This can be seen from Figure 1, showing the distribution of Forbes Digital 100 Firms by country.

**Figure 1:**  
Number of companies in the Digital Forbes 100 list by country



**Source:** Forbes (2019); own illustration.

While the United States have 39 companies inside the top 100, Germany only has two. While there are 18 companies from Europe, this number drops to 14 when the United Kingdom and Switzerland are excluded. Moreover, apart from Deutsche Telekom (ranked number 19) there are no European firms among the top 20 digital companies at all. Thus, it is quite obvious that “digital Europe” has a problem.<sup>3</sup> Calling for more tech-nationalism is, however, not the answer, as will be detailed in the next Section.

### 3 Why tech-nationalism is harmful

Research and innovation are complex processes that require a high degree of specialization and cooperation in international teams. International cooperation has become a strategic priority to access the latest knowledge and the best talents worldwide. Embeddedness in international research and innovation networks and access to external knowledge are thus crucial for innovativeness and long-run competitiveness (Dohse, 2020). This can also be seen in the current crisis. Embeddedness in

<sup>3</sup> One may argue, however, that this partly reflects Europe’s comparative advantage with respect to data privacy and data security, whereas Europe is less involved in developing new applications that require access to and processing of information. This is especially true for pharmaceutical-technology for which a lot of the necessary testing and programming is done abroad due to data security and cost reasons.

international networks allows firms and research institutes in search for treatments and vaccines for COVID-19 to share new information quickly and to make use of scale economies. This leads to a more efficient search and increases the probability of successful advancements in a given time. Turning away from international cooperation might be particularly harmful for the German pharmaceutical industry—not only because a lot of the testing happens abroad, but also because Germany is the largest exporter of medical and pharmaceutical goods among EU member states (Eurostat, 2020).

Tech-nationalism and the quest for far-reaching technological independence have to be seen very critical against this background. Germany—and even the European Union as a whole—is too small to become a leader in all fields of technology that might become strategically important in the longer run. Recent research has shown that striving for technological leadership imposes a high social cost on the countries that advance the world technology frontier (Acemoglu et al., 2017). For countries like Germany and the EU this means that they should contribute a fair share—in relation to their GDP—to the advancement of global research and technology, but not necessarily more than that. Instead of striving for technological independence across the board they should provide strong basic research and excellent research universities, stay open for international research cooperation and keep up the absorptive capacity that is necessary to successfully apply knowledge created elsewhere. Innovative small and medium-sized firms (SMEs) are facing high costs in early stages of product development. It is essential for German firms to collaborate with European/international partners. Through collaboration they will be able to pool resources and become more visible internationally, since these firms are simply not able to reach sufficient critical mass on their own. This helps to attract international risk capital and provide firms with the financing they need to advance applied research.

In the current crisis a nationalist approach won't be helpful either. To find a treatment and, in the longer run, a vaccine against the coronavirus we need a global effort—in fact a combination of competition and cooperation—to mobilize and effectively use all available resources. This is especially true for small countries and economies dominated by small and medium-sized enterprises. However, the crisis shows that even the technologically most advanced country in the world, the United States, depends on international cooperation and inputs from abroad (e.g., machine parts for ventilators from China) to support an adequate emergency care" (Mulder, 2020: 4). Quite obviously calling for more tech-nationalism doesn't solve problems that are international in nature. While some stockage of critical medical supplies and a diversification of supply chains in these areas make sense, more international cooperation might be what is needed overall. The benefits of the international division of labor do not suddenly disappear in times of crisis. European and international production networks can produce necessary equipment more efficiently than a single country on its own. What is necessary, however, is a better coordination of activities (at least among European countries), a plan to distribute the most essential products effectively and more solidarity across countries, as global threats like the corona pandemic do not stop at national borders.

## 4 How much sovereignty is needed?

The corona crisis is likely to give the quest for technological sovereignty—which is a key policy priority of the new president of the EU Commission Ursula von der Leyen—new momentum. But how much sovereignty is reasonable and when does the quest for more sovereignty become harmful?

Clearly, the digital revolution which is accelerated by the corona crisis is much more than just an economic transformation. It fundamentally changes our daily lives, affects civil rights and the ability to

participate in economic and social life. The digital future is not predetermined but needs to be shaped by society. Currently, there are three different models emerging: The Silicon Valley model, the Chinese model and the European model. While the Silicon Valley model is purely business driven and the Chinese model is a model of authoritarian state control, the European approach is different. “The EU is based on a set of values and rights that are fundamental to the integrity of our model and way of life” (EU Commission, 2020). There is nothing wrong about that. While the Silicon Valley model has failed to protect individual privacy, Europe has set international standards by instituting its strict online General Data Protection Regulation law. This is highly relevant in the corona crisis as tracing apps are developed around the globe and questions concerning data security are gaining in importance. The Commission’s focus on human-centered Artificial Intelligence (AI) and its attempt to become the regulatory first mover in AI might prove beneficial to the world and to the European economy—which is strong in advanced manufacturing and in research on industrial applications of AI—if it is not too narrow-minded and attractive for other major players like the US as well. It’s definitely better to be a rule maker (rather than a rule taker) and to influence market developments that way.

Another key point in the cyber sovereignty discussion is the question whether the storage of sensitive data (e.g., citizens’ tax or health data) needs to be localized in the EU. The answer is not trivial. US trade representatives criticize that European data storage laws amounted to protectionism and do harm to American cloud computing providers. European politicians and civil rights activists argue that localized data storage is essential to protecting personal data from abuse and unauthorized access. If data are stored outside the EU it can’t be ruled out that the foreign state will gain access to the data by requirement of its domestic law. The US CLOUD Act (short for “Clarifying Lawful Overseas Use of Data Act”) passed by the Trump administration in March 2018 seems to confirm such concerns, as it compels US-based technology companies to provide requested data to US government agencies even if the data are stored outside the US and even if the transfer of the data violates local (for instance, European) law.<sup>4</sup>

While security concerns are valid and have to be taken seriously, the EU should not try to exploit the technological sovereignty argument for industrial policy purposes. As argued in Section 3, keeping foreign suppliers out and growing national or European champions by subsidization are no valid policy options. Governments are notoriously bad at “picking winners” and—what is perhaps even more important—markets appear to be much better than politicians at terminating unsuccessful projects” (Seabright, 2005: 52). Such a policy will mostly help traditional companies just as they’re facing increased competition from startup digital rivals. It prevents or at least slows down structural change and, in the longer run, does more harm than good to European competitiveness. Just as could be seen in the quickly escalating trade war between China and the US, unilateral measures to shield domestic firms from international competition can be harmful. If, in its quest for technological sovereignty, the EU tries to implement unilateral measures to protect European firms from international competition and from subjectively perceived unfair practices, trade partners could retaliate. The countries involved will try to outbid one another in shielding their firms from foreign competition which ultimately leads to plummeting global welfare. Instead of restricting competition we need to strengthen competition. European antitrust policy is a success story as recent economic analyses (e.g., Gutiérrez and Philippon, 2018) show, and it should be further developed and consistently applied to the regulation of digital platform monopolies.

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<sup>4</sup> China has passed similar legislation, the Chinese Cyber Security Law, in 2017 already. The law requires network operators of Chinese firms and of affiliates of foreign firms located in China to cooperate with Chinese authorities and to allow them full access to data and unspecified “technical support” upon request (Wagner, 2017).

## 5 Shaping Europe's digital future

The corona crisis is giving the digitalization of the economy and of society a strong push, and the European Union should take the opportunity to actively shape the digital future. Europe has valuable assets, including a strong research and innovation landscape, its long democratic tradition and good institutions, a diverse and well-educated population, a strong and competitive manufacturing sector and, last but not least, its large internal market. The EU should use its power to set global standards for emerging technologies like AI, to develop appropriate regulations on Data Protection and ePrivacy, and to ensure strong EU antitrust laws and their enforcement to restrict the monopolistic power of digital platform providers by, for instance, enforcing mandatory platform-interoperability.

At the same time, the EU needs to improve the framework conditions for digital entrepreneurship and for the growth of technology-based enterprises. As a recent report of the European Investment Bank shows, European firms lag behind American firms in adopting digital technologies. Only 66% of manufacturing firms in the EU report having adopted at least one digital technology, compared to 78% in the US. The difference in adoption rates between EU and US firms is 13 percentage points in services and 11 percentage points in the infrastructure sector.<sup>5</sup> Thus, it is crucial that the European Union provides better innovation and growth opportunities for start-up firms in the digital economy. The creation of a Digital Single Market (DSM) is an important milestone in this context. The DSM is essentially about removing national barriers to transactions that take place online, and it encompasses a wide range of measures from the digitization of European society at large to the facilitation of cross-border E-commerce. However, the DSM in its current state remains an aspiration rather than a reality (Erixson and Lamprecht, 2018), and much more effort is needed to overcome fragmentation and to create better and larger space for the digital economy to grow. Regulatory fragmentation within Europe is also a major problem in other high tech areas such as biotechnology and the life sciences in general. Overcoming the still existing fragmentation of the single market is a key condition for the fast growth and scale-up of “homegrown” European enterprises that allows them to compete with their American or Chinese counterparts.

Restoring and further deepening the Single Market is vital, but it is not enough. To stay at the technology frontier and to enable young technology-based enterprises to scale-up their activities, the EU needs to stay open. European firms and researchers need to be integrated in global value chains and international innovation networks to fully reap the benefits of international cooperation. As global protectionism and tech-nationalism are on the rise, regulatory cooperation with other likeminded regions is necessary to lower barriers for trade and research cooperation. The EU should work with the OECD and WTO to tackle barriers impacting these areas, and it should seek cooperation with the US in the regulation of emerging technologies like AI. There might also be a role for more modern free trade agreements which can sensibly tackle areas concerning data clauses or IP standards and can even address specific industries, like the pharmaceutical sector. Countries should take away from the COVID-19 pandemic that reducing the aforementioned obstacles to trade and research cooperation can help all parties involved to better prepare for future crises. This can reduce reaction as well as coordination time leading to more efficient, collaborative responses.

As new technologies evolve, we need to ensure flexible and adaptive regulation that leaves room for experimentation and fosters entrepreneurship. A modern and efficient digital infrastructure is the

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<sup>5</sup> However, Germany is ahead of the US in adoption rates of robotics in manufacturing (EIB, 2020). In addition, Germany has the fifth highest number of new robot installations in 2018 (Perrault et al., 2019). This has the potential to become a major advantage in the postcorona future.



basis of the digital transformation. As demands for reliable and fast connections increase, policy should encourage investment in high quality and affordable infrastructure for all citizens and firms (OECD, 2019).

Finally, Europe needs large-scale investment in its human capital. This begins with basic digital education at early curricular levels, continues with STEM qualifications at secondary school, and eventually implies facilitating lifelong learning through and with digital technologies. The experience with online-tools to organize business and with online-teaching devices during lockdown may help to mitigate reservations against using online media in general, and against online education in particular. Moreover, we need excellent tertiary education and an education system that gives sufficient latitude for the development of noncognitive skills. The best strategy to reach technological sovereignty and to shape Europe's digital future is to fully develop the innovative and creative potential of the European population.

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# CHINA'S OVERSEAS LENDING AND THE LOOMING DEVELOPING COUNTRY DEBT CRISIS

Sebastian Horn, Carmen M. Reinhart, and Christoph Trebesch<sup>\*</sup>

## Summary

- The COVID-19 pandemic is wreaking havoc on the global economy but its most severe consequences are likely to be felt in the developing world. Deep recession, depressed commodity prices, collapsing cross-border trade, and a flight to safety in financial markets has set the stage for debt servicing problems in dozens of countries, including many that are heavily indebted to China.
- We show that developing countries owe much higher debts to China than previously known, based on a new dataset on 5000 Chinese grants and loans. China is the largest official lender worldwide and the largest single external creditor to about 30 countries. In many countries, the “hidden debts” to China and the general lack of transparency on Chinese lending are a challenge for policy surveillance, risk pricing, and debt sustainability.
- Our main policy recommendation is an encompassing debt standstill, meaning a moratorium on external public debt payments of developing countries, involving both private and official creditors. Any effort to provide such debt relief must encompass the debts owed to China. Indeed, it must be warranted that debt relief granted by multilaterals and other creditors is channeled to confront the COVID-19 pandemic and not to repay preexisting debts to China.

**Keywords:** China, Belt and Road Initiative, sovereign risk, debt relief

## 1 Introduction

While China's dominant role in global trade is well-understood (see, e.g., Autor et al. 2016), its growing influence in international finance has remained relatively obscure, mostly due to lack of transparency and data.<sup>1</sup>

The chronic problem of lack of transparency has assumed a more urgent role since the COVID-19 pandemic has all but paralyzed the global economy. Many developing countries now face deep financial strain and have approached the IMF for emergency lending in record numbers. In mid-April,

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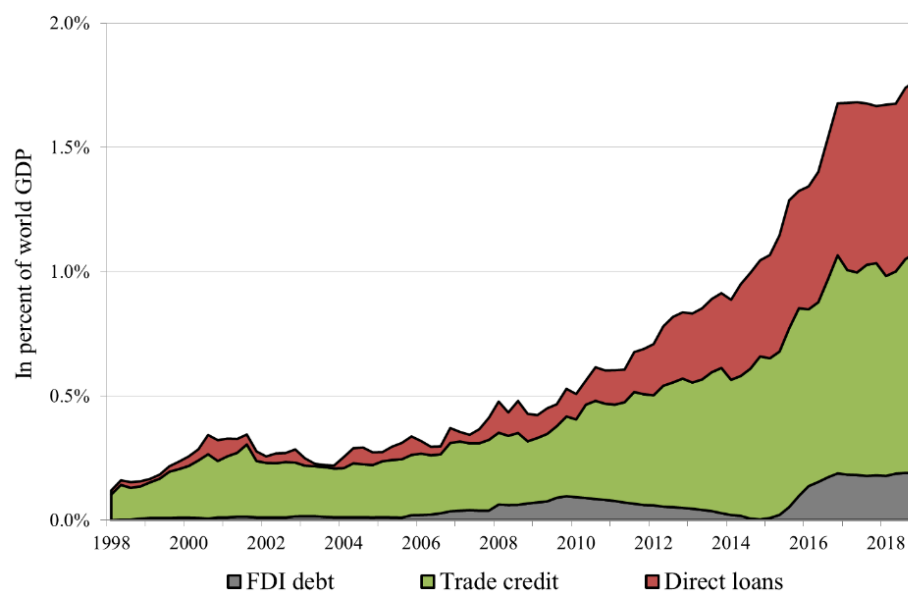
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<sup>1</sup> An earlier version of this piece appeared on [voxeu.org](https://voxeu.org) (2020).

the G-20 agreed to a temporary debt moratorium on bilateral (government to government) debt, calling on private investors to follow suit. However, there is considerable uncertainty about the magnitude, timing, and modalities of China's intended debt relief, as China remains reluctant to join the Paris Club of official creditors.

Figure 1 illustrates China's overseas lending boom using official balance of payments data. Outstanding debt claims from direct loans and trade advances alone have risen from almost zero in 2000 to more than 1.5% of global GDP in 2019. This surge in lending has financed many projects in infrastructure, mining, and energy, but we know little beyond those aggregate numbers.

**Figure 1:**  
**China's overseas lending boom**



**Source:** Horn et al. (2019); People's Bank of China (2020); IMF (2018); own illustration.

## 2 China's opaque lending

China's lending is opaque for several reasons. (i) The Chinese government has not published a breakdown of its overseas lending activity; (ii) China is not a member of the Paris Club or the OECD's Creditor Reporting System that share data on bilateral lending and trade credit flows; (iii) Commercial data providers and credit rating agencies focus on private bank lending and bond offerings.

It does not help transparency that many Chinese loans go to state-owned enterprises and special purpose vehicles whose debts are often not properly reported. According to the IMF, fewer than one in ten low-income countries report debts of public corporations that are outside the general government. As a result, the debtor countries themselves may have an incomplete picture on how much they have borrowed from China and under which conditions.

In Horn (2019), we address these data shortcomings and construct a database of Chinese loans with corresponding debt service and debt stock estimates by country and year. Our "consensus dataset" is granular and was gathered from an extensive list of sources, including international treaties, debt contracts, policy reports, as well as the work of academics such as the AidData team at William and

Mary (Dreher et al., 2017). We collated details on 5,000 loans and grants extended by the Chinese government and state-owned creditor agencies since 1949, to more than 150 countries worldwide, with total commitment amounts of USD520 billion.

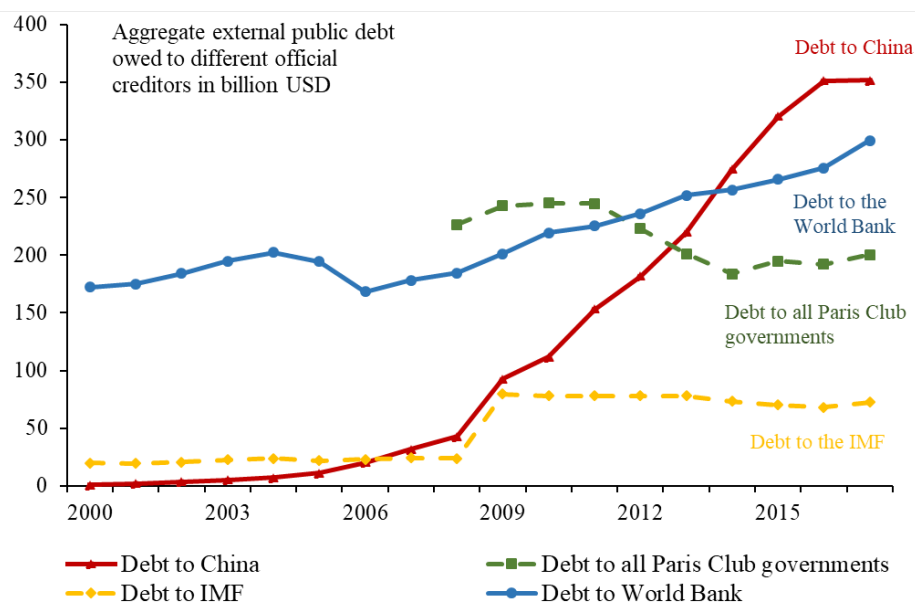
### 3 Three features of Chinese lending to developing countries

First, almost all of China's overseas lending is official, in the sense that it is extended by the Chinese government and various state-owned entities. This makes China the world's largest official creditor, with outstanding claims in 2017 surpassing the loan books of the IMF, those of the World Bank, or those of all 22 Paris Club governments (see Figure 2).

Second, the data show that China tends to lend at commercial terms, meaning that the average interest rates on China's claims is close to those in private capital markets. Other official entities, such as the World Bank, typically lend at concessional or zero interest rates, and longer maturities. In addition, many Chinese loans are backed by collateral, meaning that debt repayments are secured by revenues, such as those coming from commodity exports.

Third, debt to China has been accumulating at a very rapid pace in some countries. For the 50 most exposed countries, we estimate that the average debt owed to China has increased from less than 1% of debtor country GDP in 2005 to more than 15% in 2017. A dozen of these countries now owe debt of at least 20% of their nominal GDP to China.

**Figure 2:**  
**China is the largest official creditor to developing countries**



**Source:** This figure shows aggregate public debt to different official creditors for all 122 developing and emerging market countries contained in the World Bank International Debt Statistics (excluding China); debt to China is estimated by Horn et al. (2019); debt to all 22 Paris Club governments is taken from the Paris Club Website (available since 2008), Paris Club (2020); debt to the IMF and the World Bank Group (IBRD plus IDA) is from The World Bank (2020); own illustration.

## 4 From hidden loans to hidden debt restructuring

Another of our key findings is that China has extended many more loans to developing countries than the official debt statistics suggest. We compare our database to an extract of the World Bank's Debtor Reporting System, which is the basis of the most widely used debt databases published by the World Bank and the IMF. Specifically, we identify Chinese commitments to developing country public sector recipients that have not been reported to the World Bank.

We find that about 50% of China's lending to developing countries goes unreported, meaning that these loans and the corresponding debt stocks do not appear in the "gold standard" data sources. As of 2016, the unreported lending from China has grown to around USD200billion. While unreported loans are low for the median country, they create sizeable discrepancies to official debt statistics in at least two dozen developing countries.

The "hidden debts" to China can distort the views of the official and private sector in several ways. Official surveillance work is hampered when parts of a country's debt are not known. As noted earlier, in the context of emergency debt relief efforts, assessing repayment burdens and financial risks requires detailed knowledge on all outstanding debt instruments.

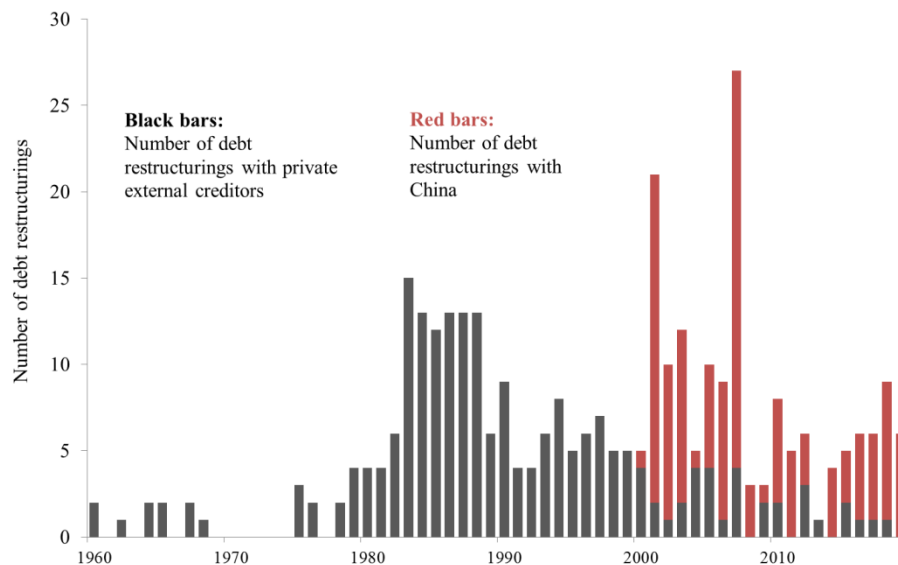
The private sector will likely misprice debt contracts if it fails to grasp the true scope of debts that a government owes. This problem is aggravated by the fact that many Chinese official loans have collateral clauses, so that China may be treated preferentially in case of repayment problems. The upshot is that private creditors may be underestimating the risk of default on their claims—including during the unfolding pandemic crisis.

Apart from the debt database, our paper also documents the substantial number of credit events/debt restructuring of Chinese loans, which have not appeared in the reports of international credit rating agencies. Since 2011, two dozen developing countries have already restructured their debt to China (see Figure 3). While the documentation is also scanty and opaque, China's approach to debt restructuring has been dominated by debt maturity extensions with outright debt cancellations being limited to the (very few) zero interest loans.

## 5 Echoes from an earlier boom-bust: The 1970s–1980s cycle

China's overseas lending boom shares many characteristics with some earlier lending booms, most notably with the 1970s episode in which Western Banks lent record amounts to developing countries. Like China's counterparts of the past 20 years, the borrowers of the 1970s were developing and resource-rich countries, many of which had not been able to access international capital markets for decades. Then and now, the purpose of lending were investments in infrastructure, resource extracting industries, or to finance other potentially growth-enhancing projects. Moreover, the bulk of the lending of the 1970s was in US Dollars, maturities were rather short, and interest rates implied risk premia, very much in line with the terms of most of China's lending. Moreover, much of the bank syndicated lending was not picked up by official statistics and transparency was a major issue.

**Figure 3:**  
Restructurings and debt write-offs—Chinese overseas loans vs. private external debt



**Source:** Cruces and Trebesch (2013); Dreher et al. (2017); Hurley et al. (2018); Kratz et al. (2019); Meyer et al. (2019); own calculations and illustration.

The boom ended in a wave of sovereign defaults in the early 1980s, after commodity prices began their collapse in late 1979, and new lending dried up. Most of these defaults were resolved only after protracted negotiation, resulting in a “lost decade” for dozens of countries. The wave of defaults of the 1930s followed a similar grim boom-bust pattern.

China’s overseas lending has started to slow recently, in tandem with their domestic economic slowdown and the decline in global commodity prices. Compared to the onset of the Global Financial Crisis during 2008–2009, for example, initial conditions and debt and growth fundamentals were weaker for China and emerging markets by end 2019, even before the emergence of the pandemic.

## 6 Risks ahead

The COVID-19 crisis has fueled a synchronous global recession, a crash in commodity prices (alongside a historic collapse in oil prices), and a reversal of capital flows to developing countries. These reversals have unfolded at a speed and on a scale that recalls the antecedents of the very worst earlier debt crises.

The historic contraction in China’s GDP in the first quarter of 2020 is in line with the “sudden stop” and capital outflows recorded for developing countries in March and April. As international lending (including Chinese) continues to dry up, many governments will face severe problems in rolling over their existing debts and finding alternative sources of financing. The number of sovereign credit rating downgrades has already skyrocketed in 2020 with new ones posted on almost a daily basis. New defaults and restructurings usually follow. Dealing with the precarious debt situation in so many developing countries simultaneously is at the forefront of global policy initiatives.

In light of the challenges ahead, our main policy recommendation is an encompassing debt standstill, meaning a moratorium on external public debt payments of developing countries, involving both private and official creditors (for further details and recommendations see also Reinhart and Rogoff (2020), and Bolton et al. (2020).

Any effort to provide such debt relief to vulnerable countries must encompass the debts owed to China. To date, China has restructured its debt in a piecemeal approach (case by case, involving only the debtor government) while the Paris Club governments, the World Bank, the IMF, and private investors have taken part in coordinated and comparatively well-documented debt relief initiatives. This time, China should be part of a coordinated relief initiative. Furthermore, the need for transparency is at a premium, as governments and private creditors demand assurance that the debt relief is channeled to confront the COVID-19 pandemic and not to repay pre-existing debts to China.

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# THE COLLAPSE OF CAPITAL FLOWS TO EMERGING MARKETS: WHAT ARE THE CONSEQUENCES?

Philipp Nickol and Lucie Stoppok\*

## Summary

- In the wake of the COVID-19 crisis, international capital flows to emerging markets saw an abrupt decline, or “sudden stop.” Historical episodes of similar “sudden stops” of capital flows were followed by deep recessions, financial instability, and sovereign defaults in emerging markets.
- Compared to earlier crises, however, the current collapse in capital flows is more severe in both size and speed. Emerging markets saw cumulative outflows by foreign investors of almost USD100 billion over the course of three months. This constitutes a historically unprecedented “flight to safety.”
- The consequences of the ongoing collapse in capital flows are likely to be severe. Many emerging markets are currently entering a period of severe economic and financial turmoil. As emerging markets now account for a much larger share of global GDP compared to the 1990s or early 2000s and have become important trading partners for Europe and Germany, this will have important consequences for the global economy.
- To address the mounting crisis, debt relief and large-scale financial assistance are warranted. Initial measures taken by the G20, such as the suspension of repayments on official debt, go into the right direction.

**Keywords:** capital flows, sudden stops, COVID-19

## 1 The collapse of capital flows during the COVID-19 crisis

The arrival of COVID-19 in the majority of advanced economies during the first quarter of 2020 resulted in very high investor uncertainty, a stock market collapse, and a flight to safety. The CBOE Volatility Index (VIX), a measure for stock market volatility and global risk aversion, is one of the main commoving factors of international capital flows (see, e.g., Broner et al., 2013). On March 16, the VIX stood at 82.69, its highest level since the Global Financial Crisis of 2008 (CBOE, 2020). Consequently, emerging market economies<sup>1</sup> saw an unprecedented collapse of capital flows, which the Institute of

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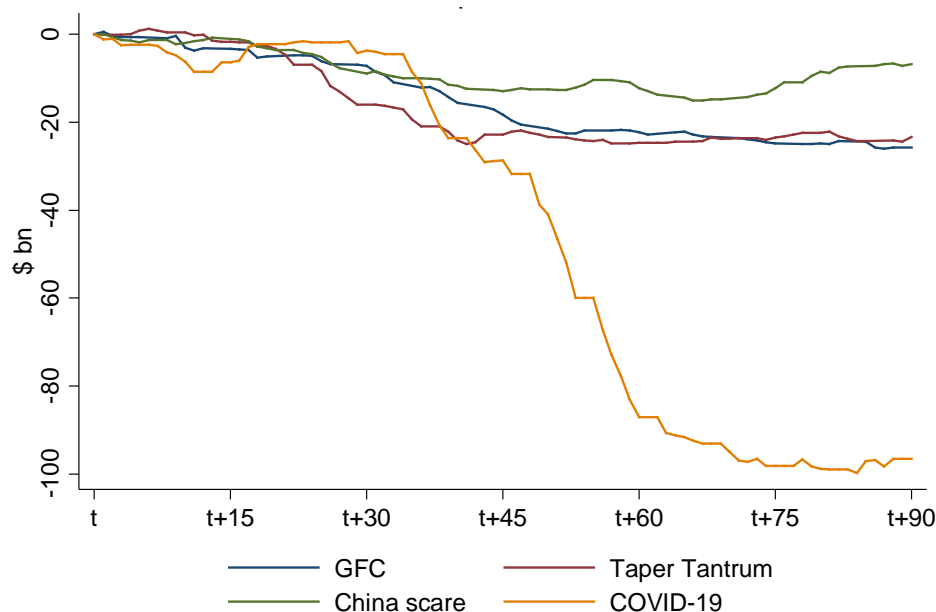
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<sup>1</sup> Our definition of emerging market economies includes developing and low income countries.



International Finance (IIF) quantified at USD83.3 billion of portfolio outflows at the end of March, which further increased to USD96.5 billion by the end of April. This collapse, as depicted in Figure 1 below, surpassed the scale of all previous outflow episodes in recent history by a factor of almost three, indicating a sudden stop (IIF, 2020). On top of all this, most emerging market economies are currently excluded from international capital markets: Primary market issuances almost came to a halt in March, while only middle income countries such as Paraguay or Mexico were able to place a limited number of new bonds on international capital markets in April (Thomson Reuters Eikon, 2020).<sup>2</sup>

**Figure 1:**  
Cumulative nonresident portfolio flows to EMEs in USDbn  
(daily total)



<sup>a</sup>The figure shows the accumulated nonresident portfolio flows to EMEs in USDbn over the period of 90 days. The following start dates have been used: GFC: 8 Sep 2008. Taper Tantrum: 17 May 2013. China scare: 26 July 2015. COVID-19: 21 January 2020.

**Source:** IIF (2020); own illustration.

Although a big portion of new bond issuances by emerging market economies has been shifted to local currency bond markets in recent years with the goal of keeping currency mismatches low, borrowing through domestic currency bonds has provided a false sense of safety, as their domestic currency bonds are primarily held by foreign investors. These investors have already started to leave the market, which led to capital flight. Amplified by currency depreciations, the shift to local currency issuances—a key lesson from the crises emerging market economies suffered in the 1990s—is doing only little to shield these nations from the financial shock triggered by COVID-19 (Hofmann et al., 2020).

Emerging markets' importance in internationally linked supply chains, as foreign trade partners and in the global economy in general, has increased rapidly. Advanced economies' trade with emerging markets comprised 36% of global trade flows in 2018 (UNCTAD, 2019), with 24% of the EU's and 30% of Germany's goods exports in 2019 going to emerging economies (IMF, 2020e). Overall, in 2019, emerging markets accounted for more than 50% of global GDP at purchasing power parity (IMF,

<sup>2</sup> The expected shortfall on long- and short-term external debt is expected to amount to USD735 billion (Bolton et al., 2020).

2020d). As a result, the recovery of the global economy will largely hinge on that of emerging market economies.

Government responses to COVID-19 have already been quite costly and will prove to be even more expensive in the long term. To mitigate the effects of the pandemic, the affected countries have resorted to a range of different measures. For example, Germany has increased its capacity of intensive care units, while the United States has initiated direct cash transfers to households. For some emerging market economies, such measures entail costs that constitute quite a significant share of their GDP, ranging between 0.7% and 3.0%, according to estimates from the IMF (2020c). Yet, infection rates across the majority of emerging market economies are still moderate relative to those in advanced economies, but have started to catch up in the last weeks (Worldometer, 2020).

Should the number of COVID-19 infections in emerging market economies not have peaked yet, the lack of capital inflows and the shutdown of international capital markets will not only complicate financing the response but also exacerbate the economic crisis. The situation is already bleak: The IMF revised its forecast from January's World Economic Outlook update (IMF, 2020d) and now expects emerging market economies' output growth to fall to -1% and for their export growth to decline by 9.6% in 2020. Further, more than 100 countries have already requested emergency funding from the IMF (IMF, 2020f).

## 2 Capital flow collapses and their consequences

### 2.1 Sudden stops in capital flows stall economic growth

The academic literature documents that countries affected by sudden stops in capital flows often see large drops in output (see, e.g., Hutchinson and Noy, 2006), and, in the aftermath, find themselves in a financial crisis (see, e.g., Joyce and Nabar, 2009, and Furceri et al., 2012). These consequences are found across a large number of studies covering varying country samples and different sudden stop episodes from the last 200 years. Acominotti and Eichengreen (2015) provide one of them. They are able to provide evidence for the determinants of sudden stops despite the fact that not all sudden stops are alike. Further, their analysis documents a link between financial centers' stock market volatility and the surge and reversal of capital flows during the interwar period—a situation comparable to the one in March 2020 when a high VIX was accompanied by a collapse in capital flows.

Estimates of output drops following sudden stops vary within a relatively wide range, depending on the type of capital flow measure and country group that is being assessed. For example, for emerging market economies experiencing a sudden stop in net capital flows, Calvo et al. (2006) estimate an output drop of around 10%. For both advanced and emerging market economies, however, a simultaneous sudden stop in inflows and a sudden surge in outflows may lead to an on average output drop between 1.5% and 3.5% (Cavallo et al., 2015). Generally, these output drops tend to aggravate if sudden stops are followed by financial crises, as estimates from the first wave of financial globalization between 1870 and 1913 suggest (Bordo et al., 2010). Lastly, slumps in employment have been identified as a result of sudden stops as well (see, e.g., Calvo and Reinhart, 2000; or Calvo, 2001). Of course, there is also a large body of academic literature dealing with region-specific (see, e.g., Guidotti et al., 2004) and country-specific consequences (see, e.g., Calvo and Reinhart, 1998; Calvo and Talvi, 2005; or Agosin et al., 2019) of sudden stops. In this article, however, we are more concerned with emerging market economies as a whole.

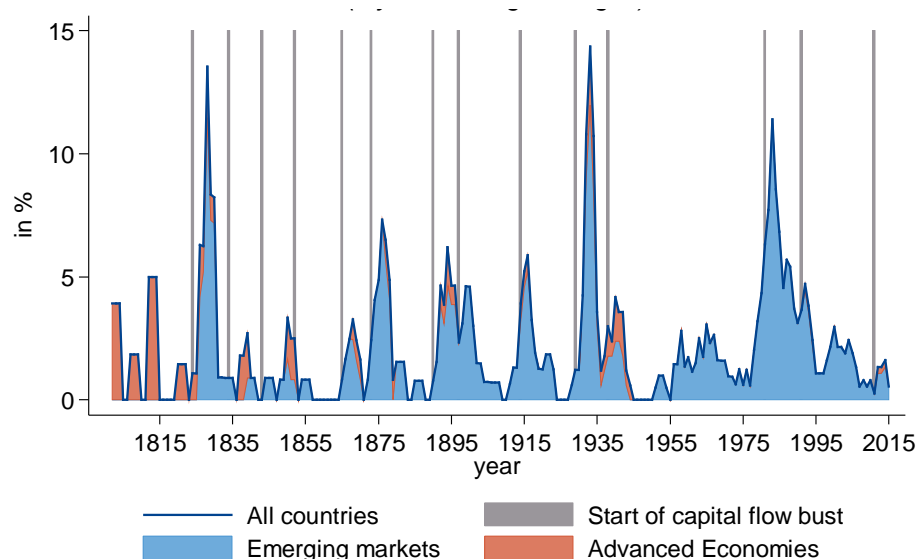
## 2.2 Capital flow busts are followed by sovereign defaults

Another finding from the literature is that capital flow reversals are often followed by an increase in sovereign defaults, as shown by Reinhart et al. (2016) in their extensive view of capital flow cycles over the last 200 years. They identify 14 capital flow bust episodes since 1800, lasting between four and eight years. They also uncover five “double-bust” periods, in which capital flow busts are accompanied by global commodity price drops. The current situation adds a sixth period of “double-busts” to this list.

We replicate Reinhart et al.’s (2016) analysis of the relationship between the onset of capital flow busts and sovereign defaults, and estimate a fractional response model with the sample share of sovereigns entering a default as the dependent variable and the onset of a capital flow bust, as well as five lags of the latter, as independent variables. Additionally, we divide their sample into advanced and emerging market economies, following the classification of the IMF (2020d).<sup>3</sup>

We find that the increase in the share of sovereigns entering a default following the onset of a capital flow bust is largely driven by emerging market economies. For the sample of emerging market economies, we find positive and significant effects of the onset of a collapse in capital flows and its five lags on the share of economies entering default. For the sample of advanced economies, the coefficients remain insignificant. This relationship is shown in Figure 2 below.

**Figure 2:**  
Share of countries entering a new default, 1800–2015  
(3 year moving average)



<sup>a</sup>The figure shows the three-year moving average of the share of independent countries entering a new default, distinguished by their classification as advanced or emerging market economies, after the start of capital flow busts, as dated by Reinhart et al. (2016). The threat of a new wave of sovereign defaults among emerging market economies is quite significant given the large collapse of capital flows in March 2020. The classification is based on the World Economic Outlook (IMF, 2020d). The number of independent advanced economies in the sample ranges between 12 and 23, the number of emerging market economies between 5 and 101, over the 200-year sample period.

**Source:** Reinhart et al. (2016); IMF (2020d); own calculations and illustration.

<sup>3</sup> We classify countries into advanced and emerging market economies based on their current development status. As a consequence, some countries that we classify as advanced economies today are not listed as emerging economies at the beginning of the 19th century. A shift in classification would increase the share of emerging market countries entering a default on the far left side of the figure.

## 2.3 International bailouts may help in response to COVID-19

As the empirical academic literature documents, some of the aforementioned adverse effects of capital flow busts may be counteracted by debt relief, which may well be efficient if sovereigns face debt overhang (Arslanalp and Henry, 2005) or if debt relief itself is substantially ample (Reinhart and Trebesch, 2016). Furthermore, Reinhart and Trebesch (2016) show that debt relief helped to increase economic growth and to improve credit ratings of advanced economies in the 1930s and that of emerging countries market economies of in the 1980s among cases for which the relief went beyond maturity extensions and interest rate reductions.

As of the end of April, the IMF, the World Bank and the G20 have set up responses with the goal of restoring liquidity in emerging market economies. The IMF currently has USD1 trillion in lending capacity to support member countries in need (IMF, 2020b). This will allow the IMF to meet the expected financing demand of its member countries of around USD100 billion, which have already been requested in part. Immediate debt relief and the extension of its duration have already been granted, amounting to USD14.5 billion in April 2020 alone (IMF, 2020a). The World Bank's economic program is working on providing up to USD160 billion over the next 15 months to countries in need (World Bank, 2020b), and the G20 agreed on suspending repayments on official debt from low income countries (Financial Times, 2020).

If history is any lesson, we can expect many more international bailouts to come. Horn et al. (2020) present a panorama on two centuries of international bailouts based on a database of official, government-to-government capital flows. They quantify the degree of international financial cooperation in times of economic and humanitarian crises. Their results indicate that international assistance can be in the giving countries' economic self-interest. In light of the ongoing pandemic, more official cross-border capital flows and rescue programs seem likely.

Additionally, economists and policymakers alike have put forward propositions for coping with the decline in capital flows. Harvard's Carmen Reinhart and Kenneth Rogoff have recommended a temporary and encompassing debt moratorium on external debt repayments for all sovereigns, except for those in the prime investment category, coordinated by the IMF and/or the World Bank (Project Syndicate, 2020). The descriptive evidence from above adds support to these growing calls for temporary but extensive debt relief.<sup>4</sup>

## 3 Summary and outlook

Since the onset of the COVID-19 pandemic, global capital flows to emerging markets have collapsed even more severely than during the global financial crisis. Emerging market economies have seen massive outflows, new bond issuances on international capital flows have almost come to a halt.

In addition, the slump in energy and metals commodity prices has put exports of commodity dependent countries under even more pressure, since energy and metals commodities have been hit the hardest by capital outflows. Oil, among other commodities associated with transportation, has seen one of the deepest falls in demand so far (World Bank, 2020a). Both on the export and the import side, shocks are on the doorstep. Thus, the severe commodity price drops and currency

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<sup>4</sup> It is important to note, however, that there is no one-size-fits-all measure when providing debt relief, as the outcome depends on a number of factors, such as country fundamentals. In the end, there is no guarantee that the benefits will always exceed the costs.

collapses we are currently witnessing in several countries further amplify the adverse effects of capital outflows.

To summarize, both the literature and historical evidence suggest that sudden stops in capital flows are bad news for emerging markets, especially when the capital flow reversal is as sharp as in March and April 2020. Consequently, we expect deep recessions in a large number of emerging market economies. Additionally, the current double bust in capital flows and commodity markets will likely increase developing countries' sovereign default risks for years to come. Since we are already witnessing countries like Argentina, Ecuador, Egypt or Lebanon entering default, a further worsening of growth prospects will likely trigger additional cases of new defaults (The Economist, 2020).

Without concerted policy action, we fear that a new wave of sovereign defaults in the developing world seems likely, possibly comparable to the "lost decade" of the 1980s. It is quite likely, however, that a coordinated debt relief initiative and international financial assistance by supranationals and advanced economies will alleviate some of the concerns that emerging market economies are currently facing. Initial measures taken by the G20, such as the suspension of repayments on official debt, go into the right direction; broadening these measures could help improve outlooks on growth and sovereigns default probabilities even further.

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# EMERGING FROM COVID-19: SCENARIOS FOR AFRICA

Kacana Sipangule Khadjavi, Tobias Stöhr, and Rainer Thiele \*

## Summary

- African countries have imposed harsh lockdowns to stop the spread of COVID-19.
- These lockdowns immediately worsen the livelihoods of poor urban households working in the informal sector, who are in urgent need of (temporary) social assistance.
- The expected downturn in industrialized and emerging economies will adversely affect African countries, e.g., via falling demand for commodities and lower revenue from tourism.
- Even though initial conditions vary considerably across the continent, most African countries are expected to experience a recession, and one projection suggests that 80 million more people could fall into extreme poverty which means a 23% increase.
- African governments can speed up the recovery from the crisis, e.g., by proceeding with the African Continental Free Trade Area (ACFTA) which might partially cushion against shortfalls from severed global trade links.
- International organizations and donor countries should step up support for African countries to help them curb the economic and social fallout of COVID-19.

**Keywords:** Africa, macro and micro impacts of COVID-19, policy responses

## 1 Incidence of COVID-19 in Africa

Since the reporting of the first case of COVID-19 in Africa in mid-February, the number of confirmed cases has risen steadily. By May 3, there were still only about 44 thousand confirmed cases across the continent (Johns Hopkins University, 2020). Yet, despite harsh lockdowns in many countries, the daily number of new confirmed cases was growing at an increasing clip. Algeria, Egypt, Morocco, and South Africa had the highest number of confirmed cases but given the lack of testing facilities in many countries, it is unclear whether the share of undiagnosed cases differs widely by country. Such figures are thus unlikely to be representative of the true situation. Keenly aware of the shortcomings of their health systems, many countries have closed their borders, introduced mandatory quarantine for incoming travelers, and imposed harsh lockdowns to stop the virus from taking a foothold.

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Using harsh measures to try and contain the virus and not entering the next phase of the pandemic seems reasonable given the patchy knowledge about vulnerabilities of populations that are not in optimal health and the lack of facilities to treat severe cases.<sup>1</sup> This worry about the overall health of the population may surprise given that, compared to European countries, the population in most African countries is on average much younger. While in the EU, a fifth of the population is over 65 years old (Eurostat, 2020), this share is only 3% in Sub-Saharan Africa (World Bank, 2020a). The average health status in Africa is however much worse, with many undiagnosed co-morbidities. This means that the young population may be much more vulnerable than their similarly aged peers in countries with better-developed health systems.

The effectiveness of harsh health-related responses to the virus remains unclear, so the direct mortality effect of COVID-19 across Africa is uncertain. If the spread can be contained, most African countries' relative remoteness from the main arteries of international travel will have bought them time to prevent the largely uncontained spread among the population that was experienced in parts of Europe and the United States. Economic contagion will however also hit those African countries that keep the health impact of COVID-19 at a minimum.

## 2 Short- and long-term impacts of COVID-19

### 2.1 Current economic situation

At the beginning of the year, Africa's real GDP growth was forecast to rise from 3.4% in 2019 to 3.9% in 2020. Despite some regional and country variation due to extreme weather events, rising debt levels, exchange rate fluctuations as well as risks associated with social unrest, the continent was generally viewed to follow a positive trajectory (AfDB, 2020). Likely, this projected growth will no longer be realized due to the spread of COVID-19 on the continent and the indirect effects of downturns in the rest of the world.

Behind continent-wide patterns lie enormous differences in economic and social conditions across countries, which are often underestimated by international observers. Botswana, for example, is well-governed, has a large middle class, and is among the financially best placed emerging economies with low debt and high international reserves. Adjusted for purchasing power its GDP per capita is similar to that of Serbia or Thailand. On the other side of the scale are fragile states like Somalia or South Sudan that completely lack a functioning central government. Low tax revenues combined with fiscal deficits are common on the continent, and an increasing number of African countries face unsustainable debt levels, partly caused by China's lending (Horn et al., 2019).

Concerning their overall economic activity, as captured by GDP, African countries are in general far more dependent on international financial flows than Asian and Latin American countries (OECD, 2018). The fragile states in Africa strongly depend on official development assistance (ODA); remittances sent by migrants working abroad and foreign direct investment (FDI) are however more important in absolute terms in many African countries. Consumer spending by remittance-receiving households fuels economic activity across the continent. In Senegal, for example, a country with a long history of emigration, remittances make up an estimated 10.5% of GDP. By contrast, in one of the

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<sup>1</sup> The number of seriously ill COVID-19 patients that can be treated is very low. The Economist (2020) reports a telling example: Uganda has fewer intensive care beds than ministers in the central government.

most important European countries of origin of migrants, Romania, this share is only 3% (World Bank, 2017). FDI by contrast typically benefits smaller shares of the population. Traditionally, it has focused strongly on extractive industries such as mining and oil, thus creating relatively few but high-skilled jobs. Several countries have relatively diversified FDI inflows, including into manufacturing, which in the past helped them catch up with other emerging countries in terms of productivity.

## 2.2 Short-term impacts

COVID-19's impact is expected to differ across the continent depending on each country's initial conditions, the measures taken as well as global transmission of economic shocks due to the integration into world markets. According to the most recent projections by the World Bank and the IMF, average growth in Africa will decline to -2.1 to -5.1 and -1.6, respectively (World Bank, 2020b; IMF, 2020). This would be the first continent-wide recession in 25 years, and due to population growth, it would imply even larger per-capita income losses, even though some African countries (e.g., Ethiopia; Rwanda) could still experience positive growth rates.

The main sources of negative short-term macroeconomic impacts are threefold: First, losses due to restrained mobility; second, losses due to lower trade and falling export prices; and third, the impact of capital outflows. This is exacerbated by exchange rate fluctuations in parts of the continent.

One of the first impacts that have already materialized is a reduction in tourism due to the imposition of travel restrictions across many countries. While the most visited destination countries are Egypt, Morocco, and Tunisia, the overall importance of tourism is greater still in several island nations. On the Seychelles, tourism accounted for 57.3% of total employment in 2014. But also much larger countries such as Namibia (19.2%) and Madagascar (16.5%) are extremely dependent on international travel (AfDB, 2015). For these countries, a reduction in international travel may have catastrophic consequences for individuals as well as for state coffers. In the short run, it is unlikely that the newly unemployed will find similarly stable and relatively well-paid employment.

The second area that was immediately affected by lockdowns and travel restrictions that were imposed abroad is income from migration. Under normal circumstances, where shocks affect only relatively small geographic areas, families with migrants are better diversified and thus more resilient than those without a migrant. The global scale of the COVID-19 crisis, however, means that both a family's migrant and those who have stayed behind have simultaneously lost large parts of their livelihoods. Remittance inflows have already begun to decline due to job losses and reduced working hours of family members that live in countries that have imposed lockdowns. The latest World Bank estimate is that due to the crisis remittances to less developed countries will decline by 19.7% and by 23.1% for Sub-Saharan Africa in 2020 (World Bank, 2020c).

As global demand for commodities slumps, exporters face reduced demand for their products and subsequent reductions in commodity prices. Countries such as Angola, Nigeria, Zambia, Gabon, Mauritania, Equatorial Guinea, and Congo are expected to fare worst since they are highly dependent on export revenue from commodities. Likewise, countries with stronger manufacturing industries such as Ethiopia (textiles), South Africa (automobile), and Kenya (agribusiness) will suffer losses as global value chains are impaired. The resulting effects will be especially severe wherever government revenues depend highly on export earnings because the global economic shock will then immediately create both private losses and restrict governments' fiscal capacity to react. In countries with more diversified income, the shock will be less harshly felt or at least take longer to take its full effect on revenues.

Adding to the pressure are financial outflows from African countries. In every large crisis, capital tends to leave countries that are perceived as riskier. In the first quarter of the year, emerging markets saw capital outflows into “safe havens” such as the United States on a massive scale. These outflows mean a strong increase in the supply of African currencies and falling prices. Falling remittances, if paid out in local currency, will also decrease demand for African currencies. This leads to depreciation of the currency in those countries that have floating or partially floating exchange rates against the Dollar or Euro. Central banks that maintain a fixed exchange rate or which stabilize their exchange rate through foreign currency interventions are struggling to keep the depreciating pressure at bay.

Falling exchange rates will affect all areas that are dependent on imports and capital inflows. This channel thus puts net importers of essential goods at risk. For example, in the face of already rising prices for protective equipment such as masks, this exchange rate devaluation reduced many countries’ ability to purchase these on the global market. Unlikely short-term beneficiaries of their colonial heritage are the countries in the West African and Central African CFA zones. These have exchange rates that are firmly tied to Euro. While highly unpopular for symbolic reasons and for restricting the ability of conducting independent monetary policy, the beneficial short-term effect of the exchange rate arrangement has been more stability ruling out large exchange rate depreciations.

At the microeconomic level, the lockdowns that tend to be as strict as in industrialized nations will have the immediate consequence of worsening livelihoods of urban households. Currently, a major part of the urban African population—roughly 70% on average—consists of self-employed workers in the informal economy who depend on regular market income and lack financial reserves beyond a few days. Social distancing and other measures to restrict daily interactions can have disastrous welfare implications in such a setting. They will be much worse than in industrialized countries because of the widespread absence of social safety nets that might cushion the welfare losses. Only a few African countries such as Rwanda have put transfer systems for these households in place.

With falling purchasing power, food security will be at risk. Food availability, by contrast, is not necessarily a major concern. Movement restrictions will somewhat reduce the ability for farmers to plant crops on time, causing a possible 2.6% to 7% decline in agricultural production (AU, 2020), and local transport of food will become more difficult. Yet, global markets for major staples such as rice and maize are well supplied, stocks are healthy, and most prices have remained relatively stable. The food price crisis of 2007–2008 shows, however, that policy concerns about food availability can easily turn into a serious price crisis. Back then, some countries imposed export restrictions that are estimated to have caused up to 50% of the 2007–2008 price hike. In the current crisis, countries such as Kazakhstan and Vietnam have again started suspending exports of staples.

Poverty is expected to rise markedly in both urban and rural areas. According to projections by the International Food Policy Research Institute (IFPRI, 2020), around 80 million more people would join the ranks of the extremely poor in Sub-Saharan Africa. The projected 23% increase in poverty will be the highest worldwide and occurs in the continent that has already the largest numbers of poor people. And even in rural areas, poverty would rise by 15%.

### **2.3 Long-term impacts**

As soon as the local lockdowns end, those working in the urban informal sector will probably recover fairly quickly as they provide goods and services that satisfy local demand. The level of food security will also rise with falling restrictions for personal movements and local transport. Some important

domestic parts of the economy will thus be quite resilient. Six external factors will however determine the long-term consequences.

First, a lot depends the extent to which the disease spreads in African countries and how policy-makers end up trading off between the health of the vulnerable and the need to allow income-generating activities that are not in line with social distancing.

Second, the depth and duration of global demand shortfalls matter. We currently expect industrialized economies to almost fully restart their industrial production during the summer of 2020. While many firms in industrialized countries will not survive despite state aid, demand for products that are not consumed in social settings can be expected to pick up again once consumers' uncertainty dissipates. State-funded economic stimulus packages in areas such as infrastructure will mean that demand for construction materials will not remain depressed for long. Smaller negative long-term impacts on major exporters of raw materials such as copper-dependent Zambia will be the result. Restarting the Chinese economy as the origin of much of the global demand for these materials will be key.

Third, international food value chains may take longer to be restored, in particular, if trade restrictions remain in place and international demand does not fully pick up over the next years.

Fourth, we expect the tourism income of African countries to remain depressed until 2022 and the effect will depend heavily on the ability to vaccinate both tourists and the population in destinations. Similarly, the future development of migration will depend on vaccination. Barring any xenophobic and nationalist policies in migrants' destination countries that exclude them from the labor market to put the native unemployed first, most migrants are likely to stay and keep jobs that survive the initial crisis. Remittances are then expected to recover more quickly than other financial flows.

Fifth, will international investment return once effective crisis responses are put in place? The deceleration of global economic activity will most likely reduce the number and magnitude of foreign investments on the continent. This may, in the long run, hamper productivity growth and thus the ability to absorb the young population into the workforce. But not all long-run consequences of the COVID-19 crisis that affect emerging markets will also impact Africa. Some reshoring of production in areas such as health equipment and pharmaceuticals can be expected as industrialized countries will create incentives to build more resilience to future crises. African economies are not strongly dependent on these sectors, so they will feel little effect. Depending on which intermediate production is reshored, the more industrialized African countries may however take a hit.

Sixth, the amount of official development assistance (ODA) that is granted to African countries is also expected to decline in the medium run because donors will face fiscal restrictions as they deal with the implications of COVID-19 in their own countries. This would be in line with the previous experience that donors tend to cut their aid budgets in the aftermath of recessions, most recently after the financial crisis in 2007–2008.

Losses in revenue could lead to serious balance of payment crises. Other sources of income will not be able to make up for lost government revenue and, at the same time, increasing public spending in health, income support and other economic stabilizers would be warranted. Public deficits are thus likely to rise. Falling exchange rates could increase costs for repaying already existing foreign currency loans, further increasing deficits. Since most countries do not have large foreign currency reserves, their scope of stabilizing exchange rates will be limited. Refinancing loans at higher interest rates will further increase debt service. Many African countries are thus at risk of new debt sustainability crises.

The fiscal burden of dealing with COVID-19 might also adversely affect government expenditures on important social services such as schooling and primary health care. Overall poverty trends in the medium term will depend very much on the extent to which economic growth resumes, which in turn is shaped by the macroeconomic factors described above. To all this will come the strain on the health system. In its wake, diseases such as malaria, tuberculosis, and HIV/AIDS that are prevalent in many countries and at least as deadly if untreated might lose priority.

### 3 Policy responses

Overcoming the economic challenges imposed by COVID-19 on African countries will be a daunting task that will require concerted efforts by African policymakers and the international community.

The most immediate task is to cushion the impacts of lockdowns on the poor through (temporary) social safety nets. Donors have to play a role in helping to fund these safety nets. Given the inability to afford sustained lockdowns, alternatives are needed. These would include water and sanitation investments and information campaigns on hygiene and social distancing. Experience from past epidemics such as Ebola and cholera is already put to good use in several countries. Cheap and effective responses include community mobilization for testing and contact tracing.

Since outbreaks of COVID-19 cannot be completely avoided, raising the ability of African governments to deal with the virus will constitute the second line of defense. The African Union (AU) supports research and development initiatives that are working on COVID-19 diagnostics and therapy, for example in a lab in Senegal that is developing cheap COVID-19 testing kit. Likewise, German development cooperation has begun to invest in improving the capacity of laboratories to perform diagnostic tests for COVID-19. Immediately making a vaccine or treatment available globally should be the focus in development and production. Planning the necessary supply chains to vaccinate and treat African citizens should commence immediately.

To mitigate the longer-term consequences of COVID-19, proceeding with the African Continental Free Trade Area (ACFTA) will be essential. By strengthening intra-African trade, ACFTA might partially cushion against shortfalls from severed global trade links. At the same time, it can make Africa economically more attractive. Food security also depends on functioning local and global food supply and distribution chains. The international community should lobby large agriculture producers to keep their export markets open to ensure a steady supply of food at stable prices.

Care should also be taken to sustain investments in education and health during the crisis. Experience from past natural disasters shows that in particular in rural areas children that are taken out of school during an emergency will not always be sent back to school after the event, with severe long-term consequences for their welfare (Chuang et al., 2018). In a similar vein, human suffering as well as long-term productivity losses may ensue if essential health interventions such as vaccinations are not carried out due to a re-orientation of health spending towards COVID-19.

At the beginning of May 2020, 21 countries across Sub-Saharan Africa had already taken emergency assistance from the IMF with zero or one percent interest rates and limited conditionality. It can be expected that over time more African countries will ask the IMF for support to help with balance of payments problems. However, these measures are only available for countries with sustainable debt levels or for countries that have in the recent past made progress towards debt sustainability. A total

of 25 countries across Africa that do not qualify already had to be granted immediate debt service relief. International organizations such as the IMF and Worldbank can help African countries to some extent but a major role will fall to the G20. The G20 have already decided a debt suspension starting on May 1, 2020, which is however only delaying repayments until January. Additional measures, such as a new round of debt relief from major donors will be required. For this, a broad coalition of the EU, China, other globally focused industrialized and emerging countries as well as international organizations is required.

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# COVID-19 IMPACT ON INTERNATIONAL MIGRATION: UPHEAVAL IN THE SHORT RUN, BUT FEW LASTING EFFECTS

Matthias Lücke\*

## Summary

- Border measures to prevent the spread of COVID-19 through international travel such as mandatory tests or quarantine requirements will have little effect on long-term migration, although they may discourage short-term travel for business or tourism.
- International coordination of strategies for infectious disease control and contact tracing across borders will render border measures redundant.
- When countries host irregular or undocumented immigrants, it is good public health policy to ensure that individuals can access health care and support, if they need to quarantine, without fear of being penalized for their (lack of) legal status.
- One lasting structural change due to the COVID-19 pandemic will likely be a discrete jump in the adoption of new information and communication technologies. However, digitization will leave many tasks that are now performed by immigrant workers in Europe unaffected. Demand for immigrant workers will therefore remain strong overall.
- Maintaining humane reception conditions for irregular immigrants and asylum seekers becomes more costly due to the COVID-19 pandemic. However, the right to apply for asylum exists independently of the pandemic. Fairer responsibility sharing for refugee protection becomes more urgent, both among EU member states and with non-EU countries.

**Keywords:** COVID-19, migration, travel restrictions, digitization, refugee protection, international coordination

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## 1 Introduction

In response to the spread of COVID-19, many countries have closed their borders to most international travelers. In some cases, such restrictions were stopgap measures while certain countries had lower infection rates than their neighbors. Over time, restrictions on international travel have come to complement wide-spread restrictions on travel within individual countries.

International travel restrictions are costly because they inhibit many cross-border transactions that involve movements of natural persons, including transport of goods (merchandise trade), tourism (an internationally traded service), business travel (a service industry and an input into international trade and capital movements), and international migration. While special rules already exist for transport operators to keep goods flowing across borders, many other international transactions are afflicted by travel restrictions.

This chapter focuses on the impact of likely future travel restrictions related to COVID-19 or other infectious diseases on international migration – both voluntary, especially labor, migration and forced migration by refugees seeking protection. Migration is often defined by individuals changing their country of residence for at least one year (IMF, 2009). In addition, this chapter considers forms of labor migration such as seasonal work of posted workers where migration spells are shorter but workers still depend on physically crossing borders to earn their livelihoods.

Travel restrictions affect not only those migrants who would currently want to travel to another country (but cannot) to study, take up a job or seek protection from war or persecution. Travel restrictions also affect migrants who already live abroad because many migrants maintain close personal and economic relations with relatives and friends in their countries of origin ('migrant transnationalism') and normally travel home often. Furthermore, many migrants struggle to integrate economically and socially into their host societies, especially when they are undocumented; they may therefore be hit particularly hard by COVID-19 related restrictions of all kinds.

This chapter starts by discussing what type of restrictions on international travel will likely persist in EU member states in the medium to long run and how these will affect migration (Section 2). Section 3 asks more broadly what structural change the COVID-19 pandemic will entail in high-income economies, especially in Europe, and how this will affect demand for immigrant workers in the long run. Section 4 turns to the separate issue of how ongoing restrictions affect forced migration and access to protection for refugees. Finally, Section 5 draws out some implications of our discussion for how infectious disease control and prevention can be fine-tuned to minimize disruption to international migration.

## 2 Border measures for infectious disease control will mostly affect short-term travel rather than migration

### 2.1 International travel

At present, international travel is subject to many restrictions that mirror travel restrictions within countries. The latter are expected to be gradually removed as restrictions related to the COVID-19 pandemic in general are eased. When this happens, the main rationale for any remaining border measures will be to ensure that arriving travelers pose no greater risk of spreading COVID-19 than a



country's residents.<sup>1</sup> Border measures come in many forms that vary greatly in their restrictiveness, including outright travel prohibitions; travel authorized only for certain purposes; quarantine requirements for arriving travelers; requirements for certification of noninfectious status; on-the-spot medical checks; or registration requirements to facilitate subsequent contact tracing if needed.

Ideally, a country may admit foreign residents without any restrictions if disease control and prevention in the partner country are equivalently strict; infection rates are similar; and relevant information about infected individuals is transmitted smoothly to permit cross-border contact tracing.<sup>2</sup> Within the EU, some countries that hope to attract foreign tourists in the summer of 2020 already proposed bilateral agreements to this effect in late April 2020. In the absence of such agreements, countries need to implement border measures unilaterally to ensure that if infected individuals arrive at the border, they are (to the extent possible) identified and receive appropriate care. Exactly what border measures satisfy the requirements of infectious disease control and prevention policies while being minimally invasive will depend on the emerging knowledge about the nature of the virus and how it spreads.

While bilateral agreements may allow some country pairs to restore unrestricted travel, especially within the EU, the resumption of many other bilateral travel corridors will likely involve some border measures to ensure that incoming travelers do not constitute an excess risk of spreading the virus. Border measures are inherently costly to implement for authorities and to comply with for travelers, both in strictly monetary terms and in terms of the time lost when crossing borders. Other than for very frequent travelers (transport operators, commuters, some posted workers) for whom special arrangements have been made from early on during the pandemic, border measures for infectious disease control will probably represent a fixed cost per entry into the destination country for most travelers (i.e. the cost does not depend on the length of the stay).

As a result, different types of cross-border movements and economic transactions will be affected differently: Relatively short international trips, such as for business meetings, provision of consultancy services, or tourism, will likely become less attractive compared with the alternatives of video-conferencing or tourism in one's country of residence.

By contrast, the extra one-time cost of moving abroad for long-term work due to border measures for infectious disease control and prevention, up to and including possible quarantine requirements, will probably not deter many migrants, given the high monetary and other costs that moving abroad entails in any case.

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<sup>1</sup> There is an extensive debate on the usefulness and legality of international travel restrictions to contain infectious diseases in general and COVID-19 in particular. International migration patterns predict well the spread of COVID-19 to developing countries in particular, suggesting a possible role for travel restrictions in containing the disease (Ahsan et al., 2020). However, in its most current recommendations at end-February, the World Health Organization emphasizes that international travel restrictions are effective only during an early state of the transmission of infectious diseases when they may buy the authorities time to prepare and put in place more effective measures (WHO, 2020). Similarly, Chinazzi et al. (2020) show that travel bans in China and at the international level delayed the transmission of COVID-19 only temporarily. Based on the Schengen Border Code and other European law, Thym (2020) concludes that EU member states' travel restrictions within the Schengen area and with third countries can be justified in principle, but policy-makers should pay more attention to concerns about proportionality and nondiscrimination among EU citizens.

<sup>2</sup> One illustrative example is the proposed 'travel bubble' involving Australia and New Zealand which had both reduced the number of active infections sharply by early May 2020 (The Guardian, 2020c). The Baltic countries created a joint travel zone in mid-May 2020, with a 14-day quarantine for incoming travelers from outside the zone (BBC, 2020).

## 2.2 Circular migration

It is less clear-cut how border measures will affect various types of circular migration, such as seasonal work in agriculture where typical spells abroad range from two to six months or live-in care work in private households where caregivers typically alternate every two months. Such circular migrants maintain their main residence in their country of origin. In the worst possible case, with uncoordinated policies, they could be subject to quarantine requirements both in their country of destination and, upon their return, in their country of origin. In that case, some circular migration patterns might become unattractive.

However, in the few weeks since the onset of the COVID-19 pandemic, it turned out that many circular migrants are difficult or impossible to replace with resident workers, even with the onset of a major recession and large numbers of furloughed staff and growing unemployment in many countries of destination. In response, with some land borders in the EU closed, special arrangements were made in April 2020 to fly agricultural workers from Romania to the UK and Germany (The Guardian, 2020b; mdrAKTUELL, 2020-04-22). Live-in caregivers from abroad are considered essential workers in Germany; they may cross otherwise closed land borders and are not subject to quarantine requirements in Germany (Pflegerhelden, 2020).

Although some of these arrangements are ad-hoc, at an early stage, the European Commission has emphasized the need for member states to permit intra-EU mobility for individuals with a wide range of “essential” occupations (European Commission, 2020a). There is similar guidance from the Commission on allowing health professionals and care-givers, among a few other groups, to enter the EU from non-EU countries in spite of the general ban on incoming travel (European Commission, 2020b). As member states emerge from their national lockdowns, governments can be expected to coordinate their policies on the mobility of workers within the EU even more effectively than in the recent past and keep health-related restrictions to a minimum. Therefore, although circular migration could be hit by ill-coordinated border measures for disease control, it seems likely that established migration corridors will be protected by the member state governments involved because of the critical importance of many seasonal and circular migrant workers.

In the current strategy for reducing the spread of COVID-19, two important elements are to identify and quarantine all carriers of the virus as early as possible and to trace and test (and quarantine if necessary) all their contacts. These interventions work best if medical care is easily accessible and individuals in quarantine (if they cannot work remotely) receive adequate income support. Otherwise, potentially sick individuals may delay seeking medical care to avoid treatment costs or income loss and potentially infected contacts may be slow to come forward. Contact tracing is greatly facilitated if individuals are registered at their place of residence.

## 2.3 Irregular immigration

In many EU member states, there are irregular immigrants and other residents for whom these conditions are not met. Informal workers often do not receive income support if they lose their incomes; other working precariously, such as in meat processing in Germany, may also have little social security (Food Processing, 2020). Their access to affordable health care may also be uncertain in practice. This applies even more strongly to undocumented immigrants who may risk deportation through any contact with authorities and may therefore be especially difficult to trace when they have been in contact with a virus carrier.

To ensure that sick people already in the country are not discouraged from seeking medical assistance, several EU member states guarantee to all who seek medical assistance that they will not be penalized

for a lack of legal status (The Guardian, 2020a). Given the uncertain duration of the COVID-19 pandemic and the large benefits of containing it sooner rather than later, measures to promote the social inclusion of marginal groups, including through access to medical care and regularization of immigrants with uncertain status, contribute substantially to the ultimate success of strategies to contain the spread of COVID-19.

At the same time, many EU member states are strengthening their efforts to close their borders to new irregular immigrants, including those who may want to make use of their legal right to apply for asylum (see Section 4 below). MEDAM (2020) discusses how joint migration management with countries of origin and transit and a comprehensive partnership based on shared interests are required to reduce irregular migration while managing borders humanely and protecting refugees.

### **3 Digitization due to COVID-19 will have little effect on demand for migrant workers in the long run**

Beyond border measures for disease control that are costly to implement and to comply with (Section 2), COVID-19 may also affect migration in the long run by inducing structural change that impacts upon any of the numerous determinants of migration. It is assumed in this chapter that future GDP in most of the world will broadly follow the ‘V-shaped’ pattern of deep recession in 2020 and rapid recovery in 2021 forecast by Gemeinschaftsdiagnose (2020) and many others. In this case, most drivers of international migration that relate to international differences in living conditions and real incomes should be broadly similar to today following the expected recovery of the world economy in 2021.

One likely, lasting structural change is the rapid adoption of video-conferencing technologies and their growing acceptance as an alternative to in-person meetings and the associated travel. Although the digitization of business processes and communication has gone on for a long time, the disruption through the COVID-19 pandemic may turn incremental change into a discrete jump in technology adoption with clearly visible consequences.

As a result, many types of business communication will increasingly move online, especially as physical distancing policies will likely stay and business travel will remain cumbersome for some time. As a result, demand for some forms of passenger transport and hospitality services will likely remain subdued, along with business services like exhibition centers and conferences. In high-income countries, the hospitality industry employs many immigrants. Hence, total demand for migrant workers will be dampened to the extent that these industries face a lasting slump in demand.

Similarly, certain information-focused services, including those related to information and communication technology and consultancy of various kinds, will depend progressively less on natural persons being physically present. Hence, such services will become easier to trade across international borders. Especially high-skilled service workers will gain flexibility to live and work in a different location from where their customers are based, which may reduce incentives for international migration as well as short-term business travel. At this stage it is difficult to assess how large this effect will be.

At the same time, throughout the current pandemic, several sectors in high-income countries that employ many immigrants have seen strong demand for their services, including online retail trade and delivery services, agriculture and food processing, and health care and home care. “Essential” workers typically perform tangible tasks for which they need to be physically present at the point of service

delivery. Such tasks will likely remain difficult to trade internationally and migrant employment is entrenched in these sectors due to the prevailing combination of job requirements, working conditions, and wage levels. While some worker may move to these sectors from other industries where demand remains weak, such as hospitality, such mobility will remain limited in the long run if the predicted world-wide economic recovery materializes in 2021.

With this important caveat, it seems likely that digitization and structural change induced by COVID-19 will have little long-term effect on overall demand for immigrant workers in high-income economies. Other drivers of labor demand such as the demographic transition and the aging of populations will also change little. While aggregate labor demand is bound to decline during the current sharp recession, there is little room for any major adjustments in immigration policies: Within the EU, the free movement of labor is a core element of the European single market. For non-EU citizens, regular immigration is already tightly controlled and is determined, on the one hand, by labor market needs such as the scarcity of health care and IT professionals (which will likely persist). On the other hand, much immigration from non-EU countries is for family unification or purposes such as education and thus removed from considerations related to current labor demand.

## **4 Decent reception conditions for irregular migrants and access to asylum are both, humanitarian obligations and good public health policy**

Several EU member states (as well as other countries like the US) have used the COVID-19 pandemic to justify the closing of their borders to all irregular migrants, including asylum seekers. This practice is not compatible with humanitarian principles or international and European law because all asylum seekers have the right to be received by an EU member state and to have their case for protection considered by the authorities.

At the same time, receiving large numbers of irregular migrants and asylum seekers is particularly challenging during a pandemic when state capacity is already stretched thin. Irregular migration risks undermining infectious disease control and prevention unless migrants are properly registered, receive medical exams, and are effectively quarantined if necessary.

While it is more difficult to ensure adequate reception conditions during the COVID-19 pandemic, serious public health risks may arise if irregular migrants and asylum seekers are left to their own devices and without access to subsistence, health care, and protection. When individuals live in cramped accommodation in unsanitary conditions, which is the case for many migrants with uncertain legal status, including in some large camps on the Greek islands, there is a high risk of infectious disease spreading rapidly among, and beyond the migrant population.

The European Commission has made clear that it expects member states to safeguard the right to asylum even during the pandemic. Hence, border closures and the suspension of asylum applications may be temporary. However, it is not clear when the pandemic will subside. Before they re-open their external borders, EU member states will want to ensure that their capacities for receiving and hosting irregular migrants and processing asylum applications will not be overstretched; in making that assessment, they will want to err on the side of caution. While EU member states are individually responsible for receiving migrants and safeguarding access to asylum, some member states are demonstrably overburdened by a large number of migrant arrivals (MEDAM, 2019: Section 4.1). Therefore, more responsibility sharing among EU member states will be required to ensure that

reception conditions can be maintained in line with humanitarian standards, especially during the COVID-19 pandemic.

Furthermore, in the medium to long run, migrant inflows into the EU will need to be managed in close cooperation with countries of origin and transit in order to implement EU immigration and visa policies effectively and contain irregular immigration while protecting refugees (MEDAM, 2020). This is particularly important during the COVID-19 pandemic because vulnerable migrants of uncertain status left to their own devices will be at risk from contracting and further spreading the virus.

Cooperation on migration management may be politically difficult for partner countries because it may involve them in hosting third-country citizens who would rather move to Europe (such as many Syrians in Turkey) or readmitting their own citizens who have travelled to Europe but have no permission to stay there. Therefore, such agreements on joint migration management need to be comprehensive and cover enough policy areas to offer significant benefits to both sides. Only then will both sides have strong incentives to fully comply with the agreement, even when they are obliged to implement politically divisive provisions. In particular, effective cooperation with countries of origin and transit will require a more equitable sharing of responsibility (including financial) for the hosting of refugees and more opportunities for legal labor migration to Europe as a viable alternative to irregular migration (MEDAM, 2020).

## 5 Key findings and policy implications

Most countries have imposed wide-ranging restrictions on all international travel to contain the spread of COVID-19. In the medium to long run (but before the arrival of an effective vaccine or medication), countries can rationally lift restrictions on the entry of individuals from abroad (only) if the partner country's regime for infectious disease control is equivalent to their own and there is full information exchange between national authorities on affected individuals. Otherwise, countries need to rely on border measures such as quarantine requirements, medical certificates, or on-the-spot tests to ensure that any carriers of the virus among arriving travelers are identified and supported.

While border measures will probably persist, especially for individuals arriving in EU member states from many non-EU countries, they will mostly deter short-term travel such as for business or tourism where the cost of compliance is high relative to the benefits of traveling while effective substitutes are available (video-conferencing or tourism in more easily accessible countries). However, border measures are unlikely to deter long-term regular migration. Although the evolution of labor demand during the coming recession and (hopefully) recovery is difficult to predict, many sectors that are now considered critical (health and social care; food production, processing, and distribution; delivery services) employ a large number of immigrants and there is no sign that this might change. Barring major changes in immigration policy, demand for immigrant workers will likely remain strong and regular immigration may be little affected by border measures for infectious disease control.

By contrast, irregular immigrants, including those seeking to apply for asylum, are not covered by international cooperation for infectious disease control and prevention. While it is considered good practice in international migration policy to work to reduce irregular migration (the Global Compact explicitly calls for Safe, Orderly, and Regular Migration), a pandemic in no way obviates the right of refugees to humane reception conditions and protection. A fair sharing of responsibility for refugee protection, both among EU member states and between the EU and non-EU countries of asylum, becomes especially important to ensure that no host country is overburdened and all migrants have access to health care when they are at risk from contracting and further spreading COVID-19.

In sum, the pandemic calls for international cooperation in two broad areas: First, by coordinating their measures for infectious disease control and prevention and exchanging information as needed on affected international travelers, EU member states and non-EU countries may control the cross-border spread of the virus and permit the reopening of international borders. Second, EU member states need to share responsibility for refugee protection more effectively, both amongst themselves and with non-EU countries. For vulnerable migrants to have access to subsistence and essential services, including health care, is not only a basic humanitarian requirement, but also reduces the risk of them contracting and spreading COVID-19.

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# GLOBAL SAFETY NETS AND GLOBAL ACTION TO RELEASE VACCINES: NECESSARY TOOLS TO FACE GLOBAL PANDEMICS

Gianluca Grimalda, Fernando Filgueira, Marc Fleurbaey, and Rubén Lo Vuolo \*

## Summary

- We recommend the institution of a global protection system able to assist people in hardship around the world. Such a global safety net should provide both an emergency basic income and medical assistance, and be funded by rich countries in the short term.
- We advocate for this emergency income to become permanent in the form of a Global Universal Basic Income, funded in the long term by international taxation.
- We urge countries to consider the vaccine against COVID-19 a global public good, in the spirit of the third Sustainable Development Goal of “ensuring healthy lives and promoting well-being at all ages”. This objective calls for strengthening the collective global effort to develop a vaccine, and preparing a plan for its global delivery.
- In order to make the vaccine truly accessible to all, it should be freely accessible for people in Developing Countries, while a fair price should be established in rich countries.

**Keywords:** global safety net, global cohesion, global public goods, vaccine

## 1 Foundations of an emergency income and of a GUBI

### 1.1 The case for an emergency income

The COVID-19 epidemic is triggering a worldwide economic recession comparable to the 2008 one, but whose prospects are still uncertain (Gern et al., 2020). The International Labour Organization foresees the loss of 12 million full-time jobs in Europe in 2020, while Coibion et al. (2020) estimate that 20 million people lost their jobs in the US as of May 2020. Many unemployed people in Western countries will rely on the safety nets provided by public insurance schemes, such as the newly created “Support to mitigate Unemployment Risks in an Emergency” scheme in the European

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Union. Even so, Coibion et al. (2020) estimate that 4.5 million US unemployed will not be covered by any assistance.

The situation is much more serious in Developing Countries (DCs), where safety nets are virtually absent. The ILO (2020) estimates that 2 billion people around the world are involved in the informal economy, 1.6 billion of them having their livelihoods under threat because of COVID-19. Eight out of ten enterprises are informal. The World Bank (2020a) projects that between 40 to 60 million people will fall below the poverty line as an effect of COVID-19. For all these people, an income cut will be a direct threat to their lives. Protecting their lives is first of all an action complying with the basic human rights to which every individual is entitled to. Nevertheless, looking at the economic side, preserving informal workers' health is also necessary not to disrupt global value chains.

Western countries have a large "fiscal space" (Hausman, 2020), thus they can afford, in most cases, to put temporarily idle workers on unemployment subsidies. Current public deficits are financed with additional debt that will be repaid in the future at low interest. Developing countries do not have the possibility of sustaining the double challenge of the health emergency – which imposes a lockdown on many workers—and of a demand slump—which causes the halt of many productive activities – for very long. Blofield and Filguiera (2020) estimate that the costs of handing out cash transfers for three months in middle-income Latin American countries are not huge—between 0.2% and 3% of GDP. Even so, a first challenge is whether networks that reach out to isolated people—either geographically or socially—exist. During famines, the real problem is not so much lack of food, but failure to reach out to most vulnerable people. The other problem is that for some poor countries even 3% of GDP may be a severe burden, and that the crisis may last for years, not months.

The gravity of the COVID-19 crisis requires urgent and unprecedented action. One could in principle think that cash transfers to those in need were targeted to the neediest cohort of the population and subject to means-testing. But this is clearly not a proposition in DCs, also for the costs associated with putting in place a platform to carry out means-testing. Gregory Mankiw (2020) proposed to pay out an emergency income to every US potential tax payer, and to carry out some forms of means-testing at the end of the emergency. But this proposal would not be viable in DCs because by definition informal workers are not tax-payers. This makes a strong case for the creation of an unconditional—that is, free from means-testing—emergency income that reached out to every individual living in DCs.

## 1.2 The case for a Global Universal Basic Income

We also recommend making such an emergency basic income permanent and available on a world-wide scale to create a Global Universal Basic Income (GUBI) (Box 1). This argument rests on a variety of reasons:

- We are uncertain on the duration of the crisis, the main reason being that this is not just an economic crisis, but is primarily a health crisis. One of the main elements of uncertainty concerns whether a vaccine will be discovered and the speed at which it will be made available. The discovery of the vaccine would be a game-changer, but there is no guarantee that this will be the case in the foreseeable future. A temporary emergency income would then be pointless.
- Instances of global systemic risk are likely to become more frequent in the future. The rise of global pandemic is more likely because the shrinking space of natural animal habitats increases the contact between animals and humans, thus increasing the risk of spread of viruses (Edenhofer, 2020). The threat of climate change is as high as ever, given current global inaction. Therefore, the institution of permanent global safety nets is all the more necessary.

- A GUBI also rests on philosophical, political, and economic grounds (Grimalda et al., 2020). Philosophically, a basic income is a way to fulfil the widely shared idea that no one should be left without the means to live a dignified life. A UBI acknowledges that every human has an entitlement to receive a dividend from the exploitation of natural resources (Steiner, 1994). Politically, a GUBI is a foundational stone to build global citizenship. In a situation of receding multilateralism, fostering global citizenship is needed for global institutions to regain legitimacy and provide support for global public goods. Economically, a UBI is an effective way to end poverty traps, as it removes both capital constraints for small would-be entrepreneurs and high opportunity costs of forsaking unemployment subsidies when accepting a job (Atkinson, 2015).

**Box 1: What is a GUBI?**

According to the Basic Income Earth Network, a UBI is a periodic cash payment unconditionally delivered to all on an individual basis, without means-test or work requirement (van Parijs, 1997; Straubhaar, 2018). That is, a basic income has the following five characteristics:

- (1) Periodicity: it is paid at regular intervals (for instance every month), rather than as a one-off sum;
- (2) Cash payment: it is paid in an appropriate medium of exchange, typically money, allowing the recipients freedom to decide how to use it. That is, it is not paid either in kind (such as food or services) or in vouchers for a specific use;
- (3) Individual: it is paid on an individual basis – rather than, for instance, to households;
- (4) Universal: it is paid to all, without means test;
- (5) Unconditional: it is paid under any circumstances, regardless of the recipient's condition in the labour market; In particular, it is not conditional to being unemployed, or supplying some form of work, such as public utility work.

A GUBI is an UBI extended to all citizens of the world.

**Source:** BIEN (2018); van Parijs and Vanderborght (2015); own compilation.

## 2 Funding an emergency income and a GUBI

Given the lack of “fiscal space” by DCs, it is clear that an emergency income in DCs may only be financed through extensive assistance package by G20 countries and international institutions. Some DCs have already had access to the IMF emergency financing and debt relief schemes. However, the coverage of these schemes is still insufficient. With more than USD100 billion of financial capital having flowed out of DCs at the time of writing, remittances being poised to fall by USD100 billion, DCs' oil and gas revenues plunging by 85%, global trade being on course to fall by 32%, DCs are on brink of the worst debt crisis since 1982 (Eichengreen, 2020). The moratorium on interest payments currently implemented by the G20 will almost certainly prove to be insufficient to avoid a debt crisis, as a similarly structured moratorium was insufficient in the 80s under the so-called Baker plan (Eichengreen, 2020). It is therefore necessary that the G20 fosters an urgent plan for a global social protection scheme able to match up the fiscal needs of DCs.

In the longer run, we propose the funding of a GUBI to come from a variety of sources. It is not the purpose of this brief to compute optimal taxation. Rather, we want to make two points. First, it is important that the funding of a GUBI comes from global taxation because this is functional to fostering a sense of global citizenship. This would not be the case if GUBI was seen as a form of aid from rich to poor countries. Second, global taxation at even mild tax rates would suffice to fund a substantial GUBI.

Here we revise possible sources of funding and their projected revenues. The taxes we propose combat global public bads and negative externalities: climate change, financial and economic instability, extreme wealth concentration. Both the wealth tax and the Tobin tax are clearly progressive in targeting people at the top of the wealth distribution.

- **Global wealth tax:** A wealth tax is an annual tax levied on the net wealth that a household (or an individual) owns above an exemption threshold. Net wealth includes all assets (financial and nonfinancial), net of all debts, valued at their prevailing market prices. Proposals for a wealth tax have been recently made by Saez and Zucman (2019) for the US, Landais et al. (2020) for the European Union (EU)—as a way to fund debt emitted to face the COVID-19 pandemic—and globally by Piketty (2014) and Oxfam (2019). Landais et al. (2020) propose marginal tax rates of 1%, 2%, and 3% for net wealth above EUR2 million (close to the wealth top 1% threshold), EUR8 million (close to the wealth top 0.1% threshold), and EUR1 billion, respectively. This would raise 1.05% of EU GDP in revenues each year, accounting for evasion and avoidance responses. The levy would be higher in countries with larger wealth concentration than the EU. A wealth tax with the same structure as above would raise around 1.8% of US GDP (Saez and Zucman 2019). We make the prudent assumption that a progressive global wealth tax would contribute revenues close to 1% of world GDP.
- **Carbon tax:** According to Jacob et al. (2016), a global system of carbon taxation could raise around USD1.6 trillion per year between 2020 and 2030, i.e., around 1.86% of current GDP. As the transition toward a decarbonized world proceeds throughout the century, this carbon tax revenue would inexorably decrease, and other sources of funding would need to be substituted to it. A carbon tax may be regressive, in that it may weigh more on the poorest in the population. In that case, compensatory transfers should be undertaken in order to overturn the regressive character of the carbon tax, as argued in Schwerhoff et al. (2017) (see also Klenert et al., 2018).
- **Tobin tax:** A conservative estimate of the world financial transactions is around USD12 quadrillions. Taxing these transactions at the rate of 0.1%, assuming it would reach only half of this volume of transactions, for either elusion or evasion, would nevertheless generate around 7% of the world GDP as revenue. A tax rate of 0.1% is a cautious figure, as the European Union is currently discussing levying a 0.2% tax on financial transactions (Funke et al., 2020). On the other hand, we do not have a clear idea of the elasticity to the tax of the tax base. It could be that other forms of taxation, such as a digital tax, may be used to complement the revenues from a GUBI.
- We therefore envisage that the tax rate on financial transactions could progressively increase to make up for the reduction in revenues from the carbon tax.

As detailed in Table 1, the overall financial capacity would be around 9.84% of world GDP.

**Table 1:**  
**Sources of funding for GUBI**

	Tax revenue (% of 2018 world GDP)	Tax revenue (trillions of USD)	Tax rate	Tax base (trillions of USD)
Wealth tax	1.00	0.86	1%, 2%, 3%, to be applied on net wealth in excess of 1%, 0.1% and 0.01% of world distribution	317 (total wealth)
Financial transactions tax	6.98	6.00	0.1%	6,000
Carbon tax	1.86	1.60		
Total	9.84	8.45		

**Source:** Own compilation.

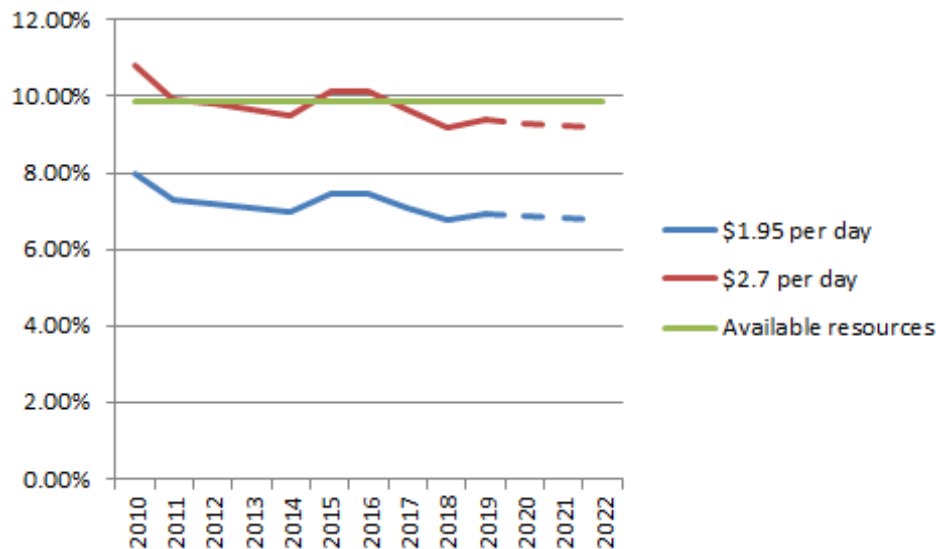
### 3 Costs of GUBI

As a first and basic estimation of a GUBI, we set as a target that every citizen in the world receives enough to overcome the absolute poverty threshold. This is conventionally set at USD1.95 per day for 365 day a year. This target of USD1.95 per day could be adjusted for Purchasing Power Parity (PPP), but for the present computation we do not introduce any adjustment. Thomas Pogge (2005) argued against the use of PPP for the purpose of achieving international justice. This has the effect of vastly increasing the resources transferred to individuals living in poor countries. In this case, the GUBI would be equivalent to around 6.3% of world GDP. Administrative costs should be included. We believe that it is important that the GUBI is managed by a specifically created UN agency. The World Bank, the IMF, and regional banks should also be involved for the purpose of collecting revenues (see next section) and administering the benefit. GUBI should not be seen as a form of aid from rich countries to poor countries, but as a global dividend to which citizens around the world are entitled. For this reason it is important that a global institution manages it. Since the GUBI can rely on existing institutions, the marginal administrative costs are contained. A prudent estimate is that they amount to 0.5% of World GDP.

The financial capacity of the revenues examined in section 2 would then be more than enough to cover for a GUBI set at the poverty threshold of USD1.95. In fact, a prudential estimate is that the GUBI could be set at a level of USD2.7 and still be below the available financial resources. Figure 1 shows the evolution of GUBI as a percentage of GDP for the two scenarios we considered.

It is undeniable that a large number of open issues associated with GUBI exist. For instance, many people live in rural areas largely detached from market economies. These are probably the very people who could benefit the most from a GUBI. Moreover, the handing out of the GUBI may give rise to embezzlement, corruption, and foster illegality in areas where law enforcement is scarce and monitoring exceedingly costly. Nonetheless, mobile telephone technologies have been proven effective to reach out to poor people in Africa (Collier, 2020). Technology may also bypass humans in handing out cash. It is clear that innovative solutions will have to be implemented, but it is not outlandish to think that vast portions of the population may be covered by a GUBI.

**Figure 1:**  
Evolution of GUBI costs as percentage of world GDP



Source: World Bank (2020b).

## 4 The global delivery of a vaccine against COVID-19

Vaccines are highly beneficial for humankind. It has been estimated that vaccines prevent more than three million deaths per year (Ulmer et al., 2006). Vaccines have had a primary role in the extending human life span by 30 years during the 20th century (Cooper et al., 2002). In spite of their widespread benefits, experts estimate that profit margins from developing and commercializing vaccines are too low to expect private companies to deliver vaccines at the scale required by global human needs (Rappuoli et al., 2002). This is the case for a variety of reasons. The introduction of regulation associated with immunizing healthy people, the prospect of legal liability, and a process of merging in pharmaceutical companies, contributed to create entry barriers to the sector (Ulmer et al., 2006). As a result, there is at the moment only a handful of companies that have the capacity to research and manufacture a vaccine on a global scale (Sheridan, 2005). Most importantly, discovering a vaccine is a long and risky activity. As demonstrated by the Ebola and SARS diseases, the duration of the epidemic was relatively short, thus causing the investment in R&D to develop a vaccine to be fruitless. Finally, the risk that countries will demand waiving rights to Intellectual Property agreements by vaccine producers also discourages private companies to invest.

The situation illustrated above seems no different with COVID-19. About 90 consortia of pharmaceutical companies are currently striving to find a vaccine against COVID-19. To the best of our knowledge, all of them have received public funding to counter the risk of their R&D investment being wasteful. David Loew, executive vice-president of Sanofi Pasteur, one of the largest pharmaceutical companies in the world, demanded governments to commit billions of dollars to support the industry lest their inability to satisfy the global demand (Jack, 2020).

The existence of public-private partnership in the discovery of global vaccine seems then to be the norm. Even so, individual countries may desire to “win the race” in the discovery of a vaccine to gain some kind of competitive advantage over other countries, or simply to guarantee their citizens access

to immunity. This nation-centric view may clash with the goal of making the vaccine accessible to all people in the world. Eradicating a virus is the typical instance of a weakest link game: Everyone's outcome is anyone's outcome. If the virus is not completely eradicated in every country, sooner or later the virus will reappear—unless countries opt for closures of borders to access from foreigners.

Both the World Health Organization (WHO) and the United Nations (UN) have claimed that a vaccine should be seen as a global public good and that a collective international effort should be made in this endeavour. The Coalition for Epidemic Preparedness Innovations (CEPI) is in charge with the task of leading the coordination of the global effort to find a vaccine. On 4th of May an initiative led by the European Union has collected USD8 billion in pledges to support such international effort and to make any vaccine “available, accessible and affordable to all.” Notably, the US has sat out of this global effort, deciding instead to contract two US pharmaceutical companies for the discovery of the vaccine, at the cost of nearly USD1 billion. The decision of the US government to suspend funding of the WHO has also dented WHO's capacity. China is also investing in national initiatives, but has promised to make their discovery globally accessible.

We recommend the G20 and country leaders to consider the delivery of a vaccine as a global public good. In line with the third Sustainable Development Goal of “ensuring healthy lives and promoting well-being at all ages,” and in line with the request of world leaders to produce a “people's vaccine” against COVID-19,<sup>1</sup> no person should be left behind in the access to a vaccine, whenever this becomes available. Supplying a vaccine on a global scale will require unprecedented effort, which in human history has been successful only in the eradication of smallpox and in the near-eradication of polio.

It is clear that most individuals in DCs will not be able to afford the payment of the vaccine, even if this was provided at its marginal cost. We then recommend the institution of a two-tier pricing system, which would distribute the vaccine for free to DCs' citizens, while it would charge a fair price to rich countries' citizens. Such a two-tier system is already widespread in the distribution of drugs in DCs, is consistent with the 2001 Doha Declaration concerning the specificities and exceptions to the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement, and is in line with the operations of the Global Alliance for Vaccines and Immunization (GAVI).

It is then imperative that global coordination is attained both in the effort to discover a vaccine and in the endeavour to produce the vaccine and to release it to the whole world population at the conditions indicated above. As stressed above, developing a vaccine against COVID-19 is not an easy task and diversification of effort seems necessary. At the moment, a decentralized approach to find a vaccine is in place, with around 90 initiatives to discover a vaccine working independently from each other, with some minimal form of coordination for consortia participating in the CEPI programme. We recommend, whenever possible, the sharing of data and research results in the quest to find a vaccine: This should be the case even if such results are inconclusive, under the principle of “open source pharma” (Balasegaram et al., 2017). This open-access should increase the likelihood of finding a vaccine and is thus efficient. We also recommend global coordination, and the establishment of a fair set of rules in the manufacturing and distribution of the vaccine, whenever this is discovered.

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<sup>1</sup> Uniting Behind A People's Vaccine Against COVID-19. Via Internet (20.5.2020): <<https://oi-files-d8-prod.s3.eu-west-2.amazonaws.com/s3fs-public/2020-05/ENGLISH--Uniting-Behind-a-Peoples-Vaccine-AgainstCOVID-19-1305201720.pdf>>.

## 5 Establishing permanent capacity to increase preparedness and resilience against global systemic risks

The lack of coordination in the quest for a vaccine against COVID-19 is only one example of the significant policymaking constraints and apparent policy failures in crafting coherent, rapid, and effective responses to global crises (Luckhurst et al., 2020). At the beginning of the crisis we have seen countries scrambling over medical supplies, and the capacity to implement a global vaccination campaign whenever the vaccine will become available is all to be seen. COVID-19 is only one of many global challenges that are in the making. Some of them are again health-related, as new pandemics can be expected (Edenhofer, 2020). Some are related with climate change. Some are economic and financial in character. These crises may hit disproportionately people on low-income. Albeit the evidence is still fragmentary, this seems to be the case for COVID-19. In the US, the death rates are disproportionately high for Afroamericans, according to the US Center for Disease Control. For instance, Afroamericans make up about 56% of deaths for COVID-19 in Louisiana, being only 32% of the population. Similar patterns are also observed in other US states. According to the US Labor Statistics, 61.5% of the top income quartile could afford to work from home, while only 9.2% of workers in the bottom quartile could do that. Typically, people from low-income groups are also more at risk of suffering from heart and lungs diseases, thus making them more exposed to COVID-19 fatalities. It is then highly likely that people from low-income groups register high death rates, both because they cannot isolate and they are more pressed to go to work, and because their health conditions are more precarious. A similar reasoning applies to people on low-income living in DCs. As observed in section 1, their situation is probably even worse because of the lack of safety nets.

For these reasons, we recommend greater coordinated effort by leading global institutions such as the WHO, UN, World Bank and IMF in tackling the consequences of systemic crises, and the establishment of a permanent global taskforce to ensure coordination across countries in tackling global crises, to improve preparedness and resilience by each country, especially those in most need, against the crises, and providing funding for the rolling out of such funding. We believe that this agency would represent another important pillar in the reconstruction of multilateral global governance.

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# CLIMATE POLICIES REQUIRE A LONG BREATH

Wilfried Rickels and Sonja Peterson\*

## Summary

- Impatience about the duration of the present corona lockdown indicates a fundamental problem for (long-term) environmental concerns.
- Committing to long-term stringent emission reduction targets including the overarching target of the European Green Deal to reach net zero emissions by 2050 is decisive.
- Overloading a postcorona stimulus or recovery package with too many (emission-related) conditions could prevent a timely recovery. What is more important are strong carbon price signals to steer demand and investment taking place during the recovery process.
- Existing or planned climate policies which provide incentives for emission reductions and technological innovation should remain in place and not be postponed or even weakened to foster any (short-term) recovery.
- This applies in particular for the announced introduction of carbon prices in the German heat and transport sector and the planned extensions of the EU emissions trading scheme.
- Confining potential stimulus and recovery measures to their proper purpose does not mean imposing a ban on meaningful (climate or environmental) policies that are not associated with the corona crisis.

**Keywords:** climate policy, climate vs. corona crisis, green corona stimulus package

## 1 Introduction

Most states have implemented strict measures designed to slow down the spread of the coronavirus among their populations. For most sectors, these measures have resulted in a significant reduction of economic activity, output, and hence also output-related emissions. Commitment to these measures, apparently regardless of the economic costs involved, is considered by some people to be a blueprint for the commitment required to mitigate climate change and to achieve the Paris climate targets. However, when it comes to devising an efficient climate policy, the differences between the two crises—coronavirus and climate change—need to be taken more seriously than the similarities. The various calls to put a quick end to corona prevention measures and the restrictions they place on public and economic activity are alarming. They indicate high discount rates and the absence of

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precautionary thinking among policy-makers. Both the differences between the two crises themselves and the similarities in the reluctance to focus on achieving (more) long-term benefits emphasize once again the need for long-term commitment to climate policies in line with agreed targets.

At the same time, voices calling for a “green” recovery stimulus package centering around low-carbon investments in the aftermath of the corona crisis are making themselves heard. By contrast, advocates of postponing climate mitigation-related taxes, levies, and regulations have also entered the fray. They claim that timely recovery should not be jeopardized by any additional economic burden. Here, we discuss the similarities and differences between dealing with the emergence of the coronavirus and mitigation of climate change, categorize the current debate on green stimulus packages to separate the wheat from the chaff and derive corner stones for climate policy after corona.

## 2 Corona crisis and climate change: The differences matter

Initially, “shutting down” public life in response to the emergence of the coronavirus may have looked like a mere default reaction designed to slow down or eventually reverse the spread of the virus across whole populations. However, it also gave us time to learn more about the various infection routes, COVID-19 disease progression, treatment options, and the possibilities of increasing medical treatment capacities, both physically and in terms of staffing. Furthermore, commitment to such a rigid shutdown has been undertaken on the tacit assumption that these measures will be temporary and can be loosened when the infection rates decrease and discontinued altogether once vaccines are available. Accordingly, the problem facing decision-makers is very different from the one posed by ongoing climate change. Of course, there are still uncertainties in our understanding of the climate system, not to mention our limited ability to translate climate change into sound economic impact estimates. But the situation is not new, and global society has had decades of experience in facing up to the challenge of climate change mitigation. While it would be difficult to contend that global society has been successful in this respect, at least there exists (almost) global consensus on how to respond to the challenge. 188 states plus the European Union have ratified the Paris Agreement,<sup>1</sup> which in Article 2 calls for “...holding the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels ...” (UNFCCC, 2015: 5). Achieving these targets requires a long-term structural change taking us away from our current carbon-intensive economy to a zero-carbon and then net-negative carbon economy. As current research holds out little hope that a “perfect” vaccine in the form of solar climate engineering will be available in the future, the measures and efforts required must translate into a permanent, ongoing form of commitment.

While progressive climate change and the spread of the coronavirus operate on very different time scales, impatience about the duration of the present corona lockdown indicates a fundamental problem for (long-term) environmental concerns. Clearly, the economic and social costs associated with the emergence of the virus and the shutdown are significant (Ludvigson et al., 2020). But any serious cost-benefit analysis would need to take into account not only the fact that different degrees of lockdown are available but also that the overall cost is affected by the expectations of agents regarding possible future re-lockdowns due to insufficient containment of the virus. Seen thus, it is

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<sup>1</sup> The US withdrawal comes into effect November 4, 2020.

anything but clear at which point in time the actual cost of lockdown would exceed the economic cost of the virus spreading in an unmitigated (or insufficiently mitigated) way (Glover et al., 2020; Moser and Yared, 2020; Baker et al., 2020). Given the delay inherent in the information regarding infection rates, a precautionary (epidemiological) approach would have suggested requiring a lower number of currently infected people before re-allowing measures that might bring the reproduction rate close to 1 (Meyer-Hermann et al., 2020). Consequently, it is not the two crises themselves that display alarming similarities but rather the insufficiently rational approach to dealing with both of them, indicating once more that we need commitment to long-term climate policies in line with agreed targets if we are to mitigate climate change.

### **3 Challenging interlinkages of postcorona recovery and climate policy**

Currently, the debate on the relation between (economic) recovery and climate policies is being conducted from three major perspectives.

The first perspective is largely notable for general statements of intent recommending that the recovery should be “green” and sustainable, that EU climate targets should be supported, and that other environmental targets (maintaining biodiversity, etc.) need to be taken into account when designing recovery measures. Such well-meant counsels as the statement issued by the German National Academy of Sciences Leopoldina (2020) are useful in reminding us that recovery from the corona crisis should not come at the expense of neglecting other objectives and that climate policy should not be forgotten or postponed, as was the case after the financial crisis in 2009. Otherwise they are of little practical value.

The second approach involves rather detailed proposals calling either for on the one side a “greening” of recovery by front loading measures to support renewable energies, public transport, energy efficiency etc. or on the other side for a “blackening” of recovery by postponing and/or abandoning climate measures and environmental regulations. Predominantly, these proposals represent the positions of the various interest groups involved. For example, representatives of the aviation industry try to prevent the harmonization of carbon prices on fuels with respect to kerosene and argue against the introduction of kerosene taxes. This idea resurfaces in the discussion on recovery measures by, say, the Austrian Aviation Association (2020). On the other hand, in its comprehensive list of (recovery) demands, the NGO German Environment Action (2020) urges for example for the abandonment of blue hydrogen projects (though not explaining why this is likely to stimulate economic recovery). Various other interest groups are in favor of postponing, suspending, or even abandoning existing environmental and climate regulations. For example, Janusz Kowlaski, the Polish Deputy Minister of State Assets urges “[that] the ETS [European Emissions Trading Scheme] should be removed from January 1, 2021, or at least Poland should be excluded from the system.” (Reuters, 2020). Clearly, there is no point in discussing nonsensical ideas of this kind. But some of these proposals also make sensible suggestions like adjusting the German cap on renewable energy installations or abandoning the EU average fleet-consumption regulation because the former contradicts German renewable-energy targets and the latter is an inefficient instrument for regulating vehicle emissions. However, these suggestions do nothing to provide stimulus for a quick recovery and they were correct before the current crisis hit. While specific processes and regulation timelines for regulations may need to be adjusted in the context of the corona crisis, sensible measures of this kind

should be discussed and decided upon in the regular political process. Confining potential stimulus and recovery measures to their proper purpose does not mean imposing a ban on meaningful (climate or environmental) policies that are not associated with the corona crisis.

The third and final perspective replaces specific proposals with (sustainability) assessment guidelines like those suggested by the World Bank (2020). The World Bank suggests that potential measures up for consideration as part of a recovery strategy should also be assessed against both short- and long-term criteria. The former are in particular classical criteria like impacts on employment and economic activity or expected economic multiplier associated with certain measures. Bayer et al. (2020) suggest that transfer components (as planned under the US CARES package) could help to stabilize private-sector spending and the multiplier could increase to 2 in the case of transfers being conditional on unemployment. However, private-sector spending like this should not imply any unintended adverse effects on essential long-term structural change that might arise from such things as (temporarily) adjusted risk preferences. Once postponed or stimulated demand and investment take place during the recovery process, carbon-price signals are vital in providing technology-neutral incentives for low-CO<sub>2</sub> purchasing and production decisions.

On the other hand, overloading a stimulus or recovery package with too many (emission-related) conditions could prevent timely recovery and would also focus too exclusively on short-term climate measures. Even worse, including the various detailed suggestions from the various interest groups into recovery packages of would most likely result in a nontransparent, rent-seeking, and political bargaining process in which it would remain unclear whether (sensible) individual decisions are being prioritized at the expense of a more challenging long-term climate policy. Priority should be given to keep in place existing or planned climate policies that provide incentives for emission reductions and technological innovation. Postponing such policies, let alone weakening, uncertain (short-term) recovery impulses would most likely come at the cost of less efficient emission-reduction paths in the long term.

Generally, it is important to account for the specific characteristics of the corona crisis and to ensure that policy instruments are “particularly targeted, timely and autoresponsive” (Kooths and Felbermayr, 2020). Yet, long-term aspects of economic stability and institutional reforms should not be neglected. This includes also impacts of the measures (see World Bank 2020) on “pricing that fails to account for externalities” (like climate change), “market- distorting subsidies” (such as subsidies on fossil fuels) and on “decarbonization and sustainable growth”. This implies, on the one hand, that already planned decarbonization measures which also provide short-term stimulus could be front loaded to support both timely recovery and structural change towards a low-carbon economy. On the other hand, neither the public spending nor the induced private sector spending should imply unintended adverse effects on needed long-term structural change which might arise from for example (temporarily) adjusted risk preferences. Once postponed or stimulated demand and investment take place during the recovery process, carbon price signals are vital to provide technology-neutral incentives for low-CO<sub>2</sub> purchasing and production decisions. Consequently, existing or planned climate policies which provide incentives for emission reductions and technological innovation should remain in place and not be postponed or even weakened to foster any (short-term) recovery (at the cost of long-term inefficient emission reduction paths). This includes the planned German carbon prices in the heat and transport sector and the planned extensions and reforms of the European Emission Trading System in the light of the European Green Deal.

## 4 Conclusions for postcorona climate policy

The year 2019 has seen very welcomed and needed dynamics in European and German climate policies including a discussion of stricter EU reduction targets, a European Green Deal aiming for net zero emissions until 2050, and an announcement to extend carbon pricing in Germany. A reversal of decisions as an answer to corona would be wrong. The dictum is to stay the course. Since there is very likely a catch-up effect of economic activity and emissions, the importance of instruments that automatically steer investments, consumption and technological developments towards decarbonization and ensure that emission reduction targets are met has probably increased. From the vantage point of an efficient climate policy, it is more relevant to have an effective carbon pricing scheme in place than to support certain green investments through stimulus packages. Put differently, it is more advisable to make carbon pricing within and in addition to the European Emissions Trading Scheme more stringent even at the cost of short-term economic development. Generally, the direction out of the crisis should be set by politics—in the case of climate policy through CO<sub>2</sub> prices—while the necessary investments and research and development must come from companies themselves (e.g., from the automotive industry) and not from public support.

Still, an efficient set of climate policies (independently of corona or stimulus packages) goes beyond carbon pricing and includes public investment in relevant infrastructures (e.g., energy-efficient buildings, carbon-neutral public and private transport infrastructure, or electricity net expansion to name just a few) and support for research, development, and rollout of low-carbon technologies. As mentioned above, these kinds of sensible measures should generally be discussed and decided in the regular political process. Yet, if stimulus packages are to be planned, checklists like those of the World Bank should be used to identify which types of climate or environmental policies could be broad forward in time to both support the recovery process and the restructuring of the economy towards net zero emissions.

In sum, what was sensible and necessary climate policy before the corona crisis remains sensible and necessary during and after the corona crisis. And while we believe that the two crises are generically different and require different instruments and reactions, the measures to overcome the negative economic effects of the corona crisis should be aligned to not conflict with progress against the Paris climate targets. Politicians should not lose sight of the still necessary climate policy reforms and in particular an extension of carbon pricing.

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# REINVIGORATING MULTILATERAL COOPERATION DURING THE COVID-19 CRISIS: OPPORTUNITIES AND DIFFICULTIES

Dennis Görlich and Juliane Stein-Zalai\*

## Summary

- The COVID-19 pandemic makes clear how interconnected our world is and how crucial effective international cooperation is to manage global health crises and other global challenges such as climate change.
- The COVID-19 crisis and its socioeconomic impact are likely to reinforce previous tendencies towards nationalism, protectionism and increasing inequality, which make fruitful international cooperation even more difficult.
- The G20 has an organizational structure and instruments to enable effective multilateral cooperation in response to the COVID-19 crisis: continuous dialogue, flexibility as well as the capacity to set norms, initiate policies and supply top-level political impetus.
- Most importantly, the G20 need to lend decisive and extensive support to international organizations, in particular the WHO, to support their crisis management activities.
- The G20 also need to step up their support for the Sustainable Development Goals of the Agenda 2030 as they offer a holistic and widely accepted framework ideally suited to lead the recovery of our economies and societies towards a more resilient, livable post-COVID-19 world.

**Keywords:** international cooperation, multilateralism, global governance, COVID-19, coronavirus, pandemic, crisis, G20, Group of Twenty, inequality, global public goods

## 1 Introduction

The COVID-19 pandemic has made clear that our world is so interconnected that we can only overcome this crisis by effective international cooperation. Knowledge and information sharing, the development and provision of medical equipment, diagnostic tools, vaccines and treatments, and solidarity with all countries around the globe to enable them to mitigate the economic and social consequences of the crisis, are key elements of an effective multilateral strategy to counter the

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COVID-19 crisis. Once countries have gone through the emergency phase of the pandemic, we have to manage the recovery of their economies and societies and thereby shape a new world that is better prepared for future pandemics. At the same time, we must not lose sight of the many other urgent global challenges, such as climate change, extreme poverty, migration, or inequalities of opportunity, that have been overshadowed by the corona pandemic. All these problems cannot be solved by nation states alone but require intergovernmental negotiation, functional multilateral institutions and collective action.

As we rebuild our economies and societies after the pandemic, we must ask ourselves: What kind of world do we want to live in? Do we favor a dystopian or a utopian future of international cooperation? One in which nations focus on themselves and make selfish decisions to the apparent national benefit, or one in which we take other countries' perspectives into account, seeking solutions that make everyone better off? One in which we try to produce and keep essential goods for our own population, or one in which we benefit from the advantages of an efficient international division of labor? One in which we blame other nations in order to strengthen national identity, or one in which we reach out to others convince people that together we can achieve more? One in which a privileged few use the global governance system only for their own selfish interest, or one in which we put human needs of all first and seek a prosperous global society tackling drastic inequalities? In times of pandemic, it becomes even clearer that only a utopian scenario enables us to deal with the many global challenges that we face. The virus, just like climate change, migration, financial stability or poverty does not stop at borders and our actions to fight it will always have direct or indirect consequences for other nations.

Before the COVID-19 crisis hit, the world was increasingly on track to a dystopian future of international cooperation. Examples for that abound: the coming-to-power of nationalist leaders and their my-country-first rhetoric, the open disregard of the rules-based trading system, increasing skepticism toward international agreements and institutions, such as the Paris agreement or the WTO, the sluggish adoption of climate change mitigation policies, and the lack of progress in meeting the universally agreed Sustainable Development Goals. Matters are complicated further by the fact that the international context has changed significantly, with the rivalry between the United States and China intensifying markedly and “beginning to structure international relations” (Rudolf, 2020: 9). There is a high risk that the COVID-19 pandemic will now put us on a fast track to a dystopian future of international cooperation, as current developments suggest:

- The my-country-first rhetoric is gaining ground, as leaders seek to identify a culprit for the pandemic.
- Trade-distorting measures like export restrictions or subsidies are likely to increase, partly as an (ill-directed) response to secure the livelihood of the own population and partly as governments are likely to react to the external effects of the large-scale support policies, which governments everywhere are implementing (Bown, 2020).
- Climate change mitigation is at risk of becoming a secondary consideration as governments rebuilding their economies are primarily concerned with minimizing the socioeconomic fallout of the COVID-19 crisis (Pisani-Ferry, 2020a).
- Inequality between countries, which has decreased during the past decades (Revenga and Dooley, 2019), could increase again as countries have very different fiscal abilities to mitigate the economic effects of the pandemic and may face difficulties in pursuing their economic development strategies in a new world where physical distancing is paramount (Snower, 2020).

Global value chains are expected to change, which may also undermine development strategies (Javorcik, 2020).

Given these bleak prospects, how can we move to a utopian future of international cooperation? What role does the G20 have in navigating the world through the crisis? Reviewing the characteristics of the G20 process, past achievements, and important modes of action, this contribution points out how the G20 can contribute to an effective multilateral response to the COVID-19 crisis. It also addresses in which areas global governance is helpful (and where it is not appropriate) and what the role of domestic policy-making is in solving global challenges.

## 2 The G20 and its role in addressing the COVID-19 crisis

### 2.1 The G20's capabilities for managing global crises

According to many commentators, the G20 is best placed to take a leading role in enabling both an immediate and a long-term global response to the COVID-19 pandemic and its economic, social and environmental consequences (see, e.g., Brown et al., 2020; Subacchi, 2020). Accounting for more than 80% of global GDP and having evolved into “a crucial hub for global governance networks” (Luckhurst, 2016: 162), the G20 is widely recognized to play an important part within the global governance system (see, e.g., Cooper 2019: 506; Slaughter, 2019: 13; Litman, 2017: 21). Furthermore, with timely and concrete policy actions in the aftermath of the global financial crisis 2007–2008, the G20 has gained widespread reputation as effective crisis management committee.

One reason for the G20's potential to respond quickly to global crises is organizational. Bringing together policy-makers and technical experts from both the world's largest economies and the most influential international organizations on a regular basis, the G20 provides a functioning structure with thematic working groups, ministerial conferences, meetings of Sherpas and Finance Deputies, and the Leaders' Summit.<sup>1</sup> A topical example is the Health Working Group, which was established under Germany's 2017 G20 presidency and now proves to become an important instrument to discuss immediate issues arising in the COVID-19 crisis. This structure and regularity enable member countries and its representatives to build trust and collaborative working relationships, which are much needed in international cooperation in general, and in global crises in particular.

Another important feature of the G20 process is its flexibility. The rotating G20 presidency, currently with Saudi Arabia and next with Italy, is free to define its agenda, procedures and instruments, which makes it possible to create interconnections between issues, policies, institutions and communities. In principle, this allows bridging policy silos by fostering the collaboration of thematic working groups and ministerial conferences in order to address complementarities between issues. There are examples of this in the recent past: Japan's presidency has initiated a joint meeting of digital and trade ministers to tap policy complementarities in the two areas. In the COVID-19 crisis response, this instrument could be used again, e.g., by combining health and employment, or health and climate.

While the G20's overall performance in combating the COVID-19 crisis has been criticized by many observers (e.g., Pisani-Ferry, 2020b; Patrick, 2020; Carmichael, 2020; Chodor, 2020), a look at the past

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<sup>1</sup> That this structure is operational has been clearly shown by the extraordinary Leaders' Summit in response to the COVID-19 crisis on March 26, 2020.

12 years of the existence of the G20 and the modes of action through which the G20 operates shows that the G20 has already made important contributions to solving global challenges. It also reveals the opportunities in the current COVID-19 crisis.

- **Setting norms:** The G20's capacity to induce shifts in policy norms within the G20 community and its networks is based on the consensus-building activities that occur on the various levels of the G20 process. This form of influence has become apparent most notably in the aftermath of the global financial crisis. Examples for the G20 wielding influence on norms range from the departure from the one-size-fits-all solutions of the Washington consensus over the promotion of paradigms such as macroprudential financial regulation and sustainable development to the stimulation of policy debates on the importance of sustainable and inclusive economic growth (Luckhurst, 2016: 165; Luckhurst, 2019: 104–105). By agreeing on a standstill on protectionist measures in the global financial crisis, G20 leaders have also set a norm for national reactions to the economic downturn, which has notably reduced protectionism, as several authors argue (e.g., Carin and Shorr, 2013: 9; Narlikar, 2014: 63–64; for an opposing opinion see Kirchner, 2016: 491–492). And recently, with the commitment “to do whatever it takes to overcome the pandemic,” (G20, 2020) which boils down to a commitment to use all available fiscal, monetary and economic policy instruments to smooth out the effects of the crisis, G20 leaders have again set a norm for guiding a global response to the COVID-19 pandemic. It remains to be seen, however, in what ways this commitment will have an effect.
- **Initiating policies:** Even though the G20 as such cannot implement policies, they have started several important policy initiatives in the past. These initiatives will either have to be implemented by the member countries, e.g., fiscal stimulus packages or the “25 by 25” goal to improve gender equity, or the G20 tasks international institutions to take on the initiative, e.g., the BEPS initiative to combat tax avoidance by multinational corporations, or the drafting of G20 AI principles, both of which are headed by the OECD. This “delegative quality” (Cooper and Pouliot, 2015: 343) has significantly enhanced the role of, for instance, the IMF and the OECD in global economic governance (Bradlow, 2015: 146; Rewizorski, 2017: 39–40).
- **Supplying top-level political impetus:** Both the ministerial declarations and the leaders' communiqués are potentially powerful instruments to provide political support for the emergence and persistence of global agreements, the work and reform of international institutions, and the prioritization of certain policy problems. As the example of the Paris climate agreement shows, “political impetus from the G20 can be highly useful for issues that are dealt with elsewhere in the multilateral system” (Carin and Shorr, 2013: 11). The G20 members' 2015 commitment to sustainable and ambitious climate protection and the coordinated climate announcement by the American and Chinese governments (Luckhurst, 2016: 166; Cooper, 2019: 516) sent a strong signal to the international community, paving the way for the adoption and activation of the Paris climate agreement, respectively. Another example is the rapid agreement on the Basel III framework to increase financial market stability, “which would not have been possible without the political momentum provided by the G-20 leaders” (Lombardi and Guerrieri, 2010). To increase impact, the supply of political support may be underpinned by the allocation of financial resources. For example, the G20 have repeatedly increased the resources of the IMF since 2009, both bolstering the IMF's lending capacity and underscoring the IMF's pivotal role in promoting the stability of the International Monetary System (Rahman et al., 2014: 169).

## 2.2 G20 fields of action in the COVID-19 crisis

The categorization of the most important modes of action and past achievements of the G20 does not only show the scope of what the G20 can do in general but also gives an idea of how the G20 can enable multilateral cooperation to support the COVID-19 response in particular. To contribute duly to tackling the current crisis, first, the G20 should strengthen global health governance by better incorporating the WHO in its activities, giving it a strong mandate to coordinate crisis response, and equipping it with substantial financial resources. Moreover, the G20 should facilitate the worldwide implementation of the WHO's International Health Regulations, in particular by providing technical and financial assistance to poor countries, and thereby contribute to improving pandemic preparedness around the globe. The G20 should also continue to promote universal health coverage. Ensuring that all people receive the health services they need without suffering financial hardship would enable everyone to receive a proper diagnosis and treatment for COVID-19 and provides the basis for a strong health system to responding effectively to health crises (Kickbusch and Gitahi, 2020). These steps would require the G20 to supply top-level political impetus and initiate policies.

Second, and interlinked with the first, the G20 needs to amplify its support for achieving the Sustainable Development Goals (SDGs) in general and, through that, advance global health (e.g., Boutilier et al., 2017). Several steps that the G20 could take in support of the SDGs are outlined, for example, in Görlich et al. (2020). They include increasing accountability by systematic SDG reporting in the G20 Mutual Assessment Process, or promoting the alignment of the governing mandates of financial actors with the SDGs. Progress to SDGs is expected to deteriorate significantly during the COVID-19 crisis. Such a deterioration must be prevented because the SDG framework can, thanks to its universality, provide a "North Star" for all recovery measures (Görlich et al. 2020). With its support measures, the G20 would set norms and supply top-level political impetus.

As shown above, there are several opportunities for the G20 to pull its weight and enable effective multilateral cooperation in response to the COVID-19 crisis. In doing so, the G20 do not "replace global institutions, but (...) galvanise them through a display of political commitment to see these institutions exercise their mandate" (Sidiropoulos, 2020) and, thus, take a role as "enabler" of international cooperation. Having said this, we should not expect the G20 to return as the leading and coordinating crisis management committee as which it emerged in 2008 and 2009 in the aftermath of the global financial crisis (GFC). The GFC required coordinated regulatory action by the largest economies to stabilize financial markets. For this, the G20 was originally set up and, hence, its response was very effective. It is quite unreasonable that the policy responses required to overcome a complex crisis such as the COVID-19 crisis can be managed by a one-stop crisis committee as they require measures in various sectors of the economy and at several levels of governance.

## 3 Ensuring domestic support by tackling rising inequality

The capacity for effective multilateral cooperation rests on solid support from national leaders and domestic constituencies. While the nationalist rhetoric of some leaders is already undermining this support, the economic and social effects of the pandemic are likely to intensify the erosion of domestic support for multilateral cooperation because inequalities within countries are bound to increase strongly during and after the crisis.

The lockdowns and physical distancing measures as well as the enduring closure of schools and childcare facilities entail that richer households get better through the crisis than poorer households. It is especially women who have to carry the burden of the crisis as many are pushed back to fulfil most of the household and care duties, which prevents them from working and pursuing their careers (OECD, 2020). Those with jobs in sectors that are hit by physical distancing obligations are even more affected since they face a higher risk of income loss. As a result, the inequality of opportunities will rise strongly.

Rising inequality, particularly with regard to income and job security, has often been attributed to globalization and has sparked skepticism toward multilateralism as “manager” of globalization. As Narlikar (2020) points out:

[The electorate] attributes increasing inequality within their society, and the job losses and declining wages that they personally endure, to the costs of international trade. The hardships that these groups suffer have several causes, which range from technological change to inadequate welfare mechanisms that could allow for better wealth distribution. But trade is often the easy scapegoat, especially as blame can be all too conveniently attributed to international deal-making.

In this area, domestic policy has an essential role to play to ensure ongoing support for cooperation at the international level.

## 4 Where is global governance helpful?

In a system of multilevel governance, the G20 should only deal with such issues where collective action is needed. Many issues that commentators would like the G20, as a global governance institution, to address are in fact issues for national decision-makers (see Rodrik, 2019). While most issues have cross-border externalities in our increasingly interconnected world, Rodrik makes clear that they cannot and should not be delegated to some international level of decision-making.<sup>2</sup> Doing that would only increase the skepticism towards multilateral cooperation, e.g., because national decision-makers can use it as a scapegoat for their own failures.

To ensure effective multilateral cooperation in the relevant issues, national, regional and local action to contain rising inequality is required first and foremost. This task—while having always been important—must be addressed with increased urgency in the COVID-19 crisis, as we may otherwise see rising skepticism towards international cooperation in times where it is so urgently needed.

Multilevel governance is also important because to tackle the COVID-19 crisis, different countries require very different responses. For example, lockdowns including school closures may cause a myriad of other problems, e.g., in countries where many students depend on their school for a proper meal, or where a shutdown of urban centers may induce migration to rural areas with bad hygienic standards, inadequate health levels and health provision.

Yet, a good system of multilevel governance requires constant exchange and negotiation between the various levels. Countries have their own political structures to ensure this exchange between local, regional and national levels. Institutions such as the G20 provide the structure for an exchange at the global level.

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<sup>2</sup> There are different perspectives on this claim, e.g., Keohane et al. (2009) who argue that multilateral agreements can help national decision-makers to make better policies.

## 5 Concluding thoughts

The previous analysis shows that the real power of the G20 lies in its capacity to (1) set norms by providing shared principles for addressing global policy challenges, (2) start policy initiatives, and (3) lend political support to international institutions and agreements. Due to its flexibility in initiating task forces, working groups and ministerials to shed light on the interconnections between issues, the G20 is the right forum to ask how the various global challenges are connected and to push countries to seek complementarities between their policy responses to the COVID-19 crisis and other global challenges. This is exactly what is needed to navigate through the COVID-19 pandemic and to rebuild a livable post-COVID-19 world.

In its work, the G20 should focus on facilitating collective action to provide and preserve global public goods. Global health is such a global public good, but so is climate protection or a functioning trading system. Here, the G20 must be a leading forum both to enable international institutions such as the WHO or the WTO to fulfil their tasks and to promote collective action to achieve the Sustainable Development Goals of the Agenda 2030, thereby enabling a utopian future of international cooperation. Despite all economic hardship brought by the COVID pandemic, the G20 should also continue to insist on fulfilling existing multilateral agreements, importantly the SDGs and the Paris agreement, which have to serve as a benchmark against which recovery policies implemented at the various levels of governance can be assessed.

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# THE IMPACT OF COVID-19 ON POPULISM: WILL IT BE WEAKENED?

Michael Bayerlein and Győző Gyöngyösi \*

## Summary

- Data shows that populist and nonpopulist governments implemented similar policies to contain the pandemic.
- Nonpopulist governments see stronger increases in popularity.
- Populist governments use the crisis to extend their powers in the political system.
- Populist governments are unlikely to be weakened by the COVID-19 crisis.
- A severe economic crisis might lead to a wave of populist actors getting elected into government.

**Keywords:** populism, COVID-19, health, public opinion, democracy

## 1 Introduction

Research shows that the support for populist political actors regularly increases in times of crisis. For example, after the 2008 financial crisis and in 2015 during the increased influx of refugees, populist parties and politicians gained a considerable amount of support by blaming the “elites” for not protecting “the people” against the fallout of the crises. By contrast, it is less clear how populist governments themselves perform in times of crisis. The COVID-19 pandemic provides an opportunity to examine the performance of populist governments. How will the COVID-19 crisis affect populist leaders in the months to come?

Before addressing this question, we first have to assess what populism is, and what features define a populist government. We follow the definition by Mudde (2004) according to which populists divide the society into two homogeneous antagonistic groups: “the good people” versus “the corrupt elite,” and claim to represent the general will of the people. This definition implies that populism is less of an ideology and more of a political style. While this style is often used for describing opposition parties and candidates, it is also commonly found among governments (see Funke et al., 2020).

Academic discussions focusing on populist governments often suggest that they will ultimately fail, as they are not capable of running a country effectively (see, e.g., Dornbusch and Edwards, 1990; Sachs, 1990). In a similar vein, many now hope that the COVID-19 crisis will unmask the inability of populist governments to provide better policies for “the people” than “the elite,” leading to a global retreat of

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populism. Nevertheless, our analysis shows that the crisis management of populist governments, so far, is fairly similar to the containment strategies of nonpopulist governments. Although nonpopulist governments see a stronger increase in popularity, populists also become more popular. Moreover, we find that populist governments systematically use the crisis to extend their powers through emergency laws. Taken together populist governments are unlikely to be weakened by the COVID-19 crisis.

In the following sections, we first analyze the crisis management by populist governments and nonpopulist governments. Afterwards, we provide insights on the effect of this crisis management on the support for populist governments. Last, we turn to the emergency laws implemented in the course of the crisis management and assess their impact on democratic institutions.

## 2 Containment policies

To analyze the crisis management, we use a novel database on containment policies (Hale et al., 2020).<sup>1</sup> This allows us to compare the policy measures introduced by populist and nonpopulist governments. The policy measures range from school closures to banning of public gathering, and to travel restrictions. These policies are summarized in an index ranging from 0, when no policies are in force, to 100, when all of these policies are introduced. As the outbreak of the virus occurred at different points in time, we normalize the onset date of the epidemic by analyzing the measures employed in the 25 days before and after the number of COVID-19 deaths passed 10 in a given country.<sup>2</sup> Figure 1 shows that the policy responses have been very similar for populists and nonpopulists. Although populist governments implemented these containment measures slightly earlier on average, they converged over time as more and more countries introduced stricter measures to counter the spread of the virus. But there is significant heterogeneity in the responses as the US and UK were lagging behind in the immediate response,<sup>3</sup> but caught up with other countries. Other populist ruled countries like Poland, Hungary, and India implemented measures rather quickly (Hale et al., 2020). Hence, in the immediate crisis management, the populist governments in our sample—on average—did not respond differently than other governments. However, focusing only on travel restrictions, populist governments were quicker to shut down the borders.

Despite implementing similar policies, the question remains whether the support for populist governments during the crisis is also similar to the one for other governments.

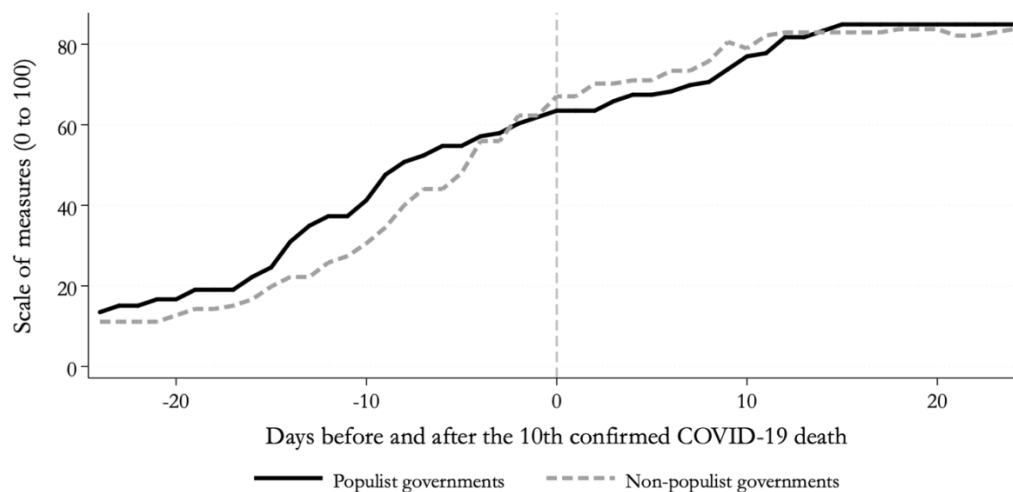
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<sup>1</sup> Our sample consists of 14 countries. We choose these countries based on size and the extent of the crisis in the country. The countries included in our sample are Austria, Brazil, Canada, France, Germany, Hungary, India, Italy, Japan, Mexico, Poland, Spain, the UK, the US. In six of these countries, we identify a populist government (Brazil, Hungary, India, Poland, the UK, and the US). This coding of populist governments is based on Funke et al. (2020).

<sup>2</sup> The 10th confirmed death is a common measurement in assessing the beginning of the epidemic in a country; see Financial Times, via Internet (12.05.2020): <<https://www.ft.com/content/c4155982-3b8b-4a26-887d-169db6fe4244>>. The graph is similar when using the 100th confirmed infection.

<sup>3</sup> Bloomberg, “Boris Johnson's Coronavirus Response Is a Fiasco.” Via Internet (12.5.2020): <<https://www.bloomberg.com/opinion/articles/2020-03-25/coronavirus-boris-johnson-s-response-has-been-a-fiasco>>. Washington Post, “2 months in the dark: the increasingly damning timeline of Trump’s coronavirus response.” Via Internet (12.5.2020): <<https://www.washingtonpost.com/politics/2020/04/07/timeline-trumps-coronavirus-response-is-increasingly-damning/>>.

**Figure 1:**  
Containment measures by populist and nonpopulist governments



*Notes:* The figure shows the scale of containment measures employed by populist (solid black line) and nonpopulist governments (dashed grey line) before and after the 10<sup>th</sup> confirmed COVID-19 death. The scale ranges from 0 (no measures) to 100 (all possible measures).

**Source:** Hale et al. (2020); own illustration.

### 3 Popular support

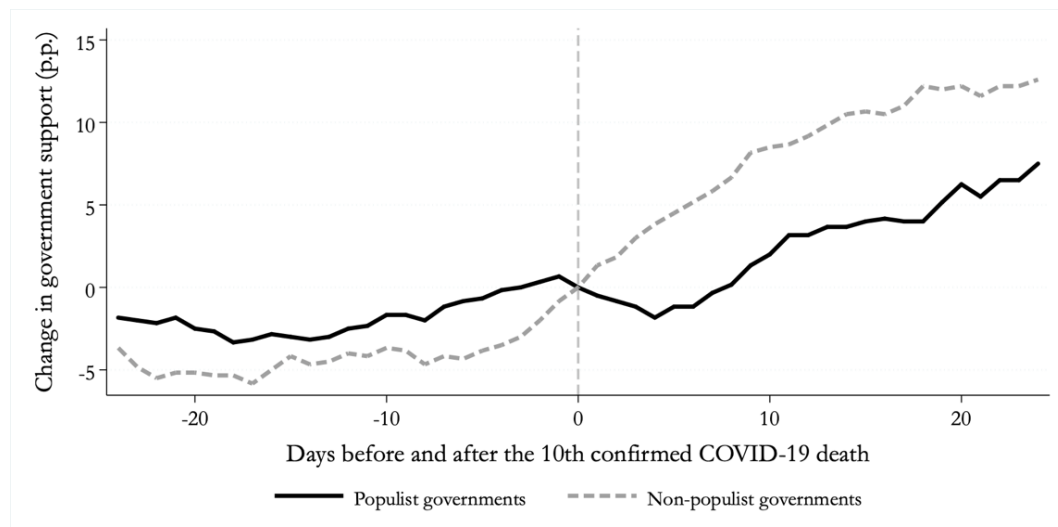
Immediately after the onset of the COVID-19 crisis, the question was voiced in public and academic discussions whether the support for populist governments would be diminished by the crisis. To provide first evidence on this question, we collected data on the support for populist and nonpopulist governments during the crisis. Similar to the previous graph, we normalize the date by measuring the support from the day when the number of COVID-19 deaths passed 10. Figure 2 shows the evolution of the support for populist and nonpopulist governments.

The figure reveals that nonpopulist governments—on average—benefited from the pandemic as their support increased since the outbreak of COVID-19. We can see a similar pattern for populist governments. The displayed increase in support points to the so-called “rally ‘round the flag” effect, which describes the short-run support for a country’s leader in managing a crisis (see Mueller, 1970).

However, immediately after the crisis erupted, we find a drop in the average support for populist governments, as well as a surprisingly slow increase in support over the course of the crisis. The displayed difference is especially noteworthy as populist governments were more popular before the COVID-19 outbreak. In fact, the only populist in government whose support grew strongly during the crisis is Boris Johnson in the UK. Contrary to that, the support for Brazil’s Jair Bolsonaro plummeted after the outbreak. Other populist leaders, like Donald Trump, Narendra Modi, Viktor Orbán, and the governing Polish PiS party witnessed only minor increases in their popular support.

Populist governments are—on average—seemingly not able to capitalize on the crisis compared to nonpopulist governments. This might be due to the fact that the COVID-19 crisis can only hardly be attributed to the failure of “the elites” or blamed on an identifiable subgroup of the population. This

**Figure 2:**  
Change in support for populist and nonpopulist governments



**Notes:** The figure shows the average cumulative change in support for populist (solid black line) and nonpopulist governments (dashed grey line) in the days before and after the 10<sup>th</sup> confirmed COVID-19 death. The change in support is calculated by using the change in the net government approval, and—where no approval data was available—change in the polling data. The net approval data comes from Morning Consult. The polling data is taken from Politico.

**Source:** Morning Consult (2020); Politico (2020); own illustration.

makes it difficult for populist actors to gain from the crisis. Further, populism is usually accompanied with political polarization of society (see Urbinati, 2017). This increased polarization makes it less likely that people change their opinion on populist politicians, preventing party realignment.

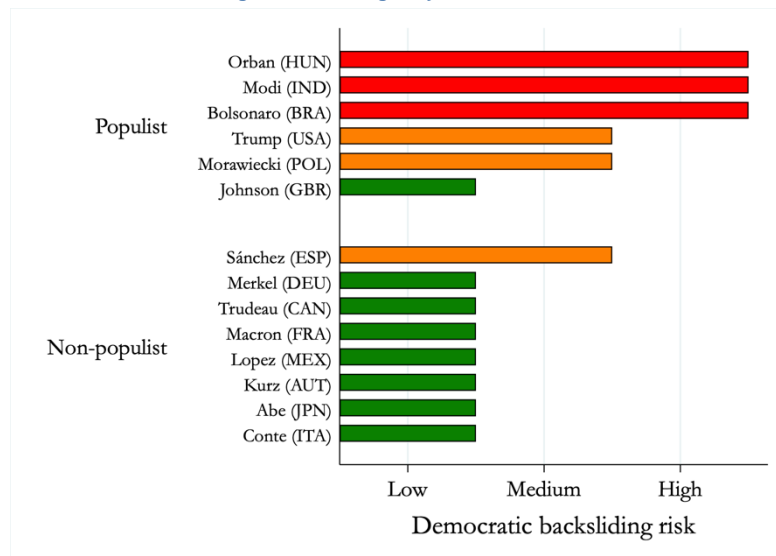
The lower increase in support for populists implies that political pressure on these governments may rise to reopen the economy sooner if the lock down continues. Thus, populist governments may roll back the containment policies earlier than nonpopulists.

## 4 Democratic institutions

Over the course of the COVID-19 crisis many parliaments enacted emergency laws. This kind of mandate gives the respective government the rights to implement policies faster to contain the pandemic and prevent an economic fallout. But it also allows them to implement controversial policies that limit political competition by suspending the political system's checks and balances.

As shown in the previous sections, populist governments implemented similar containment measures as nonpopulist governments. To analyze the scope of the emergency laws that accompany these measures, we use the novel Pandemic Backsliding Index (Lührmann et al., 2020) that classifies whether the introduced emergency laws pose a risk to the political system's checks and balances. Figure 3 presents the democratic backsliding risk of the emergency laws introduced by governments.

**Figure 3:**  
**Democratic backsliding risk of emergency measures**



**Notes:** The figure shows the democratic backsliding risk of the emergency laws introduced by governments. The risk scores can be low (green), medium (orange) or high (red).

**Source:** Lührmann et al. (2020); own illustration.

This shows that five out of six populist governments introduced laws that pose a medium or high risk to democratic institutions. For example, in India the legislature has been suspended indefinitely.<sup>4</sup> In Hungary, the government is now able to rule with decree,<sup>5</sup> and the Polish government implemented a new law extending the state of emergency beyond the scope permitted by the constitution.<sup>6</sup> Similarly, the declaration of Donald Trump indefinitely circumvented legal constraints on his executive powers without Congressional approval and was arguably unmerited by current developments of the crisis.<sup>7</sup> But free speech and free press are also under attack in populist governed countries. For example, Brazil suspended the constitutional right to receive requested information from the government and the Hungarian government reserved the right for itself to determine what is a punishable “misinformation.”<sup>8</sup> Only the emergency laws introduced by Boris Johnson in the UK are ranked as low risk. From the nonpopulist governed countries, only Spain is ranked at medium risk.

<sup>4</sup> CNN, “India’s parliament adjourns in wake of coronavirus lockdown.” Via Internet (12.5.2020): <[https://edition.cnn.com/world/live-news/coronavirus-outbreak-03-23-20-intl-hnk/h\\_9ca1e0e579b25b920f6d3f291a515986](https://edition.cnn.com/world/live-news/coronavirus-outbreak-03-23-20-intl-hnk/h_9ca1e0e579b25b920f6d3f291a515986)>.

<sup>5</sup> The Guardian, “Hungary passes law that will let Orbán rule by decree.” Via Internet (12.5.2020): <<https://www.theguardian.com/world/2020/mar/30/hungary-jail-for-coronavirus-misinformation-viktor-orban>>.

<sup>6</sup> American Chamber of Commerce in Poland, “Anti-Crisis Shield to limit the negative effects of the pandemic. Via Internet (12.5.2020): <<https://amcham.pl/news/anti-crisis-shield-limit-negative-effects-pandemic>>.

<sup>7</sup> Washington Post, “House passes resolution to nullify Trump’s national emergency declaration.” Via Internet (12.5.2020): <[https://www.washingtonpost.com/powerpost/house-sponsor-of-resolution-to-nix-emergency-declaration-acknowledges-uphill-battle-on-overriding-expected-trump-veto/2019/02/26/22104532-39d2-11e9-aaae-69364b2ed137\\_story.html](https://www.washingtonpost.com/powerpost/house-sponsor-of-resolution-to-nix-emergency-declaration-acknowledges-uphill-battle-on-overriding-expected-trump-veto/2019/02/26/22104532-39d2-11e9-aaae-69364b2ed137_story.html)>.

<sup>8</sup> Committee to Protect Journalism, “Brazil restricts access to government information amid COVID-19 emergency.” Via Internet (12.5.2020): <<https://cpj.org/2020/03/brazil-restricts-access-to-government-information-.php>>. The Guardian, “Hungarian journalists fear coronavirus law may be used to jail them.” Via Internet (12.5.2020): <<https://www.theguardian.com/world/2020/apr/03/hungarian-journalists-fear-coronavirus-law-may-be-used-to-jail-them>>.

Although populist governments introduce similar measures to contain the spread of the virus, they disproportionately used the crisis to increase their powers in the political system. From this one could conclude that populist governments might ultimately be weakened, as their moderate increase in support makes them more vulnerable to decreasing public support due to the economic fallout after the crisis is over. Nevertheless, populist governments might exit the crisis more strengthened due to systematic erosion of democratic institutions through emergency laws.

## 5 Conclusion and outlook

In this paper we studied how populist governments are affected by the COVID-19 crisis. We provided three key insights to this question. First, populist and nonpopulist governments implemented similar policy measures to counter the spread of the virus. Second, while nonpopulist governments were—on average—able to increase their support during the crisis, populist governments regularly only witnessed moderate increases in support, suggesting that populist governments might become weakened through the crisis after all. Third, populist governments use the crisis to strengthen their position in the political system by subverting democratic institutions through emergency laws, a finding that clearly sets them apart from other governments in our sample.

These findings suggest that populist governments will not be weakened by the crisis in the short-run. Whether they will be weakened in the long-run will heavily depend on the economic policies they implement to counter the economic fallout of the crisis, as well as the suspension of emergency powers after the crisis is over.

But can we expect more populist governments to emerge from the crisis? Current polling of populist opposition parties and candidates shows decreasing support in most of the countries. For example, the German Alternative für Deutschland and the Italian Lega Nord have both lost 5 percentage points since the onset of the crisis.

In the long run, we might, however, see a new surge in populist governments around the world, if the fallout of the crisis is not handled effectively or exploited by populists in opposition. Although blaming “the elite” is less credible for the COVID-19 crisis itself, blaming the elite for the mismanagement of the economic crisis after the pandemic is contained is more straightforward, and could lead to a surge in populist governments similar to the aftermath of the 2008 Financial Crisis. People’s voluntary behavior and policies aiming to mitigate the spread of the virus limit economic activity in the short-run. A recession, thus, seems certain for this year, but there is large uncertainty surrounding the speed of the economic recovery, and a lot may depend on economic policies. A severe economic crisis might thus not only weaken populists in government but also lead to a wave of populist actors getting elected into government.

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