

International trade, trade policy and foreign investment: preliminary considerations on the impact of the COVID-19 crisis¹

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1 Introduction

The world is facing a period of great tribulation as a result of the COVID-19 outbreak, and international trade is an obvious target, whether as a result of decreased global demand for goods (and also the likely effects on the price of trade goods, especially commodities) or as a result of supply capacity restrictions in many sectors and countries due to social isolation and lockdown measures. In a globalised world, marked by the significance of global value chains in major industrial sectors, there is considerable interconnection between the productive structures of various countries, whose functioning depends on the free flow of goods (and people) across national borders, which are currently subject to strict control.

This Policy Research Brief aims to provide a preliminary assessment of the impacts of the current health crisis on international trade in goods (Section 2) and discuss its effects on trade policy (Section 3), and on direct foreign investments, including the issue of global value chains (Section 4). The analysis takes into consideration changes that had already been taking place in trade, commercial policies and investments over the years preceding the COVID-19 outbreak, especially those after the 2008-2009 financial crisis, and to what extent the current crisis could deepen or alter these trends, or even introduce new elements that could alter the behaviour of these variables.

This exercise naturally has a rather speculative character—given that the current health emergency has characteristics that have not been seen for the last 100 years, and there is still much uncertainty regarding the duration of the crisis—and limited reach, given that there are no doubt a myriad other elements that merit analysis but which are outside the scope of this paper. Given these clear limitations, this brief hopes to contribute to a better understanding of what is to come in the area of trade and investments in the near future, building scenarios for the evolution of global trade during 2020 and 2021 and listing a series of factors that might alter trade policy decisions and investments in the short term.

2 Global trade

Attempting any estimation or projection of the evolution of global trade in 2020 is a very difficult task at the moment, given that:

- it is a very recent event; the recognition of the pandemic and the adoption of large-scale social isolation measures in many countries occurred as late as March, although they were observed in prior months in China and some other Asian countries;
- it is still not known for how long these restrictive measures will last, or how the gradual lifting of restrictions will take place;
- it is a shock with unprecedented characteristics over the last 100 years; therefore, trajectories observed in other crises—such as those in the 1990s, the financial crisis of 2008-2009, the Great Depression in the 1930s or even the Second World War—probably do not offer an adequate perspective from which to deal with the current situation;
- traditional methods of economic modelling—such as econometric models and general and partial equilibrium models—do not adequately cope with tail-end events, which imply structural breaks; and
- there is scant knowledge about the connections between public health crises and macroeconomic variables.

Given these elements, we have, therefore, chosen to build scenarios in this brief. Nevertheless, this effort must be anchored in some structural indicator. The performance of gross domestic product (GDP) is traditionally the main indicator that explains and conditions the evolution of international trade flows, at least in the absence of elements that directly constrain it, such as increased tariff and non-tariff barriers, for example. The scenario presented here does not take into consideration these developments, although their occurrence cannot be discarded, as will be further discussed in Section 3.

2.1 Global economic activity

Various institutions (banks, consultancies, business organisations etc.) have already started to review their projections for global GDP growth in 2020, although this has not yet been carried out by the two most significant multilateral institutions, the International Monetary Fund (IMF) and the World Bank, whose figures are considered 'official' projections. All projections are accompanied by observations regarding the high level of uncertainty and the significant likelihood of revision, as official figures for countries' economic activity come out in March and over the following months.

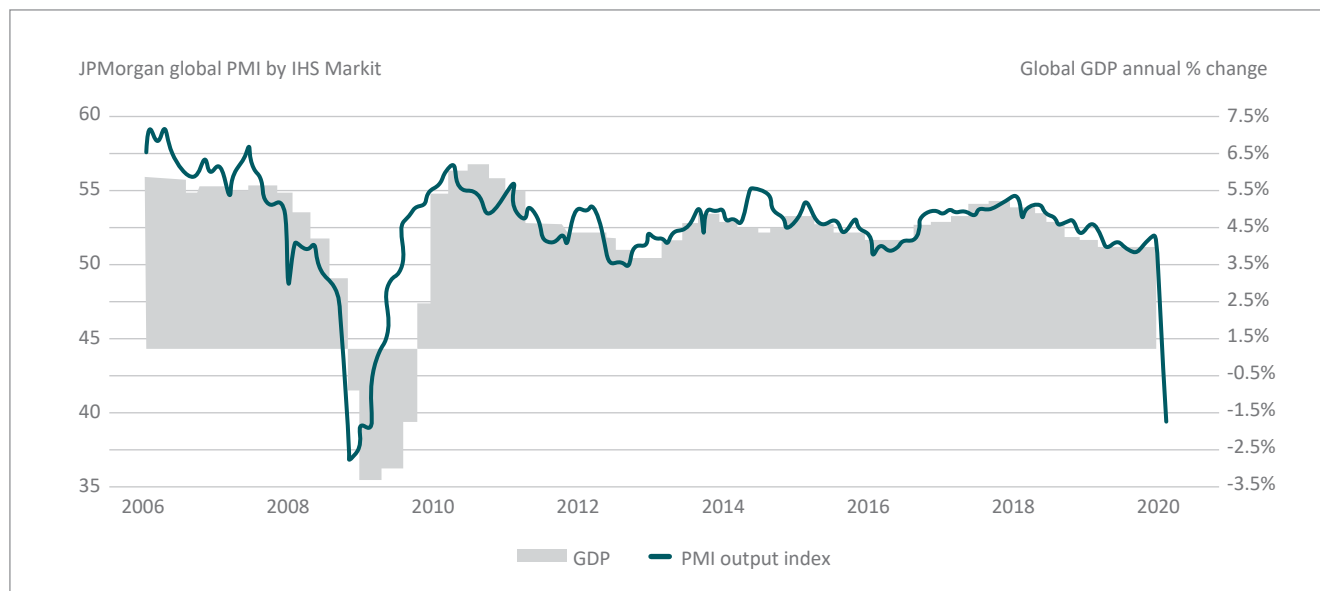
As a rule, projections take into account a scenario of a strong decrease in economic activity during the first half of the year (stronger in the second quarter than in the first) and intense recovery during the second half, with a return to 'normalcy' in 2021. This scenario is built on two fundamental hypotheses. The first is that social isolation measures will prevail at most until the midpoint of the year, and that from July or August onwards

consumers will return to their pre-crisis rhythm and volume of shopping, and all economic sectors will rapidly recover their previous levels of production.

The second is that governments will successfully implement fiscal and monetary measures designed to support the economy, minimising the immediate impact of the crisis on households (supporting their income), companies (avoiding mass bankruptcy) and the financial system (avoiding breaks in credit and payment systems). In effect, governments all over the world have been announcing measures to this end. The USA, for example, has approved the largest stimulus package in history, to the tune of USD2 trillion, including direct payments to individuals and companies, tax exemptions and loans with favourable conditions.⁵ In a virtual meeting carried out on 25 March 2020, G20 countries committed to doing whatever is necessary and using every available policy instrument to minimise the economic and social damages resulting from the pandemic to restore economic growth, maintain market stability and increase their resilience.⁶ According to the organisation's calculations, member countries are injecting around USD5 trillion into their economies.

The intensity of the decrease in economic activity during March can be seen in JP Morgan's Global Purchasing Manager's Index (PMI), which fell to 39.4 from 46.1 in February. For the sake of comparison, at the worst point of the 2009 financial crisis, the PMI was close to 37. Figure 1 shows a high correlation between the PMI and global GDP.

FIGURE 1
Global PMI and GDP 2006–2020



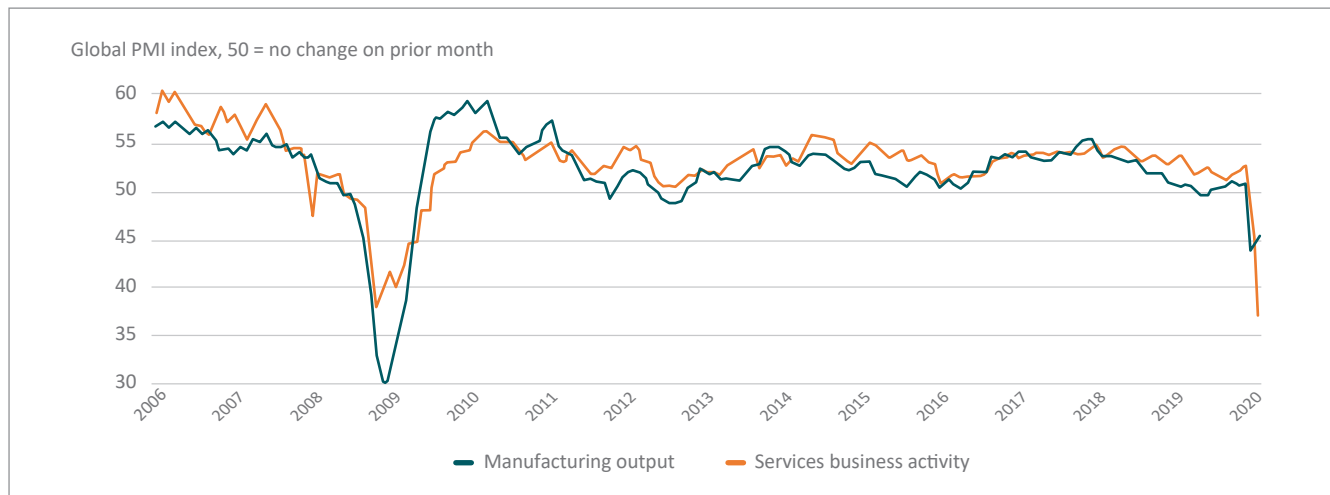
Source: IHS Markit, JPMorgan.

Figure 2 shows that the decrease in PMI was more intense in the service sector than in the industry sector, contrary to what was observed during the 2008-2009 crisis. This is a clear indication that this crisis is indeed different from those that came before, and that social isolation measures tend to affect service activities more severely.

The Organisation for Economic Co-operation and Development (OECD) carried out an estimation of the short-term impacts of the social isolation and lockdown measures on economic activity that have taken place in almost all affected countries, as inputs for the G20 virtual meeting.⁷ This exercise estimates the impacts on the GDP of various countries (not only OECD member countries) from the perspectives of both supply and demand.

FIGURE 2

Global output 2006–2020



Source: IHS Markit, JPMorgan.

On the supply side, the sectors affected most would be services—especially those that depend on transit and contact between people, such as tourism, cinemas, theatres, restaurants, retail commerce and personal services—as well as construction and other labour-intensive industries. According to the OECD, these sectors represent 30 per cent to 40 per cent of the economic activity in the countries analysed. Supposing that these activities suffer a decrease of between 50 per cent and 100 per cent, the short-term impact on GDP would be something around 15 per cent to 30 per cent, depending on the productive structure of each country. Countries where agriculture and mineral extraction figure more heavily in the economy would tend to be less severely impacted. In any case, the median decrease across all countries would be around 25 per cent.

On the demand side, the impact of the reduction of household consumption is estimated as a function of containment measures. There will be greater impacts on service expenditures (the same services outlined in the supply analysis), as well as on the acquisition of consumer durables and less essential non-durables (such as clothing). The acquisition of essential goods and services (food, public utilities) would not be affected. Considering

that household consumption is responsible for 60 per cent of the countries' aggregate demand—and that there would be a reduction in imports, positively affecting GDP—the OECD estimates a short-term reduction in GDP in the order of 20 per cent.

Finally, the OECD estimates that, for every month of social confinement, there will be a reduction in country growth of two percentage points, compared to the growth that would have occurred in the absence of the pandemic. Therefore, if social isolation were to last for two or three months, there would be a reduction in GDP of between four and six percentage points. Although no official growth projections were offered for 2020, given that the pre-crisis projection was of a 2.9 per cent increase, the situation allows us to deduce that there will now be a decrease of between 1 per cent and 3 per cent.

Table 1 depicts this projection, as well as those introduced by three different institutions: the United Nations (UN), the Institute of International Finance (IIF) and the Economist Intelligence Unit (EIU). The last two have presented projections for global GDP, as well as for selected developed countries and blocs. All projections were carried out after the pandemic was declared.

TABLE 1

GDP growth in 2020: projections carried out after 25 March 2020

	IIF	EIU	UN	OECD
Global	-1.5	-2.2	-0.9	-1 to -3
USA	-2.8	-2.8		
China	2.8	1.0		
Japan	-2.6	-1.5		
Euro zone	-4.7	-5.9		
India	2.9	2.1		
Latin America	-2.8	-		
Brazil	-1.8	-5.5		
Argentina	-3.1	-6.7		
Mexico	-2.8	-5.4		

Source: IIF, EIU, UN and OECD.

In the projections for the main countries/blocs, it is important to point out that only China and India will see an increase in GDP during the year, but even so, the outcome will be far below the rates of growth observed in previous years. The region that will be most affected by the crisis will be the Euro Zone, with a decrease in GDP of around 5 per cent to 6 per cent. There will also be a significant decrease in the USA, Japan and Latin America.

2.2 Risk factors for the scenarios

Every attempt to draw projections and build scenarios must take into account risk factors, which are elements that can affect the predicted outcomes, whether for the better ('upside risks') or for the worse ('downside risks'). Considering these factors becomes even more important in the current crisis, given that it is a shock with very peculiar characteristics compared to those of previous decades. This means that there is great uncertainty regarding the behaviour of many variables, but about which it is possible to perform some risk analysis ('known unknowns'). There are also completely unpredictable elements, about which there is not enough knowledge to even perform a rudimentary risk analysis (the so-called 'unknown unknowns'). We will discuss some of the factors that are relevant to risk assessment.

Among the risk factors that might lead to better outcomes than expected (upside risks), there are two that deserve special mention. The first regards the effectiveness of the economic policy measures that are being adopted. Although the projections presented in the previous subsection already take into consideration the positive effect of these measures, it is possible that this effect will be greater than expected, whether because they are being adopted more quickly than in previous crises (for example, the stimulus package reacting to the 2008-2009 financial crisis took months to be approved in the USA, and a similar situation happened in Europe), because the magnitude of resources involved is higher than in any other crisis over the past 100 years, or even because governments are less wary of financial restrictions or the use of unconventional monetary policies (such as quantitative easing).

The second risk factor refers to the possibility that scientific developments will quickly result in medicines and therapies that can effectively treat the novel coronavirus. Although the pace of scientific discoveries is usually not that brisk, there are many highly concerted efforts taking place all over the world; therefore, this possibility must be considered.

As for the factors that might lead to worse outcomes than expected, the list is longer. We highlight the following:

- An eventual continuation of the pandemic and of its restrictive effects for longer than previously expected: Generally, the scenarios designed consider a normalisation of activities by the second semester, but the gradual dissemination of the virus across various countries could prolong the process. There is also the risk of a second wave of contamination and deaths as countries start to loosen restrictions and the level of social contact climbs back up.
- Possible breaks in global value chains, which require more time to recover to pre-crisis production levels: It is even possible that, for precautionary reasons, many companies decide to modify their supply chain by internalising

activities, reducing geographic dispersion and/or replacing foreign suppliers with local ones. If this occurs on a large enough scale, the recovery to pre-crisis production levels and production growth will tend to occur more slowly, as chains are slowly reorganised.

- More profound economic and social imbalances that could lead to structural impacts that are difficult and slow to reverse, such as bankruptcy of a large number of companies, increased default rates, very high unemployment and increased poverty: This would imply a loss of production capacity (or a reduction of potential GDP), which would hinder a rapid return to pre-crisis levels, especially in countries that operated at near-full employment levels, such as the USA or even China.
- The possible rise of a financial crisis, as many companies and individuals have suffered income losses so severe as to not be able to honour prior debt payment commitments: In developed countries, this risk is attenuated by the fact that banks are in a more solid position to cope with losses, and because central banks are acting to supply the necessary liquidity, not only to banks themselves but also to companies and households.
- The possibility of payment balance crises in countless poor or developing countries: In fact, capital flight has been happening in emergent economies since 2019, and there is evidence that after the first news of the COVID-19 outbreak there was a sudden stop in capital inflows and an acceleration of foreign capital outflows at unprecedented levels—surpassing even those observed during the 2008-2009 financial crisis.⁸ The consequences are already being felt in exchange rates, which are heavily devalued, and might bring additional difficulties to countries with financial deficits and which lack sufficient reserves.
- A possible increase in protectionism, whether to stimulate the recovery of domestic production (siphoning demand from imports), stimulate the internalisation of productive chains or avoid competition amid a surge of imports as economic activities ramp up again and countries seek exports as a rapid path to recovery: An intensification of trade wars cannot be discounted, such as the one currently taking place between the USA and China. This might involve increased tariffs, but it will probably involve non-tariff barriers, according to prevalent trends in the 2010s.
- Possible political instability in several countries and regions, especially across the developing world.

2.3 Scenarios for the evolution of global trade

To construct global trade scenarios, a decrease in global GDP of 2 per cent will be considered for 2020, which is an intermediate value between the various projections previously presented. In a more optimistic scenario, a decrease of 0.5 per cent is considered, given that even taking into account some upside risk factors, it is unlikely that the global economy will avoid negative growth. If some of the downside risk factors prevail, the decrease in global GDP might be much more pronounced—around 3.5 per cent.

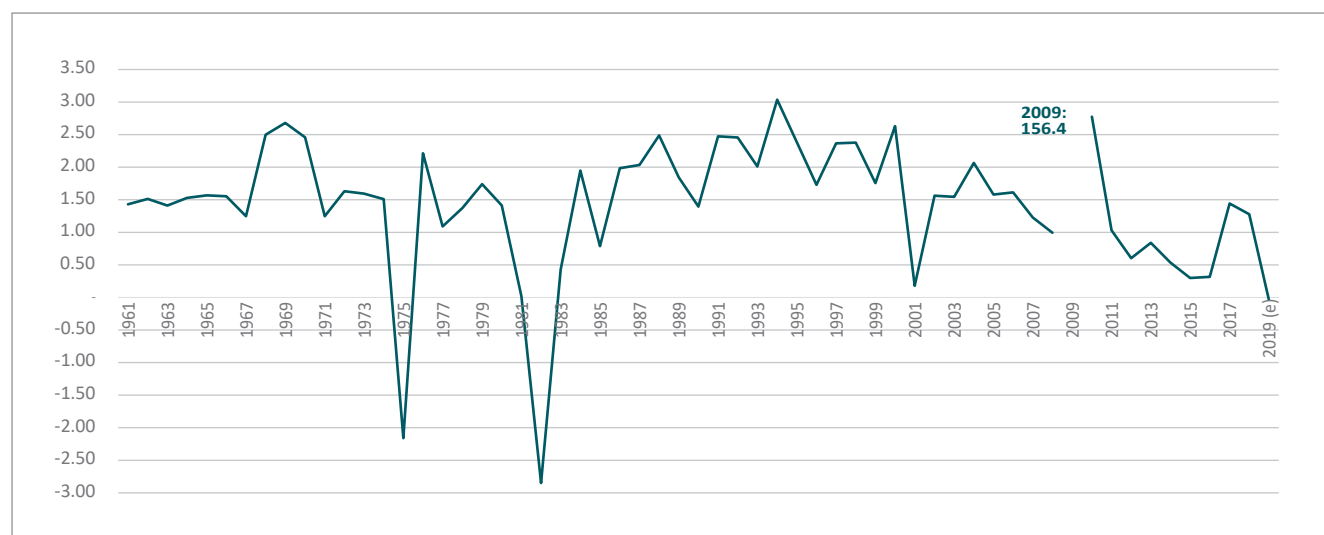
The scenarios also ponder what will happen in 2021, when global economic activity will possibly return towards a 'normal' situation. In this case, we can also draw three scenarios: (i) growth close to what would today be considered the potential growth of the global economy, of around 3.5 per cent; (ii) a strong recovery after the recession, similar to what happened in 2010, with growth in the order of 5 per cent; and (iii) a slow uptake in activity, with some of the negative effects of the current crisis extending up to the first months of next year, which would limit growth to around 2 per cent.

To transpose these GDP growth scenarios into global trade scenarios, it would be necessary to apply elasticity. Long-term elasticity estimates between global imports (in volume) and GDP fall between 2 and 3, depending on the method used and period analysed (Constantinescu et al. 2015a; Hoekman 2015). However, there are studies that indicate a decrease in this elasticity after the

2008-2009 financial crisis, to values closer to 1 (Constantinescu et al. 2015b; Bussière et al. 2013; Hoekman 2015; Boz et al. 2014; Auboin and Borino 2014; Aslam et al. 2017).

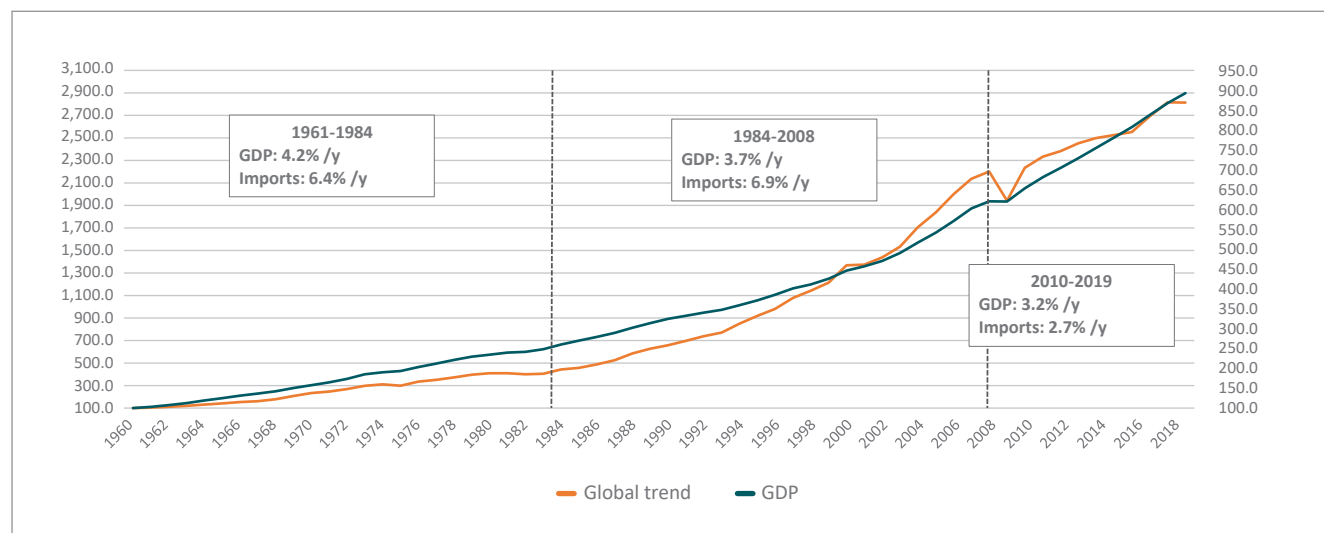
More important, however, is the observation that the relationship between imports and GDP has an atypical behaviour during international crises. Figure 3 shows that in almost all years between 1961 and 2019 the ratio between the rate of global import growth and GDP growth (a proxy for short-term elasticity, without proper controls for other variables that would affect the relationship) varied between 1 and 3. Exceptions were years marked by crises: 1975 (first oil shock), 1982 (American recession and external debt crisis in developing countries), 2001 (American recession) and 2009 (global financial crisis). In 1975 and 1982 the ratio went negative, given that GDP still had a positive (although small) variation and there was a decrease in global trade. In 2009 there was a slight decrease in global GDP (0.075 per cent), and global imports fell by almost 12 per cent, resulting in a very high ratio.

FIGURE 3
Ratio between the rate of growth of global imports and of global GDP, 1961–2019



Source: World Bank, World Development Indicators <<https://bit.ly/2WgRvVz>>.

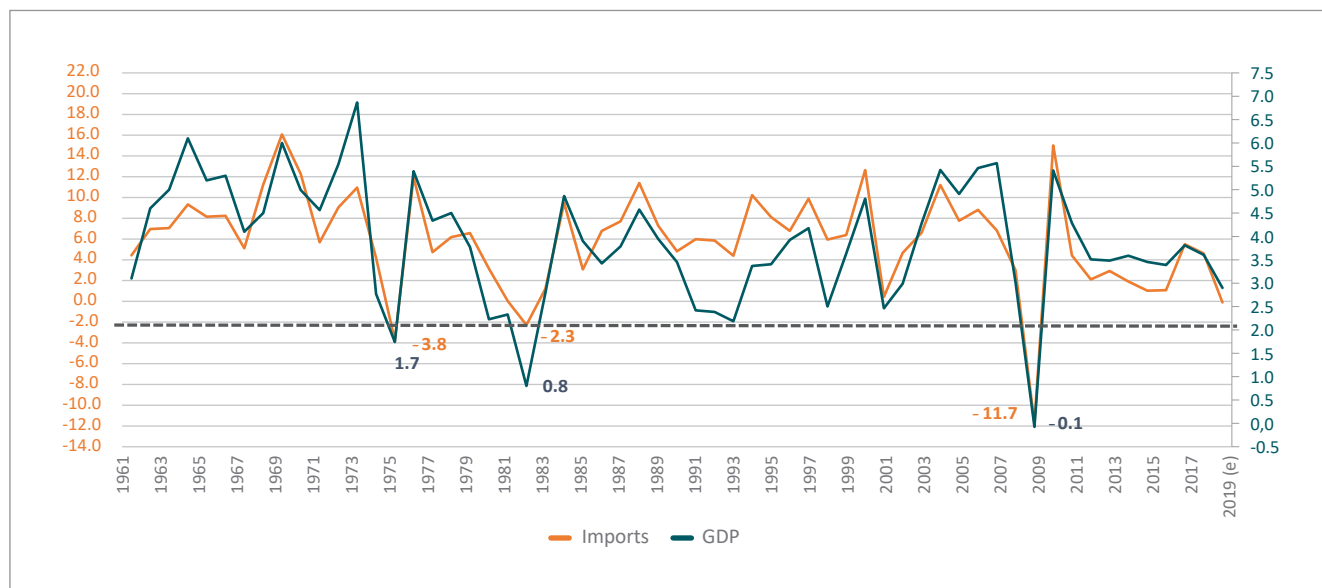
FIGURE 4
Evolution of GDP and global imports, 1960–2019 (1960=100)



Source: World Bank, World Development Indicators <<https://bit.ly/2LekV0o>>.

FIGURE 5

Rates of annual GDP growth and global imports, 1961–2019 (as a percentage)



Source: World Bank, World Development Indicators <<https://bit.ly/2yGm3Hh>>.

It is interesting to note that the ratio was also under 1 in most years after 2012, in line with the fall in the elasticity–income ratio in global trade after the 2008 crisis. Figure 4 illustrates that, in fact, the quantum of global imports grew more slowly than GDP after the crisis, contrary to what happened in later decades, especially during the period known as ‘hyperglobalisation’ (1984–2008).

Finally, Figure 5 illustrates another important point in the relationship between global trade and GDP: for global trade to decrease, it is not necessary for global GDP to decrease. Rather, it is enough for global GDP to grow by less than 2 per cent, as could be observed in 1975, 1982 and 2009. This is because growth in the service sector is less volatile and ameliorates the fall in GDP during periods of crisis. On the other hand, the trade in goods closely follows the performance of industrial GDP, which fares worse during crises.

Therefore, given what was discussed above, it is unreasonable to project the behaviour of global trade during 2020 by simply applying an elasticity based on the performance of global GDP. Even if the current crisis differs significantly from previous crises, they still comprise the only available reference point, and they show that each percentage point of GDP growth below 2 per cent represents a decrease of several points in trade. If a variation in GDP close to zero, such as happened in 2019, leads to a decrease in trade close to 12 per cent, it is not too much to suppose that a reduction of 2 per cent in global GDP would lead to a decrease of around 20 per cent in global trade. In the more positive scenario (with a reduction in global GDP of 0.5 per cent), we might expect a decrease in trade that is a little higher than the 12 per cent observed in 2019—something close to 15 per cent. In the more negative scenario (with a reduction in global GDP of 3.5 per cent), trade decreases by around 25 per cent.

For 2021, it is reasonable to project a recovery in trade growth as a corollary of GDP recovery. Although the predominant

elasticity after 2009 is close to 1, it is very likely that, after a year of extraordinary decline, trade will also have above-average growth during the recovery year—with an elasticity relative to GDP close to 2, for example. Given the three GDP scenarios, trade growth in 2021 might be 4 per cent, 7 per cent or 10 per cent.

Naturally, it would be possible to imagine a very optimistic scenario in which trade would recover very strongly in 2021, perhaps even recovering all losses incurred in 2020. However, there are elements that make this scenario rather unlikely. The first is the reduction of the elasticity of trade in relation to GDP observed since 2011 (in 2019, the last World Trade Organization (WTO) estimate shows that there was a reduction in trade of 0.1 per cent, with global GDP growing by 2.3 per cent). The second is the increase in non-tariff barriers and the proliferation of trade conflicts, such as the one between China and the USA, as well as the clear weakening of the WTO. The third element is the halted construction of global value chains, with the possible deconstruction of certain chains.

Thus, and once again we must be very clear about the high level of arbitrariness contained in the hypotheses described above, Table 2 combines the three scenarios for contraction of imports in 2020 and the three scenarios for recovery in 2021, leading to nine possible results for the evolution of global trade in 2020 and 2021.

In the best scenario, global trade experiences a cumulative decrease of 6.5 per cent over the two-year period, and in the worst scenario, of 22 per cent. In most cases, the cumulative decrease is somewhere between 11 per cent and 20 per cent.

When this brief was being finalised, the WTO released a document⁹ containing forecasts for global trade growth and for the imports and exports of major economic blocs: North, Central and South America; Europe; Asia; and other regions. The document presents two scenarios, depicted in Table 3.

TABLE 2

Scenarios for the variation of global imports in 2020 and 2021 (as a percentage)

2020	2021	Cumulative 2020-2021
	4,0	-16,8
-20,0	7,0	-14,4
	10,0	-12,0
	4,0	-11,6
-15,0	7,0	-9,1
	10,0	-6,5
	4,0	-22,0
-25,0	7,0	-19,8
	10,0	-17,5

Source: Authors' elaboration.

In the optimistic scenario, trade would experience a 12.9 per cent decrease in 2020 and 21.3 per cent growth in 2021, with overall growth of 5.7 per cent relative to the aggregate two-year period. This scenario predicts a V-shaped behaviour of the global economy, with a significant decrease in GDP and global trade in 2020 and a strong and rapid recovery the following year. This generally follows what was observed in 2009 and 2010.

In the pessimistic scenario, it is hoped that the global economy will have an L-shaped behaviour, with a considerable decline in GDP and trade in 2020 and a modest recovery in 2021. The outcome is that trade would see a cumulative decrease of 15.6 per cent. This number is close to the median of cumulative growth across most scenarios presented in Table 2, especially the intermediate and pessimistic scenarios.

TABLE 3

WTO scenarios for variations in global trade in 2020 and 2021: total and main regions (as a percentage)

	Optimistic scenario			Pessimistic scenario		
	2020	2021	Cumulative 2020-2021	2020	2021	Cumulative 2020-2021
Global trade	-12.9	21.3	5.7	-31.9	24.0	-15.6
Global exports						0.0
North America	-17.1	23.7	2.5	-40.9	19.3	-29.5
Central and South America	-12.9	18.6	3.3	-31.3	14.3	-21.5
Europe	-12.2	20.5	5.8	-32.8	22.7	-17.5
Asia	-13.5	24.9	8.0	-36.2	36.1	-13.2
Other countries	-8.0	8.6	-0.1	-8.0	9.3	0.6
Global imports						0.0
North America	-14.5	27.3	8.8	-33.8	29.5	-14.3
Central and South America	-22.2	23.2	-4.2	-43.8	19.5	-32.8
Europe	-10.3	19.9	7.6	-28.9	24.5	-11.5
Asia	-11.8	23.1	8.6	-31.5	25.1	-14.3
Other countries	-10.0	13.6	2.2	-22.6	18.0	-8.7

Source: WTO (2020).

The significantly different figures when comparing the scenarios in this brief against WTO figures are due to faster growth in GDP and global trade. The model used by the WTO is a Computable General Equilibrium Model, which tends to reproduce past economic behaviour and whereby the economy's natural behaviour is to return to its previous equilibrium point after a shock. However, as explained above, the current crisis has unique characteristics, and there is no reason to expect

the economy to quickly snap back into its previous equilibrium in the short term.

It is also worth noting that both WTO scenarios predict an increase in the participation of Asian countries in global exports, to the detriment especially of countries in the Americas. The same does not occur on the import side, which allows us to predict an increase in trade balances in favour of Asian countries over the two-year period.

3 Commercial policy

3.1 Trade conflicts

The year of 2019 was characterised by various kinds of trade conflicts. The most notable, as well as the most relevant, was the one involving the USA and China, with a series of trade barriers imposed by each party.

Intense trade barriers imposed by various economies to foreign goods and services can also be seen in the transactions between the USA and the European Union, as well as (on a much smaller scale) in the trade between developing economies—for example, countries in the Southern Cone of Latin America.

It is concerning that this is not only a set of conflicts between country pairs. Rather, the imposition of these barriers reflects something greater—a lack of confidence in many multilateral institutions. The discourse that attributes a significant portion of internal shortcomings, such as low growth, wage reductions and unemployment, to transactions with third-party countries, feeds into strong popular resistance to the process of globalisation.

This stance has led, for example, to an economy of the size of that of the USA, which spearheaded the construction of the multilateral architecture as we have known it over the last 70 years, to systematically boycott certain activities, such as the Appellate Body of the WTO.

This is the background against which the world was set when the COVID-19 pandemic broke out. Therefore, a significant economic shock, with a considerable negative impact on most of the world's economies, is overlaid on top of structural movements (such as greater protectionism and anti-globalisation sentiments). The trend, at least in the short term, is for these structural factors to remain active during and after the crisis, and possibly even more strongly due to new developments.

Given these considerations, it is possible to predict that, once the health crisis is overcome, the global economy, and Brazil in particular, will face an international trade environment that is more prone to restrictions of various kinds on trade flows and, perhaps, even to direct foreign investment flows. A factor that might reinforce this trend is a possible movement to internalise value chains, to reduce dependency on external suppliers and the risk of supply chains breaking. Another factor regards the use of protection as an instrument to stimulate the recovery of domestic production, especially in some industrial sectors with greater strategic weight, such as the production of information technology goods, the defence industry and the automotive industry—in which the guaranteed supply of commodities and greater control over various links in the production chain are considered a priority over cost considerations (see Section 4.2).

In this scenario it is very likely that there will be a greater tendency towards preferential agreements to skirt around barriers—although these agreements would probably take on a different form than those that have been negotiated over the past 30–40 years

However, at the same time, countries that held comparative advantages in the production of natural resource-intensive

goods—especially food—must glimpse new opportunities to meet relevant demands, whether due to the lockdown situation or mistrust regarding the geographical origin of certain products. This scenario is favourable to the development of agribusiness in Brazil, although it contributes to a rising commodity export agenda, which might thwart subsequent diversification efforts.

3.2 The WTO, preferential agreements and non-tariff barriers

The growth in the number of preferential trade agreements has been a main feature of the global economy over the past decades. Even countries that have traditionally refused to enter into agreements of this type, such as those in Asia, have intensified their negotiating processes, surpassing the number of agreements held by countries that are traditionally receptive to this type of policy, such as those in Latin America.

However, preferential agreements have not simply increased. An additional new feature is the negotiation of agreements involving dozens of countries in diverse regions, with significant impact on global GDP and trade.

The terms negotiated frequently transcend what had already been negotiated under the framework of the WTO. New plurilateral agreements frequently include adjustments regarding not only the free movement of goods but also involving themes such as service trade, intellectual property, public procurement, competition, the digital economy, the environment, working standards, anti-corruption measures and exchange rate policies, among others.

The weight of economies involved in the main plurilateral agreements and the scope of the agendas being negotiated will very likely affect the Brazilian economy and its insertion in the global economy. The evolution of transactions under these agreements must inevitably be pondered with some care.

An additional characteristic of these agreements is to favour a resolution to controversies between contracting parties through bilateral negotiation, which contributes to further weaken the WTO. A clear example is the agreement struck between the USA and China in January 2020.

Inasmuch as the weakening of multilateral institutions is countered by bi- or plurilateral relationships, there is an increased probability of negotiation processes mainly reflecting the interests of the companies of the countries involved, and for them to be influenced by the economic status of each participating country, which tends to be detrimental to less diversified economies.

The possible consequences cannot be ignored. The eventual adoption of productive standards according to private interests imposes certain challenges. Stronger economies define their own standards, and products manufactured in accordance with standards established by one country might not necessarily be accepted in other markets. Contrary to what has been the case so far, where multilateral forums lie at the centre of negotiations, there is a risk of a fragmentation in regulations, as opposed to (more desirable) regulatory cohesion. This might be another problem for less prominent economies in the international market.

The issue of regulatory cohesion and standardisation is especially important when considering the transition in trade protection standards over the last decades, with non-tariff barriers gaining space as import taxes have been reduced almost everywhere. These barriers are generally more sophisticated, less transparent and subject to a lower degree of arbitrariness by countries, involving specific technical norms and standards, environmental regulation, labour legislation etc.

This scenario casts an even brighter spotlight on the role of the WTO, whose explicit role is to discipline the trade policies adopted by member countries, which today comprise almost every country in the world. The goal is to minimise the possibility of technical regulations and standards being used as technical barriers to trade. The current health crisis is a good example, given that health products—medicines, medical equipment and medical and hospital supplies—are among those most bound by technical norms and health regulations.

The regulation of technical barriers started in the Tokyo Round of the General Agreement on Tariffs and Trade (GATT), in the 1970s. The codes under negotiation determined that technical and standards regulation should not lead to trade barriers, and there should be no discrimination between national products and those from other member countries. With the creation of the WTO in 1995, multilateral decisions in this and other areas of trade policy started being mandatory.

This capacity, associated with the notion that certain middle-income economies have an excessive influence on the institution's processes, has fuelled a reactive stance in many countries, mainly the USA. It is important to highlight the USA's refusal to nominate a formal representative to the WTO's Appellate Body, a crucial unit for resolving conflicts among members.

All of this has contributed to weaken the institution, so much so that some analysts consider that, lacking its current authoritative power in the future, the WTO will be limited to accessory activities, such as the negotiation of certain norms, statistical processing of trade flows and minor issues.

Another matter of some concern is related to the use of trade defence mechanisms, especially anti-dumping measures, an instrument which has been frequently used in recent years.

The current COVID-19 pandemic presents itself as a challenge to international trade in general, and to trade defence policy in particular, because it signals that there will be a substantial decrease in the overall volume of trade between countries, with a concomitant increase in demand for specific products.

In a context of crisis, it should be expected that trade defence is triggered by pressure groups to ask for the protection of sensitive products that incur great losses as a result of economic shocks (Blonigen and Prusa 2015). Increased demand associated with inelastic supply can lead to a natural increase in the international market power of companies/countries that produce these goods.

This point requires significant attention, especially by comparatively smaller economies on the international stage,

such as Brazil. It is in the best interests of these economies to have mechanisms available that can prevent their larger partners from exploiting their differential power as a way to impose conditions that do not reflect the interests of less wealthy economies with less bargaining power. The levelling of conditions, in such cases, is accomplished by the strengthening of institutions with a disciplinary mandate agreed on by contracting parties, such as the WTO.

The current health crisis represents an opportunity for the multilateral system of trade, crystallised in the WTO, to reflect on the market power of certain global companies, as well as on the fact that some countries have a disproportionate concentration in the production of sensitive products.

It is worth noting that Brazil is one of the countries that have most frequently made use of trade defence mechanisms, with a history of openness of processes that is above and beyond what is expected of a country with its characteristics. Among the products that have recently been protected by anti-dumping measures are some related to the pharmaceutical industry, such as laboratory equipment and chemical reagents for clinical tests. China and India are among the countries that are most affected by Brazil's anti-dumping measures.

Brazil's trade defence policy has had a protectionist bias since its inception. Some companies and industrial sectors have benefited from tax incentives and subsidised loans, allowing for a competitive advantage, artificially increasing the price of imports and hindering domestic consumer production chains. Anti-dumping measures were applied to domestic industries with some degree of concentration and, therefore, less capacity for mobilisation. There was a negative impact on productivity and a positive impact on profit margins.

A prudent course of action would be, therefore, to maintain temporary tax exemption for certain products that are essential in combating the pandemic, but also to recognise that there is an opportunity to review the general protection structure and adopt trade defence instruments in a more careful and considered way.

4 Foreign investments and production chains

4.1 Foreign investment flows and regulation

The global economy is suffering from two simultaneous shocks: a supply shock and a demand shock. Due to the novelty of the situation, past crises are useful only as partial guidelines for what to expect in the near future. Episodes such as the 1997 Asian crisis and the 2008-2009 financial crisis suggest that long- and short-term investors tend to have distinct behaviours.

In stressful situations, portfolio investment flows to developing countries tend to become strongly negative. Direct investment flows have a more uncertain behaviour.

On the one hand, the decrease in aggregate demand and the level of utilisation of installed capacity tend to slow down investment in new plants and in the expansion of existing ones. On the other hand, the crisis can lead to opportunities to acquire valuable assets at low prices.

The acquisition of companies, especially larger companies, is usually contingent on the availability of bank financing. During times of greater risk aversion, banks become more conservative, and the costs of these loans increase. However, the reduction in base interest rates in the main global economies, as well as the enormous liquidity injection through quantitative easing, will perhaps be enough to counterbalance the rising risk aversion.

It is also possible that there will be an increase in the volume of foreign disinvestment in the coming months—in some cases, due to the need to generate cash flow to cover losses in other parts of the world; in others, due to less favourable prospects of the viability of businesses. Foreign disinvestments seem more likely in segments that are strongly impacted by social isolation measures, such as tourism.

It is equally possible to observe an upsurge in xenophobia, especially regarding China, due to narratives that attribute a central role in the outbreak and spread of the COVID-19 pandemic to the country. One possible consequence could be restrictions on Chinese investments in various countries.

There is no multilateral agreement that broadly regulates foreign investments, due to difficulties in establishing minimally acceptable standards for a wide and heterogeneous set of countries with frequently conflicting interests. It is likely that the post-pandemic scenario will be even less favourable to the negotiation of an agreement of this type.

This issue is currently regulated through bilateral or regional agreements. There is an intense debate taking place at the WTO, the United Nations and other forums about the basic clauses that should be adopted in investment facilitation agreements.

The theme is handled, at the multilateral level, through Trade-Related Investment Measures (TRIMs) at the WTO, which seek to regulate investment policies that might distort or restrict international trade. In practice, TRIMs impose limits to the adoption of economic development policies, especially industrial policies.

In principle, there seems to be no reason why national governments would advocate for changes in the multilateral regulation of investments due to the pandemic. However, given the high concentration of production of medicines and medical equipment and materials in a small number of countries (mainly India and China), the governments of developed countries might exert some pressure on their multinational corporations to increase production in their territories, instead of acting as mere commercial representatives. This does not go against the letter of TRIMs, but it is nonetheless a new scenario, with potentially significant impacts on both direct foreign investment flows and trade flows related to global value chains.

4.2 International distribution of labour, global value chains and industrial policy

For most of the 20th century, subsidiaries of multinational corporations tended to be miniature replicas of the parent company, reproducing its activities in full or in part (Pearce 2001). From the 1980s onwards, this type of multinational corporation started giving way to another type of organisation, in which the parent company establishes a network of

subsidiaries that often share different tasks among themselves. Rather than all subsidiaries producing the same list of products, using the same inputs in similar production lines, a growing division of labour took place within these multinational corporations (Jones and Kierzkowski 2005).

This specialisation made it possible to harness large-scale economies and scope into final products, which started being produced by fewer plants. It also made it possible to optimise costs through fragmentation of the original production lines, according to the relative production costs of each step. In parallel, an outsourcing process also took place, with multinational corporations focusing on activities that provided greater returns on investment (Hank and Fukunari 2010).

A significant portion of the value-adding activities in the manufacturing sector shifted to countries with lower labour costs. Global value chains are a direct result of this shift.

The growing fragmentation of production processes across various countries resulted in a marked increase in international trade, due to the movement of parts, components and other intermediary goods, as well as the further dependence of national industries on the consistent flow of imported goods for the maintenance of their activities.

Production according to global value chains proved to be an important component of competitiveness in various economies. Even those with no comparative advantage in the production of more sophisticated goods have been able to benefit from this modality when they participate in value chains by attracting investments due to their lower production and/or logistics costs, especially in transportation, due to their geographical location and proximity to the main markets (World Bank et al. 2017).

There are many implications of this scenario, as the participation in production within value chains depends on the perception of external investors regarding each country. Therefore, the relevant factors are not constrained to, for example, the degree of openness of the economy, but comprise a broad set of internal conditions.

The decisions to incorporate an economy in a given value chain have always been associated with a calculation of benefits derived from lower production costs, whether in terms of labour, access to raw materials, logistics or governance. It is a necessary element that production in more than one country be more profitable than subcontracting other companies in the country of origin.

A new lesson brought by the COVID-19 crisis is that in situations where there is no access to inputs, parts and components, entire production lines—involving more than one economy—can stop entirely, due to a lack of material. The isolation of some Chinese cities, as well as border lockdowns, has demonstrated the need to consider other dimensions in the decision-making process.

As the pandemic originated in China, which currently concentrates a significant share of worldwide industrial production, the shutdown of activities due to the imposition of social distancing measures to fight the spread of the virus led to the interruption of several global value chains.¹⁰ The paralysation of factories due

to the lack of imported inputs led to the questioning of the high degree of dependence of many countries on China.

It would not be surprising to see governments exert increased pressure on their countries' multinational corporations to repatriate at least some of the industrial processes currently carried out overseas, especially those in China. If this movement is consolidated, it might lead to defragmentation in production, which, considering its transnational characteristics, would mean a retraction in globalisation.

Therefore, it is very likely that the productive processes will be redesigned after the pandemic. The decision to involve additional economies in a value chain will no longer depend simply on a profitability estimate, as described above. Guaranteed access to inputs has proven to be a vital element.

Another important issue is the conflict between the USA (and other countries) and China regarding leading-edge technology companies. As one of the main products offered is 5G technology, the US government argues that the equipment and services offered by a certain company favour espionage activities carried out by the Chinese government. Given the potential of this technology, this would have direct negative implications on the national security of affected countries. As a result, the US government has pressured other countries to avoid signing equipment and service supply contracts with this company.

This conflict is especially important for Brazil, given that it could influence the country's implementation of 5G technology. Indications that this company might participate in a public tender partly validate this argument. However, having to deal with a conflict of this nature, which requires the country to choose an alignment with one of two opposite poles, whether in the selection of companies or in casting votes in multilateral forums, is a new challenge, including in Brazilian diplomacy, which historically has been characterised by neutrality and a good relationship with all countries, based on standards agreed on under the framework of multilateral institutions.

This is a particularly sensitive issue given the need to reduce the distance that separates the Brazilian economy from the technology frontier in many sectors. In addition to the discussion on different production standards mentioned above—whereby opting for one or the other virtually implies an alignment with the country that created the standard and affects trade with third parties—and the increase of various barriers on trade flows, access to technology is also affected by conflict.

It is reasonable to infer that these new developments will eventually have a geopolitical impact, with the redefinition of geographic resource allocation criteria. A possible outcome is that this will alter the attractiveness of the Brazilian economy as a destination for investments, eventually including the country in chains that it does not currently participate in, when the internal conditions for the creation of a business-friendly environment are assured. Therefore, it is vital to continue making progress in the economic reform agenda and reconsider implementing a more active industrial policy.

The fact that Brazilian participation in value chains is limited compared to other countries stems from both the country's

internal competitiveness in the supply of raw goods and its foreign trade policy. However, it also stems from low competitiveness in the national productive sector, especially in the processing industry. The growing distance to the technology barrier across various sectors is a decisive element.

One of the requirements needed to bridge this distance is to attract investment in sectors with a higher degree of technological sophistication. This requires a more proactive stance than has been the case so far, with policy decisions that unequivocally signal the intention. Investment decisions are influenced by these policy decisions and require a non-trivial amount of time to yield concrete results.

Experience with the current crisis has revealed initiatives across two temporal dimensions. In the short term, we can highlight measures focused on the mitigation or elimination of the recessive effects resulting from the sudden decrease in demand; in the medium term, measures geared towards ensuring adequate supply of goods whose demand has increased exponentially and unexpectedly due to the pandemic.

Measures to deal with the abrupt decrease in demand were adopted by many countries. Sectors that were given priority were those with more pronounced revenue losses, such as airlines, companies in the tourism sector, bars and restaurants and small businesses in general. The rationale is the fear of crushed entrepreneurial capacity, demobilisation of manpower and the resulting burden on the social protection system. In general, these measures are complemented by others to directly sustain demand and assist the most vulnerable populations.

Measures with a longer time-frame include those in support of productive reconversion. One possibility is to promote this reconversion to ensure the supply of health care materials. The common example given in recent discussions is the adaptation of production lines and the use of technical staff in some sectors to facilitate repairing or even manufacturing essential equipment for the care of affected patients, such as ventilators. It is very likely that, after the pandemic, efforts to ensure the production of many goods whose excess demand made a difference at the most acute point of the crisis will remain.

This possible reconversion policy faces some challenges. First, there is a risk that, due to the haste to supply urgent demands, substandard or unreliable equipment is produced. Second, there must be a structure available to ensure the availability of parts for the assembly of such equipment. Third, and similar to other sectors of the economy, there is the structural challenge of providing sufficient and affordable credit to producers.

In the short term, there is not much room for discussion regarding alternatives to the utmost priority of caring for the health of the population. Once this situation is mitigated, there must be some degree of middle/long-term strategic planning, which implies the design of structures to ensure credit to new projects, incentives to vital sectors (such as producers of medical equipment and supplies) and other measures, while simultaneously seeking to recover the sustainable balance of public accounts. This will demand proactivity from the public sector, in both the guidance and facilitation of initiatives.

5 Final considerations and recommendations

This Policy Research Brief seeks to provide a preliminary assessment of the impacts of the current global health crisis on international trade in goods, and to comment on its effects on both commercial policy and direct foreign investment, including global value chains. The objective is to contribute to a better understanding of what is to come in the near future in the area of trade and investment, building scenarios for the evolution of global trade in 2020 and 2021 and listing a series of factors that might affect trade policy and investment decisions.

The main issues addressed in this brief are as follows:

- Scenarios were constructed for the evolution of global trade in 2020 and 2021: three scenarios for trade in 2020, and three subsequent scenarios for 2021.
- The 2020 scenario was constructed taking into account projections for decreased global GDP resulting from the negative impacts of the COVID-19 pandemic, put forward by various institutions, such as the OECD, the United Nations, the IIF and the EUI, which point towards a decrease of around 2 per cent.
- Considering a balance of upside and downside risks for the behaviour of the economy, two alternative scenarios are considered for GDP: a more optimistic one, where the decrease would be only 0.5 per cent, and a more pessimistic one, with a serialised decrease in GDP of around 3.5 per cent.
- Therefore, a decrease in worldwide trade of about 20 per cent is estimated for 2020 in the basic scenario. In the optimistic scenario, this decrease would be 15 per cent, and in the pessimistic scenario it would reach 20 per cent.
- For 2021, we have considered an elasticity of trade relative to GDP equal to 2; given the three GDP scenarios (increases of 2 per cent, 3.5 per cent or 5 per cent, depending on each activity's recovery speed), trade could grow by 4 per cent, 7 per cent or 10 per cent in 2021.
- The combination of scenarios for 2020 and 2021 resulted in nine possible results for the evolution of global trade. In the best scenario, global trade would suffer a cumulative decrease of 6.5 per cent over the two-year period, and in the worst scenario, of 22 per cent. In most cases, the cumulative decrease would be somewhere between 11 per cent and 20 per cent.
- In recently released forecasts, the WTO considers two possible scenarios for global trade growth in 2020 and 2021. In the optimistic scenario, trade would experience a 12.9 per cent decrease in 2020 and a 21.3 per cent increase in 2021—a total increase of 5.7 per cent. In the pessimistic scenario, trade would suffer a cumulative decrease of 15.6 per cent. This figure is close to the median cumulative growth in most of the nine scenarios developed in this brief.
- The spread of the COVID-19 pandemic comes at a delicate time for trade relations between countries. The year of 2019 was characterised by many kinds of trade disputes, which are, in truth, a reflection of structural movements associated with a growing lack of belief in the importance of multilateral institutions and in the benefits of globalisation, especially for important groups of workers and corporations. The trend, at least in the short term, is for these structural factors to remain active during and after the crisis, with the possibility of being bolstered by new developments.
- It is possible to predict that, once the health crisis is over, the global economy—and Brazil in particular—will face an environment that is more prone to various kinds of restrictions on trade flows and perhaps also on direct foreign investment flows.
- This might lead to a prevalence of bilateral or plurilateral agreements, weakening multilateral forums, which tends to be detrimental to less diversified economies.
- Among the negative consequences of this movement are the fragmentation of regulations, as opposed to (more desirable) regulatory cohesion in trade issues, and the risk of the adoption of protectionist measures, including the use of trade defence mechanisms, especially anti-dumping measures triggered by pressure groups to request protection for sensitive products that suffer great losses as a result of economic shocks.
- The crisis also has consequences for direct foreign investment flows. Decreased aggregate demand and a reduction in the use of installed capacity tend to disincentivise investments in new plants and to slow the expansion of existing ones, or even lead to disinvestment due to the need to generate cash flows to cover losses in other parts of the world. On the other hand, the crisis offers opportunities to acquire valuable assets at low prices.
- It is possible to observe a rise in xenophobia, especially regarding China, due to narratives that attribute a central role in the outbreak and spread of the COVID-19 pandemic to the country. One possible consequence could be restrictions on Chinese investments in various countries.
- In this sense, an especially sensitive point regards global value chains, led by multinational corporations and involving large investment and trade flows. Decisions to incorporate an economy in a given value chain have always been associated with a benefit analysis linked with lower production costs, whether in terms of labour force, access to raw materials, or logistics and governance costs.
- The novel coronavirus brings with it a lesson: when access to commodities, parts and components is lacking, entire production lines—involving more than one economy—can stop completely due to a lack of materials, demonstrating the need to consider other dimensions in the decision-making process regarding the construction of supply chains.
- Therefore, it is very likely that productive processes will be redesigned after the pandemic. The decision to involve additional economies in a value chain will no longer depend solely on the estimation of profitability, as described above. Guaranteed access to commodities has proven to be a vital element.

As for Brazil, the situation described in this brief leads to some reflections and recommendations:

- The country should act firmly in defence of multilateral institutions, especially the WTO, given that a scenario dominated by bilateral or plurilateral agreements tends to be more beneficial to larger and more developed economies that create technologies and technological standards—which is not the case for Brazil.
 - The country should avoid adopting protectionist measures and should work together with other countries and multilateral organisations to seek solutions to ameliorate existing trade conflicts and to negotiate and adjust trade and investment regulations, to ensure that the various countries, as well as groups within these countries, are able to recognise and seize the beneficial potential of a more globalised world economy. Even though it is a relatively closed economy, Brazil's growth is quite contingent on a system of global trade that is more open and adequately regulated, including regarding the application of non-tariff barriers. The agribusiness sector is a clear example.
 - Brazil should seek to apply these ideas to itself, promoting greater trade openness. Although this initiative lies outside the immediate priorities in light of the current pandemic, it is important for the country to reinforce its commitment with further economic openness in the future.
- Finally, as with any other crisis, the novel coronavirus pandemic presents enormous challenges but also offers opportunities that must be adequately identified, and about which the country must define clear objectives, strategies and policies to draw the most benefit. This brief highlights some transformations that are already taking place and that might deepen during and after the crisis—for example, regarding the rationale of foreign investments and the adjustment of global value chains. It is advisable for Brazil to invest in policies that will allow it to handle this situation efficiently, especially regarding industrial and science, technology and innovation policies.

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1. This Policy Research Brief is the English translation of Oliveira et al. (2020).
 2. Director of International Studies at Ipea.
 3. Coordinator of International Economic Studies at Ipea.
 4. Researcher at Ipea.
 5. See: <<https://bit.ly/2ywYhxE>>.
 6. "We commit to do whatever it takes and to use all available policy tools to minimize the economic and social damage from the pandemic, restore global growth, maintain market stability, and strengthen resilience." See: <<https://bit.ly/2ziEwKf>>.
 7. See: <<https://bit.ly/2AelnIN>>.
 8. See: <<https://bit.ly/2WEVryr>>.
 9. See: <<https://bit.ly/3bhUh10>>.
 10. See: <<https://bit.ly/2L8wSVg>> (in Portuguese).

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The views expressed in this brief are the authors' and not necessarily those of the Government of Brazil or the United Nations Development Programme.

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