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Economic and social effects of the COVID-19 pandemic and the future of global value chains

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Author: Petra Dünhaupt, Hansjörg Herr, Fabian Mehl & Christina Teipen

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Economic and Social Effects of the COVID-19 Pandemic and the Future of Global Value Chains

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Abstract

The COVID-19 crisis is unique in many respects and, as the IMF (2021, p. 43) puts it: “*a crisis like no other*”. A global economic contraction occurred that was unprecedented in its speed and depth. Support packages were put together in some parts of the world that also dwarfed anything seen up to that point. Also, the massive differences in how countries, sectors and people were affected by the crisis is unusual in many respects. What is already visible is that national government policies are playing a significant role during the pandemic and its impact on social groups.

In this comment, we will briefly assess the impacts of the COVID-19 pandemic up to now (July 2021) and discuss possible future trends for the reorganization of global value chains (GVCs). First, we will give an overview of the pandemic’s economic and social effects as well as various policy responses by governments and international organizations. Second, we will discuss the effects of the pandemic on GVCs as well as different scenarios of further restructuring dynamics in GVCs. To conclude, we will argue that although the COVID-19 pandemic might not fundamentally alter the current globalization model, it could serve as a catalyst for already ongoing changes.

JEL Classification Codes: E52, E62, F01, F6

Keywords: COVID-19, Monetary Policy, Fiscal Policy, Crisis Management, Global Value Chains, Global North, Global South

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“The coronavirus pandemic is the worst global crisis since World War II ... and it could trigger conflicts around the world. The scale of the crisis was due to a disease that represents a threat to everybody in the world and ... an economic impact that will bring a recession that probably has no parallel in the recent past.”

UN Secretary-General António Guterres (ILO 2020, p. iv)

This was the assessment and concern of UN Secretary General António Guterres that he expressed on March 31, 2020. At the time of writing, one and a half years have passed since the start of the COVID-19 pandemic, which has claimed – 3.8 million lives as of June 2021, – reported at least to the World Health Organization (WHO 2021) as COVID-19-related deaths. The number of unreported cases is likely to be much higher. Worldwide, there has been a tremendous increase of people living in extreme poverty due to the pandemic: an additional 97 million people in 2020 are living on less than USD 1.90 a day (Mahler et al. 2021). According to UNICEF estimates, an additional 121 million people experienced acute food insecurity because of the pandemic. According to further estimates, 1.6 billion children in 199 countries worldwide were affected by school closures. For some of these children, school closures mean that they also do not receive school meals (Borkowski et al. 2021). The world was pushed into a recession. And yet many say the crisis could have been much worse (IMF 2021a).

Certainly, the year 2020 will go down in history as the year in which the novel COVID-19 virus spread worldwide at a rapid pace to the remotest areas, taking a significant economic and human toll, advancing to a global crisis and challenging situation. As a first reaction, the world – as we knew it until then – came (more or less) to significant a halt in early 2020. Most countries initially relied on a shutdown strategy. Whatever could be closed was closed, be it borders, workplaces, or schools. People were told not to leave their homes. Curfews were imposed. In many places, economic activities in certain sectors came to a standstill. While wealthy countries quickly put together relief packages for businesses and workers, workers and firms in other parts of the world were left out in the cold with no income and no support payments.

In any case, the COVID-19 crisis is unique in many respects and thus “*a crisis like no other*” (IMF 2021a, p. 43). A global economic contraction occurred that was unprecedented in its speed and depth. Support packages were put together in some parts of the world that also dwarfed anything seen up to that point. Also, the massive differences in how countries, sectors and people were affected by the crisis is unusual in many respects. What is already

visible is that national government policies are playing a significant role in the course of the pandemic and its impact on social groups. While some transnational initiatives are significant, such as the work of WHO, particularly its COVAX project of vaccine delivery, and the UN's USD 2 billion COVID-19 Global Humanitarian Response Plan, there are huge differences in response capabilities and policies among countries in the Global South. In addition, we need to mention national policies in the Global North, such as "pharmaceutical protectionism" (McCann and Ó hAghmaill 2020, p. 31) which can have a direct impact on the availability of medicines in the Global South because of the unequal distribution of patents, financial means and bargaining power. At the same time it became very clear how interlinked the world is and how vulnerable supply chains and production have become, for example due to the just-in-time system, where inventory is reduced as much as possible due to cost savings.

In the following, we will briefly assess the impacts of the COVID-19 pandemic up to now (July 2021) and discuss possible future trends for the reorganization of global value chains (GVCs). First, we will give an overview of the pandemic's economic and social effects as well as various policy responses by governments and international organizations. Second, we will discuss the effects of the pandemic on GVCs as well as different scenarios of further restructuring dynamics in GVCs. Concluding, we will argue that although the COVID-19 pandemic might not fundamentally alter the current globalization model, it could serve as a catalyst for already ongoing changes.

Short-term economic and social effects of the COVID-19 pandemic

A global economic contraction and its effects

The COVID-19 crisis has resulted in the global economy contracting by an estimated 3.3 percent in 2020. Global output thus fell three times more than during the global financial crisis of 2008/09 and it only took half the time to do so (IMF 2021a, p. 43). The International Monetary Fund (IMF) forecast from April 2021 predicts global growth to reach 6 percent in 2021 but the forecast is subject to a great deal of uncertainty, as it is difficult to predict what the pandemic future will look like. Certainly, a lot depends on whether new dangerous mutations come up, on how global vaccination progress develops and whether further lockdowns become necessary. Table 1 shows the output shrinkage in 2020 for various world regions and individual countries, and some exceptional cases where there was even output growth, like for example in Bangladesh, China, and Vietnam, as well as the projections for the

years 2021 and 2022. In the advanced countries, the decline in output was far more pronounced than in other world regions, which can certainly be explained by the fact that not all world regions could afford to implement hard lockdowns and bring (economic) life in certain areas to a temporary standstill.

Table 1: Real GDP growth rate; percent change; IMF Economic Outlook Projections April 2021

	Year over Year		Projections	
	2019	2020	2021	2022
World Output	2.8	-3.3	6.0	4.4
Advanced Economies	1.6	-4.7	5.1	3.6
United States	2.2	-3.5	6.4	3.5
Euro Area	1.3	-6.6	4.4	3.8
Germany	0.6	-4.9	3.6	3.4
Japan	0.3	-4.8	3.3	2.5
United Kingdom	1.4	-9.9	5.3	5.1
Emerging Markets and Developing Economies	3.6	-2.2	6.7	5.0
Emerging and Developing Asia	5.3	-1.0	8.6	5.8
Bangladesh	8.2	3.8	5.0	7.5
China	5.8	2.3	8.4	5.6
India	4.0	-8.0	12.5	6.9
Vietnam	7.0	2.9	6.5	7.2
Emerging and Developing Europe	2.4	-2.0	4.4	3.9
Latin America and the Caribbean	0.2	-7.0	4.6	3.1
Brazil	1.4	-4.1	3.7	2.6
Middle East and Central Asia	1.4	-2.9	3.7	3.8
Sub-Saharan Africa	3.2	-1.9	3.4	4.0
South Africa	0.2	-7.0	3.1	2.0

Note: For India, data and forecasts are presented on a fiscal year basis, with FY 2020/2021 starting in April 2020 (IMF 2021a).

Source: IMF World Economic Outlook, April 2021a

The IMF (2021a) shows that a V-shaped recovery occurred in the manufacturing sector already in the second half of 2020. In early 2020, global manufacturing initially experienced a massive drop in output, albeit one which was relatively short-lived. Regarding the recovery, there were differences between the industries. The automotive industry, for example, initially recorded a global drop in demand of 40 percent in April 2020 but had already reached its pre-crisis sales level by December 2020 and was responsible for 35 percent of the rebound in global manufacturing. Various factors are held responsible for the upswing in demand for cars, including an increased wish for safety among people, who avoid public transportation whenever possible, as well as government-subsidized sales programs and tax reductions. Other manufacturing products also benefited from increased demand during the pandemic, especially electronics items, as people who were allowed and able to do so set up home offices

and required the appropriate equipment. Also benefiting from the crisis were goods such as plastics, rubber and textiles needed to produce protective clothing and equipment. At least in April 2021, no significant recovery could yet be reported around some capital goods. Obviously, the future was too uncertain for a recovery of investment demand (IMF 2021a). Last but not least the demand for building materials remained high and even increased as there was no lockdown in the construction sector and many private households started to renovate their flats or houses.

The International Labor Organization (ILO 2021) has calculated that 8.8 percent of global working hours were lost in 2020. These are the hours worked by 255 million full-time workers for one year. Half the loss of working time reflects the loss of working hours for workers, who at least managed to keep their jobs. The other half concerns the workers who lost their jobs directly. In 2021, there were also further losses of working hours, some of them considerable, especially in Latin America and the Caribbean, Europe, and Central Asia. The result of the reduction of working time is devastating, as the loss of labor income has led to an increase in poverty. According to the ILO (2021), global labor income in 2020 was 8.3 percent lower than it would have been without the pandemic. In US dollars this reflects a loss of USD 3.7 trillion.

The hardest hit were women, young workers, and informal workers. This is explained on the one hand by the fact that their position in the labor market was already relatively precarious before the crisis. Moreover, they are often employed in sectors that were particularly affected by the government's measures to contain the pandemic, such as the hospitality industry. Research shows that worldwide more women lost their jobs during the crisis, and many of them are not actively looking for new jobs. This raises concerns that much of the progress made in recent years towards gender equality has been undone. Young people also had a higher risk of being unemployed even before the crisis, and they were often in less stable employment relationships. During the crisis, they were 2.5 times more likely to be affected by layoffs than their older counterparts. Regarding informal employment, 60 percent of the global workforce, or 2 billion workers, were already considered informally employed in 2019. When the crisis hit, they were three times more likely to lose their jobs than formal workers. Informally employed workers have no social security entitlements, and thus have benefited much less from government support measures (ILO 2021).

Women in particular have been additionally negatively affected by an increase in the amount of unpaid care work at home and by a rise of domestic violence cases (Kabeer et al.

2021). Feminist scholars have long pointed out that societal crises are often accompanied by an upsurge of gender-based violence. With respect to the COVID-19 crisis, some have termed this phenomenon a 'shadow pandemic' (Guidorzi 2021), as public health measures were focused on stopping transmissions, while less resources were directed to the needs of women affected by abuse and violence. Long-term consequences regarding women's rights and gender equality, especially in the Global South, might well be an increase in early age marriages, early school drop-out of girls and sexual exploitation of women and children.

On the other side of the spectrum, however, there are also the clear crisis winners. Figure 1 shows the S&P 500 Index. Shaded in dark gray are phases in which the economy is in recession. Unlike at other times of recession, the financial markets are in a boom, triggered by expansionary monetary policy. This is not only the case in the US as shown in Figure 1 but globally. Of course, this has distributional effects since wealth is distributed even more unequally than income. For example, Forbes (2021) reported in April 2021 that U.S. billionaires increased their wealth by USD 1.2 trillion during the pandemic. Moreover, U.S. billionaires not only increased their wealth during the crisis – the number of billionaires also increased. According to the latest global wealth report from Credit Suisse (2021), global household wealth increased by USD 28.7 trillion in 2020. After taking exchange rate fluctuations into account, global wealth grew by 4.1 percent. This development is not only due to price increases on the stock markets, according to the study. House prices have also risen sharply.

Figure 1: S & P 500 (Standard & Poor's 500), share index of the biggest 500 US stock companies, 1991-2021



Note: Shaded in gray, we see periods when the economy has been in recession.

Source: Macrotrends (2021)

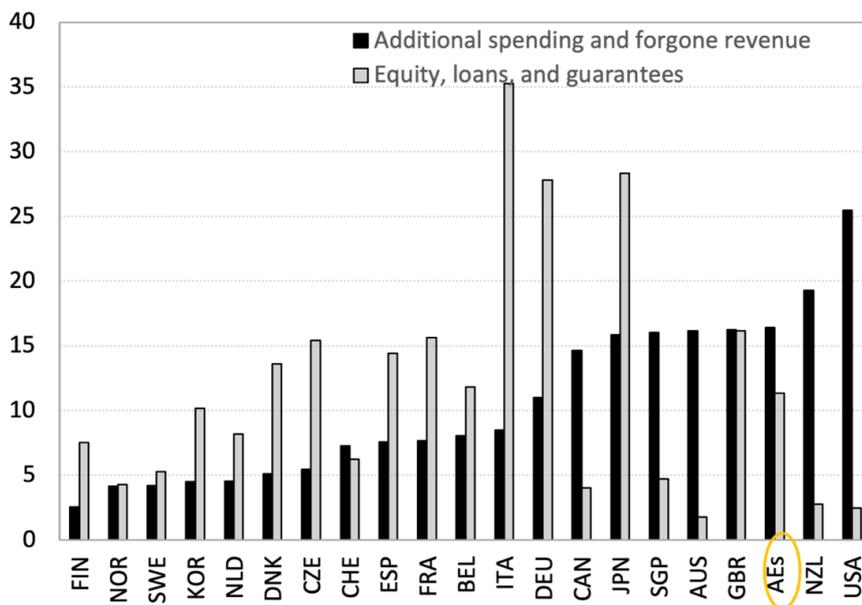
Fiscal response

The COVID-19 crisis has posed major economic and social challenges to countries, and governments have tried to respond to these challenges with various fiscal policy instruments. The instruments can roughly be divided into two categories. On the one hand, there are instruments that have an immediate impact on the budget deficit, through additional spending and forgone revenue in the form of tax relief. On the other hand, there are instruments that do not directly affect the budget but can lead to an increase in debt or additional borrowing, such as equity and loans given to companies to bridge financial bottlenecks. Governments have also issued guarantees to companies. These do not affect the budget deficits or the debt level immediately but can pose a financial risk to governments in the future (IMF 2020, p. 22).

Figure 2-4 show the magnitude of discretionary fiscal response for both categories of instruments, i.e., additional spending and forgone revenue and equity, loans and guarantees in percent of GDP for advanced economies, emerging economies, and low-income developing

countries¹. The figures do not include so-called automatic fiscal stabilizers, meaning endogenous reductions of tax revenues and additional spending caused by changes in economic activities. This means actual budget deficits are much higher. Based on the figures, one can see very clearly the substantial differences in terms of the leeway that countries have been able to use. While advanced economies spent on average 16.4 percent of GDP on additional expenditures and forgone revenue as a result of fiscal policy action, and 11.3 percent of GDP on equity, loans and guarantees, emerging economies spent on average just 4 and 2.5 percent, and low-income developing countries spent a meager 1.6 and 0.2 percent.

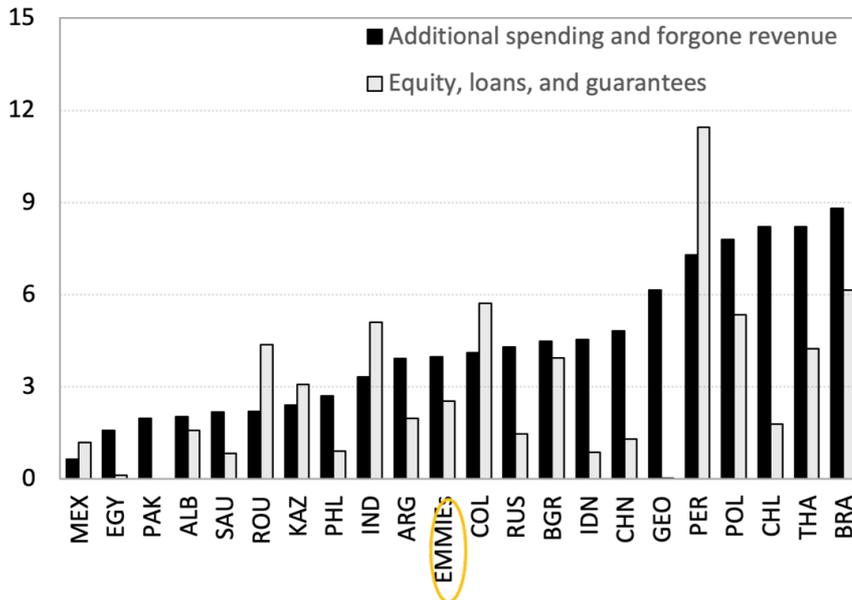
Figure 2: Discretionary fiscal response to the COVID-19 crisis in advanced economies, (Percent of GDP)



Source: IMF (2021b)

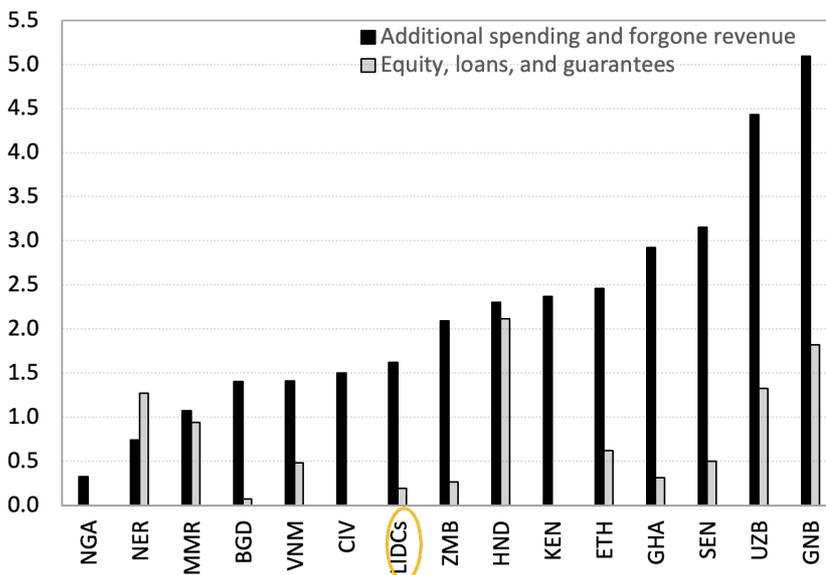
¹ For a detailed overview of fiscal policy measures in response to the COVID-19 crisis, see the IMF's Database of fiscal policy responses to COVID-19, which is updated at monthly intervals: <https://www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19>, last accessed 23 June 2021.

Figure 3: Discretionary fiscal response to the COVID-19 crisis in emerging economies, (Percent of GDP)



Source: IMF (2021b)

Figure 4: Discretionary fiscal response to the COVID-19 crisis in low income developing countries, (Percent of GDP)



Note: Estimates as of March 17, 2021. Numbers in US dollars and percent of GDP are based on April 2021 World Economic Outlook Update unless otherwise stated. Country group averages are weighted by GDP in US dollars adjusted by purchasing power parity. Data labels use standardized country codes by international organizations. AEs = advanced economies; EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries.

Source: IMF (2021b)

In advanced economies, most of the money has gone to preserving employment and supporting household incomes. The health sector has also been highly supported. In terms of corporate support, large companies have benefited the most compared to small- and medium-sized enterprises. In this group of countries, governments have mostly introduced multi-year programs to promote and accelerate recovery. By comparison, in the emerging economies, most funds have gone into public works, i.e., infrastructure projects, but also into maintaining employment via other channels. Many measures tended to take place in 2020 and were only minimally extended to 2021 (IMF 2021c).

In the advanced economies, revenues fell sharply in 2020, while at the same time huge relief programs were adopted for state and local governments, companies, and households. This has led to an increase in the debt-to-GDP ratios, which has risen to 120 percent on average in 2020 compared to 103.8 percent in 2019 before the outbreak of COVID-19 for this group of countries. In emerging economies, quite different emphases were set. After an extremely rigorous lockdown at the beginning of 2020, China was able to transition to a new normal far more quickly than other countries. China has primarily supported demand. As can be seen from Table 1, China has recovered surprisingly quickly and effectively from the crisis and is well back on track for growth. India announced a support package in November 2020 that focused on multi-year investment incentives, additional agricultural subsidies, measures to promote housing as well as formal and rural employment. In Brazil, the social safety net was expanded. There were special programs to support the elderly, the poor and the unemployed. Among other things, the *Bolsa Familia* transfer program has been extended to even more users, providing cash payments, and there have been other cash programs specifically to support informal workers and poor households. An employment protection program was also introduced, and other measures were taken². At the end of 2020, the government debt-to-GDP ratio in the group of emerging economies was 64.4 percent, and thus the debt level was 10 percentage points higher than in 2019. In the group of low-income developing countries, the average level of government debt-to-GDP rose to 49.5 percent at the end of 2020 compared to 44.3 percent in 2019. These countries had no financial leeway for additional

² For a detailed overview, compare the IMF's Database of fiscal policy responses to COVID-19, which is updated at monthly intervals: <https://www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19> ; last accessed 23 June 2021.

spending, so expenditure remained relatively constant while revenues fell sharply in some cases, leading to an increase in the debt ratio (IMF 2021c).

The World Bank (2021a) has expressed concerns that a debt crisis is looming that could ultimately result in a lost decade for developing countries. Even before the COVID-19 pandemic, emerging and developing countries were accumulating record levels of debt. In 2019, total debt (i.e., debt of the corporate sector, government, and private households) for these countries was already 176 percent of GDP, with 123 percent of GDP accruing to the private sector alone. According to the World Bank (2021a), several points are particularly worrying: first, the increase in debt has not been accompanied by investment or even solid growth. On the contrary, despite low interest rates and new financial instruments, in many countries real investment and growth have been poor after the financial crisis. The pandemic has now led to a further sharp increase in both private and public debt. Without significant growth, however, the debt burden increases further, and the debtors have difficulties servicing the debt. This must be seen against the background that in some cases a high proportion of the debt is external debt denominated in foreign currency or in case of dollarization, domestic debt denominated in foreign currency. Second, there is a multitude of creditors. Today, China is the largest official creditor to developing countries. In addition, private debt flows to the Global South massively increased in the years before the financial crisis in 2008, but especially after the financial crisis. Total stock of external debt of low- and middle-income countries between 2011 and 2019 increased by 60.8 percent. In 2009, external debt of low- and middle-income countries was 24 percent of gross national income and increased to 39 percent in 2019. In 2011 the share of private not guaranteed debt was 34.6 percent, in 2019 it increased to 38.8 percent (World Bank 2021b). This accumulation of high debt stocks increases the risk of a debt crisis and the variation in creditors and sometimes secretive and opaque loan agreements make debt deferral as well as concerted actions, such as debt forgiveness, challenging. Since May 2020, after all, International Development Association (IDA) countries have been allowed by the G20 countries, at the initiative of the World Bank and the IMF, to suspend bilateral debt repayments. This should give the world's poorest countries a little more financial leeway during the crisis (World Bank 2021a). As of March 2021, 47 out of 73 eligible countries have participated in the so-called debt service suspension initiative (DSSI) (UNCTAD 2021).

Monetary policy

When it became clear in early 2020 that the virus would spread worldwide and develop into a pandemic, the level of uncertainty escalated, and financial markets subsequently came under stress. This becomes evident if we look at the S&P 500 share price index, for example, which is shown in Figure 1 and reflects developments of financial markets. Initially, there were tremendous price losses in 2020, so the index declined and returned to October 2018 values. Around the world, central banks³ immediately after the outbreak of the pandemic reacted quickly to the crisis and coordinated their interventions with fiscal policy measures. Share prices recovered and climbed to new records despite the pandemic, reflecting the fact that the rates of return for monetary wealth in the U.S. or Europe was close to zero and it was expected that this kind of monetary policy implemented during and after the financial crisis would continue. This makes the COVID-19 crisis very special as even though the real economy was contracting in 2020 and real GDP in the U.S. declined by -3.5 percent, the stock index nevertheless continued to rise.

Central banks in advanced economies have pursued two main objectives: at the very beginning of the pandemic, the first objective was to calm the financial markets so that the pandemic would not turn into a financial crisis. A glance at Figure 1 shows that this has obviously been achieved. The policy was based on two instruments, namely the purchase of public bonds and the provision of liquidity to the financial system on very favorable terms. As the pandemic progressed, priorities changed. It became necessary to provide the private household and corporate sectors with credit on favorable terms to avoid a liquidity squeeze (Cantú et al. 2021).

The pandemic led in early 2020 to massive capital outflows in emerging markets and massive depreciations of currencies in this country group. Obviously trust in the stability of exchange rates and financial markets in many countries in the Global South broke down. Especially portfolio investment outflows showing signs of panic seemed to trigger a new widespread financial crisis in many countries in the Global South. Also, foreign direct investment (FDI) decreased. Greenfield FDI dropped in 2020 to 42 percent of the level of the 1990s (Altman and Bastian 2021). The IMF reacted quickly and with several different programs

³ The Bank for International Settlements (BIS) has set up a database that provides information on central bank responses and is updated on an ongoing basis: https://www.bis.org/publ/work934_data.xlsx

to support countries in the Global South. Until June 2021 total support provided by the IMF to 85 countries added up to USD 250 billion, still leaving much room for an additional USD 750 billion in case of emergency (IMF 2021d). More important were swap-agreements by central banks, especially by the U.S. Federal Reserve and the European Central Bank. In such an agreement, for example, the Federal Reserve provides US dollars to another central bank in exchange with the latter's own currency. Via swap agreements, central banks in the Global South immediately got access mainly to US dollars and also to euro and had the room to refinance domestic financial institutions with foreign currency and stabilize the exchange rates via interventions in foreign exchange markets. In early- and mid-2020 such swap agreements amounted to around USD 440 billion. In comparison, during the financial crisis in 2008 swap agreements added up to almost USD 600 billion (Clarida et al. 2021), however for a shorter period. The help of central banks and the IMF together were substantial and added up to almost 20 percent of German GDP in 2019. Surprisingly, towards the second half of 2020 private capital outflows from the Global South stabilized and private investors from the Global North started again to channel money to the Global South. The actions by the IMF and central banks as lender of last resort during the panic had, similar to the stock markets, stabilized the situation and a combination of low interest rates in the U.S. or Europe, already high stock market prices, positive returns of investment in the Global South and pressure to realize positive returns by investors in the Global North had stabilized the situation.

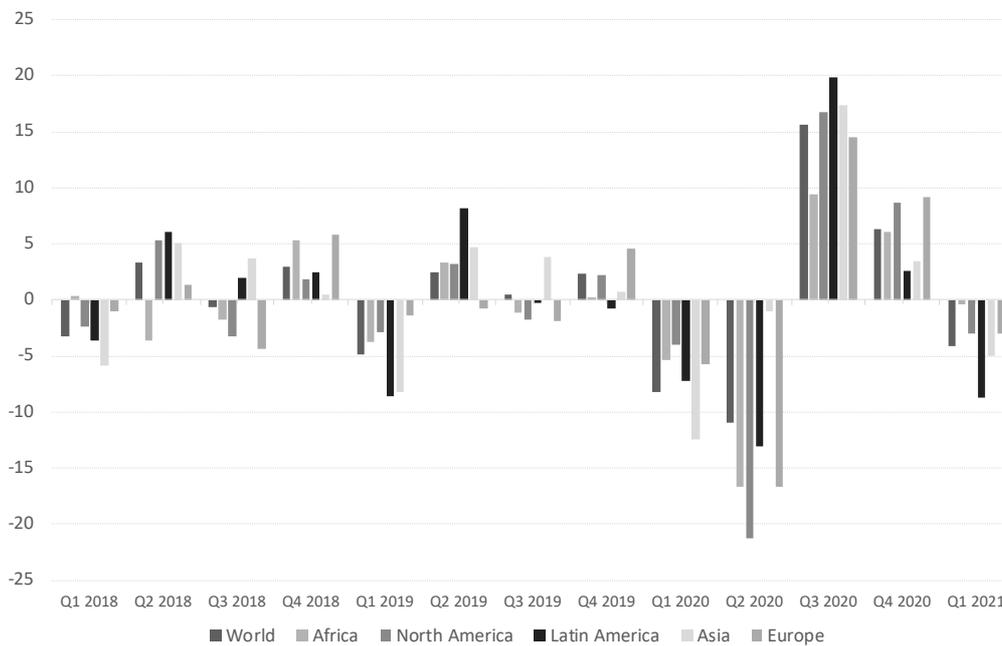
Central banks in emerging economies were also able to focus on supporting domestic demand, despite sometimes high capital outflows and large currency devaluations following the start of the pandemic, however to a much lower degree than in the Global North. In the Global South, too, interest rates were cut in many cases and – as in the advanced economies – asset purchase programs were launched. However, a focus rested also on foreign exchange interventions and reserve policies (Cantú et al. 2021).

Global merchandise and service trade

Figure 5 shows the quarterly export growth rates, each compared with the previous quarter, for the world and various world regions, from the first quarter of 2018 until the first quarter of 2021. There was a collapse in exports worldwide in the first quarter of 2020, which was particularly pronounced in Asia. This is certainly attributable to China, which imposed a rigorous lockdown at the beginning of 2020 and brought part of its production to a standstill.

In the second quarter of 2020, there was a massive drop in exports worldwide. These were the months when public (and parts of commercial) life came close to a standstill in most regions of the world, after lockdowns had been imposed. The third and fourth quarters saw a return to growth in export volumes compared with the previous quarters. However, the first quarter of 2021 saw a renewed decline in export volumes, which can certainly be attributed to a renewed rigorous lockdown and lower global demand.

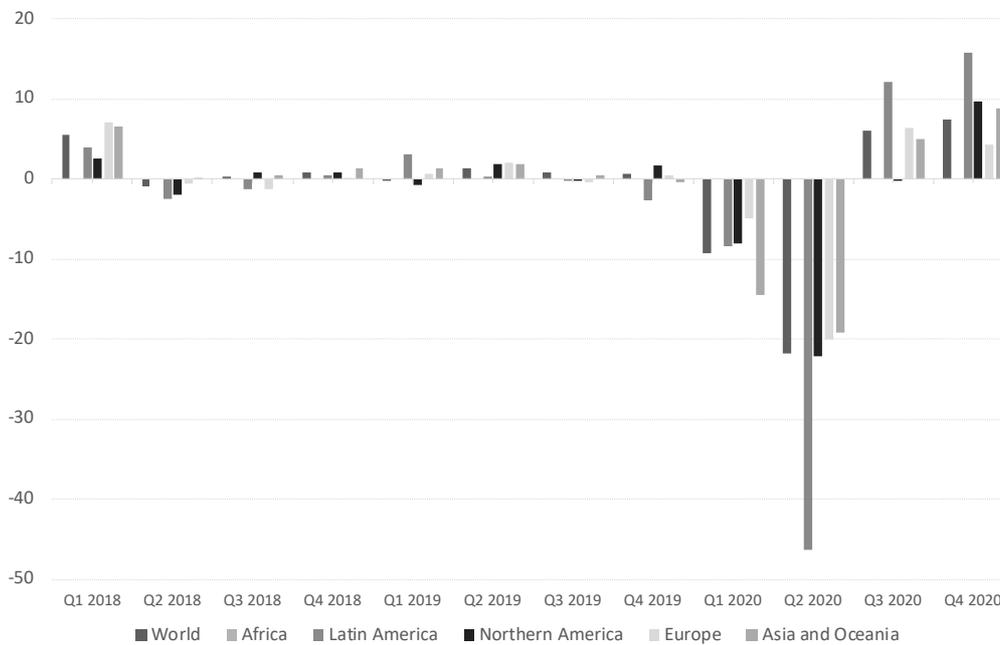
Figure 5: Global and regional merchandise export volumes; quarterly data, 1st quarter 2018 - 1st quarter 2021; (growth rate over previous quarter; in percent)



Source: UNCTAD Statistics (2021)

Figure 6 shows quarterly growth rates for global and regional export of services, in comparison to the previous quarter. While there was a slight decline in the first quarter of 2020, the second quarter of 2020 saw a massive drop compared with the previous quarter. In all regions of the world, this decline was more than 20 percent; in Latin America, it was as much as 46 percent. Not surprisingly, these dramatic declines in exports in the service sector can be explained primarily by the tourism industry, which was affected more than almost any other sector by the border closures and travel restrictions. At least in the third and fourth quarters of 2020, service exports turned positive again.

Figure 6: Global and regional export of services; quarterly data, 1st quarter 2018 – 4th quarter 2020 (growth rate over previous quarter; in percent)



Note: No data available for Africa.

Source: UNCTAD Statistics (2021)

Different policies in different countries

ILO Director-General Guy Ryder remarked that “the effects of the crisis continue to be highly uneven, with stark differences across countries and among workers depending on where they work, the type of work they do, and the characteristics of their job” (ILO 2021, p. 3).

Indeed, the economic and social impacts of the pandemic are highly uneven among countries. Some of the worst affected were countries whose economies are very dependent on tourism and other high contact services, as the global travel restrictions and border closures were felt particularly hard here. Countries that are heavily dependent on natural resource exports were also hard hit and those that have little or no room for maneuver to respond to the crisis also recover very poorly from the downturn (IMF 2021a).

Due to different economic and political structures and capacities, national governments responded with a variety of pandemic management strategies, ranging from strict control in

countries such as China and Vietnam, to a law-and-order policy with little solidarity and almost no social compensation, as in India, to complete ignorance of pandemic containment measures by the federal government in Brazil. If one takes the Indian pandemic management as an example, many workers, especially informal workers, were banned from performing their jobs, but without any compensation being offered. This resulted in increasing poverty and existential social risks, as well as a migration movement in which people, simply to secure their livelihood, set out in crowded buses and trains to return to their families in the countryside. The government under Modi allowed election rallies and a religious Hindu festival, so the contagion rate steeply increased (Ghosh 2021). India, the world's largest producer of vaccines, also does not have enough vaccines and other much-needed materials such as oxygen for its own population. Populations with “authoritarian- populist leadership and public health denialism combined with deadly effect” have not fared much better (Khoo 2020, p. 34), for example Brazil. This makes it clear that a minimum level of social protection is a prerequisite for public health and pandemic containment measures to work. Even more, as McCann and Matenga (2020, p. 163) put it: “the pandemic has acted as a catalyst for the accelerated divergence in life-preserving public sector interventions between the most and least privileged people around the world.”

In this context, the successful containment policies of governments in Australia or New Zealand, but also China and Vietnam, who reacted strictly and decisively comparatively early on, have to be mentioned. The development in the last two countries must be seen as a political challenge for Western countries. Vietnam particularly stands out. What needs to be explained, therefore, is “why a communist one-party state, like Vietnam, which has been internationally lauded for its success in controlling the pandemic but also citizens’ satisfaction with its response, worked to establish safeguards for workers in partnership with the state-sponsored union” (Ford and Ward 2021, p. 433). In addition to the comparatively well-equipped health care system, it appears that the state-controlled Vietnamese trade union was able to negotiate an effective crisis management strategy in a social dialogue with the government and companies that led to low unemployment and a rapid recovery of the labor market. Here, a certain independence of the trade union from the government could apparently be used in a productive way. However, it should not be overlooked that Vietnam has nevertheless been affected by sharply rising incidences since July 2021.

Effects on global value chains

Following the outbreak of the COVID-19 virus confirmed in China at the beginning of 2020 and the lockdown imposed there, it soon became evident how globalized and interconnected the economy is today, as the shortage of supplies from China was quickly noticed around the world. Supply shocks were compounded by temporary trade restrictions, resulting in sudden supply shortages for a wide range of goods (see the shrinking trade in goods and services in

Figure 5 and

Figure 6). Particularly memorable were the shortages of medical supplies and medical safety equipment (Shih 2020). Gereffi (2020) has analyzed in more detail the medical supply sector incidents that occurred in early 2020 and concludes that in terms of mask shortages in the U.S. it was more a case of policy failure than market failure. According to Gereffi, the export restrictions imposed at the beginning of the crisis and other policies contributed to a shortage of masks.

Deglobalization, renationalization and regionalism

A lively debate has arisen as to whether globalization has gone too far and whether there will be relocations, especially regarding strategic goods such as medical items. In this debate on how the pandemic will affect global value chains, a variety of viewpoints can be found (Curran and Eckhardt 2021). Witt et al. (2021) ponder why, from a political perspective, it might well make sense for the U.S. and its allies to disengage from China and suggest that re-shoring might be necessary to minimize risks and increase resilience. The authors place the COVID-19 crisis in a debate that started even before the pandemic, and which is about deglobalization and a decoupling from China due to the fear that China could replace the U.S. as hegemon in the future. They discuss whether high-tech companies in Western countries have a chance in the future if the Chinese state supports Chinese technology companies. It may be painful in the short term for the U.S. and its allies to cut business ties with China, but it could strengthen the country's own position in the long term: "The main objective of decoupling is to weaken China by cutting it off from inputs that the country needs for sustaining its economic growth and military power, ideally in collaboration with other major countries. ... Decoupling and attendant de-globalization imply an economic cost for the US ... As long as these measures hurt China more than the US, under realist logic, they make perfect

sense. ... Analogously, it would be logical for US allies to accept the economic losses needed to contain China” (Witt et al. 2021, p. 12).

Others disagree with this view. The NGO Médecins Sans Frontières points to the negative consequences of an innovation and development strategy that relies purely on national market-based competition among private companies: “The current monopoly-based pharmaceutical research and development (R&D) system fails to develop, produce and distribute lifesaving medical tools in the interest of public health. ... With control over the market as a result of patents or other exclusive rights, or even the way in which global production and supply chains are organized, pharmaceutical companies have the decision-making power to determine who ultimately has access ... When global demand outstrips production and supply capacity, medical tools are often allocated not based on public health need, but on the ability to pay high prices” (MSF 2020, p. 1).

Evenett and Baldwin (2020) argue that a renationalization strategy does not promote resilience. Rather, they argue that beside the COVID-19 crisis and the threat of "vaccine nationalism" all the other pressing challenges currently facing the global community – be it the climate crisis, the rising importance of digitalization and e-commerce, and the trade war between the U.S. and China, which also reflects a rivalry of modes of capitalism – must be addressed. Since this only works multilaterally, they position themselves in defence of the World Trade Organization (WTO) and plead for a renewal and strengthening of the multilateral system. Enderwick and Buckley (2020) predict stronger regionalization trends instead of a more deepened globalization. The authors argue that the pandemic is leading to concerns about the vulnerabilities of GVCs, which may lead to de-globalization, from which however a renewed focus on regional alliances, i.e., on neighbouring countries, may well emerge. Regional alliances have the advantage of overcoming the disadvantages of small states while benefiting from economies of scale. Curran and Eckhardt (2021) believe that there are diverging developments in different sectors. In sectors where cost differences are very large and there are few alternative technologies, GVCs will certainly remain global. In other sectors, such as medical equipment, government interference is likely due to the experience of the pandemic. Probably, the changes might not be too strong, because at the end of the day it is companies that control GVCs and that pursue certain motives, and the influence of governments only has a limited impact on their decision-making.

Supply constraints

While Gereffi's (2020) contribution examines the impact of the pandemic on the medical supply sector, his findings can be applied to other sectors as well. In his view, two aspects are worrying: firstly, excessive dependence on one supplier, in this case China, and secondly, the just-in-time business model, in which almost no inventories are held and thus no supply bottlenecks can be bridged. According to his view, to build resilience in the future, it is critical to diversify in all directions. Recommendations range from expanding capacity in the home country, to a broader international supplier base, to the selection of large sales markets, to strategic partnerships with companies in similar industries.

One characteristic of the COVID-19 crisis is that it is not only a demand crisis as in usual recessions, but in addition supply constraints could be observed. Since the beginning of the crisis, supply shocks have been repeatedly reported in the media. Due to the drastic changes in the daily life of many people and new needs resulting from lockdown conditions, there was a change in demand. In the first year of the pandemic, this led to a sharp drop in commodity prices. Online retailers and certain electronics goods suppliers were confronted with a boom. Also, the stimulus programs adopted by governments in advanced economies have increased demand in certain sectors, for example the construction industry.

Decisions were also made by companies at the beginning of the pandemic which caused disruptions. A striking example in this respect is the shortage of semiconductors, which in early 2021 forced automobile manufacturers all over the world – despite high demand for vehicles – to shut down their production and register short-time work because not enough chips were available. According to a report by Ezell (2021), after the start of the crisis in early 2020, when sales figures fell sharply in some countries, automotive suppliers cancelled their orders for electronics and semiconductors or revised them downward. In some cases, reference was even made to contract clauses that included natural disasters. However, the forecast proved to be wrong, as demand quickly picked up again. In the meantime, however, the manufacturers had switched production to a more modern variant of semiconductors that are needed for electronic items, for example in telephones and game consoles.

Changes to bargaining power in global value chains

There are clear indications that during the COVID-19 crisis the imbalances in bargaining power within GVCs became even more pronounced. Within multinational companies, the

bargaining power of subsidiary companies vis-à-vis the parent company is the weakest. To secure profits, transnational corporations can shut down their subsidiaries in the Global South. For example, in early 2021 Ford, the fifth largest auto manufacturer in Brazil, announced that it will completely shut its three plants within the year, after producing in Brazil for over a century (VOA News 2021).

In the case of legally independent suppliers in the Global South, the most unfavorable COVID-19 responses took place in the apparel sector with its captive GVC governance. When we look at economic and social impacts of the COVID 19 pandemic, we need to distinguish between factors that were already apparent before the crisis and those that are directly related to the pandemic. The clothing industry already made negative headlines in the 1990s, when it became public knowledge that large fashion companies had their clothes made under sweatshop conditions in factories in poor countries, sometimes even by children. Massive public pressure has served to ensure that multinational companies now present themselves as part of the solution, suggesting to the public through a range of voluntary measures that they will expose, address, and prevent exploitation in their supply chains (LeBaron 2020). However, the way fashion companies and brand manufacturers have behaved over the course of the pandemic has severely tarnished their credibility (Anner forthcoming).

Producing countries in the apparel industry felt the effects of dependencies in GVCs twice in early 2020. After China entered a lockdown in January 2020, many other countries lacked material and intermediate products for further production. This first supply shock was quickly followed by a second shock, this time in the form of a drop in demand from the Global North (ITUC 2020). In Europe and the U.S., governments imposed shutdowns and curfews in March and April. If we take the Vietnamese garment industry as an example, the factories integrated into GVCs were more affected by the international decline in orders and demand than those oriented to the domestic market (Ford and Ward 2021, p. 438). In countries like Bangladesh or Cambodia the situation was similar. The massive export dependence of manufacturing countries on customers in the U.S., Japan, and the European Union – 61.5 percent of all apparel exports in 2018 were destined for these regions – has had a huge impact on the producing countries (ILO 2020b). In view of an acute drop in demand for clothing, brand manufacturers and retailers canceled their orders. In some cases, goods shipments were already on their way, and in many cases, they had already been manufactured. In the Global South this has led to thousands of companies having to close, some of them probably forever.

The workers, in turn, were often sent home without pay (ILO 2020c). The effects in the producing countries were devastating. Surveys have shown that the failure to pay wages has led to acute hunger and inadequate nutrition among affected workers and their families (Kyritsis et al. 2020). By cancelling orders that had already been manufactured, the brands and retail chains violated their obligations both under the UN Guiding Principles on Business and Human Rights (UNGPs) and the OECD Guidelines for Multinational Enterprises (ECCHR 2020).

Current events and developments in the apparel sector have once again focused attention on various issues and for the producing countries in the Global South, it became very clear how potentially harmful it is to specialize in the production of a single export good. In the event of a collapse in demand, virtually all production in the affected sector comes to a standstill. The reactions in response to the COVID-19 pandemic can once again be used to support the argument that voluntary initiatives appear insufficient to bind companies to any obligations in crisis situations.

Similarly, the crisis reactions indicate that industry differences and the different segments within value chains will continue to carry considerable weight for social up or downgrading in the future. While production-oriented work sectors have been affected by periods of complete work stoppage, some industries such as the IT services industry have even benefited economically from the COVID-19 pandemic. In addition, many IT professionals have been able to switch much more easily to work-from-home jobs (Shankar 2020), a privilege of white-collar work that many blue-collar workers do not have.

Conclusion

There is a high level of uncertainty regarding how GVCs and globalization in general will develop after COVID-19. Hulme and Horner (2020) have convincingly pointed out that there are three conceivable scenarios for how the pandemic will affect future developments. In the first scenario, they expect the situation to worsen towards a “global meltdown” due to the difficult social developments. The second scenario is the one, which also aligns with our thesis and in which ultimately only the developments that were already apparent before the pandemic are perpetuated in a more clearly defined and pronounced form – a view that Rodrick (2020) also shares in principle. The third scenario is the most optimistic, in which pandemic-related investments and problem solutions are used simultaneously to solve pre-existing challenges, such as overcoming the climate crisis.

In our opinion, if the development of GVCs is left to the market once the current phase of COVID-19 crisis management subsides, only moderate changes in the medium term can be expected. For example, the expansion of GVCs may be slower in the future than in the 1990s and 2010s if countries in the Global South manage to take over more value-adding activities in GVCs. China is a good example for this. In general, traditional economic theory predicts that in case of economic convergence one central reason for international trade, comparative advantages, become smaller or disappear. Another potential, more long-term, trend may be that automation destroys the comparative advantages of low wages in the Global South and hitherto labor-intensive production tasks might be shifted back to the Global North, leading to a further slowdown or even shrinking of GVCs.

Other possible future developments in GVCs may be more sector specific. In GVCs with relatively simple technology, like garments or simple electronics goods production, cost advantages in the Global South are immense and became even bigger during the COVID-19 crisis due to the depreciations of many currencies of the Global South. In such areas the market incentive for outsourcing is overwhelming. The same may be the case in the field of outsourcing certain services from the Global North to the Global South. Transaction costs in this area are low and technological possibilities are improving. Milanovic (2021) expects an explosion of GVCs in this area with the result of increasing pressure in the low-wage sector in the Global North. In other sectors, for example the automotive sector, development of regional clusters will most likely continue. Again in other sectors, political interventions may enforce more domestic or regional productions, for example medicinal products, comparable to many regional agricultural productions which are motivated by the desire to have certain autonomy in the provision of food products.

Faster and more radical changes can generally be expected with global crises and political interventions. It seems that the neoliberal globalization era which started in the 1980s with deregulation of international trade, international capital flows and also labor markets is entering a new phase. For example, industrial policy is becoming fashionable again in the U.S. but also in Europe and other countries in the Global North. Partly responsible for this is the successful catching up of China, which extensively uses industrial policy and state-owned or state-controlled companies. One important aspect of expected industrial policy trends amplified by COVID-19 is the establishment of more regional clusters in high-tech industries to become less dependent on foreign markets. An important additional role is played here by

the U.S., which wants to aggressively prevent the further technological upgrading of China given it currently views China as a serious challenge for its own hegemony. In addition, in China there are tendencies to become less dependent on the rest of the world and create regional economic clusters. Such intensified political attempts to push national developments will most likely not find favour with multinational companies which prefer to act all over the planet. Conflicts between more and more powerful multinational companies and governments can therefore be expected.

Beyond the potential importance of the abovementioned factors for the development of GVCs, dark clouds hang over globalization in general. COVID-19 has further destabilized the world economy after the shock of the financial crisis in 2008 and the Great Recession. The previously unimaginable explosion of central bank balance sheets, high private and government debt quotas elaborated on in the first section of this article was unfolding even before COVID-19 all over the world. In combination with the high and to a large extent private external indebtedness of many countries in Global South, zero interest rates in many countries, and the thereby stimulated risky investment strategies in stock markets and investments in the Global South, these factors have all been pushing the world economy into a fragile constellation for over a decade (Heine and Herr 2021). We would argue that a high level of economic policy intervention and cooperation between countries will therefore be needed to stabilize the situation and prevent a deep and long-lasting crisis which would also fundamentally affect GVCs.

Last but not least the ecological crisis seems to be getting worse, and radical political actions are becoming increasingly urgent. Globalization and especially the existing GVCs have clearly negative ecological effects as a result of high levels of goods transportation and the shifting of production to countries with low ecological standards. Efforts to internalize the negative external effects of global transportation and industrial policies to support regional circuits in the interest of ecological transformation could also massively reduce the importance of GVCs.

Overall, we can conclude that while COVID-19 will not lead to more fundamental changes in GVCs once the crisis subsides, it massively stimulates and speeds-up changes which are in any case underway.

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