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The Economic and Social Consequences of the COVID-19 Pandemic

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From January 2020, the world experienced more than two years of severe global disruption brought on by the coronavirus SARS-CoV-2, which caused the pandemic disease COVID-19. The world shut down much of its day-to-day activities for a large part of this period, which led to a global recession. In fact, statistics could not capture the full extent of what happened to societies large and small during the pandemic. Not only lives were lost, an estimated 18 million died as a result of COVID-19 by the end of 2021,[1] but lifetime earnings were gone and many of those who became ill but recovered suffered a loss of earnings, which impacted their dependents. A large segment of people fell into poverty due to the pandemic in 2020 and the situation did not improve much in 2021 and even the first half of 2022. The associated stress and anguish carried incalculable but real costs too for individuals and societies.

The International Monetary Fund (IMF) described the pandemic in June 2020 as 'a crisis like no other', against the background of intensifying trade conflicts that began in 2018. The United States, under the Donald Trump administration, imposed punitive tariffs on a variety of products against multiple countries that affected global trade. Relations worsened especially between the United States and China, as the former complained about its huge trade deficit with the latter. By 2022, relations between these two largest economies in the world, together sharing nearly 45 per cent of global Gross Domestic Product (GDP), had become an all-out ideological and systems conflict. The Joseph Biden administration that succeeded the Trump administration characterised relations with China as 'a battle between the utility of democracies in the twenty-first century and autocracies'. The deteriorating relations between them affected how they saw each other's COVID-19 responses, as discussed in Chapter 9, when they could have cooperated to fight the disease. By February 2022, while COVID-19 had yet to recede in the world, a new phase of global disruptions burst forth with the war between Russia and Ukraine.

1. David Adam, 'COVID's True Death Toll: Much Higher Than Official Records', *Nature*, 10 March 2022, https://www.nature.com/articles/d41586-022-00708-0.

This chapter looks at the pandemic period in 2020–2021 and ends with observations about the state of the global economy in mid-2022 and the uncertain prospects for the future. The global economy had been ravaged by COVID-19—declared a pandemic on 11 March 2020 by the World Health Organization (WHO)—and its recovery is having to contend with war and its many spillover effects. According to a report issued in March 2022 based on a survey of business executives worldwide, their top concern had shifted from the pandemic, which had been identified as the top risk for the previous two years, to 'global instability and/or conflicts'.[2]

COVID-19 and Economic Contraction

The 'economy' is an abstraction, but it is not separate from society. It is through people and the aggregate of their activities that the economy is perceived and measured. An economic contraction is a decline in national output, which affects production, sales and consumption, employment, and personal income. The massive global economic contraction caused by COVID-19 in 2020 shut down industrial production, people stayed home, and everything closed, from offices to shops and restaurants, to schools and to places of worship. Clinics and hospitals worked overtime and were overwhelmed in many places for an extended period. Global GDP lost 3.6 per cent in 2020. While GDP had gone back into positive territory in 2021, the gains were relatively small when the losses in 2020 were considered.

Table 7.1 shows the changes in GDP of countries discussed in this book from the pre-pandemic year of 2019 and the first year of the pandemic in 2020, and the change in GDP between 2020 and 2021. In the first year, Vietnam and China, two developing economies that managed to suppress COVID-19 early on still managed positive growth. Other economies contracted although relatively slightly in the cases of South Korea and New Zealand, which acted relatively quickly and decisively. Some European economies experienced a massive GDP decline in 2020, and growth in 2021 did not make up for the loss in the previous year.

There were common themes during the pandemic even though governments of different countries reacted differently to COVID-19. Virtually all jurisdictions exerted some level of mandated social distancing and isolation of the infected, contact tracing, and travel restrictions to mitigate the spread of the disease, though those measures varied widely from place to place and over time. They all attempted to gain access to enough supplies of personal protective equipment (PPE) and medical equipment to protect healthcare workers and their populations. Governments also attempted to gain access to vaccines and to get their populations vaccinated, though there were

2. McKinsey, 'Economic Condition Outlook, March 2022', March 2022, https://www.mckinsey.com/~/media/mckinsey/business%20functions/strategy%20and%20corporate%20finance/our%20insights/economic%20conditions%20outlook%202022/march%202022/economic-conditions-outlook-march-2022.pdf.

Table 7.1: Change in GDP from (a) 2019 to 2020 and (b) 2020 to 2021

Countries	GDP Change between 2019 and 2020	GDP Change between 2020 and 2021
Vietnam	+2.9%	+3.78
China	+2.3%	+8.02
South Korea	−0.9%	+4.28
New Zealand	−1.9%	+5.06
Australia	−2.5%	+3.54
Sweden	−2.9%	+4.04
United States	−3.4%	+5.97
Germany	−4.6%	+3.05
Japan	−4.6%	+2.36
Canada	−5.2%	+5.69
Singapore	−5.4%	+6.03
Thailand	−6.1%	+0.96
France	−7.9%	+6.29
Italy	−8.9%	+5.77
United Kingdom	−9.4%	+6.76

Source: World Bank Data, https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=VN, and *Statistics Times*, https://statisticstimes.com/economy/projected-world-gdp-ranking.php.

inequalities in the availability and/or acceptance of vaccines across countries (see Chapters 2 and 4).

These common themes brought about similar economic and societal consequences in the domestic economies of the various countries and in the global economy. The heightened need for hospital beds and medical equipment, such as ventilators and PPE, as well as ambulances and refrigerated vehicles for transporting corpses, imposed severe stresses on hospitals, healthcare workers, and medical systems, especially in countries where measures to contain the disease were grossly insufficient to 'flatten the curve', i.e., to reduce the peak demand for these health-related goods and services to below their availability (see Chapter 5).

The shortages of PPE, especially face masks, which the general public around the world also sought to buy, was one of the items of panic buying and stockpiling in the early months of the pandemic. Toilet paper, hand sanitisers, and staple food products were swept up. Panic buying is an impulse and temporary reaction to anxiety and fear caused by an impending crisis. Even unneeded items were purchased because they were available in stores, leading to the emptying of shelves all over the world in 2020 and when new waves of COVID-19 emerged. Herd psychology was at play, propelling people to do what others were doing.

Government Support Schemes to Demobilise the Economy

The onslaught of COVID-19 was an enormous challenge to policy-makers and governments. China was the first country that had to deal with the new virus. By mid-March 2020, the world economy paused, and the challenge had become global. It was a new experience for all governments. COVID-19 presented a package of shocks; it was a health crisis, a social crisis, an economic crisis, and a political crisis all rolled into one on a global scale.

All governments stretched their budgets to relieve the financial pain of those who were affected by work stoppages and to stimulate their economies. Country after country put forward COVID-19 relief plans starting in February 2020. There were many types of relief from governments around the world—including handing out food, providing free facemasks, giving out cash, supporting companies to meet payroll, granting loan guarantees, extending mortgage and loan repayments, cutting taxes, and covering the costs of vaccination when they became available in 2021.

Political leaders around the world spoke of the funding needed to fight the consequences of the pandemic in terms comparable to fighting a war, except that it was not about mobilising resources and manpower for war but covering the cost of demobilising the economy so people could stay home. Agustin Carstens, the general manager of the Bank of International Settlement, an international financial institution owned by central banks to promote cooperation, noted that:

> The COVID-19 pandemic and the induced global lockdown are a truly historic event. Never before has the global economy been deliberately put into an induced coma. This is no normal recession, but one that results from explicit policy choices to avoid a large-scale public health disaster.[3]

The IMF noted that by October 2020, rich economies had provided on average 8.5 per cent of GDP in their relief packages in response to the pandemic. The United States, the world's leading economy, passed the Coronavirus Aid, Relief, and Economic Security Act (CARES) on 25 March 2020 after just a fortnight of negotiations amounting to a massive US$2.2 trillion, or 10 per cent of US GDP. CARES was a pay cheque protection programme for businesses, and also gave households money directly, and extended unemployment benefits. It was the largest fiscal support delivered to the economy ever. Germany, Italy, France, Spain, the United Kingdom, Japan, and South Korea devoted large portions of their pandemic packages to providing loan guarantees to help companies, which enabled employers to continue paying their employees at more or less full pay to large swaths of the workforce. In Germany for example, the loan guarantees amounted to more than 30 per cent of GDP, and the British government's loan guarantees amounted to around 15 per cent of the United Kingdom's GDP. Middle-income countries on average provided 4 per cent of GDP in their pandemic relief packages,

3. Agustín Carstens, 'Countering Covid-19: The Nature of Central Banks' Policy Response', speech on 27 May 2020, https://www.bis.org/speeches/sp200527.htm.

while poor countries on average managed under 2 per cent of GDP.[4] With COVID-19 under control by April 2020, China was more restrained in doling out relief and aid. Nevertheless, its fiscal effort in 2020 still amounted to 5.4 per cent of GDP. In 2020, China loosened lending, funded infrastructure, transferred funds to local governments to aid their measures to fight the pandemic, cut taxes and fees, and provided some indirect payments to households.[5] Governments around the world provided further aid packages in 2021—too many to list here—after the initial ones, as the pandemic rolled on. Suffice to note that the pandemic has been very expensive for governments around the world.

The case of Hong Kong was noteworthy as an example of what a rich city did. Hong Kong was among the earliest to provide COVID-19-related relief. Its first round of relief was approved by the legislature on 21 February 2020 and by the end of 2021, four rounds of relief packages had been approved. The Hong Kong government cut taxes for low-salary earners, reduced profits tax, waived rates for millions of owners of domestic properties, provided all kinds of direct payment schemes to many sectors of business, and issued highly popular consumption vouchers to most residents to boost the economy. As the city was hit by the Omicron variant, the government issued two more rounds of relief between January and April 2022.[6]

Money did not come free of course. Hong Kong did not have to borrow because of the city's strong finances (see Chapter 11). Many economies had to borrow. The Organisation for Economic Cooperation and Development (OECD), a group of rich and higher-income economies, estimated that by the end of 2020, the total debt issuance by rich economies amounted to US$18 trillion with the United States accounting for about two-thirds, Japan for a tenth, and the rest divided among European countries.[7] Carstens explained the critical role played by the central banks of the rich economies that got things going and helped to shorten the economic contraction successfully:

> The actions of central banks . . . highlighted their central role in crisis management as they swiftly cut policy interest rates . . . In . . . urgent policy mobilisation, central banks' actions concentrated on large-scale purchases of government debt as well as credit support for firms and households. The latter encompassed funding for lending schemes, purchases of corporate debt, and support provisions for small- and medium-sized enterprises. This last set of measures is designed to travel the 'last mile'. The main objective is to prevent liquidity strains that could lead to bankruptcies of solvent firms and leave long-lasting scars on growth potential. These extraordinary actions were

4. IMF Fiscal Monitor October 2020, https://www.imf.org/en/Publications/FM/Issues/2020/09/30/october-2020-fiscal-monitor.
5. Yue Cao, Rebecca Nadin, Linda Calabrese, Olena Borodyna, and Beatrice Tanjangco, 'Pulse 1: Covid-19 and Economic Crisis—China's Recovery and International Response', *ODI Economic Pulse series*, 30 November 2020, https://odi.org/en/publications/economic-pulse-1-covid-19-and-economic-crisis-chinas-recovery-and-international-response.
6. Hong Kong Government, 'Anti-Epidemic Fund', accessed 13 September 2022, https://www.coronavirus.gov.hk/eng/anti-epidemic-fund.html.
7. OECD 2020, 'Sovereign Borrowing Outlook for OECD Countries 2020'.

> designed precisely to flatten the mortality curve of businesses . . . Finally, let me say that the aggressive measures described, crossing the traditional boundaries between fiscal and monetary policies, are only feasible for central banks in advanced economies with high credibility stemming from a long track record of stability-oriented policies. This is strong medicine and should only be taken with extreme care.[8]

With two-thirds of the world's population living in middle- and low-income countries (excluding China) facing unprecedented economic damage from COVID-19, and lacking the monetary, fiscal, and administrative capacity to respond to the massive pandemic crisis, the role of the United Nations became vital to provide guidance and assistance, as well as to organise fundraising from the governments of richer countries and from philanthropic foundations. Chapter 2 details the role of the United Nations, the WHO, and other agencies in helping emerging economies. What was made available to low-income economies was far from sufficient and exacerbated global inequalities.

COVID-19 Exacerbated Inequalities

The experience of the pandemic depended on location, nationality, age, gender, and socio-economic status. Older people everywhere were more susceptible to catching COVID-19 and persons 65 or older had strikingly higher mortality rates compared to younger individuals, and men had a higher risk of death than women.[9] The poor suffered the most as a result of the pandemic. In 2021, the average incomes of people in the bottom 40 per cent of the global income distribution were 6.7 per cent lower than pre-pandemic projections, while those of people in the top 40 per cent were down 2.8 per cent. The reason for the difference was the higher-income earners recovered their income losses much faster than the poor earners. Between 2019 and 2021, the average income of the bottom 40 per cent fell by 2.2 per cent, while the average income of the top 40 per cent fell by only 0.5 per cent.[10] In the Asia-Pacific region, extreme poverty increased for the first time in 20 years.[11] A more graphic description was that 97 million more people were living on less than US$1.90 a day because of the pandemic, increasing the global poverty rate from 7.8 per cent to 9.1 per cent between 2019 and 2021. The next poorest group consisted of about 160 million people, living on less than US$5.50

8. Carstens, 'Countering Covid-19'.
9. N. David Yanez, Noel S. Weiss, Jacques-André Romand, and Miriam M. Treggiari, 'COVID-19 Mortality Risk for Older Men and Women', *BMC Public Health* 20 (2020), https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-020-09826-8.
10. Carolina Sánchez-Páramo, Ruth Hill, Daniel Gerszon Mahler, Ambar Narayan, and Nishant Yonzan, 'COVID-19 Leaves a Legacy of Rising Poverty and Widening Inequality', *World Bank Blog*, 7 October 2021, https://blogs.worldbank.org/developmenttalk/covid-19-leaves-legacy-rising-poverty-and-widening-inequality.
11. Economic and Social Commission for Asia and the Pacific (ESCAP), Asian Development Bank (ADB), and United Nations Development Programme (UNEP), 'Building Forward Together: Towards and inclusive and Resilient Asia and the Pacific', March 2022, http://dx.doi.org/10.22617/TCS220113-2.

a day. The World Bank notes that inequality had also worsened within countries, as poorer households lost income and jobs at higher rates than richer households.[12]

In rich and middle-income economies, and in more developed parts of emerging economies, inequalities were exacerbated between those working in services, who were able to work at home and those working in sectors in which employees' physical presence is essential, especially in those sectors characterised by physical closeness of employees, such as in factories and meat-packing. This exposed those who needed to be present physically to a greater risk of catching the disease than those who could work from home. Workers in sectors that require physical contact with each other and with consumers, such as hospitality, restaurants, air travel, and tourism, were more likely to lose their jobs, temporarily or permanently. These were likely to be lower-paying jobs than those held by workers who could take advantage of e-meeting services, such as Zoom, whose common stock increased in price by more than 700 per cent between January and October 2020.

Education systems around the world faced unprecedented challenges due to the COVID-19 pandemic. The delivery of education massively shifted to distance-learning solutions in richer economies. Parents, who normally relied on schools to serve as day care and who needed to be physically present at work, and who still had work, were challenged to find ways to care for—and to occupy—their stay-at-home children. Online distance learning was far from ideal in educational terms for younger students. Schools and teachers had to learn how to teach online, which affected the quality of the experience. Distance learning also increased the marginalisation of the most vulnerable people, as only about half the world had access to the Internet and Internet stability differed from place to place. Students in poor economies missed many months of schooling and they had few means to catch up. The pandemic caused 1.6 billion students to be out of school during the peak period of infection in 2020.[13] Worse, predictions were that the likelihood of child labour would increase because of the need to supplement family income, and that more girls than boys would likely drop out altogether as schools re-opened.[14]

Privatising Risks While Socialising Gains

Government relief and aid packages all around the world were promulgated quickly to address the short-term COVID-19 impacts. The packages were massive in wealthy economies. There was no time to fine-tune them to focus on those who truly needed help. The huge government outlays to compensate the unemployed and to stimulate economies raised again an important concern that was last raised in a different form after the global financial crisis of 2007–2009. Then and in 2020, insufficient attention

12. Sánchez-Páramo et al., 'COVID-19 Leaves a Legacy'.
13. UNESCO, 'Education: From School Closure to Recovery', accessed 25 May 2022, https://en.unesco.org/covid19/educationresponse#durationschoolclosures.
14. ESCAP, ADB and UNEP, 'Building Forward Together'.

and funding to prepare for, or to prevent in advance a crisis that should have been foreseeable, resulted in the need for large government bailouts. In both cases, these bailouts tended to enhance the fortunes of the relatively well-off by driving up the value of stocks and other investments, while doing too little to alleviate the reduced circumstances of those who are not well-off, thus exacerbating inequalities, and privatising gains while socialising risks. This is particularly true in richer economies. Part of the assessment in the aftermath of the COVID-19 pandemic should address broader economic and philosophical questions: Is it possible that systemic changes to domestic and global institutions could alleviate these concerns? To what extent is it preferable for governments to invest heavily in preventive measures to avoid sudden, unpredictable, and possibly much larger expenditures later? These are questions not only for national institutions and governments, but also for global institutions like the IMF and the WHO, as discussed in Chapter 2.

Data showed that in April 2020, the savings rate in America increased from an average of 8 per cent in 2019 to 32.2 per cent in 2020—the highest figure ever recorded—and in Europe, it increased from 13.1 per cent in 2019 to 24.6 per cent in 2020.[15] What that meant was that in spite of the overall damages to the less wealthy, in some countries, such as the United States and Europe, government handouts were generous enough, together with mortgage payment suspensions, to enable many unemployed or stay-at-home people to save and either accumulate unspent money to fuel pent-up demand when restrictions eased, or to spend their time on internet-based activities such as online gaming and day-trading of shares of listed stocks. These activities, especially day-trading, tended to benefit the providers of the services, such as in the finance industry, who were wealthier. In the United States, the cheques households received under CARES and other rounds of stimulus payments enabled households to build up US$2.7 trillion in extra savings from the start of the pandemic to the end of 2021.[16] It helped to promote a rethinking of career paths, in some cases leading people to decide not to return to their original jobs, contributing to an employee pinch when the pandemic restrictions eased.

Regional Differences

Inflation began to spurt in 2022 as pandemic restrictions eased and activity revived in many economies. The pent-up demand and easy money from government COVID stimulus, together with supply-side constrictions due to disrupted supply chains, temporary work stoppages, and lockdowns in major Chinese cities in March–May 2022 all played a role. Among the main differences from country to country were that in some, most notably China, very severe measures to prevent the transmission of the

15. McKinsey Global Institute, 'Covid-19 Has Revived the Social Contract in Advanced Economies—For Now. What Will Stick Once the Crisis Abates?', 10 December 2020.
16. Rachel Louise Ensign and Orla McCaffrey, 'American Begin to Draw Down Pandemic-Era Savings', *The Wall Street Journal*, 6 July 2022.

virus were undertaken early, with noteworthy success, at least until the onset of the Omicron variant in 2022. In others, most notably the United States and the United Kingdom, relatively lax and late measures were applied to contain the spread in 2020. As a generalisation, the most stringent measures were undertaken in the Asia-Pacific region, including New Zealand and Australia. Countries in that region have suffered much lower numbers of hospitalisations and deaths per capita in 2020–2021 than the United States, the United Kingdom, and Europe. In the Asia-Pacific region, strong government restrictions and contact tracing were put in place to prevent hospitalisations and deaths. In the United States and the United Kingdom and some other countries, the emphasis was more on the trade-off and balance between preventing deaths and morbidities on the one hand and inflicting damage on the economy on the other. And yet paradoxically, in China particularly, as well as other countries that imposed strong measures to stamp out the virus in 2020–2021, normal economic growth returned quickly once the spread of the virus and its subsequent waves were contained.

Nevertheless, China's continuation with its zero-COVID policy after the onset of Omicron in March–May 2022 affected production there, which affected global supply chains, since China has a large manufacturing-export sector. In some quarters, this was seen as evidence that China's zero-COVID policy would be, and was, ultimately not as successful as first believed, leading to economic damage not only in China but in global markets. Some argued that China's policy prevented its population from building up herd immunity, whereas in other countries proximity to the virus tended to immunise populations in the long term. But with the development of effective vaccines that substituted for acquiring natural immunity from the virus itself (and for all vaccines, including those prevailing in China, the United States, and Europe, substantially lower rates of hospitalisations and deaths) this argument holds less force. The view from China was very different. China saw its COVID-19 policy as effective in curbing transmission at the fastest speed and at the lowest cost, and that it protected people's health while reducing its impact on the economy.

How China dealt with COVID-19 will be a topic of debate for years to come, not least because there were many unique aspects to the thinking of its leadership that were so different from other jurisdictions. The Chinese government went through enormous effort and great expense to contain COVID-19. As noted in Chapter 9, the highly transmissible Omicron outbreak in China in March 2022 led to restrictions and lockdowns in various places, including the major cities of Shenzhen, Shanghai, and Beijing. The Chinese formula for fighting COVID-19 involved mass testing and tracing on a huge scale and at great expense.[17] The justification was that this method and expense was considered much less than having to lock down the economy to save lives. By May 2022, the Chinese government announced large plans to bolster the economy, which were further expanded in the autumn. By mid-December 2022, COVID restrictions

17. Xu Wen, Cui Xiaotian, Dong Hui, Zhang Yukun, and Li Leyan, 'Five Things to Know about China's Plans for Regular Mass COVID Testing', *Caixin*, 3 June 2022.

eased substantially as the government realised the curbs were no longer working in face of the highly infectious Omicron and following public protests of what people saw as capricious restrictions by local authorities that weakened the economy and unreasonably affected their lives (see Chapter 9). Nevertheless, the full-year 2022 GDP for China was still expected to be around 3 per cent.

Rationality and Social Contracts

How one views society's response to COVID-19 could be explained by the work of the late Nobel prize-winning economist and political scientist, Elinor Ostrom. Ostrom theorised how people made decisions on following rules—the majority, referred to as 'norm users', were seen as willing participants to act for the collective good, but a minority of 'rational egoists' would only act if something was in their interest. Ostrom argued that 'rational egotists' would change their behaviour to avoid punishment because it would be in their interest to avoid punishment. In her view, those who acted in defiance of rules could negatively affect how willing participants behaved by influencing them to break rules. Thus, from a societal perspective, it would be important to punish the minority rule breakers to reinforce collective good norms.[18]

Using Ostrom's perspective, it could be said that the majority of Americans are 'rational egoists', while most of those in many Asian countries are 'norm users'. In the United States, the paramount value is individualism, while in many Asian societies, it is the well-being of the community. Thus, the implicit social contracts are different in the two regions. In Asia, it is considered a norm to act to support the community, and to obey and rely on the authorities. In the United States, authorities are not trusted, though this has not always been the case historically. It is, nevertheless, a norm to depend on oneself. This may partly account for the different actions in the two regions on the part of citizens and governments, and the different results. In the United States, masking, even during a pandemic, was scoffed at by a large percentage of the population, and in most places in the United States, one felt peculiar if one wore a mask; while in China and most of Asia, masking was accepted and performed by virtually all of the population, and one felt out of place if not wearing a mask.

These differences likely accounted for the differences in collective societal impacts of the pandemic. In the United States, divisions among the population increased. The approval of its president as well as institutions, legislators, media, and judiciary reached historic lows. Divisions increased not only in the United States but also in Europe and the United Kingdom over the issues of masking and vaccination. Some people were adamantly against getting vaccinated for a variety of reasons, including distrust of the vaccines. Even in Asia, social cohesion was tested when the Omicron variant hit in early 2022. There was heightened unease about restrictive government policies in

18. Elinor Ostrom, 'Collective Action and the Evolution of Social Norms', *Journal of Economic Perspectives* 14, no. 3 (Summer 2000): 137–158.

Japan[19] and South Korea.[20] With respect to Hong Kong, when the city was unable to contain the spread of Omicron in 2022, the public was angry that the authorities had lost the plot in COVID-19 management as many elderly people, who had declined to be vaccinated, died (see Chapter 11), moving Hong Kong from a location with one of the lowest daily COVID-19 death rates to the highest in the world. Rumblings of discontent even emerged in mainland China with the Shanghai lockdown in 2022. It remains to be seen what long-term impacts there might be on political trust in various jurisdictions.

As Chapter 1 pointed out, the Global Health Security Index (GHSI) in 2019 and 2021 on the preparedness of countries for a pandemic found that while no country was well prepared, the country that had the highest potential to be well prepared was the United States, and developing countries, including China, were ranked relatively lowly. And yet, it was the United States that floundered greatly. The authors of the GHSI acknowledged that beyond potential preparedness, political will to act was vital when a jurisdiction faced an infectious disease. The sociologist Ulrich Beck, coined the phrase 'organised irresponsibility', meaning a situation where 'individuals cumulatively contribute to risks without being held individually accountable'.[21] This perspective could be used to contrast the different actions taken by governments around the world. In Asia, the general public expectation was that the government must save lives, so the number of infections and deaths became the measure to judge policy effectiveness and also acceptance of tough measures that constrain personal freedoms. In the highly individualistic US 'rational egoist' culture, the notion of 'organised irresponsibility' may explain the public acceptance of a patchwork of lax official approaches that resulted in high infections and fatalities, as the majority of Americans saw lax approaches almost as a virtue.

The COVID-19 economic and social impacts were both short- and long-term. The long-term impacts will be debated for years. China's tough lockdown at the start crushed the virus in 2020, and there are insights and lessons to draw from that experience. A number of other economies also took fast action. This enabled the early revival of their economies. The closing of borders around the world limited cross-border transmissions and it took considerable time to resume; and for China and those countries that were successful in containing COVID-19 in 2020–2021, opening up represented considerable risk to their protected population. The United Kingdom and the United States had essentially re-opened their borders by April 2022 as they adopted 'living

19. Saya Soma and Yves Tiberghien, 'Japan Slams the Borders Shut on Omicron', *East Asia Forum*, 6 February 2022, https://www.eastasiaforum.org/2022/02/06/japan-slams-the-borders-shut-on-omicron.

20. Yoo-jung Lee and Yves Tiberghien, 'South Korea's Deepening Social Fractures amid COVID-19 Success', *East Asia Forum*, 28 October 2021, https://www.eastasiaforum.org/2021/10/28/south-koreas-deepening-social-fractures-amid-covid-19-success.

21. Cai Shouqiu provides a succinct summary of 'organised irresponsibility' in 'Rooting Out "Organized Irresponsibility"', 13 October 2020, *Caixin Online*, https://www.marketwatch.com/story/china-plagued-by-organized-irresponsibility-2010-10-13#:~:text=Ulrich%20Beck%2C%20a%20German%20sociologist,political%20hierarchy%20and%20organizational%20settings.

with COVID' policies. The contrast between them and China raised many commentaries that became politicised at a time of deepening ideological conflict, cast as between 'democracies and autocracies', which made it harder to reflect on the public health, economic, and social aspects of COVID-19. By the end of May 2022, the Chinese government announced a massive package of measures covering fiscal, financial, investment, and industrial policies to stimulate the economy, as other factors beyond the pandemic had emerged and China started to prepare for what might be a 'long COVID' global recession.

Long Economic COVID

Some patients who contracted COVID-19 found that deleterious effects continued for many months after its onset, leading to the coining of the term 'long COVID'. The pandemic itself, however, will also have lasting effects on the global economy as commerce continues to change in an era of resurgent nationalism, geopolitical tensions, and hyper-competition between groups of countries. These trends have raised questions about whether the post-COVID world might be less connected and less globalised. Even before the pandemic, complex forces had been pulling concurrently at both globalisation and deglobalisation. The forces are complex, and it is beyond this chapter to lay them all out. We focus on those aspects that the pandemic helped crystallise. Most obvious was the risk and danger of relying on global supply chains for PPE.

Globalisation of commerce had become the norm since the 1990s, as the widespread, blithe assumption that 'the world is flat' took hold, meaning the world was seen as a level playing field wherein all competitors, except for labour, have an equal opportunity. Flows of goods from lower-cost economies to consumers in higher-cost ones, and assembling parts in different countries, were so fluid that there was little concern about adopting 'just-in-time' supply chains that were highly economically efficient when all went well but not sufficiently resilient in case of supply shortages and bottlenecks along the chain. In 2020, there was a global severe shortage of PPE for a period of time as COVID-19 surged. The United States and many developed economies no longer had domestic suppliers for these goods. The competition for PPE was so intense that in one incident, the United States was accused of 'modern piracy' for diverting a shipment of masks intended for Germany,[22] and there was even competition for PPE between states and the federal government in America.[23] The call for reshoring of production, especially of PPE, drugs and other critical products intensified. Vaclav Smil noted:

22. Kim Willsher, Julian Borger, and Oliver Holmes, 'US Accused of "Modern Piracy" after Diversion of Masks Meant for Europe', *The Guardian*, 4 April 2020, https://www.theguardian.com/world/2020/apr/03/mask-wars-coronavirus-outbidding-demand.
23. Andrew Soergel, 'States Competing in "Global Jungle" for PPE', *US News*, 7 April 2020, https://www.usnews.com/news/best-states/articles/2020-04-07/states-compete-in-global-jungle-for-personal-protective-equipment-amid-coronavirus.

> Questioning and criticising globalization has gone beyond narrowly ideological arguments, and the COVID-19 pandemic provided additional powerful arguments based on irrefutable concerns about the state's fundamental role in protecting the lives of its citizens. That role is hard to play when 70 percent of the world's rubber gloves are made in a single factory, and when similar or even higher shares of not just other pieces of personal protective equipment but also of principal drug components and common medications (antibiotics, antihypertensive drugs) come from a very small number of suppliers in China and India. Such dependence might fulfil an economist's dream of mass output at the lowest possible unit cost, but it makes for extremely irresponsible—if not criminal—governance when doctors and nurses have to face a pandemic without adequate PPE, when states dependent on foreign production engage in dismaying competition for limited supplies, and when patients around the world cannot renew their prescriptions because of the slowdowns or closures in Asian factories . . . the reshoring of manufacturing could be the wave of the future, both in North America and in Europe . . . we may have seen the peak of globalisation, and its ebb may last not just for years but for decades to come.[24]

The World Economic Forum, an annual gathering of senior business leaders and government officials, held in May 2022, noted that 'globalisation' was not fading but was continuing to evolve. The globalisation of services was increasing dramatically since the pandemic, while that for goods had stalled. COVID-19 led to the rise of services delivered online. This meant companies became comfortable with hiring people as employees and contractors to deliver services in different locations around the world and managing them remotely. However, the relocation of production of goods from high-income economies to low-wage economies had stalled even before the pandemic because firstly, what could be outsourced had been outsourced, and secondly, the tariffs imposed by the United States in 2018 under the Trump administration made cross-border commerce more challenging to plan, and especially challenging for Chinese exports. The pandemic focussed attention on the risk of extensive offshoring. This led to calls in rich economies to bring manufacturing jobs 'back home' to strengthen domestic economies. There were also calls for protecting workers' rights to enable wage-led growth rather than enabling the maximisation of corporate profits. The calls for reshoring manufacturing, and also improving wages for workers were often wrapped in anti-globalisation narratives.[25]

As far as PPE was concerned, the upsurge in talk about reshoring involved achieving 'supply chain resilience strategies' that could introduce buffers and redundancies into supply chains so that they could withstand stoppages and bottlenecks. Resilience and efficiency, however, are not close comrades. With added buffers and redundancies there are added costs and lowered efficiencies during the majority of times when those

24. Vaclav Smil, *How the World Really Works: A Scientist's Guide to Our Past, Present, and Future* (London: Viking), 133.
25. World Economic Forum, 'Davos 2021 – Preparing for Deglobalization', 26 January 2021, https://www.weforum.org/videos/davos-2021-preparing-for-deglobalization-english.

buffers and redundancies are not needed. Chapter 8 shows these issues are not easy to address and would require careful and skilful long-term policy-making.

It is worth digressing here to consider the trade rivalry between the United States and China. The Trump administration's tariffs imposed in 2018 averaged 19.3 per cent on US$335 billion of Chinese imports.[26] China reacted by imposing tariffs on US imports. Researchers studied how these tariffs affected trade flows in 2018–2019. Unsurprisingly, trade was depressed between the two countries—China's exports to the United States declined by 8.5 per cent and US exports to China fell by 26.3 per cent—but their punch-up did not depress overall global trade, which increased by 3 per cent. Researchers observed that:

> The US-China trade war raised concerns that the era of global trade growth would come to an end. Our results provide little support for this view, at least for the medium-run time horizon that is the focus of our analysis. Indeed, trade between the two largest economies, the US and China, declined significantly. However, we also find that trade among indirectly affected bystander countries, as well as trade between these countries and the US, increased substantially. As a result, global trade increased in the products targeted by the tariffs. Rather than merely reallocating global trade flows, the trade war appears to have created new trade opportunities for many countries.[27]

China had made it clear that it was ready to remove the tariffs as soon as the United States dropped its. The tariffs remained in place after a change of administration in 2021 in the United States. Despite inflation rising substantially by mid-2022, the Biden administration did not remove the Trump era tariffs imposed on Chinese exports.

The 'deglobalisation' narrative is tinged with nationalistic and competitive sentiments. While PPE was the reshoring posterchild with respect to the pandemic, more important still were products deemed critical to technology, especially computer chips, semiconductors, batteries, and advanced pharmaceuticals. New terms arose in 2021—'friend-shoring' and 'allies-shoring'—that reflected the notion that like-minded countries should cooperate to strengthen their economies and competitiveness against other rival systems. The leader of this coalition, the United States, was working with countries in Europe and together with Japan and South Korea as this book went to press. The intention is to 'unfriend China'.[28] These geopolitical factors make global cooperation much more challenging at a time when multi-lateral solutions are needed to not only regulate global trade but also deal with global crime, climate change, and, of course, fight pandemics. COVID-19 showed governments around the world took uncoordinated measures against a clear and present global threat to contain the transmission of a new infectious disease and to share vaccines.

26. Chad Brown, 'US China Trade Tariffs: An Up-to-Date Chart', 22 April 2022, https://www.piie.com/research/piie-charts/us-china-trade-war-tariffs-date-chart.
27. Pablo Fajgelbaum, Pinelopi K. Goldberg, Patrick J. Kennedy, Amit Khandelwal, and Daria Taglioni, 'The US-China Trade War and Global Relocations', National Bureau of Economic Research, Working Paper 29562, December 2021, https://www.nber.org/system/files/working_papers/w29562/w29562.pdf.
28. Mona Paulsen, 'Friend-Shoring', *International Economic Law and Policy Blog*, 21 April 2022, https://ielp.worldtradelaw.net/2022/04/friend-shoring.html.

The potential negative effects to international trade of 'friend-shoring' were made clear by the economist Raghuram G. Rajan, a former governor of the Reserve Bank of India. He noted that while diversifying production locations in the supply chain across countries to increase flexibility and resilience was appropriate, resurgent protectionism was not, and could pose a dangerous threat. Such a threat began with the tariffs introduced by the Trump administration and accelerated not only due to the supply chain difficulties during COVID-19 but also because of the war between Russia and Ukraine, and the imposition of sanctions on Russia by the United States and the European Union. Moreover, the 'friend-shoring' narrative by Western politicians was also due to their displeasure with China for its friendly relationship with Russia accompanied by Western dissatisfaction with both. Rajan pointed to another concern:

> friend-shoring will typically mean trading with countries that have similar values and institutions; and that, in practice, will mean transacting only with countries at similar levels of development. The benefits of a global supply chain stem precisely from the fact that it involves countries with very different income levels, allowing each to bring its comparative advantage to the production process . . . Friend-shoring would tend to eliminate this dynamic, thereby increasing production costs and consumer prices . . . friend-shoring would tend to exclude the poor countries that most need global trade in order to become richer and more democratic. It will increase the risks that these countries become failed states, fertile grounds to nurture and export terrorism. The tragedy of mass emigration will become more likely as chaotic violence increases.[29]

Inflation Uncertainty

As the world began to recover from the pandemic, concern about inflation, or more accurately, inflation uncertainty rose. Inflation was a major concern in the United States and elsewhere in the 1970s, which at one time exceeded 13 per cent in 1980. The United States Federal Reserve tightened the money supply in October 1979, which brought inflation under control at the cost of a severe, though short recession, in 1981–1982. Since then, inflation in the United States has been moderate, almost never exceeding 3 per cent annually since 1992 and dropping to historically low rates shortly before the pandemic. Although there was some warning of lurking inflation, especially when the Federal Reserve and other central banks adopted unconventional stimulative monetary policies after the 2007–2009 financial crisis in an attempt to spur economic activity, inflation did not in fact materialise. Low inflation appeared to be a persistent phenomenon in the global economy. The COVID-19 pandemic led to an economic slowdown and central banks acted to spur economies as noted above with massive aid packages. Research showed that in 2020–2021, the four major central banks in the world—the United States, Japan, Europe, and the United Kingdom—pumped in over US$11

29. Raghuram G. Rajan, 'Just Say No to Friend Shoring', *The Jordon Times*, 6 June 2022, https://www.jordantimes.com/opinion/raghuram-g-rajan/just-say-no-%E2%80%98friend-shoring%E2%80%99.

trillion to support their economies and the functioning of the global financial markets in response to the pandemic. This kind of monetary action is referred to as 'quantitative easing' and as Carstens warned, it is 'strong medicine'. It involves pumping money into their economies by buying assets, such as government bonds and asset-backed securities, which increases the value of those assets, and at the same time increases the size of the central banks' cumulative balance sheets.[30] When a central bank uses quantitative easing, it helps to lower the cost of borrowing thereby boosting spending and economic growth, which could lead to inflation. To control inflation, central banks have to play the challenging role of unwinding their asset purchases and at the same time increasing interest rates, ideally without disrupting economic growth.

Going into 2022, inflation surged as demand returned. Pent-up demand was strong as people could not spend during lockdowns, and demand was also fuelled by saving from generous government subsidies in rich economies, as explained earlier in this chapter. As demand surged, the war between Russia and Ukraine started on 24 February, and at the same time supply chains were affected by the renewed lockdowns in China as Omicron surged. The confluence of these factors affected the economies of individual countries and the global economy as a whole.

In the United States, inflation rose throughout 2021 from a low base to 7 per cent by December 2021 and averaged 4.7 per cent for the full year. Inflation was over 8 per cent from March and hit 9 per cent in June 2022. Critics complained the Federal Reserve had failed to fend off inflation resurgence.[31] Through 2021, the Federal Reserve had thought that inflation would improve gradually because it was a transitory problem—supply chain delays and worker shortages would self-correct. The fact that the Federal Reserve, arguably the most sophisticated central bank in the world, with its access to the widest possible array of data, was caught off guard by the return of inflation suggested that uncertainty about the level of inflation might prevail for the foreseeable future, complicating business and government planning and increasing the fear of hyper-inflation. The Federal Reserve changed tack in early May 2022 raising interest rates by 0.5 per cent and outlined a programme to reduce its asset holdings to fight inflation. In June, July and September 2022, it raised interest rates three times, each time by 0.75 per cent.

In the European Union, inflation averaged 5 per cent in 2021. By June 2022, it had exceeded 8.1 per cent. The European Union is made up of many economies—the average inflation rate does not reflect the diversity among the different economies. The European Central Bank retrenched from quantitative easing and raised interest rates in July 2022. Besides, Europe's energy supply has been disrupted and destabilized as a result of worsening relations with Russia. Reducing its dependence on Russian

30. The Atlantic Council, 'Global QE Tracker', accessed 13 September 2022, https://www.atlanticcouncil.org/global-qe-tracker.
31. John H. Cochrane, 'Why Hasn't the Fed Done More to Fight Inflation?', *Chicago Booth Review*, 27 April 2022, https://www.chicagobooth.edu/review/why-hasnt-fed-done-more-fight-inflation.

energy would take time and buying energy from elsewhere would impact global energy markets, the longer-term consequences of which are hard to predict.

Japan was in recession for much of 2021 and inflation remained in negative territory for the full year at –0.2 per cent. Indeed, Japan experienced deflation for nearly 30 years. By April 2022, inflation stood at 2.4 per cent and by September, it had climbed to 3 per cent, which was sharp for Japan, against an economic outlook clouded by the yet unknown length and consequences of the Russia-Ukraine war and its impact on energy and food prices—two major imports for Japan. China's inflation in 2021 was 0.9 per cent, but rose to 2.5 per cent in June 2022 amid rising energy prices, and logistic disruptions caused by the COVID-19 surge.

With so many factors at play, governments may be facing a period of inflation uncertainty, the economic consequences of which are difficult to predict but will surely not be conducive to economic stability. In short, the whiplash of economic activity caused by the COVID-19 pandemic, from economic lockdowns and slowdowns to a surge in pent-up demand coinciding with supply frictions, mixed with geopolitical conflicts and war, have increased uncertainty about inflation and about the global economy for some time to come.

Conclusion

The economic travails during the pandemic—the unemployment, the slowdowns in commerce, the burdens on essential workers—will be transient, but the long-term effects described above may be longer-lasting. The COVID-19 pandemic might eventually be seen as a global economic watershed. Paradoxically, a disastrous event, the onset of which was shared equally in virtually all countries of the world may wind up dividing countries, because of the realisation of the risks it posed—in spite of the obvious benefits—by their interdependency and tightly interlocking supply chains. The result is a general sense of worsening economic conditions. The Russia-Ukraine war and global decoupling attendant upon it are recent major contributors to that mood, but much of it began with awakened realisations about globalisation stemming from the pandemic. The net result could be more turbulent and unpredictable global economic conditions for years to come.

In the future, as noted above, an important question should be the subject of more searching inquiry than it has been in the past, both for national governments and for the global community. To what extent, and at what costs, should measures be adopted in times of relative calm to shore up national and global resilience against certain types of shocks that are predictable, but whose timing is unpredictable? At what point would the benefits of such measures exceed their costs? These events include pandemics and financial crises. Some countries, most notably the United States, apply massive resources and hedges in the form of defence budgets in an attempt to ensure resilience against war, but fail to do so to ensure resilience against pandemics and financial crises. Are there forms of economic analysis that can help to answer this question? This should be an important subject for further deliberation.