

Impact of the
COVID-19
PANDEMIC
on Trade and Development

LESSONS LEARNED



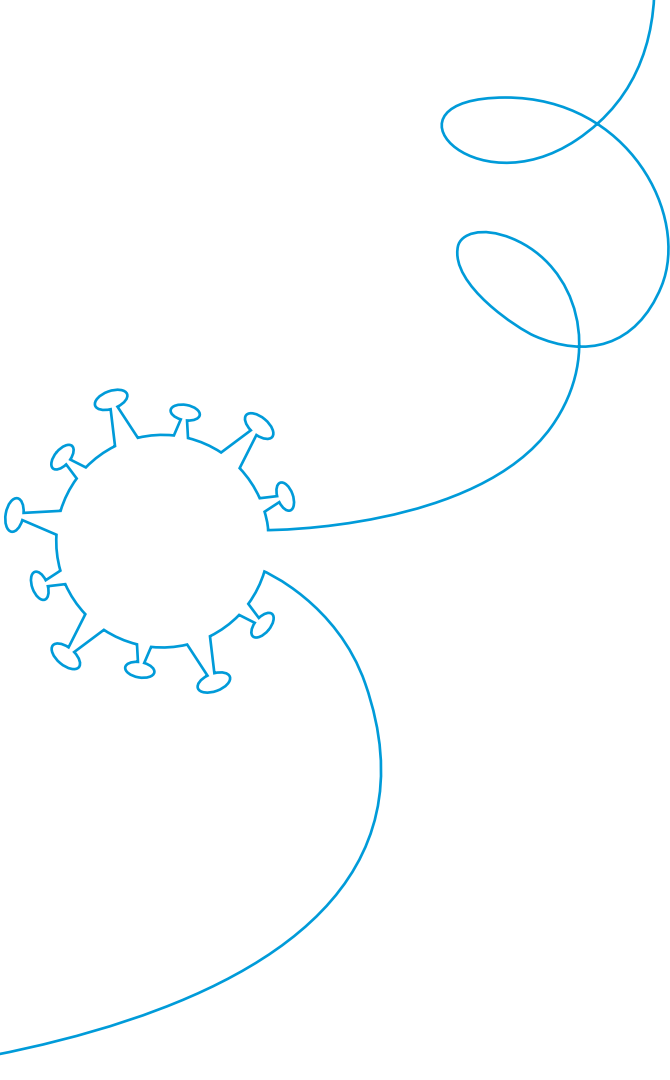
United
Nations

Impact of the
COVID-19
PANDEMIC
on Trade and Development

LESSONS LEARNED



**United
Nations**



© 2022, United Nations

This work is available through open access, by complying with the Creative Commons licence created for intergovernmental organizations, at <http://creativecommons.org/licenses/by/3.0/igo/>.

The designations employed and the presentation of material on any map in this work do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Mention of any firm or licensed process does not imply the endorsement of the United Nations.

United Nations publication issued by the United Nations Conference on Trade and Development

UNCTAD/OSG/2022/1

eISBN: 978921009262

ACKNOWLEDGEMENTS

The *Impact of the COVID-19 Pandemic on Trade and Development: Lessons Learned* was prepared by an interdivisional UNCTAD working group led by Isabelle Durant, Deputy Secretary-General.

The members of and contributors to the working group were Rachid Amui, Bruno Antunes, Rashmi Banga, Joseph John Clements, Torbjörn Fredriksson, Ebru Gökçe-Dessemond, Penelope Hawkins, Jan Hoffmann, Daniel Hopp, Arnau Izaguerri Vila, Randa Jamal, Christian Knebel, Seul Lee, Vanessa McCarthy, Alessandro Nicita, Igor Paunovic, Anu Peltola, Claudia Roethlisberger, Olga Solleder, Marko Stanovic, Kris Terauds, Pamela Ugaz, Dong Wu, Anida Yupari Aguado, Simonetta Zarrilli Traeger and Wei Zhang.

Production of the report was undertaken by the Intergovernmental Outreach and Support Service, with Nadège Hadjémian responsible for graphic design.

CONTENTS

- vii FOREWORD
- viii ABBREVIATIONS
- 1 INTRODUCTION
- 5 CHAPTER 1
Trade and investment trends
during the pandemic
- 25 CHAPTER 2
Global value chains:
Challenges and resilience
during the pandemic
- 35 CHAPTER 3
Digitalization: Is the digital
revolution becoming more
inclusive?
- 45 CHAPTER 4
Development finance
landscape in times of the
COVID-19 pandemic
- 57 CHAPTER 5
Renewed role of the State and
international cooperation
- 66 REFERENCES



FOREWORD

Two years might not be enough to have a full understanding of all that took place due to the coronavirus disease (COVID-19) pandemic since 2020, especially as the pandemic is still not over. But it is nonetheless imperative that institutions such as ours try to find instances, such as this, to pause and reflect on all that has happened recently – both the deep recession of 2020, and the fragile and uneven rebound the world witnessed last year – to derive valuable lessons for the future.

This 2022 report, *Impact of the COVID-19 Pandemic on Trade and Development: Lessons Learned*, attempts to provide our most comprehensive take on the pandemic yet, using for that purpose all the analyses we have undertaken from the beginning of this crisis. This task is not easy. COVID-19 has spread across the globe like a domino, reaching every corner and creating disruptions unprecedented in recent history. The pandemic has shown how interconnected we are, but also how deep asymmetries between countries run in many different dimensions: in mobilizing resources to deal with and recover from the crisis; offering social protection to those most severely affected; and getting access to vaccines for the many billions who need it and having health coverage for all.

It is hard to take stock of all that has happened, both for good and for bad. But it is important to remember both, however difficult the nuance. Because this is a complex crisis – systemic, disruptive, transformational – and only in understanding this complexity will we find the key to provide better responses in the future.

The world has suffered severe setbacks with the pandemic. In addition to the human loss and suffering and difficulties in maintaining decent livelihoods, some of the hard-won gains in gender inequality and access to education have been lost.

Many of us have called for urgently addressing these asymmetries to avoid a lost decade for developing countries and maintaining a path to achieve the Sustainable Development Goals. The call for greater resilience has been in every policy discussion. While we have seen areas with remarkable resilience, the problem is that it is only for some and threatens to leave many behind. The big question is if this health and economic crisis of the century has been enough to provoke real change. The jury is still out – many initiatives and policy recommendations have been aired, but more political will is needed to take them to harbour.

From the very first moments of the pandemic, UNCTAD has mobilized its resources to support member States with data and analysis, a platform to discuss impacts and solutions and projects to help deal with the crisis. We adapted our cooperation tools as quickly as possible to meet the evolving needs. And we have been part of the response of the whole United Nations system to the COVID-19 crisis.

Today, as the major health risks of COVID-19 seem to be receding and a major cost-of-living crisis hits the global economy, it is important to look back at the COVID-19 crisis and learn from it to be better prepared for the future. With this report, we offer lessons learned in our core areas of work, and provide answers to questions on trade, finance, digitalization, global value chains, the role of the State and international cooperation that have been prominent in policy discussions during the pandemic. It is our hope that these lessons can provide a guide to a future that is more resilient, inclusive, and sustainable. This is needed now more than ever.

Rebeca Grynspan
Secretary-General of UNCTAD

ABBREVIATIONS

COVID-19	coronavirus disease
GDP	gross domestic product
ICT	information and communications technology
ILO	International Labour Organization
IMF	International Monetary Fund
OECD	Organisation for Economic Co-operation and Development
UNCTAD	United Nations Conference on Trade and Development
WHO	World Health Organization
WTO	World Trade Organization

INTRODUCTION

The coronavirus disease (COVID-19) no longer dominates the news. Other crises and their devastating consequences are capturing the world's attention. However, COVID-19 has been the health and economic crisis of a century, generating severe setbacks and disruptions.

Since the outbreak of the pandemic, more than 6.2 million deaths due to COVID-19 were reported to the World Health Organization (WHO). Yet the full death toll is likely much higher, as records since then show excess mortality to have been unusually high (WHO, 2022). In 2020, for the first time in the twenty-first century, global poverty increased. An estimated 77 million more people were living in extreme poverty in 2021, compared with 2019 (United Nations, Inter-Agency Task Force on Financing for Development, 2022). According to the Food and Agriculture Organization of the United Nations et al. (2021), in 2020, up to an additional 161 million people went hungry compared with the previous year.

Beyond the human suffering, the COVID-19 pandemic triggered disruptions in almost every sphere of life. Schools and factories closed or suffered a great deal of disruptions, many essential goods came to be in short supply, and public and social life ground to a near halt. Wearing masks and social distancing became the norm. In April 2020, half of the world's population was in lockdown. For the environment, the lockdowns created a short reprieve and precious breathing space.

The disruptions resulted in millions of jobs being slashed and deprived people of their means for decent livelihoods. The impact was highly uneven with a disproportionate impact on those who are less protected in the labour market, often migrants and women (United Nations, 2020). In juggling care responsibilities, a higher share of women than men dropped out of the labour market altogether, compromising hard-won development gains and prospects for women's empowerment and gender equality (International Labour Organization (ILO), 2021). While the job situation has started to improve, the recovery remains volatile, and global working hours were still 3.8 per cent below pre-pandemic levels in the first quarter of 2022 (ILO, 2022).

The COVID-19 crisis spread across the globe at lightning speed owing to the interconnectedness of today's societies and economies. The immense disruptions in trade and investment, especially at the beginning of the crisis, have been clear evidence of this. While both trade and investment recovered strongly, the recovery was uneven across countries and sectors. The digital economy emerged stronger on the back of social distancing measures, but also created deeper divides. The severity of the pandemic's impacts was enabled by the fertile ground of inequalities that have been present for many years. To avoid similar crises in the future and promote a more inclusive and sustainable world, calls for strengthening resilience were made at all levels.

Unprecedented measures were taken at the national and international levels to combat the crisis. After decades of retrenchment, the pandemic brought the State back into force as the main actor of economic policy and as the key institution to face the challenges. The State was central to implementing policies to support people and businesses and foster a recovery that is more resilient, inclusive and sustainable. Government support and funding enabled the development and distribution of vaccines against COVID-19 at an unprecedented rate. But access to vaccines across countries has been and remains highly uneven. The international community expressed broad agreement that, to overcome the crisis, international cooperation and solidarity were needed, most notably for access to vaccines.

The global economy has started to recover from the COVID-19 crisis. Economic growth bounced back with trade and investment reaching higher levels in 2021 than prior to the pandemic. The world economy grew 5.6 per cent in 2021, the fastest in nearly 50 years (UNCTAD, 2022a).

But the global economy entered 2022 on a “two-speed” recovery path, with developing countries much less able to recover from the effects of the pandemic and with much greater vulnerability to external shocks (UNCTAD, 2022a). For example, sub-Saharan economies grew, on average, only 3.2 per cent while the economy of the United States of America expanded 5.7 per cent in 2021. The diverging paths were driven by the asymmetry between developed and developing countries in policy space, namely, the response capacity in terms of macroeconomic, social and productive policies. Also, the fragilities and asymmetries apparent prior to the pandemic raise questions about the recovery’s pace and sustainability.

UNCTAD forecasts that uneven growth trends will continue in 2022 and beyond. Several advanced economies already surpassed their pre-pandemic levels of output, while many developing countries may need several years. On current trends, many developing countries are facing a lost decade (UNCTAD, 2020a; United Nations, Inter-Agency Task Force on Financing for Development, 2022).

COVID-19 is still not over but most countries have removed measures, as the perception of the health risk of the virus has changed, particularly for vaccinated populations. Yet, there are rising numbers of cases and the possibility of new waves.

While the pandemic dominated the news for two years, today, it has largely disappeared from the headlines. The world’s attention has shifted, particularly to the war in Ukraine. With numerous detrimental effects, global growth has already slowed down, and many developing countries are losing ground to advanced countries. Rising geopolitical tensions and deepening economic uncertainty are further increasing developing countries’ vulnerability to shocks.

In the face of exposure to multiple crises, the financial requirements of developing countries for the next few years are much greater than their ability to pay. To combat the COVID-19 crisis alone, it was estimated that developing countries needed \$2.5 trillion (Georgieva, 2020). The recent increase in food and energy prices has already caused a strain on the developing world. Fiscal and monetary tightening in developed countries will further stymie growth in poorer parts of the world and undermine their long-term development and achievement of the 2030 Agenda for Sustainable Development. And in many countries, there is a risk of shifting policy priorities away from a green transition and the Paris Agreement on climate change.

Overlaps in the unfolding of new crises does not mean that COVID-19-related challenges in developing countries have vanished. It means, rather, that additional challenges have emerged and that those related to COVID-19 will receive less attention and fewer resources.

This report aims at documenting and assessing shifts that the COVID-19 crisis has triggered in economies, societies and cooperation in relation to core areas of UNCTAD work, that is, the integrated treatment of trade and development and interrelated issues in the areas of finance, technology, investment and sustainable development. In the report, the lessons learned from this crisis are provided, as are policy recommendations on what is needed to promote a resilient, inclusive and sustainable recovery. The aim is to provide lessons learned with a fresh look and without judgement, as an input for dealing better with future challenges.

For this purpose, in the report, data will be provided on the impact of the COVID-19 crisis and answers will be given to selected key questions that have been central in policy discussions

INTRODUCTION

on the recovery. As such, the report can help developing countries to place their specific challenges in dealing with the COVID-19 crisis more prominently on the agenda of the international community, which are now being compounded and overshadowed by the effects of the recent crises.

The reference period used in the report is from January 2020 to February/March 2022, that is, the time frame from the outbreak of COVID-19 to the time when many countries removed measures.

The report is organized as follows:

- **Chapter 1.** Presentation of trade and investment trends and analysis to inform on where the global economy stands with respect to recovery, pre-COVID-19 levels, whether new trajectories are observed and if COVID-19 is considered more than a slump.
- **Chapter 2.** Discussion on global value chains, and to which extent there is evidence for diversifying and reshoring as announced by many policymakers during the pandemic, and on how resilience of supply chains can be strengthened, with special attention paid to vaccine supply chains, which have been a key concern.
- **Chapter 3.** Documenting of trends in digitalization and focus on the implications of accelerated digitalization on inclusive development, as well as exploration of what needs to be done to leverage digital opportunities in the post-pandemic recovery and beyond.
- **Chapter 4.** Discussion on the development finance landscape during the pandemic, documenting challenges for mobilizing finance and investment, dealing with spiralling debt and examining commitments of the international community.
- **Chapter 5.** Focus on the implications of the crisis on the role of the State and the need for international cooperation for the recovery from the COVID-19 crisis, arguing that the crisis increased the importance of governance, both at the national and international levels.



CHAPTER 1

TRADE AND INVESTMENT TRENDS DURING THE PANDEMIC

1.1 Trade

1.2 Investment

1.3 Commodity prices

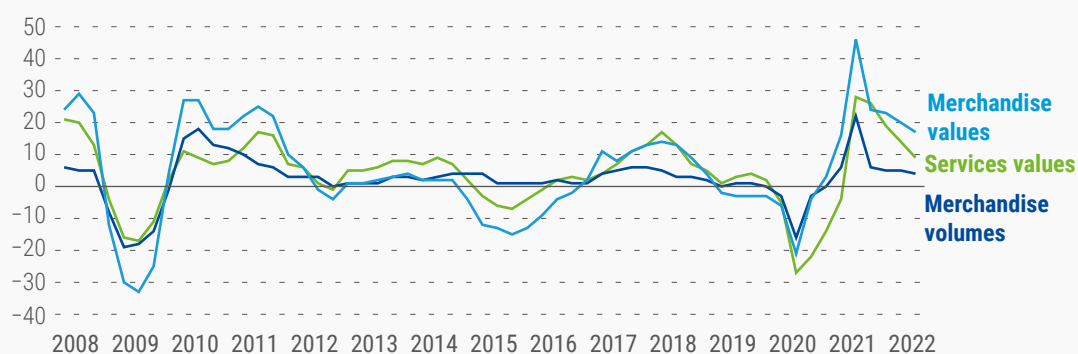
1.4 Trade logistics

Mitigation measures implemented during the COVID-19 pandemic have increased various types of transaction costs in the global economy, resulting in different economic patterns across countries and geographic areas. The main effects of the pandemic on trade and investment flows, as well as on commodity prices and trade logistics, are summarized in this chapter. Trends in international trade during the pandemic serve to illustrate the phases of the economic downturn and recovery processes. They also serve to provide information on economic resilience in various economies. Investment flows during the pandemic are informative with regard to the rise of economic uncertainty and related analysis is important because international investment flows are vital to the economies of many developing countries. The evolution of commodity prices during the pandemic has had implications for both economies dependent on commodity exports and for many poor countries that are net importers of food and fuels. Finally, the dynamics of trade logistics show the extent to which trade routes have been disrupted in the last two years.

1.1 Trade

During the last two years, global trade has been greatly influenced by the COVID-19 pandemic (UNCTAD, 2021a). The effects of the economic downturn on global trade have been noteworthy due to their rapidity and intensity, with regard to both the initial decline and the rebound (figure 1.1). In comparison with the recent crisis, the decline in global trade in 2020 was close to that during the global financial crisis of 2008/09 and substantially worse than that during the recession in 2015. This severe downturn was the result of international trade being negatively affected by not only the generalized decline in global demand but also enhanced cross-border restrictions and port closures and other logistical disruptions. However, the initial expectations of a double-digit contraction in global trade proved to be overly pessimistic, as global trade had already begun to recover in the second half of 2020. Overall, global trade declined by about \$2.5 trillion in 2020 (or by about 9 per cent compared with the level in 2019). According to UNCTAD data, as economic conditions improved in 2021, the value of global trade rebounded strongly, reaching a record high of about \$28.5 trillion, equivalent to an increase of about 13 per cent compared with pre-pandemic levels.

Figure 1.1
International trade trends: Year-on-year growth rates
 (Percentage)

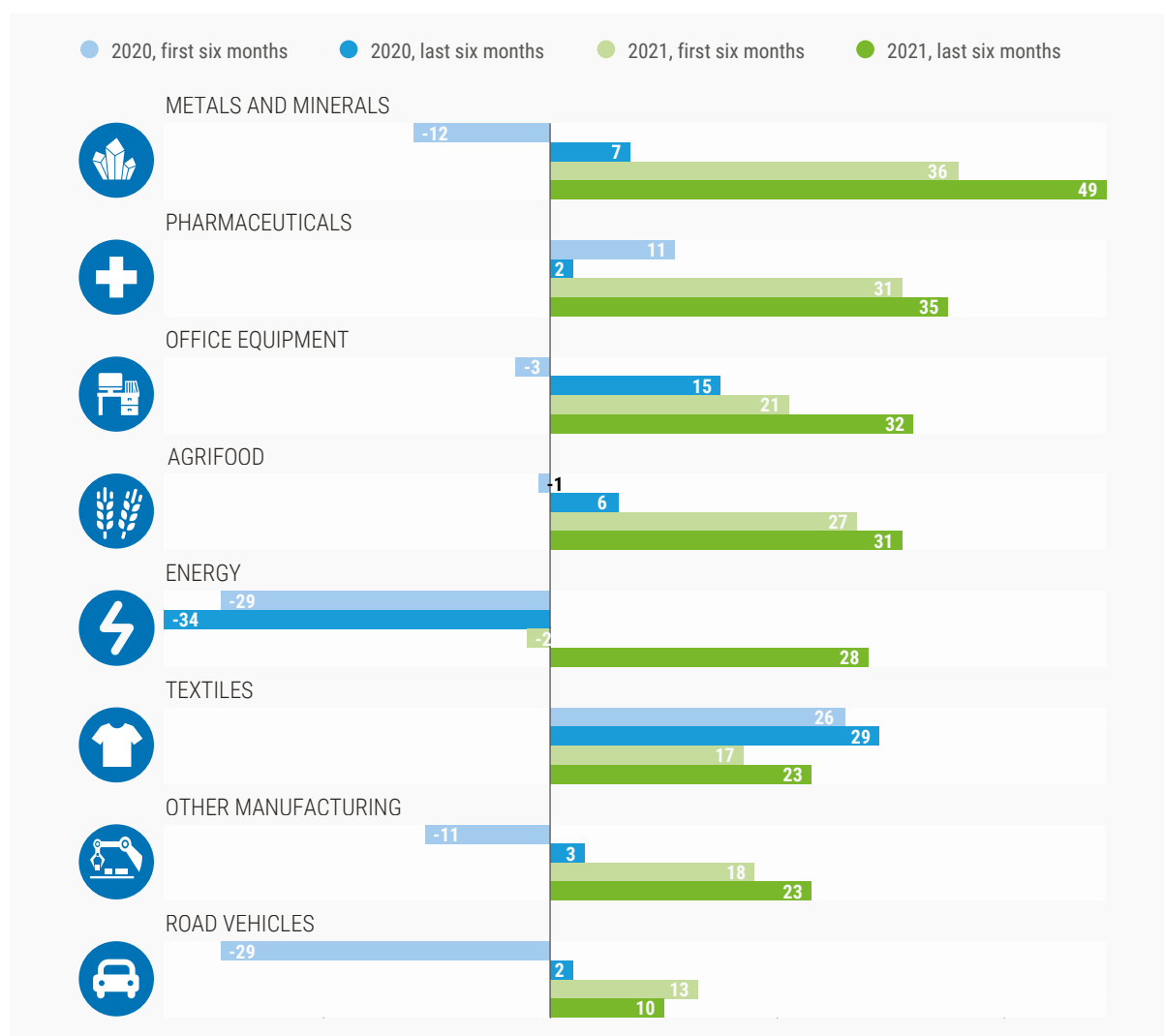


Source: UNCTAD calculations, based on data from the UNCTADstat database.

Note: Data for 2022 are preliminary.

Aggregate trade statistics mask considerable differences in the effects of the pandemic on trade across economic sectors, within both goods and services. Overall, a large part of the effects on international trade flows have depended on changes in patterns of demand. Due to lockdown measures, demand declined in most sectors in the first half of 2020. However, trade in essential products such as foodstuffs was significantly more resilient. Moreover, trade in goods essential to mitigating the effects of the pandemic increased, including pharmaceuticals, medical devices and personal protective equipment. In 2020, trade was also substantially more resilient in the categories of products for which demand increased due to lockdown measures, such as home office and fitness equipment. Successful mitigation and adaptation measures and the availability of vaccines led to a resumption in global demand in 2021. By the first half of 2021, the value of international trade was already substantially higher than pre-pandemic levels in all sectors, except energy products. Trade growth continued to be strong in all sectors in the second half of 2021 (figure 1.2).

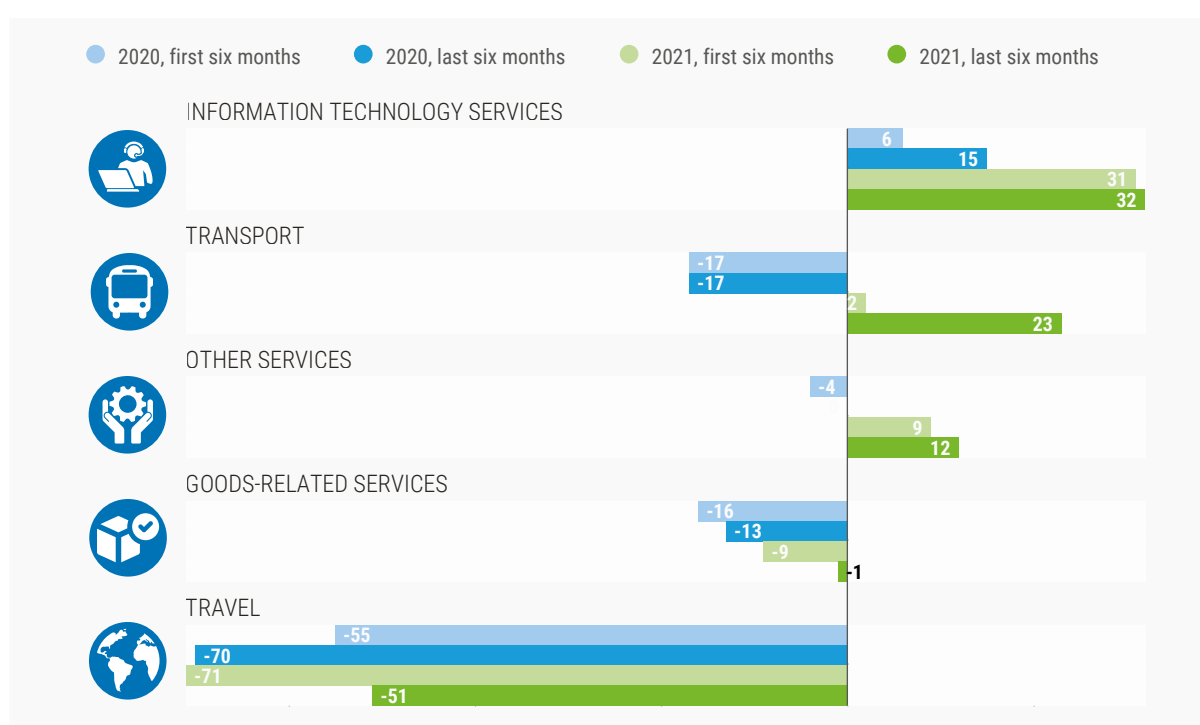
Figure 1.2
Trade trends by industry, changes in 2020 and 2021 compared with in 2019
 (Percentage)



Source: UNCTAD calculations, based on statistics from China, the United States and the European Union.

Lockdown measures and restrictions on movement had a significant effect on trade in services. As with trade in goods, patterns of trade in services differed widely across the various sectors. Travel was the most affected, as the tourism industry was brought to a halt during most of the pandemic period (UNCTAD, 2021b). Overall, the value of trade in the travel sector declined by more than 50 per cent during the pandemic and remained substantially below pre-pandemic averages in both 2020 and 2021 (see box). Trade also contracted in the transport sector, but to a lesser extent. Transport recovered in the second half of 2021, due to the resumption in demand for air travel and an increase in volumes of air freight. In contrast, lockdown and social distancing measures resulted in an increase in demand for information and communications technology (ICT), electronic commerce (e-commerce) and telecommunications services, and trade in these sectors therefore expanded during the course of the pandemic (figure 1.3).

Figure 1.3
Trade trends by services sector, changes in 2020 and 2021 compared with in 2019
 (Percentage)



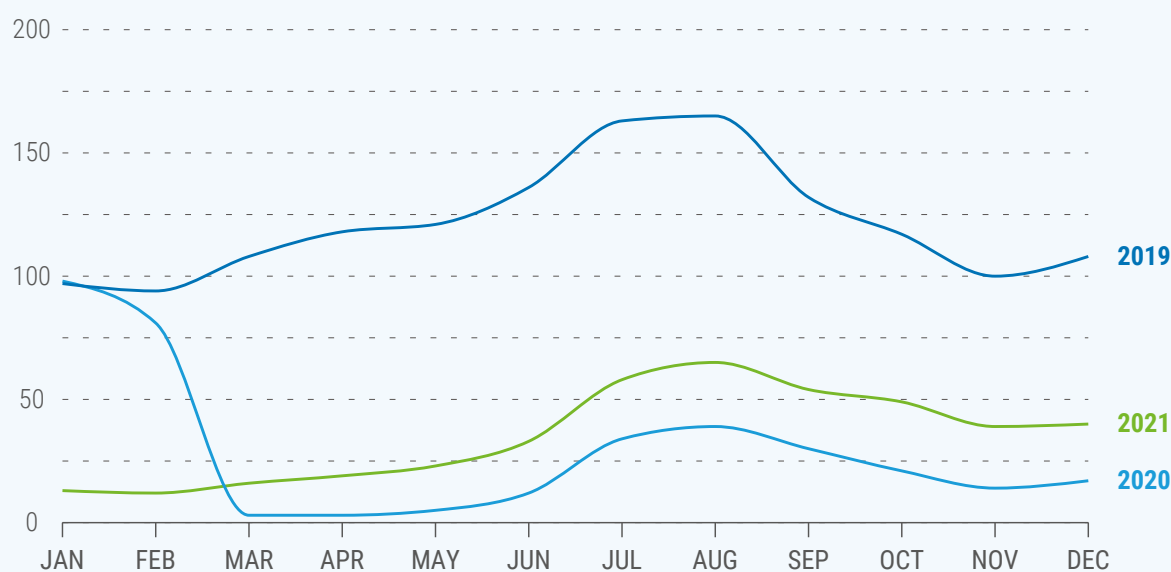
Source: UNCTAD calculations, based on data from the UNCTADstat database.

Impact of the pandemic on the tourism sector

During the pandemic, lockdown and quarantine measures and restrictions on mobility, along with the decision of many consumers to limit international travel, resulted in the sharp contraction of cross-border tourism. The number of international tourist arrivals declined by 73 per cent in 2020, compared with in 2019, with some developing countries recording declines of up to 90 per cent. In 2021, tourist arrivals remained at about 70 per cent below pre-pandemic levels (see figure).

International tourism during the pandemic

(Millions of arrivals)



Source: UNCTAD calculations, based on data from the World Tourism Organization tourism data dashboard database.

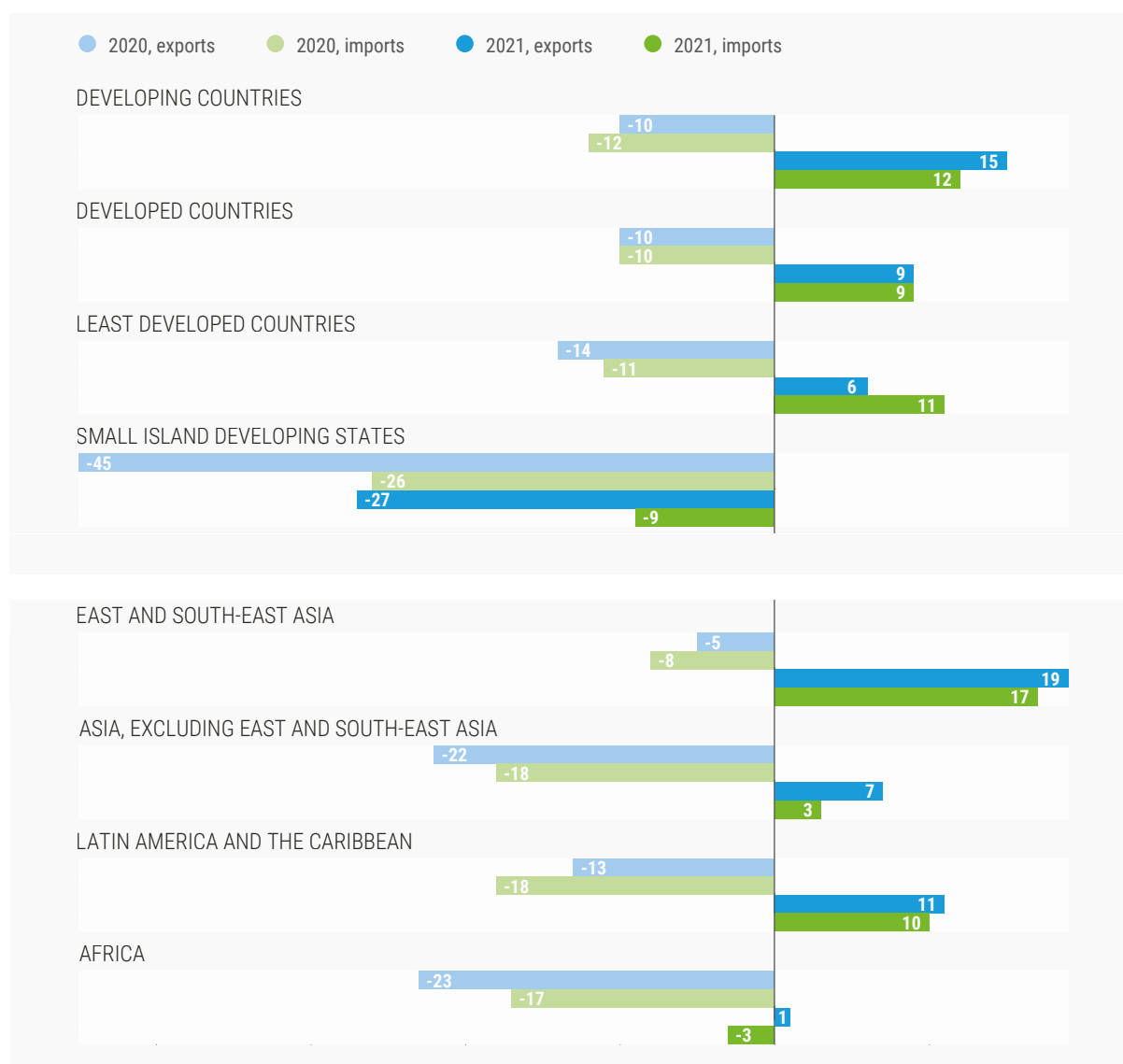
In 2021, the weak recovery in the tourism sector was unevenly distributed across regions due to varying vaccination rates and levels of mobility restrictions and traveller confidence. Overall, a relatively greater recovery in tourism was seen in the Americas and Europe, although both recorded arrivals of 63 per cent below pre-pandemic levels. International tourism is expected to continue its gradual recovery in 2022. However, a high degree of uncertainty, including with regard to pandemic-related restrictions in China and the recent crisis, will continue to negatively weigh on international tourism.

The losses due to low levels of tourist arrivals have led to substantial negative spillovers with regard to not only travel and accommodation but also upstream industries such as those related to food, beverages, handicrafts and recreational activities. Taking into account the impacts on these closely linked sectors, the drop in international arrivals caused an estimated loss of about \$2.4 trillion in global gross domestic product (GDP) in 2020 compared with the level in 2019. Losses in 2021 are estimated at about \$1.8 trillion, compared with the level in 2019. For many small economies, some of which depend on tourism for over 50 per cent of GDP, the implications of the pandemic have been particularly significant.

Sources: UNCTAD (2021b) and data from the World Tourism Organization world tourism barometer.

The effect of the pandemic on trade has been truly global, yet countries have been affected to varying degrees. At an aggregate level, during the pandemic, trade trends were similar in the least developed countries, developing countries and developed countries. However, aggregate-level patterns mask substantial differences at the regional and national levels. In general, economies in East Asia were the first to experience declines in trade and the first to recover. In contrast, in developing economies in the rest of Asia, the effects were particularly detrimental to trade, with the value of exports declining by more than 50 per cent in 2020. Pandemic-related disruptions also resulted in a sharp decline in exports from Africa and Latin America in 2020, aggravated by a decline in commodity prices. Among country groupings, in 2020, the trade downturn in small island developing States was relatively more pronounced. The value of trade recovered in all regions and country groupings, except small island developing States, reaching, in 2021, levels substantially above pre-pandemic averages (figure 1.4). The trade of countries in Africa has remained close to 2019 levels.

Figure 1.4
Trade trends by region and country grouping, changes in 2020 and 2021 compared with in 2019
 (Percentage)

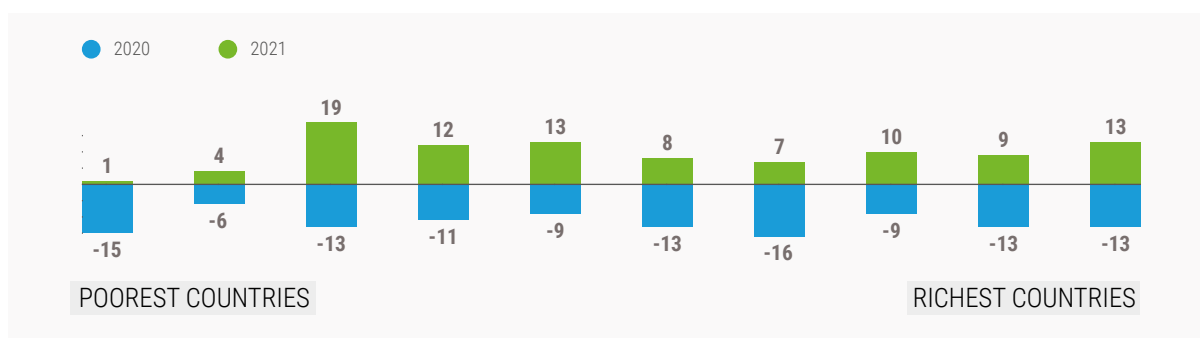


Source: UNCTAD calculations, based on data from the UNCTADstat database.

Note: Figures show trade-weighted averages within groups.

The varied impact of the pandemic on international trade is also seen in country groupings based on GDP per capita. In 2020, export levels fell at a similar rate across most countries, regardless of GDP per capita, yet exports from poorer countries (first and second deciles) rebounded considerably less well in 2021. Among countries in the first decile, export levels remained at about the same as in 2019. This trend suggests a decline in the export competitiveness of the poorest countries during the pandemic (figure 1.5).

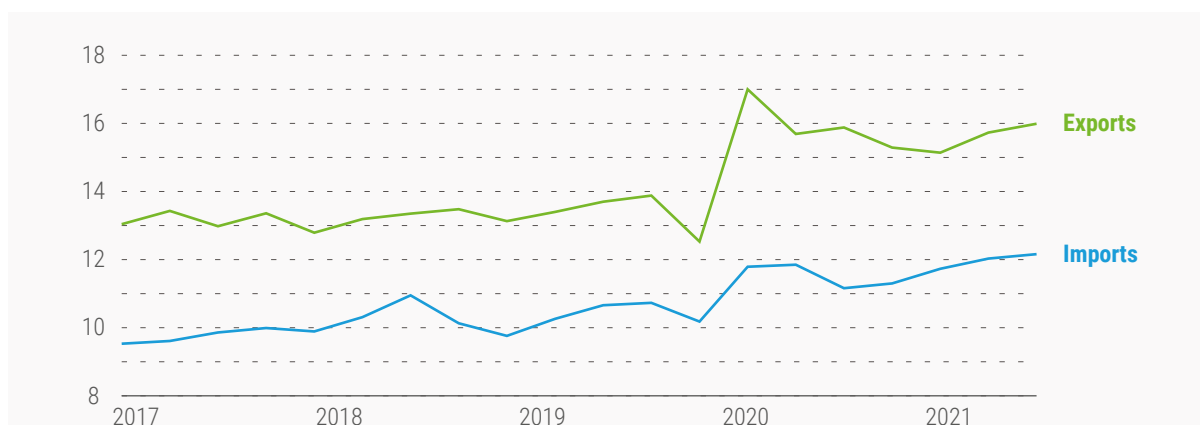
Figure 1.5
Export trends by country grouping based on gross domestic product per capita, changes in 2020 and 2021 compared with in 2019
 (Percentage)



Source: UNCTAD calculations, based on data from the UNCTAD global trade update database.
 Note: Figures are medians within deciles.

An important outcome of the pandemic is that it has reinforced the position of China as a leader in global manufacturing exports. Export levels in China recovered more quickly than those in most other countries. By mid-2020, exports from China were already above pre-pandemic levels and have further increased since. The export growth was largely driven by successful mitigation strategies at the start of the pandemic, which allowed for a reopening of supply chains ahead of other countries and an orientation of manufacturing capacity towards the goods for which global demand was surging. In consequence, the global market share of China rose considerably during the pandemic, shifting upward by more than 2 percentage points from pre-pandemic levels (figure 1.6). The pandemic also served to increase the importance of China as a global importer, but to a lesser extent.

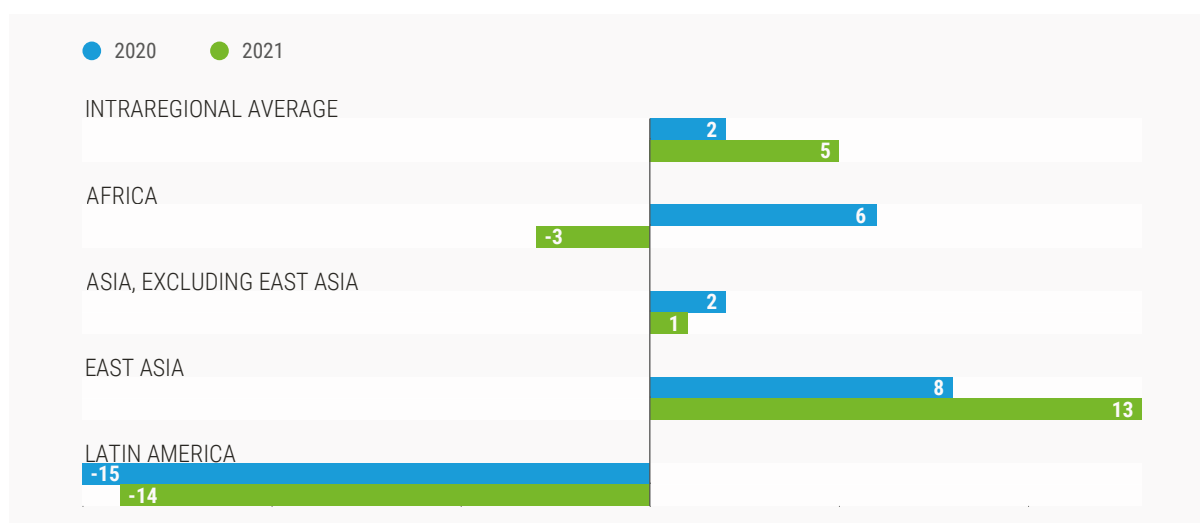
Figure 1.6
China: Market share of global merchandise trade
 (Percentage)



Source: UNCTAD calculations, based on data from the UNCTAD global trade update database.
 Note: Data have been seasonally adjusted.

Intraregional merchandise trade was more resilient during the pandemic, on average, declining less than global average trade in 2020 and increasing more than global average trade in 2021. However, such resilience is largely due to trade among economies in East Asia, the growth rate of which outperformed that of East Asia interregional trade by about 8 percentage points in 2020 and by about 12 percentage points in 2021 (figure 1.7). In contrast, in Latin America and the Caribbean, intraregional trade declined more substantially than interregional trade and was about 15 percentage points lower than interregional growth rates in both 2020 and 2021. This trend is consistent with the fragmentation of regional integration efforts in Latin America and the increasing focus of many economies on commodity exports and extraregional trade, particularly with China and the United States. For example, there is little trade-related interdependence between the two largest economies in the region, namely Brazil and Mexico (Economic Commission for Latin America and the Caribbean, 2021).

Figure 1.7
Intraregional growth in merchandise trade compared with interregional growth, changes in 2020 and 2021 compared with in 2019
 (Percentage)

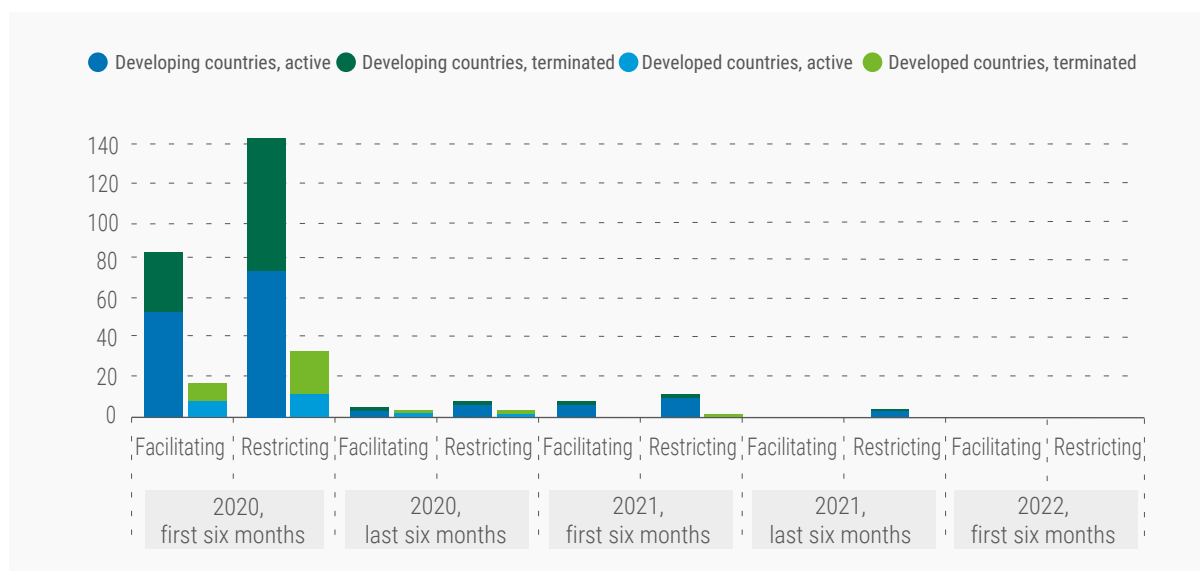


Source: UNCTAD calculations, based on data from the UNCTAD global trade update database.

1.1.1 Trade policy and trade resilience

Trade policy has been an important instrument in Government responses related to mitigating the health-related and economic effects of the pandemic (figure 1.8). For national Governments, one of the most pressing challenges in the initial months of the pandemic was to secure the availability of pharmaceuticals, critical medical devices and personal protective equipment amid the increasing global demand for such products. Concerns were also raised about the availability of other essential products, such as foodstuffs. In this context, the use of trade policies quickly increased, as Governments implemented a combination of export controls and import liberalization measures. Trade policy measures were also implemented to further regulate or prohibit the import of products that might act as carriers of the coronavirus, such as used clothing and wild animal products. The increase in export restrictions resulted in numerous concerns, particularly in countries that relied on foreign trade to access critical and essential products.

Figure 1.8
Number of pandemic-related trade measures

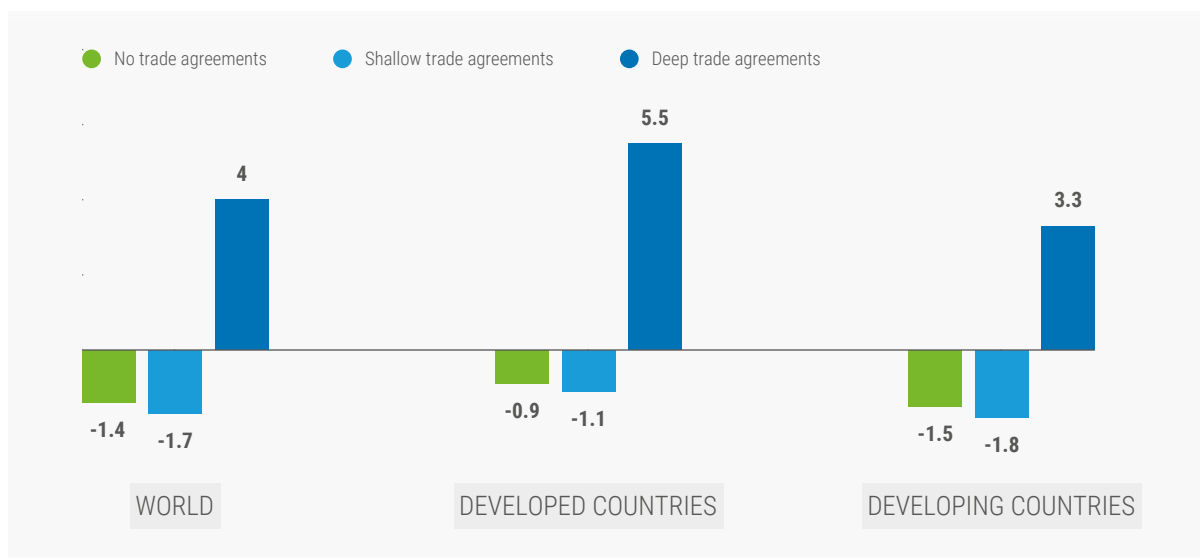


Source: UNCTAD calculations, based on data from the UNCTAD non-tariff measures database.

According to UNCTAD data, in January–March 2022, countries used about 450 trade policy measures. Some of these measures consisted of tariff exemptions or reductions aimed at lowering domestic prices of essential products, yet the majority of these policy interventions were in the form of non-tariff measures. Almost two thirds of non-tariff measures were trade restricting, such as export bans and additional licencing requirements. Trade-facilitating non-tariff measures included measures to accelerate customs clearance, lower the number of restrictions and simplify procedures for importing critical products. Both developing and developed countries made extensive use of non-tariff measures to facilitate the availability of products in high demand during the pandemic. Notably, most non-tariff measures were put in place at the onset of the pandemic, particularly in March and April 2020. As the emergency subsided and the number of shortages of critical products declined, the number of newly imposed trade measures dropped significantly.

Trade policy had important effects on trade resilience during the pandemic. Low trade costs and high levels of economic integration played important roles in increasing the resilience of international trade. One indication of such dynamics is that trade subject to deep agreements (i.e. agreements with an expanded scope, beyond tariffs concessions) was substantially more resilient during the trade downturn in 2020. On average, trade subject to deep trade agreements declined by 4 percentage points less than global averages (figure 1.9). A possible reason is that trade agreements with a scope beyond mutual market access concessions often reduce the uncertainty of cross-border transactions because they provide for more stringent policy commitments, a more developed legal framework and improved regulatory convergence.

Figure 1.9
Trade resilience: Merchandise trade growth compared with global averages, based on trade agreement level, 2020
 (Percentage)

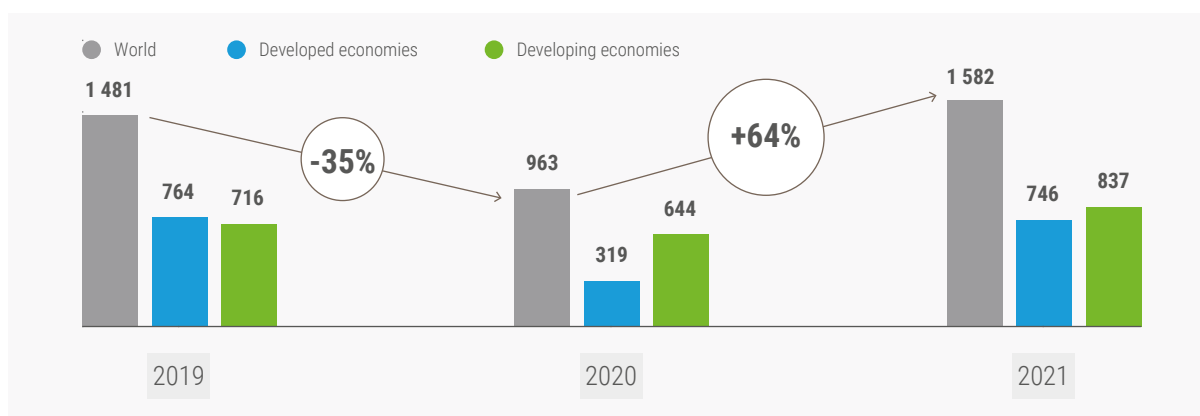


Source: UNCTAD calculations, based on Nicita and Saygili (2021).

1.2 Investment

The pandemic had a significant impact on foreign direct investment, affecting investment in all regions and industries. Foreign direct investment declined steeply at the start of the pandemic, amounting to less than \$1 trillion in 2020, yet there has been a V-shaped recovery worldwide (UNCTAD, 2022b). In 2021, global foreign direct investment flows were \$1.58 trillion, an increase of 64 per cent compared with in 2020. The recovery was largely accounted for by steep increases in developed countries (figure 1.10).

Figure 1.10
Global foreign direct investment flows
 (Billions of dollars)



Source: UNCTAD calculations, based on data from the UNCTAD foreign direct investment and multinational enterprises database.

In 2021, foreign direct investment flows to developed countries more than doubled, to \$746 billion, driven by strong cross-border mergers and acquisitions growth, as well as by announced international project finance deals. In developing economies, foreign direct investment increased by 30 per cent, to \$837 billion. This increase was mainly the result of strong growth performance in Asia and Latin America and the Caribbean. Developing countries account for the majority of global flows, at just above 50 per cent. Foreign direct investment flows continue to be an important source of external finance for developing economies, together with other cross-border capital flows, which also saw a recovery in 2021. Much of the rebound in foreign direct investment in 2021 was made up of cross-border mergers and acquisitions, reaching \$728 billion, an increase of 53 per cent, driven by a strong recovery in North America. In the services sector, cross-border mergers and acquisitions doubled to \$461 billion, one of the highest levels ever recorded. Deals targeting manufacturing firms rose slightly, by 5 per cent, to \$239 billion.

After a fall in value in 2020, the value of mergers and acquisitions transactions in the pharmaceuticals industry rose by 31 per cent, to \$73 billion, and the number of deals rose by 6 per cent, reaching 223, the highest number ever recorded. The largest deal in 2020 was in the pharmaceuticals industry, namely, the acquisition of Alexion Pharmaceuticals for \$39 billion by Astra Zeneca. The fast-growing global demand for digital infrastructure and services led to a significant increase in greenfield foreign direct investment project activity in the ICT industry, which rose by more than 28 per cent, to \$85 billion in 2020 and \$104 billion in 2021. Major project announcements in this industry included an investment of \$2.8 billion by Amazon in ICT infrastructure in India and an investment of \$1.8 billion by Alphabet in Poland.

The number of announced greenfield investment projects in 2021 rose by 11 per cent, and the value rose by 15 per cent, to \$659 billion (table 1.1). Certain sectors, including electronics and electrical equipment, construction and pharmaceuticals, had more robust growth. The impact of the pandemic and associated lockdown and quarantine measures might have negatively impacted investor confidence and delayed strategic investment decisions by multinational enterprises. Announced greenfield projects targeting the primary sector, mainly in extractive industries, remained below the pre-pandemic level. At \$13 billion, the aggregate value of announced greenfield projects represented less than 2 per cent of the total, compared with 24 per cent in 2003, 13 per cent in 2009 and 7 per cent in 2016. The long-term decline in primary sector projects is the result of continued low levels of international investment in agriculture and a shift from greenfield projects by individual investors to international project finance investments that allow for risk-sharing among multiple investors. The number of projects in manufacturing rose by 8 per cent, representing a modest initial recovery after a decline in investment activity by more than one third in 2020, and leaving manufacturing project numbers at about a quarter below the average of the last 10 years.

Table 1.1
Announced greenfield projects, by sector and industry

	Value (Billions of dollars)		Growth rate (Percentage)	Number		Growth rate (Percentage)
	2020	2021		2020	2021	
Total	575	659	↑ 15	13 248	14 710	↑ 11
Primary	11	13	↑ 15	100	98	↓ -2
Manufacturing	240	297	↑ 23	5 258	5 688	↑ 8
Services	323	350	↑ 8	7 890	8 924	↑ 13
Top 10 industries in value terms						
Electronics and electrical equipment	47	120	↑ 156	882	1 028	↑ 17
Information and communications	85	104	↑ 23	2 962	3 743	↑ 26
Electricity and gas supply	103	90	↓ -13	546	484	↓ -11
Construction	33	49	↑ 49	320	329	↑ 3
Automotives	33	34	↑ 3	571	692	↑ 21
Transportation and storage	27	33	↑ 25	639	737	↑ 15
Chemicals	40	28	↓ -30	452	445	↓ -2
Trade	23	24	↑ 4	580	638	↑ 10
Food, beverages and tobacco	18	19	↑ 9	432	431	0
Pharmaceuticals	15	19	↑ 26	360	378	↑ 5

Source: UNCTAD calculations, based on data from the *Financial Times* foreign direct investment markets database.

In 2021, strong financial markets and expansionary monetary policies in many countries led to robust growth in international project finance, by 146 per cent. In the last several years, investment in renewable energy has been the main engine of growth in international project finance. Renewables are an area of focus in many countries, partly in aiming to achieve the Sustainable Development Goals and partly as a response to the present oil and gas crisis. Such investments make up more than half the annual number of projects, with six projects worth a total of more than \$10 billion (table 1.2). The largest project is a construction investment in Australia, at \$74 billion, involving the creation of an energy hub of 50 gigawatts over 15,000 square km, aimed at converting wind and solar power into fuel, sponsored by Mining Green Energy, Australia; CWP Europe, Luxembourg; and the Intercontinental Energy Corporation, United States.

In 2022, the global environment for international business and cross-border investment has changed significantly with the onset of the war in Ukraine, which began while the world was still dealing with the impacts of the pandemic. Investor uncertainty and risk aversion could place significant downward pressure on global foreign direct investment in 2022. Early indicators reveal a cause for concern with regard to the foreign direct investment outlook; related project activity in the first months of 2022 showed investor uncertainty and risk aversion. According to preliminary data, the number of greenfield project announcements in the first quarter of 2022 was 21 per cent less than the quarterly average in 2021. Cross-border mergers and

acquisitions activity was 13 per cent below the average and international project finance deals were down by 4 per cent. However, in terms of value, cross-border mergers and acquisitions were up by 59 per cent compared with in 2021. The value of announced international project finance deals was 37 per cent below the record level in 2021 but remained at a high level compared with the pre-pandemic period. Overall, UNCTAD forecasts that the growth momentum of 2021 cannot be sustained and that global foreign direct investment flows in 2022 will likely move on a downward trajectory or, at best, remain flat. This projection takes into account various downward pressures and potential stabilizing factors and considers the composition of the value of \$1.6 trillion in 2021 that, for several major recipient regions (particularly Europe and North America) did not represent historically high levels. However, the projection of relatively stable flows in value terms may be optimistic with regard to actual new project activity, which could be more negatively affected by investor uncertainty.

Table 1.2
Announced international project finance deals

	Value (Billions of dollars)		Growth rate (Percentage)	Number		Growth rate (Percentage)
	2020	2021		2020	2021	
Total	484	1 188	↑ 146	1 262	2 115	↑ 68
Top 10 industries by number of project finance deals						
Renewable energy	198	502	↑ 154	802	1 183	↑ 49
Industrial real estate	52	135	↑ 160	52	152	↑ 192
Residential and/or commercial real estate	13	30	↑ 137	45	143	↑ 218
Mining	21	39	↑ 88	65	109	↑ 68
Power	30	116	↑ 293	55	109	↑ 98
Oil and gas	60	139	↑ 131	71	102	↑ 44
Telecommunications	42	61	↑ 45	52	92	↑ 77
Transport infrastructure	41	49	↑ 20	52	90	↑ 73
Petrochemicals	19	90	↑ 370	25	59	↑ 136
Water and sewerage	3	9	↑ 176	21	18	↓ -14

Source: UNCTAD calculations, based on data from Refinitiv.

1.2.1 Policy measures affecting foreign investment

The trend towards implementing more regulatory or restrictive investment policy measures accelerated during the pandemic (UNCTAD, 2021c). In 2020, 67 economies introduced an aggregate of 152 policy measures affecting foreign investment, an increase of approximately 42 per cent compared with in 2019. The number of measures introducing regulations or restrictions more than doubled to 50, as several countries adopted or reinforced screening regimes for foreign investment, including in response to the pandemic. Conversely, the total number of measures that liberalized, promoted or facilitated investment remained relatively stable. Although developed countries adopted the majority of these measures, several developing countries and emerging economies also began to strengthen foreign direct investment review mechanisms. This increase in regulatory or restrictive policy measures was

not only a response to an extraordinary crisis but also a continuation of a policy trend in place since the global financial crisis of 2008/09. Most of the investment measures implemented in developing countries were aimed at liberalizing, promoting or facilitating investment, with only a few imposing new regulations or restrictions. In contrast, the majority of the measures introduced in developed countries introduced new or reinforced existing regulations. All of these measures related directly or indirectly to national security concerns about foreign ownership of critical infrastructure, core technologies or other sensitive domestic assets. Often, the measures were aimed at protecting sensitive domestic businesses against foreign acquisition during the pandemic. Moreover, about 25 countries, nearly all developed countries, as well as the European Union, adopted or reinforced screening regimes for foreign investment, bringing the total number of countries conducting foreign direct investment screening for national security reasons to 34. The adoption or reinforcement of such screening mechanisms may have a cooling effect on investment flows to sectors potentially subject to screening, as foreign companies may decide to abandon investment plans or not undertake business opportunities in industries subject to scrutiny.

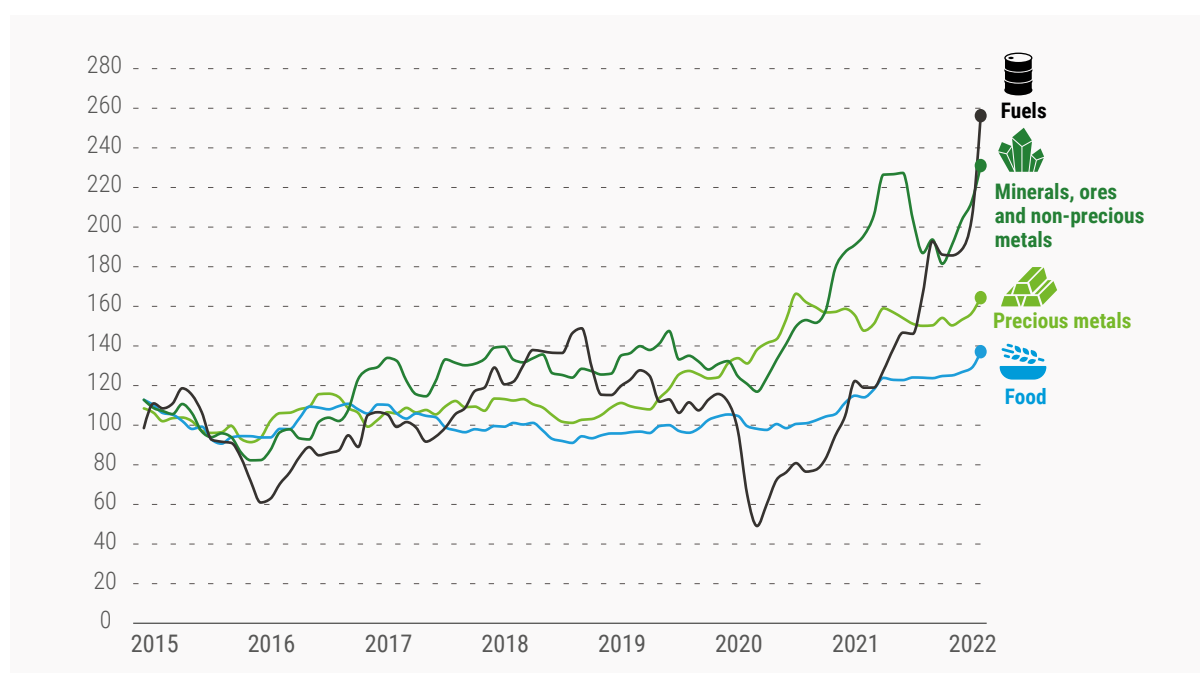
The pandemic led to significant challenges with regard to national health systems and policies. The outbreak of the pandemic prompted a significant increase in foreign investment policy measures in the health sector. On the basis of a survey of 70 economies conducted by UNCTAD, none of the economies surveyed had introduced new foreign direct investment entry restrictions in the health sector or lifted existing restrictions since the start of the pandemic. However, almost one third of these economies had introduced new or reinforced existing screening procedures for foreign investment in the health sector. On the other hand, at least six economies had introduced new investment incentives in the sector in response to the pandemic, including incentives to foster digital medical technologies, particularly telemedicine and e-health applications, and incentives for the manufacturing of medical equipment and supplies (e.g. personal protective equipment), as well as grants and loans for medical and pharmaceutical research related to the pandemic.

International investment agreements can help in promoting, facilitating and protecting investment in health, but might also create frictions with policy responses made by Governments to address the economic impact of the pandemic. This highlights the need to safeguard sufficient regulatory space in international investment agreements to protect public health and to minimize the risk of investor–State dispute settlement. The pandemic has served to highlight vulnerabilities in global supply chains and productive capacities in health, which has prompted Governments to consider needed actions for post-pandemic recovery and resilience. The pandemic led some countries to increase oversight of investment in the health sector and also led many Governments to increase efforts to encourage investment in the industry. Internationally, such efforts are complemented by market access and national treatment commitments related to health services under the World Trade Organization (WTO) framework and in some free trade agreements, as well as by treaty regimes for the protection of investment and intellectual property rights. However, an open investment policy regime alone will not suffice to attract the levels of investment required to achieve Sustainable Development Goal 3 on ensuring healthy lives and promoting well-being for all at all ages by 2030. Governments will also need to assess the segments to prioritize and how to build a tailored support ecosystem through coherent policies, efficient regulatory institutions and infrastructure and the enhancement of relevant skills and technology.

1.3 Commodity prices

The pandemic contributed significantly to both demand and supply disruptions in commodity markets, resulting in high price volatility across various commodities. In the last two years, food prices have generally followed the same dynamic as international trade. In January–September 2020, the UNCTAD monthly food index declined by 4 per cent as the prices of most commodities in the group fell due to a combination of abundant supply in markets and decline in demand (figure 1.11). From the last quarter of 2020, through 2021, to February 2022, the food index trended upwards, with short-term fluctuations. This recovery in food markets came later than recovery in other commodities such as fuels and minerals, ores and non-precious metals. The rise in food prices was driven by a rebound in demand and rising input costs caused by a rise in oil and gas prices, with the latter explaining the delayed effect (United Nations, 2022).

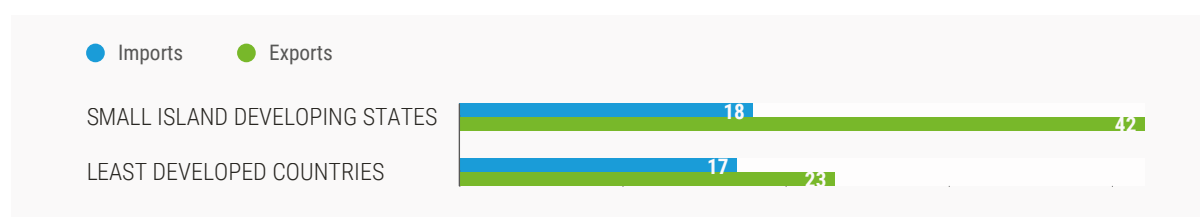
Figure 1.11
Price indices, selected commodity groups
(2015=100)



Source: UNCTAD calculations, based on data from UNCTAD commodity indices.

Food imports absorb a large amount of export revenue in developing countries; a rise in basic food prices thus increases import bills, potentially limiting access to nutritious food. Rising food prices in 2021 contributed to vulnerability and food insecurity in many low-income developing countries. The war in Ukraine is further impacting food prices globally, aggravating food insecurity. In 2020, small island developing States and the least developed countries spent approximately 42 and 23 per cent, respectively, of the total value of merchandise exports on food imports (figure 1.12). Some estimates indicate that, in 2021, food import bills in developing regions increased by 20 per cent compared with in 2020, largely due to higher food commodity prices and a threefold increase in freight costs (United Nations, 2021a). This is likely to further deepen food insecurity in developing regions. In 2020, between 720 million and 811 million people worldwide were undernourished, an increase of at least 118 million compared with in 2019 (Food and Agriculture Organization of the United Nations et al., 2021).

Figure 1.12
Food imports as share of total merchandise trade, 2020
 (Percentage)



Source: UNCTAD calculations, based on data from the UNCTADstat database.

Fuel price trends were characterized by a steep decline at the start of the pandemic and a recovery in 2021. In January–April 2020, the UNCTAD fuels index declined by 56 per cent, reaching its lowest level in 18 years. This decline was largely due to a collapse in oil prices owing to oversupply in the market amid a slump in demand caused by the contraction of the global economy. In May–December 2020, the index recovered, rising by 92 per cent due to recovering oil prices driven by a rebound in demand as lockdown restrictions eased, combined with major reductions in crude oil production by oil-exporting countries (International Energy Agency, 2020). In January 2021–March 2022, the index rose again, by 95 per cent, driven by robust demand growth due to continued economic recovery after 2020, unexpected supply disruptions leading to tighter markets and declining stocks (International Energy Agency, 2022).

Metal and minerals prices were initially relatively more stable in the first half of 2020, followed by a strong upward trend during the rest of the pandemic period. In January–April 2020, the UNCTAD minerals, ores and non-precious metals index declined by 12 per cent, largely due to the falling prices of copper and iron ores. The decline in prices was due in part to low levels of demand at the start of the pandemic. In May 2020–February 2022, the index rose by 82 per cent, due to rising prices of iron ores and other commodities making up the group. In January–August 2020, the UNCTAD precious metals index rose by 27 per cent, due to rising gold prices, which were driven by uncertainty at the start of the pandemic, prompting investment in safe-haven assets (Sappor et al., 2020). In September 2020–February 2022, the index followed a volatile path, falling by 3 per cent. The decline reflected volatile gold prices due in part to faltering demand for gold as a safe-haven asset.

The fluctuations in commodity prices in 2020 and 2021 have led to substantial macroeconomic challenges. On the one hand, increasing volatility has contributed to large swings in external balances, particularly in low-income countries. On the other hand, the rise commodity prices in 2021 raised concerns about food insecurity and considerably increased fuel import bills in net importing countries. This rise also contributed to fuelling inflation in both developed and developing countries. Persistently high commodity prices might result in a shift of resources from other sectors and thereby lead to less diversification in commodity-exporting countries.

1.4 Trade logistics

Trade logistics are critical for smooth global trade, particularly with regard to maritime transport, as over 80 per cent of global trade in goods is carried by sea. The pandemic led to severe disruptions in global logistics and maritime trade due to port terminal closures and transportation delays. In 2020, the volume of international maritime trade contracted by

3.8 per cent (UNCTAD, 2021d). Moreover, global port calls declined by 6.2 per cent, with a 12.5 per cent decline in small island developing States, reflecting a redeployment of ships towards more lucrative markets (table 1.3). These disruptions were of significant concern, as maritime transport played a critical role in enabling access to essential goods. To facilitate the global availability of critical goods, Governments were urged to keep maritime trade moving through open ports while implementing measures to protect seafarers and other transport workers.

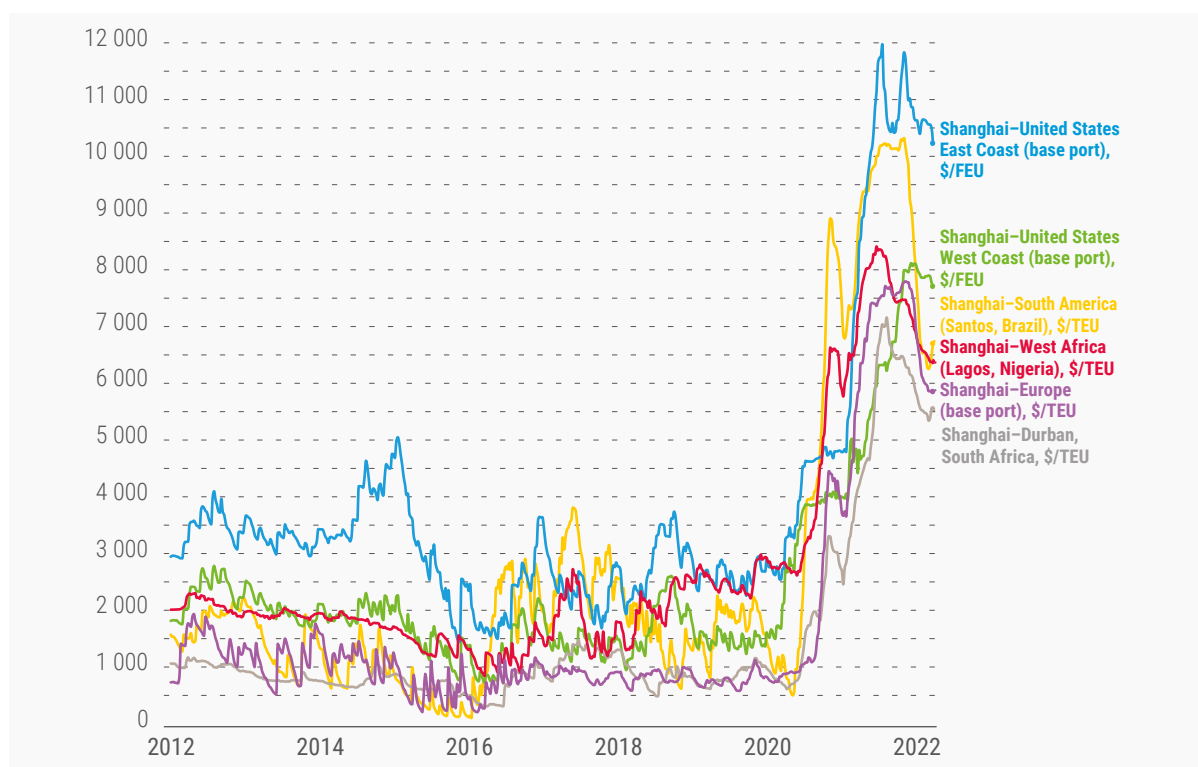
Table 1.3
Port calls, all cargo vessels, year-on-year change
 (Percentage)

	2020	2021
World	↓ -6.2	↑ 4.2
Small island developing States	↓ -12.5	↓ -1.1

Source: UNCTAD calculations, based on data from the UNCTADstat database.

Fuelled by increasing global demand, shipping recovered more rapidly than expected. By late 2020, shipping markets were on a recovery path, except oil. In 2021, maritime shipments expanded by about 3.3 per cent and, in 2022, the projected growth is by 2.6 per cent (Clarksons Research, 2022). The swift recovery of trade in 2021 led to exacerbated supply chain pressures and put a strain on the reliability of shipping services. This was reflected in soaring freight rates and surcharges, port congestions, increased delays and equipment shortages, particularly in the containerized trade segment (figure 1.13).

Figure 1.13
Shanghai Containerized Freight Index, weekly spot rates
 (January 2019–May 2022)



Abbreviations: FEU, 40-foot equivalent unit; TEU, 20-foot equivalent unit.

Source: UNCTAD calculations, based on data from Clarksons Research.

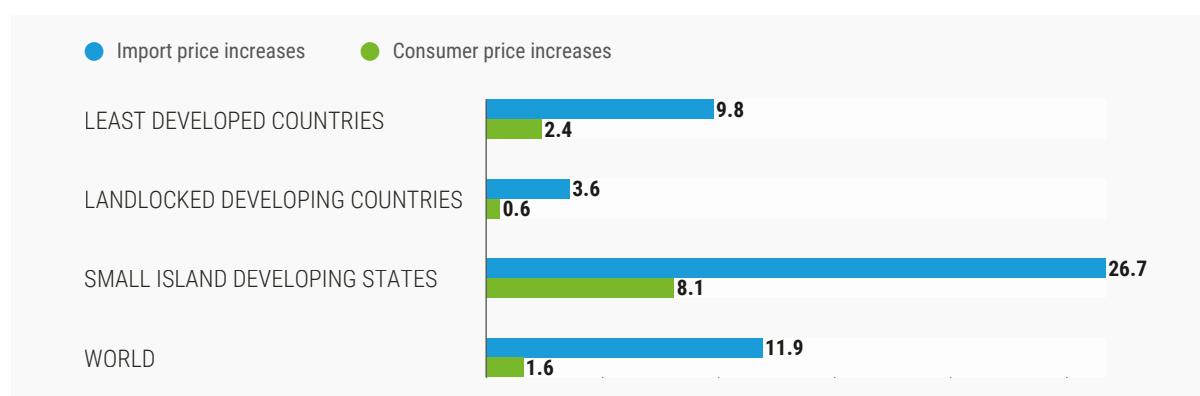
UNCTAD data show that, as a result, in 2019–2021, global port waiting times for container ships increased by about 16 per cent. Faced with a shortage of capacity, carriers assigned vessels and services to more lucrative and larger markets, leaving out ports not located on the main East–West container trade routes or considered of less importance due to smaller business sizes. The number of connected ports has thus declined since 2019, reversing previous trends.

Continuing disruptions in logistics and soaring freight rates are raising concerns about inflation. According to an UNCTAD simulation, in 2023, a sustained surge in freight rates could lead to a rise in global import prices by 12 per cent and a corresponding rise in global consumer prices by 1.6 per cent. Small island developing States would be the most negatively affected, with an estimated rise in consumer prices by 8.1 per cent (figure 1.14). The prices of two types of products are most strongly affected by higher freight rates, namely low-value, high-volume goods with significant transport costs compared with their low values (e.g. bulky furniture); and products with deep supply chains, that is, with raw materials, unfinished goods and components shipped several times as the products are assembled in different locations. Mitigating the surge in shipping costs requires the implementation of trade facilitation and digitalization measures, as well as tracking and tracing; mainstreaming predictive analytics and forecasting; and promoting competition in maritime transport and logistics. In general, improving understanding of the structural determinants of transport costs and how to alleviate these is equally important in order to reduce inflation (UNCTAD, 2021d).

Figure 1.14

Simulated impact of a container freight rate surge on prices, by country grouping

(Percentage)



Source: UNCTAD (2022c).

The pandemic underscored the critical role of seafarers in making or breaking the resilience of maritime transportation. As seafarers worldwide continued to be severely affected by the pandemic, in February 2022, ILO, the International Maritime Organization, UNCTAD and WHO issued a joint statement urging Governments, national and local authorities and all relevant stakeholders to take 10 critical actions in support of the safety of seafarers and facilitating their work, such as with regard to vaccinations and designating seafarers as essential workers to facilitate maritime crew changes and safe movement across borders, as well as recognizing relevant documentation for this purpose (ILO et al., 2022).

CHAPTER 1: Trade and investment trends during the pandemic

The unprecedented disruptions associated with the pandemic are leading to a number of legal issues affecting traders worldwide. In all cases in which performance is disrupted, delayed or has become impossible, legal consequences and claims arise, and this is increasing the need for dispute resolution and giving rise to a range of jurisdictional issues in a globalized context. The legal implications of the pandemic for the closely interconnected commercial contracts involved need to be better understood, to reduce the need for costly litigation and help inform commercial contracting practices in the future. UNCTAD research and analysis has highlighted the key legal implications for different types of commercial contracts and the need for commercial risk allocation through the use of suitably drafted contractual clauses (UNCTAD, 2021e; UNCTAD, 2021f; UNCTAD, 2021g).



CHAPTER 2

GLOBAL VALUE CHAINS: CHALLENGES AND RESILIENCE DURING THE PANDEMIC

2.1 Global value chains

2.2 Industry participation in global value chains and reconfiguration

2.3 Resilience and reshoring of global value chains

2.4 Vaccine value chains

2.1 Global value chains

At the onset of the pandemic, factories in many parts of the world stood idle due to lockdown measures and staffing shortages, while shipping operations slowed considerably due to enhanced cross-border restrictions, port closures and other logistical disruptions. The global production model based on distant suppliers operating under a just-in-time delivery model appeared inadequate in the face of the disruptions due to the pandemic. The shortage of material to deal with the pandemic, such as face masks, ventilators and other necessary equipment, contributed to recognition of the need to revisit a production and distribution model that was over-reliant on foreign manufacturers and suppliers (Gereffi, 2020). However, as the pandemic spread, global value chain operations adapted to the new challenges. Value chains with production processes based in East Asia recovered relatively quickly, to meet the increased global demand for medical products and home-office equipment (Brenton et al., 2022).

As global trade rebounded from the initial effects of the pandemic, new challenges arose with regard to global value chains. In 2021, value chains were poorly positioned to meet the sudden increase in demand because of a below-average level of investment and because operations continued to face supply-related and logistical disruptions due to recurring lockdown measures. Port congestion, increasing shipping times and the scarcity of containers along some of the major sea routes added to trade costs and to complications for value chain operations well into 2021. Moreover, global semiconductor shortages significantly affected global production, particularly in the automotives and electronics sectors. However, by the end of 2021, as the global economy stabilized, many of the issues affecting the operations of global value chains began to diminish (WTO, 2021a).

Despite the challenges brought on by the pandemic, the restructuring of global production processes has been less prevalent than initially expected and has been largely in line with long-term trends driven by technological changes (robotization, automation and digitalization); increased protectionism and regionalization; and the need to meet sustainable development objectives. Global efficiency and cost-reduction strategies continue to remain the paramount objective of global firms. Economies of scale, the geographical location of resources, long-term investments in production facilities and the significant investments required to build new trade and logistics infrastructure can make meaningful alterations to current patterns of global production costly. Much discussion has taken place on reshoring and nearshoring, yet there is little data-based evidence to indicate systemic changes in the arrangement of global production. On the contrary, the early success in the economies of East Asia in mitigating the economic effects of the pandemic may have resulted in increased reliance, in global value chains, on manufacturing production originating from East Asia.

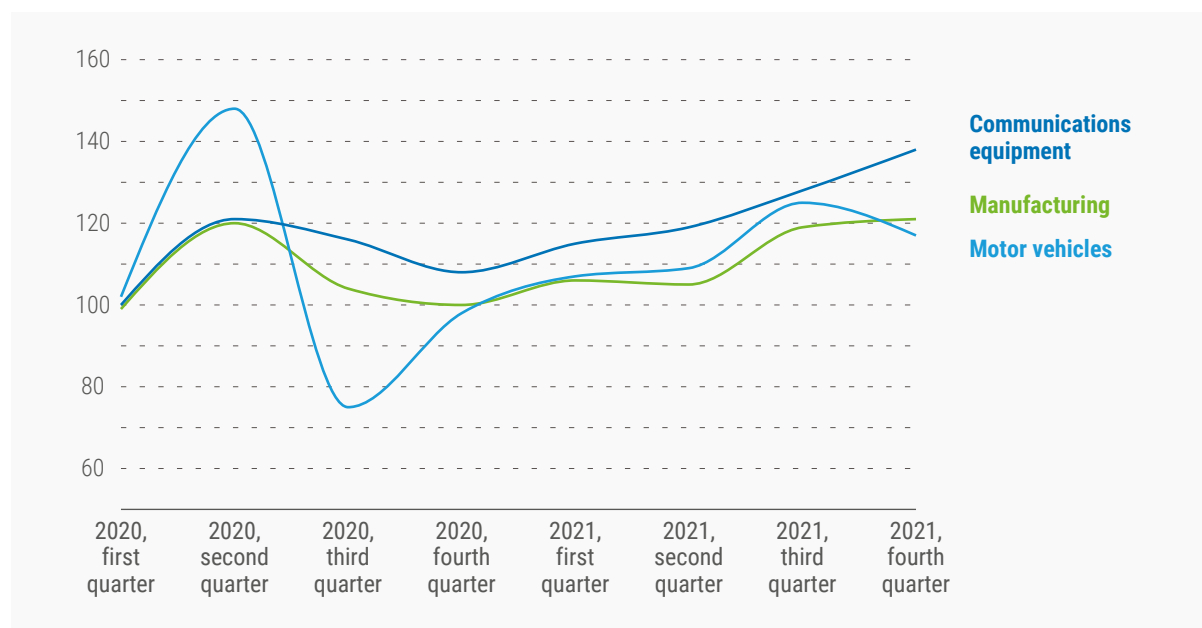
An indication of the persistence of offshoring practices is shown in the most recent trade statistics of the European Union. On average, about 70 per cent of imports of intermediate inputs for European Union manufacturing industries originate from within the European Union, while East Asia contributes about 15 per cent. These figures vary substantially across sectors. For example, the motor vehicle industry is highly localized in the European Union, with about 85 per cent of trade in intermediate inputs originating from member States. In contrast, the communications equipment sector is significantly more reliant on offshoring, with about 45 per cent of trade in intermediate inputs originating from member States. The evolution of the ratio of these two statistics in 2020 and 2021 shows the dependence of value chains in the European Union on suppliers from East Asia (figure 2.1). This dependence increased during

the pandemic and, by the fourth quarter of 2021, was at about 20 per cent, on average, above the pre-pandemic level in 2019 (apart from figures for the automotives sector in the third quarter of 2020, which reflect advance orders). This trend is observed in both sectors already reliant on suppliers from East Asia (e.g. communications equipment) and sectors with value chains that operate largely within the European Union (e.g. motor vehicles).

Figure 2.1

**Global value chain offshoring from the European Union to East Asia during the pandemic:
Ratio of intermediate inputs from East Asia to inputs from European Union**

(2019=100)

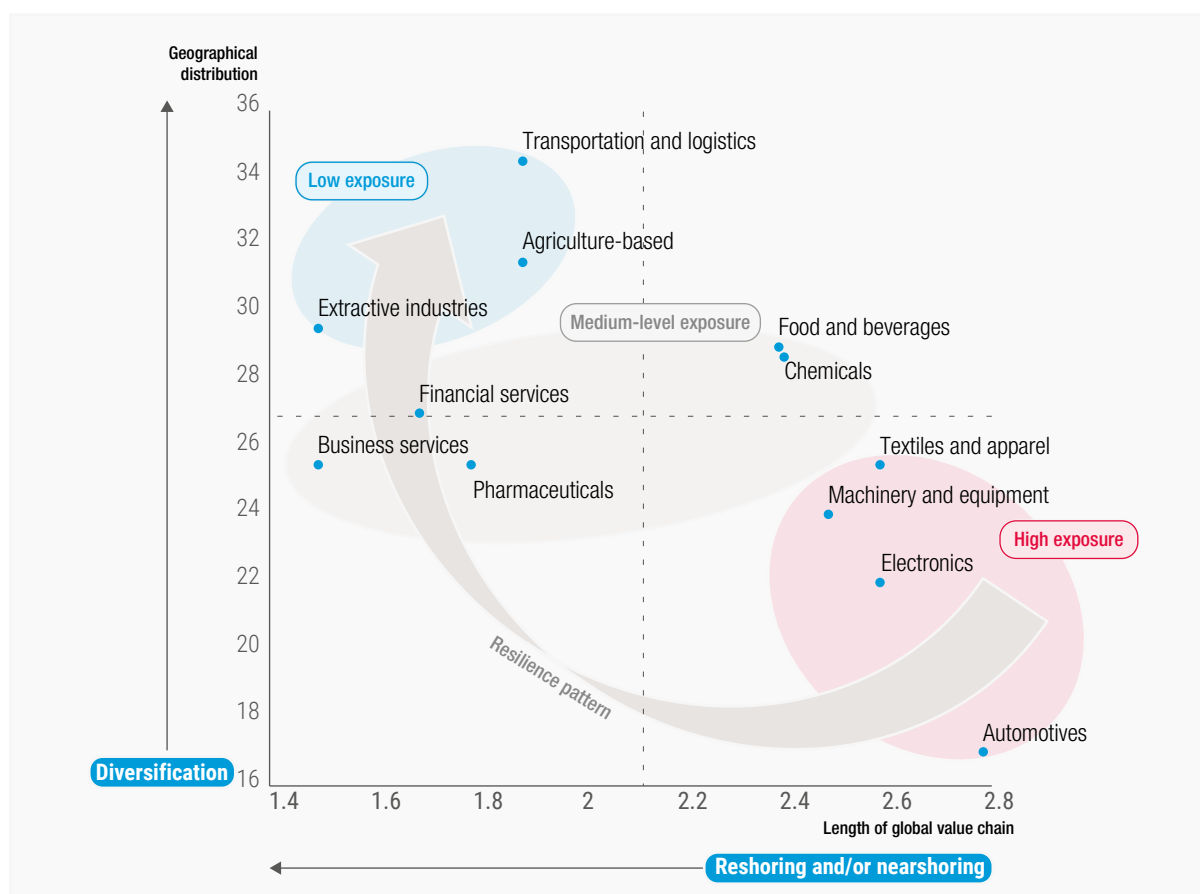


Source: UNCTAD calculations, based on data from the Eurostat database.

2.2 Industry participation in global value chains and reconfiguration

The pandemic influenced global value chains to a varying degree, largely depending on supply chain configuration, as measured by length and geographical distribution, which provides for an assessment of exposure to network reconfiguration risks (UNCTAD, 2020b). The length is measured by the number of cross-border intermediate production steps; and geographical distribution reflects the degree of participation in production processes across countries. Network restructuring aimed at resilience can be traced as a broad diagonal move from long and concentrated configurations to short and distributed configurations (figure 2.2). Such a move is enabled by reshoring or nearshoring (reducing exposure with regard to length) and diversification (reducing exposure with regard to geographical distribution). The most exposed sectors include value-chain-intensive industries (e.g. automotives, electronics, machinery and equipment and textiles and apparel), which account for about 20 per cent of greenfield investment across all industries, but almost 50 per cent when considering manufacturing investment only. They are typically a mainstay of industrialization strategies in developing economies and play a larger role in international production and development than may be suggested by their investment size. A move towards production network reconfiguration in these industries could have important development implications.

Figure 2.2
Global value chains: Network configuration by industry, 2020















Source: UNCTAD (2020b).

Notes: Global value chain length is measured by the number of production stages involved in a particular value chain. Geographical distribution reflects the degree of concentration of value added and is measured as the average of the number of countries that account for 80 per cent of global value added in gross exports and the number of countries that account for at least 0.5 per cent of global value added in gross exports.

In the cluster of industries characterized by medium-level exposure, two groups (food and beverages; and chemicals) are characterized by long but regionally diversified production networks. These are regional processing industries, typically organized in regional value chains, replicating on a local scale the long and vertically specialized global value chain model. Another group has shorter and more concentrated global supply chains, in which operations are distributed but the bulk of the value is shared between a few locations. This structure is consistent with more knowledge-intensive industries, such as pharmaceuticals, and also with services industries characterized by a few high value adding hubs and many operational spokes. Industries with low-level exposure are either upstream industries contingent on natural resources that cause dispersed production (e.g. extractive and processing industries and agriculture-based industries) or lower value added proximity services instrumental to local operations or delivery (e.g. services industries such as transportation and logistics and retail and wholesale). These activities typically have short value chains and value added generated by location-specific assets. The set of value-chain-intensive industries, that is, the set most exposed to supply chain risks, is also characterized by the highest economic barriers to the reshoring or restructuring of

production networks. All of these industries have highly cost-efficient production networks, as also reflected by the capital and labour intensity of typical investment projects (table 2.1).

Table 2.1
Risk exposure level and relevant business indicators by industry

Risk exposure level	Industry	Share of total value of announced cross-border greenfield investments (Percentage)		Capital intensity: Average investment size (Millions of dollars)		Labour intensity: Average number of jobs per millions of dollars invested (Number)	
		2015–2019	2020–2021	2015–2019	2020–2021	2015–2019	2020–2021
High	 Automotives	8	5	58	54	4.6	3.9
	 Electronics	6	14	45	85	4.3	2.2
	 Machinery and equipment	1	1	15	12	5.8	5.4
	 Textiles and apparel	3	2	16	17	6.7	5.7
Medium	 Business services	9	17	19	21	3.8	3.4
	 Chemicals	7	6	67	76	1.8	1.6
	 Financial services	3	3	25	24	2.6	2.4
	 Food and beverages	3	3	43	42	3.6	3.1
	 Pharmaceuticals	2	3	36	46	2.4	1.8
Low	 Agriculture-based	0	0	43	44	5.2	4.3
	 Extractive industries	4	2	405	208	0.7	1
	 Transportation and logistics	5	5	57	44	1.9	2.2

Source: UNCTAD calculations, based on data from the *Financial Times* foreign direct investment markets database.

Capital-intensive industries, such as automotives and electronics, leverage economies of scale generated by concentrated and specialized production hubs that optimize operational efficiency and lower costs. Labour-intensive industries, such as textiles and apparel, take advantage of different wage rates between countries to minimize costs of production. The physical relocation of fixed (tangible) assets incurs significant costs associated with redundant production sites and financing costs associated with the establishment of new facilities, particularly for more capital-intensive activities. Overall, network restructuring measures to build resilience expose multinational enterprises in value-chain-intensive industries to significant, and potentially prohibitive, cost-related pressure. Some industries facing less extreme cost-benefit trade-offs (e.g. industries characterized by relatively smaller investment sizes, such as machinery and equipment) are more likely to undergo some reconfiguration.

The pharmaceuticals industry may also be exposed to business and policy pressure to relocate. Overall, most industries are unlikely to embark on a systematic and broad-based process of network restructuring in the absence of policy pressures or incentives in that direction.

The question of the extent to which the pandemic accelerated global value chain reconfiguration is difficult to answer definitively, as comprehensive data is not yet available. However, by considering evidence from greenfield investment projects, it is possible to compare the period before the pandemic (pre-2020) with the period during the pandemic (2020–2021) and there is no clear pattern between the two periods. Among industries with a high-level risk exposure, in automotives, the share of greenfield projects and the average size of investments by companies decreased; in electronics, the share of greenfield projects increased and the average size of investments nearly doubled. Among industries with a medium-level risk exposure, in chemicals and pharmaceuticals, the average size of investments increased; a trend likely due to pandemic-related demand for pharmaceuticals. Among industries with a low-level risk exposure, in transportation and logistics and extractives, the average value of investments decreased significantly and, in extractives, the share and value of greenfield projects nearly halved. With regard to the labour intensity of investments, the general decline across nearly all industries (with the exception of transportation and logistics and extractives) could signal troubling implications for developing countries in terms of employment generation from foreign investment.

2.3 Resilience and reshoring of global value chains

The pandemic has provided valuable lessons for both Governments and companies on how to make production networks more resilient.

Many Governments took note of the risks associated with international dependence. Value chain operations are largely driven by the pursuit of efficiency gains, yet policymaker objectives are generally broader. Support for national production often took priority during the pandemic, as shown by the number of “buy national” initiatives. The rationale for such policies is to ensure the availability of important products while also improving employment opportunities domestically. Reshoring can be seen as a suitable strategy for mitigating the risks associated with over-reliance on foreign suppliers, not only in the context of a global economic shock but also in the present situation of shifting geopolitics. Moreover, social concerns such as with regard to employment creation increased during the pandemic, adding arguments to the benefits of reshoring some manufacturing industries closer to consumers (Organisation for Economic Co-operation and Development (OECD), 2021b). However, reshoring may result in efficiency losses for a firm owing to the use of less competitive suppliers, thereby lowering international competitiveness. Governments have been increasingly looking to pair reshoring policies with nearshoring, involving the reshaping of supply networks towards geographically closer countries. Nearshoring could reduce efficiency losses from reshoring, while still providing some diversification. Nearshoring could also reduce the risks associated with an over-reliance on distant suppliers and mitigate the effects of increasing transport costs. As trade policy has increasingly become a tool in foreign policy, discussions have increased on “friend-shoring”, which involves the reshaping of supply networks to include geopolitically closer countries. Trade tensions between some of the major world economies and increasing protectionism were already increasing uncertainty before the pandemic and new geopolitical tensions have emerged in recent months. Friend-shoring, while resulting in efficiency losses, could mitigate the risks associated with a possible increase in restrictive trade policies based on economic and geopolitical considerations. Nearshoring

and friend-shoring can be supported by trade facilitation and trade agreements seeking deeper integration among members (European Union, 2021).

On the company side, the pandemic has shown the importance of the reliability of firms in fulfilling orders. The rebound of trade in 2021 was made possible by the fact that many production networks showed a surprisingly high degree of resiliency and adaptation. This outcome is partly due to fiscal support provided to firms by Governments and partly because companies within a network have strong incentives to support each other in times of crisis. Such business-to-business support has been instrumental in the speedier resumption of operations as conditions have improved. Such a strategy makes sense from a business perspective, as finding new reliable suppliers is both costly and time consuming. The disruptions due to the pandemic also showed that large companies are generally better able to weather economic shocks. The survival rates of firms declined during the pandemic, and most of the affected firms were small and medium-sized enterprises (Bartik et al., 2020). Limited access to credit, as well as difficulties in securing the necessary inputs amid the widespread supply crunch, meant that many small exporters were unable to fulfil contract obligations. Moreover, lower levels of global demand led many small suppliers to go out of business, as they could not easily find buyers for their products. Overall, supply and demand shocks due to the pandemic resulted in less well-established suppliers, as well as less competitive suppliers, being squeezed out of international markets.

Despite the disruptions due to the pandemic, changes in global supply chain operations have not manifested in the form of short-term emergency restructuring but are likely to contribute to long-term gradual rebalancing. As new investments are not affected by sunk costs, the business case for rebalancing is more credible than that for restructuring. A greater focus on resilience will not fundamentally change the way businesses make strategic choices. Location-related decisions will still be based on considerations of financial costs and benefits. However, the rebalancing process will likely change the relative weight of the two sides of the equation, with multinational enterprises expected to relinquish some cost efficiency in order to secure resilience gains. A cost-benefit analysis based on business considerations demonstrates the complexity of reconfiguring the international production networks of multinational enterprises in response to the pandemic. In the short term, supply-chain restructuring (i.e. reshoring, relocation and diversification) is likely to become a reality only as a result of political pressure or concrete policy interventions and where incentives or subsidies change the economic equation. Any such interventions will prioritize supply chains for essential goods and for strategic growth sectors. In the absence of policy drivers, most multinational enterprises are likely to focus on enhancing supply chain risk management practices that do not involve the reconfiguration of production networks. The immediate impact on foreign direct investment patterns of a shift towards more resilient supply chains is therefore expected to be limited. The longer-term effects of seeking increased resilience will be more significant. Longer-term considerations will become part of the broader transformation process already set in motion before the pandemic, including due to trends related to technology, policy and sustainability. With resilience considerations becoming a part of investment drivers and determinants, it is likely that there will be a gradual rebalancing of international production networks towards higher levels of diversification and regionalization and, quite possibly, less use of offshoring.

Enhancing the resilience of global value chains and trade also depends on well-functioning trade logistics. The pandemic provides several lessons in this area. The disruptions have heightened the need for risk management and preparedness in transport and distribution networks. Prioritizing risk management and preparedness, devising and implementing risk management and business continuity strategies, building strong relationships with key partners (e.g. ports, shippers and inland transport providers) and ensuring visibility across the extended supply

network, as well as making use of digitalization, data and forecasting models to anticipate and plan for change, are increasingly recognized as critical to ensuring more resilient and sustainable supply chains (UNCTAD, 2021d).

Demand for digital and paperless solutions surged during the pandemic, as operators and officials aimed to minimize physical contact; for example, the use of electronic single windows can help expedite border formalities. In this regard, UNCTAD, under a project on transport and trade connectivity in the age of pandemics, provided technical assistance to support digital trade and transport facilitation solutions during the pandemic. Improved coordination among agencies, the harmonization of biosecurity procedures and greater flexibility in granting permits, among others, enabled smoother trade-related transactions. National trade facilitation committees helped to ensure coordinated responses by implementing and monitoring trade facilitation reforms using digital tools such as the UNCTAD reform tracker.

The role of technology as a crisis mitigation tool and resilience-building lever has been widely recognized. Ports with smart features generally fared better amid the disruptions caused by the pandemic. Those that invested in digital infrastructure and connectivity and promoted data exchanges among port authorities, shippers and freight forwarders navigated more smoothly through the disruptions. In this regard, developing countries need to be supported in efforts to implement digital tools to advance environmental sustainability, economic efficiency and resilience. In particular, inland terminals and smaller ports require support in implementing technology and digital tools.

The pandemic-induced strain on global logistics also underscored the importance of fair competition and a level playing field among supply chain actors, to ensure the fluidity and resilience of the maritime supply chain. The global logistics crisis in 2021–2022 and soaring shipping costs have led regulators to scrutinize shipping practices. This has implications for carrier alliances, consortiums and vessel-sharing agreements, as well as the increasing trend towards the vertical integration of maritime transporters, to include end-to-end freight movement within their services, in direct competition with other logistics service providers. As part of the annual *Review of Maritime Transport*, UNCTAD monitors and reports on trends in liner shipping market dynamics while leveraging its extensive statistical resources and data on liner shipping connectivity, ship capacity deployment and the number of services and operators servicing ports. In addition, the Intergovernmental Group of Experts on Competition Law and Policy provides a forum for port authorities to discuss liner shipping competition issues. UNCTAD brings together policymakers from maritime transport competition authorities in order that they can better understand market developments and provide the requisite regulatory oversight.

2.4 Vaccine value chains

Vaccine production is a complex endeavour. The development of vaccines involves strict procedures and demanding regulatory requirements. Production requires expensive facilities and economies of scale in order that research and development costs may be recovered. Only a few countries produce vaccines and even fewer countries export them. The top 10 exporting countries account for 93 per cent of global export value and 80 per cent of global export volume (OECD, 2021b). Moreover, many vaccine inputs are highly specialized and production is often concentrated in a few firms in a small number of countries (Arthur, 2021). During the pandemic, a number of pharmaceutical companies developed vaccines using state-of-the-art techniques that could facilitate production while ensuring effectiveness.

Overall, these vaccines were developed more quickly than previous vaccines for other viruses. One important consideration for vaccine manufacturers was the location of production. Pharmaceutical value chains operate according to profit-maximizing objectives yet, during the pandemic, Government interventions greatly influenced the choice of location, which was based on not only existing infrastructure, facilities and know-how but also the level of financial support provided by Governments to manufacturers, to produce vaccines within their jurisdictions. Another consideration in the choice of facility location was the limitation of vaccine exports, at least for as long as vaccines remained in short supply; these two factors greatly influenced the initial localization of production (Evenett et al., 2021). The initial arrangement of vaccine production during the pandemic resulted in a high level of prioritization of access to vaccines, despite international initiatives such as COVID-19 Vaccines Global Access (COVAX). Most developed countries attained high vaccination rates in part due to support provided to manufacturing companies and the capacity to pay higher prices; many developing countries and the least developed countries were able to access vaccines only at a later date. Over time, with the streamlining of production lines and the establishment of multiple parallel supply chains, manufacturing companies determined that vaccines could be efficiently and profitably produced in other markets (Bown and Bollyky, 2021). This shows that, with the right policy support and investment, the production of vaccines can be established in developing countries. However, in addition to investment in vaccine production facilities, it is also crucial to assess constraints in supply chains for the provision of goods and services related to the manufacturing, storage, distribution and administration of vaccines (WTO, 2021b). Tariffs and non-tariff measures applied to these inputs can substantially add to the feasibility of manufacturing and distributing vaccines in developing countries.

Vaccine production accelerated considerably in 2021. In the first six months of 2021, global vaccine trade was already 26 per cent higher than in all of 2020 and trade in related or intermediate inputs also increased, underpinning the wider manufacturing and distribution of vaccines (OECD, 2022a). Such increases may be positive, yet a clear pattern may be noted, namely, that vaccines are only exported after domestic demand has been met in developed countries. With regard to pandemic-related measures in January 2020–March 2022, the UNCTAD non-tariff measures database shows that several vaccine-producing countries imposed export restrictions on vaccines, mostly in the form of non-tariff measures.

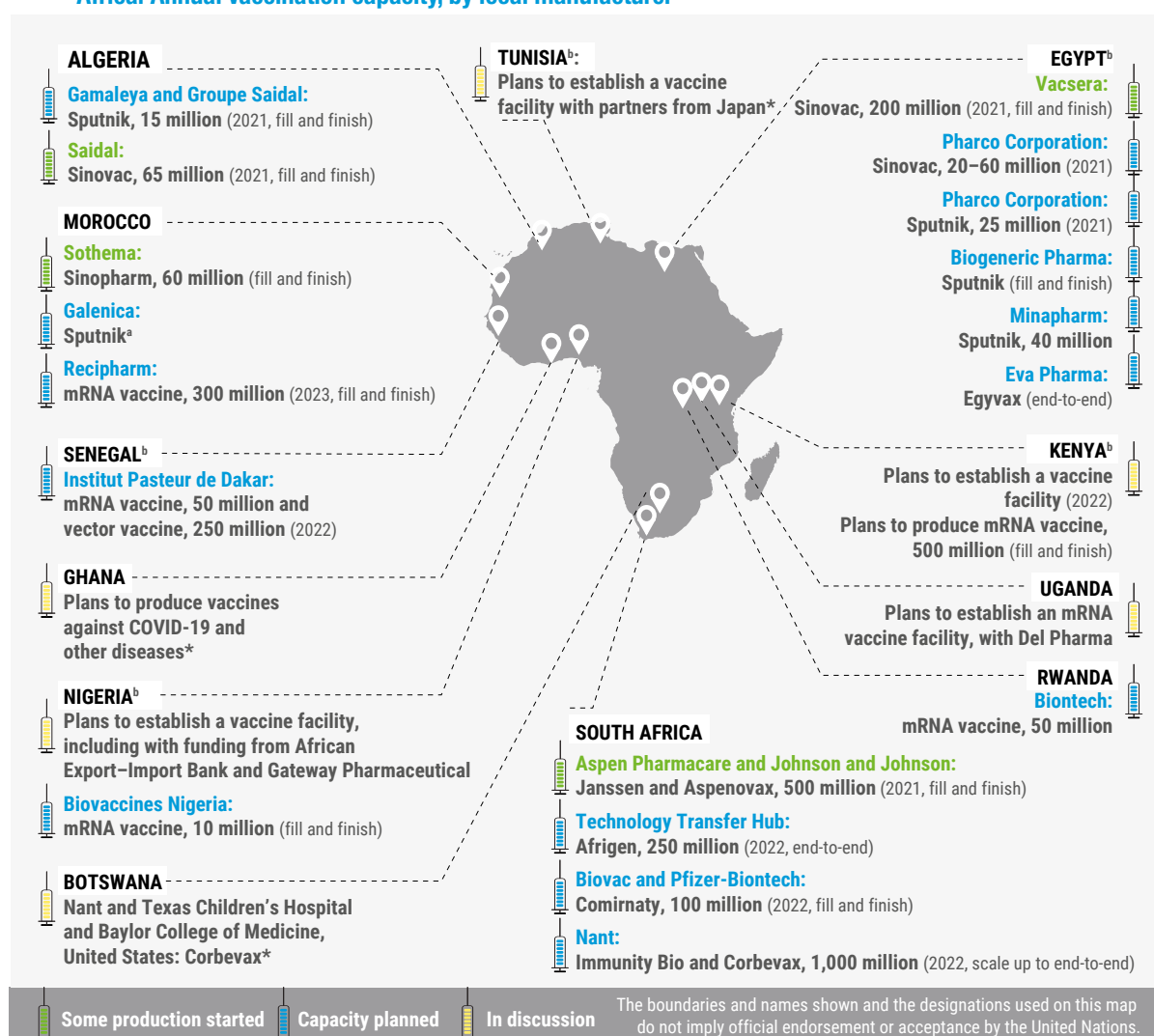
An important factor in the production of vaccines is intellectual property rights. Patents may be filed not only during the production process of a vaccine but also during many of the development stages. For example, if clinical trial data is subject to intellectual property rights, it may take more time for a subsequent producer to obtain domestic approval. Intellectual property rights incentivize the innovation of new technology yet may also hinder the production of vaccines by companies in developing countries. Both international trade and investment agreements have compulsory licencing provisions to override intellectual property rights in an emergency. However, in the past two years, no company has been granted a compulsory licence to make a coronavirus vaccine, highlighting the need to further enhance and broaden international cooperation in dealing with emergencies.

Limited pre-existing capacity and a lack of government resources are other factors that have constrained developing countries in the production of vaccines. In contrast, developed countries have supported vaccine production both financially and through advance purchases. For example, in mid-2020, the United States announced significant support for the coordination of clinical trials and the scaling up of manufacturing; this investment was made despite the risk of loss if a vaccine was not approved (Bown and Bollyky, 2021; Slaoui and Hepburn, 2020). Developing countries faced difficulties in making substantial investments, in addition to the risk

factors involved, partly also due to fiscal pressures during the pandemic caused by reduced tax incomes and the increased costs of social safety nets.

The pandemic served to provide incentives to developing countries to establish the local production of vaccines. It has been shown that local production can be facilitated, despite the substantial investment required, with appropriate licencing and intellectual property rights waivers. For example, several countries in Africa have begun the local manufacturing of vaccines and more facilities are planned (figure 2.3). However, vaccine distribution often represents an even more significant challenge in developing countries, particularly in areas in which health systems are not fully developed. Vaccines have a short shelf life and need to be properly stored to maintain effectiveness. As trade infrastructure and logistics may often be of poor quality, the deployment of vaccines from manufacturers to the population often poses a significant barrier, particularly in reaching rural populations (WHO, 2021).

Figure 2.3
Africa: Annual vaccination capacity, by local manufacturer



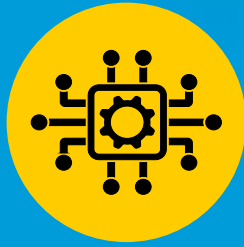
Abbreviation: mRNA, messenger ribonucleic acid.

Source: UNCTAD, based on Clinton Foundation (2022). See <https://www.health.go.ke/kenya-signs-mou-with-moderna-to-establish-its-first-mrna-manufacturing-facility-in-africa/>.

Notes: Data as at 11 April 2022. The publicly reported starting year and production type, if available, are given in parentheses.

a Further data unavailable

b Spoke of Afrigen production hub based in South Africa



CHAPTER 3

DIGITALIZATION: IS THE DIGITAL REVOLUTION BECOMING MORE INCLUSIVE?

3.1 The role of digitalization during the pandemic

3.2 Policy responses

3.3 Challenges in harnessing digital solutions for recovery and development

3.4 Leveraging digitalization for post-pandemic recovery

The pandemic has led to a surge in digital transformation worldwide. The role of digitalization during the pandemic is addressed in this chapter, including the implications for inclusive development and consideration of what needs to be done to leverage digital opportunities during the post-pandemic recovery and beyond.

3.1 The role of digitalization during the pandemic

Following the onset of the pandemic and the implementation of social distancing measures, much of the world increasingly “went digital”. Digital tools and solutions helped deal with the spread of the coronavirus and ensure the continuity of many economic activities. Researchers utilized big data and artificial intelligence to detect epidemiological patterns and accelerate research for the development of vaccines. Smart mobile applications were developed for contact tracing and to help interrupt the transmission of the coronavirus. At the same time, many people with access to digital devices and connectivity tools were able to continue to work, attend school, communicate, shop and be entertained. However, the vulnerable became even more vulnerable.

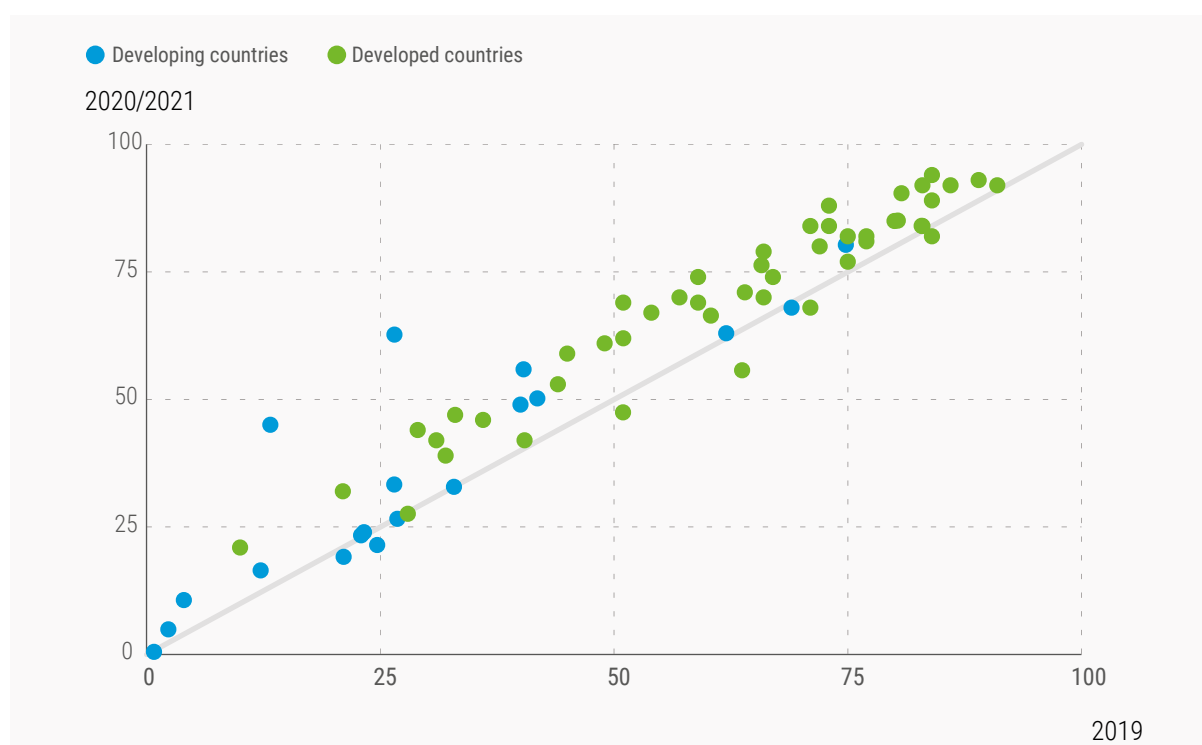
3.1.1 Digital uptake and trade implications

During the pandemic, the use of e-commerce, which is a broad measure of the digital economy, grew quickly. UNCTAD data show that people turned to digital platforms to shop online, with the online retail sales share of total global retail sales rising from 16 per cent in 2019 to 19 per cent in 2020, a level that was sustained into 2021 (figure 3.1). In seven countries (Australia, Canada, China, the Republic of Korea, Singapore, the United States and the United Kingdom of Great Britain and Northern Ireland), with a combined GDP accounting for around half of global GDP, online retail sales rose from \$2 trillion in 2019 to \$2.9 trillion in 2021. The rapid uptake of e-commerce was evident across regions, with consumers in emerging economies making the greatest shift to online shopping (UNCTAD, 2022e).

Many small businesses had fewer digital solutions in place prior to the pandemic and the shift to making online transactions enabled them to survive when lockdown and social distancing measures hindered offline trade (UNCTAD, 2021k). This was also the case for many women-owned microenterprises and small enterprises and retail traders. There are more than 9 million formal women-owned small and medium-sized enterprises (that is, one third of all formal small and medium-sized enterprises are women-owned) and women globally represent 42.1 per cent of those employed in the wholesale and retail trade sector, compared with 38.7 per cent of total workers (ILO, 2020; International Finance Corporation, 2014). Anecdotal evidence shows that some women traders switched to using e-commerce when the closure of borders limited travel to neighbouring countries in order to conduct business (UNCTAD, 2022i). Digital tools and solutions also sustained global value chains, cross-border trade and transport networks by helping to ensure business continuity while protecting the health of transport workers and border agents (UNCTAD, 2021d). The increased automation of customs and the digitalization of other regulatory procedures, for example, through the use of the UNCTAD Automated System for Customs Data, enabled some countries to implement the use of e-trade permits, paperless processes and the exemption of taxes to facilitate imports of medical supplies during the pandemic (UNCTAD, 2020f). The increased use of digital technologies impacted international trade; the share of ICT goods in merchandise imports increased from 13 per cent

in 2019 to nearly 16 per cent in 2020, the greatest annual increase since recording began in the year 2000 (UNCTAD, 2021q). Digitalization has also contributed to the servicification of the economy. For example, the share of services that can be digitally delivered reached nearly 64 per cent of total services exports in 2020, up from 52 per cent in 2019 (UNCTAD, 2022g). Digitally deliverable services include ICT services and financial, professional, sales and marketing, research and development and education services (UNCTAD, 2022j).

Figure 3.1
Online shopping before and during the pandemic: Internet users who made purchases online, by country grouping
 (Percentage)



Source: UNCTAD calculations, based on data from Australia, Argentina, China, Colombia, Singapore, the Eurostat database, the International Telecommunication Union world telecommunication/ICT indicators database and the OECD ICT access and usage by households and individuals database.

Notes: For most countries in Europe and OECD members, data cover individuals aged 16–74 who used the Internet and/or shopped online in the 12 months prior to the survey; for other countries, wider age ranges and different recall periods may apply. Figures from 2021 are used when available but for 29 of the 66 countries covered, particularly for 17 of the 19 developing countries covered, the latest data are from 2020.

3.1.2 The accentuation of digital divides

Far from all populations have been able to harness the potential of digital opportunities. In the least developed countries, 27 per cent of people currently use the Internet (International Telecommunication Union, 2021). In addition, in developed countries, up to 8 in 10 Internet users shop online; this figure is less than 1 in 10 in many of the least developed countries (UNCTAD, 2021i). Differences in digital readiness are also indicated by the level of trade in digitally deliverable services. In 2020, the share of digitally deliverable services in total services exports was 68 per cent in developed countries and 22 per cent in the least developed

countries (UNCTAD, 2021q). Those less prepared digitally risk falling further behind in the fast-evolving digital economy. In this context, particular attention should be given to vulnerable and disadvantaged groups. For example, gender-based digital divides increased in some countries during the pandemic, reversing a positive trend witnessed since 2017. In 2021, women in low-income and middle-income countries were 16 per cent less likely than men to use mobile Internet access, a decrease by 1 percentage point compared with in 2020. With regard to smartphone ownership, which is the most common means of accessing the Internet in developing countries, women are 18 per cent less likely than men to own a smartphone in 2022, compared with 16 per cent in 2020 (Sibthorpe, 2022).

3.1.3 The increased role of data and digital platforms

With the increase in online activities, global Internet bandwidth rose by 35 per cent in 2020, the greatest one-year increase since 2013. Monthly global data traffic is expected to rise from 230 exabytes in 2020 to 780 exabytes by 2026 (UNCTAD, 2021p). People's lives have become more dependent on real-time data and technological assistance, in areas ranging from carrying out daily activities to monitoring and controlling the pandemic and developing new vaccines in record time. Many developing countries face difficulties in harnessing digital opportunities. In contrast, reliance on data and digital solutions during the pandemic has boosted the performance of leading digital platforms, which are based mainly in China and the United States. Most digital solutions used amid lockdown measures and travel restrictions, such as e-commerce, telecommuting and cloud computing, were provided by a relatively small number of large companies from these countries. Global platforms have not only been resilient to the crisis, but their business models and dominance, combined with the strong demand for digital services, have lifted them to a higher income growth path. In October 2019–January 2021, the New York Stock Exchange Composite Index increased by 17 per cent and, in the same period, the stock prices of two leading platforms rose by 55 and 144 per cent (UNCTAD, 2021p). In addition, the pandemic served to move many consumers into a digital environment that is not as safe and welcoming as it could be (UNCTAD, 2021o). False and deceptive advertising can spread quickly through online platforms, adding the risk of monetary and physical damage for consumers including, for example, due to alleged or false remedies that can lead to serious harm or health risks. In this regard, in 2020, Ebay blocked or removed over 17 million listings that violated the consumer protection rules of the European Commission and Google blocked or removed over 80 million pandemic-related advertisements globally (UNCTAD, 2021i). The pandemic has also served to exacerbate the existing vulnerabilities of new online consumers who may be less familiar with digital tools and therefore more prone to digital fraud. For example, elderly consumers may lag behind younger consumers in levels of digital capability due to a combination of health and cognitive ability-related factors, making the elderly more vulnerable to online financial exploitation and increasing the need to ensure their digital capability (UNCTAD, 2021j).

3.2 Policy responses

UNCTAD, through research and technical assistance, has identified various policy actions taken in connection with the pandemic. Most Governments prioritized short-term measures and some have also begun to address longer-term strategic requirements for post-pandemic recovery. Measures taken include public awareness campaigns concerning e-commerce,

training in digital skills, increased use of paperless processes in countries using the UNCTAD Automated System for Customs Data, reductions in the costs of e-payment transactions and the lowering of barriers to the use of e-commerce for both businesses and consumers.

In Africa, in Malawi, the conduct of an UNCTAD eTrade Readiness Assessment helped inform the digital component of the post-pandemic socioeconomic recovery plan; in Senegal, the conduct of an eTrade Readiness Assessment helped catalyse the adoption of a strategic framework to promote e-commerce and the digital economy, which forms an integral part of the implementation of the national strategy for e-commerce development; and, based on the Automated System for Customs Data guidelines for customs administrations, a number of countries implemented paperless procedures, with Angola, Eswatini, Lesotho, Rwanda, Uganda, Zambia and Zimbabwe increasing the average use of paperless procedures, from 30 per cent in 2019, before the pandemic, to 82 per cent in the first quarter of 2022 (UNCTAD, 2022k; figures from the Automated System for Customs Data programme).

In Asia and the Pacific, in Cambodia, a new law aimed at easing the registration of e-commerce businesses; Indonesia launched a capacity-building programme to expedite digitalization among microenterprises and small and medium-sized enterprises, facilitated collaborations between the banking sector and financial technology companies and supported the use of digital payments; in Kiribati, digital solutions were implemented to deal with the spread of the coronavirus and gave fresh impetus to efforts to harness development gains through ICTs and e-commerce; and, in the Lao People's Democratic Republic, UNCTAD helped raise the profile of e-commerce in the context of the ninth national socioeconomic development plan, taking into consideration the impact of the pandemic (UNCTAD, 2021k; UNCTAD, 2022k).

In Latin America and the Caribbean, Costa Rica launched a platform for businesses that did not have a previous online presence, as well as a smartphone application and short messaging service to facilitate trade among producers of agricultural, meat and fish products; and Peru introduced a programme to close digital connectivity gaps and provide free Internet access in rural areas (International Monetary Fund (IMF), 2021a; UNCTAD, 2021k).

The crisis affected microenterprises and small and medium-sized enterprises in particular, and many public authorities have taken steps to facilitate the economic recovery of such enterprises. The implemented measures have been aimed at improving access to financing, through new financial instruments and new financing technologies; facilitating the digitalization of the manufacturing and marketing of products; facilitating market access for such enterprises by eliminating technical and administrative barriers; promoting the participation of such enterprises in public procurement; and fostering innovation (UNCTAD, 2022h). Initial measures to protect online consumers have been complemented by more long-term policies. Many Governments initially undertook decisive action against price gouging and/or unjustified increases, refusals of refunds for cancelled events or travel and unfair or misleading practices such as with regard to health-related products offered for sale online (UNCTAD, 2021). Later, the focus shifted to taking palliative action against the disconnection of public utilities services, including bill deferral and payment extension plans and subsidized access for low-income households (UNCTAD, 2021m). Additional priority areas included making information and education available online and through social media, facilitating access to effective online dispute resolution and enhancing good business practices online, particularly by digital platforms (UNCTAD, 2021).

3.3 Challenges in harnessing digital solutions for recovery and development

Many challenges hinder the benefits of digitalization from being reaped fully and equitably. These challenges can be divided into two types, namely, those limiting the ability to use digital solutions and those affecting impacts of the use of such solutions. Each requires different policy responses. Not properly addressing many of the challenges could exacerbate the digital divide and inequalities that have persisted over the years and lead to the risk of introducing new inequalities in many developing countries.

3.3.1 Challenges limiting the ability to use digital solutions

In a survey on the impact of the pandemic on e-commerce businesses in developing countries, many drew attention to the need for national strategies and coherent responses to e-commerce and the digital economy (UNCTAD, 2020h). Most developing countries still lack comprehensive strategies in this area. In those that have such strategies, gender considerations are often not mainstreamed. In the absence of robust policy and regulatory frameworks, countries are less prepared to harness opportunities from digitalization and such opportunities are likely to be less fairly distributed among different segments of the population, including between women and men. The pandemic served to make more evident the lag in development related to the significant digital divides within and between countries. Some 96 per cent of the 2.9 billion people that remain offline live in developing countries and, within many developing countries, there are also significant divides between men and women, urban and rural areas and large and small companies (International Telecommunication Union, 2021). Moreover, when people and businesses in low-income countries connect to the Internet, they do so typically at relatively low download speeds and at relatively high prices. In parallel with increasing inequality trends worldwide, the pandemic has served to reinforce the need to bridge not only the conventional connectivity divide but also the rapidly expanding data divide. Limited or unaffordable connectivity and the usage divide hinders businesses and consumers from engaging in online activities. Countries that lack the capabilities to turn digital data into digital intelligence face a significant barrier in benefiting from the data-driven digital economy from the perspective of creating not only private value but also value for society as a whole. A lack of digital entrepreneurship and skills hinders the ability of microenterprises and small and medium-sized enterprises to adapt to digital transformation. Digital entrepreneurship focuses on leveraging digital technologies or digital business models to explore and exploit entrepreneurial opportunities. A lack of digital competence among entrepreneurs, as well as of adequate skills in the workforce, are common bottlenecks to successful digital entrepreneurship (Soltanifar et al., 2021). This includes women-led entrepreneurship. For example, e-commerce markets in South-East Asia and Africa could grow by an estimated \$280 billion and \$14.5 billion respectively in 2025–2030 if better training is provided to women digital entrepreneurs (IMF, 2021c; IMF, 2021d). The UNCTAD eTrade for Women initiative seeks to combine the transformative power of women's entrepreneurship with the positive impact of digital technologies through capacity-building and community-building activities. Governments often lack financing or adequate expertise and capacities to strengthen national digital readiness. More financing options, including international financial support, are needed to mobilize the required resources to address these challenges. Limited capacities may lead to insufficient technical and analytical expertise in legislative and regulatory framework development processes and hinder the ability of Governments to identify the opportunities and risks associated with digital technologies, as well as ways to address them (OECD, 2020b).

3.3.2. Challenges affecting impacts of the use of digital solutions

Once people and businesses have access to affordable connectivity, there are additional challenges to consider in the context of post-pandemic recovery.

One such challenge is in protecting online users, which involves ensuring trust in the digital environment, notably with regard to digital and data security, data privacy, consumer protection and cybersecurity. In many developing countries, there is a lack of relevant legislation in this regard. For example, in Africa, only 50 per cent of countries have adopted laws on online consumer protection and 61 per cent, laws on data protection (UNCTAD, n/d). The use of contact tracing and other applications has raised concerns about privacy and other human rights and data protection. The fact that data can be abused and misused for surveillance and other purposes by organizations that control the data, whether private or public, affects trust and limits the potential benefits that may be derived from the digital economy. Enacting robust data protection legislation to safeguard users from commercial surveillance, undeclared data collection and third-party data-sharing, as well as the tracking and profiling of individuals by online platforms, would benefit all users.

Another challenge faced by consumers during the pandemic and at other times is the purchase of unsafe products online, frequently through inadvertent cross-border transactions using online platforms. Many consumers may not be aware of their rights in online markets and/or of avenues through which to obtain redress or seek effective dispute resolution, and such avenues may be limited.

One challenge is related to the use of artificial intelligence, a key component of digital transformation, which may have negative effects. For example, statistics and information on women and women's perspectives are often excluded from the data sets that underly algorithmic decision-making. Algorithms related to mortgage lending, for example, have been found to offer less than half of available credit limits to women applicants, compared with men applicants with equivalent incomes and in similar geographical locations (Susarla, 2022). In addition, concerns about cybercrime increased during the pandemic due to the greater reliance on digital tools. Pandemic-related scams and phishing campaigns increased as related actors took advantage of the significant switch to online activity. For example, scams increased by 400 per cent in March 2020 and, in 2020, the highest average cost of a data breach, valued at \$8.64 million, occurred in the United States (Sobers, 2021).

Another challenge is linked to growing concentration in the digital market. Major digital platforms provide important benefits in facilitating the access of firms, including microenterprises and small and medium-sized enterprises, to new markets and expanding the offer of products and services to consumers, yet the exponential growth of such platforms, which confers significant market power, can have negative effects on competition. The pandemic has further accentuated such market power and the role of digital platforms in society and the global economy (UNCTAD, 2021n). This issue needs to be considered in formulating policy responses for post-pandemic recovery. A broader concern is that the accelerating pace of digital transformation will result in an even more unequal distribution of benefits within and between countries. Digital and data-related inequalities, asymmetries and power imbalances, both within and between countries, threaten to derail progress towards achieving the Sustainable Development Goals, and require Government actions. There are several dimensions of such inequalities. Gender-based digital divides are often the result of underlying inequalities and gender-related gaps in society. Other dimensions include geography (e.g. urban and rural areas), level of education and digital skills, income, employment status and function, age and ethnicity. Income and social inequalities are increasing globally and digital inequality will follow (Van Dijk, 2021).

3.4 Leveraging digitalization for post-pandemic recovery

As countries gradually and unevenly emerge from the pandemic, a return to business as usual is no longer an option. Work, education, entertainment and communications are likely to be more dependent on digital technologies than before the pandemic. This accentuates the need for public policies that can maximize opportunities and address challenges and concerns related to digitalization, including policies and regulations that ensure that the digital economy works for the benefit of people and the planet. Governments, in dialogue with other stakeholders, need to amplify efforts to enable more people and businesses to make use of digital solutions while at the same time reducing the possible risks and the challenges involved. Policy responses are needed at the national, regional and international levels.

At the national level, Governments are encouraged to:

- Develop public policies to bridge digital divides and build capacities to harness data and digitalization for development. Positive development outcomes do not result automatically unless digitalization is facilitated and supported by appropriate public policies and measures to shape the digital economy in ways that lead to inclusive and sustainable outcomes. Governments may need to prioritize national digital readiness so that more local businesses, including those led by women, can become not only users but also producers and innovators in the digital economy. In order to be able to add domestic value to data and develop the economy, policymakers also need to engage in international processes to ensure more equal outcomes from digitalization.
- Develop holistic approaches to enhance digital readiness and ensure an equal share of benefits. The speed of digital change makes it difficult for policymakers to respond effectively. Moreover, the issues involved in digitalization are cross-cutting in nature and often new to the government departments concerned. Enhancing the digital readiness of Governments, businesses and consumers therefore requires a holistic and whole-of-government approach. For example, an effective framework to protect online consumer data needs joint efforts and coordination and cooperation between government authorities on consumer protection, data protection and competition. Digital economy policies implemented using a silo approach are likely to result in suboptimal outcomes.
- Mainstream gender equality in national digital strategies. This requires making access to digital technology cheap and reliable, developing technologies that are easy to use, making content relevant to women and upgrading women's digital literacy and skills as both users and content creators. Collecting qualitative and quantitative information on difficulties and needs particular to women is also important in enabling countries to develop relevant solutions and responses. The potential gender-related impacts of the use of artificial intelligence and other digital technologies also need to be examined starting at the conception stage, to avoid unintended negative repercussions for women. Full participation by women in policymaking and technical processes related to digital technologies can contribute in this regard.
- Build resilience, during post-pandemic recovery, that involves, inter alia, efforts to make economies more diverse and resilient. Servicification, such as through the incorporation of services in the production of goods and by digitalizing the delivery of services, can be important in this context. Inputs from services to downstream activities can contribute to increasing productivity and competitiveness (UNCTAD, 2017a). Some sectors can leverage digital technologies and data to develop new business opportunities and enhance productivity (UNCTAD, 2022l).

The international community is encouraged to:

- Foster global dialogue and collaboration in areas of relevance to digitalization for development. This may include efforts to design and implement rules for a more inclusive outcome from digitalization and to identify new pathways for the digital economy. Given the urgent need to bridge gaps in digital readiness and the insufficient levels of development assistance in this area, enhanced collaboration among members of the development community is important. Building the capacity of low-income and middle-income countries to participate in and shape the digital economy requires partnerships, to avoid the duplication of efforts and to make effective use of scarce resources. The eTrade for all initiative led by UNCTAD is an example of such a solution.
- Take into consideration the fact that the global sharing of data is essential in developing public goods that can help address major development challenges, such as poverty, hunger and climate change. In this context, global data governance and international cooperation are even more relevant. International organizations and development partners also play a role in enhancing the capacities of developing countries to transform into digital intelligence the raw data generated by their populations. Key in this context is the global digital compact proposed by the Secretary-General of the United Nations (United Nations, 2021b).
- Note that a balanced and holistic global approach to data governance is needed that reflects the multidimensionality of data and engages different stakeholders, since data value chains are global and data protection cuts across different legal areas that tend to act in silos and sometimes compete; legislative frameworks worldwide are varied, making their national application the main legal obstacle to the effective protection of data privacy; and fragmentation and data localization tendencies can hinder development gains from the use of data and widen existing inequalities (UNCTAD, 2021p). Moreover, the increasing global reach, market power and influence of major platforms make the need to strengthen international cooperation on platform regulation and data governance more urgent, as self-regulation has led to business models defined by platforms that predominantly benefit themselves, with various development and policy implications.
- Take into consideration the concentration of market power and emerging issues related to consumer protection. Global responses may be required to regulate the relationships between business users and platforms and prevent abuses of market power by dominant digital platforms. Current market structures incentivize a race to the bottom, whereby businesses that comply with data protection laws are less competitive, leading to fewer choices for consumers and preventing switching. A shift in data harvesting, from an opt-out to an opt-in paradigm, can better align the incentives for fair competition and the effective protection of consumers in a more proactive manner (UNCTAD, 2021r). Greater effort should be made to deliver effective online dispute resolution for consumers, including for cross-border cases. In the area of consumer protection online, UNCTAD has worked with relevant stakeholders and, in 2021, a recommendation was adopted on preventing the cross-border distribution of known unsafe consumer products (UNCTAD, 2021j). In the area of competition in digital markets, UNCTAD is preparing a set of recommendations to assist developing countries in regulating the relationship between digital platforms and microenterprises and small and medium-sized enterprises, to ensure that the latter can fully benefit from the digital economy.

- Scale up financial and technical support for developing countries, in particular the most vulnerable. Resources are needed to help countries meet increasing financing needs at a time when fiscal space is shrinking and debt burdens are growing in low-income and middle-income countries, making the mobilization of domestic resources even more difficult. Current financial support from the international community is far from enough, as shown in recent Aid for Trade commitments. UNCTAD calculations, based on OECD data, show that the share of Aid for Trade resources allocated to the ICT sector increased from 1.2 per cent in 2017 to 2.7 per cent in 2019 and remained unchanged in 2020. The share in recent years has remained below the level of 3 per cent in 2002–2005. Technical assistance and capacity-building from the international community, including, for example, through UNCTAD eTrade Readiness Assessments, e-commerce strategy development and competition and consumer protection policies and frameworks (see UNCTAD, 2020d), are critical in raising awareness of the development implications of data; developing national data strategies; strengthening legal and regulatory frameworks; and helping to ensure the participation of developing countries in regulatory processes and developments at the international level.



CHAPTER 4

DEVELOPMENT FINANCE LANDSCAPE IN TIMES OF THE COVID-19 PANDEMIC

- 4.1 Global financial safety net
- 4.2 Debt and debt sustainability
- 4.3 Foreign direct investment and other private finance
- 4.4 Remittances
- 4.5 Official development assistance
- 4.6 Outlook

As has been seen in the case of previous external shocks, the COVID-19 pandemic has put pressure on the financing possibilities of developing countries. The financing requirements of developing countries to combat the crisis and stabilize the financial situation have been estimated by the IMF at around \$2.5 trillion (Georgieva, 2020). The economic shock developing countries suffered in second quarter of 2020 was unprecedented. Net portfolio outflows from the main emerging economies amounted to around \$60 billion in just one month. This is more than double what these countries experienced in the immediate aftermath of the global financial crisis of 2008/09. The spreads on developing country bonds have risen sharply, currencies have depreciated strongly, exports of developing countries dropped precipitously, and commodity prices also weakened (UNCTAD, 2020e).

What is assessed in this chapter is how the COVID-19 crisis has changed the development finance landscape, and whether the financing gaps of developing countries during the pandemic and the recovery have been covered through support from the international community.¹ Policy recommendations are provided that indicate how the international community could help developing countries to substantially lessen their financing gaps.

4.1 Global financial safety net

To avoid worsening liquidity transforming into a balance-of-payment crisis, developing countries had to rely on the global financial safety net. The global financial safety net comprises the set of institutions, arrangements and agreements on the global, regional and bilateral levels that provide temporary balance of payments finance to countries in temporary financial distress. The main elements of the global financial safety net are conditional and unconditional emergency lending by the IMF, regional financial arrangements and bilateral currency swap arrangements between central banks. The potential financing available from these three sources reached \$3.7 trillion or about 4.5 per cent of world GDP in 2021 (Muehlich et al., 2022).

Regional financial arrangements were the smallest component during the first two years of the pandemic, as they provided only around \$6.6 billion of support to member States. In spite of the small amount, regional financial arrangements were relatively more important to upper-middle income countries and lower-middle-income countries than to countries in other income groups.²

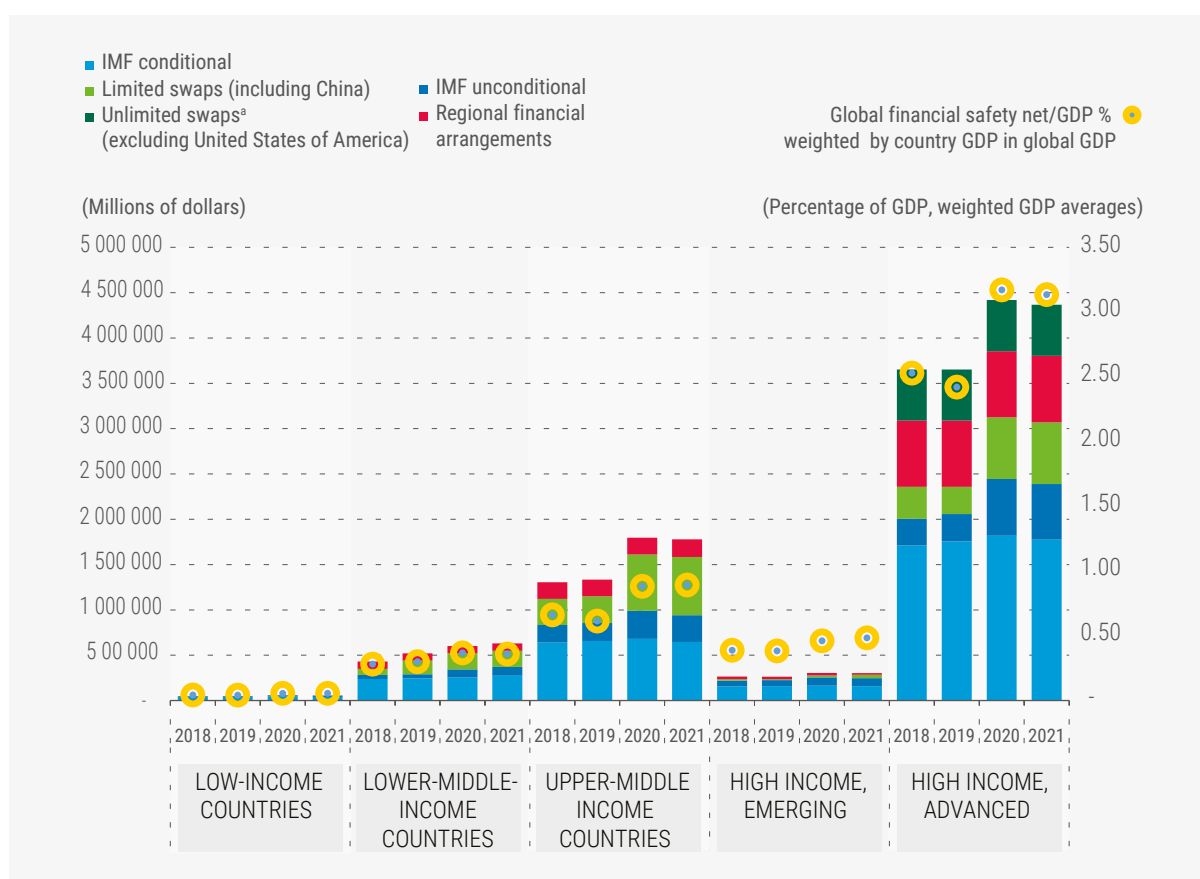
The support from the IMF was much greater, as the institution approved around \$170 billion in new financing. This amount has supported 90 countries, mainly through the precautionary and liquidity line and the flexible credit line. The IMF also provided grants to 31 of the most vulnerable countries through its Catastrophe Containment and Relief Trust, covering debt service to the IMF falling due between April 2020 and April 2022, amounting to around \$1 billion (United Nations, Inter-Agency Task Force on Financing for Development, 2022).

¹ Domestic resource mobilization is presented in chapter 5 where the role of the State is discussed.

² Income group classifications refer to World Bank country group classifications as of 2021 (see <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>). The classification of developing, emerging and advanced economies refers to IMF country classifications (see <https://www.imf.org/external/pubs/ft/weo/data/changes.htm>). The income group of high-income countries includes emerging as well as advanced economies. The income groups of low-income countries and middle-income countries is composed of developing and emerging economies.

Currency swaps have been, by far, the largest component of the global financial safety net response during the pandemic. At their peak in April 2020, the volume of active currency swap agreements was around \$1.7 trillion. This is about \$600 billion more than before the pandemic (Muehlich et al., 2022). While bilateral currency swaps are a relatively cheap source of external finance, the main problem is that they are not available to all central banks in the world. Instead, the central banks of reserve currencies, such as the Federal Reserve of the United States of America, provide them to central banks on the basis of geopolitical and other interests. One consequence of that selective stance has been that low-income and many lower-middle-income countries are systematically excluded from the largest crisis finance element. From the point of view of developing countries, this system is highly inadequate as it reinforces the hierarchical nature of the global dollar access. It requires countries without swap access to maintain inventories of the debt of the Government of the United States.

Figure 4.1
Global financial safety net lending capacity, by income groups



Source: Muehlich et al., 2022.

Note: The group of high-income countries that are classified as “emerging” contains 19 countries consisting of small island developing States, oil producing countries of the Arab region and small Central European countries. The group of advanced high-income countries, in contrast, contains almost twice as many countries comprised of reserve currency issuing economies and the largest economies worldwide. Hence, the economic difference between these two country groups is large and contributes to the enormous difference in the global financial safety net resources available for the country groups.

^a For unlimited currency swap lines, an assumption was made that the previously activated amounts of those swaps should be used as an estimate of their volume. Given the role of the United States dollar as the key currency in the international monetary system, it was assumed that the United States would not need external liquidity and the country was therefore excluded from the estimate (see Muehlich et al., 2022, box 1, for all assumptions).

The current uneven and piecemeal set-up of the global financial safety net contributes to the financial vulnerability of low-income and lower-middle-income countries. Lack of access to global financial safety net on a timely, sufficient and unconditional basis for these countries implies a higher probability of having a liquidity crisis turn into a solvency crisis. After two years of the pandemic, the global financial safety net remains systematically unequal in terms of volume and quality of access to liquidity. As shown in figure 4.1, more vulnerable and poorer countries have fewer choices and reduced access to the necessary support. An alternative would be to establish a rules-based system of multilateral policy coordination where the key element would be a wider global financial safety net, with currency swaps established on a multilateral, not a bilateral, basis (UNCTAD, 2022a).

An important step in the right direction was a new allocation of special drawing rights in August 2021, amounting to \$650 billion. This represents the largest allocation of special drawing rights in history. While this is a significant step forward, there are still important issues to be resolved. Given that special drawing rights are distributed on the basis of IMF quotas, low-income countries have received only \$21 billion (less than 3 per cent of the total). Thus, the countries that need additional resources the most have the least access to them. Developing countries as a group have received 40 per cent of the new allocation. To magnify the impact of the new allocation of special drawing rights, the IMF has suggested to member countries that they voluntarily direct their unused special drawing rights to vulnerable countries. However, this does not guarantee that there will be a sufficient transfer of unused special drawing rights to the countries that need them.

There are currently several proposals for the reallocation of special drawing rights. One proposal is the newly approved IMF Resilience and Sustainability Trust that would potentially finance Sustainable Development Goal-related investment projects in low-income and vulnerable middle-income countries. Another proposal is to allocate special drawing rights to fund the Liquidity and Sustainability Facility launched by the Economic Commission for Africa. A third proposal is to use special drawing rights to enhance the IMF Poverty Reduction and Growth Trust. The fourth proposal is to use special drawing rights to bolster the lending capacity of development banks and regional financing institutions (Economic Commission for Africa–Economic Commission for Latin America and the Caribbean, 2022).

4.2 Debt and debt sustainability

As Governments reacted to the crisis by adopting large stimulus packages,³ global debt levels increased substantially. For example, global public debt reached a level of around 100 per cent of world output in 2021 (United Nations, Inter-Agency Task Force on Financing for Development, 2022). Developed countries increased their debt levels more than developing countries due to their much larger stimulus packages. But debt sustainability deteriorated much more in developing countries.

Even before the pandemic, there were clear signs of deteriorating debt sustainability in many developing countries. Total external debt of developing countries increased from \$6.5 trillion in 2011 to \$11.1 trillion by 2021. The debt-to-GDP ratio for all developing countries (excluding

³ See chapter 5 for data and discussion on stimulus packages.

China) reached 45.4 per cent in 2021, with the ratio for small island developing States⁴ rising to 90.5 per cent. The debt-to-exports ratio for the least developed countries rose to 188.1 per cent in 2021, and for small island developing States, this ratio reached 329.1 per cent on average in 2021, in large part because of the steep decline in tourism and other exports (UNCTAD, 2022f). In 51 developing countries, the debt-to-export ratio stood above the risk threshold of 240 per cent used in the debt sustainability framework of the IMF and the World Bank.

Sustainability risks increased for all countries, but particularly for the least developed countries and low-income countries. According to the IMF and World Bank debt sustainability framework, half of the 69 least developed countries and low-income countries that use that framework were assessed at high risk of debt distress or in debt distress in 2019. In 2022, this proportion increased to 60 per cent, doubling the level of 2015 (United Nations, Inter-Agency Task Force on Financing for Development, 2022). In addition, developing country bond yields have been on the rise since September 2021, a clear sign that inflationary pressures brought the era of abundant liquidity and low interest rates to an end. Access to external financing deteriorated further in the second quarter of 2022 due to uncertainties related to the war in Ukraine. This tightening of financial conditions come on top of the already grim economic situation in many developing countries, burdened by low vaccination rates, slower growth, higher joblessness and rising poverty and famine.

Recognizing the need to help developing countries to bridge financing gaps, finance ministers of the Group of 20 endorsed the Debt Service Suspension Initiative in April 2020. Debt service payment to official bilateral creditors was suspended for eligible countries to bolster their crisis mitigation. There were 73 eligible countries, of which 48 participated in the Initiative. These countries received \$12.9 billion in debt servicing suspension over the duration of the Initiative, until the end of 2021 (World Bank, 2022).

While the intention of the international community to help more vulnerable countries to withstand the shock of the pandemic should be commended, there are several challenges that have to be addressed. First, the expiration of the Debt Service Suspension Initiative at the end of 2021 did not take into account that the pandemic was not yet over. Second, the countries that participated in the Initiative will have to repay their deferred payments between 2022 and 2024. These additions to the servicing of their external debts mean that Initiative-participant countries will have to repay around \$42 billion per year over the next three years (UNCTAD, 2022a). Finally, the number of countries whose financing possibilities were adversely impacted by the pandemic is much greater than the list of Initiative-eligible countries. Many middle-income countries encountered problems similar to those of the least developed countries and low-income countries but were side-stepped in terms of international support. For example, while 13 small island developing States benefited from the Initiative, this represents only 22 per cent of the countries in this highly vulnerable country grouping.

As this debt-servicing respite was only temporary, the Group of 20 and the Paris Club endorsed the Common Framework for Debt Treatments Beyond the Debt Service Suspension Initiative in November 2020. The Common Framework aims at coordinating the debt restructuring undertaken by official and private creditors, extending the scope beyond the debt deferral of the Debt Service Suspension Initiative. In addition to incorporating private creditors, it also intends to incorporate non-Paris Club member lenders, and to ensure fair burden sharing

⁴ Based on the list of small island developing States provided by the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, including members and non-members of the United Nations (<https://www.un.org/ohrlls/content/list-sids>).

across all creditors. In spite of the fact that the Initiative ended in 2021, the uptake and implementation of the Common Framework has been disappointing, with only three countries so far starting the process.

The main lesson learned is that debt vulnerability is an issue that has not received adequate attention and that a more ambitious policy agenda is needed. Besides the small and insufficient amounts provided to developing countries to bridge their financing gaps during the pandemic, there are broader issues of reforming the debt architecture. The existing sovereign debt architecture is ill-suited to address a systemic crisis (UNCTAD, 2020g). The Common Framework is a small step forward, but not a substitute for a comprehensive debt restructuring mechanism (United Nations, Department for Economic and Social Affairs, 2022). What is required is a revitalization of a multilateral debt resolution framework in line with the basic principles for sovereign debt restructuring process that the United Nations General Assembly approved in its resolution 69/319 in 2015 (United Nations, 2015a). It should be based on the concept of debt sustainability that incorporates the financing requirements for developing countries to recover from the pandemic, achieve the Goals, and implement climate mitigation and adaptation strategies.⁵ UNCTAD has proposed three principles for a comprehensive solution of the debt problems of developing countries: (a) make automatic temporary standstills longer and more comprehensive; (b) adopt debt relief and restructuring programmes that would restore long-term debt sustainability; and (c) establish an “international developing country debt authority” to oversee the implementation of temporary standstills and debt restructuring programmes (UNCTAD, 2020g).

4.3 Foreign direct investment and other private finance

As has been the case with previous external shocks, private finance has been more volatile than other types of finance during the COVID-19 pandemic. As mentioned earlier, in just one month, portfolio outflows from main emerging market economies reached \$60 billion at the height of the uncertainty in the second quarter of 2020. In 2020, foreign direct investment recorded a steep fall of 35 per cent, reaching \$963 billion, less than half of the peak in the middle of the last decade when it reached around \$2 trillion. Moreover, the fall in foreign direct investment in 2020 was greater than the fall during the global financial crisis a decade earlier, and also much greater than the respective fall in trade and GDP in 2020. While foreign direct investment in developing countries declined much less than in developed countries, the average for developing countries conceals large geographical disparities. In 2021, foreign direct investment rebounded strongly, reaching \$1.58 trillion and exceeding pre-COVID-19 levels. Foreign direct investment flows thus continue to be an important source of external finance for developing economies, together with other cross-border flows. The large rebound of foreign direct investment in 2021 was possible partly because of a booming merger and acquisition markets and rapid growth in international project finance as a result of loose financing conditions and major infrastructure stimulus packages. The swift and profound macroeconomic policy support, with both fiscal and monetary instruments, helped stabilize the economy and calm the markets.

Despite the fact that the number of greenfield projects rebounded in 2021 (11 per cent), they remained below the pre-pandemic level. Greenfield projects in the primary sector and

⁵ A more detailed discussion can be found in the *Trade and Development Report 2019: Financing a Global Green New Deal* (UNCTAD, 2019a).

in manufacturing, both essential for structural transformation in developing economies, have been particularly slow in recovering to previous levels. Given the importance of greenfield projects for the increase of productive capacity in developing countries, this is of much concern. In particular, the pandemic has revealed the global febleness of pharmaceutical sectors in developing countries. Policies tailored to attract and retain foreign direct investment in strategic sectors, including those that are crucial for public health, will have to be much higher on the agenda of policymakers in developing countries (United Nations, Inter-Agency Task Force on Financing for Development, 2022).

At the upstream end of investment, the global market for sustainable financial products (funds and bonds) grew to \$5.2 trillion in 2021, up by 63 per cent from 2020. The pandemic has brought into focus the threats from environmentally related risks and their material impact on investors. This has accelerated moves to decarbonize portfolios by institutional investors, such as pension funds, and put in place environmental disclosure requirements by stock exchanges (UNCTAD, 2022b).

Even if foreign direct investment stock is relatively stable, private finance tends to have procyclical effects in developing countries and thus puts an even greater burden on other forms of finance to compensate for these adverse effects. The shock of the COVID-19 pandemic confirmed this lesson learned from previous crises but as yet has not resulted in the policy action needed to remedy the situation. Two possible and complementary actions can be envisaged. First, changing incentives to move from short-term to longer business horizons is needed to make private business and financial markets more resilient and sustainable. This will require several changes, including to corporate governance (United Nations, Inter-agency Task Force on Financing for Development, 2021). This is especially important for channelling investment into activities and projects with positive sustainable development impact.

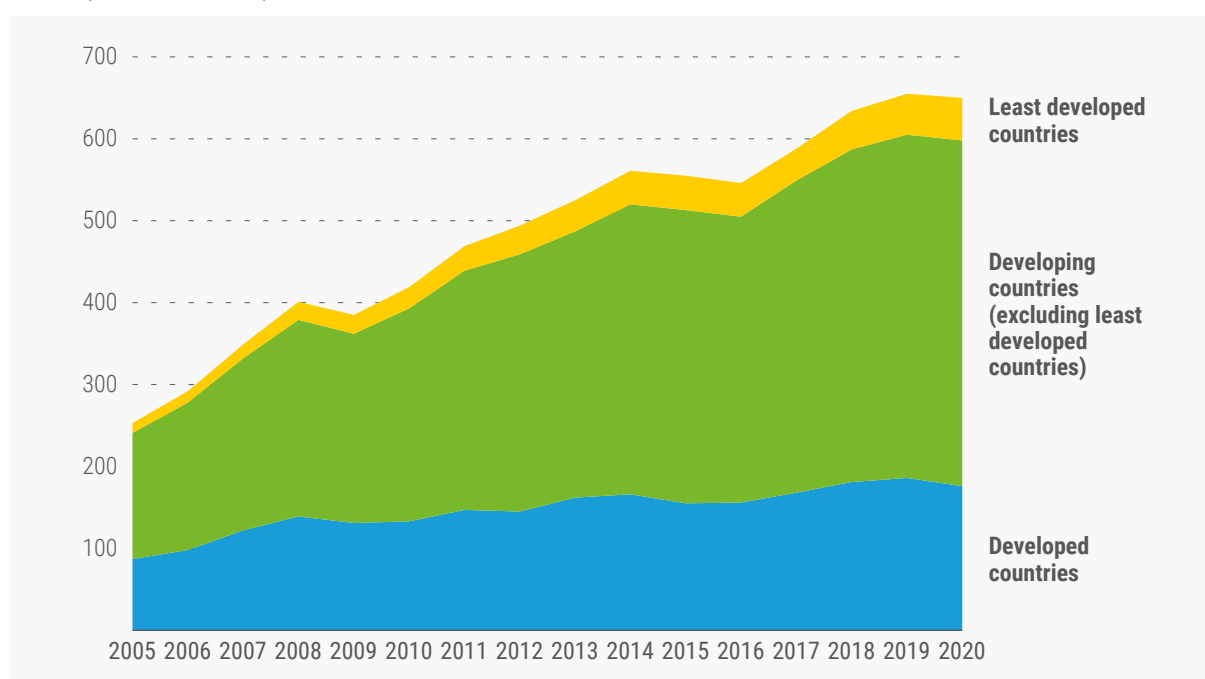
Second, international investors, at both the upstream and downstream ends of the investment chain, often cite macroeconomic conditions, as well as political risks and weak regulatory frameworks, as some of the main obstacles to investing in developing countries (United Nations, Inter-Agency Task Force on Financing for Development, 2022). Another obstacle is the lack of investable projects, often at a suitably large scale. While national Governments, investment promotion agencies and even regional institutions can adopt measures to partially mitigate these risks, a large part of the response is outside the scope of individual countries. Post-pandemic, developing countries will need support to attract and facilitate investment and ensure that it contributes positively to sustainable outcomes. With the cascading problems stemming from the war in Ukraine, there is a risk that developing countries will not receive the necessary support.

4.4 Remittances

Migrant remittances quadrupled in the past two decades, reaching \$651 billion, or 0.78 per cent of global GDP in 2020 (figure 4.2). Preliminary estimates suggest that remittances grew 8.6 per cent in 2021. The inflows of remittances grew the most in developing countries and the least developed countries, reaching \$422 billion and \$52 billion, respectively, in 2020 and making them one of the largest sources of development finance. For comparison, in 2018 in countries eligible for official development assistance, remittances represented 26 per cent of total inflows of external finance, while official development assistance and foreign direct investment amounted to 15 per cent and 31 per cent, respectively (OECD, 2020a). Second,

remittances are resilient in times of crises and may have a small countercyclical effect. Their flow generally increases when the home countries of migrants experience economic downturns or other crises. Furthermore, remittances reach countries where they are most needed, given that the least developed countries are the biggest recipients of remittance in relative terms (as a share of GDP). Remittances are also found to help reduce poverty and inequality (Azizi, 2021).

Figure 4.2
Migrant remittances, as inflows
 (Billions of dollars)



Source: UNCTAD calculations, based on data from the World Bank Development Indicators.

Yet, remittances also have downsides. The outflow of migrants can reduce human capital in home countries (see a review in Docquier and Rapoport, 2012), migrants may experience hardship in host countries, and countries that strongly rely on a single corridor become vulnerable to shocks in the host country of migrants. For example, the remittances of Tajikistan account for a quarter of its GDP, and are sent mostly from the Russian Federation, exposing Tajikistan to the shocks experienced by that host economy.

The COVID-19 pandemic slowed down the flow of remittances but to a smaller extent than expected. In 2020, migrants sent \$26 billion, or 1 per cent less than in 2019, while the global economy has contracted by more than 3 per cent (UNCTAD, 2022a). According to the World Bank Group and Global Knowledge Partnership on Migration and Development (2021), remittances proved to be resilient throughout the pandemic because migrants reduced their consumption in their host countries to keep helping families in their home countries. Countercyclical fiscal policy in host countries also helped migrant workers in preserving their income.

Given the importance of remittances for development, their resilience during crisis, and the fact that they act as social safety net in the home countries of migrants highlights the need for

supportive policy. For instance, host countries should include migrants in their COVID-19 policy response to protect them and also support their economic contribution. Vaccination against COVID-19 should be available to the entire population. Restricting access to vaccines to any group makes everyone else more vulnerable to surges in infections. Furthermore, the cost of sending remittances remains much above the 3 per cent target of Sustainable Development Goal 10.c. According to the World Bank, this cost can be as high as 20 per cent and was on average 7.5 per cent in 2020. A reduction in fees can be achieved by supporting remittances infrastructure through, for instance, promoting entry and competition among financial services providers, harnessing the power of digital technologies, particularly in providing accounts to migrant populations and applying a risk-based rather than a rules-based approach to small-value transactions (United Nations, Inter-Agency Task Force on Financing for Development, 2022; World Bank Group and Global Knowledge Partnership on Migration and Development, 2021).

4.5 Official development assistance

Official development assistance by member countries of the Development Assistance Committee reached a new high in 2021, amounting to \$178.9 billion. The increase was mainly driven by vaccine donations and other COVID-19-related financing. Between 2020 and 2021, total official development assistance rose by 4.4 per cent in real terms, or by 0.6 per cent if the costs of vaccines are excluded (OECD, 2022b). Despite the global economic contraction, 23 out of 29 donors disbursed more funds in 2021 than in 2020, confirming that official development assistance in general remains relatively stable during crises (Ahmad et al., 2020).

Yet, most donors fell short of their official development assistance commitments under Sustainable Development Goal 17.2, with total official development assistance representing 0.33 per cent of the combined gross national income of donor countries. Only five countries (Denmark, Germany, Luxembourg, Norway and Sweden) disbursed more than 0.7 per cent of their gross national income as official development assistance in 2021. Yet, official development assistance is particularly important given the COVID-19 induced reduction in other foreign resource flows and the contraction of domestic resources in light of the slowing down of the recipient economies.

Official development assistance continues to be an essential source of external finance for developing countries that are less able to attract foreign direct investment and do not have large diasporas who send home remittances. The most aid dependent are smaller and more vulnerable countries, including many least developed countries (UNCTAD, 2020a). Without additional measures, the latter will continue to face a substantive gap in financing, including investment required to reach the Sustainable Development Goals. The least developed countries would require \$485 billion annually to eradicate extreme poverty by 2030 and \$1,051 billion annually to promote inclusive and sustainable industrialization aiming at doubling the share of industry in output in accordance with Goal 9.2 (UNCTAD, 2021g).

It is thus important that donor countries meet their official development assistance commitments. In the short term, it is important to fulfil commitments under the Access to COVID-19 Tools Accelerator (United Nations, Inter-Agency Task Force on Financing for Development, 2022) and to make available rapid financing instruments from the IMF and the World Bank. The new challenges facing donor countries, such as economic stagnation and cascading crises, will play a role in the budgetary trade-offs these countries have to make. Official development

assistance increasingly includes funding that does not leave the donor country and supports populations in developing countries outside their territory, such as support for refugees within 12 months of their arrival in destination countries or the production and delivery of COVID-19 vaccines. However, the pre-existing needs of recipient countries are also growing due to the consequences of the same shocks and crises. Similarly, increasing debt relief initiatives should not crowd out existing aid budgets. Finally, grants should be prioritized over loans, given the pressure that the COVID-19 pandemic, the debt crisis and rising inflation are putting on the budgets of developing countries. This reflects the difficult trade-offs of official development assistance.

In terms of beneficiaries, recipients of official development assistance should be able to take a more active role in defining priorities to be addressed by external aid and aligning donor support with national development plans. This, in turn, requires strengthening State capacities and coordination. Also, the voice of the least developed countries and other vulnerable country groups should be reinforced in multilateral forums, while traditional donors and emerging actors should commit to transparency and avoid practices that disempower the State (UNCTAD, 2019b). Finally, the least developed countries and other developing countries should have space to harness aid from multiple development partners in line with their national priorities.

4.6 Outlook

Faced with the COVID-19 pandemic shock, developing countries have struggled to provide adequate support to their economies. Fiscal support measures have increased public debt in many developing countries to unsustainable levels. Other forms of financing, particularly private components, have diminished, and have only been partly compensated by support measures of the international community. The global financial safety net provides systematically unequal access to liquidity for countries in different income groups. The financing needs of developing countries remain very high and call for profound changes in the global financial architecture.⁶

The recent increase in inflation in advanced economies has prompted the process of reversing the stimuli adopted to counter the COVID-19 crisis. A more restrictive fiscal and monetary stance will reduce economic activity in advanced economies and weaken global demand. Developing countries will thus face additional constraints to demand and a worsening of their balance of payment.

The war in Ukraine has caused an additional deterioration of the financing landscape and has added food and energy challenges to the already bleak outlook. In advanced economies there may likely be a diversion of public funds to defence and the humanitarian response, including the management of large migration flows. This might affect official development assistance (and foreign direct investment leveraged through official development assistance) and the planned post-COVID-19 infrastructure and Sustainable Development Goal project finance packages that were expected to boost global investment in sustainable recovery over the coming years. In view of the deteriorating access to financing, the international community should do much more to address the above-mentioned issues.

⁶ For more information on how to reform the international financial architecture, see UNCTAD, 2015, and Gallagher and Kozul-Wright, 2022.

CHAPTER 4: Development finance landscape in times of the COVID-19 pandemic

The United Nations Secretary-General's report *Our Common Agenda* (United Nations, 2021a), as well as the UNCTAD proposal to the international community to adopt a comprehensive package of reforms under the heading of a global green “New Deal” (UNCTAD, 2017b; UNCTAD, 2019a), point to the necessary reforms of the global financial architecture to provide the basis for achieving the internationally agreed goals contained in the Addis Ababa Action Agenda, the 2030 Agenda for Sustainable Development and the Paris Agreement. These reforms have to be linked to a new social contract, more resources and more policy space for the State, as well as more international cooperation and solidarity, as discussed in the following chapter.



CHAPTER 5

RENEWED ROLE OF THE STATE AND INTERNATIONAL COOPERATION

5.1 Availability of resources and State capacity

5.2 Trust and social contract

5.3 International cooperation and solidarity

The COVID-19 crisis highlighted the pivotal role of the State, both at the national and international levels. In this chapter, the discussion is focused on the implications of the crisis for the role of the State and the need for international cooperation in the post-pandemic recovery. The discussion is structured around three pillars to enable the State to effectively steer the recovery and increase resilience, namely: the availability of resources and State capacity; the social contract and trust; and international cooperation and solidarity.

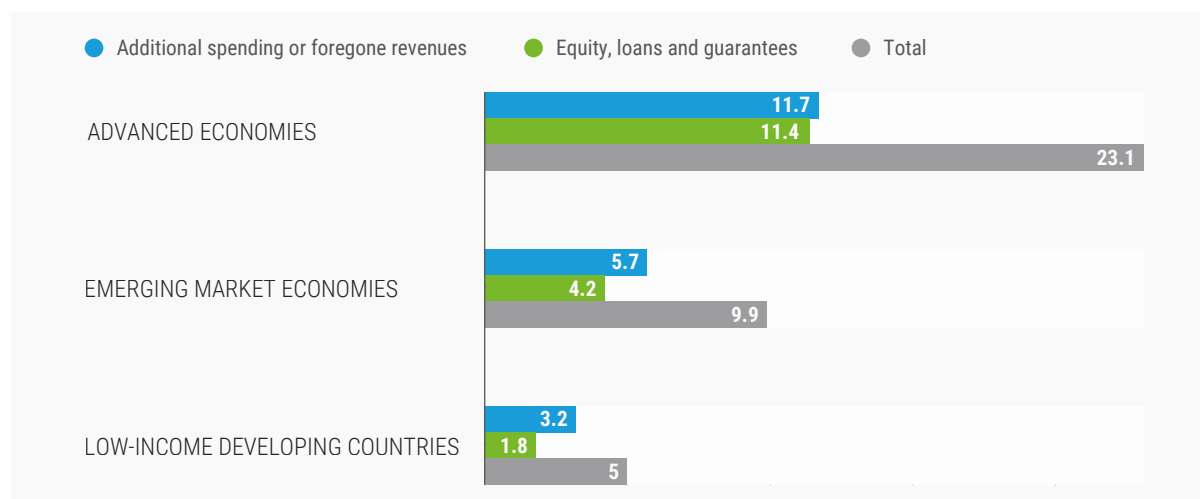
5.1 Availability of resources and State capacity

The role of the State has been essential in responding to the pandemic. Faced with a simultaneous shock to both aggregate demand and aggregate supply, Governments in developed countries adopted a “whatever it takes” approach and implemented unprecedented measures, in dealing with and recovering from the crisis, to protect the productive capacity of their economies and incomes of people.

Government responses to the shock caused by the pandemic were unprecedented in swiftness and scale. In countries where domestic public resources allowed these policies to be fully implemented, they greatly attenuated the worst effects of the pandemic and shielded both households and firms from much greater and longer-lasting difficulties. For example, cash safety nets helped reduce food insecurity during the pandemic (Dasgupta and Robinson, 2022), while firms benefiting from wage subsidies were less likely to lay off workers (Cirera et al., 2021). Stimulus packages also contributed to the stabilization of financial markets after the initial volatility and contagion at the onset of the pandemic.

Nevertheless, the ability of countries to extend emergency assistance depended largely on their available resources, with Governments in developed economies typically disposing of a greater fiscal space. Only countries with greater fiscal space can respond countercyclically to an exogenous shock like the COVID-19 pandemic. This difference in the response capacity between developed and developing economies is illustrated in figure 5.1. In advanced economies, the sum of the additional spending or foregone revenue plus the liquidity support (equity injections, loans, asset purchases and debt assumptions) reached on average 23 per cent of GDP. This is more than double what the emerging market economies could afford (9.9 per cent of GDP) and 4.5 times larger than the support provided by low-income countries, which are the most vulnerable to external shocks. Asymmetries are even greater in per capita terms. For instance, in 2020, African countries spent only \$28 per capita on fiscal stimulus measures, compared to \$629 in Europe and \$4,253 in North America (Economic Commission for Africa, 2022).

Figure 5.1
Magnitude of fiscal stimulus measures announced in response to COVID-19 outbreak, January 2020 to September 2021
 (Percentage of GDP)



Source: Database of Country Fiscal Measures in Response to the COVID-19 Pandemic (IMF, 2021b).

Notes: Based on IMF data that covers announced, not actual, measures. UNCTAD (2021i) presented an ex post assessment for selected countries and found substantial differences between the announced and actual size of the COVID-19 fiscal stimuli measures in 2020. As for many countries there are no data on the actual size of fiscal stimuli, the figure is based on announced packages.

In addition to significant differences in discretionary fiscal measures between developed and developing countries, there are also substantial differences in relation to the extent to which automatic fiscal stabilizers were used.⁷ Given the smaller safety nets and larger informal sectors in developing countries, their automatic fiscal stabilizers were much weaker than those in developed countries and therefore could provide less countercyclical support to the economy. The consequence is that, in developing countries, households have to shoulder much more of the burden of shocks such as the pandemic. This has particularly adverse impacts on women, as they are more likely to lose their jobs and assume even more responsibilities for care activities and, thus, are at a higher risk of dropping out of the labour market and school.

All Governments felt the pressure on budgets from the public health crisis but in developing countries they faced much more severe choices in allocating their scarce resources, to respond adequately to the COVID-19 health crisis; support the economy; cushion the impact of rising food and fuel prices on incomes of households; or invest in long-term development priorities, such as infrastructure, structural transformation and the Sustainable Development Goals. In many of these countries, the adverse impacts of climate change and worsening debt crises further constrained resource allocation decisions. Limited fiscal space and weaker health-care and social protection systems made this external shock in developing countries much more costly in terms of human suffering and economic damage.

The divergence in policy responses to the COVID-19 shock between developed and developing countries also resulted in a differentiated pace for economic recovery. The uneven growth trends are likely to continue in 2022 and looking forward (UNCTAD, 2022a).

⁷ Automatic fiscal stabilizers are non-discretionary fiscal instruments that have countercyclical effects on aggregate demand by increasing or decreasing the disposable income of households. For example, unemployment benefits automatically kick in for the unemployed during a recession, thereby not reducing the aggregate demand as much as would be the case without the existence of unemployment benefits.

Beyond the availability of resources, steering a country out of a crisis as complex as the COVID-19 pandemic requires strong State capacities, such as the ability to create safety nets, manage public funds, digitalize and foster partnerships. Recent research finds that the difference in infection cases across countries can be explained by the nature and timing of policy responses (Ambaw et al., 2021), and that government effectiveness is one of the key factors in determining vaccine roll-out (Tevdovski et al., 2021). It is a positive sign that in the first year of the pandemic, government effectiveness increased in most developing countries. According to the Worldwide Governance Indicators (World Bank, 2021), between 2019 and 2020, government effectiveness improved in 65 per cent of the least developed countries and 54 per cent of developing countries.⁸

The COVID-19 pandemic has shown that only the State has the capacity to deal with systemic shocks and that responses cannot be left to the markets. The State must have the resources and capacities necessary to do the job properly. Strong institutions and the availability of resources are thus a prerequisite at all income levels to prepare for future shocks.

In the long run, building a more resilient economy and society will require an overhaul of the fiscal systems in many developing countries. More diversified economies are more resilient to shocks and at the same time provide a broader tax base on which a stronger fiscal system can be built. Therefore, structural transformation and building productive capacity should be priority. This would also enable countries to adopt universal social protection systems, which play a pivotal role in crisis situations. Governments of developing countries should aim at increasing the proportion of GDP they raise in tax revenue through, for example, the better targeting of mining and oil companies and real estate and by more actively and progressively taxing the income and assets of wealthy citizens, increasing excise taxes on alcohol and tobacco, and increasing the transparency and efficiency of tax administration through the use of ICT (Moore and Prichard, 2017).

Short-term measures to increase the availability of resources in developing countries inevitably have to rely on international support and cooperation. The proposals developed in chapter 4 on financing for development issues are also pertinent to this section. Domestic public resources can also be boosted by enhancing international tax cooperation. There is significant scope to strengthen domestic public resources in developing countries by combating illicit financial flows. For instance, the tax-motivated component of illicit financial flows (including profit shifting and tax evasion), on average, amounts to about 2.3 per cent of GDP in both Latin American and African countries (UNCTAD, 2020c).⁹ The proposals contained in the Inclusive Framework on Base Erosion and Profit Shifting of the OECD and Group of 20 aimed at the redistribution of taxing rights in the world economy are important but still under discussion. Pillar one includes digitalization and globalization issues, while pillar two includes minimum tax rules at the international level to protect national tax bases and limit tax competition (United Nations, Inter-Agency Task Force on Financing for Development, 2022).

⁸ The Worldwide Governance Indicators measure government effectiveness through perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation and the credibility of a Government's commitment to such policies.

⁹ Illicit financial flows can be divided into two components. A tax-motivated component and a component resulting from criminal activities, such as organized crime. The first component amounts to about two thirds of illicit financial flows and the second, to one third of these flows.

5.2 Trust and social contract

In their interventions to confront the COVID-19 pandemic, many national Governments placed the welfare of their citizens before the special interests. This represents a hopeful sign that there might be a move towards a new social contract that is sorely needed to overcome the vulnerabilities and inequalities inherent in the current global order.

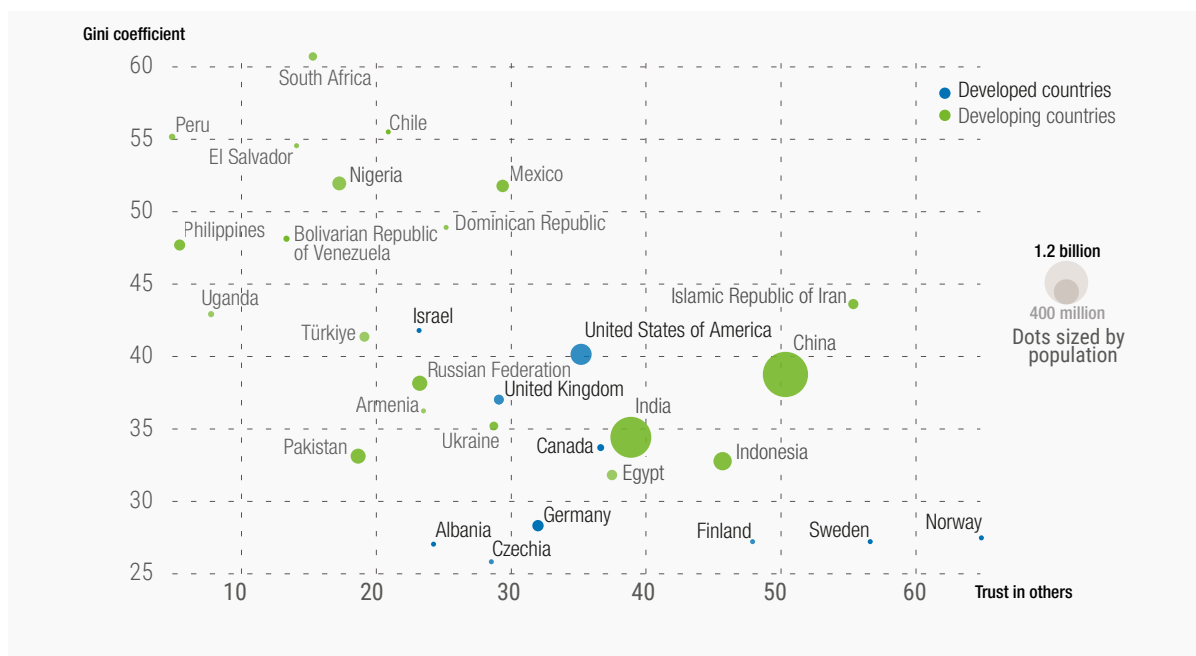
But it was evident even before the COVID-19 pandemic that the world needed a new path. That is why the international community adopted the Addis Ababa Action Agenda, the 2030 Agenda for Sustainable Development and the Paris Agreement in 2015. The 2030 Agenda for Sustainable Development is clear: “We are determined to take the bold and transformative steps which are urgently needed to shift the world on to a sustainable and resilient path” (United Nations, 2015b). In effect, this represented a call for radical reforms to reverse the policy direction of the last four decades and establish a new social contract that works for all.

Economic inequality had been recognized as a particularly important obstacle for repairing the social contract on which inclusive and sustainable outcomes can emerge. Economic inequality has been steadily rising over the last four decades and has further increased during the pandemic (Institute for Policy Studies, 2021; *The New York Times*, 2020; and *The Guardian*, 2020b). According to Chancel et al. (2022), the top 1 per cent of the world population captured 38 per cent of all additional wealth accumulated from 1995 to 2021, while the bottom 50 per cent received only 2 per cent of it. The increase in inequality has eroded trust in institutions, in democracy and in the State, and in their ability to deliver just outcomes. Citizens got the impression that the system was rigged and only worked for those at the top (Stiglitz, 2013). This resulted in populist backlashes in many countries. In 2019 alone, there were protests and civil unrest in a quarter of all countries in the world (*The Guardian*, 2020a).

Economic inequality has a corrosive impact on trust in society. As figure 5.2 shows, interpersonal trust is inversely correlated with income inequality. As individuals lose trust that others in society will do what is good not only for them, but also what is good for the whole community, their level of compliance with rules, laws and government measures diminishes. An analysis of contextual factors with regard to the impact of COVID-19 in 177 countries showed, among other things, that higher levels of trust, both trust in Government and interpersonal trust, had large, statistically significant associations with fewer infections (COVID-19 National Preparedness Collaborators, 2022). With a contagious disease such as COVID-19, following rules, trusting institutions and complying with government regulations and recommendations is of the utmost importance if the international community wants to minimize the adverse effects in terms of economic costs and human suffering.

The pandemic reinforced the call for a new social contract to better respond to future challenges – a new social contract that rebalances the relationship between capital, labour and nature, a contract that rebalances the relationship between the State and the markets, between the public and private interests and between globalization and national authority. Inequality and economic instability have to be reduced if the world wants the new social contract to lead to a more stable and just society. The international community must also promote global public goods such as a stable climate, clean air, biodiversity, stable global macroeconomic conditions and global cooperation, all of which have experienced rapid deteriorations. This vision is reflected in the United Nations Secretary-General’s *Our Common Agenda*, as well as in the ongoing work at the United Nations to value economies beyond GDP.

Figure 5.2
Interpersonal trust versus income inequality*
 (Percentage)



* Interpersonal trust (share of people reporting that “most people can be trusted” in the World Values Survey) against income inequality by Gini index (higher values reflect more inequality).

Source: World Values Survey (2014) and World Bank data for 1995–2005; one year is reported for each country depending on data availability.

Notes: Trust in others is self-reported and constructed as the number of people responding to the question, “Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?” Possible answers include, “Most people can be trusted”, “Don’t know” and “Can’t be too careful”.

A more progressive tax system is an important element. It would increase fiscal revenues and thus the availability of resources for the State. It would enable financing of public services that treat every citizen equally, particularly in the areas of health, education and pensions.

Furthermore, policymakers need to rebalance the priority given to short-term efficiency and longer-term resilience. This will allow for better planning for a pandemic, a climate emergency or any other unforeseen disaster.

The focus should be on building a world with more resilient individuals, households, firms and economies. Systemic sustainability should be the strategic imperative for the future. Public health has to be seen as an investment in the future. That is the only way to be prepared for another pandemic. One important lesson of the COVID-19 pandemic is that preventing the spread of disease spares lives and improves well-being, but also saves jobs and minimizes economic disruption.

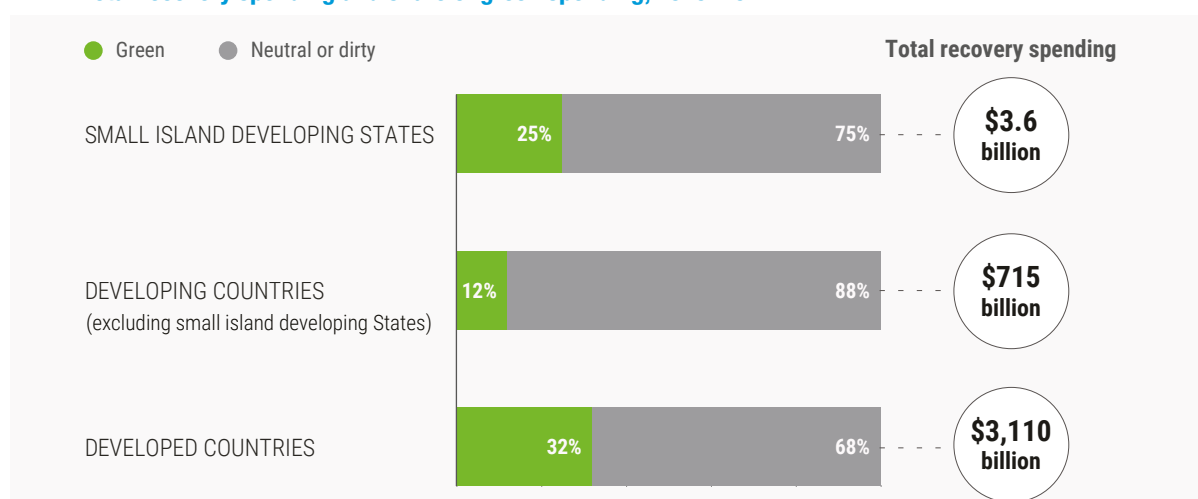
More generally, the COVID-19 recovery efforts and a more prominent role for the State can help to reorient policies towards more sustainable, inclusive and productive development strategies. In responding to the unprecedented scale of the pandemic’s impacts, Governments resorted to extraordinary policies, including sanitary measures, emergency assistance programmes and economic stimulus packages. Although many of these policies are temporary, some will have transformative effects. The degree to which countries can orient these policies towards

long-term national objectives, and use them to drive structural change, can therefore be a positive opportunity amid the disastrous effects of the pandemic.

Opportunities are also provided by the post-pandemic recovery measures. Stimulus packages can be structured to offer an extraordinary boost to transformative priorities. Conditions for the investment and consumption components of these packages can favour, for example, renewable energy generation and distribution infrastructure, green mobility solutions and sustainable agricultural practices. Grants and loans can support water and energy-efficient retrofits to housing stock and industry and favour entrepreneurs and businesses in priority industries, such as clean energy and medical supplies. Exceptional programme spending can be an opportunity to break away from unsustainable policies, such as fossil fuel subsidies, towards policies that boost resilience, such as social protection and income diversification programmes.

To showcase exemplary policy solutions, and to increase transparency on government spending and maximize the impact of stimulus packages, the Oxford University Economic Recovery Project created the Global Recovery Observatory. This observatory gathers policies and assesses them for potential environmental impact (greenhouse gas emissions, air pollution and natural capital) and social impact (wealth inequality, quality of life and rural livelihood). According to these data, in 2020–2021, out of the \$3.8 trillion of total recovery spending analysed, green spending amounted to \$0.97 trillion, or 31.2 per cent of the total (O’Callaghan, B. et al., 2021). But the averages mask important differences across countries. Developing countries, on average, allocated a smaller share of their recovery spending to initiatives with positive environmental impact than developed countries, at 12 per cent and 32 per cent, respectively (figure 5.3). Small island developing States are a notable exception, as they dedicated one quarter of their recovery packages on green initiatives, such as ecotourism, building upgrades, energy efficiency infrastructure and climate change adaptation and resilience. This reflects the priority given by small island developing States to environmental concerns, as these economies are on the forefront of climate change-induced shocks.

Figure 5.3
Total recovery spending and share of green spending, 2020–2021



Source: UNCTAD secretariat calculations based on the data from the Global Recovery Observatory, Oxford University Economic Recovery Project (O’Callaghan, B. et al., 2021).

Note: Sample includes 15 small island developing States, 37 developing countries (excluding small island developing States) and 51 developed countries. The period under consideration is from 1 January 2020 to 8 December 2021.

The analysis of the Global Recovery Observatory focuses on recovery, and thus more long-term spending. Nahm, Miller and Urpelainen (2022) provide an analysis based on the total COVID-19 related spending in Group of 20 countries and found that, in 2020–2021, only 6 per cent of total stimulus spending contributed to cutting emissions, that is, \$860 billion out of the \$14 trillion committed.

Regardless of the choice of methodology, the amount of green funding is far from the investment necessary to put the world on track towards net zero emissions and limit warming to 1.5°C. Lessons learned so far suggest that more transparency and ex ante evaluation of stimulus measures are necessary, given that many government-supported initiatives are likely to have a negative or mixed effect on the environment. Furthermore, Governments need to better ensure coherence between short-term objectives, for example, stimulating income and growth, and longer-term commitments, such as nationally determined contributions submitted under the Paris Agreement. Finally, the transition to the green economy needs to be equitable, creating quality jobs, which in turn requires a greater focus on structural transformation (OECD, 2021a).

5.3 International cooperation and solidarity

The pandemic has slowed progress towards the Sustainable Development Goals and highlighted the interdependencies and vulnerabilities in the global economy, underlining the need for renewed multilateralism, new approaches for development and stronger international cooperation and solidarity. This is key for managing the COVID-19 pandemic and addressing other global challenges, such as climate change and conflict, amidst a worsening economic outlook and mounting food insecurity.

While decision-makers around the world acknowledge that building the resilience of the global system to shock and protecting the most vulnerable is a shared responsibility and the only feasible way forward, the action does not follow the intent. Two examples – the intellectual property rights in relation to COVID-19 vaccines and the current international financial architecture – point to a gap in action in international cooperation.

The COVID-19 crisis showed the need for a coordinated, global strategy to overcome this crisis but that international cooperation with regard to COVID-19 vaccines, therapeutics and diagnostics was insufficient. In efforts towards an effective response to COVID-19, the ultimate goal is not only to produce a safe and effective vaccine, but also to bring the pandemic to an end. That can happen only after billions of doses are produced affordably and made available to everyone.

An important factor in support of adequate supply and equitable distribution of vaccines, medicines and medical technologies is to remove some of the barriers created by intellectual property rights in the area of technology transfer and to encourage cooperation among manufacturers and research groups. This could enable the simultaneous production by multiple manufacturers of safe and effective vaccines and treatments when they emerge.

Towards this end, in October 2020, India and South Africa tabled a joint proposal at the WTO on waivers from certain provisions of the Trade-Related Aspects of Intellectual Property Rights Agreement aimed at the prevention, containment and treatment of COVID-19. These specific provisions included patents, industrial designs and copyright and protection of undisclosed

information, i.e. “trade secrets” (see sections 1, 4, 5, and 7 of part II of the Agreement). This waiver could contribute to intellectual property rights not restricting the rapid scaling up of manufacturing and not hindering equitable and affordable access for vaccines and treatments throughout the globe.

As new diagnostics, therapeutics and vaccines for COVID-19 have been developed, there have been significant concerns about how to make them available promptly, in sufficient quantities and at affordable prices, to meet global demand. Research has demonstrated the risk of intellectual property rights hindering the timely provision of affordable medical products to patients (Crager, 2018). Some WTO members have also carried out urgent legal amendments to their national patent laws to expedite the process of issuing compulsory/government-use licences.

Some progress on the Agreement waiver has been made after more than a year of negotiations. In May 2022, India, South Africa, the United States and the European Union shared an outcome document from their quadrilateral discussions on intellectual property COVID-19 response. The negotiations are still ongoing, and more clarity is expected at the Twelfth Ministerial Conference of the WTO.

While there have been multilateral efforts at the WHO to initiate a technology access pool for addressing the constraints of developing countries in recovering faster from the pandemic, so far, no intellectual property holder has shown a willingness to commit to the COVID-19 Technology Access Pool launched by Costa Rica and WHO. This indicates the limitations of relying on voluntary measures and provides further evidence of the need for a waiver and of the limited and inadequate multilateral response to this crisis.

The second example of insufficient collaboration is the current international financial architecture, as discussed in chapter 4. During the pandemic, the need of developing countries for external liquidity support has increased greatly, while their representation in international financial institutions and their decision-making power remain very limited, particularly in the case of the least developed countries. More inclusion in international financial decisions would likely lead to more equitable progress on changes in special drawing rights allocations, currency swaps and debt relief related to the pandemic, and in general on the financing demands of the 2030 Agenda for Sustainable Development.

In conclusion, the COVID-19 pandemic has further exposed the weaknesses in the structure of the international social and economic order, with direct implications for the role of the State and international cooperation. It may be a once-in-a-lifetime opportunity to remake society for a better future. The vision is there: the Addis Ababa Action Agenda, the 2030 Agenda for Sustainable Development and the Paris Agreement. Many tools are also available and can be activated. While there have been some profound changes in certain aspects, more action is needed to succeed in promoting and implementing that vision. This is particularly so, as the international community is faced with a succession of crises and cannot afford to return to business as usual.

REFERENCES

- Ahmad Y, Bosch E, Carey E and Donnell IM (2020). Six decades of ODA: insights and outlook in the COVID-19 crisis. Available at <https://www.oecd-ilibrary.org/content/component/5e331623-en>.
- Ambaw DT, Hing V, Osakwe PN and Thangavelu SM (2021). Minimizing COVID-19 transmission cases: Do policies and institutions matter? UNCTAD Research Paper.
- Arthur P (2021). Summary session 3: Mapping cross-border movement of vaccine inputs. Presented at the COVID-19 Vaccine Supply Chain and Regulatory Transparency Technical Symposium. 29 June. Available at https://www.wto.org/english/tratop_e/trips_e/techsymp_290621/summary_session3.pdf.
- Azizi SS (2021). The impacts of workers' remittances on poverty and inequality in developing countries. *Empirical Economics*. 60(2):969–991.
- Bartik AW et al. (2020). The impact of COVID-19 on small business outcomes and expectations. *Proceedings of the National Academy of Sciences*. 117(30):17656–17666.
- Bown CP and Bollyky TJ (2021). How COVID-19 vaccine supply chains emerged in the midst of a pandemic. Working Paper No. 21-12. Peterson Institute for International Economics.
- Brenton P, Ferrantino MJ and Maliszewska M (2022). *Reshaping Global Value Chains in Light of COVID-19: Implications for Trade and Poverty Reduction in Developing Countries*. World Bank. Washington, D.C.
- Chancel L, Piketty T, Saez E, Zucman G et al. (2022). *World Inequality Report 2022*. World Inequality Lab.
- Cirera X et al. (2021). Policies to support businesses through the COVID-19 shock: A firm-level perspective. World Bank Policy Research Working Paper 9506. 33.
- Clarksons Research (2022). *Seaborne Trade Monitor*. Volume 9, No. 4.
- Clinton Foundation (2022). Local vaccine manufacturing commitments and technology transfers.
- COVID-19 National Preparedness Collaborators (2022). Pandemic preparedness and COVID-19: an exploratory analysis of infection and fatality rates, and contextual factors associated with preparedness in 177 countries, from 1 January 2020 to 30 September 2021. *The Lancet*, Vol. 399. 1489–1512.
- Crager SE (2018). Improving global access to new vaccines: Intellectual property, technology transfer, and regulatory pathways. *American Journal of Public Health*. 108(S6):S414–S420, American Public Health Association.
- Dasgupta S and Robinson EJZ (2022). Impact of COVID-19 on food insecurity using multiple waves of high frequency household surveys. *Scientific Reports*. 12(1):1865.
- Docquier F and Rapoport H (2012). Globalization, brain drain and development. *Journal of Economic Literature*. 50(3):681–730.
- Economic Commission for Africa (2022). *Economic Report on Africa 2021. Addressing Poverty and Vulnerability in Africa during the COVID-19 Pandemic*.
- Economic Commission for Africa–Economic Commission for Latin America and the Caribbean (2022). Special drawing rights and the COVID-19 crisis.
- Economic Commission for Latin America and the Caribbean (2021). International trade outlook for Latin America and the Caribbean. Available at <https://www.cepal.org/en/publications/47536-international-trade-outlook-latin-america-and-caribbean-2021-pursuing-resilient>.

REFERENCES

- European Union (2021). Post COVID-19 value chains: Options for reshoring production back to Europe in a globalized economy. Available at [https://www.europarl.europa.eu/thinktank/en/document/EXPO_STU\(2021\)653626](https://www.europarl.europa.eu/thinktank/en/document/EXPO_STU(2021)653626) (accessed 23 May 2022).
- Evenett SJ, Hoekman B, Rocha N and Ruta M (2021). The COVID-19 vaccine production club: Will value chains temper nationalism? Working Paper. World Bank. Washington, D.C.
- Food and Agriculture Organization of the United Nations, International Fund for Agricultural Development, United Nations Children's Fund, World Food Programme and WHO, eds. (2021). *The State of Food Security and Nutrition in the World – Transforming Food Systems for Food Security, Improved Nutrition and Affordable Healthy Diets for All*. Rome.
- Gallagher K and Kozul-Wright R (2022). *The Case for a New Bretton Woods*. Polity Press. Cambridge, United Kingdom.
- Georgieva K (2020). Opening remarks at a press briefing following a conference call of the International Monetary and Financial Committee. March. Available at <https://www.imf.org/en/News/Articles/2020/03/27/sp032720-opening-remarks-at-press-briefing-following-imfc-conference-call> (accessed 20 May 2022).
- Gereffi G (2020). What does the COVID-19 pandemic teach us about global value chains? The case of medical supplies. *Journal of International Business Policy*. 3(3):287–301.
- International Energy Agency (2020). Oil market report. Available at <https://www.iea.org/reports/oil-market-report-june-2020> (accessed 17 May 2022).
- International Energy Agency (2022). Oil market report. Available at <https://www.iea.org/reports/oil-market-report-january-2022> (accessed 17 May 2022).
- International Finance Corporation (2014). Women-Owned Small and Medium-sized Enterprises: A Business Opportunity for Financial Institutions – A Market and Credit Gap Assessment and International Finance Corporation Portfolio Gender Baseline.
- ILO (2020). A gender-responsive employment recovery: Building back fairer. July. Available at https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_751785.pdf.
- ILO (2021). Policy brief – an uneven and gender-unequal COVID-19 recovery: Update on gender and employment trends 2021.
- ILO (2022). ILO monitor on the world of work. Ninth edition. May. Available at https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_845642.pdf.
- ILO, International Maritime Organization, UNCTAD and WHO (2022). Joint statement urging continued collaboration to address the crew change crisis, safeguard seafarer health and safety and avoid supply chain disruptions during the ongoing COVID-19 pandemic. February. Available at https://unctad.org/system/files/non-official-document/un-joint-statement-on-crewing-crisis_en.pdf.
- IMF (2021a). Policy responses to COVID-19. Available at <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19> (accessed 12 May 2022).
- IMF (2021b). Fiscal monitor database of country fiscal measures in response to the COVID-19 pandemic.
- IMF (2021c). Women and E-commerce in Africa. Washington, D.C.
- IMF (2021d). Women and E-commerce in South-East Asia. Washington, D.C.
- Institute for Policy Studies (2021). Billionaire pandemic wealth gain could pay for Biden's American Families Plan. 14 July.
- International Telecommunication Union (2021). Measuring digital development facts and figures. Geneva.
- Moore M and Prichard W (2017). How can Governments of low-income countries collect more tax revenue? ICTD Working Paper 70. 32.

- Muehlich L, Zucker-Marques M, Fritz B and Kring WN (2022). No one left behind? COVID-19 and the shortcomings of the global financial safety net for low- and middle-income countries. April. Available at https://mobilizingdevfinance.org/sites/mobilizedevresources/files/2022-04/DA_COVID_GFSNT_05.22.pdf.
- Nahm JM, Miller SM and Urpelainen J (2022). G20's US\$14-trillion economic stimulus reneges on emissions pledges. *Nature*. 6034.
- Nicita A and Saygili M (2021). Trade agreements and trade resilience during COVID-19 pandemic. UNCTAD Research Paper.
- O'Callaghan B et al. (2021). Global Recovery Observatory. Oxford University Economic Recovery Project. Available at <https://recovery.smithschool.ox.ac.uk/tracking/>.
- OECD (2020a). *Global Outlook on Financing for Sustainable Development 2021: A New Way to Invest for People and Planet*. Paris.
- OECD (2020b). Digital Transformation in the Age of COVID-19: Building Resilience and Bridging Divides. Digital Economy Outlook 2020 Supplement. Paris.
- OECD (2021a). The OECD green recovery database: Examining the environmental implications of COVID-19 recovery policies. Paris.
- OECD (2021b). Using trade to fight COVID-19: Manufacturing and distributing vaccines. OECD Policy Responses to Coronavirus. Paris.
- OECD (2022a). Global supply chains at work: A tale of three products to fight COVID-19. OECD Policy Responses to Coronavirus. Paris.
- OECD (2022b). ODA levels in 2021 – Preliminary data. Detailed summary note. April. Paris.
- Sappor J, Rutland T, Cecil R, Yu A and Nickels L (2020). COVID-19 impacts: Metals price recovery fragile as recession concerns loom. Standard and Poor's Global Market Intelligence. June. Available at <https://www.spglobal.com/marketintelligence/en/news-insights/research/covid19-impacts-metals-price-recovery-fragile-as-recession-concerns-loom> (accessed 17 May 2022).
- Sibthorpe C (2022). Available at <https://www.gsma.com/mobilefordevelopment/blog/our-latest-data-highlights-the-urgency-to-address-the-mobile-gender-gap-two-years-into-the-covid-19-pandemic/> (accessed 12 May 2022).
- Slaoui M and Hepburn M (2020). Developing safe and effective COVID vaccines: Operation Warp Speed's strategy and approach. *New England Journal of Medicine*. 383(18):1701–1703.
- Sobers R (2021). Available at <https://www.varonis.com/blog/data-breach-statistics> (accessed 12 May 2022).
- Soltanifar M, Hughes M and Göcke L, eds. (2021). *Digital Entrepreneurship: Impact on Business and Society*. Future of business and finance. Springer.
- Stiglitz JE (2013). *The Price of Inequality: How Today's Divided Society Endangers Our Future*. Norton and Company. New York.
- Susarla A (2022). Breaking the bias: Why gender matters in standards. March. Available at <https://www.itu.int/hub/2022/03/breaking-bias-gender-standards-anjana-susarla-ai-keynote/> (accessed 12 May 2022).
- Tevdovski D, Jolajoski P and Stojkoski V (2021). The impact of State capacity on the cross-country variations in COVID-19 vaccination rates. Scholarly Paper No. 3801205. Social Science Research Network. Rochester, New York. United States.
- The Guardian* (2020a). One in four countries beset by civil strife as global unrest soars. 16 January.
- The Guardian* (2020b). The pandemic is helping the rich get even richer. It's time to tax their obscene wealth. 11 August.

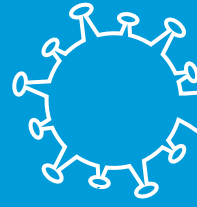
REFERENCES

- The New York Times* (2020). Big tech's domination of business reaches new heights. 19 August.
- UNCTAD (2015). *Trade and Development Report 2015: Making the International Financial Architecture Work for Development* (United Nations publication. Sales No. E.15.II.D.4. New York and Geneva).
- UNCTAD (2017a). *Services and Structural Transformation for Development* (United Nations publication. New York and Geneva).
- UNCTAD (2017b). *Trade and Development Report 2017: Beyond Austerity – Towards a Global New Deal* (United Nations publication. Sales No. E.17.II.D.5. New York and Geneva).
- UNCTAD (2019a). *Trade and Development Report 2019: Financing a Global Green New Deal* (United Nations publication. Sales No. E.19.II.D.15. Geneva).
- UNCTAD (2019b). *The Least Developed Countries Report 2019: The Present and Future of External Development Finance – Old Dependence, New Challenges* (United Nations publication. Sales No. E.20.II.D.2. Geneva).
- UNCTAD (2020a). *Impact of the COVID-19 Pandemic on Trade and Development: Transitioning to a New Normal* (United Nations publication. Geneva).
- UNCTAD (2020b). *World Investment Report 2020: International Production beyond the Pandemic* (United Nations publication. Sales No. E.20.II.D.23. Geneva).
- UNCTAD (2020c). *Trade and Development Report 2020: From Global Pandemic to Prosperity for All – Avoiding Another Lost Decade* (United Nations publication. Sales No. E.20.II.D.30. Geneva).
- UNCTAD (2020d). *UNCTAD Toolbox*, Competition and consumer protection policies and frameworks. Available at <https://unctad.org/projects/TOOLBOX> (accessed 15 June 2022).
- UNCTAD (2020e). Trade and Development Report update: The COVID-19 shock to developing countries. March.
- UNCTAD (2020f). Adapting the use of ASYCUDA World to the COVID-19 situation: Guidelines to customs administrations.
- UNCTAD (2020g). Trade and Development Report update: From the great lockdown to the great meltdown: Developing country debt in the time of COVID-19. April. Available at https://unctad.org/system/files/official-document/gdsinf2020d3_en.pdf.
- UNCTAD (2020h). COVID-19 and e-commerce impact on businesses and policy responses.
- UNCTAD (2021a). Key statistics and trends in international trade. Available at https://unctad.org/system/files/official-document/ditcinf2022d1_en.pdf.
- UNCTAD (2021b). COVID-19 and tourism. Assessing the economic consequences. Available at https://unctad.org/system/files/official-document/ditcinf2021d3_en_0.pdf.
- UNCTAD (2021c). *World Investment Report 2021: Investing in Sustainable Recovery* (United Nations publication. Sales No. E.21.II.D.13. Geneva).
- UNCTAD (2021d). *Review of Maritime Transport 2021* (United Nations publication. Sales No. E.21.II.D.21, Geneva).
- UNCTAD (2021e). COVID-19 implications for commercial contracts: Carriage of goods by sea and related cargo claims.
- UNCTAD (2021f). COVID-19 implications for commercial contracts: International sale of goods on CIF and FOB terms.
- UNCTAD (2021g). *The Least Developed Countries Report 2021: The Least Developed Countries in the Post-COVID World – Learning from 50 Years of Experience* (United Nations publication. Sales No. E.21.II.D.4. Geneva).

- UNCTAD (2021h). *Trade and Development Report 2021: From Recovery to Resilience – The Development Dimension* (United Nations publication. Geneva).
- UNCTAD (2021i). The UNCTAD B2C e-commerce index 2020: Spotlight on Latin America and the Caribbean. Technical Notes on ICT for Development No. 17.
- UNCTAD (2021j). Report of the Eighth United Nations Conference to Review All Aspects of the Set of Multilaterally Agreed Equitable Principles and Rules for the Control of Restrictive Business Practices. TD/RBP/CONF.9/9. Geneva.
- UNCTAD (2021k). *COVID-19 and E-commerce: A Global Review* (United Nations publication. Sales No. E.21.II.D.9. Geneva).
- UNCTAD (2021l). Consumer law, policy and regulatory actions in response to and in the aftermath of the COVID-19 pandemic. TD/B/C.I/CPLP/23. Geneva. April.
- UNCTAD (2021m). Consumer protection needs of vulnerable and disadvantaged consumers in connection with public utilities. TD/B/C.I/CPLP/22. Geneva. April.
- UNCTAD (2021n). Competition law, policy and regulation in the digital era. TD/B/C.I/CLP/57. Geneva. April.
- UNCTAD (2021o). Report of the Intergovernmental Group of Experts on Consumer Protection Law and Policy on its fifth session. TD/B/C.I/CPLP/26. Geneva. August.
- UNCTAD (2021p). *Digital Economy Report 2021: Cross-Border Data Flows and Development: For Whom the Data Flow* (United Nations publication. Sales No. E.21.II.D.18. Geneva).
- UNCTAD (2021q). Impacts of the COVID-19 pandemic on trade in the digital economy. Technical Notes on ICT for Development No. 19.
- UNCTAD (2021r). Making digital markets work for consumers: Competition, consumer protection and data. Webinar report. Available at <https://unctad.org/meeting/making-digital-markets-work-consumers-competition-consumer-protection-and-data> (accessed 15 June 2022).
- UNCTAD (2022a). Trade and Development Report update: Tapering in a time of conflict. March.
- UNCTAD (2022b). *World Investment Report 2022: International Tax Reforms and Sustainable Investment* (United Nations publication. Sales No. E.22.II.D.20. Geneva).
- UNCTAD (2022c). Sustainable and resilient transport and trade facilitation in times of pandemic and beyond: Key challenges and opportunities. TD/B/C.I/MEM.7/26. Geneva. 17 May.
- UNCTAD (2022d). Contracts for the carriage of goods by sea and multimodal transport: Key issues arising from the impacts of the COVID-19 pandemic.
- UNCTAD (2022e). COVID-19 boost to e-commerce sustained into 2021. Available at <https://unctad.org/news/covid-19-boost-e-commerce-sustained-2021-new-unctad-figures-show> (accessed 12 May 2022).
- UNCTAD (2022f). Developing country external debt: A cascade of crises means more countries face debt distress. S[ustainable] D[evelopment] G[lobal] Pulse.
- UNCTAD (2022g). Digital trade: Opportunities and actions for developing countries. Policy Brief No. 92.
- UNCTAD (2022h). The COVID-19 pandemic impact on microenterprises and small and medium-sized enterprises: Market access challenges and competition policy.
- UNCTAD (2022i). Cross-border trade in the pre- and post-pandemic environment: Evidence from Malawi, the United Republic of Tanzania and Zambia.
- UNCTAD (2022j). Digitalization of services: What does it imply to trade and development?
- UNCTAD (2022k). *Fast-Tracking Implementation of eTrade Readiness Assessments*. Second edition (United Nations publication. Sales No. E.22.II.D.21. Geneva).

REFERENCES

- UNCTAD (2022). The evolving landscape of digital trade in services (forthcoming).
- UNCTAD (n/d). Summary of adoption of e-commerce legislation worldwide. Available at <https://unctad.org/topic/ecommerce-and-digital-economy/ecommerce-law-reform/summary-adoption-e-commerce-legislation-worldwide>.
- United Nations (2015a). Basic principles on sovereign debt restructuring processes. A/RES/69/319. New York.
- United Nations (2015b). Transforming our world: The 2030 Agenda for Sustainable Development. A/RES/70/1. New York.
- United Nations (2020). A United Nations framework for the immediate socioeconomic response to COVID-19. New York.
- United Nations (2021a). World food import bill to reach record high in 2021. November. Available at <https://news.un.org/en/story/2021/11/1105552> (accessed 17 May 2022).
- United Nations (2021b). *Our Common Agenda – Report of the Secretary-General* (United Nations publication. Sales No. E.21.I.8. New York).
- United Nations (2022). Global food prices rose “sharply” during 2021. January. Available at <https://news.un.org/en/story/2022/01/1109212> (accessed 17 May 2022).
- United Nations, Department for Economic and Social Affairs (2022). *World Economic Situation and Prospects 2022*.
- United Nations, Inter-Agency Task Force on Financing for Development (2021). *Financing for Sustainable Development Report 2021: Inter-Agency Task Force* (United Nations publication. Sales No. E.21.I.6. New York).
- United Nations, Inter-Agency Task Force on Financing for Development (2022). *Financing for Sustainable Development Report 2022: Bridging the Finance Divide* (United Nations publication. Sales No. E.22.I.6. New York).
- Van Dijk J (2021). Closing the divide: The role of digital technologies on social development, well-being of all and the approach of the COVID-19 pandemic.
- WHO (2021). Key lessons from Africa’s COVID-19 vaccine roll-out. Available at <https://www.afro.who.int/news/key-lessons-africas-covid-19-vaccine-rollout> (accessed 25 May 2022).
- WHO (2022). 14.9 million excess deaths associated with the COVID-19 pandemic in 2020 and 2021. May. Available at <https://www.who.int/news/item/05-05-2022-14.9-million-excess-deaths-were-associated-with-the-covid-19-pandemic-in-2020-and-2021>.
- World Bank (2021). Worldwide Governance Indicators. Available at <http://info.worldbank.org/governance/wgi/>.
- World Bank (2022). Debt Service Suspension Initiative. March. Available at <https://www.worldbank.org/en/topic/debt/brief/covid-19-debt-service-suspension-initiative> (accessed 20 May 2022).
- World Bank Group and Global Knowledge Partnership on Migration and Development (2021). *Resilience. COVID-19 Crisis Through a Migration Lens*. Migration and Development Brief 34. Washington, D.C.
- WTO (2021a). *Global Value Chain Development Report: Beyond Production*. Geneva.
- WTO (2021b). List of critical COVID-19 vaccine inputs for consultation. Available at https://www.wto.org/english/tratop_e/covid19_e/vaccine_inputs_report_e.pdf (accessed 23 May 2022).



 @UNCTAD

 @UNCTAD

 [unctad.org/facebook](https://www.facebook.com/unctad)

 [unctad.org/youtube](https://www.youtube.com/unctad)

 [unctad.org/flickr](https://www.flickr.com/photos/unctad/)

 [unctad.org/linkedin](https://www.linkedin.com/company/unctad)