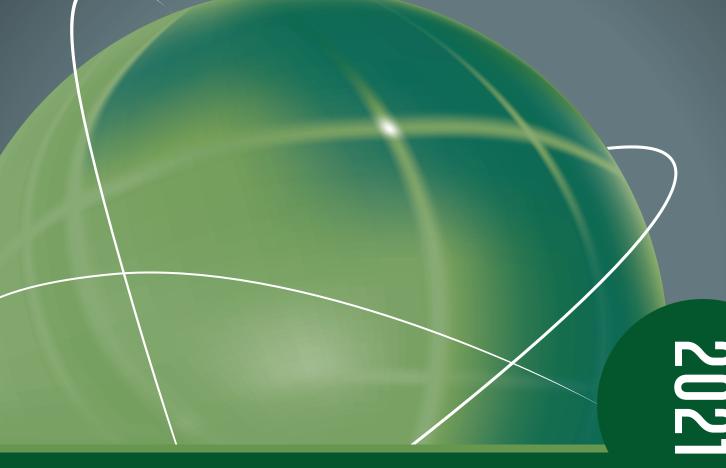
World Economic Situation Prospects





The future of global trade'

The COVID-19 pandemic resulted in a contraction in international trade in 2020, as wide-spread lockdowns triggered a collapse in demand and significant disruptions to global production networks. As global economic activity recovers, global trade activity will improve but, until 2022, it is projected to remain below pre-pandemic levels. Beyond these short-term dynamics, the pandemic shock is likely to accelerate ongoing structural trends—including the evolving configuration of global value chains (GVCs), the rise of the digital economy, and the increasingly significant role of trade in services—which are shaping the future of the global trade landscape. In addition, the rules-based multilateral trading system is facing unprecedented challenges amid ongoing disputes at the World Trade Organization (WTO) and rising protectionism in parts of the world.

The changing international trade environment is having a profound impact on global growth and development prospects, reinforcing the need for many developing economies to assess export-oriented growth strategies. While rapid digitalization and the servicification of the manufacturing and agricultural sectors present countries with major challenges, they could also be the source of immense opportunities. In order to harness such potential, national trade policy strategies would need to be comprehensive; centred around technology, infrastructure and human capital; and supported by a reformed and revitalized multilateral trading system.

How global trade evolves over the coming decade will be a crucial determinant of the achievement of the Sustainable Development Goals (SDGs) worldwide. Indeed, global trade patterns and trade policy developments will shape progress towards all of the goals within the SDG framework. Most important, trade can serve as a powerful engine of growth and development and thus help lift people out of poverty (SDG 1). Ending hunger, achieving food security and improved nutrition, and promoting sustainable agriculture (SDG 2) depend strongly on the character of agricultural trade policies. In this regard, the pandemic has served as a stark reminder that an open and predictable trading environment is vital to preventing disruptions in food supply chains and ensuring cross-border flows of the medical supplies needed to support healthy lives (SDG 3). By promoting sustainable development, trade can also help facilitate the building and maintaining of peaceful societies (SDG 16). 5

The pandemic delivered a massive shock to global trade

The future global trade landscape will significantly impact progress on the SDGs

¹ The present chapter is based in part on a background paper prepared by Hoekman and Shepherd (2020).

² Servicification refers to the increased use, production and export of services in other sectors. Sect. 3 of this chapter examines the trends of growing servicification and digitalization.

Four Sustainable Development Goal indicators are explicitly linked to trade: the proportion of tariff lines applied to imports from least developed countries (LDCs) and developing countries with zero-tariff (10.a.1); the worldwide weighted tariff-average (17.10.1); the average tariffs faced by developing countries, LDCs and small island developing States (17.12.1); and developing countries' and LDCs' share of global exports (17.11.1).

⁴ To facilitate the access of developing countries to life-saving vaccines, India and South Africa have called for the World Trade Organization (WTO) to grant a temporary waiver from certain provisions of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) (Usher, 2020).

⁵ The first edition of the Trade for Peace Week, hosted by the WTO from 30 November to 4 December 2020, focused on the role of trade in fragile and conflict-affected countries (WTO, 2020d).

While international trade has brought immense benefits, it is also creating significant challenges for some areas of sustainable development. Experiences of the past few decades have illustrated that trade policies and developments strongly impact global inequality (SDG 10). While trade has supported income growth in many developing countries, thus helping to reduce between-country inequalities, it has often contributed to widening gaps within countries (UNCTAD, 2019). Furthermore, trade is closely connected with environmental sustainability (covered under SDGs 12–15), with trade-related activities having strongly contributed to the surge in greenhouse gases, pollution and biodiversity loss. At the same time, climate change is increasingly affecting global patterns of trade in goods and services, through, for example, its impact on crop productivity (Gouel and Laborde, 2018) and its disruption of trade infrastructure (Dellink and others, 2017). Enhanced recognition of these linkages has led to new initiatives aimed at intensifying discussions on trade and the environment at the multilateral level.6

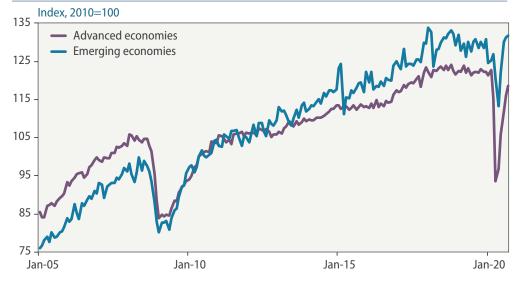
New and emerging challenges faced by global trade

Short-term trends: impact of COVID-19 on global trade

After a strong decline in 2020, global trade is set to recover

International trade contracted in 2020 for the first time since the global financial crisis, as the COVID-19 crisis triggered widespread lockdowns, severely impacted factory output, disrupted travel and depressed demand worldwide. According to UN DESA estimates, the volume of global trade in goods and services fell by 7.6 per cent in 2020. Following a massive contraction in March and April, trade recovered in the second half of the year driven by a rebound in economic activities in East Asia (figure II.1).

Figure II.1 Volume of merchandise exports, January 2005–September 2020



Source: UN DESA, based on data from CPB Netherlands Bureau for Economic Policy Analysis.

Note: Regional groupings are not strictly comparable with those used in World Economic Situation and Prospects 2021, but rather are illustrative of

regional tendencies.

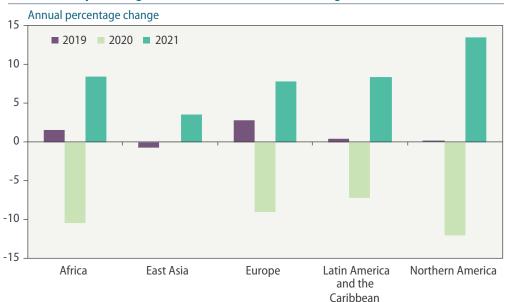
⁶ Under the WTO initiatives, structured discussions on trade and environmental sustainability are being established and an informal dialogue has been launched on plastics pollution and environmentally sustainable plastics trade (WTO, 2020c).

The recovery in trade is expected to continue over the next two years. The UN DESA baseline scenario projects that global trade in goods and services will grow by 6.9 per cent in 2021 and 3.7 per cent in 2022. There are both upside and downside risks to this forecast. If vaccines help bring the pandemic under control, the trade recovery, especially in tourism services, could be stronger than expected thanks to pent-up demand. On the other hand, if movement restrictions remain in place and uncertainties over the pandemic persist, cross-border trade activities will remain subdued in 2021.

Regional trade performances differed considerably in 2020 (figure II.2). Trade activities in East Asia recovered more quickly than in other parts of the world as most of the region's economies managed to control the spread of the virus. Indeed, several economies, including China, Taiwan Province of China and Viet Nam, returned to positive year-on-year trade growth in the third quarter of 2020, when other regions were still experiencing significant contractions. While Africa, Europe and Northern America saw very large declines in export volumes in 2020, a rebound is expected for 2021.

Economies of East Asia are driving the recovery in trade

Figure II.2 Volume of exports of goods and services in selected regions



Source: UN DESA, based on projections produced with the World Economic Forecasting Model (WEFM).

East Asia's trade recovery can be attributed partly to growth in a number of sectors that benefited from the pandemic (figure II.3). For example, international trade in communication equipment and office machinery expanded substantially in 2020. As households, businesses and Governments upgraded their information and communication technology (ICT) infrastructure to improve remote working conditions, producers in China, the Republic of Korea and Taiwan Province of China benefited from the increase in demand for electric and electronic equipment. At the same time, trade in pharmaceuticals and personal protective equipment (PPE) soared. By contrast, trade contracted in many other manufacturing sectors, especially in the automotive sector, owing to supply disruptions and weaker demand; trade in travel products, handbags and footwear also fell sharply.

Figure II.3

World trade by sector

-40

-50

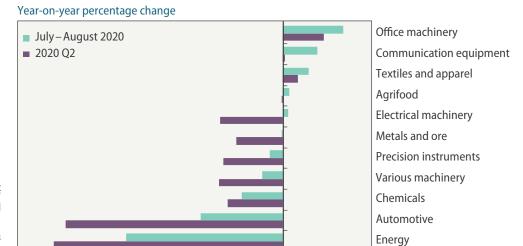
-30

-20

-10

10

20



Source: UNCTAD estimates, based on national statistics of China, the European Union and the United States of America.

Note: Data excludes intra-EU trade.

-60

Global tourism industry has taken an unprecedented hit

Global trade in commercial services is estimated to have contracted by about 14 per cent in 2020, a steeper decline than during the global financial crisis. The tourism industry has been the hardest-hit services sector, as COVID-19 brought international travel to a virtual standstill from March 2020 onward. Before the pandemic, travel services accounted for almost one third of developing countries' services exports. International tourist arrivals (overnight visitors) are estimated to have plunged by about 70 per cent globally in 2020 (UNWTO, 2020e), which would represent 1 billion fewer international arrivals than in 2019 and a potential loss of US\$ 1.1 trillion in international tourism receipts, the largest decline ever. The shock has put 100 million to 120 million direct tourism jobs at risk, with large spill-overs into other sectors. A rebound in tourism is expected in 2021, assuming that by the end of the year, many travel restrictions will have been lifted and that traveller confidence will have improved. Recovery to pre-pandemic levels is, however, estimated to take two and a half to four years. (see box II.1).

The COVID-19 crisis has affected international commodity markets very unevenly The global pandemic has affected international commodity markets very unevenly (World Bank, 2020b). For example, there was a much smaller decrease in trade in agricultural products than in overall merchandise trade. Agricultural commodity prices remained broadly steady, though food prices spiked in several countries, especially in Africa, Latin America and South Asia. Since global markets for major food staples are well supplied, agricultural price indexes are projected to remain fairly stable in 2021. The impact on energy markets, by contrast, has been severe, and the consequences could be experienced for several years. As consumer and industry demand faltered, energy prices declined sharply. In April 2020, collapsing demand and lack of storage capacity sent crude oil futures, temporarily, into negative territory. This unprecedented episode was followed, however, by a steady recovery in oil prices in the second half of the year, which was driven by improving global prospects,

⁷ World Bank, World Development Indicators, based on IMF, Balance of Payments Statistics.

⁸ In Nigeria, for example, wholesale prices of white maize doubled from March to September 2020 (FAO, 2020).

significant reductions in oil supply and a weakening dollar. Brent oil averaged about \$43 per barrel in 2020, a price that was about one third below the 2019 average of \$64 per barrel; but for 2021, a moderate increase to about \$50 per barrel is projected as economic activities pick up and travel demand returns. However, even in the medium term, oil prices are likely to remain below the pre-pandemic level; and higher global oil inventory levels and surplus production capacity in key oil producers will limit the upward pressure on prices. Lower prices, coupled with uncertainty about the pandemic's long-term effect on demand structures and the accelerating energy transition, will in turn continue to weigh on investment in the oil sector. Meanwhile, metal prices rebounded much faster than expected in the course of 2020 as stimulus measures in China boosted demand and prolonged lockdowns in South America caused significant supply disruptions. The price of copper, which is used predominantly in electrical applications and telecommunications, hit a seven-year high in December, as the global 5G network roll-out continues and demand for comprehensive ICT infrastructure is on the rise. The prices of iron ore, aluminium, nickel, tin and zinc also recovered strongly in the second half of the year. Going forward, metal prices will likely be supported by continuing rapid growth in China and a more broad-based recovery in global demand.

Box II.1

Promoting a sustainable recovery of tourism

Tourism is one of the sectors hardest hit by the COVID-19 pandemic

The pandemic has caused an unprecedented disruption to tourism as Governments implemented lock-downs and travel restrictions to contain the spread of coronavirus disease. This has generated huge economic and social impacts, placing over 100 million direct tourism jobs at risk, especially in micro-, small and medium-sized enterprises (MSMEs), which represent 80 per cent of the sector and employ a high share of women and young people. Women, who make up 54 per cent of the tourism workforce as compared with 39 per cent of the overall economy (UNWTO, 2019), as well as youth and migrant workers with limited or no access to social protection, have been among those most severely affected by the collapse in tourism.

The pandemic represents a major shock for developed economies and an emergency for many developing countries, especially small island developing States (SIDS). Tourism accounts for over 30 per cent of total exports in most SIDS and for as much as 80 per cent of total exports in some cases (UNWTO, 2020b).

A wide range of policy measures have been implemented to support the recovery of tourism

Support for the millions of livelihoods that depend upon a sector that has been affected by months of inactivity is key to accelerating the recovery of tourism, as well as to designing a responsible and sustainable travel experience—one that ensures the safety of host communities, workers and travellers. As demonstrated by the UNWTO policy tracker, there have been swift and strong responses by Governments around the world aimed at minimizing the impacts of COVID-19 (UNWTO, 2020a). Overall, the immediate response consisted of cross-cutting fiscal and financial measures to mitigate the economic impact of the crisis on tourism, with a special focus on MSME liquidity and the protection of jobs, reflecting a recognition of the labour-intensive nature of tourism. In addition to short-term work schemes and expansion of unemployment benefits, measures have included support for training and skills development, talent retention, assistance with digital transformation of businesses, and access to innovative tools.

(continued)

Box II.1 (continued)

The most recent measures announced indicate that an increasing number of countries are moving forward with initiatives to restart tourism, particularly by promoting domestic tourism, which is over six times the size of international tourism (UNWTO, 2020c). Tourism in rural areas offers important opportunities for recovery, as tourists are searching for destinations that are less populated, open-air activities, and experiences that are more authentic (UNWTO, 2020d).

The pandemic has provided an opportunity to make tourism more sustainable and inclusive

Owing to continued uncertainty and the rapid evolution of the situation, the capacity of consumers, businesses and the industry at large to adapt will be crucial in the near term. Mitigating the economic impact and ensuring a coordinated response with regard to travel restrictions and harmonized safety protocols, while protecting tourists and workers, should be key priorities for a safe restart of tourism.

While considerable challenges lie ahead, the crisis also provides an unprecedented opportunity for transformation. It offers the possibility of rethinking tourism so as to leverage its impact on destinations and build more resilient communities and businesses through innovation, digitalization, sustainability and partnerships. Innovation and sustainability will be two key pillars of a recovery focused on building tourism back better and stronger. In a sector that employs 1 in 10 people globally, the goals of harnessing innovation and digitalization, embracing local values, fostering accessibility and creating decent jobs for all, especially for youth, women and the most vulnerable groups, should be at the forefront of that recovery. The present crisis presents the opportunity to transform the relationship of tourism with nature, climate and the economy; to rethink how the sector impacts natural resources and ecosystems; to empower local communities; to improve the measurement and management of tourism through data and research; to ensure a fair distribution of its benefits; and to advance the transition towards a tourism economy that is carbon-neutral and resilient (United Nations, 2020a).

Authors: Sandra Carvão, Michel Julian and Javier Ruescas (UNWTO)

Shift in global trade towards developing countries

Global trade has increasingly shifted towards developing countries Global trade has undergone profound transformations in recent decades. Since the 1980s, trade has increasingly shifted from developed to developing countries, as many developing countries adopted manufacturing export-led growth strategies which have helped raise living standards. These strategies have been most successful among East Asian economies, with Hong Kong SAR, the Republic of Korea, Singapore and Taiwan Province of China having undergone rapid industrialization early on.

Multinationals have driven changes in trade patterns This shift was reinforced by the surge of bilateral trade agreements, the reduction in trade costs, the rising role of China, the expansion of multinational firms, the ICT revolution and the establishment of GVCs. Amid significant trade liberalization worldwide, the changes in the trade landscape were also driven by foreign direct investment (FDI), with multinational firms playing a catalytic role in fostering globalization. As a result, a greater share of FDI went to developing countries, and multinational firms implemented aggressive internationalization strategies to expand their systems of production and gain access to world markets.

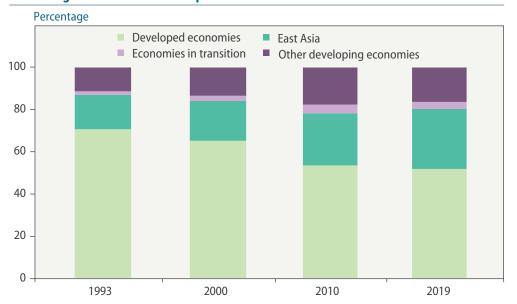
East Asian economies benefited from participation in GVCs... The shift gained momentum in the 2000s, with the accession of China to the WTO and its consolidation as the "world factory". Global value chains expanded rapidly, especially in the automotive, electronics and garment industries. Intermediate goods and services as part of such chains—in which trade and investment linkages across countries support complex multi-country production platforms—accounted for an increasing share of trade in those industries. Through their active participation in emerging GVCs, East Asian econo-

mies, including Indonesia, Malaysia, the Philippines, Thailand and Viet Nam, increased their relevance in global trade.

While developed countries still account for the bulk of global merchandise trade, there has been a visible shift towards East Asia, whose share in total merchandise exports rose from 16 per cent in 1993 to 25 per cent in 2010 and to 28 per cent in 2019 (figure II.4). This shift was driven mainly by China, which accounted for 13 per cent of global exports in 2019 compared with less than 3 per cent in 1993. In addition, the composition of international trade also changed. Many East Asian economies were able to move away from low value added natural resources and low-technology products to higher value added manufactures, and higher-technology products; and integration into GVCs enabled them to build productive capacities and diversify their export matrix. Exports became a major source of productivity growth as the result of a significant reallocation of resources, the accumulation of technological capabilities and "learning by exporting", which encouraged productivity gains across domestic activities (figure II.5).

...and exports became a major source of productivity growth

Figure II.4 **Share of global merchandise exports**

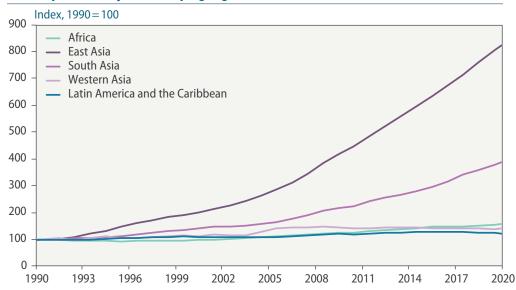


Source: UN DESA, based on data from UNCTADstat.

Developing countries in other regions have generally been less successful in leveraging trade opportunities and upgrading to higher value added activities. Notably, the least developed countries (LDCs) have remained marginalized: their share in world merchandise exports stood at 1 per cent in 2019, remaining virtually unchanged from a decade ago. While most developing regions and the economies in transition saw their shares in global trade rise during the 2000s, this was primarily a result of the commodity boom. In Africa, Latin America and the Caribbean, and Western Asia, export-led strategies often failed to replicate East Asia's success. In countries such as Chile, Colombia, Ethiopia and Rwanda, exports have played a critical role in promoting short-term growth, with positive effects on living standards. However, exports have often not become a main vehicle for technological progress and their dynamic effects on productivity growth and structural change have there-

Many developing countries struggled to transform trade into an engine for development fore been limited. Furthermore, the majority of countries in these regions are still heavily dependent on commodities. Even in countries that actively participate in GVCs—especially Mexico and, to a large extent, Brazil and South Africa as well—exports of high-technology products take the form, mainly, of assembling activities with little local content and weak domestic linkages. Indeed, in most countries, participation in GVCs is incipient or in its early stages, and concentrated in low-tech sectors.

Figure II.5 **Labour productivity in developing regions**



Source: UN DESA, based on data from The Conference Board Total Economy Database, July 2020.

Note: Regional averages are represented by country-level labour productivity data weighted by the number of persons employed.

New development strategies: the end of manufacturing export-led growth?

Shifting trade patterns and technological changes pose challenges for export-led growth Within the shifting global trade environment, developing countries find themselves at a crossroads with respect to their export-led growth and development strategies. Rising protectionist tendencies, rapid technological change and the maturing of existing GVCs are among the factors that will impact the international trade outlook going forward. At the same time, the digitalization trend will continue to accelerate, reflecting the convergence of fixed, mobile and broadcast networks, the increasing connectedness of devices and objects, and the resulting changes in social interactions. This will boost trade in services by reducing trade costs, increasing productivity of services sectors and blurring the differences between goods and services-related activities. There will be rising demand for high-skilled services going forward and services will become increasingly important owing to, among other things, changes in demographics and a reduction in the importance of face-to-face interactions (WTO, 2019b). Development strategies over the coming decades will therefore need to strike a balance, in terms of focus, between manufacturing and services.

Services offer significant opportunities for developing countries

The growing importance of trade in services and digitalization presents opportunities and challenges that need to be confronted by developing countries. In fact, services increasingly exhibit pro-development features like tradability, scale, innovation and learning-by-doing, which were once characteristic only of the manufacturing sector (Baldwin and Forslid, 2020). Indeed, growing service-related activities offer significant opportunities for

job creation in the medium term. Moreover, new technologies like robotics, artificial intelligence and 3D printing can also reduce costs and generate significant gains such as the creation of more environmentally sustainable production plants. Automation and robotics, for example, have shaped the automotive, rubber and plastics, and electronic industries in recent decades. New technologies can facilitate scale-independent efficient production and bring production systems closer to consumption markets. In the medium term, such developments could support reshoring trends by reducing production costs and thus increasing the competitiveness of previously non-competitive production locations, and by encouraging a shift from the traditional model of economies of scale of large plants serving global markets to a model underpinned by a network of smaller, more flexible and geographically distributed plants (Shih, 2020).

The pandemic has been responsible for significant disruptions to global and regional value chains (see box II.2). For example, lockdowns in the countries of overseas suppliers and disruptions of logistics services impacted electronic value chains in Viet Nam, seriously interfering with the shipping of electronic components and the delivery of final products to consumers. In addition, the pandemic exposed the fragility of food systems that depend on long GVCs. The world is in fact increasingly prone to recurrent disruptions, including climate

The COVID-19 crisis may accelerate the reconfiguration of GVCs

Box II.2 Enhancing the resilience of value chains in least developed countries

Although most least developed countries (LDCs) export mainly raw materials with very limited value addition, the integration of several LDCs in global value chains (GVCs) has grown over the past years. This has enabled them to access foreign markets indirectly through ties to global firms that control access to consumers. Such upstream participation in GVCs, characterized by forward linkages to retailers, has made those countries more vulnerable to demand and price shocks and thus to the disruptions caused by COVID-19 (Frederick and Daly, 2020).

According to the World Trade Organization (WTO), merchandise exports of LDCs contracted by 16 per cent in the first half of 2020, within an export structure that consists mainly of primary products (accounting for 53 per cent of LDC exports in 2019) and simple manufactures (29 per cent in 2019), especially textiles and clothing (figure II.2.1). This trade downturn will likely further reduce the share of LDCs in world exports, which in 2019 stood at 0.96 per cent, well below 2 per cent as called for under SDG target 17.11 (WTO, 2020b).

COVID-19 has disrupted many LDC value chains, as the group's top destinations include countries worst affected by the outbreak. For example, in the garment sector of Bangladesh, orders from major retailers worth about \$3 billion have been cancelled. This has affected more than a thousand factories and some retailers have filed for bankruptcy. In addition, the supply of crucial inputs was disrupted. By the third quarter of 2020, export earnings exceeded those of 2019 as government support for firms and wages kept factories in business. However, there are indications that retailers are reducing prices and slowing the payment of orders delivered, depressing wages of the mainly female workforce (Bangladesh, Ministry of Finance, Economic Relations Division, 2020; Anner, 2020).

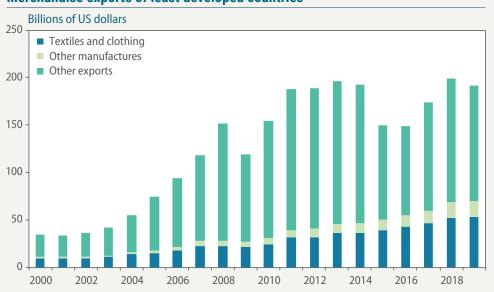
Exports by Ethiopia of cut flowers and garments as well as the country's tourism sector have been severely affected by the decline in demand. The country lost 80 per cent of the (mainly European) demand for its cut flowers at the beginning of the pandemic. The Government has provided support to firms, thereby keeping workers on payroll. Ethiopian Airlines has shifted most of its operations to cargo, benefiting from the designation of Addis Ababa as a distribution hub for medical supplies across Africa and enabling the recovery of flower exports. The garment sector, which is often located in indus-

(continued)

Box II.2 (continued)

Figure II.2.1

Merchandise exports of least developed countries



Source: UN-OHRLLS calculations, based on UNCTADstat data.

trial parks, has shifted the focus of some of its production to personal protective equipment (PPE) for the domestic market (Banga and others, 2020).

In addition, many LDCs depend on tourism, which has been at a virtual standstill since the onset of the pandemic. Before the pandemic, the share of commercial services in total exports of LDCs grew steadily, reaching 17 per cent in 2018. The travel exports of LDCs dropped by about 60 per cent in the first half of 2020 (WTO, Subcommittee on Least Developed Countries, 2019).

In the present context of subdued global trade performance, it becomes more important for LDCs to diversify not only their export products so as to enhance value addition but also their markets and participate in regional value chains. The African Continental Free Trade Area can play an important role in this regard by reducing the production costs associated with tariffs, non-tariff barriers and trade facilitation issues (World Bank, 2020a).

Digitalization is one factor that enables participation in value chains, as demonstrated by several LDCs that have created e-commerce platforms, which helped to stabilize demand during the pandemic. Least developed countries also need to support cooperation across value chains by identifying horizontal linkages between industries which could include, for example, strengthening ties with local food producers in the tourism industry.

Several LDCs could benefit from joining tourism-related GVCs in order to consolidate their position as regional and international tourist destinations, once travel resumes. This could include adapting products that appeal to local and regional customers, and upgrading processes, through, for example, improving the relationships between domestic distribution intermediaries and global tour operators.

The further extension of effective duty- and quota-free market access for all products originating from LDCs, including through developing simple and transparent rules of origin, would facilitate the integration of LDC producers in GVCs. Continued application of LDC-specific special and differential treatment support and flexibilities enjoyed under the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) after graduation will help them achieve a meaningful integration into global and regional value chains.

In addition, enhanced aid for trade would allow LDCs to take measures to enhance competitiveness and overcome obstacles to exporters, including through diversification and capacity-building in the field of trade-related administration. In the context of an estimated sharp drop in foreign direct investment to LDCs in 2020, investment promotion measures implemented by host countries would foster linkages with foreign firms and allow LDCs to enter new markets.

Author: Susanna Wolf (UN-OHRLLS)

change-related shocks, trade disputes, geopolitical uncertainties and other challenges whose frequency and magnitude continue to grow. According to some estimates, supply chain disruptions "lasting a month or longer now occur every 3.7 years on average" (McKinsey, 2020). By laying bare existing vulnerabilities, the COVID-19 crisis may accelerate the reconfiguration—and possibly the shortening—of GVCs, especially as the use of new technologies and digitalization intensifies. Large firms will need to reassess trade-offs between efficiency and resilience in the context of their strategies; and "just in time" and "lean manufacturing" strategies—emphasizing efficiency, low inventories and on-time deliveries—might need to evolve towards placing a greater emphasis on reliability, resilience and regionalization.

Amid increasing digitalization, more widespread use of new technologies and the growing importance of supply chain resilience, the current crisis may reshape export-led growth strategies, especially if its economic and political legacies result in trade policy changes. While the debate over resilience of supply chains is not new, the scale of the COV-ID-19 crisis, together with recent technological advances, might serve as a major force for change. Global value chains could become more agile and flexible through diversification of the supply base and a shortening of the distance between suppliers and the retail base. The trade-related tensions between China and the United States of America have led some firms to adopt a "China plus one strategy", which entails spreading production between China and countries such as Indonesia, Thailand and Viet Nam.

Manufacturing exports will continue to play an important role in countries' growth and development strategies. Yet, the shifting trade landscape is forcing developing countries to redefine their development strategies and explore models of dynamic comparative advantages to be derived from digitalization and the data economy. Countries in the early stages of manufacturing-led growth are particularly at risk, as it may be difficult to repeat the success stories of the previous decades. While manufacturing will likely remain a high value added sector, its impact on job creation and development will be less pronounced in the medium term than it was in the 1980s and 1990s for the emerging Asian economies.

Developing countries must reassess export-led development strategies

Pushback against multilateralism and rising protectionism

Trade liberalization and rapid export growth since the 1990s have created millions of relatively well-paying manufacturing jobs, particularly in the East Asian economies, which has helped lift large numbers of people out of poverty. At the same time, many economies experienced massive job losses in manufacturing sectors as the effects of automation were exacerbated by a shift in production to low-wage, low-cost destinations. A growing body of empirical studies have documented the uneven distribution of the benefits and costs from global trade integration both within and across countries. In fact, the adjustment costs associated with trade liberalization—including higher unemployment, lower labour-force participation and downward pressure on wages in affected sectors—have been found to be larger and more persistent, in both developed and developing countries, than was previously expected. Relatively unskilled workers in the manufacturing sector have borne the brunt of the adjustment burden, whereas high-skilled workers reaped most of the benefits. Given a

Benefits and costs from trade liberalization have been unevenly distributed

¹⁰ According to World Bank data (see the World Development Indicators database), between 1990 and 2017, an estimated 1.2 billion people, of whom 740 million were in China, were lifted out of poverty.

¹¹ Autor, Dorn and Hanson (2013) have found higher unemployment, lower labour-force participation and reduced wages in manufacturing industries in the United States owing to rising import competition from China. Based on a sample of developing countries, Hollweg and others (2014) have concluded that adjustment periods associated with trade liberalization can be very long and that not all affected sectors recover.

lack of mitigating social policies, displaced workers were often not adequately compensated for their losses. Hence, trade liberalization has not only contributed to a rising skill premium, pushing up overall income inequality, but also made some groups worse off in absolute terms.¹²

The rules-based multilateral trading system has faced growing challenges The failure to address adverse distributional effects has triggered a backlash against globalization and free trade in some parts of the world. In this regard, de Bolle and Zettelmeyer (2019) have documented a broad-based rise since the mid-2000s in economic nationalism in the G20 countries, encompassing both developed and emerging economies. This shift has posed significant challenges for the rules-based multilateral trading system operating under the auspices of the WTO. The Doha Development Round, launched in 2001 with the aim of further reducing trade barriers and revising trade rules, has reached an impasse. In lieu of forging a global trade deal, policymakers have turned increasingly to bilateral and plurilateral trade agreements. The number of regional trade agreements in force has increased, from 82 in 2000 to 306 in September 2020. At the same time, the WTO is facing the deepest crisis since its inception in 1995, with the dispute settlement system remaining paralysed since December 2019.

The COVID-19 crisis has reinforced the rise in subsidies

Meanwhile, protectionism has been on the rise. While, recently, much of the spotlight's focus has been on trade disputes (especially those between the United States and China and between the United States and the European Union (EU)) and the associated tariff increases, the move towards protectionism has in fact been a more widespread phenomenon, with non-tariff measures accounting for almost all trade interventions. The share of global merchandise imports, for example, affected by import restrictions has been steadily growing since the global financial crisis (figure II.6); but those restrictions are only part of the story. Export subsidies and other types of subsidies account for a growing share of trade-related support measures introduced over the past decade (figure II.7), a trend that has been further accelerated by the COVID-19 pandemic, with Governments stepping in to support domestic firms and workers. Kozul-Wright (2020) underscores that the massive production and export subsidies provided by developed countries cannot be matched by developing countries, which generally have more limited fiscal space. In the medium run, these subsidies threaten to distort competition, constraining trade opportunities for smaller developing economies and exacerbating inequities (Evenett, 2020). Warning that a broad-based shift towards higher subsidies could worsen existing trade tensions, Hoekman and Nelson (2020) have called for enhanced international cooperation in addressing potential conflicts in this area.

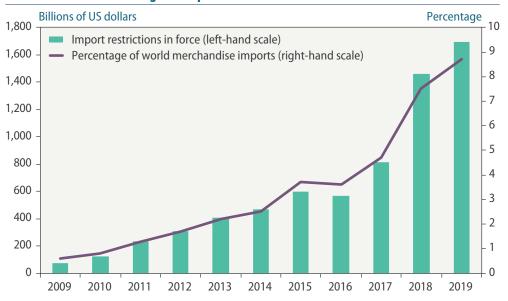
Retreat from multilateralism weighs on trade prospects of many developing countries The retreat from multilateralism has brought about significant challenges for many developing countries, particularly LDCs, landlocked developing countries and small island developing States; and the impact has been compounded by the sharp rise in trade policy uncertainties in recent years, which have dampened global trade flows and commodity prices. The shift towards the more discriminatory and exclusionary rule making associated with bilateral and regional trade agreements has introduced further complications into the global trade landscape.

¹² See, for example, Di Comite, Nocco and Orefice (2018) and UNCTAD (2019).

¹³ De Bolle and Zettelmeyer (2019, p. 7) define "economic nationalism" in terms of "policies designed to further domestic economic interests...at the expense of foreign economic interests, at least in the short run".

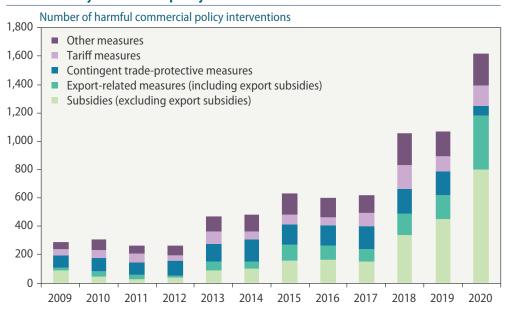
Figure II.6

Cumulative trade coverage of import-restrictive measures in force since 2009



Source: WTO secretariat. **Note:** Figures do not include trade remedy measures.

Figure II.7 **Discriminatory commercial policy interventions**



Source: Global Trade Alert (accessed on 13 November 2020).

Note: The figure incorporates only the policy changes implemented and documented between 1 January and 12 November of each year, which ensures comparability across years. For details, see www. globaltradealert.org/global_dynamics/day-to_1211.

Global value chains at a crossroads

Drivers of global value chain growth prior to the global financial crisis

The proliferation of GVCs over the past three decades has had a profound impact on the development path of many economies.

14 The findings derived from a vast body of work in the empirical literature indicate that for many developing countries, participation in GVCs has contributed to strong gains in productivity and employment, yielding increases in per capita incomes and reductions in poverty.

The GVC business model, under which the stages of production are geographically dispersed, has led to higher production efficiency, as firms are better able through this approach to exploit the comparative advantages of different countries. Importantly, integration into GVCs has boosted production and exports of many developing countries by enabling them to practise specialization in narrowly defined tasks, which is less resource-intensive than the setting up of entire supply chains domestically.

Major global trends will impact the future of GVCs Global value chains are nevertheless currently reaching a turning point. Since the global financial crisis, the expansion of GVCs has visibly slowed owing to several factors. For one thing, the maturing of existing production networks has limited the opportunities for further specialization. Moreover, unlike in the 1990s and 2000s, there has been a lack of major breakthroughs in trade liberalization capable of spurring a more rapid spread of GVCs. Instead, many parts of the world are today witnessing a backlash against globalization and the adoption of inward-looking trade policies. In addition, anecdotal evidence points to the emergence of a trend towards reshoring of manufacturing activities.

Alongside the evolution of the trade policy landscape, there are other major global trends—including digitalization, process automation and the servicification of manufacturing—that are also transforming the very nature of production processes. This will have significant implications for the future of global trade and the structure of GVCs; but it remains to be seen whether trends in digitalization and automation processes will ultimately result in shorter GVCs and more production reshoring as the comparative advantage of locations offering lower production costs is reduced, or will instead facilitate the formation of new and more complex supply chains. Heightened uncertainty and the desire to reduce potential vulnerability to shocks will also influence the future direction of GVCs, in particular if challenges related to the multilateral trading system are perceived as unlikely to be met. The changing international trade landscape could exert a considerable impact on the economic prospects of sectors and countries that are currently deeply integrated into GVCs. As firms realign their production strategies, changes in the nature and direction of foreign direct investment will likely occur, which could translate into less capital formation. This would undermine local industrial development and jobs, in turn affecting poverty reduction and income distribution. Against this backdrop, policymakers in developing countries are understandably concerned over whether GVC participation can still offer large development gains.

¹⁴ Global value chains refer to the international sharing of the production process, a phenomenon where production is broken into activities and tasks carried out in different countries (Seric and Tong, 2019).

¹⁵ World Development Report 2020 (World Bank, 2020d) summarizes much of the content of the literature, including recent empirical evidence, on the drivers of GVCs and the impact of GVC participation on developing countries.

Figure II.8 illustrates the changes in GVC participation rates of countries over time. A country's GVC participation rate is estimated based on the share of exports that are imported intermediate inputs (indicating backward linkages) and the share of exports that are used by another country in the production of its exports (indicating forward linkages). The figure shows that between 1990 and 2008, GVC participation rates visibly increased across developed and developing regions. However, there is considerable variation in the degree of participation among countries and regions. For example, most of the developed countries are characterized by deep participation in GVCs, while in the developing regions, economies of the Latin America and the Caribbean region exhibit relatively lower GVC participation rates. Since the global financial crisis, however, there has been a broad-based decline in GVC participation rates, as illustrated in the second panel of the figure. The implications of this phenomenon will be further discussed below.

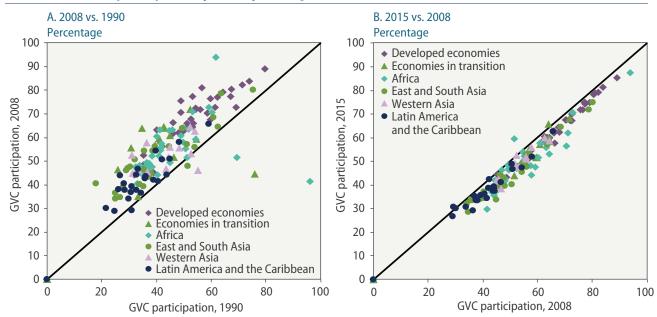
GVC participation rates increased prior to the global financial crisis

In tandem with strong growth in intraregional trade, there was rapid growth in regional GVCs in the 1990s and 2000s, which was driven by several catalytic factors. First, the ICT revolution, by significantly reducing the cost of managing and coordinating production across country borders, promoted the dispersion of production-related tasks and activities. Second, major trade liberalization initiatives during this period led to the lowering of tariffs and regulatory barriers across many regions of the world, providing an impetus to the expansion of GVCs. The formation of the WTO in 1995 put in place a global rules-based multilateral trading system, which supported smoother and freer trade flows. In the 1990s, there was also a global wave of efforts towards deepening regional integration, which included the formation of the EU. The creation of this single market contributed to an increase in intra-EU trade intensity from 12 to 22 per cent of GDP between 1992 and 2012 (European Parliamentary Research Service, 2017).

Rapid GVC growth was catalysed by several major trends

Figure II.8

Global value chain participation by country and region



Source: UN DESA, based on data from the UNCTAD-Eora Global Value Chain Database.

Note: A country's GVC participation rate is estimated based on the share of exports that are imported intermediate inputs and the share of exports that are used by another country in the production of its exports.

Third, China's accession to the WTO in 2001 marked a significant shift in the international trade landscape. The opening up of China—a developing country with a very large and relatively skilled workforce earning low wages—facilitated the formation of new and more dispersed production networks, amid a rapid expansion of the manufacturing sector. China is now the largest supplier of components in manufacturing sector GVCs, surpassing other manufacturing powerhouses, including Germany, Japan and the United States (Neumann and Bhaumik, 2020).

The expansion of GVC-linked production has been accompanied by a marked increase in FDI flows over the past few decades. Indeed, GVCs have strengthened the linkages between international trade and FDI, with multinational enterprises playing an important role in driving cross-border investment as they seek to increase cost efficiency while expanding market access across countries. Between 1990 and 2006, the global value of annual FDI inflows increased about twelvefold, peaking at over \$3 trillion in 2006. Prior to the global financial crisis, 80–90 per cent of inward FDI was channelled towards developed economies. Since then, however, this share has fallen visibly as a greater proportion of FDI has been directed to developing economies and economies in transition. In fact, by 2019, developed countries' share of FDI worldwide had fallen to about 65 per cent. At the same time, overall growth in FDI inflows slowed, in tandem with the deceleration of GVC expansion and international trade.

Emerging trends are redefining global value chains

Participation in GVCs has yielded significant economic benefits for many developing economies. Ignatenko, Raei and Mircheva (2019) found that participation in GVCs has a stronger positive effect on a country's income per capita and productivity than conventional trade, although the gains vary across countries. In addition, not only do GVC-related FDI inflows generate employment and support domestic industries through backward linkages, but recipient countries also gain technological know-how, management skills and access to global markets.

GVCs play a big role in the agrifood sector and various services sectors While the presence of GVCs has been most apparent in the manufacturing sector, they also play an important role in the agrifood sector and various services sectors. These sectors are garnering increased interest from policymakers based on their potential to produce value added in the economy. In the agriculture and food sectors, the enhancement of GVCs can play an important role in boosting productivity growth and rural incomes, with possible positive effects on food security. Between 2004 and 2014, trade and agrifood GVCs generated on average 20–26 per cent of total agricultural labour income, derived from countries' direct participation in trade and from indirect participation through downstream sectors (Greenville, Kawasaki and Jouanjean, 2019). The OECD (2020b) has observed a strong increase in developing countries' involvement in agrifood GVCs in recent years, notably in Asia and South America. In sub-Saharan Africa, international linkages of the agriculture sector are also growing, but they remain limited mainly to upstream production stages (Del Prete and others, 2016). Looking ahead, GVCs in the agrifood sector are likely to gain in importance, given the ongoing modernization of the agriculture sector and the rising importance of food security issues.

The servicification of manufacturing industries is another important trend that is likely to redefine GVCs. Currently, the manufacturing sector is increasingly involved in purchasing, producing, selling and exporting various types of services. Thangavelu, Wang and Oum (2018) found that Asian countries with a higher level of participation as well as a lower position in manufacturing GVCs tend to have a higher level of foreign servicification (i.e., use of foreign services as input) compared with domestic servicification, owing in part to better access to overseas markets. Besides using productivity and efficiency enhancing services such as logistics and management, manufacturing firms are also adding services to their product offers, in an effort to differentiate their goods (Lodefalk, 2015). Some of the implications of servicification for developing countries are discussed in box II.3.

Rising servicification and digitalization will redefine GVCs

The rising trend towards servicification is accelerated by growing digitalization and automation in production processes. Digital platforms bolster the production of most business-to-business and business-to-consumer goods and services through GVCs, by allowing different activities to be sourced from the most competitive suppliers no matter where they are physically located. However, increased digitalization and automation could also incentivize the onshoring of production, amid a reduced need for physical presence in other coun-

Box II.3 Servicification as a tool for promoting development

Servicification refers to the increased use, production and export of services in other sectors, namely, manufacturing and agriculture. This is unlike tertiarization, which refers to the increasing share of services in direct output, employment, investment and trade. Servicification includes the provision of services as intermediary inputs to a sector, for example, provision of automated crop monitoring services to agriculture; software services to the automotive industry; and telecommunication services for digital financial services.

The significance of servicification is apparent in the contribution of services to the value added of exports. In developing economies, services accounted for 19 per cent of total direct exports and 33 per cent of total value added exports in 2014. In Brazil, the difference was even larger, with services accounting for 17 per cent of direct exports and 48 per cent of value added exports in 2015 (UNCTAD, forthcoming a). Two thirds of the growth in the value added of services in exports came from the contribution of services to the production of merchandise exports, instead of from direct services exports, such as tourism receipts.

The performance of agriculture and manufacturing is becoming linked more and more to the effectiveness of services inputs. In developing countries, services account for two thirds of total productivity growth (UNCTAD, 2017). The development of services—acting as a catalyst to promote agriculture and manufacturing—is a key element in any balanced growth strategy. Servicification can therefore serve as a tool for the modernization of farming and industrialization. The SDGs reflect the importance of services in this regard by placing transport, increased access to information and communication technology (ICT) and access to financial services as preconditions for achieving Goal 9, which is to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

To enhance the contribution of services to the economy, the policy mix must be coherent and reflect the cross-cutting nature of services. For example, the digital transformation strategy for Africa highlights the need to align services negotiations and regulatory cooperation frameworks (UNCTAD, Trade and Development Board, 2020, para. 6). Trade policies should aim at improving access to foreign

a See World Bank, Export Value Added Database.

(continued)

Box II.3 (continued)

services and inputs that enable domestic services; improving access to foreign markets that support economies of scale in services; and inviting competition to boost productivity growth. There is also a need to ensure consistency between trade and tax policies. For example, authorities in Brazil are currently revisiting their drawback regime which grants tax relief for goods inputs in merchandise exports but not (yet) for services inputs so as to avoid "taxing" services exports (UNCTAD, forthcoming a).

Improving the impact of servicification also requires the development of relevant skills and the collection of reliable data for evidence-based policymaking. The United Nations Conference on Trade and Development, working with authorities and experts in Brazil and the European Commission, has developed a guidebook on a methodology for the measurement of services value added in exports (UNCTAD, forthcoming b).

Moreover, industrial policies need to be developed in tandem with trade policies so as to promote the diversification and upgrading of services. This is especially important given the relatively high dependence of developing economies on traditional services, such as travel and transport. Some of these services are less effective in enhancing the broader supply and export capacity than knowledge-intensive services such as ICT and financial services. Developing economies should therefore aim at broadening the spectrum of services, which would include fostering knowledge-intensive services so as to increase competitiveness in higher value added merchandise exports. Pertinent in this regard is the Centre for Research and Assistance in Technology and Design (Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco (CIATEJ)), a public research centre in Mexico that provides the R&D services and training needed to boost the competitiveness of the agroindustry.

The economic crisis triggered by the COVID-19 pandemic makes the call for the use of servicification to promote export diversification and a robust economic recovery only more urgent. This is particularly important for those countries that have been hit the hardest, such as small island developing States and commodity-dependent economies. The recovery of tourism services in the wake of the pandemic would, for example, be facilitated by more effective inputs from health and sanitary safety certification services and ICT services that enable travel agencies to better connect with clients. At the same time, improving financial and logistics services, along with e-commerce infrastructure, could help these countries benefit more fruitfully from the creative economy, which includes such industries as advertising, arts and crafts, design, fashion, film and music.

b Further details are available at www. conacyt.gob.mx/ index.php/el-conacyt/ sistema-de-centrosde-investigacion/ directorio-de-centrosde-investigacionconacyt/item/ciatej.

Authors: Bruno Antunes and Mesut Saygili (UNCTAD)

Many countries are struggling to move up the value chain

tries in order to benefit from cost advantages and market access. Foster and Azmeh (2020) and Lee, Malerba and Primi (2020) note that digitalization and process automation may also drive greater inequality across countries, in part because of technology and skills gaps.

Not all developing countries have managed, however, to successfully integrate into regional and global production networks. When deciding on the appropriate geographical location for establishing its production network, a firm takes into account many factors, including a country's physical and digital connectivity, the size and skills of its labour force, the quality of its infrastructure, its trade and investment policies, the quality of its institutions, and its political stability. Ahmad and Primi (2017) have found that the presence of strong domestic supply chains in a country provides the foundation for its integration at a more global level. Many countries that are currently plugged into GVCs are struggling to move up the value chain, and have been unable to capture a higher share of value added in the production process. Some studies have shown that for developing countries, GVC integration has in fact discouraged export diversification and has also been associated with the lowering of domestic value added, and the widening of within-country income inequality (UNCTAD, 2015; 2018).

The ability of countries to adapt to changing global trade structures and to harness the opportunities arising from the changing configuration of GVCs depends on many factors. If firms are to participate in digitalization and benefit from its trends, national Governments will need to focus on developing as well as upgrading workforce skills, and to establish regulatory and policy frameworks that enable the private sector to set up required ICT infrastructure successfully. Some Governments may choose to expand beyond horizontal policies and pursue industrial-digital approaches that support local firms through active regulation of dominant foreign firms' market access, including to digital platforms and online marketplaces. However, a multiplicity of different regulatory norms across countries implies increased costs for international business. Moreover, the existing digital divide will place many developing countries at a competitive disadvantage in the new trade environment; and trade and investment agreements have often contributed to a reduction of policy space, limiting the ability of countries to implement the specific reforms needed to boost development prospects. Regardless of the direction taken by countries' industrial and development policy choices, those choices will influence global trade patterns.

ICT infrastructure and enabling policy frameworks play a critical role

Challenges to further expansion of global value chains

Since the global financial crisis, there has been a clear deceleration in the pace of GVC expansion. The WTO (2019a) found that while GVCs have continued to grow, they have done so at a pace slower than that of the growth of total trade, especially in the middle-income countries. The average GVC participation rate, measured as countries' GVC-related trade as a share of total trade, has declined at an annual rate of 1.6 per cent since 2012. At the same time, Miroudot and Nordström (2020) have observed that, over the past eight years, there has been a gradual shift towards more domestically oriented supply chains. As existing supply chains matured, subdued global GVC growth and investment since the financial crisis have dampened the proliferation of new GVCs. Looking ahead, critical transitions in the global economy could significantly alter trade patterns and the nature of existing GVCs. This in turn would pose challenges for developing countries, while raising concerns over whether GVCs can still offer them opportunities for further development progress.

The pandemic may

accelerate the trend

towards onshoring of

production

In addition, the COVID-19 pandemic has exposed the risk posed by complex and geographically dispersed production networks. Lockdown measures have had a strong impact on the manufacturing sector in many countries, amid the closures of production facilities and shortages of intermediate inputs. Baldwin and Freeman (2020) have noted that as the coronavirus disease outbreak hits major GVC hubs sequentially, the initial supply chain contagion is working in reverse through "reinfection", as trade-linked contagion ripples through to countries that depend on each other's manufacturing inputs.

The backlash against globalization in many parts of the world and economic and political pressures for reshoring could undermine the future of GVCs that largely depend on cost efficiency. Furthermore, concerns over labour and environmental standards are increasingly challenging the cost-efficiency rationales for establishing GVCs. The trade dispute between China and the United States as well as the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the EU pose additional challenges for GVCs. These developments have highlighted the vulnerability of GVCs to policy shocks in host countries. Indeed, populists in many countries have been pushing for the reshoring of economic activities in order

The pace of GVC expansion has slowed over the past decade

to reduce the share of foreign value added in production and exports, which would result in shorter and less dispersed supply chains. However, it is unclear whether domestic supply chains offer a national economy greater resilience. A country-level shock would tend to have a greater impact on domestic production networks compared with one with international sourcing, which effectively diversifies risks when shocks are uncorrelated across countries. Against this backdrop, a question that is key for the future of global trade concerns the extent to which GVCs can be unravelled through trade policy actions.

GVCs have remained resilient to China-United States trade tensions

In the case of the China-United States trade tensions, the shock to bilateral tariffs between these two economies has been large in both absolute and relative terms. The costs of the prolonged trade dispute have been substantial at an aggregate level, amounting to estimated GDP losses of 0.32 per cent for China and 0.05 per cent for the United States. Using a quantitative trade model to delve beyond the aggregate impacts, Shepherd (2020) analysed changes to GVCs resulting from the trade dispute. The model demonstrated, through application of the decomposition approach of Wang, Wei and Zhu (2013), that in proportional terms, China and the United States had experienced only a modest reduction in dependency on GVC linkages compared with the pre-shocks period. While there were some disruptions to production networks, GVCs exhibited a significant degree of resilience in the face of the trade dispute. Neumann and Bhaumik (2020) found that trade tensions between China and the United States appeared to have raised, not lowered, the reliance of third markets on inputs from China, with China gaining global export market share. China has managed to compensate for its direct loss of market share in the United States through an increase in market share elsewhere, either directly or through the sale of intermediate inputs ultimately bound for the United States. While it remains unclear whether further protectionist measures will induce a large-scale shift towards the reshoring of existing GVCs, the heightened global uncertainty associated with unpredictable changes in trade and investment policies will continue to weigh on the expansion of GVCs. Public policy may struggle to strike the right balance between efficiency and resiliency, given the bluntness of available trade policy instruments, such as tariffs and import quotas. At the firm level, there will no doubt be some reassessment of network fragilities and strengths, taking stock of experiences during the COVID-19 pandemic.

Digitalization and servicification: redefining comparative advantages

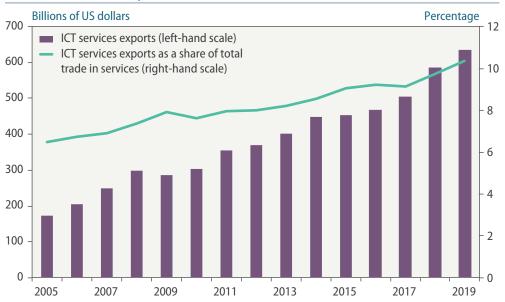
Digitalization and new technologies

Digital services are increasingly embedded in production and trade

The digital economy is increasingly shaping competitiveness, production, trade and economic outcomes. The concept of the digital economy is focused on the convergence of fixed, mobile and broadcast networks, the increasing connection of devices and objects to form the Internet of Things, and the resulting changes in social interactions and personal relationships (OECD, 2015). The use of ICT by firms has expanded rapidly, with digital processes becoming more embedded in production and trade. ICT services are now used consistently to measure and control businesses processes and facilitate transactions within networks and between firms and customers. In 2019, ICT services accounted for a record 10 per cent of total global trade in services (figure II.9).

Figure II.9

Global ICT services exports



Source: UN DESA, based on data from UNCTADstat.

These technological developments will underpin new business models that impact the volume and direction of trade. A wide range of products and services, such as travel reservations, translations, support and customer services, telemedicine and e-learning, are already being delivered remotely with relative ease. Consumers' shopping experiences can be analysed abroad by digital platforms that intermediate local demand and supply, leveraging the power of artificial intelligence, big data and fast web connections to gather detailed data on personal preferences and customize product offerings and advertisements. Digital technologies, such as 3D printing, allow mass customization of goods and services for the buyers worldwide who prefer personalized products. Technology has also reduced transaction costs between owners and renters regardless of location, since the sharing of surplus or idle assets (e.g., a spare room or car) is now easier than ever. Social networks allow people to communicate and global positioning system (GPS) services enable them to locate and compare goods, while online payment systems handle the billing. Importantly, the new technologies enable a more efficient use of existing resources. This allows reductions in energy and water use, greenhouse gas emissions and waste generation, provided that efficiency gains are not offset by increased consumption.

Digitalization of both manufacturing and services activities will continue its rapid advance. Machine vision, automation and additive manufacturing have the potential to bring about fundamental changes in the organization and distribution of manufacturing activities, reducing resource intensity and generating increasing returns to scale for investment and production. These types of technologies can support reshoring of manufacturing by enabling scale-independent efficient production, although to date the use of such technologies is still relatively limited. Their use will be accompanied by greater digitalization, with trade entailing the cross-border flow of digital design files, printers and feedstock. The composition of trade in tangibles will change, with a shift away from trade in parts, components and finalized products towards trade in material inputs and equipment.

Technological developments allow for new consumer experiences

New technologies shape manufacturing and merchandise trade Technology is transforming service delivery Services will become more automatized as robotic processes and artificial intelligence are increasingly used in interactions with clients, for example, in customer service and marketing. Business decision-making will be increasingly informed by high-frequency monitoring and feedback from customers based on product usage. Software tools to support data analytics and regulatory compliance (e.g., corporate tax obligations across jurisdictions) will further drive the digitalization of trade-related services. There will also be an associated expansion along the extensive margin, with new services being developed.¹⁶

Digitalization of services creates both opportunities and challenges

At the same time, the application of ICT services offers the prospect of significant productivity improvements and improved quality care in medicine and health services, reducing commuting and wait times and improving diagnostics and treatment. The reduced need for patients to travel to health-care provider locations will facilitate trade of those services across borders. There is already some evidence that international trade in health services has grown. So far, however, this reflects mainly increased movement of patients and health workers, with a rising number of countries importing services to deal with capacity shortfalls in their health systems (Hanefeld and Smith, 2019). Process automation and related software tools may generate competitive pressure for some types of services that have been outsourced, such as call centre work and back office activities.

The value of crossborder data flows is difficult to capture Cross-border movements of data are central to the economic activities described above, but there is no commonly agreed methodology for collecting or valuing them. An estimate by McKinsey (2016) suggests that global data flows contributed \$7.8 trillion to global GDP in 2014. It was estimated that in developing economies, the Internet of Things — which refers to the sensors, actuators and data communication technology built into physical objects that are used to enable those objects to be tracked, coordinated or controlled across a data network or the Internet—could have an economic impact of \$0.81 trillion to \$1.86 trillion per year by 2025 (UNIDO, 2015, box 2.1). It was also estimated that by 2025 in developing economies, advanced robotics—that is, robots with greater dexterity, flexibility and adaptability, as well as the ability to learn from, and interact with, humans—could have an economic impact of \$0.3 trillion to \$0.9 trillion (ibid.).

The global regime for data flows is highly fragmented

Access to consumer data by producers, distributors and retailers is regulated at the national level, with national data privacy and security standards determining the price of data. Firms that are able to collect, collate and analyse consumer data nationally and across countries are poised to gain advantages over their competitors. Accordingly, access to consumer data will strongly affect the dynamic comparative advantage of a country in international trade. Measuring the flow of data across countries and determining their true market value pose significant challenges for government authorities, particularly in developing countries where data governance is still at a nascent stage. The current global regime for regulation of data flows is highly fragmented, with laissez-faire approaches in some countries and more tightly regulated environments in others. Regulation can be motivated by such factors as a commitment to protection of privacy and citizens' rights, perceived security imperatives or concerns about market power and abuse of dominant positions by leading firms.

Trade agreements are beginning to include specific obligations on cross-border data flows, and some jurisdictions are establishing "equivalence regimes," which determine whether foreign providers will be treated in the same way as domestic firms with respect to

¹⁶ In this context, extensive margin refers to the development of new (different) services, as opposed to intensive margin which refers to the development of existing services.

accessing and processing of data. The welfare consequences of the possible emergence of data trading blocs are still poorly understood.

The rise of the services economy

The rise of services has been a key feature of the world economy in recent decades and—driven by digitalization and the increased use of machine learning and artificial intelligence to process vast quantities of consumer data services—services will become even more important in the future. The evolution of economic processes has extended from mostly agrarian activities to industrial production and, increasingly, to data product development. Services (e.g., financial and legal services, logistics and advertising) have, in tandem, gained prominence both as intermediate inputs to the production process and as final products, for example, in the fields of education, entertainment and health care.

The share of services in total value added has risen steadily, from 60 per cent of GDP in 2000 to 65 per cent in 2017. The transformation was especially rapid in some developing economies. In China, for example, the share of the services sector in GDP more than doubled in the last 40 years; and services now account for a larger share of GDP than manufacturing. The importance of the services sector has also risen sharply in other large developing economies, such as Brazil and India. Some developing countries, especially geographically disadvantaged economies, have moved directly to services, bypassing traditional industrialization.

Currently, services provide over 60 per cent of the jobs in developing countries and 80 per cent of the jobs in developed countries (WTO, 2019b, p. 14). The coming decades will see major shifts in the composition of services sector employment owing mostly to automation. Functions that are likely to see a net job decline by 2030 include some customer interaction jobs (e.g., hotel workers, travel agents, cafeteria workers), office support jobs (e.g., information clerks, payroll processors, administrative assistants) and jobs carried out in predictable settings (e.g., factory workers, transportation workers, installation and repair workers) (McKinsey Global Institute, 2017). By contrast, positive job growth is expected in categories such as health-care providers, professionals (e.g., engineers, scientists), technology professionals, managers and executives, and educators. While these trends are currently most relevant for developed economies, they will be affecting developing countries more and more. The consequences of automation of services will be compounded by enhanced cross-border trade in services. As technology reduces the need for face-to-face contact, many services sector functions are becoming tradable and will move increasingly from higher- to lower-cost locations (Baldwin, 2019).

Trade in services across countries can be classified under four Modes of supply, depending on where the supplier and consumer are located at the time of the transaction: Mode 1—cross-border transaction, which occurs when a service is supplied across borders, most likely digitally via email or through an online platform; Mode 2—consumption abroad, which occurs when a consumer moves to a foreign country to receive the service (e.g., tourism and medical treatment); Mode 3—commercial presence abroad, which occurs when a service is supplied through commercial presence, e.g., by a branch or subsidiary of a foreign bank or by a foreign-owned hospital or in connection with FDI; Mode 4—presence of natural persons, which occurs when a service is provided by a person through temporary cross-

Services have gained in importance as inputs and as final products

Countries are becoming increasingly service-based

Employment in certain services is expected to decline over the next decade

Current data understate the true level of services content in international trade border movement (e.g., a software engineer or a consultant on a temporary visa engaged in work on a project overseas).

Data on trade in services—especially trade in services between a parent firm and its cross-border subsidiaries or affiliates—are less comprehensive and reliable than merchandise trade statistics. Most countries collect only a limited quantity of data on cross-border services trade. In many developing countries, services trade data are limited to pure cross-border transactions and movement of the consumer to a foreign country, with little information available on disaggregated categories of services. Even in developed countries, collection of data on the supply of services across borders is not systematic. The absence of a single or harmonized data source for trade in services, particularly intrafirm activities, has important impacts on trade invoicing, affecting financial flows and taxation.

A new data set compiled by the WTO documents the rapidly growing role of international trade in services in the global economy. To Global trade in commercial services is estimated to have increased from about \$7 trillion in 2005 to about \$13.3 trillion in 2017, which is close to the level of total merchandise exports, estimated at \$17 trillion. Trade in services has grown faster than trade in goods in recent decades. Since 2005, trade in services has expanded by 5.4 per cent per year on average, while trade in goods has expanded at a rate of 4.6 per cent annually. Although both the global financial crisis of 2008–2009 and the COVID-19 pandemic triggered sharp declines in the global services trade, the value of global services exports is expected to continue rising in the future.

The participation of developing countries in international trade in services has been on the rise. Between 2005 and 2017, developing economies' share of global trade in services (excluding the LDCs) grew by more than 10 percentage points, reaching 25 per cent (\$3.4 trillion) for exports and 34 per cent (\$4.5 trillion) for imports. This large increase was driven by structural transformation and successful trade diversification entailing a shift from goods to services, especially in Asia, as well as by the advent of novel means of trading in services.

Among the developing economies, services trade is, however, highly concentrated. Just five economies (China, Hong Kong SAR, India, the Republic of Korea and Singapore) accounted for more than 50 per cent of services exports from developing countries in 2017. Services exports in these countries have increased at a faster rate than among the developed economies. Moreover, high value added services, such as research and development (R&D), ICT and financial services, account for a growing share of their trade in services. These five economies have invested in services trade by establishing branches and subsidiaries both in other developing regions and in developed economies.

For the LDCs, progress in trade in services has been slow. In 2017, LDCs accounted for 0.3 per cent of world services exports (\$38.3 billion) and 0.9 per cent of world services imports (\$124.1 billion). These shares were only slightly higher than in 2005, when they stood at 0.2 per cent and 0.5 per cent, respectively. Services exports growth has been led by tourism, an important source of revenue for many LDCs and the only services sector where the group's participation in global exports exceeded 1 per cent.

Commercial presence abroad accounts for the largest share of global services trade (59 per cent), half of which are financial and distribution services, involving banks, wholesalers and retailers (figure II.10). Yet, in some developed countries, such as the United

Prior to COVID-19, trade in services grew faster than trade in goods

Developing countries account for a growing share of services trade...

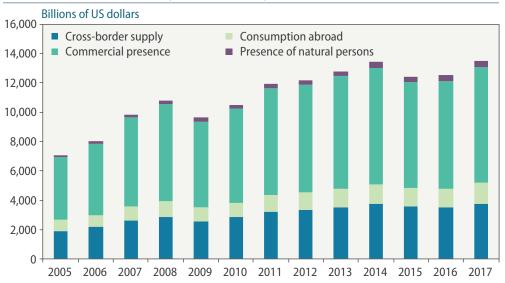
... owing largely to the success of five economies

Cross-border services are provided mainly by foreign affiliates

¹⁷ See WTO, Trade in Services data by Mode of Supply (TiSMoS) database, available at https://www.wto.org/english/res_e/statis_e/trade_datasets_e.htm#TISMOS

Figure II.10

World exports of services, by Mode of supply



Source: UN DESA, based on the WTO Trade in Services data by Mode of Supply (TiSMoS) data set.

States and countries in Europe, the share of services provided by affiliates is declining, in favour of online cross-border transactions made possible by digitalization. At 28 per cent, cross-border transactions are the second largest category of services. Technological developments that facilitate trade in digital products and cross-border provision of services, such as mobile banking and online sales, can be expected to increase the share of cross-border transactions in total trade in the future. Much will depend, however, on government policy and the ability of suppliers to meet a range of regulatory requirements in importing countries. Consumer purchases abroad constitute the third largest category of trade in services (10 per cent), driven mainly by tourism activities. The services of persons abroad constitute only 3 per cent of all traded services, a share that has remained relatively unchanged during the past two decades.

The four Modes of supply do not give a full picture of the extent of services trade since other sectors of the economy make large use of services inputs. Exports of tangible products embody a significant amount of services value added. For example, the OECD Trade in Value Added database reports that services value added accounts for over 23 per cent of the gross value of Indonesia's manufacturing exports. A similar observation applies to tasks performed within firms. Most manufacturing firms employ substantial numbers of people who engage in services activities. They range from engineers to back office specialists and providers of sales and support, custodial and security services. Accounting for the total services content of exports is impeded by the fact that these transactions are carried out not in markets but within firms and might therefore give rise to problems such as trade mis-invoicing.

The COVID-19 pandemic has created an even higher demand for digital services, many of which are provided by firms across borders. Online sales of physical goods have experi-

Service value added is also embodied in manufacturing exports

The pandemic has accelerated online trade...

¹⁸ See OECD, Trade in Value Added, available at https://www.oecd.org/sti/ind/measuring-trade-in-value-added. htm#access.

enced a surge in demand during the pandemic and numerous brick-and-mortar businesses shifted to e-commerce as consumers flocked to digital services amid stay-at-home measures and social distancing requirements. Profits in Amazon's international operations, for example, rose sharply year on year in the second quarter of 2020. In 2020, services of foreign firms in the areas of education, health and media also reported robust growth, while demand for international voice and video call services surged; on the other hand, online sales of tourism and travel activities—previously one of the most significant segments of online purchasing—plummeted.

...but further digitalization of services faces obstacles

Looking ahead, certain shifts in the consumption of services may be permanent, although some developments could be short-lived and may not outlast the current crisis. However, in the course of numerous shifts in customer habits and preferences, businesses and consumers have become more familiarized with online services in both work and personal settings, which indicates that longer-term changes to consumer behaviour and cross-border trade are likely. For instance, the pandemic is expected to have a lasting impact on the demand for e-working facilities and cross-border online education transactions.

The path ahead for services trade nevertheless depends on how countries manage the challenges. For example, consumer protection will need to be strengthened to prevent online fraud and deception. Direct shipments to consumers of large volumes of small parcels present several types of challenges related, for example, to compliance with health and safety regulations in importing countries; protection of the health of workers involved with the handling and inspection of goods; and environmental sustainability. Many consumers and businesses in developing countries are struggling to secure reliable Internet access and electricity connections, acquire affordable computers and telecommunication devices, set up online payment solutions and establish online visibility. Digital divides within and across countries are likely to have been reinforced by the crisis.

Climate change disrupts trade in services

The effects of climate change will be a key determinant of services trade in the future. Extreme weather events are already affecting tourism and port closures, while global warming affects shipping lanes. Climate change also affects trade indirectly, impacting labour productivity, inputs (such as energy and water supply), risk-return matrices and investment decisions. Climate change policies may affect services trade through more stringent regulation of the carbon content of imported goods and services. Countries with stringent decarbonization requirements will seek to restrict access to their markets by producers that operate under less stringent standards.

Fostering participation in the services and digital economy

Several developing countries have built competitive service industries Tradable services offer immense opportunities for developing countries in the medium term. Unlike in the manufacturing sector, the disadvantages of geography will play a less relevant role in building an export base of services. Creating an enabling environment for technology, infrastructure, human capital and regulatory policy is critical for developing internationally competitive service industries. While India stands out in terms of building competitive services exports, there are also other cases that are worth highlighting. Mauritius and Senegal, for example, have established a presence in the ICT sector and in business process outsourcing, focusing on cost savings and specific language skills. In the last two decades, Mauritius has emerged as an exporter of ICT services, with the share of services in GDP (mainly travel and tourism, financial services, transportation and ICT) having increased from

55 per cent in 2000 to 67 per cent in 2019. In Chile, services exports are less dominated by large firms and tend to be more skill-intensive than manufacturing exports. At the same time, services firms are as innovative as manufacturing firms, illustrating the role that services can play as a driver of trade and innovation (Zahler, Jacovone and Mattoo, 2014).

The success stories in service exports across developing countries highlight the important role of trade policy (Balchin and others, 2016). In Kenya, for example, regional integration, together with the establishment of diversified financial hubs and advances in mobile technology, has been key to promoting the rapid expansion of financial services exports, creating both high- and low-skilled jobs. ICT exports, on the other hand, depend critically on access to export markets through digital infrastructure and regulatory standards. At the same time, agreement on mutual recognition of services sector qualifications can help reduce trade costs. The members of the Association of Southeast Asian Nations (ASEAN) have, for example, concluded mutual recognition agreements (MRAs) that facilitate cross-border provision of a range of professional services. The EU–CARIFORUM Economic Partnership Agreement permits professionals from EPA members in 29 categories to enter the EU without quotas.

In recent decades, developing countries have reduced barriers to services trade through WTO and regional trade agreements, with the exception of temporary cross-border movement of people, for which barriers remain high. Notwithstanding such progress, there is a strong case to be made for increased global cooperation in particular areas to deal with cross-border spillovers. Multilateral approaches are needed to ensure that regulatory outcomes in the areas presenting new challenges do not reflect only the standards of major countries or country blocs. Thus, while building their services sectors and expanding digital capabilities, developing countries should proactively engage with the emerging global regulatory agenda in these areas. Indeed, lack of engagement may leave them in the position of rule takers, rather than rule makers. While for many small and low-income countries, active engagement would require developing technical capacities and reducing the digital divide, a strong case can be made that at least the larger developing countries should get involved in rule making of services sectors. This is the only pathway towards ensuring that the global regulatory advances in these areas take the needs of developing countries into account.

As Governments attempt to address the adjustment costs associated with the shift to a services economy and the repercussions of efforts to decarbonize production and consumption, they will need to identify national priorities and align their policy frameworks accordingly. Given that many countries still concentrate on manufacturing, there are important policy issues that need to be considered. Trade policy must be embedded in a broader development strategy which recognizes trade-offs and synergies between objectives. The issue of digitalization is of particular importance for developing countries, as it will alter business models, redefine comparative advantages and accentuate the shift towards services. Notably, countries need to assess how to leverage data and digitalization to foster productivity growth. Small and low-income countries need to prioritize the development of connectivity and digital infrastructure so as to reduce the risk of exclusion from global trends. The regulation of trade in digital services will, to a large extent, determine how countries can benefit from these emerging opportunities in the coming decades.

Developing country Governments have a wide range of instruments at their disposal—including tax incentives, subsidies, local content requirements and FDI incentives—for building human and physical infrastructure, strengthening domestic capabilities and fostering participation in global and regional value chains. The participation in the services economy

Trade policy has played a crucial role in promoting services exports

Global cooperation is needed to improve services trade regulation

Connectivity and digital infrastructure are priorities for small and low-income countries

Education and training policies play a key role in developing the services economy

calls for stronger emphasis on education and training to improve labour-force skills. Policy approaches must be guided by countries' dynamic and evolving comparative advantages in the medium to long term. For example, creating a business environment and a trade policy regime conducive to relationship-specific investments by multinational firms can offer significant opportunities for developing countries. This can include more specific and targeted efforts to attract multinational firms in areas compatible with national development priorities. Maintaining sufficient policy space is crucial for developing countries in this context. In the past, trade and investment agreements have been widely criticized for constraining Governments' policy options (Gallagher, 2010; McNeill and others, 2017).

Strengthening innovation systems is vital for developing countries

Developing countries need to strengthen national innovation systems in order to invigorate firms' capabilities to absorb and utilize knowledge and adjust to and benefit from the changing trade environment (United Nations, 2018). Knowledge—as a firm's most significant resource—promotes the development of new and more advanced products and services, enables the use of new processes and technologies, and facilitates the creation and discovery of new markets. Innovation is, however, often concentrated in low-tech sectors with limited spillovers, and manufacturing innovation tends to be highly informal. Amid weak institutional frameworks, the levels of private investments in R&D are usually low, and the partnerships and linkages among the private sector, universities and research institutions are limited. Many developing countries also face educational mismatches and a critical shortage of high-skilled labour.

Technological capabilities can help drive export growth

In recent decades, more formal approaches to promoting innovation and the accumulation of technological capabilities have gained relevance in the policy agendas of many developing countries, often involving major changes in institutional frameworks. These approaches need to be comprehensive, taking into account the systemic nature of innovation activities and how they enhance a country's dynamic comparative advantages. This being the case, an expansion of R&D investments must be complemented by the tackling of existing barriers to physical and human capital accumulation, including deficits in managerial capabilities and technological infrastructure. Amid the rise of digitalization and new technologies, stiffer international competition and a growing role of labour and environmental standards and trade regulations, many developing countries will find it increasingly difficult to compete on the basis of low labour costs alone and participate in global or regional value chains.

The multilateral trading system: facing a crisis of confidence

There is a pressing need to revitalize multilateral trade cooperation

The COVID-19 pandemic has exacerbated some of the critical challenges currently faced by the multilateral trading system. The imposition of export restrictions on medical supplies by a significant number of countries has demonstrated their preference, during a global health crisis, for using unilateral trade measures to protect domestic interests. In addition, ongoing structural trends, including rising protectionist tendencies and shifts towards bilateral and regional trade agreements, are threatening to further weaken the role of the WTO as the central governing body for global trade. This in turn could lead to an increasingly polarized and fragmented international trade landscape in the coming decades. The need to reform and

revitalize multilateral trade cooperation is thus more pressing than ever. While the COVID-19 crisis has added yet another challenge to an already weakened WTO, it may also create an opportunity to strengthen multilateralism. By raising the stakes and demonstrating the benefits of global cooperation, the pandemic could serve as a catalyst for achieving progress on WTO reforms so as to create a global trade governance framework that can effectively address new and emerging challenges within the international trade landscape (Evenett and Baldwin, 2020).

Challenges for the multilateral trading system

The pandemic has further exposed the weaknesses of the current multilateral trading system. Amid a sharp increase in global demand for medical equipment, a large number of Governments imposed export restrictions on medical supplies and other essential products, leading to an acute shortage of these goods in some countries. Between January and November 2020, 98 countries worldwide are reported to have introduced export restrictions on products such as face masks, gloves, disinfectants, medical devices and foodstuffs. ¹⁹ While some of the measures introduced in the early stages of the pandemic were later lifted, many have remained in place—potentially in violation of WTO regulations which allow only temporary emergency use of restrictions (WTO, 2020a). In addition, there has been a lack of transparency at the multilateral level, with members failing to notify export restrictions to the WTO.

en a lack trictions and 1,477 erests of bailouts ost three

Furthermore, in the first 10 months of 2020, Governments implemented a record 1,477 policy interventions which are estimated to negatively affect the commercial interests of their trading partners (Evenett and Fritz, 2020). Government subsidies—including bailouts for airlines and large-scale support for the automotive industry—accounted for almost three quarters of those interventions. While these measures have played a vital role in protecting jobs and stabilizing national economies, they have also created significant cross-border spillover effects which could trigger tit-for-tat moves and have a long-lasting negative impact on competition (Hoekman and Nelson, 2020).

The global pandemic emerged on the heels of already heightened trade tensions amid a weakened multilateral trading system. Over the past two decades, WTO member countries have increasingly struggled to resolve long-standing differences and to negotiate new rules in response to an evolving global trade environment. Special and differential treatment (SDT) is one example of an issue that has recently stoked contention. Some developed countries have sought to terminate the current practice of self-declaration of developing country status, requesting greater reciprocity in liberalization commitments. Developing countries remain generally opposed to such proposals, noting the prevalence of still large divides and highlighting the vital role of SDT provisions in creating policy space for the promotion of sustainable development.

As a result of these differences, the WTO has been unable to fulfil its core functions, which are to support multilateral market opening and rule making; resolve trade disputes; and ensure transparency. With the exception of the WTO Agreement on Trade Facilitation (2013), the first global trade accord to be negotiated since the 1990s, there have been few meaningful outcomes of multilateral trade negotiations in recent years. At the same

exposed weaknesses of the current multilateral trading system

The pandemic has

The WTO is facing significant operational challenges

¹⁹ See the International Trade Centre (ITC) Market Access Map, available at www.macmap.org/en/covid19.

time, trade conflicts between major economies have intensified. In defiance of the rules-based multilateral trading system, there has been an increase in the use of unilateral trade-distorting measures in recent years. Although China and the United States signed an interim bilateral agreement in January 2020, trade tensions between the two countries remain elevated. Moreover, disagreement over procedures and mandates of the dispute settlement mechanism has caused a paralysis of the Appellate Body, the WTO's highest court. Since December 2019, the Appellate Body has been unable to function, which includes an inability to hear new cases, owing to lack of consensus on the appointment of new judges. This is of particular concern for small countries, which, given an incapacity to enforce compliance with negotiated agreements, rely most heavily on the WTO.

Trade governance architecture has become more fragmented In the absence of meaningful global progress, many countries have turned to bilateral and regional free trade agreements. Most new rule making has occurred under preferential trade agreements and not within the WTO.²⁰ The past few years have seen a proliferation of regional trade and investment agreements. Several of these new agreements have broad membership and cover a significant share of world trade.²¹ The most prominent are the Agreement Establishing the African Continental Free Trade Area (AfCFTA), which entered into force on 30 May 2019; the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), agreed by 11 countries on 8 March 2018; and, most recently, the Regional Comprehensive Economic Partnership (RCEP) Agreement, which was signed on 15 November 2020 by 15 countries of East Asia and Oceania.²²

There has been a long-standing debate on how the move towards preferential trade agreements affects the WTO and the multilateral trading system. Since these agreements discriminate against third parties, they give rise to trade diversion and potentially marginalize non-participating countries. More important, there has been a rise in concerns that the adoption of new rules, regulations and standards through regional trade agreements could result in a more fragmented global trading system featuring competing regional blocs. Bhagwati, Krishna and Panagariya (2014, p. 25) argue that preferential trade agreements could "undermine not only the trade liberalization function of the WTO, but also its rule-making role".²³

Revitalizing and reforming the multilateral trading system

COVID-19 can help restore confidence in the multilateral trading system

Revitalizing the multilateral trading system will hinge on Governments' ability to reform the WTO and create an effective global trade governance framework. The impasse in the WTO can be attributed to differences in priorities across member States, an erosion of mutual trust and working practices that have impeded efforts to agree on changes to the rule book. While creating new challenges, the COVID-19 pandemic can also serve as a catalyst for

²⁰ Preferential trade agreements—which may be bi- or plurilateral in composition—are treaties between States by which they give preferential market access to each other's domestic markets and set rules for international commerce between the parties.

²¹ These new agreements differ substantially in respect of the depth of their regulatory commitment.

²² In 2019, the combined GDP of signatory countries to the AfCFTA agreement represented 3 per cent of world gross product (WGP); the combined GDP of signatory countries to CPTPP represented 13 per cent of WGP; and the combined GDP of signatory countries to the RCEP Agreement represented 30 per cent of WGP.

²³ Trommer (2017) notes that "the network of preferential agreements ... benefits those with the technical and political capacity to successfully navigate the fragmented governance architecture".

restoring confidence in the multilateral trading system. The pandemic has underscored that in times of crisis, keeping trade flowing and limiting protectionist and nationalist measures are vital to ensuring the safety of lives and livelihoods. Recognizing that current and future challenges can be met only through global partnerships and strong multilateral frameworks could generate positive momentum for WTO reform. Breaking the existing stalemate will require a rebuilding of trust in the WTO based on establishing reaffirmed commitments to multilateralism and the development agenda of trade integration; revisiting some of the organization's long-standing practices; and ensuring constructive engagement by members on controversial and emerging issues.

Two key WTO operational modalities are consensus-based decision-making and the "single undertaking" approach to negotiation of agreements. The term "consensus-based" signifies that all members have to agree on matters of both process and substance; "single undertaking" signifies that during a negotiation round, all issues are up for negotiation until every item is agreed. These practices, which ensure ownership and legitimacy, serve in particular to protect the interests of countries with weak bargaining power. However, with WTO membership having become increasingly heterogeneous over decades, they have also contributed to the stalled negotiations of the Doha Development Round. The drawbacks associated with these approaches to negotiation have prompted calls—especially from developed country groups—for more flexible multilateral approaches.²⁴

Since the Eleventh Ministerial Conference of the WTO, held in Buenos Aires from 11 to 13 December 2017, subsets of WTO members have adopted so-called joint statement initiatives (JSIs) as a means of discussing possible cooperation in key policy areas. Participation in these initiatives is open to all members but no member is required to join. The groups currently focus on four areas: e-commerce; investment facilitation; domestic regulation of services; and micro-, small and medium-sized enterprises (MSMEs). In all of these areas, there are potential gains to be derived from addressing coordination failures and identifying good regulatory practices (Hoekman and Shepherd, 2020).

The growing importance and complexity of e-commerce presents one of the most difficult challenges faced in multilateral negotiations. In order to create an enabling environment for cross-border digital trade going forward, there is a need to address transaction costs that arise from the heterogeneity of international regulatory frameworks, to prevent abuse of a dominant position and to safeguard competition. The global value of e-commerce is estimated to have reached almost \$26 trillion in 2018, equivalent to about 30 per cent of world gross product (UNCTAD, 2020a). The COVID-19 pandemic has further accelerated the shift away from physical to digital stores.

As the negotiations between member countries have progressed, three main challenges have emerged (Ismail, 2020). First, there is a lack of clarity on the matter of scope when trade-related aspects of e-commerce are being addressed. Second, large differences exist between members as regards their views on data-related issues, including data flows, data localization, invasions of privacy by data collectors, Internet taxes and Internet censorship. Third, the global digital divide, which remains significant, represents a major obstacle. Many developing countries still lack adequate capabilities, skill sets and infrastructure as the

Joint statement initiatives facilitate WTO discussions on key policy areas

Data-related issues and the digital divide pose challenges in e-commerce negotiations

²⁴ In this regard, see, for example, European Commission (2018).

²⁵ There is also a pressing need to reach an international agreement on digital services taxation. This, however, is, outside the scope of the discussion of e-commerce within the WTO.

basis for taking full advantage of e-commerce. They have also yet to develop national regulatory frameworks, such as e-transaction laws, consumer protection, data protection and privacy laws.

Views on open plurilateral agreements differ significantly

Hoekman and Sabel (2019) propose open plurilateral agreements as a novel vehicle for possibly avoiding some of the pitfalls of preferential trade agreements. These agreements may offer an alternative to discriminatory trade agreements and a pathway towards sustaining multilateral cooperation without requiring the agreement or participation of all WTO members. Open and non-discriminatory by design, they permit participants to come to a common understanding of good practices in regulatory areas and of means for attenuating negative policy spillover effects. However, potential integration of plurilateral approaches into the framework of the WTO is viewed by some observers as clashing with the spirit of multilateralism. Several developing countries are opposed to new plurilateral negotiation initiatives.

Global discussions on emerging issues can help revitalize the multilateral trading system Some observers argue that integration of open plurilateral agreements into the WTO framework could also open up the possibility of addressing the important systemic issues that are at the core of trade tensions (Hoekman and Shepherd, 2020). One area of contention spans industrial, technology and innovation policies, including subsidies. These are policies that directly affect competition and can influence the location of GVC activities. Another important area is that of climate change-motivated trade policies. It is unclear how measures such as border carbon adjustment mechanisms, for example, which are at the centre of policy debates, could be structured to comply with WTO rules. ²⁶ In response to growing demands in this area, Structured Discussions on Trade and Environmental Sustainability were launched at the WTO in November 2020. The question of how OPAs can contribute to the discussions on such issues needs to be carefully examined, including in the light of the future WTO reform debate.

Encouraging participation of developing countries and addressing their concerns and capacity constraints in all of these areas is critical. Engagement by all member countries could help sustain an open multilateral trading system—one fit for purpose for a twenty-first century global economy that will be increasingly service-based and digital. The Twelfth Ministerial Conference of the WTO, to have been held in Nur-Sultan, Kazakhstan, in June 2020, was postponed owing to the outbreak of COVID-19. Yet, with the global pandemic adding a new dimension to the WTO reform debate, there is still an opportunity to create fresh momentum for revitalizing the rules-based multilateral trading system.