



► Research Brief

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The effects of COVID-19 on trade and global supply chains

Key points

- The economic impact of COVID-19 has taken the form of demand and supply shocks, disrupting all tiers of GSCs and leading to sharp declines in global trade across a broad range of industries and products.
- The contagion effects of the direct shocks to trade and GSCs have exacerbated the crisis for firms and workers around the world, with the most vulnerable consisting of migrants, those who lack social protection and small and medium enterprises.
- The crisis might lead to long-lasting structural effects with the potential of the reconfiguration of GSCs in certain industries, accelerating re-shoring and/or near-shoring, diversification of suppliers as well as increased automation.
- With respect to trade and GSCs, the ILO has a role to play in improving sustainability at the micro level for workers and employers, as well as at the national, regional and international levels.

► Introduction

The human dimensions of the coronavirus disease (COVID-19) pandemic are far-reaching. Since it was first reported to the World Health Organization (WHO) in December 2019, COVID-19 has affected lives in all parts of the world.¹ There have been several million confirmed cases of COVID-19 and hundreds of thousands of reported deaths.² Because of the risks associated with it, the pandemic has ignited an economic crisis worse than that of 2008–09, with the global economy projected to contract by 3 per cent in 2020.³

The interconnectedness of the global economy is amplifying the impact of the pandemic, which has spread quickly through travel and transport routes.⁴ The pandemic has directly affected international trade and global supply chains (GSCs) that link production in

multiple locations across the world. GSCs often rely on specialized suppliers, sometimes clustered in specific locations, and use just-in-time production techniques that minimize inventories and produce goods only when needed. Thus, production disruptions related to COVID-19, emanating originally in one location, are having ripple effects throughout supply chain networks, with widespread global intra- and inter-industry impacts. With the enactment of global lockdown measures, what were initially supply-side constraints have quickly evolved into a demand-side issue. Consequently, all tiers of supply chains, from industries engaged in raw materials extraction to those involved in assembly, and ultimately distribution and sales, are experiencing the economic and social effects of COVID-19.

1 WHO, "[Rolling updates on coronavirus disease \(COVID-19\)](#)".

2 Financial Times, "Total COVID-19 cases", accessed 22 May 2020.

3 International Monetary Fund, [World Economic Outlook: The Great Lockdown](#), April 2020.

4 See: Richard Baldwin and Beatrice Weder di Mauro (eds), [Economics in the Time of COVID-19](#), 6 March 2020.

The purpose of this brief is to provide an analysis of the near-term effects of the COVID-19 pandemic on enterprises and workers engaged in trade and GSC-related activities and to explore the medium and long-term implications of the pandemic on supply-chain sustainability and implications for the world

of work. The analysis suggests that the pandemic presents an important opportunity to enhance the resilience and sustainability of GSCs and to strengthen their contribution to inclusive economic growth in developing and emerging economies.

► Trade, supply-chain disruptions and demand shocks

COVID-19 has had a broad-based negative impact on trade and foreign direct investment, with considerable declines in global exports and imports in a range of industries. The impact is likely to worsen in the near future as countries move progressively through phases of the pandemic, with world trade expected to contract by between 13 and 32 per cent in 2020 (with all regions experiencing double digit declines in trade volumes),⁵ and foreign direct investment expected to fall by 30–40 per cent in 2020–21.⁶

Initial disruptions in GSCs started on the supply side with factory closures in China, instituted to slow the spread of COVID-19. This situation eventually resulted in shortages of parts and equipment to downstream industries – most notably the automotive, chemicals, computer equipment, garments and textiles, machinery, metal and metal products industries, and those relating to precision instruments.⁷ The sequential effects of these shortages reverberated in many other countries, causing some enterprises to slow production or cease operations altogether.⁸ Furthermore, the negative labour supply shock due to national lockdowns and the restrictions on cross-border movements of people are contributing to serious supply disruptions for agricultural goods, especially in developing and emerging economies, and many industrial goods. A significant share of trade in some developing economies includes informal cross-border trade; for example, it is estimated that 30–40 per cent of cross-border trade in Africa is informal.⁹

The subsequent impact on global trade in intermediate manufacturing goods is expected to be particularly acute in 2020, starting with a sharp decline in exports from China, which contributes roughly 20 per cent of

all global trade in such goods, followed by a decline in other major contributors (for example the United States and Germany). A preliminary analysis by the United Nations Conference on Trade and Development (UNCTAD) shows that even a relatively small decline in trade in intermediate goods can have strong repercussions. For example, it is estimated that a 2 per cent reduction in exports of intermediate inputs from China to automotive manufacturers in the European Union, Japan, North America, the Republic of Korea and other major automotive-producing economies could lead to a US\$7 billion reduction in automotive exports from these economies to the rest of the world.¹⁰

Beyond disruptions on the supply side, there have been direct shocks on the demand side for a wide range of primary extractive, manufacturing and service industries. For example, there has been a considerable decline in the demand for certain primary commodities such as copper and nickel. The demand shock has been particularly disruptive for some commodities, such as oil and dairy products, where excess inventory has led to storage capacity shortages and the destruction of perishables.¹¹ This pattern of severe strain on storage capacity has also been observed across some manufacturing industries, such as the automobile industry.¹² In the case of services, some sectors, such as civil aviation and tourism, have been particularly hard hit with a strong negative demand shock in the initial months of the global crisis. Other sectors, such as food retail, have experienced a sharp rise in demand in the short-term with a strong positive demand shock (however, they are facing bottlenecks in upstream industries).¹³ There are concerns, however, with respect to how the restrictions in movement and social distancing measures may continue to have an impact

5 World Trade Organization, [Trade Set to Plunge as COVID-19 Pandemic Upends Global Economy](#), press release, 8 April 2020.

6 United Nations Conference on Trade and Development (UNCTAD), [Investment Trends Monitor: Impact of the COVID-19 Pandemic on Global FDI and GVCs](#), No. 35: March 2020.

7 UNCTAD, [Trade and Development Report Update: Global Trade Impact of the Coronavirus \(COVID-19\) Epidemic](#), 4 March 2020.

8 See, for example: Car and Driver, [“Details of Increasing Plant Shutdowns Amid COVID-19 Pandemic”](#), 25 March 2020; and CNET Roadshow, [“COVID-19 And Plant Closures: The Auto Industry’s Response, Potential Return Dates”](#), 13 March 2020.

9 UNCTAD, [Economic Development in Africa Report 2019: Made in Africa: Rules of Origin for Enhanced Intra-African Trade](#), 2019.

10 UNCTAD, [Trade and Development Report Update: Global Trade Impact of the Coronavirus \(COVID-19\) Epidemic](#), 4 March 2020.

11 See, for example: CNBC, [“The Hunt for Oil Storage Space is On — Here’s How it Works and Why it Matters”](#), 22 April 2020; NBC News, [“Dairy Farmers Forced to Dump Milk as Demand Drops Amid Coronavirus Closures”](#), 14 April 2020.

12 See, for example: Fortune, [“From Cargo Ships to Fairgrounds—As Backlog of Cars Grows, Importers Search for Storage Space”](#), 1 May 2020.

13 The ILO sectoral briefs provide greater details of the extent of the demand shock in these industries by region and its implications for employment in the sectors. These can be found at: <https://www.ilo.org/global/topics/coronavirus/sectoral/lang-en/index.htm>.

on consumers by leading to structural shifts in behaviour in the medium and long-term.

The GSC shocks suggest that one consequence of this pandemic could be an acceleration in reshoring or near-shoring in the future in some industries, particularly those where supply chains have been highly disrupted and where export controls have been imposed by governments.¹⁴ A reaction to this might be a shift towards parts of the GSC that are closer to the end user, with particular emphasis on regional supply chains. The pandemic might also lead to structural changes in supply chains to increase supplier diversity and increase inventories of critical components and products, for example in the case of goods and services perceived to have strategic importance at the national level. In a recent survey by PWC of a cross-section of 55 enterprises in the United States and Mexico, the majority of respondents answered either “not sure” (27 per cent) or “yes” (42 per cent) when asked whether they would make changes to the breadth of their supply chain because of the coronavirus.¹⁵ Furthermore, this pandemic has been preceded by, and is occurring concurrently to, a trade war that has raised tariffs for key products between a number of countries over the past two years and was already creating incentives to reconfigure supply chains towards countries with lower tariffs. Consequently, there is a widespread debate about whether there is a need to rethink GSC strategies to increase their resilience and reduce their exposure

to disruptions and shocks, and to improve their sustainability.¹⁶

The current pandemic and recessionary environment may also accelerate technological change through artificial intelligence and automation. In industries such as retail and recycling, robots are increasingly being used to minimize human contact, for example to perform routine tasks that would have required workers to be in close proximity with each other. In some instances, this has allowed workers to take on other work responsibilities in less crowded conditions.¹⁷ However, research shows that, during recessions, automation occurs at a faster pace than during “normal” times, enabling enterprises to restructure and possibly leading to significant job losses. For example, in the United States, 88 per cent of job losses in routine occupations since the mid-1980s occurred within 12 months of a recession, and these jobs did not rebound once the recovery began.¹⁸ Thus, labour-displacing technological changes that are implemented during the current downturn may limit job growth in certain occupations once the recovery begins.

Specifically in developing and emerging economies, the reconfiguration of supply chains in the medium-term through reshoring and near-shoring presents a development challenge. This shift would likely make it harder for these economies to benefit from GSCs through industrialization.¹⁹ Furthermore, they would be ill-equipped to take advantage of trends such as the use of artificial intelligence and automation in the near term, owing to technological constraints.

► Effects and challenges on workers and enterprises

The risks posed by COVID-19 for workers include loss of employment and income, health risks associated with working conditions, and declines in productivity. These risks are heightened in certain supply chains linked to essential goods and services and for certain workers, such as migrants, workers in the informal economy, and those who lack social protection. There are also particular risks for enterprises in GSCs, linked to weakened trade and supply bottlenecks. These challenges are particularly significant in the lower tiers of supply chains where small and medium-sized

enterprises (SMEs) and informal workers are strongly represented, especially in developing and emerging economies, even though the majority of SMEs and informal workers are not directly connected to GSCs. In addition, similar to other enterprises, GSC enterprises are facing depressed demand and higher input costs, less access to finance, lower productivity and higher transportation costs than before the pandemic. SMEs are disproportionately affected due to their limited resources, their higher relative vulnerability to losses from social distancing measures

14 See: European Council, [Roadmap to Recovery: Towards a More Resilient, Sustainable and Fair Europe](#), 2020. A specific example of a case where COVID-19 is prompting the rethinking of supply chains and reshoring is medical and pharmaceutical manufacturing industries in Australia.

15 PWC, [“COVID-19 CFO Pulse Survey US/Mexico findings”](#), 30 March 2020.

16 See, for example: Willy Shih, [Is It Time to Rethink Globalized Supply Chains?](#) (MIT Sloan, 2020), and Meredith Watkins and Gianluca Corinaldesi, [COVID-19 and Global Supply Chains: Disruptions and Restructuring](#) (Duke University, 2020).

17 See, for example: Michael Corkery and David Gelles, [“Robots Welcome to Take Over, as Pandemic Accelerates Automation”](#) in The New York Times, 10 April, 2020.

18 See: Brad J. Hershbein and Lisa B. Kahn, [“Do Recessions Accelerate Routine-Biased Technological Change? Evidence from Vacancy Postings”](#), Upjohn Institute Working Paper No. 16-254, and Nir Jaimovich and Henry E. Siu, “Job Polarization and Jobless Recoveries” National Bureau of Economic Research Working Paper No. 18334.

19 See: Adnan Seric et al., [“Managing COVID-19: How the Pandemic Disrupts Global Value Chains”](#), (Industrial Analytics Platform, 2020).

and their poorer access to finance than larger enterprises.²⁰

The latest ILO estimates show, on aggregate, that 94 per cent of the global workforce live in countries with recommended or required workplace closures and that 165 million full-time jobs (assuming a 40-hour week) were lost during the first quarter of 2020.²¹ The crisis has led to both direct and indirect declines in the incomes of workers in GSCs through shutdowns of workplaces, such as factories, and the negative income effect of trade restrictions on many critical goods. One example of an industry that is heavily reliant on GSCs and is severely affected by such closures is the garment industry, which has also had to deal with the demand shock, disruptions in the supply of intermediate goods and cancelled contracts.²²

Another industry that is being affected by mandatory travel restrictions and the reconfiguration of working terms and conditions is the agriculture sector, both in developed and developing economies.²³ Indeed, workers in food GSCs are particularly vulnerable at the level of agricultural production and remain vulnerable through to the distribution process. Farm workers in some upstream industries face hardships owing to unpaid wages, lack of social protection and inadequate safety equipment and hygiene practices that increase the health-related risks.²⁴ Workers in grouped housing are also particularly at risk as this type of accommodation “typically lacks deep cleaning, consists of only close living spaces, supplies limited basic soap and hygiene products and provides no opportunity to practice social distancing”.²⁵

One particularly challenging situation is in the international shipping industry (which is responsible for the transportation of 90 per cent of global trade),²⁶ where crew members have in many cases been restricted from disembarking under government measures and are thus forced to remain on ships beyond the date on which their contract ends, forcing some workers to enter into extended contracts on vessels with limited space.²⁷

There have also been adverse productivity effects for both enterprises and workers in GSCs. This is owing, in particular, to mandatory factory closures, requirements for reconfiguring workplaces,

disruptions in the supply of intermediate goods, higher costs for logistics and the need to find alternative suppliers. In the case of workers, the measures imposed to mitigate the health risks, for example, the requirement to wear protective equipment or practice social distancing at all times, may also reduce the productivity of these workers.

While the effects of COVID-19 are destabilizing for many enterprises, the effects are particularly challenging for SMEs, many of which are facing severe losses in revenue and rely on limited reserves, while facing less access to finance. Furthermore, in GSCs, SMEs may face an added challenge because they often rely on a limited number of suppliers and have less flexibility in managing their costs. As the crisis lengthens, SMEs in GSCs may also be less and less able to manage supply and staffing shortages and reductions in productivity. Indeed, recent surveys in some countries show that a large number of SMEs are directly affected by drops in demand, disruptions along the supply chain and problems linked to transport and logistics.²⁸ Barring government intervention, they are also less able to access credit to remain solvent in a downturn, to retain workers and to keep paying wages.

While the vast majority of informal workers and enterprises are not directly connected to GSCs, those that are – which are mainly concentrated in developing and emerging economies – often face greater risks owing to limited access to finance, health services and social protection. Furthermore, remittances and foreign direct investment constitute a significant proportion of incomes and investment in developing and emerging economies and the crisis has placed severe constraints on this type of investment.²⁹ Capital flight due to the crisis is likely to disproportionately starve these economies of much-needed investment for long-term development objectives that are linked to improved labour market outcomes, thereby increasing the importance of promoting domestic economic growth and investment.

20 See: OECD, [COVID-19: SME Policy Responses](#), April 2020.

21 ILO, ILO Monitor: COVID-19 and the World of Work, fourth edition, 27 May 2020.

22 See, for example: Mark Anner, “[Abandoned? The Impact of COVID-19 on Workers and Businesses at the Bottom of Global Garment Supply Chains](#)” (Penn State Center for Global Workers’ Rights, 2020).

23 See, for example: Daniel Costa and Philip Martin (eds), [Coronavirus and Farmworkers: Farm Employment, Safety Issues, and the H-2A Guestworker Program](#) (Economic Policy Institute, 2020).

24 For more information about COVID-related impacts in agriculture, see, for example: Business and Human Rights Resource Center, [India: Thousands of Tea Workers Protest Over Unpaid Wages During COVID-19 Lockdown](#) and [Oxfam International: Food Workers on the Frontline of Coronavirus](#).

25 James Lewry, [COVID-19: The Impact on Workers in Global Supply Chains](#), 7 April 2020.

26 International Chamber of Shipping, “[Shipping and World Trade](#)”.

27 See, for example: Matt Apuzzo and Selam Gebrekidan, “[Trapped at Sea by COVID-19 Lockdowns, Crew Members Plead for Help](#)”, in The New York Times, 25 March, 2020.

28 OECD, “COVID-19: SME Policy Responses”, 2020.

29 See: UNCTAD, [World Investment Report 2019 – Special Economic Zones](#), 2019.

► The role of the ILO

The ILO's engagement in trade and GSCs is predicated in its institutional mandate, which provides the basis for a number of interventions that are particularly relevant in the context of the COVID-19 pandemic. Indeed, the Organization has already laid out a framework for dealing with the crisis, based on international labour standards, to help countries to recover with a focus on decent work objectives.³⁰ With respect to trade and GSCs, the Organization has a role to play in improving sustainability at the micro level for workers and employers, as well as at the national, regional and international levels.³¹

At the country level, the ILO provides assistance to Member States, upon request, within the context of bilateral or multilateral trade agreements. This support has been effective in strengthening institutional capacity to implement labour standards, for example, through legislative and compliance mechanisms. These activities are important for improving the labour market outcomes of trade, such as reducing inequalities, protection gaps and poverty.³² The ILO also supports countries in the design and implementation of labour provisions in trade arrangements, with a view to setting framework conditions for decent work in GSCs that are generally based on fundamental principles and rights at work and ratified international labour standards.

The ILO also provides guidance to governments, multinational enterprises and other enterprises in the context of foreign direct investment and trade, including through GSCs. In particular, the ILO Tripartite Meeting of Experts to Promote Decent Work and Protection of Fundamental Principles and Rights at Work for Workers in Export Processing Zones (EPZs), in its conclusions adopted in November 2017, affirms that governments "should ratify Conventions and apply the provisions of ratified Conventions in law and practice to the whole of the country, including EPZs. Authorities responsible for labour rights need to be part of actions taken in EPZs". It further states that all companies "have a responsibility to respect workers' rights and use their leverage to take steps to ensure that the rights of workers in their supply chains are also respected and that workers have access to remedy when their rights are violated".³³

The ILO and its constituents strongly support the process of social dialogue between employers' and workers' representatives during times of crisis. This includes cross-border social dialogue at all levels, including with respect to transnational company agreements, such as the negotiation of international framework agreements between multinational enterprises and global trade unions.³⁴ Indeed, the ILO's Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy provides a robust framework for collaboration and cooperation between stakeholders, which is "important and necessary in the context of foreign direct investment and trade, and the use of global supply chains".

In this respect, the ILO and its constituents have been supporting efforts to address the impact of COVID-19 on trade and GSCs, including those described below.

- **In the global garment industry**, the ILO has been supporting a "call to action" based on extensive consultations with global brands and retailers, manufacturers and employers and workers organizations to protect workers' income, health and employment and help employers to survive during the COVID-19 crisis.³⁵
- **The International Organisation of Employers and the International Trade Union Confederation** call for the minimization of supply chain disruption for medical products, food and other essentials through intergovernmental cooperation, among other measures to be taken during this crisis.³⁶
- **The International Chamber of Shipping and the International Transport Workers' Federation** are working towards a solution for "appropriate exemptions from any national travel restrictions, when joining or leaving their ships, in order to keep the world's maritime supply chains functioning".³⁷

The ILO clearly has a unique role to play in ensuring that the voice of workers' and employers' representatives is heard in efforts to address the challenges posed by COVID-19 to enterprises and workers in GSCs. Stronger and more effective dialogue is required among the multilateral institutions to

30 The four pillars of the framework are: ensuring safety for workers; supporting jobs and incomes; stabilizing the economy; and relying on social dialogue. See: [ILO Monitor, COVID-19 and the World of Work – Impacts and Responses, first edition](#), 18 March 2020, and [ILO Monitor, COVID-19 and the World of Work – Estimates and Analysis, second edition](#), 7 April 2020.

31 See: ILO, [Resolution concerning decent work in global supply chains](#), 2016.

32 See: ILO, [Labour-related Provisions in Trade Agreements: Recent Trends and Relevance to the ILO](#), GB.328/POL/3 (2016).

33 ILO, [Conclusions to Promote Decent Work and Protection of Fundamental Principles and Rights at Work for Workers in EPZs](#), MEWEPZ/2017/2 (2017).

34 For an example specific to COVID-19, see: IndustriALL Global Union "[Global Unions Welcome ENGIE's Commitment to Cover COVID-19 Related Health Care and Social Security for Employees](#)", 29 April 2020.

35 See: ILO, "[COVID-19: Action in the Global Garment Industry](#)" and International Trade Union Confederation (ITUC), "[COVID-19: Global Action to Support the Garment Industry](#)", 22 April 2020.

36 International Organisation of Employers and ITUC, [Joint Statement on COVID-19 by International Organisation of Employers and International Trade Union Confederation](#).

37 International Chamber of Shipping, [Joint Open Letter to United Nations Agencies from the Global Maritime Transport Industry](#), 19 March 2020.

address issues directly linked to the world of work, to ensure a free and fair trading system and to promote inclusive growth. Indeed, the ILO could take an important role in the multilateral system by reinforcing its cooperation and developing institutional arrangements with other organizations, thereby fulfilling the role envisaged in the ILO Centenary Declaration for the Future of Work.³⁸

³⁸ [ILO Centenary Declaration on the Future of Work](#), 2019.

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