

Executive summary

The health and economic crisis caused by the COVID-19 pandemic has been a massive stress test of the world trading system, delivering unprecedented shocks to global supply chains and trade relations among countries. In 2020, the value of global trade in goods and services in nominal dollar terms fell by 9.6 per cent, while global GDP fell by 3.3 per cent, in the most severe recession since World War II.

However, the trading system has proved itself more resilient than many expected at the outset of the crisis. Although initially the pandemic severely disrupted international trade flows, supply chains have rapidly adapted, goods have continued to flow across borders, and many economies have gradually begun to recover.

The global trading system has been a source of flexibility, diversification and strength during the pandemic, helping countries cope by facilitating access to critical medical supplies, food and consumer goods, and by supporting their economic recovery (see Figure 1). According to the WTO's most recent forecast, global economic output (at market exchange rates) is projected to recover by 5.3 per cent in 2021. This has been, in part, thanks to the robust recovery in merchandise trade, which is set to rise by 8 per cent in 2021. However, trade in services continues to remain depressed.

The 2021 *World Trade Report* looks at why the interconnected global trading system is both vulnerable and resilient to crises, how it can help countries to be more economically resilient to shocks, and what can be done to make the system better

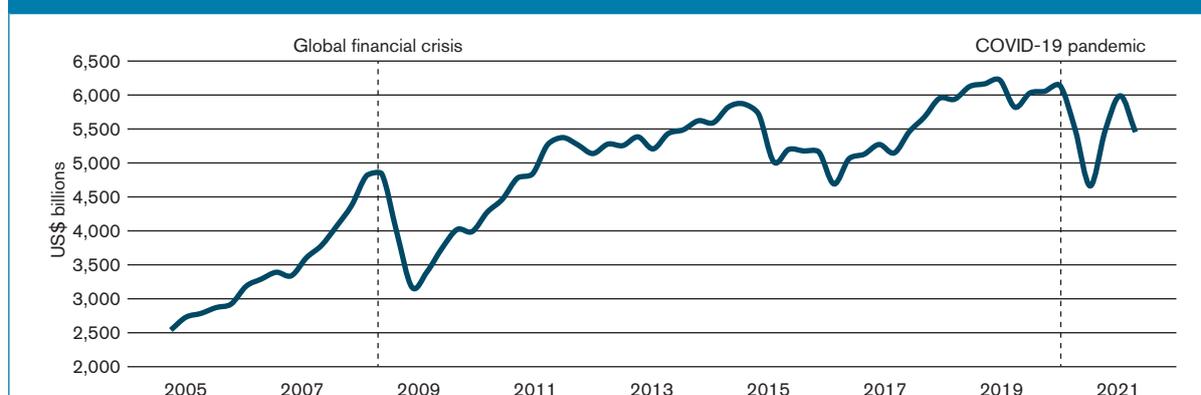
prepared and more resilient in the future. These are pressing questions in light of the prospect of increasingly frequent and more intense natural and man-made disasters.

For example, climate change is driving increases in extreme weather events, such as droughts, cyclones and floods, which can have devastating effects. Human encroachment on animal habitats can increase the risks of spreading zoonotic diseases, which could potentially lead to another pandemic. Although safer production processes have reduced the frequency of technological and industrial disasters, incidences of cyber-attacks and data fraud are expected to continue to increase. Rising inequality, increasing economic fragility, and growing political uncertainty and geopolitical tensions are augmenting the risk of conflicts and violence. While there is a tendency to look at these risks individually, they can interact with each other and create cascading risks and shocks to the environment, economy and society.

All of these risk trends can result in high numbers of deaths, injuries and illnesses, as well as substantial economic losses. For example, earthquakes caused over 884,000 deaths between 1980 and 2020. There were over 4,800 floods around the world during the same period, which affected over 3.5 billion people. The total economic cost caused by natural disasters between 1980 and 2020 amounted to US\$ 3.6 trillion (EM-DAT, 2020).

These risk trends have significant social consequences. In times of crisis, poorer households are particularly

Figure 1: Global trade has been more resilient during the COVID-19 pandemic than during the 2008-09 global financial crisis



Source: Authors' calculations, based on WTO trade data (<https://data.wto.org>).

Note: The figure displays the evolution of non-seasonally adjusted quarterly world trade volume for countries that reported both merchandise and commercial services trade flows.

vulnerable to further losses in income, higher incidences of children leaving school at an early age, lost access to health care, and poor nutrition. Around 26 million people fall into poverty every year as a result of natural hazards, such as floods and droughts.

The COVID-19 pandemic has exacerbated existing gender inequalities in employment rates and hours worked due to women's greater responsibility for child and elder care, as well as their greater representation in face-to-face services disproportionately affected by the pandemic. Micro, small and medium-sized enterprises, which tend to have poorer and more vulnerable workforces, have suffered more than larger firms from the effects of the pandemic, owing to their limited access to finance, physical and digital infrastructure and to information on risk management. In global terms, economic disruptions tend to have a greater impact on developing countries, and in particular on smaller, poorer countries, than on advanced economies.

This report assesses the relationship of trade, trade policy cooperation and the multilateral trading system to economic resilience. Although "economic resilience" has become a popular term to capture the broad and diverse factors and strategies needed to reduce business interruptions and economic losses caused by shocks, it lacks a common definition. This report defines "economic resilience" as the ability of a system, including households, firms, and governments, to prevent and prepare for, cope with and recover from shocks.

Building economic resilience requires an understanding of economic challenges and opportunities, as well as the ability to anticipate, evaluate and manage risks. Although a broad range of economic resilience strategies and actions, including those related to trade policies, can be adopted by firms, households and governments, one issue that is receiving a significant amount of attention in the public and policy debate is the role of international trade in building and supporting economic resilience.

A basic binary assumption underlies much of the current debate – namely, the notion that there is an inherent trade-off between global trade interdependence, on the one hand, and domestic economic security, on the other, and that the pursuit of economic efficiency is incompatible with the pursuit of economic resilience. This report explores and re-evaluates this assumption.

The report suggests that these objectives are often interconnected and mutually reinforcing – a reality

obscured by presenting them as an either-or choice – and argues that trade is a means to build and support economic resilience, particularly if it is backed by relevant domestic policies as well as effective global cooperation and rules.

The report conveys three main messages: first, today's hyper-connected global economy, characterized by deep trade links, has made the world more vulnerable to shocks, but also more resilient to them when they strike; second, policies which aim to increase economic resilience by unwinding trade integration – for example, by re-shoring production and promoting self-sufficiency – can often have the opposite effect, effectively reducing economic resilience; and third, strengthening economic resilience will require more global cooperation.

Today's hyper-connected global economy, characterized by deep trade links, has made the world more vulnerable to shocks, but also more resilient to them when they strike.

Trade can increase countries' vulnerabilities and exposure to hazards, as well as facilitating the transmission of those hazards, through economic, financial, transport and digital linkages. At the same time, trade, as a key driver of productivity and economic growth, helps countries to generate the resources they need to prevent risks and prepare for, cope with and recover from shocks.

Trade also plays a key role in diversifying access to global goods and services; for example, it enables countries to cope with shocks by switching suppliers when crises disrupt established supply relationships, whether domestic or foreign. Firms that participate in trade, especially exports, have a greater likelihood of surviving economic downturns, due to their higher productivity, on average, than firms in non-exporting sectors, as well as their tendency to have access to more diversified markets.

Trade-related mobility can be a vector for disease transmission. This includes human mobility, in the form of travel and labour migration, but also trade in livestock and in other agricultural products, particularly when trade is illicit or unregulated. For legally imported animals, these risks are reduced by disease screening, quarantine requirements and the enforcement of relevant sanitary and phytosanitary measures.

However, mobility also offers solutions as it allows for the faster diffusion of knowledge, thereby facilitating the research and development that can lead to finding cures for infectious diseases in the short term, and bolstering health systems in the long term.

Trade-driven interdependence – especially the rise of global value chains – can also increase exposure to sudden cut-offs in the supply or demand of inputs or outputs, as well as vulnerability to disruptions in international transport networks. As a result, even relatively small shocks to one “link” in the value chain can temporarily block or disrupt highly interconnected, “just-in-time” production and distribution networks. For example, the 2011 Tōhoku earthquake in Japan is estimated to have reduced the growth rate of firms with disaster-hit suppliers by 3.6 percentage points, and the growth rate of firms with disaster-hit customers by 2.9 percentage points (Carvalho et al., 2021; Tokui, Kawasaki and Miyagawa, 2017).

On the other hand, given the high costs of establishing supplier networks, the long-term relationships that underpin value chains provide firms with an incentive to keep and adjust their trading relationships with overseas suppliers, even in difficult times. This can improve the resilience of trade to crises, thus reducing the volatility of trade flows and their impact on growth. The presence of value chains also can help to accelerate recovery of production following a shock by transmitting the recovery occurring in one region to other regions along the value chain. Firms can adopt policies to enhance global value chain resilience, for example by diversifying their sources of supply, increasing inventory stocks and fostering flexible production across sites.

Trade can indirectly contribute to increased environmental risks, including deforestation, intensive farming and climate change. For example, while trade itself may not be a leading source of greenhouse gas emissions, it does cause emissions to be generated through transport and by enabling increased production. In the absence of effective climate change policy, such emissions contribute to climate change and the risk of climate-based natural disasters.

Trade can, however, also mitigate the risk of climate change by facilitating the adoption and deployment of environmental goods, services and technologies, including clean and renewable energy. Trade can also contribute to climate change adaptation by bridging the difference between supply and demand across regions; for example, as some regions experience falling yields for some crops, others will experience rising yields.

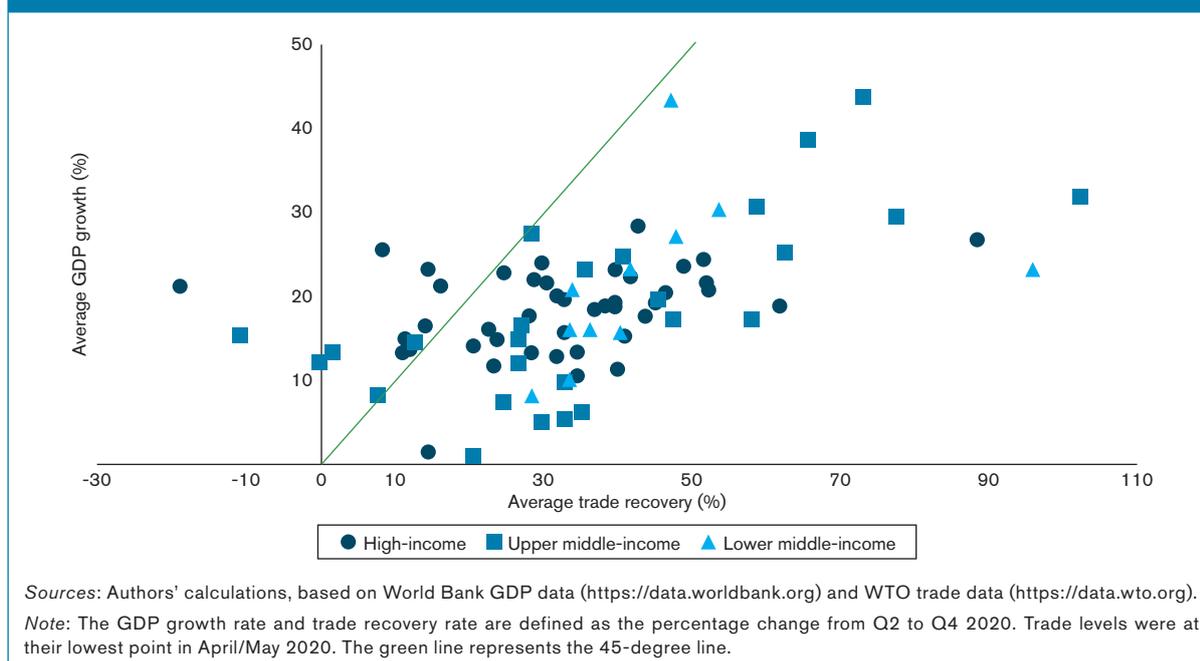
Trade in services can also be crucial in helping countries prepare for and cope with shocks. For example, weather forecasting and early warning systems can anticipate and spread information about storms, fires, floods, droughts and earthquakes. Insurance supports incomes and encourages

efforts to reduce risk – although the effects of some important shocks (including earthquakes and communicable diseases) are excluded from many insurance contracts. Telecommunications, including both traditional and new technologies, can provide essential information for addressing disasters. Transportation and logistics services enable the delivery of supplies, while inadequate services can have disastrous implications during a crisis, as demonstrated at the outbreak of the COVID-19 pandemic. Finally, imported health services can ease the burden on overstretched domestic resources.

Improving the efficiency of the domestic services that affect trade also plays a key role in building and supporting economic resilience. Slow customs procedures and processes, such as refusals to release goods until payment is received in full, delays in determining which goods are exempted from tariffs, and burdensome documentation requirements, can impede the delivery of emergency supplies during disasters. Landlocked countries are particularly vulnerable to disruptions in the delivery of essential supplies due to transit issues. Several countries have undertaken trade facilitation measures since the outbreak of the COVID-19 pandemic, for example prioritizing the clearance of critical supplies (e.g., food and medical supplies), temporarily suspending certain customs duties, and expanding their trade infrastructure capacity.

Trade can also contribute to speeding up economic recovery from crises, thanks to sustained foreign demand on the export side and the availability of intermediate products and services on the import side. It can be an important recovery mechanism for many developing and least-developed countries, which have limited ability to spur economic recovery through fiscal stimulus packages. Trade has proven to be resilient and has been driving the recovery from the COVID-19 pandemic. Merchandise trade recovered more quickly than GDP after the initial shock of COVID-19 (see Figure 2). Although services trade remains depressed, trade in goods was almost at pre-crisis levels one year after the pandemic hit (WTO, 2021c). GDP recovered faster in countries with strong pre-existing trade linkages to countries with few COVID-19 cases, underscoring the mutual supportiveness of trade, economic growth and risk management. Most of the protectionist measures that were adopted at the beginning of the pandemic were soon removed; and, conversely, many trade-opening measures have been introduced to enhance the resilience role of trade. The pandemic has also shown that digital trade offers numerous solutions for a faster and more inclusive recovery.

Figure 2: Economic recovery has been associated with trade recovery during the COVID-19 pandemic (second to fourth quarter of 2020)



Although trade resilience is key to supporting economic recovery, if wider economic resilience is to be sustained, the factors and conditions that cause vulnerabilities and exposures to shocks will need to be addressed. The economic recovery from the pandemic offers an opportunity to render the trading system more sustainable, resilient and equitable and to address the problems revealed by the pandemic-related crisis, such as bottlenecks and distributional inequities. It is also an opportunity to transfer idle or misallocated resources to more sustainable, productive purposes. At the same time, care must be taken that national fiscal and monetary policies to speed up recovery do not aggravate trade imbalances, as this could, in turn, provoke increased demand for protectionist trade policies.

Policies that aim to increase economic resilience by re-shoring production, promoting self-sufficiency, and unwinding trade integration can often have the opposite effect, effectively reducing economic resilience.

Restricting trade and promoting national self-sufficiency almost inevitably render national economies less efficient in the long run, as such policies ultimately drive up prices of goods and services and restrict access to products, components and technologies. While national supply chains can reduce exposure to risks emanating from other countries, they increase domestic vulnerability to supply cut-offs and demand shocks resulting from domestic disasters.

Furthermore, economic self-sufficiency is an illusory goal. In technologically advanced sectors, modern production requires a vast and complex array of global inputs that cannot be supplied by any single country. Even national self-sufficiency in food production is dependent on imports of fertilizers, farm machinery or energy to maintain sufficient agricultural output. For example, even the highly diversified European Union needed to import 40 per cent of its COVID-19 test kits and diagnostic reagents during the pandemic; and one of the US manufacturers of the COVID-19 vaccine depends on sourcing 280 components from 19 different countries to produce the final product (Pfizer, 2021).

Export restrictions adopted to secure national supplies in response to a crisis can often lead to trade retaliation from other countries, as well as dwindling imports and escalating conflicts, leaving all those concerned less well-equipped to cope with and recover from the shock that motivated the trade restrictions in the first place. Such restrictions can also impair investment in essential goods over the long term, as producers anticipate lower price increases in times of rising demand. All of this can lead to reducing free flows of trade and, crucially, essential goods being distributed less fairly when global shocks strike.

More generally, the resilience-enhancing role of trade tends to outweigh the increased exposure of countries open to trade to some risks and shocks,

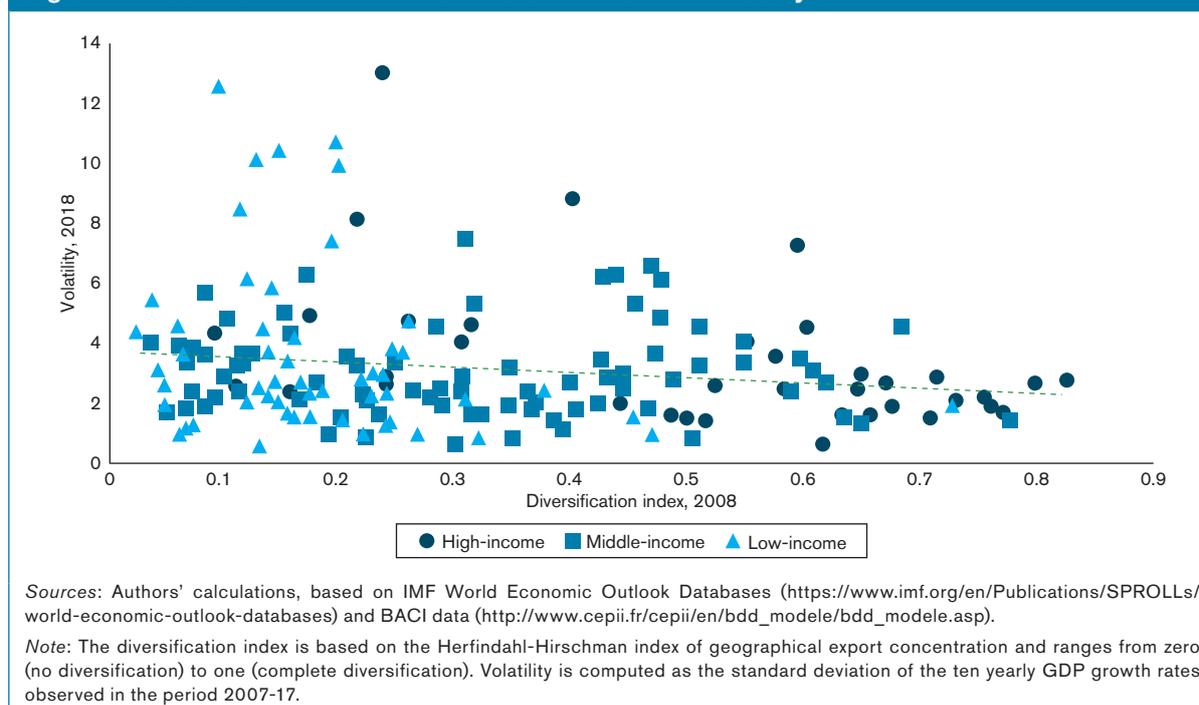
when measured by macroeconomic volatility. Empirical evidence shows that the reduction in trade costs achieved over the past 50 years has contributed to decreased volatility of GDP in most regions. Therefore, policies unwinding trade integration, such as supply chain re-shoring at the expense of international trade, are likely to contribute to increased macroeconomic volatility.

Instead, policies to promote trade diversification are more likely to build and support economic resilience and thereby reduce macroeconomic volatility (see Figure 3). Thus, just as trade can help with domestic supply shortages, diversifying trade suppliers can help when traditional foreign supply is disrupted, for example by a natural disaster affecting one supplier. Likewise, if a country's exports are concentrated in a few products, countries are more vulnerable to a drop in demand for these products, which increases aggregate volatility. The severe impact of the COVID-19 crisis on regions dependent on tourism is a case in point: for example, least-developed countries, many of which are particularly dependent on tourism/travel exports, experienced an estimated decline in services exports of 39 per cent in 2020. Similarly, if exports are concentrated in few export destinations, destination-specific demand shocks, such as recessions, can have a large impact on export revenues. Diversification across different trade routes and across different available modes of transportation also play an important role in economic resilience.

However, achieving diversification can be challenging, given the economies of scale in some traded sectors and the large fixed costs (for example, in obtaining information) involved in entering markets and establishing trade relationships with foreign firms. Moreover, in knowledge-intensive sectors, the fear of expropriation of intellectual property or imitation can prevent companies with intangible assets from engaging with a wide range of suppliers. Indeed, aggregate data show only a small increase in diversification in recent decades, while the extremely limited data at the firm level indicate high levels of trade concentration.

Trade diversification can be promoted by a wide range of policies targeting certain market, policy and institutional failures. For example, establishing clear, transparent and predictable business regulation and investment policies can reduce the costs and risks of investing in new activities. Lowering tariffs and other barriers to trade and improving the efficiency of trade facilitation can reduce trade costs and boost diversification. Limiting services trade restrictions in the home market, by increasing the quality and availability of services inputs, can increase exports of service-intensive manufactured goods. Creating policies to foster competition can spur innovation, ultimately leading to more export diversification via increases in firm productivity. Supporting labour market adjustment, for example by developing skills and reducing gender inequality, can increase trade diversification by increasing the potential pool of

Figure 3: Trade diversification reduces macroeconomic volatility



human capital available and improving the efficiency of the labour force.

Strengthening economic resilience will require more global cooperation.

More trade cooperation at the multilateral or regional level, backed by strong international trade rules, can support the various domestic strategies deployed to avoid and mitigate risks and to prepare for, manage and recover from shocks. Risk reduction measures and resilience policies in one country can have positive spillovers in other countries, but in the absence of global coordination, the adoption of such policies by individual countries is likely to be less than optimal from a global perspective. Cooperation also can help to limit the use of policies that can have negative spillovers for trading partners, such as export restrictions or subsidies.

Trade cooperation can help to achieve more open markets and more inclusive, stable and predictable trade that promotes the diversification of products, suppliers and markets, thus improving resilience to shocks. Cooperation can also promote greater transparency, information-sharing and predictability in the global marketplace, helping countries to better assess production capacities, avoid bottlenecks, manage inventory stocks and prevent excessive stockpiling, enhancing the ability to respond to crises. One example of resilience-enhancing information-sharing is the Agricultural Market Information System (AMIS), a platform of international agencies including the WTO, that tracks supplies of key agricultural commodities, reassuring countries when supplies are adequate and providing a forum for coordinated policy responses when needed.

International cooperation on trade takes place at the multilateral, plurilateral and regional levels. In this context, the WTO actively helps to advance trade cooperation by supporting policies that create or expand positive spillovers, by limiting WTO members' discretion to adopt policies that cause negative cross-border spillovers, and by providing a forum to address and resolve frictions. Among the WTO's contributions to trade cooperation are reduced trade barriers, streamlined customs procedures, encouragement for greater policy transparency and predictability, trade capacity-building in poorer countries, and collaboration with other international organizations to strengthen the global economy.

The existing body of multilateral, plurilateral and regional rules and disciplines is complemented by work by international organizations that directly seeks to foster economic resilience. During the COVID-19 pandemic the WTO has monitored pandemic-related measures governments have introduced to restrict or facilitate trade, thus enhancing transparency about market conditions. It has worked with vaccine manufacturers, as well as with other international organizations, to identify bottlenecks in the vaccine supply chain, which has yielded granular information about key vaccine inputs and the panoply of trade and regulatory policies that could potentially impede their cross-border movement. The WTO was able to use its role as a convener and coordinator of different actors to contribute to efforts to increase vaccine production volumes and decentralize vaccine manufacturing. Longstanding WTO work to track the evolution of goods and services trade, and to deliver policy support and technical cooperation, now reflects the pandemic's impact on the global economy, and thus helps inform members' policy responses.

WTO members themselves can work together to do more to foster economic resilience. For example, further enhancing existing WTO transparency mechanisms – particularly monitoring and notification requirements – would facilitate decision-making processes for both firms and governments by providing them with relevant information when shocks hit. To take another example, clarifying the appropriate use of export restrictions on critical materials or intermediary products during crises would reduce policy uncertainty and risks in global value chains. So would greater coordination of public procurement policies for critical goods and services during crises. Finally, advancing work on electronic commerce, micro, small and medium-sized enterprises, and women's economic empowerment would create new opportunities to make trade more inclusive and diversified, and thus more resilient.

Given the broad spectrum of risks and potential shocks, reinforcing and building on the WTO's existing cooperation with international and regional organizations will be critical. Promoting coordination, coherence, and mutual supportiveness across areas ranging from risk prevention, disaster relief and public health to climate change, environmental protection and financial stability would further support our collective ability to be resilient in the face of future crises.