Chapter IV

Shifting patterns in trade

This chapter highlights shifting patterns in trade in a variety of sectors brought about by factors such as trade tensions, increasing demand for various products, the impact of digital technology, and the effects of the COVID-19 pandemic.

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Escalating trade tensions in 2019 contributed to a slowdown in the global economy, with lower levels of trading activity in sectors and products affected by these tensions.



The COVID-19 pandemic has demonstrated the importance of maintaining open supply chains for pharmaceutical products and medical devices, which are critical for tackling the virus.



Despite a 3 per cent decline in food prices in 2019, global food exports fell by only just under 1 per cent in value terms.



The pandemic has highlighted the limitations of existing statistical tools in measuring trade in goods related to combating COVID-19.



Increasing pressure from consumers to reduce waste and the use of products damaging to the environment led to greater demand for renewable energy goods and environmentally friendly goods such as wind turbines, solar panels and electric cars.



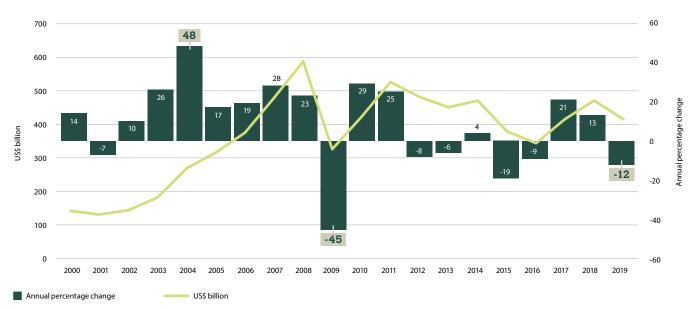
Services linked with goods, such as freight transport and manufacturing services, have been directly affected by growing trade tensions and the COVID-19 pandemic.

Merchandise trade

Iron and steel

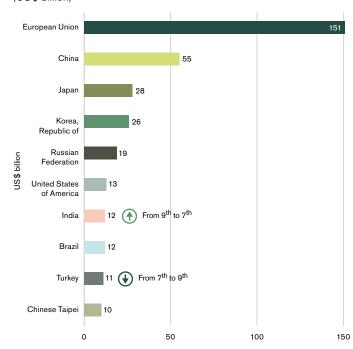
Trade tensions contributed to a 12 per cent annual decline in iron and steel exports in 2019.

Chart 4.1 World exports of iron and steel, 2000-19 (US\$ billion and annual percentage change)



- World exports of iron and steel increased on average by 6 per cent per year from 2000 to 2019. The highest increase (+48 per cent) was recorded in 2004 during the 2000s commodities boom while the steepest decline was in 2009 in the aftermath of the financial crisis (-45 per cent).
- The 12 per cent decline in iron and steel exports in 2019 was the third steepest decline since 2000.

Chart 4.2
Top ten exporters of iron and steel, 2019
(US\$ billion)

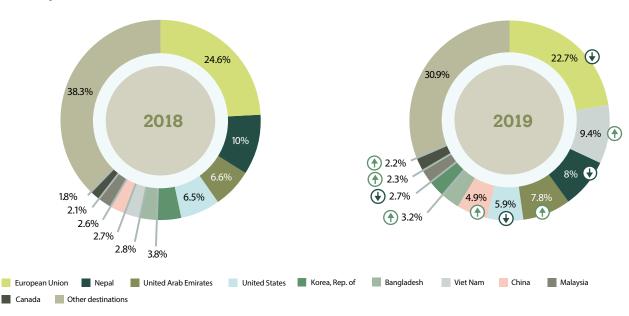


- The European Union remained the largest exporter of iron and steel in 2019. The value of its exports was almost three times higher than the second-largest exporter, China.
- All of the top ten exporters experienced a decline in exports in 2019, with Russia suffering the most (-21 per cent), followed by Chinese Taipei (-16 per cent), the United States (-14 per cent) and Turkey (-14 per cent).
- The ranking of the top ten exporters remained mostly unchanged. However, India moved up from ninth to seventh position in 2019, while Turkey went in the opposite direction.

Source: WTO Secretariat based on data from Comtrade and Trade Data Monitor

Chart 4.3

Top destinations for Indian exports of iron and steel, 2018-19
(Percentage share)



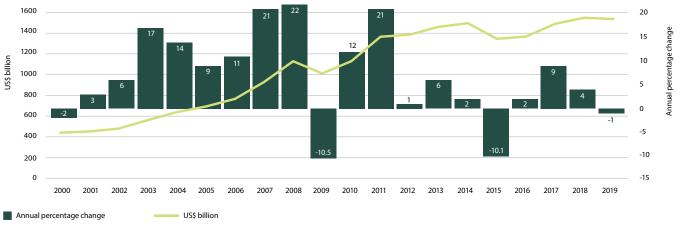
Source: India's Ministry of Commerce and Industry.

 India's exports of iron and steel declined the least among the top ten exporters, falling by only 1 per cent in 2019. India saw a major decline in exports to some of its main destinations, such as Nepal (-21 per cent), the United States (-10 per cent) and the European Union (-9 per cent), but exports increased significantly for other partners, such as Viet Nam (+240 per cent), China (+84 per cent), Canada (+22 per cent) and the United Arab Emirates (+17 per cent).

World trade in food products

World exports of food increased on average by 7 per cent per year between 2000 and 2019.

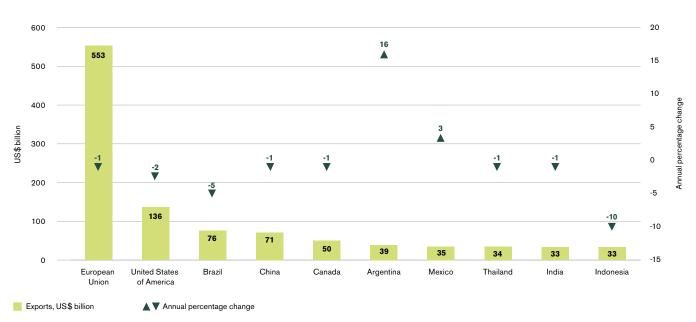
Chart 4.4 World exports of food, 2000-19 (US\$ billion and annual percentage change)



Source: WTO Secretariat based on data from Comtrade and Trade Data Monitor.

- Food prices fell by 3 per cent in 2019, leading to a 1 per cent decline in world exports of food.
 This compares with 4 per cent growth in 2018.
- Since 2000, the largest increase in world exports of food was recorded in 2008 – following the 2007–08 world food price crisis - (+22 per cent). The largest decline was in 2009 (-10.5 per cent).

Chart 4.5 **Top ten exporters of food, 2019**(US\$ billion, annual percentage change)

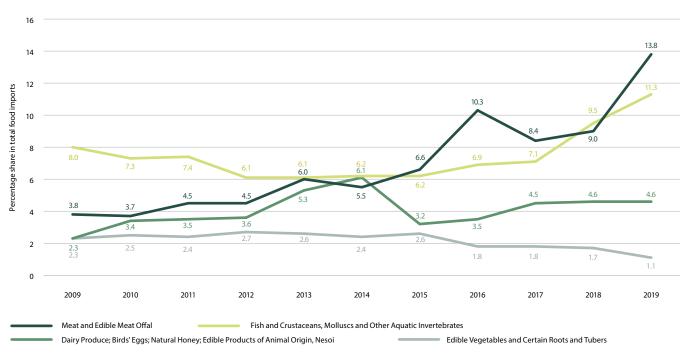


Source: WTO Secretariat based on data from Comtrade and Trade Data Monitor.

 Food exports from eight of the top ten exporters declined in 2019, with Indonesian exports seeing the biggest fall (-10 per cent). This was partly due to a 31 per cent drop in food exports to India. Argentina's exports grew the most, climbing by 16 per cent in 2019, due partly to a 51 per cent increase in exports of cereals to Viet Nam.

China's imports of meat products have increased significantly over the past decade.

Chart 4.6
Chinese imports of major food products, 2009-19
(Percentage share in total Chinese food imports)



- Chinese imports of meat increased by 71 per cent in 2019, totalling US\$ 19 billion (up from US\$ 11 billion in 2018). Imports of frozen bovine meat grew by 70 per cent (rising from US\$ 5 billion to US\$ 8 billion). Imports of pork more than doubled, from US\$ 2 billion in 2018 to US\$ 5 billion in 2019. The steep rise in these imports is mostly due to an increase in demand from more affluent buyers looking for higher quality. A fall in domestic production of pork due to African Swine Fever in 2019 also led to an increase in prices.
- In terms of Chinese food imports overall, the share of meat increased from 3.8 per cent in 2009 to 13.8 per cent in 2019 while fish/crustaceans grew from 8 per cent to 11.3 per cent over the same period. The category of "dairy produce; birds' eggs; natural honey etc." also increased in terms of total share but vegetables declined from 2.3 per cent in 2009 to 1.1 per cent in 2019.

Fish and fish products

Imports of fish and fish products in North America and Europe declined in 2019.

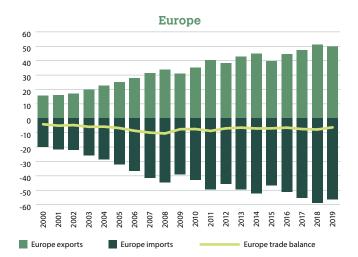
World imports of fish and fish products reached an estimated US\$ 146 billion in 2019.

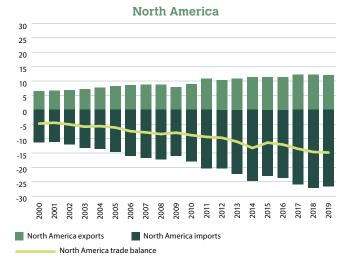
Chart 4.7
Regional trade of fish and fish products, 2000-19
(US\$ billion)

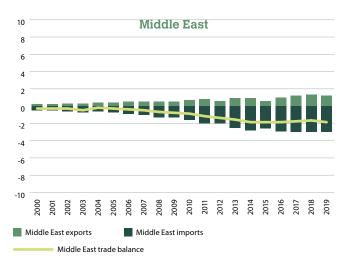
 Europe continues to be the largest importer of fish and fish products but its share of total world imports fell from 41.4 per cent in 2010 to 39.0 per cent in 2019. The value of European imports dropped by 3 per cent in 2019, partly due to a fall in prices for several imported fish species.

 North American imports of fish and fish products fell 2 per cent in 2019, partly as a result of US-China trade tensions. Crustaceans represent the largest share of US fish imports. Imports of crustaceans from China fell 84 per cent in 2019, due to increased US tariffs imposed as of September 2018.

The Middle East has the smallest share of world imports
of fish and fish products but demand has risen in recent
years. Population growth, in particular for foreign residents,
has contributed to this increasing demand, which has
grown at an average annual rate of 7 per cent per year
since 2010.







Exports of fish and fish products from several regions, such as Asia, South and Central America and the Caribbean, and Africa, have seen a steady increase since 2000, helping these regions achieve positive trade balances.

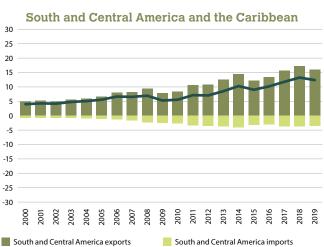
World exports of fish and fish products reached US\$ 151 billion in 2019.

Chart 4.8

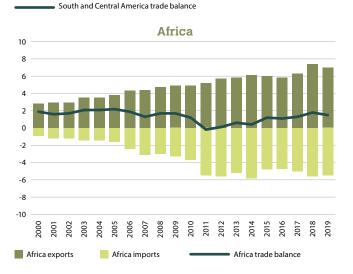
Regional trade of fish and fish products, 2000-19
(US\$ billion)



• Asia continues to be the largest exporter of fish and fish products, with China maintaining its position as the top exporter globally. An improvement in living standards in China has also resulted in a dramatic increase in demand for imports of fish and fish products. India has benefited the most from this increase in demand, with its exports of fish and fish products to China reaching over US\$ 1 billion in 2019, compared with US\$ 0.5 billion in 2018.



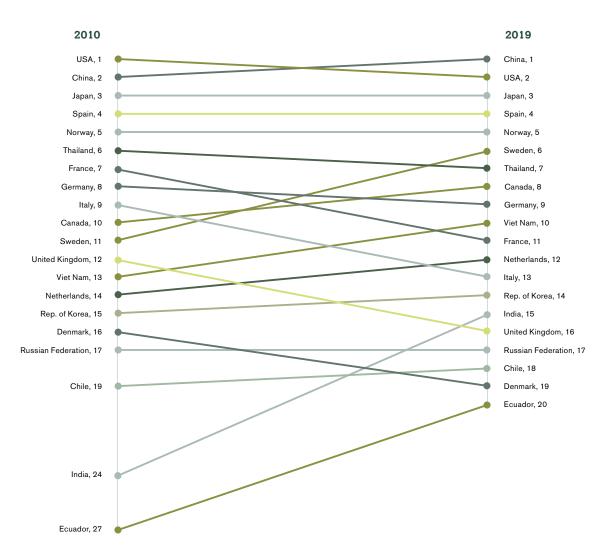
South and Central America and the Caribbean increased its share in world exports of fish and fish products from 8.2 per cent in 2010 to 10.6 per cent in 2019. Chile was the region's leading exporter, although it saw a slight decline of 2 per cent. Ecuador, the second-largest exporter in the region, increased its exports by 19 per cent in 2019, with exports to China more than doubling.



• Africa's share of world exports of fish and fish products fell to 4.7 per cent in 2019 from a high of 6.0 per cent recorded in 2003 and 2009. Mauritania had a particularly strong performance in 2018 (latest year for which data is available), with its exports growing by 58 per cent. This is partly due to the country's participation in UNCTAD's Port Management Programme helping it to boost its fisheries industry.

India and Ecuador see the biggest increase in world rankings for global trade in fish.

Chart 4.9 Leading traders of fish and fish products, 2010 and 2019 (Rank)

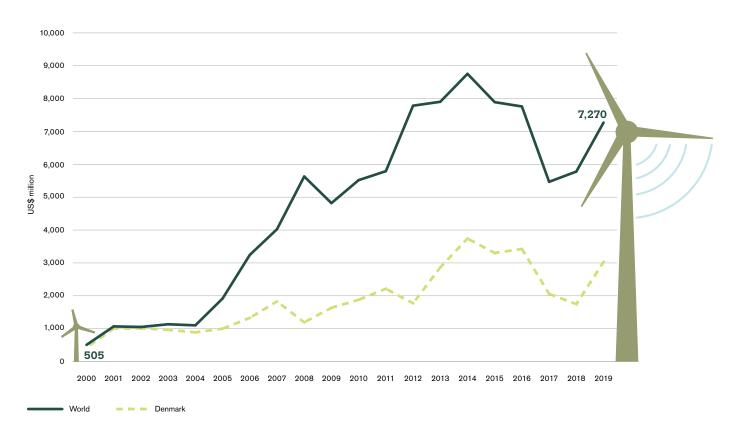


- China has been the world's leading trader in fish and fish products since 2012, mostly due to increasing exports.
 China's import demand has risen steeply since 2018.
- Sweden improved its world ranking from 11th to sixth position, with France, Germany and Italy falling in the rankings.
- India rose nine places between 2010 and 2019, rising to 15th position, while Ecuador moved up seven places to 20th position. Both countries benefited from a significant
- increase in exports of fish and fish products to China, especially in 2018 and 2019.
- Negotiations on reducing fisheries subsidies are ongoing at the WTO. The goal of WTO members is to conclude an agreement in 2020 on eliminating subsidies for illegal, unreported and unregulated fishing and on prohibiting certain forms of fisheries subsidies that contribute to overcapacity and overfishing, with special and differential treatment for developing countries.

Renewable-energy goods

Trade in renewable-energy goods has seen a steep increase in recent years. Exports of wind-energy goods increased 14-fold between 2000 and 2019.

Chart 4.10
World exports of wind turbines, including parts and accessories, 2000-19
(US\$ million)

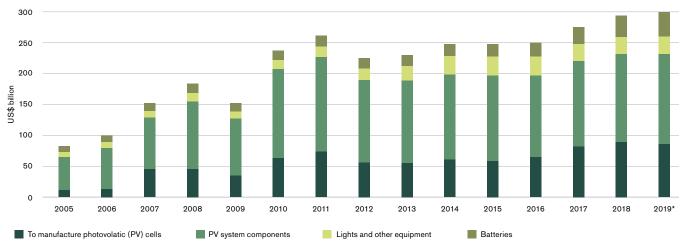


- World exports of wind turbines, including parts and accessories, grew on average by 15 per cent per year between 2000 and 2019, rising from US\$ 505 million to US\$ 7,270 million.
- In 2019, exports of wind turbines climbed by 26 per cent.
 This is mainly due to a 74 per cent jump in Denmark's
 exports of these products (with a large increase in Danish
 exports to the Netherlands). Denmark is traditionally
 the world's leading supplier of wind turbines, including
- parts and accessories. In 2000, its share in world exports stood at 85 per cent. In 2019 its share declined to 42 per cent but it was still the world's top exporter followed by Germany (28 per cent share), the Netherlands (13 per cent) and China (13 per cent).
- The main importers of wind turbines in 2019 were Norway (13 per cent share in world imports), the Netherlands (11 per cent), Mexico (7 per cent), Australia (7 per cent) and the United Kingdom (7 per cent).

Solar-energy powered goods

Exports of solar-energy powered goods and related products have doubled since 2005.

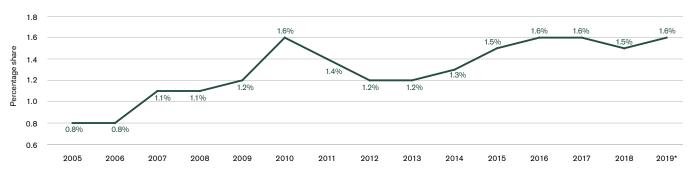
Chart 4.11
World merchandise exports of solar-energy powered goods and related products, 2005-19
(US\$ billion)



* Estimate.
Source: WTO Secretariat based on data from IDB, Comtrade and Trade Data Monitor.

- A key target of the UN Sustainable Development Goals is to substantially increase the share of renewable energy in world energy use by 2030.
- World exports of solar-energy powered goods and related products increased from US\$ 82 billion in 2005 to US\$ 300 billion in 2019. Their export value increased by an annual average of 10 per cent.
- Photovoltaic system components constituted the largest share (49 per cent) in exports of solar-energy powered goods and related products in 2019, followed by products to manufacture photovoltaic cells (29 per cent share) and batteries (13 per cent). Lights and other equipment constituted a 10 per cent share.

Chart 4.12
World exports of solar-energy powered products and related products, 2005-19
(Percentage share in world merchandise exports)

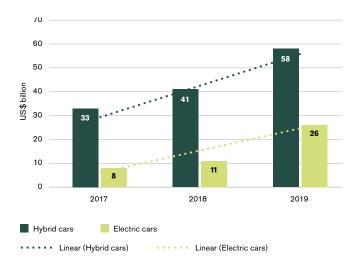


- The share of solar-energy powered goods and related products in world merchandise exports doubled between 2005 and 2019, rising from 0.8 per cent in 2005 to 1.6 per cent in 2019.
- The top three exporters in 2019 were China (28 per cent share in world exports), Japan (10 per cent) and the United States (10 per cent). The top importers were the United States (16 per cent share in world imports), China (14 per cent) and Chinese Taipei (8 per cent).

Hybrid and electric cars

Global exports of hybrid and electric cars increased by almost 60 per cent in 2019.

Chart 4.13
World exports of hybrid and electric cars, 2017-19
(US\$ billion)



- World exports of electric and hybrid cars totalled US\$ 84 billion in 2019 – an increase of almost 60 per cent compared with 2018. Exports of electric cars more than doubled over this period.
- Hybrid cars had an 8 per cent share in world exports of passenger cars in 2019 (up from 6 per cent in 2018).
 Electric cars had a 4 per cent share (up from 2 per cent).
- Trade for all passenger cars declined by 1 per cent in 2019.

Source: UN Comtrade and Trade Data Monitor.

Chart 4.14
Top exporters of electric cars, 2017-19
(Percentage share in world exports)

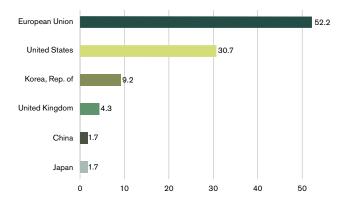
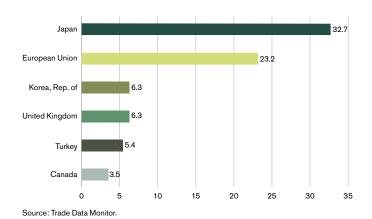


Chart 4.15
Top exporters of hybrid cars, 2017-19
(Percentage share in world exports)

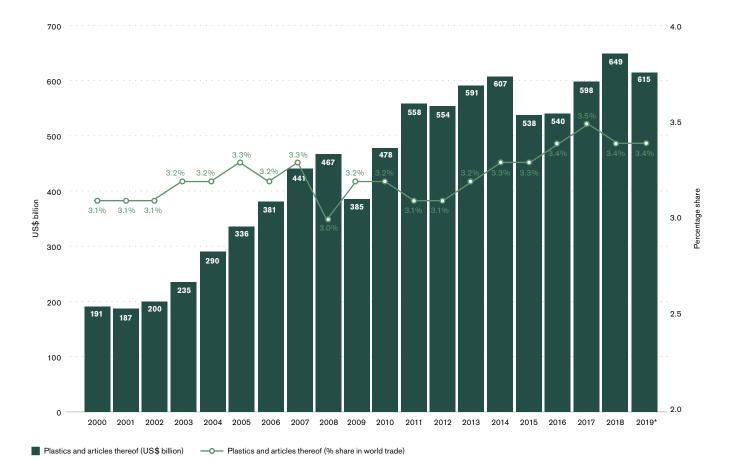


- The top exporters of hybrid cars in 2019 were Japan (32.7 per cent share in world exports), the European Union (23.2 per cent) and the Republic of Korea (6 per cent). For electric cars, the leading exporters were the European Union (52.2 per cent share), the United States (30.7 per cent) and the Republic of Korea (9.2 per cent).
- The major importers of hybrid cars in 2019 were the European Union (44 per cent share in world imports) followed by the United States (23 per cent) and China (9 per cent). Electric cars were mostly imported by the European Union (51 per cent share), Norway (12 per cent) and China (10 per cent).

Plastics

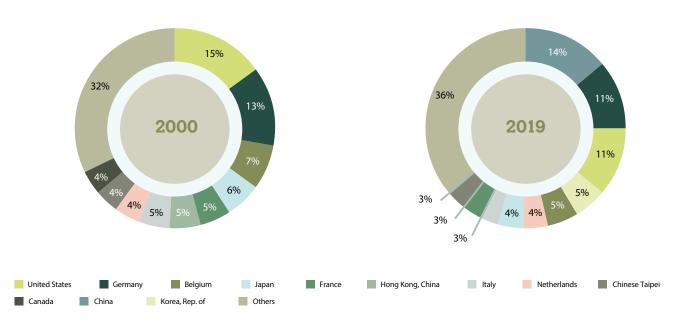
Exports of plastics have more than trebled since 2000. In 2019, a slight decline was recorded. This may be partly due to the global call to reduce the use of plastics.





- World exports of plastics and related articles increased on average by 6 per cent annually between 2000 and 2019, rising from US\$ 193 billion in 2000 to US\$ 615 billion in 2019.
- In 2019, exports decreased by 5 per cent declining more quickly than total merchandise exports (-3 per cent). Partly due to international trade tensions.
- The share of plastics and related articles in total world exports increased from 3.1 per cent in 2000 to 3.4 per cent in 2019.

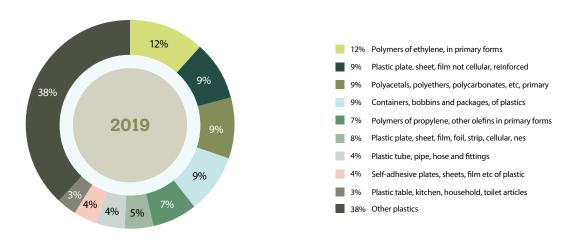
Chart 4.17
Top ten exporters of plastics and related articles, 2000 and 2019
(Percentage share in world trade)



Source: WTO Secretariat based on data from Comtrade (2000) and Trade Data Monitor (2019).

- In 2019, China was the world's top exporter of plastics, with a 14 per cent share in world trade. In 2000, China had not even been among the top ten exporters.
- The United States was the top exporter in 2000, falling to third position in 2019. Germany remained the secondlargest exporter.

Chart 4.18
World exports of plastics and related articles, by type of product, 2019
(Percentage share)

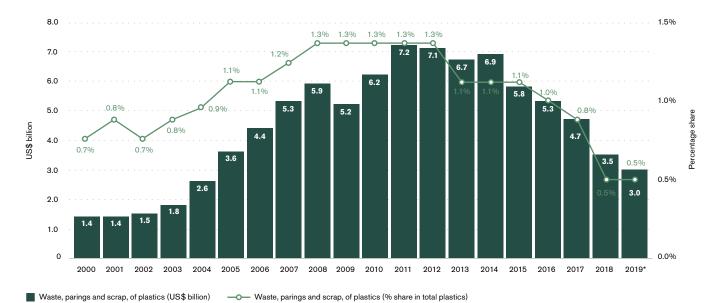


Source: WTO Secretariat based on data from Trade Data Monitor.

In 2019, the product with the highest share (12 per cent) in world exports of plastics was "polymers of ethylene, in primary forms", the plastic most commonly used nowadays, primarily for packaging. This was followed by "plastic plate, sheet, film not cellular, reinforced", mostly

used in construction, with a share of 9 per cent, and "polyacetals, polyethers, polycarbonates, etc, primary", widely used in the automotive and consumer electronics industry, with a share of 9 per cent.

Chart 4.19
World exports of plastic waste, 2000-19
(US\$ billion and percentage share)

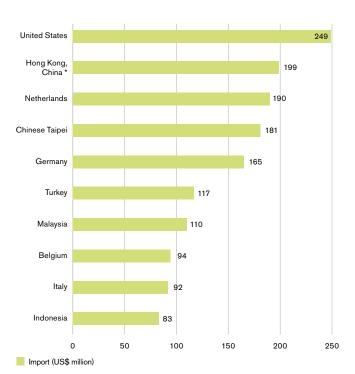


*Estimate.

Source: WTO Secretariat based on data from Comtrade (2000-18) and Trade Data Monitor (2019).

- World exports of plastic waste ("waste, parings and scrap of plastics") reached a peak of US\$ 7.2 billion in 2011 (up from US\$ 1.4 billion in 2000). Since then, it has consistently declined – falling to a value of US\$ 3.0 billion in 2019.
- The share of plastic waste in total exports of plastics has fallen from a peak of 1.3 per cent in 2011 to 0.5 per cent in 2019.

Chart 4.20 Top importers of plastic waste, 2019 (US\$ million)



The top importers of plastic waste in 2019 were the United States (US\$ 249 million), Hong Kong (China) (US\$ 199 million; mainly for re-export) and the Netherlands (US\$ 190 million). Up to 2017, China was the top importer of plastic waste (totalling US\$ 3,259 million in 2017) but since 2018 it has dramatically reduced its imports, to US\$ 49 million in 2018 and US\$ 0.5 million in 2019.

^{*} Mainly imports for re-exportation.

Trade in services

Freight transport services

Global freight transport services decline as merchandise trade contracts.

 Freight transport services tend to mirror closely developments in merchandise trade. Globally, all modes of freight transport services, such as sea, air, road, and rail, representing 47.3 per cent of transport exports, declined by 2 per cent in 2019, to US\$ 486 billion. This represents an export loss of US\$ 13 billion for transport operators, following growth in 2017 and 2018.

Chart 4.21
World exports of freight transport services and world merchandise trade, 2006 - Q1 2020
(Annual and quarterly year-on-year percentage change)

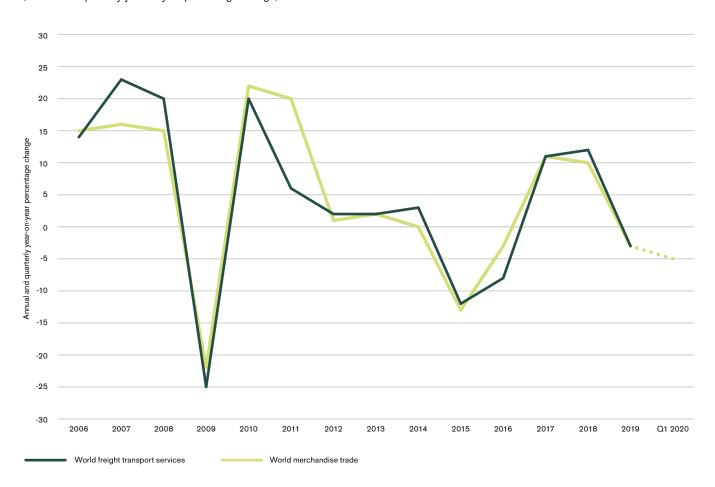
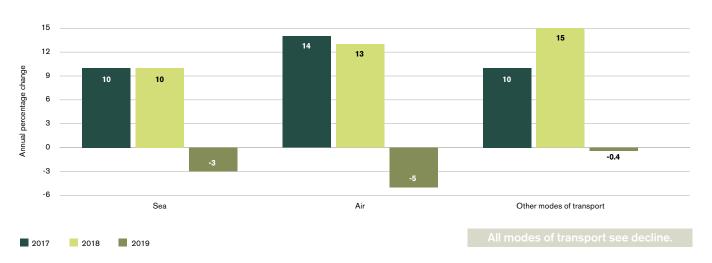


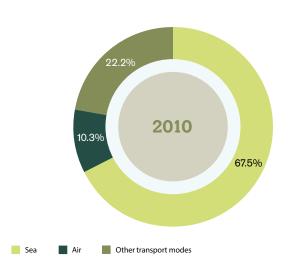
Chart 4.22
Growth of world freight transport services exports by mode, 2017-19
(Annual percentage change)

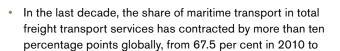


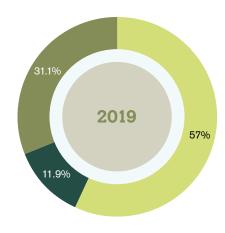
 In 2019, world maritime freight transport services decreased by 3 per cent, to US\$ 277 billion. Several leading traders experienced declines. Singapore, the top global exporter, saw exports contract by 5 per cent, Japan by 14 per cent and the Republic of Korea by 7 per cent. In Denmark and Germany, maritime freight transport fell by 2 per cent, and in Norway by 3 per cent. In Africa, Egypt's exports dropped by 37 per cent, hitting the lowest level since 2009, despite increased activity in the Suez Canal.

Global maritime freight transport services have plunged since 2010

Chart 4.23 Structure of world freight transport services exports by mode, 2010 and 2019 (Percentage)



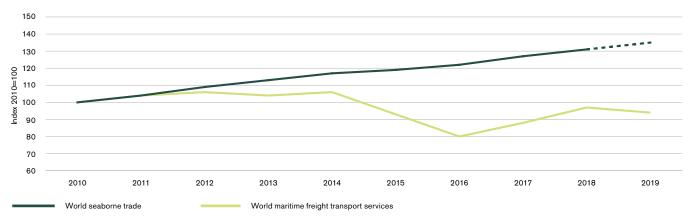




57.0 per cent in 2019, reflecting lower shipping costs due to overcapacity and a weak global demand.

Maritime freight transport services have declined despite rising volumes of goods shipped.

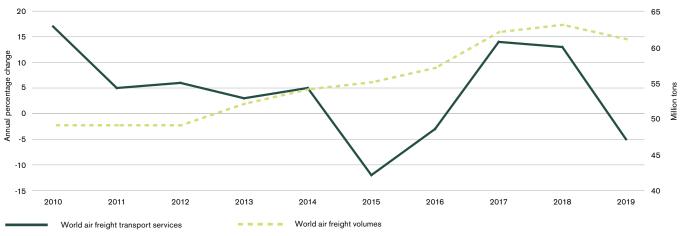
Chart 4.24
World maritime freight transport services and world seaborne trade, 2010-19
(Index 2010 = 100)



Source: UNCTAD for world seaborne trade. Estimates for 2019.

 In 2019, global exports of airfreight transport services fell by 5 per cent, reflecting a contraction in airlines' cargo yields and representing the first decline in airfreight volumes since 2012. In the United States, which accounts for one-quarter of global air freight transport services, exports fell by 5 per cent. In Russia, exports dropped by 26 per cent.

Chart 4.25
World air freight transport services and airfreight volumes, 2010-19
(Annual percentage change and million tons)



Source: IATA for air freight volumes.

- Freight transport services via other modes, such as road, rail and inland waterways, declined by just 0.4 per cent. Freight transport services through these other modes have risen by 5 per cent on average per year since 2010. The European Union accounts for more than two-thirds of the global total. Within the EU, goods are transported mainly by road (52.4 per cent in 2018), followed by rail transport (13 per cent) and inland waterways (4.1 per cent).¹ In 2019, EU freight transport services exports remained static.
- The decline in world merchandise exports in the first quarter of 2020 (-5 per cent) due to the COVID-19 pandemic, and the expected sharper contraction in merchandise trade in the second quarter of the year, will inevitably translate into a decline in freight transport services in 2020, in particular for maritime transport. This will be the third decline for freight transport services in the past ten years. However, its extent is difficult to predict.

¹ Source Eurostat. In 2018, maritime transport accounted for 30 per cent of intra-EU freight transport while only 0.4 per cent of intra-EU goods were airborne

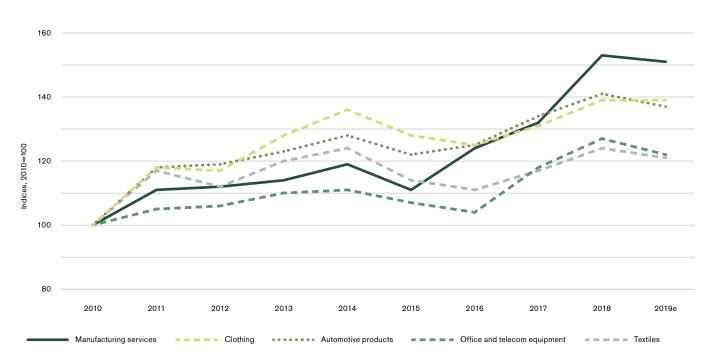
Manufacturing services

Global exports of manufacturing services fall as production slows.

- World exports of "manufacturing services on physical inputs owned by others" dropped by 2 per cent in 2019, compared with a 16 per cent rise in 2018. These services cover activities such as assembly, processing, packaging and labelling on a contract basis. They are intimately linked with global value chains, as economies have increasingly delocalised production to third countries, benefiting from cheaper costs or skilled labour.
- Trade tensions have disrupted global value chains involving Asia, affecting product assembly tasks. The decline

- in manufacturing services for intermediate and final goods is linked to the lower demand for office and telecom equipment and automotive products due to an increase in trade restrictions.
- The economic slowdown, coupled with weaker demand, has taken a toll on the manufacturing of textiles and clothing, whose exports stagnated in 2019. These sectors are part of fashion value chains, in which the production of garments takes place in various countries, thus affecting exports of manufacturing services.

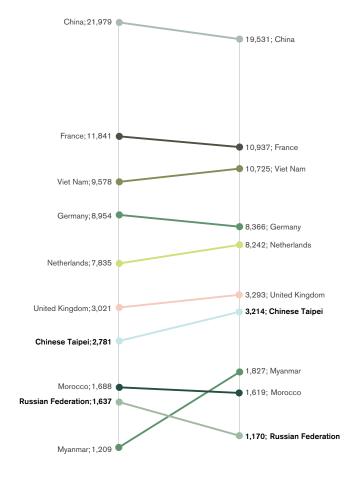
Chart 4.26
World exports of selected manufactured goods and manufacturing services, 2010-19 (indices, 2010 = 100)



Twenty-one out of the 25 top exporters of manufacturing services saw exports decline or stagnate in 2019.

 Exports of manufacturing services for the top exporters either declined or stagnated in 2019. Chinese exports decreased by 11 per cent. This is partly due to trade tensions. However, since 2015, China's exports of manufacturing services have been declining by 1 per cent on average per year as some of its processing activities in value chains have been transferred to neighbouring countries, such as Viet Nam or Myanmar.

Chart 4.27
Exports of top 25 exporters of manufacturing services, 2018-19
(US\$ million)



- Viet Nam saw its exports of manufacturing services increase by 11 per cent in 2019. Considerable foreign direct investment from leading firms and manufacturers of electronic goods has allowed Viet Nam to specialise in the assembly of parts, components and finished goods.² In 2019, Viet Nam's exports of office and telecom equipment increased by 19 per cent, mostly due to the increase in exports of computers and electronic parts. Viet Nam also became the third-largest global exporter of mobile phones after China and Hong Kong, China.³
- In Europe, France and Germany recorded the sharpest falls in manufacturing services exports in 2019 (23% and 16% respectively), mostly linked to automotive products. The Netherlands saw its export of manufacturing services increase by 5 per cent, possibly due to a surge in exports of medical supplies and orthopaedic appliances.
- Despite uncertainties caused by leaving the European Union, the United Kingdom saw exports of manufacturing services increase by 9 per cent in 2019, driven by exports of computer and electronics and other machinery to the United States and Germany.
- In Africa, exports of manufacturing services from Morocco fell by 4 per cent in 2019, following an 18 per cent increase in 2018. Morocco's participation in the production of components and assembly of final goods in automotive value chains resulted in 2 per cent growth in exports of these products, but its clothing exports contracted by 5 per cent, negatively affecting its total exports of manufacturing services.
- Russia's exports of manufacturing services contracted by 28 per cent in 2019, the steepest decline among the top 25 exporters of manufacturing services, due to a reduction of 22 per cent in its exports of iron and steel.

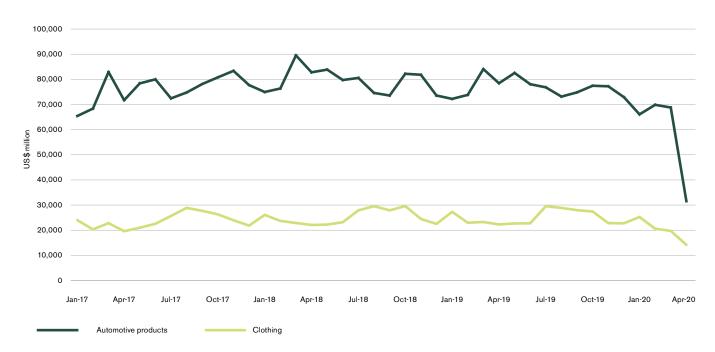
² General Statistics Office of Viet Nam: The Economic Census 2017 - Results of Foreign Invested Enterprises in the period 2011-2016.

³ UN Comtrade – exports of HS 851712 for all available reporters for 2019.

Disruption in global value chains and lower demand for many goods due to the COVID-19 pandemic is expected to have a negative impact on manufacturing services in 2020.

- Preliminary data points to a contraction of 9 per cent in trade in manufactured goods in the first quarter of 2020.
 Exports of automotive products and clothing have declined by 12 per cent and office and telecom equipment by 4 per cent.⁴
- Imports of automotive products contracted by 60 per cent in April 2020 due to the closure of automotive assembly plants in Europe and North America and a decline in the purchasing of vehicles.⁵
- Trade in electronic goods decreased by 2.4 per cent yearon-year in April 2020. In the mobile phone sector, leading brands transferred production to various providers of
- manufacturing services amid the tightening of confinement measures. However, strict lockdown measures imposed in the Republic of Korea disrupted the supply of core inputs for the assembly of mobile phones, having a negative impact on the provision of manufacturing services.⁶
- Preliminary estimates show that global demand for clothing decreased by 37 per cent in April 2020, in year-on-year terms. Export orders of garments were cancelled, severely affecting providers of manufacturing services to the clothing industry. In Bangladesh, where clothing accounts for 33 per cent of total exports, cancellations amounted to US\$ 3.18 billion in April, with exports 81 per cent lower than in April 2019.7

Chart 4.28: Imports of selected manufactured goods for various economies, January 2017 - April 2020 (US\$ million)



Note: Estimates are based on a sample of economies with available data on April 2020, accounting for 61 per cent of world imports of automotive products and clothing in 2019 Source: Trade Data Monitor.

⁴ Preliminary data are based on a sample of available reporters in April 2020, accounting for 60 per cent of world manufacturing imports in 2019.

⁵ According to the latest available data from the Bureau of Economic Analysis (BEA), personal consumption of motor vehicles and parts in the United States was down by 3.5 per cent in the first quarter of 2020, in year-on-year terms, seasonally adjusted.

^{6 &}quot;Lex in-depth: why coronavirus spells trouble for smartphones", Financial Times, 03/19/2020. https://www.ft.com/content/16209002-6531-11ea-a6cd-df28cc3c6a68

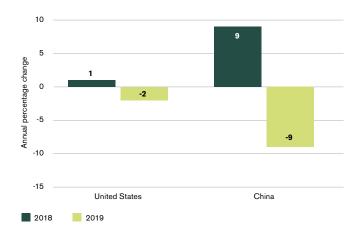
^{7 &}quot;Can fast fashion's \$2.5tn supply chain be stitched back together?", Financial Times, 05/17/2020. https://www.ft.com/content/62dc687e-d15f-46e7-96df-ed7d00f8ca55

Travel

Tourism declines amid trade tensions and COVID-19 pandemic.

Chart 4.29
United States and China: Travel exports and travel imports, 2018-19

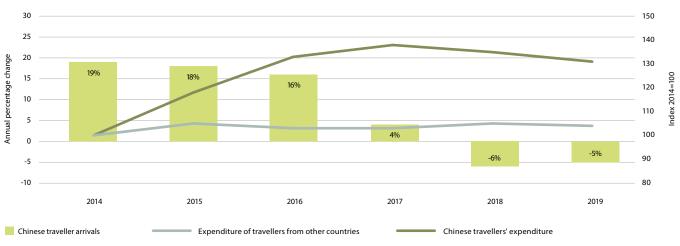
(Annual percentage change)



- The global economic slowdown resulting from trade tensions and the COVID-19 pandemic has had a significant impact on international tourism. Travel exports expanded by only 1 per cent in 2019, down from 8 per cent in both 2017 and 2018. This was due to a global decline in international tourist arrivals as a result of a lower disposable income for many consumers, currency depreciation in some countries, and many consumers choosing not to travel. In 2019, world travel receipts still accounted for close to one-quarter of global exports of commercial services, totalling US\$ 1.44 trillion and representing 1.7 per cent of world GDP.
- For the first time since the global financial crisis in 2009, the United States, the world's largest travel exporter with a global share of 13.4 per cent, saw a decline (-2 per cent) in travel exports. In addition, China, the top travel spender with an 18 per cent share in world travel imports, saw its travel-related expenditure drop sharply, by 9 per cent.

Chart 4.30

Arrivals of Chinese travellers in the United States and travel-related expenditure, 2014-19
(Annual percentage change for arrivals; index 2014 = 100 for travel expenditure)



Source: U.S. Department of Commerce, National Travel and Tourism Office (NTTO).

- Following years of rapid annual growth, Chinese tourist arrivals in the United States declined by 5 per cent in 2019, reflecting trade tensions between the two countries. With 2.8 million visitors in 2019, China ranks only fifth in terms of foreign tourist arrivals in the United States. However, China is still the main source of travel receipts for the United States, ahead of Canada and Mexico.
- In 2019, Chinese travellers' expenditure on goods and services in the United States represented around 16 per cent of total US travel receipts. However, it contracted by 3 per cent, to US\$ 31 billion, a lower value than in 2016. Businesses, particularly small and mediumsized enterprises (SMEs) have been especially hard hit in the hospitality sector as well as in sightseeing, local transportation, retail, entertainment and recreational sectors across the United States.

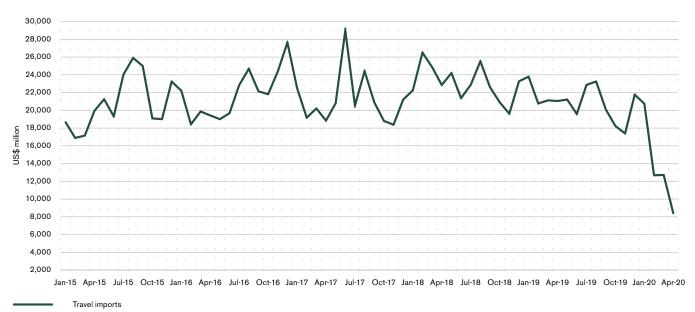
Chart 4.31

United States - Travel and air passenger transport exports and imports, January 2008 - April 2020 (US\$ million seasonally adjusted)



Source: U.S. Department of Commerce National Travel and Tourism Office (NTTO).

Chart 4.32 China - Travel imports, January 2015 - April 2020 (US\$ million)



Source: The State Administration of Foreign Exchange of the People's Republic of China (SAFE)

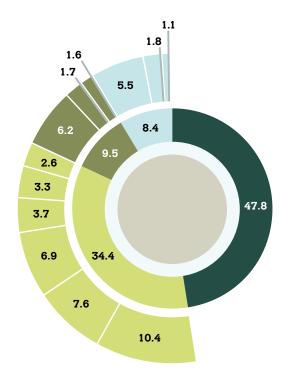
- Trade frictions between China and United States have mostly involved increased tariffs for goods. However, these tensions have spilled over into the services sector, hitting tourism, the least restricted services sector.
- According to China's bilateral data for 2015 and 2016, the latest available years, the United States was the second-largest recipient of Chinese travellers' expenditure abroad (with a 21 per cent share) behind Hong Kong, China. With a 14 per cent share, the United States was also the second-largest main partner for China's travel exports, once again behind Hong Kong, China.8 In 2019, US travellers' expenditure in China fell by 3 per cent, with declining revenue for local service providers.
- The COVID-19 pandemic has led to an unprecedented disruption in supply and demand for the global tourism sector, which is expected to see a further decline in tourist arrivals in 2020. Health-related travel and transport restrictions have had an abrupt impact on US travel exports and China's travel imports. US travel exports were down by 73 per cent in April 2020, compared with April 2019, following a 53 per cent plunge in March. China's travelrelated expenditure dropped by over 60 per cent in both March and April 2020 year-on year.

Source: Ministry of Commerce of the People's Republic of China (MOFCOM).

Global supply chains for chemicals and pharmaceutical goods

The COVID-19 crisis has highlighted the importance of maintaining open supply chains for pharmaceutical products, which are critical for combating the virus.

Chart 4.33
Origin of value added⁹ in world exports of chemicals and pharmaceutical products,¹⁰ 2015
(Percentage share)



Source: OECD TiVA database.

- Based on the latest available data, world exports of chemicals and pharmaceutical products reveal that
 47.8 per cent of value added is created in the chemical and pharmaceutical sector while more than half originates from other industries in the supply chain.
- Services account for more than one-third of value added in world exports of chemicals and pharmaceutical products.

Chemicals and Pharmaceuticals 47.8

Services	
Wholesale and retail	10.4
Other business services	7.6
Other services	6.9
Finance and insurance	3.7
Transport and storage	3.3
Electricity, gas, and other public services	2.6
Primary	
Mining	6.2
Agriculture	1.7
Other	1.6
Manufactures	
Other	5.5
Refined Petroleum	1.8
Food	1.1

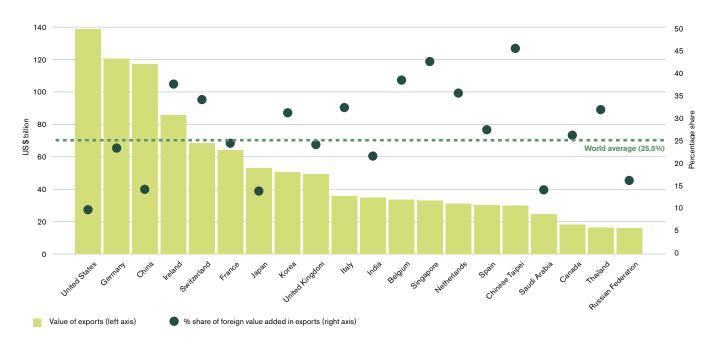
- Distribution services, namely wholesale and retail trade, and other business activities account for half of the services value added in world exports of chemicals and pharmaceuticals.
- Government measures aimed at making supply chains more resilient would help economies deal with health crises in the future.

Trade in Value Added (TiVA) statistics and trade data for intermediate goods reveal the level of fragmentation in the international production of manufactured goods, where industries optimize comparative advantages with global partners in terms of costs, natural resources, skills, infrastructure or processes.

^{10 &}quot;Chemicals and pharmaceutical products" include medicinal products and correspond to Divisions 20 and 21 of the ISIC Rev. 4 classification.

Chart 4.34

Top 20 exporters of chemicals and pharmaceutical products, 2016
(US\$ billion and percentage share)



Source: OECD TiVA database.

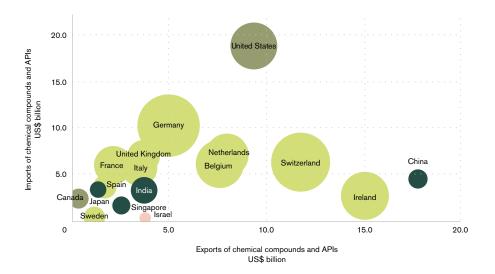
Note: Total exports refer to 2015. The foreign value-added content of exports represents the value of foreign goods or services imported through supply chains to produce an economy's exports.

- In 2016, exports of chemicals and pharmaceutical products included on average a 25.5 per cent proportion of foreign inputs supplied by partners in the global value chain.
- The United States had the lowest share of foreign inputs in its exports of chemicals and pharmaceutical products in 2016, totalling less than 10 per cent. Other major exporters such as China and Japan also had low levels of foreign value added, estimated at around 14 per cent.
- Chinese Taipei and Singapore are more dependent on foreign suppliers to produce their exports, with foreign content amounting to more than 40 per cent of the value added in their exports of chemicals and pharmaceutical products.

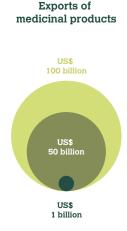
Trade in intermediate goods in pharmaceutical value chains

In 2019, the United States was the top buyer of raw materials in pharmaceutical supply chains and China was the top supplier. European economies have developed regional value chains that are very active in the supply of pharmaceutical inputs.

Chat 4.35
Top traders of final medicinal products, intermediate chemical compounds and APIs, 2019 (US\$ billion)



Middle East



Source: WTO estimates based on the Trade Data Monitor.

Note: The size of the bubble reflects the value of total exports of final medicinal products in 2019.

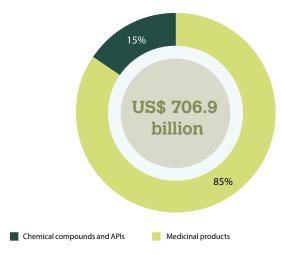
North America

Europe

- China was the biggest supplier of raw materials in pharmaceutical value chains in 2019. Its exports of chemical compounds and active pharmaceutical ingredients (APIs) totalled US\$ 17.8 billion, accounting for 16 per cent of world exports of pharmaceutical intermediate products. China has specialized in the production and export of APIs, mostly to European and US companies. China's exports of final medicinal products represented only 1 per cent of world exports.
- Ireland was the world's second-largest supplier of chemical compounds and APIs in 2019, with its exports amounting to US\$ 15.1 billion. Germany and Switzerland were the largest exporters of final medicinal products. They were also active in the supply of intermediate goods and services.
- Switzerland is particularly active in manufacturing APIs needed in complex pharmaceutical products used for treating cancer, for example. These APIs are supplied to processing plants in Austria, Germany and Poland for the manufacturing of medicinal products.
- The United States is the world's largest importer of APIs, with the value of these products totalling US\$ 15 billion in 2019. The US specializes in high-value supply chain tasks such as research and development, patenting products, clinical trials and marketing. It offshores the production of other inputs to economies such as China and India.

Chemical compounds and active pharmaceutical ingredients (APIs)¹¹ are major components of medicinal products, accounting for 15 per cent of world pharmaceutical exports in 2019.

Chart 4.36
World exports of pharmaceutical products, 2019
(US\$ billion and percentage share)



Source: WTO estimates based on the Trade Data Monitor.

- World exports of pharmaceutical products totalled US\$ 706.9 billion in 2019. Of this total, 85 per cent were final medicinal products while the remaining 15 per cent were intermediate chemical compounds and APIs.
- Chemical compounds and APIs constitute all the chemical inputs, or intermediate goods, embedded in the manufacturing of medicines. Chemical compounds are raw materials for APIs, which constitute the main components of pharmaceutical drugs.
- Medicinal products¹² are final goods, encompassing pharmaceutical drugs, vaccines and other pharmaceutical products, such as blood group reagents and medicated bandages.

¹¹ Includes parts of HS 2017 headings: 2918, 2922, 2923, 2924, 2932, 2933, 2939, 2934, 2935, 2940, 2936, 2937, 2938, 2941 and the full list of subheadings under 3003.

¹² Includes parts of HS 2017 headings: 3001, 3002, 3005, 3006 and the full list of subheadings under 3004.

Statistical reporting

Statistical reporting has faced a number of challenges in the wake of COVID-19, with delays in some countries providing trade data. Hence, it is too early to quantify the effect of the pandemic on world trade. In addition, the system for classifying goods has not been sufficiently granular to pinpoint all goods related to tackling COVID-19.

- After the outbreak of COVID-19 in February 2020, trade data for the early part of the year were not reported by some countries. As a result, some ad-hoc statistics were used to estimate trade for certain months.
- Shuttle trade, whereby entrepreneurs buy goods abroad for resale in street markets or small shops in their own country, is significant in some economies. Given the complete lockdown and closure of national borders for individuals, shuttle trade between neighboring countries could not take place. Trade flows were also restricted due to a limited number of borders being open, resulting in less declarations at Customs.
- Identifying the full range of goods, medical and non-medical, traded for the treatment and containment of
 COVID-19 has proved to be difficult. Medical products
 are distributed across various chapters of the Harmonized
 System (HS) used to classify goods. The lack of specific
 HS classification codes for certain products creates
 difficulties in measuring the trading of these products.
- Existing lists of medical products in the Harmonized System (HS) are for the purpose of facilitating and simplifying Customs processes and not for trade statistics purposes. Moreover, the identified products do not include

- intermediate goods supplied in global value chains for the production of the final product.
- International cooperation is needed more than ever to leverage resources and update current statistical tools so that the statistical community can effectively measure emerging trends in international trade. These statistics are important for trade policy making and for assisting global containment of the pandemic. An example of this cooperation is the collaborative effort of the World Customs Organization and the World Health Organization to prepare a list of medical supplies related to tackling COVID-19.
- This list, however, is for the purpose of facilitating and simplifying Customs processes and not for trade statistics purposes. Moreover, the identified products do not include intermediate goods supplied in global value chains for the production of the final product.
- International trade statistics have the potential to shape important decisions that will have an impact not only on the recovery of the global economy but on the lives of people around the world.

