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Executive summary

- The outlook for global trade has deteriorated sharply due to a surge in tariffs and trade policy uncertainty (TPU). Based on measures in place as of 14 April, including the suspension of “reciprocal tariffs” by the United States, the volume of world merchandise trade is now expected to decline by 0.2% in 2025 before posting a modest recovery of 2.5% in 2026. The new estimate for 2025 is nearly three percentage points lower than it would have been without recent policy shifts, and marks a significant reversal from the start of the year, when WTO economists expected to see continued trade expansion supported by improving macroeconomic conditions.
- Risks to the forecast include the implementation of the currently suspended reciprocal tariffs by the United States, as well as a broader spillover of trade policy uncertainty beyond US-linked trade relationships. If enacted, reciprocal tariffs would reduce world merchandise trade growth by an additional 0.6 percentage points, posing particular risks for least-developed countries (LDCs), while a spreading of TPU would shave off a further 0.8 percentage points. Taken together, the reciprocal tariffs and spreading TPU would lead to a 1.5% decline in world merchandise trade volume in 2025.
- The impact of recent trade policy changes varies sharply across regions. In the adjusted forecast, North America now subtracts 1.7 percentage points from global merchandise trade growth in 2025, turning the overall figure negative. Asia and Europe continue to contribute positively but less than in the baseline scenario, with Asia’s contribution halved to 0.6 percentage points. The combined contribution of other regions – Africa, the Commonwealth of Independent States (CIS), including certain associate and former member states, the Middle East, and South and Central America and the Caribbean – also declines but remains positive.
- The disruption in US-China trade is expected to trigger significant trade diversion, raising concerns among third markets about increased competition from China. Chinese merchandise exports are projected to rise by 4% to 9% across all regions outside North America as trade is redirected. At the same time, US imports from China are expected to fall sharply in sectors such as textiles, apparel and electrical equipment, creating new export opportunities for other suppliers able to fill the gap. This could open the door for some least-developed countries (LDCs) to increase their exports to the US market.
- Services trade, though not directly subject to tariffs, is also expected to be adversely affected. Tariff-induced declines in goods trade weaken demand for related services such as transport and logistics, while broader uncertainty dampens discretionary spending on travel and slows investment-related services. As a result, the global volume of commercial services trade is now forecast to grow by 4.0% in 2025 and 4.1% in 2026 – well below baseline projections of 5.1% and 4.8%. These figures are part of a new element in our analysis: for the first time, this report includes projections for commercial services trade, complementing our long-standing merchandise trade estimates.
- WTO economists expect world GDP at market exchange rates to grow by 2.2% in 2025 – 0.6 percentage points below the no-tariff-change baseline – before slightly recovering to 2.4% in 2026. Tariff changes are forecast to have the largest impact on North America (-1.6 percentage points), followed by Asia (-0.4 points) and South and Central America and the Caribbean (-0.2 points). While the imposition of reciprocal tariffs would have a limited effect on the global figure, a wider spread of trade policy uncertainty could nearly double the GDP loss to 1.3 percentage points relative to the baseline.
- The recent downturn in trade prospects follows a strong performance in 2024, when the volume of world merchandise trade grew by 2.9% and commercial services trade expanded by 6.8%. With global GDP rising by 2.8% at market exchange rates, it was the first year since 2017 – excluding the post-pandemic rebound – where merchandise trade growth outpaced output. In value terms, world merchandise exports increased by 2% to US\$ 24.43 trillion, indicating a decline in average export and import prices. Commercial services exports rose by 9% to US\$ 8.69 trillion, reflecting strong demand across a range of sectors.

Historically high tariffs and trade policy uncertainty expected to hit world trade

Outlook for world trade in 2025 and 2026

At the start of the year, WTO economists expected to see continued expansion of world trade in 2025 and 2026, with merchandise trade volume growth picking up gradually over time in line with GDP, and commercial services trade volume growing even faster. A profusion of new tariff measures announced and implemented since January prompted WTO economists to re-examine the trade landscape, resulting in a significant downgrade to the outlook for merchandise trade, and a smaller reduction in the outlook for services trade.

After adjusting baseline projections to account for the impact of recently announced tariffs and heightened trade policy uncertainty, WTO economists now foresee a -0.2% contraction in merchandise trade in 2025 – down from +2.9% in 2024 – followed by a 2.5% increase in 2026 reflecting weaker global demand. Meanwhile, growth in commercial services trade is expected to slow to 4.0% this year from 6.8% last year before ticking up to 4.1% next year.

Baseline projections suggest that merchandise trade growth could have been as high as 2.7% in 2025 and 2.9% in 2026 had tariffs and uncertainty remained low. Meanwhile, services trade growth could have reached 5.1% this year and 4.8% next year.

Risks to the forecast include the possible reinstatement of the currently suspended “reciprocal tariffs” proposed by the United States, as well as the spread of trade policy uncertainty to non-US trade relationships. If enacted, reciprocal tariffs would reduce global merchandise trade volume growth by 0.6 percentage points in 2025 while spreading trade policy uncertainty could shave off another 0.8 percentage points, posing particular risks for least-developed countries (LDCs). Together, reciprocal tariffs and spreading trade policy uncertainty would lead to a 1.5% decline in world merchandise trade in 2025. These scenarios are explored in detail in the Analytical Chapter below.

The recent tariff disturbances follow a strong year for world trade in 2024 where merchandise trade grew 2.9% and commercial services trade rose 6.8%. Meanwhile, market-weighted world GDP grew 2.8%, making 2024 the first year since 2017 (excluding the rebound from the COVID-19 pandemic) where merchandise trade grew faster than output.

The US\$ dollar value of world merchandise exports in 2024 increased by 2% to US\$ 24.43 trillion, including trade within the European Union. China was the largest exporter (US\$ 3.58 trillion) while the United States remained the largest importer (US\$ 3.36 trillion). The European Union was the second largest trader on both the export side (US\$ 2.80 trillion) and the import side (US\$ 2.63 trillion).

The value of world commercial services exports in 2024 rose 9% to US\$ 8.69 trillion. The United States was both the largest exporter (US\$ 1.08 trillion) and the largest importer (US\$ 787 billion). However, if the European Union is counted as a single entity, its trade with the rest of the world was larger (US\$ 1.64 trillion for exports, US\$ 1.44 for imports). Detailed statistics on merchandise and commercial services trade of leading economies are presented in Appendix Tables 1 to 5.

Merchandise trade

The unprecedented nature of the recent shift in trade policy poses a challenge for economic forecasters since there has been no directly comparable event in recent history, and because available data mostly pre-date the introduction of the measures.

In response, WTO economists have used policy simulations generated by the organization's Global Trade Model to adjust their regular trade forecasts in order to better account for the impacts of tariffs and uncertainty. Details of the policy simulations

and the treatment of uncertainty are outlined in the analytical chapter.

A baseline forecast assuming a continuation of the previous low tariff environment and only limited trade policy uncertainty was produced to serve as a point of comparison. This forecast was then adjusted to reflect measures in place as of 14 April, including the suspension of reciprocal tariffs by the United States, in order to show the likely impact of recently introduced trade policies on world trade and output. These two scenarios are illustrated by Chart 1, which shows the volume of world merchandise trade continuing to expand at a moderate pace of just under 3% per year in the baseline scenario. It also shows trade shrinking by 0.2% in 2025 under the adjusted scenario before staging a partial recovery in 2026 with a moderate expansion of 2.5%.

The Global Trade Model also predicts a downward adjustment for global output as a result of new tariffs and heightened trade policy uncertainty. The baseline forecast assumed that world GDP growth at market exchange rates would remain at 2.8% in 2025 before moderating to 2.6% in 2026. Following adjustment, GDP growth in 2025 should reach 2.2%, 0.6 percentage points

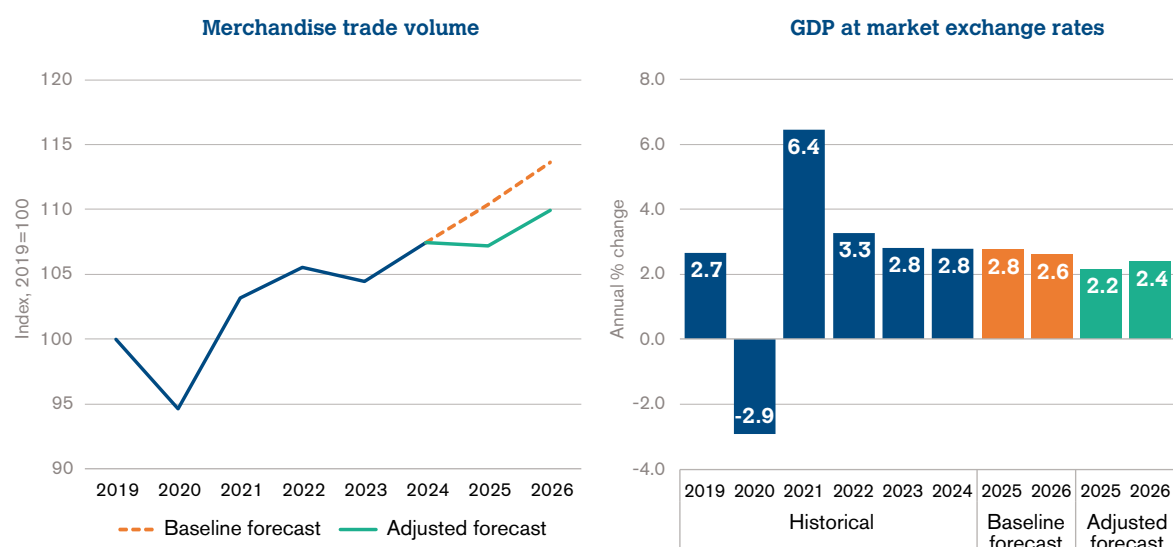
below the baseline forecast. As for 2026, growth should remain at 2.4%, which is 0.2 percentage points below the baseline forecast, substandard compared to recent history.

The impact of recent tariff measures on merchandise trade is expected to differ sharply across regions. This is illustrated by Chart 2, which shows the expected contributions of North America, Europe, Asia and other regions to merchandise trade volume growth as measured by total trade (exports plus imports), under the baseline and adjusted scenarios.

Under the baseline scenario, all regions were expected to make positive contributions to merchandise trade volume growth in 2025 and 2026, although the proportions from North America and Asia would have been smaller than in 2024. Europe was also expected to make a positive contribution to trade growth in 2025 for the first time in two years, and a slightly larger one in 2026. In the adjusted forecast that better represents the current policy environment, North America now subtracts 1.7 percentage points from world trade growth in 2025, pulling global growth down to -0.2%. The region continues to weigh on the trade growth rate in 2026, limiting the recovery to 2.5%.

Chart 1: World merchandise trade volume and GDP growth, 2019-2026

Index, 2019=100 and annual % change

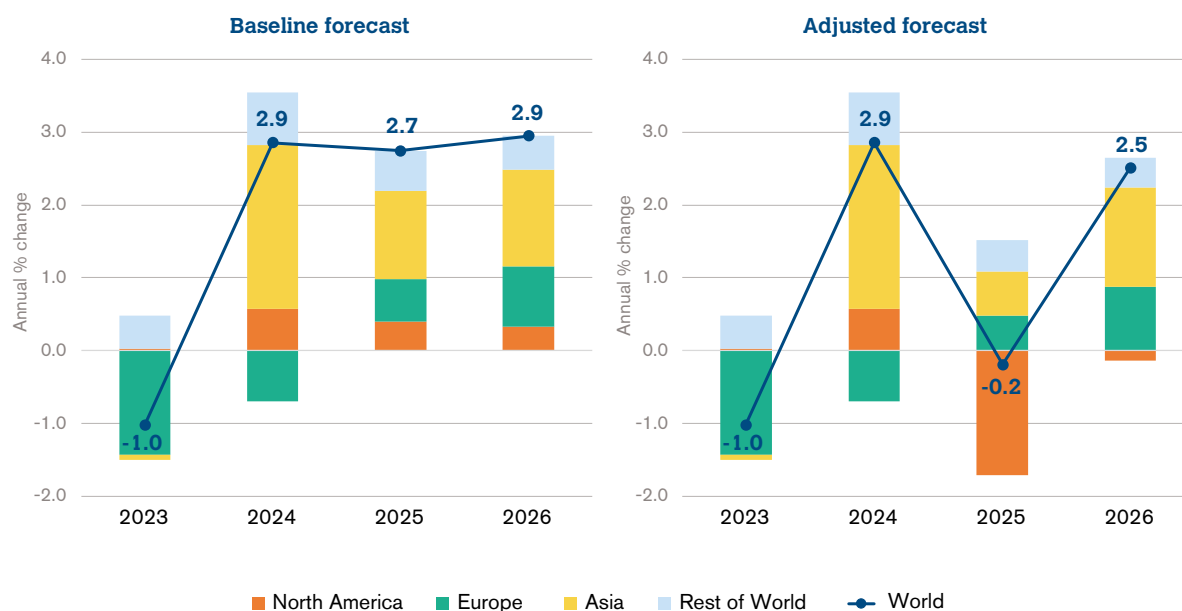


Note: Trade refers to average of exports and imports. Figures for 2025 and 2026 are projections.

Sources: WTO Secretariat for historical trade statistics. WTO Secretariat estimates for trade forecasts. Consensus estimates based on data from OECD, World Bank, IMF, UN, national statistics and WTO calculations for GDP.

Chart 2: Contributions to world merchandise trade volume growth by region, 2023-2026

Annual % change



Note: Trade refers to sum of exports and imports. Figures for 2025 and 2026 are projections.

Source: WTO Secretariat estimates.

The positive contribution of Asia to world trade growth in 2025 is significantly smaller in the adjusted forecast than in the baseline, adding just 0.6 percentage points rather than 1.2 percentage points. Europe's contribution is slightly reduced to 0.5 percentage points from 0.6 percentage points (see Table 1). Meanwhile, the collective contribution of other regions (including Africa, the Commonwealth of Independent States (CIS), the Middle East and South and Central America and the Caribbean) drops to 0.4 percentage points from 0.6 percentage points but remains positive and varies very little in both scenarios and in all periods. This is probably due to these regions' relative importance as producers of energy products, demand for which remains constant.

The unprecedented nature of the recent trade policy shifts means that predictions should be interpreted with more caution than usual. WTO economists will continuously track incoming data and provide forecast updates during the year if necessary.

The adjusted forecast marks a reversal from 2024, when the volume of world merchandise trade grew slightly faster than the WTO Secretariat

predicted in its most recent Global Trade Outlook and Statistics report of October 2024. That report estimated that the volume of world merchandise trade would grow by 2.7% in 2024, based on an assumed world GDP growth rate of 2.7% at market exchange rates. Actual trade growth for the year was marginally higher at 2.9%, while GDP growth was also revised up slightly to 2.8%, leaving the ratio of trade growth to GDP growth nearly unchanged (see Table 1).

Although the October trade forecast came very close to accurately predicting world trade growth in 2024, there were some significant changes in the regional composition of trade over the course of the year. Specifically, exports of Asia performed better than expected, as did imports of North America, although both tapered off towards the end of the year (see Chart 3). The biggest downward influence came from Europe, where both exports and imports contracted last year. Notably, trade within the European Union declined by 3.2%, reducing the European and world totals. Had it not been for the weakness of intra-EU trade, the volume of world merchandise trade would have risen 4.3% instead of 2.9%, or 50% faster than world GDP at market exchange rates.

Table 1: Merchandise trade volume and GDP growth, 2023-2026 ^a

Annual % change

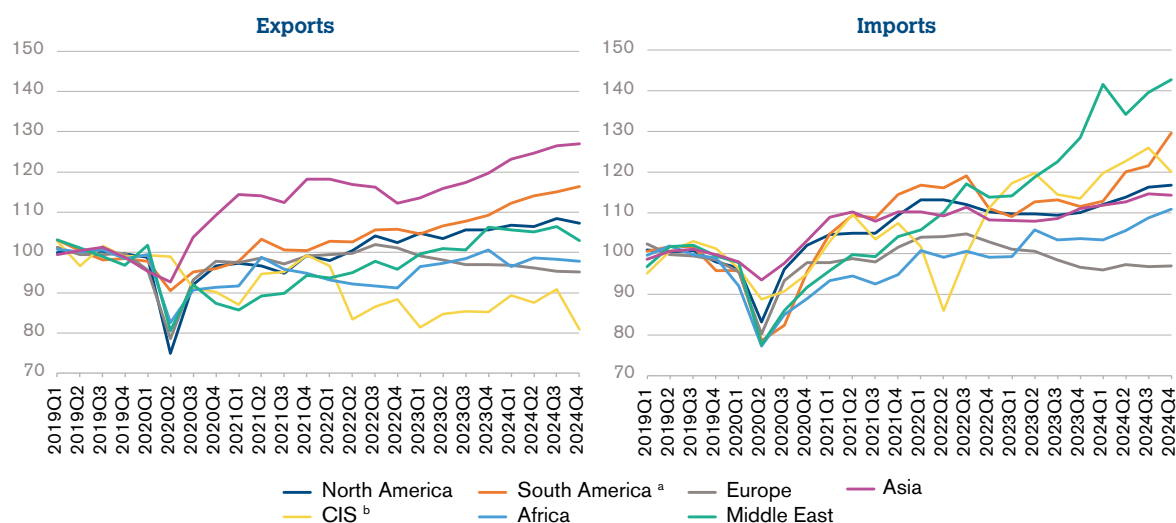
	Baseline forecast (a)				Adjusted forecast (b)		Difference (b-a)	
	2023	2024	2025	2026	2025	2026	2025	2026
World Trade ^b	-1.0	2.9	2.7	2.9	-0.2	2.5	-2.9	-0.4
Exports								
North America	3.6	2.3	2.2	2.9	-12.6	-1.2	-14.8	-4.1
South America ^c	2.4	6.2	1.4	1.2	0.6	0.9	-0.8	-0.2
Europe	-2.9	-1.7	1.4	2.3	1.0	2.5	-0.3	0.2
CIS ^d	-4.3	2.3	4.0	-0.1	4.4	0.1	0.4	0.1
Africa	5.7	1.3	0.5	1.6	0.6	1.7	0.1	0.1
Middle East	8.1	3.7	5.2	5.0	5.3	5.1	0.1	0.0
Asia	0.2	8.0	3.3	3.3	1.6	3.5	-1.7	0.1
Imports								
North America	-2.2	4.7	2.8	1.6	-9.6	-0.8	-12.5	-2.4
South America ^c	-4.4	6.7	6.0	1.0	5.0	0.5	-1.0	-0.5
Europe	-5.0	-2.2	2.1	2.7	1.9	2.7	-0.3	0.0
CIS ^d	18.0	5.0	0.1	2.1	0.5	2.1	0.3	0.0
Africa	2.6	1.8	6.2	5.4	6.5	5.3	0.3	0.0
Middle East	9.0	15.0	6.3	6.8	6.3	6.7	0.1	-0.1
Asia	-0.7	4.4	3.2	3.8	1.6	3.8	-1.6	0.0
GDP at market exchange rates								
World	2.8	2.8	2.8	2.6	2.2	2.4	-0.6	-0.2
North America	2.8	2.6	2.0	1.6	0.4	1.1	-1.6	-0.6
South America ^c	2.0	2.4	2.9	2.6	2.7	2.4	-0.2	-0.2
Europe	0.7	1.1	1.4	1.5	1.2	1.4	-0.1	-0.1
CIS ^d	3.9	4.3	2.2	1.8	2.3	1.8	0.0	0.0
Africa	3.1	2.6	4.0	3.9	4.0	3.9	0.0	0.0
Middle East	1.2	1.6	3.2	3.6	3.2	3.5	0.0	-0.1
Asia	4.3	4.0	4.1	3.8	3.7	3.8	-0.3	-0.1
Memo items:								
World Trade excl. intra-EU	-0.4	4.1	3.1	2.9	-0.3	2.3	-3.5	-0.6
Exports of Europe excl. intra-EU	-1.9	-1.3	1.8	1.4	1.1	1.8	-0.8	0.5
Imports of Europe excl. intra-EU	-5.9	-1.3	3.3	2.1	2.6	3.0	-0.7	1.0
Exports of least-developed countries	7.1	5.0	3.5	3.7	4.8	3.9	1.3	0.2
Imports of least-developed countries	-0.4	4.4	7.0	5.6	7.6	5.6	0.5	-0.1
GDP of least-developed countries	3.2	3.1	3.9	4.6	3.9	4.5	0.0	-0.1

^a Figures for 2025 and 2026 are projections.^b Average of exports and imports.^c Refers to South and Central America and the Caribbean.^d Refers to Commonwealth of Independent States (CIS), including certain associate and former member states.

Sources: WTO-UNCTAD for historical trade statistics. WTO Secretariat estimates for trade forecasts. Consensus estimates based on data from OECD, World Bank, IMF, UN, national statistics and WTO Secretariat calculations for GDP.

Chart 3: Merchandise export and import volume indices by region, 2019Q1-2024Q4

Volume index, 2019=100



a Refers to South and Central America and the Caribbean.

b Refers to Commonwealth of Independent States, including certain associate and former member states.

Source: WTO-UNCTAD.

In value terms, world merchandise trade measured in current US dollars increased by 2% in 2024 after falling by 4% in 2023 (see Chart 4). Modest changes at the global level over the last two years mask large swings in particular product categories. For example, trade in office and telecom equipment recorded a 10% increase in 2024 after falling by 6% in 2023. Meanwhile trade in automotive products recorded a -1% decline in 2024 coming on the heels of a 20% surge in the previous year.

Prices played a small role in nominal trade growth last year, with most shifts resulting from quantity changes. Trade in agricultural products rose 3% in value terms, roughly in line with the 4% global rise in average US dollar price of agricultural products according to World Bank statistics. However, this price increase was significantly affected by beverages (including coffee, tea and cocoa), the cost of which rose 64% on average in 2024. Food prices excluding beverages actually fell 8% on average, suggesting that traded quantities of most agricultural products rose last year.

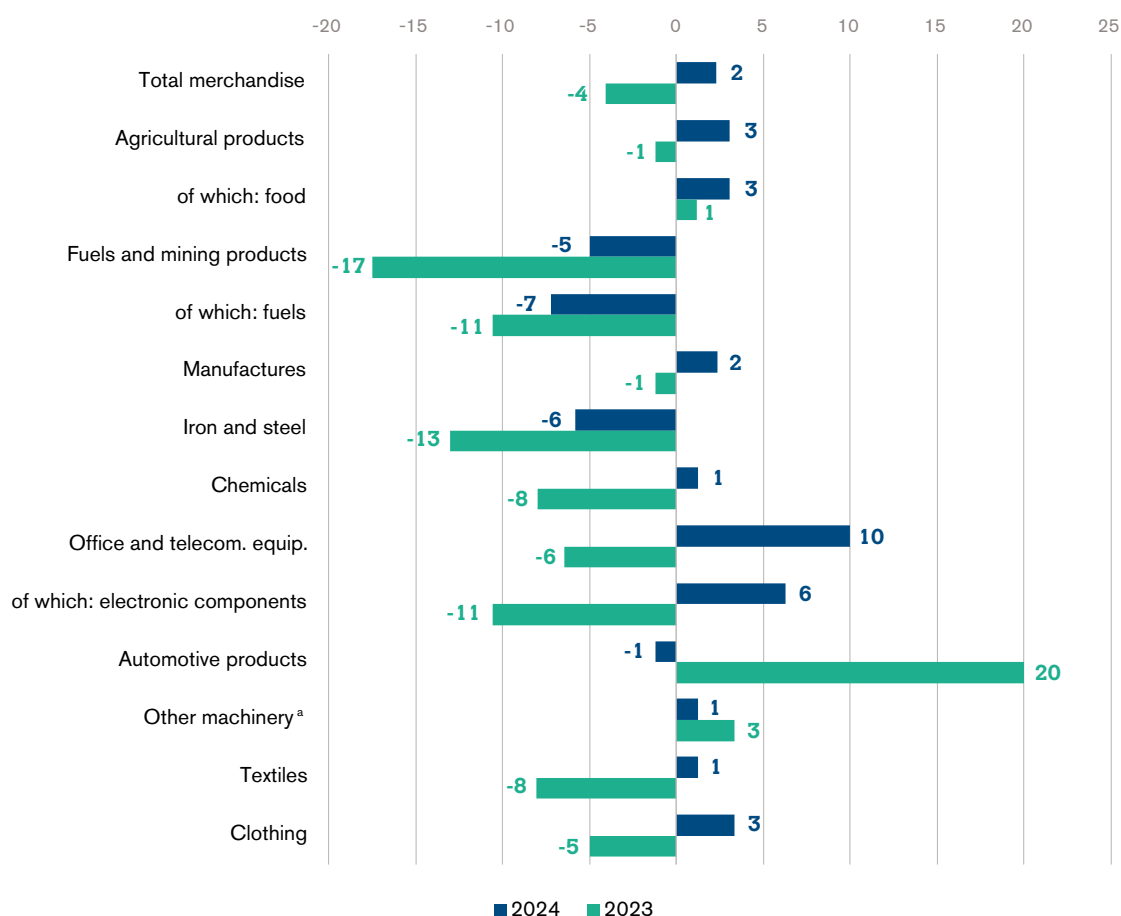
World trade in fuels dropped 7% in value terms while energy prices fell 5%, indicating a small contraction in quantity terms. Finally, the US dollar value of world trade in manufactured goods rose 2% last year, while prices for manufactured goods fell 1.6% according to WTO Secretariat estimates, pointing to a small rise in quantity.

Least-developed countries (LDCs) are normally among the most vulnerable to external economic shocks due to the fact that their trade is often concentrated in a small number of products and because they have limited resources to deal with setbacks. Counterintuitively, the recent rise in tariffs and uncertainty is projected to have a positive impact on merchandise trade flows of LDCs in 2025, with export volume growth rising to 4.8% in the adjusted forecast from 3.5% in the baseline forecast. Import growth should also increase to 7.6% in the adjusted forecast from 7.0% in the baseline, while the change in GDP of LDCs should be negligible. The reason for the stronger export growth is that many LDCs have an export structure similar to China's, particularly in textiles and electronics, which will allow them to benefit from trade diversion as Chinese goods face higher tariffs. This is explained in greater detail in the analytical section below.

Merchandise trade flows of LDCs in current US\$ terms rebounded in 2024 after contracting in 2023. Their collective exports rose 5% last year to US\$ 275 billion, after dropping 2% in the previous year. Meanwhile, their imports increased by 3%, to US\$ 349 billion, following a 6% decline in 2023. The share of LDCs in world merchandise exports reached an all-time high of 1.12% in 2024 while their share in world imports matched their previous peak of 1.41% (see Chart 5) in 2022.

Chart 4: Merchandise trade growth by product

Annual % change in US\$ values

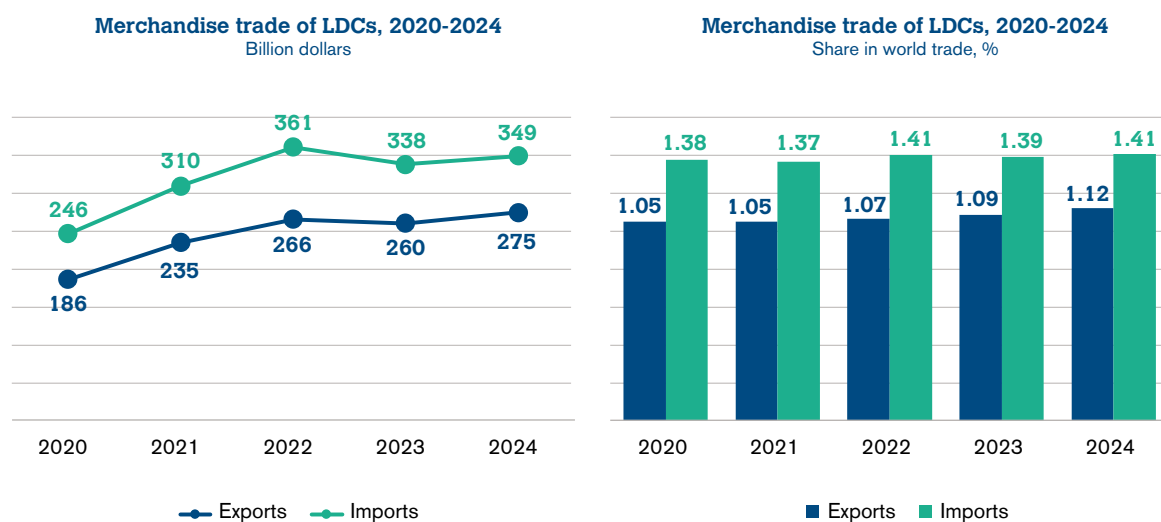


a Includes electrical machinery, non-electrical machinery and power generating equipment.

Source: WTO-UNCTAD estimates for total merchandise, WTO Secretariat estimates for products.

Chart 5: Merchandise trade of LDCs, 2020-2024

Billion US\$ and % shares



Source: WTO-UNCTAD estimates.

Commercial services trade

This report contains for the first time a forecast for services trade to complement its projections for merchandise trade. Using an innovative services trade dataset by sector in volume terms developed by the WTO Secretariat, the forecast aims to support policymakers, analysts and trade negotiators in a rapidly evolving trade environment.

According to the baseline forecast in Table 2, services trade was projected to grow by 5.1% in 2025 and by 4.8% in 2026, following strong 6.8% growth in both 2023 and 2024. However, in the adjusted forecast, services trade volume will expand by 4.0% in 2025, with a small uptick in 2026, to 4.1%. This corresponds to a loss of 1.1 and 0.7 percentage points, respectively for 2025 and 2026.

Although the high tariffs are limited to goods, their effects ripple across the broader economy, including on services trade. High tariffs will directly affect the volume of goods traded, which is projected to contract by 0.2% in 2025. This

will lead to weaker demand for freight shipping and logistics services in ports and airports, which overall account for the bulk of transport. In 2025, transport growth is forecast at only 0.5% in volume compared with an expected increase by 2.9% under the baseline scenario. In 2026, growth will remain subdued at 1.7%.

Demand for international travel, especially for leisure, can fluctuate sharply in response to external factors such as changes in economic conditions, political stability, health or safety concerns, or unfavourable exchange rates. Travel could be the first sector, therefore, to be affected by economic uncertainty. Consumers may decide against trips and room reservations abroad if accommodation or flight prices increase, as this is discretionary spending. Although less prone to fluctuation, education- and health-related travel could still see a shift toward alternative destinations, for example, in response to changes in visa policies. In 2025, travel growth is forecast to slow to 2.6%, a deviation of 1.6 percentage points from the baseline scenario of 4.2% growth. In 2026, the sector is expected to rebound, expanding by 4.7%.

Table 2: Commercial services trade volume growth, 2023-2026 ^a

Annual % change

	Baseline forecast (a)				Adjusted forecast (b)		Difference (b-a)	
	2023	2024	2025	2026	2025	2026	2025	2026
World exports	6.8	6.8	5.1	4.8	4.0	4.1	-1.1	-0.8
By region								
North America	5.1	4.1	2.4	2.3	1.6	2.3	-0.7	0.0
South America ^b	7.1	7.0	2.7	2.2	-1.1	1.1	-3.8	-1.1
Europe	2.6	5.5	5.8	4.8	5.0	4.4	-0.8	-0.4
CIS ^c	7.2	8.1	3.6	3.0	1.1	3.5	-2.5	0.5
Africa	15.9	4.9	1.8	3.4	-1.6	5.3	-3.4	1.8
Middle East	9.9	4.1	5.4	4.2	1.7	1.0	-3.7	-3.2
Asia	15.4	11.1	5.5	6.6	4.4	5.1	-1.1	-1.5
By sector								
Transport	-4.4	4.5	2.9	3.3	0.5	1.7	-2.5	-1.6
Travel	26.4	11.0	4.2	4.6	2.6	4.7	-1.6	0.1
Other commercial services	5.4	6.3	6.1	5.3	5.3	4.4	-0.8	-0.9
of which: Digitally delivered services	4.7	5.7	6.6	5.8	5.6	4.7	-0.9	-1.1

^a Figures for 2025 and 2026 are projections. Trade refers to exports.

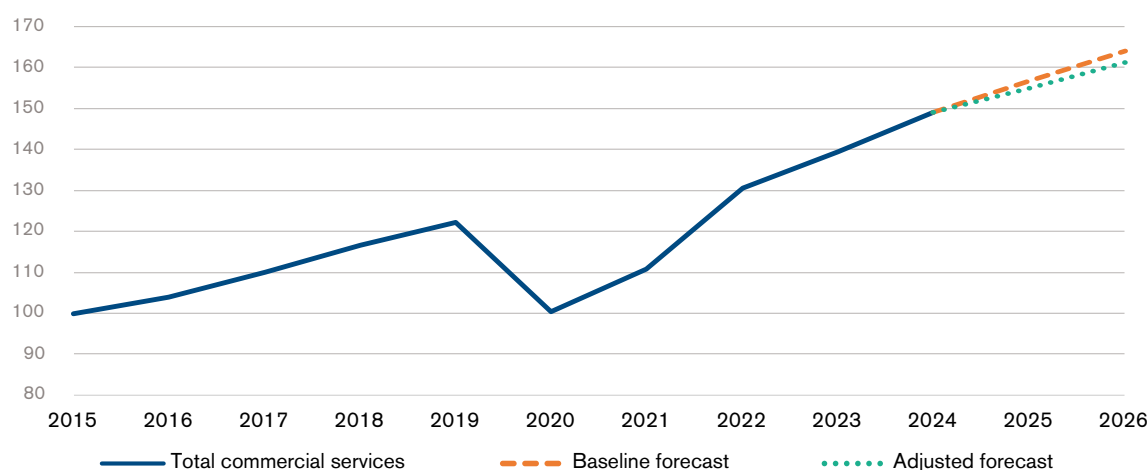
^b Refers to South and Central America and the Caribbean.

^c Refers to Commonwealth of Independent States (CIS), including certain associate and former member states.

Source: WTO Secretariat estimates.

Chart 6: Commercial services trade volume, 2015-2027

Index, 2015=100



Note: Trade refers to exports. Figures for 2025 and 2026 are projections.

Source: WTO Secretariat estimates.

A wide range of intermediate services that support trade in manufactured goods or the production of other services, such as professional, engineering and R&D services, as well as IT services and various business services, will be affected by the current economic context and may face a decline in demand. Trade tensions could lead to tighter regulations on intellectual property licensing, limiting the growth of digitally delivered services, such as those provided through streaming, online gaming, or remote education platforms, reducing exports of their suppliers. Financial services may also be affected, as the uncertain economic context can translate into lower investment and fewer transactions, including by consumers through credit cards. However, other commercial services will be the least affected among services sectors. They are forecast to rise by 5.3% in volume terms, a deviation of less than 1 percentage point from the baseline scenario of 6.1% growth. Among them, digitally delivered services are projected to maintain strong growth, of 5.6% in 2025, compared with 6.6% in the baseline scenario, and 4.7% in 2026.

Under the baseline scenario, all regions were expected to make positive contributions to services exports volume growth in 2025 and 2026 (see Table 2). Downside risks have driven a revision of the forecast, with uneven regional impacts. Most services growth in 2025 will originate from Europe, expanding by 5.0% in the adjusted scenario, compared with 5.8% in the baseline forecast. Growth will continue at 4.4% in 2026. Asian economies'

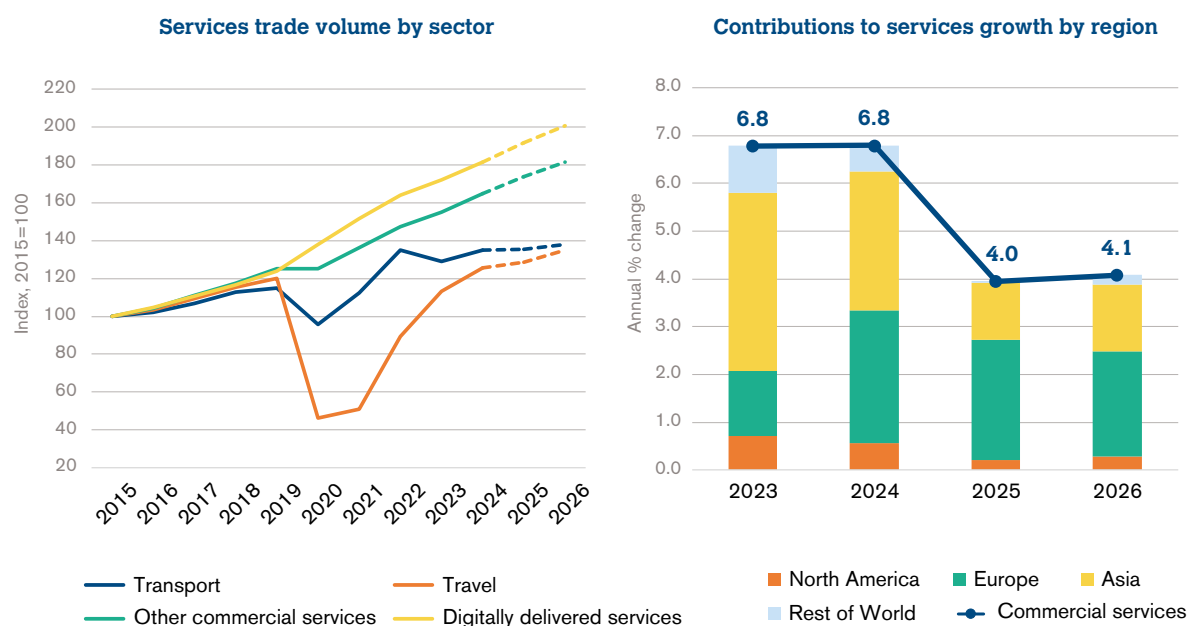
services exports are projected to increase by 4.4% in 2025, a deviation of 1.1 percentage points from the baseline scenario, and by 5.1% in 2026. The latter represents a loss of 1.5 percentage points compared with earlier projections. North America will slow to 1.6% in 2025, down from 2.4% previously forecast. However, services export growth will accelerate in 2026, by 2.3%, matching the baseline forecast for the region.

The revised forecast is more negative for the Middle East, a reduction of 3.7 percentage points for 2025 and 3.2 percentage points in 2026. Services exports are expected to grow by 1.7% in 2025 and 1.0% in 2026. In the Commonwealth of Independent States (CIS), growth of 1.1% in 2025 and of 3.5% in 2026 is anticipated, compared to 3.6% and 3.0% respectively in the baseline forecast.

The outlook for 2025 is subdued for Africa and for South and Central America and the Caribbean, which are expected to record declines. Africa's services exports growth was initially projected to rise by 1.8% in 2025 and by 3.4% in 2026. Growth was revised downwards to -1.6% for 2025 in the adjusted scenario, but is set to recover in 2026, up by 5.3%. South and Central America and the Caribbean will also be among the most affected by the uncertain economic context, with services exports falling by 1.1% in 2025, compared with expected growth of 2.7% in the baseline scenario. Prospects for the region remain weak in 2026, with growth at 1.1%.

Chart 7: Commercial services trade volume adjusted forecast, 2015-2026

Index, 2015=100 and annual % change



Note: Trade refers to exports. Figures for 2025 and 2026 are projections.

Source: WTO Secretariat estimates.

Box 1: Measuring global services trade in volume terms

Services are the most dynamic segment of global trade. However, the measurement of services trade has lagged behind merchandise trade in many ways. Services are complex, intangible, often customized and, unlike goods, they can be traded through different means or modes of supply. Lack of granularity in the measurement of services, absence of bilateral statistics even in the most advanced economies, or delays in reporting are well-known issues. Over the years, the WTO Secretariat has worked to address these gaps by developing innovative datasets to support trade negotiators and policymakers worldwide.

One of the shortcomings is that services are measured only in value terms. Unlike merchandise trade statistics, which are compiled nationally in value (nominal terms) and in volume (real terms), statistics on services trade have been produced only in value terms, due to the lack of international prices. Although national accounts may contain separate statistics of services trade in volume terms, to measure GDP, more often they are bundled with goods, and there is no sectoral breakdown.

Recent years have seen a surge in inflation across countries, fuelled by pandemic-related supply chain disruptions, stimulus measures adopted by governments, and rising energy prices, combined with high exchange rate volatility. Some sectors, such as transport or hospitality, which accounted for 40% of global services trade before the pandemic, have been among the most affected, especially in developing economies. Meanwhile, services transactions of many large economies in US dollar terms in sectors such as professional and business services or financial services were depressed by currency fluctuations, altering global trade flows.

The development by the WTO Secretariat of a services trade forecast and the need to see services trade patterns by sector beyond inflationary distortions and currency swings has fostered efforts by WTO economists to develop estimates of services trade in volume terms.

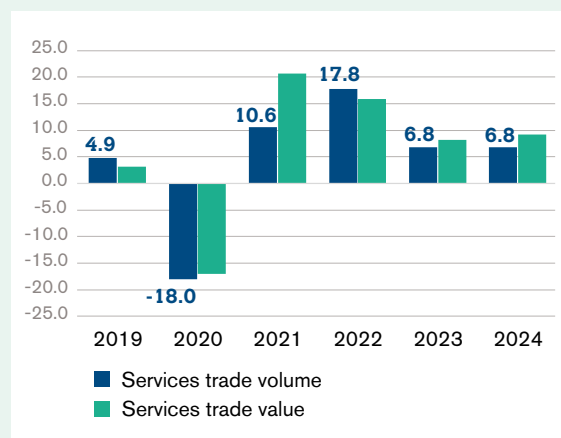
Sector-specific Services Producer Price Indices in the absence of Export Price Indices, Consumer Price Indices tailored to the expenditure of foreign travellers, or GDP deflators, as available by economy and rebased to 2015 as a common base year, were used to adjust for inflation services exports values expressed in local currencies. The resulting dataset was converted to 2015 US dollars using nominal exchange rates. This eliminates the impact of exchange rate volatility on real flows, ensuring cross-country comparability.

Preliminary estimates suggest that, at the global level, services trade growth in value terms has generally outpaced growth in volume terms, notably in 2021, due to the spike in inflation. The trend was the opposite in 2022, however, when the US dollar appreciated against the currencies of leading services traders. For example, computer services trade growth in volume terms in 2022 is estimated at 11.4%, 4.4 percentage points higher than in value terms.

As inflation declined and exchange rates normalized in 2023-24, growth in services trade volume and value have become more aligned. However, in sectors such as computer services, where new technologies, such as AI, are advancing rapidly, stronger trade growth in value terms may reflect the rising quality and complexity of services provided, making them more costly to produce and supply internationally.

Chart 8a : Commercial services trade growth in value and volume terms, 2019-2024

Annual % change

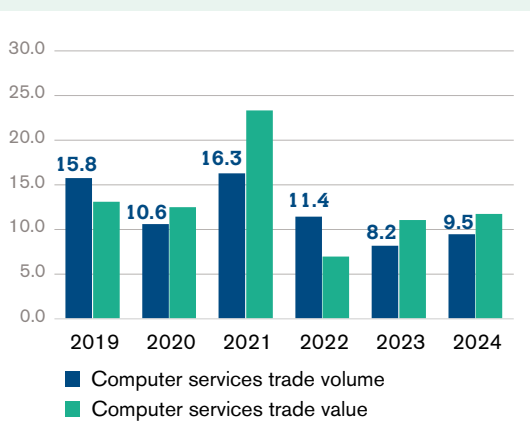


Note: Services trade measured as exports.

Sources: WTO Secretariat estimates for services trade volume. WTO-UNCTAD for services trade value.

Chart 8b: Computer services trade growth in value and volume terms, 2019-2024

Annual % change



Note: Services trade measured as exports.

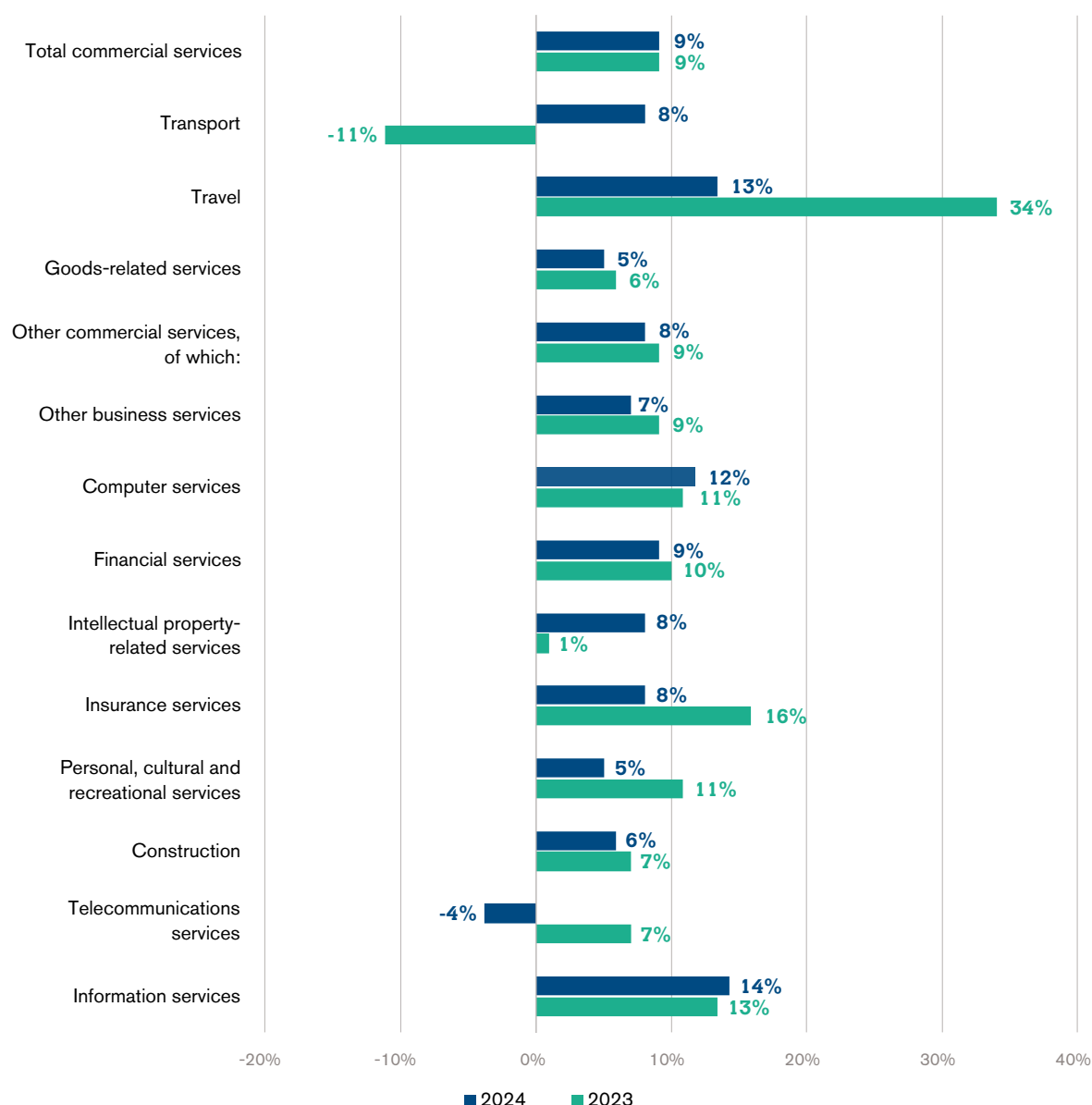
Source: WTO Secretariat estimates.

In 2024, services accounted for 26.4% of global trade, based on balance of payments statistics, the highest share since 2005. Rising demand for services and advances in digitalization have helped to expand the contribution of services to global trade. In 2024, services trade totalled US\$ 8.69 trillion, increasing by 9% and mirroring growth in 2023 (see Chart 9). This is in sharp contrast with goods trade, which rose by only 2 per cent in 2024.

Services exports rose by 13% in Asia, and by 8% in both Europe and North America in 2024. South and Central America and the Caribbean also enjoyed a strong performance (+9%). Subdued export growth in Africa, at only 3%, reflects a drop in transport receipts. Strong growth was also recorded on imports across the world, except for the Middle East, which saw a contraction of 1%.

Chart 9: Commercial services trade growth by sector, 2023-2024

Annual % change



Note: Services trade measured as exports. Other commercial services are ranked according to their relative share in services trade.

Sources: WTO Secretariat estimates for subsectors of other commercial services. WTO-UNCTAD for total commercial services and main sectors.

Transport rose by 8% globally in 2024 to US\$ 1.48 trillion, following a 11% drop in 2023 (see Chart 9). Freight rates climbed, especially in the second half of the year amid persistent disruptions to major trade routes, and geopolitical events. Global freight prices, which have experienced extreme volatility in the past few years, were four times higher than in 2023, reaching almost US\$ 6,000 for a 40-foot container unit in mid-July 2024, according to data from Drewry World Container Index (WCI).

In 2024, Asia's transport services exports increased by 18% (see Chart 10), with a peak of 29% in China. In the third and fourth quarter of the year, China's transport exports soared by 47% and 50% respectively, reflecting a surge in shipments. Other Asian economies saw transport exports values just below the record levels in 2022. Singapore, for example, saw annual growth reach 16%. An expansion in e-commerce continued to boost air cargo, following high demand from Europe and the United States, according to the International Air Transport Association.

Chart 10: Commercial services trade growth by region and main sector, 2024

Annual % change

^a Includes the Caribbean.^b Refers to the Commonwealth of Independent States, including certain associate and former member states.

Source: WTO-UNCTAD estimates.

By the end of 2024, global tourist arrivals were just 1% below pre-pandemic levels, according to UN Tourism. The recovery of tourism was helped by falling rates of inflation and visa-free schemes adopted throughout the year by many countries. Travellers' expenditure in foreign economies on accommodation, restaurants, entertainment, souvenirs and other services reached US\$ 1.74 trillion, up by 13% in value terms and 11% in volume terms (constant 2015 US dollars), according to new WTO Secretariat estimates.

Major sporting events such as the UEFA European Football Championship in Germany and the Olympics in France supported Europe's travel exports, which grew by 9% from an already high base in 2023. Although all regions contributed to growth in 2024, Asia was the main driver, particularly China, both on the supply and the demand sides. The country's travel exports more than doubled, exceeding pre-pandemic levels by 7% for the first time, while its expenditure abroad finally reached 2019 levels.

Growth in travel exports was also maintained in North America, with US exports rising by 14%. Africa's travel exports were up 9% as many countries in the region recorded double-digit growth, including Namibia (+26%), Tanzania (19%) and Uganda (13%). South and Central America and the Caribbean saw a 10% rise.

Other commercial services, which account for some 60% of services trade, expanded by 8% in 2024, to US\$ 5.18 trillion. Growth was less rapid than in 2023, as telecommunications services contracted by 4%. This was mostly due to a decline in Europe's exports, which form 47% of global telecommunication exports. Increased competition, advances in connectivity and high consumer demand for cheaper and faster data such as for streaming and remote work have contributed to price declines in recent years. In fact, according to WTO Secretariat estimates, the contraction in volume terms was even more pronounced, declining by 6% globally, as telecommunications prices fell in many countries.

Other business services, the largest category of other commercial services, expanded by 7% in 2024. Although growth was slightly lower than in 2023, some subsectors saw a larger expansion.

Research and development (R&D) services expanded by 12%, with the European Union recording a 28% increase, as Ireland's exports almost quadrupled. Ireland has become a global hub for innovation and advanced technology, with the country exporting a wide range of high-value R&D services, including pharmaceutical and medical device development, as well as software and AI research. Robust growth in R&D services was also observed in Asia, with Japan increasing by 27%, and Singapore by 5%.

In 2024, computer services rose by 12% reaching the US\$ 1 trillion mark. The growing adoption of AI in areas such as the development of chatbots, machine learning and predictive analytics, as well as for cybersecurity needs, has further accelerated global demand for computer services. The rapid rise of e-commerce and digital platforms, including in developing economies, has also boosted this process.

Companies are increasingly outsourcing information technology (IT) services and software development to access skilled labour at a lower cost. This trend is expected to persist as businesses adapt to new technologies and consumer preferences for digital solutions. In 2024, double-digit growth in computer services was widespread across developed and developing economies, such as Indonesia (61%), Peru (42%) Mauritius (37%) and Egypt (22%). In the United States, exports of computer services increased by 15%, and in the European Union they grew by 14%.

Digitalization and enhanced global connectivity have enabled computer services to be delivered remotely. According to WTO Secretariat estimates, in 2024, digitally delivered computer services formed 21.2% of world exports of digitally delivered services. Their share has increased rapidly, up from 15.6% in 2019, just before the COVID-19 pandemic. Overall, global exports of digitally delivered services reached US\$ 4.64 trillion in 2024, up by 8.3%. The share of these services – traded cross-border through computer networks and encompassing everything from financial services and professional and management services to streaming of music and videos – is increasing and accounted for 14.5% of world exports of goods and services.

In 2024, growth of digitally delivered services continued to outpace goods. According to preliminary estimates by the WTO Secretariat, Africa's exports surged by 13%, twice the global rate, while its exports of goods expanded by less than 2%. The continent's contribution to global exports of digitally delivered services is increasing steadily each year, although it remained below 1% in 2024, at 0.9%. High growth was recorded in South and Central America and the Caribbean and in Europe, both reaching 10%, while Asia's performance was relatively subdued, only reaching 6% and mirroring increases in North America. Comprehensive estimates on digitally delivered services trade by sector, economy and region can be accessed via the WTO's Global Services Trade Data Hub (www.wto.org/services_hub).

Trade-related indicators

Container throughput of major international ports is a key indicator of global merchandise trade volumes. As of February 2025, the effects of US

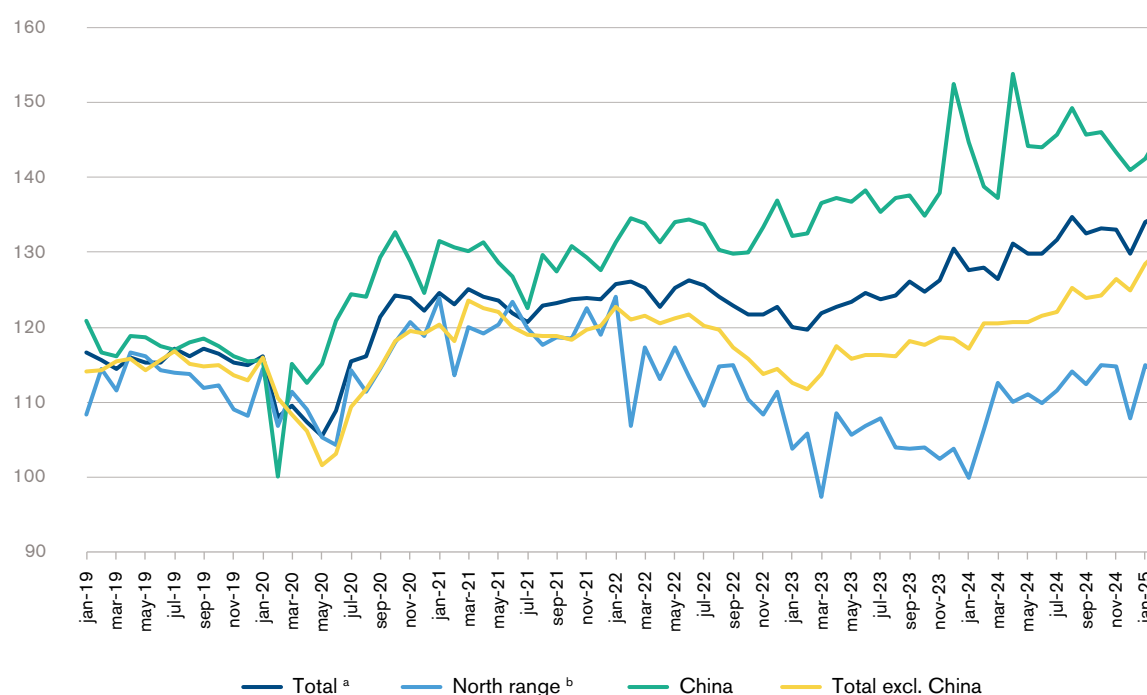
tariff increases were not yet evident in throughput data, showing no clear positive or negative trend. Chart 11 illustrates this with the RWI/ISL Global Container Throughput Index, which measures total throughput of 92 international ports that account for approximately 64% of global container traffic.

The index, with a 2015 base equal to 100, increased to a seasonally adjusted 135.1 in February, up from 134.0 points in January. The rise was due to increasing container traffic in most regions. However European ports experienced a slight decline. Globally, month-on-month traffic growth in February was in line with the average of the past two years. Monthly throughput growth of Chinese ports in February, however, was stronger than the two-year average, possibly signalling increasing purchases in anticipation of the tariff increases in the United States.

In the first two months of 2025, global container throughput was up 5.3% compared to the same period in 2024, indicating strong underlying

Chart 11: Global container throughput index, January 2019-February 2025

Seasonally-adjusted index, 2015=100



^a Based on throughput data from 92 ports accounting for approximately 64% of global container traffic.

^b Summarizes throughput of the ports of Le Havre, Zeebrugge, Antwerp, Rotterdam, Bremen/Bremerhaven and Hamburg.

Source: RWI - Leibniz Institute for Economic Research and Institute for Shipping Economics and Logistics (ISL).

Chart 12: New export orders from purchasing managers indices (PMIs)

Diffusion index, base=50



Note: Purchasing managers indices (PMIs) values less than 50 denote contraction, while values greater than 50 indicate expansion.

Source: Country PMIs compiled by S&P Global.

growth in trade (see Chart 12). A particularly strong performance was registered in the North Range index covering Northern European ports, where throughput was up 10.8%, while traffic at Chinese ports grew by only 1.7%. Both figures may reflect the volatility early last year due to disruptions in shipments through the Red Sea and the Suez Canal due to regional conflict.

Drivers of trade and output

Macroeconomic conditions were more favourable in 2024 for the expansion of global trade than in 2023, notably because of the global easing of inflation. High inflation in 2023 undermined real incomes, which suppressed trade and had a more pronounced impact on manufactured goods and in Europe, due to the sharp rise in energy prices.

In 2024, disinflation allowed real incomes to increase, with variations across regions, pushing up aggregate demand for manufactured goods. Services trade volume continued to record solid growth (+6.8%, above the strong average of

+4.7% of the past 10 years). In the largest economies, fiscal policy supported growth in domestic demand, albeit at the cost of rising fiscal deficits and debt.

At the beginning of 2025, the expectation was that macroeconomic conditions would continue to support global trade expansion in 2025 and 2026. Inflation was expected to decline further, boosting real incomes and allowing interest rates to ease somewhat, with additional positive effects on global demand.¹ A reduction in real interest rates would prompt investment spending, which is intensive in imports.

However, the trade policy environment has deteriorated under the combined effects of geopolitical tensions, new trade restrictions, including higher tariffs, and growing trade policy uncertainty. The stock of restrictive trade measures keeps increasing. Since the start of 2025, an array of new and significant import tariffs has been announced. While many measures have already been imposed, the timing and scope of other announced measures are uncertain, as is the response by importers, consumers, investors and trading partners.

The impact of trade policy uncertainty, volatility and restrictiveness on global trade is two-fold: uncertainty acts as a direct trade cost; and widespread uncertainty can potentially have negative spillovers on global growth by affecting households' consumption and savings behaviour (see the analytical chapter). For example, the expectation of increased inflation in the short run may delay spending. Business confidence can also be impacted, notably in sectors relying on imported inputs.

Ultimately, a general environment of trade restrictiveness and volatility of market access conditions can have negative effects on aggregate demand and trade. In sum, the “push” – or positive impact – from macroeconomic trends can be significantly offset by the “pull” – or restraining effect – of trade uncertainty and restrictiveness costs.

The course of global trade in 2025 and 2026 was expected to be comparable to that of 2024. Global headline inflation in 2025 was expected to continue to decline. Between 2023 and 2025, headline inflation in G20 economies was expected to have almost halved (from 6.1% in 2023 to 3.3% in 2025, according to the OECD), with a return to central bank targets expected towards the end of 2025 or the beginning of 2026. Labour markets were expected to continue to be active and supportive of gross wage increases in North America and Asia. In the main economies in these regions, measures such as tax cuts and increased government spending were expected to prove expansionary and boost domestic demand.

However, greater trade restrictiveness and uncertainty are now expected to act as a drag on trade growth. While the macroeconomy may be a “push” factor for international trade, the big “pull” factor for global trade comes from higher policy restrictiveness and uncertainty. As much as there are well-known cooperative gains from trade, as well as gains from trade policy predictability and stability, there are economic losses from less cooperative, less predictable, more restrictive trade policies.

These losses stem from the direct effect of trade barriers, and from the greater uncertainty

surrounding trade policies. Box 2 explains the effects that tariffs and other restrictions on trade have on economic activity. While, in the short term, tariffs could have a first-order effect for large economies of boosting domestic production, raising government revenue and improving the terms of trade, most models and empirical studies indicate that, over the medium to long term, higher import tariffs generally have an overall net negative effect on economic activity and trade.

Uncertainty fosters an increased prudence in decision-making. Recent evidence on the macroeconomic impact of tariffs highlights that trade policy uncertainty can, among other things, dampen business confidence, reducing business investment and thereby impairing economic growth (IMF WEO, 2024). Ultimately, the degree to which uncertainty can be managed by firms will be a key determinant of whether the positive macroeconomic momentum observed in 2024 translates into sustained global trade growth in the coming years.

Uncertainty could even affect the prospects of continued disinflation – and easing of commodity prices – which currently offers the potential to bolster real incomes and demand. Under current conditions, these outcomes are by no means guaranteed. Retaliatory measures in response to restrictive trade policies – such as tariffs on specific, difficult-to-substitute materials or intermediate goods – could have an outsized impact on inflation, or at least inflation expectations.

Models typically predict a full pass-through of tariffs into increased prices, but as a one-off effect. However, prices and costs may be permanently impacted. Consumers and investors are sensitive to the level of prices, as much as to growth rates, in their decision-making. Taken together, these factors have an impact on the perception of prices weighing on economic activity.

Finally, there is a relationship between the actual increase in restrictive trade measures, retaliation and threats of future action. Trade policy uncertainty ultimately depends on the number and full extent of policy measures aimed at protecting domestic markets, and the level of restrictiveness imposed to market access relative to what prevailed previously.

Box 2: Economic effects of tariffs

This box provides an overview of the economic effects of tariffs and explains how they are captured in the WTO Global Trade Model, which we use to construct our adjusted forecast.

At the most basic level, a tariff is a tax on imported products. It drives a wedge between the world price and the domestic price. For instance, if a 10% tariff is imposed on a product with a world price of US\$ 100, the domestic price becomes US\$ 110. The difference – US\$ 10 – is collected as tariff revenue, which the government can use to finance its expenditures.

Tariffs can also affect the world price of a product, particularly when imposed by a large economy. The logic is that higher domestic prices reduce domestic demand, which in turn lowers world demand and thus world prices. In our example, the world price might fall to US\$ 95 after the tariff is imposed, resulting in a domestic price of US\$ 104.50. In this case, part of the tariff is effectively paid by foreign producers.

This cost-shifting creates incentives for large economies to unilaterally impose tariffs. However, this so-called optimal tariff argument overlooks retaliation. If country A imposes tariffs on country B, country B has an incentive to respond in kind. The end result is a trade war that leaves both sides worse off.

This logic underpins the leading theory of trade negotiations. If all economies attempt to benefit at each other's expense, everyone ends up worse off – creating incentives for cooperative trade policymaking. The economics literature on trade policy has shown that the core WTO principles of reciprocity and non-discrimination are effective tools for escaping the logic of mutually harmful tariffs (Bagwell and Staiger, 2002).

The extent to which tariffs pass through to consumer prices is ultimately an empirical question. Evidence from the initial wave of US tariffs on China suggests full pass-through to US consumers (Amiti *et al.* 2019; Fajgelbaum *et al.* 2019). However, these studies focus on short-term effects and use methodologies that cannot fully account for broader macroeconomic adjustments. Standard quantitative trade models typically predict at least some cost-shifting to foreign producers.

A broader question is how tariffs affect inflation. When a country imposes a tariff, it causes a one-off increase in the domestic price level, but this does not necessarily translate into sustained inflation. One channel through which a tariff could lead to persistent inflation is through wage-price spirals, similar to what can happen with other supply shocks.

Tariffs also affect exports, not just imports. One direct channel is through higher prices for intermediate goods, which undermine the competitiveness of exporting firms. But broader general equilibrium effects are also important. Tariffs allow import-competing sectors to expand, which draws resources – such as labour, capital and land – away from other sectors, including exporting sectors.

This operates through changes in the real exchange rate, which measures domestic prices relative to foreign prices, adjusted for the nominal exchange rate. As import-competing sectors expand, they demand more workers, which pushes up wages across the economy. Higher wages raise production costs for exporting firms, making them less competitive in international markets. The result is an appreciation of the real exchange rate, which makes exports relatively more expensive abroad.

A related question is what happens to the nominal exchange rate. One channel is direct: tariffs reduce import demand, and hence the demand for foreign currency, leading to an appreciation of the domestic currency. Another channel is indirect: tariffs may lead markets to anticipate tighter monetary policy to counter inflation, which can also cause the domestic currency to appreciate. For trade effects, what ultimately matters is the change in the real exchange rate; whether this occurs through adjustments in wages, domestic prices, or the nominal exchange rate is of secondary importance.

There is, thus, a trade-off between the inflationary and competitiveness effects of tariffs. If the exchange rate appreciates strongly, domestic prices rise little, but competitiveness suffers significantly. If it appreciates only slightly, domestic prices rise more, but competitiveness is less affected. Either way, tariffs impose economic costs.

A topical question is whether tariffs affect trade imbalances. The answer depends on whether one considers aggregate, bilateral or sectoral imbalances. Aggregate trade imbalances reflect the gap between national saving and national investment – a basic accounting identity. The logic is analogous to household finance: if a household (country) saves, it must earn (export) more than it spends (imports).

To improve the aggregate trade balance, tariffs would need to increase national saving or reduce investment, which is a possibility. For instance, households might delay consumption if they expect tariffs to be temporary, thereby raising saving. Alternatively, tariffs could reduce investment by increasing the cost of capital goods, or by creating policy uncertainty that leads firms to postpone spending.

However, most economists expect tariffs to have only limited effects on aggregate imbalances. Macroeconomic fundamentals – such as fiscal policy or the household savings rate – play a more dominant role. This view is supported by empirical studies that have found little impact of tariffs on aggregate trade balances so far (Furceri *et al.* 2022).

Tariffs can, however, affect bilateral trade balances by altering relative prices. It is entirely possible for country A to run a deficit with country B, B with C, and C with A – without any of them having an aggregate trade imbalance.

Tariffs can also affect sectoral trade balances. For example, higher tariffs on goods imports tend to improve the goods trade balance by discouraging imports through higher domestic prices, while worsening the services trade balance by reducing services exports through an appreciation of the real exchange rate.

The WTO's Global Trade Model is a standard quantitative trade model, consistent with those widely used in academic and policy circles. It captures most of the economic effects described above. However, it is not a monetary model and therefore does not incorporate the effects of tariffs on inflation or nominal exchange rates. Moreover, it treats aggregate trade imbalances as independent of tariffs, in line with the literature.

Fragmentation of world trade

Data have been showing signs of fragmentation in global trade flows in response to recent shocks, including the COVID-19 pandemic and the war in Ukraine, and increasing levels of policy uncertainty (see Chart 13). WTO economists have observed that trade flows are increasingly becoming reoriented along geopolitical lines. For example, since the outbreak of the war in Ukraine,

trade between hypothetical blocs of economies with similar political views – based on voting patterns in the United Nations General Assembly – has grown 4% more slowly than trade within these blocs. Nevertheless, there is no clear evidence of a broader shift toward regionalization or near-shoring.

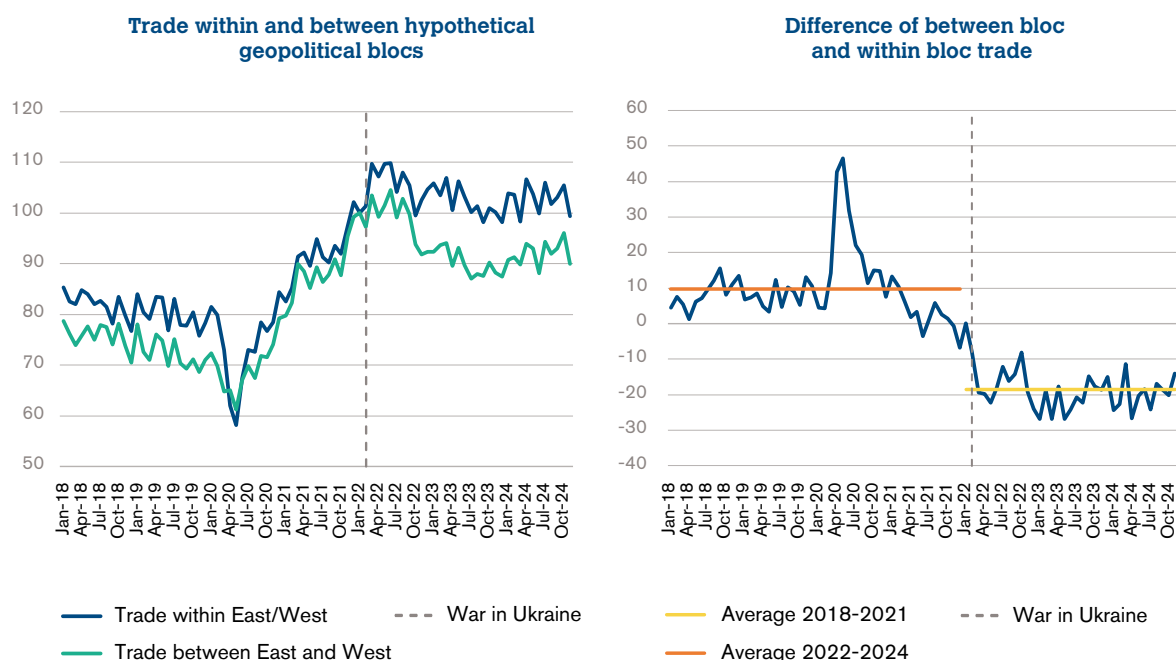
Foreign direct investment (FDI) also appears to be following geopolitical alignments, especially in strategic sectors such as semiconductors, telecommunications equipment, green transition technologies, pharmaceutical ingredients and critical minerals. According to the IMF, FDI flows between emerging and developing economies have been more sensitive to geopolitical distance, with this pattern becoming more pronounced since 2018. This fragmentation in investment flows may further reinforce geopolitical alignment in trade over time.

If global uncertainty continues to rise and spread, the practice of friend-shoring might be expected to lose momentum. The recent stabilization in the divergence between intra- and inter-bloc trade flows – with no further widening of the gap – could

signal an early shift in this direction. Conversely, if decoupling continues between the largest global economies, this trend could intensify and spread further across geopolitical alignments.

There is a risk that the tit-for-tat tariff increases between the two biggest economies of the world could spread. Simulations of the long-term repercussions suggest that the economic costs of a split into two blocs would be substantial. An increase of 100% in tariff rates between two hypothetical geoeconomic blocs, combined with more trade policy uncertainty and higher non-tariff barriers, is projected to reduce global real GDP by almost 7% in the long run (by 2040). Low-income economies would lose out the most in such a scenario, with losses of more than 9 per cent.

Chart 13: Trade within and between hypothetical geopolitical blocs (left) and difference of between-bloc and within-bloc trade (right)



Note: Seasonally adjusted series. Russian Federation, Belarus, and Ukraine are excluded. Left-hand series indexed at 100 in January 2022. Right-hand series indexed at 0 in January 2022.

Source: Blanga-Gubbay and Rubinová (2024).

Analytical Chapter: Modelling trade policy uncertainty and changes in tariffs

This analytical chapter discusses the economic effects of trade policy uncertainty (TPU), the quantitative trade model employed to project the impact of tariff increases and trade policy uncertainty, and more detailed results of simulations on the impact of tariff increases and TPU presented in the main text.

Trade policy uncertainty

Why trade policy uncertainty matters

Trade policy uncertainty (TPU) has become a key factor influencing global trade and investment decisions. Firms making long-term commitments – whether investing in export capacity, entering foreign markets, or building international supply chains – depend on stable and predictable trade policies. When uncertainty around future tariffs or trade relations increases, firms may delay or scale back investments. This, in turn, reduces trade flows, limits productivity gains from international competition, and ultimately lowers economic growth.

Recent episodes such as Brexit, the 2018 US-China trade tensions, or trends in global trade fragmentation, have provided real-world illustrations of how policy uncertainty can ripple through economies. Studies have shown that heightened TPU tends to coincide with declines in investment, exports and overall economic activity (Caldara *et al.*, 2020; Graziano *et al.* 2020). Taking a different approach, other studies quantified TPU by analysing the effects of a reduction in policy uncertainty, such as through accession to the GATT/WTO or the ratification of trade agreements.

Results show that firms facing less policy risk are more likely to enter export markets, upgrade technology and increase investment, ultimately benefiting consumers through lower prices and higher real income (Handley and Limão, 2017). Conversely, increased uncertainty about future tariffs discourages investments, which in turn reduces trade flows and real income for consumers.

Firms facing unpredictable trade policies delay or forego market entry and technology upgrading to avoid potential losses given the lowered expected profits. The effects of TPU are thus both immediate and long-lasting, and quantifying its impact has become increasingly important for understanding trade dynamics in a volatile global environment.

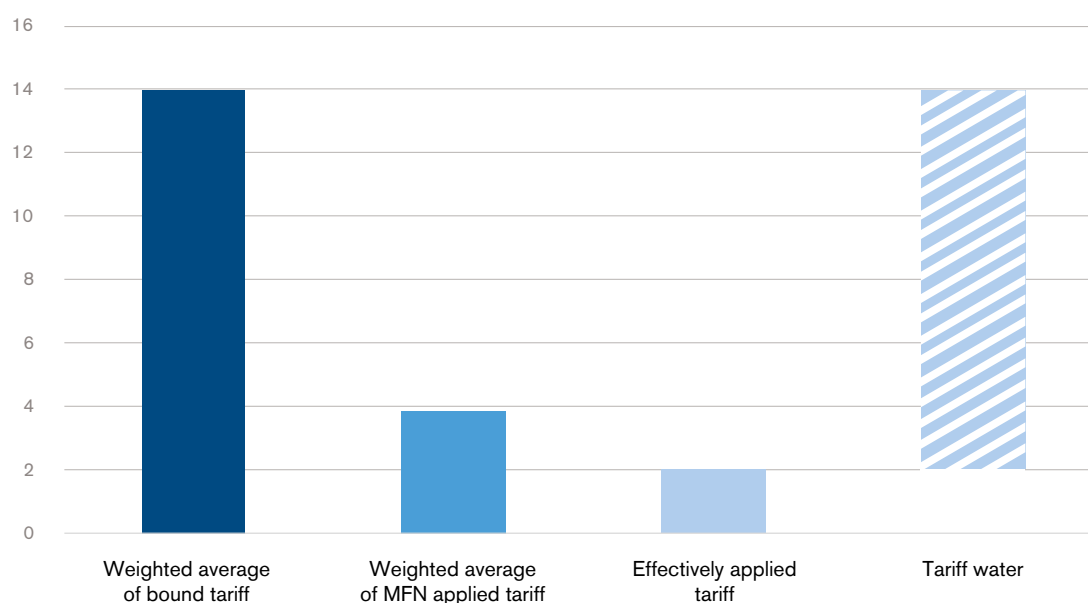
Measuring TPU: Tariff water as a proxy

One innovative way to quantify TPU is through tariff water, defined as the difference between the maximum tariff a member can apply under WTO rules (bound tariff) and the rate that a member actually applies. This gap is a key structural indicator of policy space. A large gap implies that a government has significant leeway to raise tariffs without breaching international commitments, which can create uncertainty for businesses.

Chart 14 shows the weighted averages of bound tariffs, most-favoured-nation (MFN) applied tariffs, and applied tariffs across WTO members. On average, the tariff gap stands at around 12 percentage points across WTO members. However, this conceals significant cross-country variation. High-income economies typically exhibit both lower bound commitments and lower effectively applied rates, resulting in a narrower gap, while low-income economies tend to display wider gaps.

For firms, tariff water introduces a latent risk: trade costs could rise unexpectedly in the future. Since long-term investment and export decisions hinge on expected future profits, the presence of tariff gaps introduces an element of unpredictability. Firms must account for the possibility of sudden tariff increases, which discourages long-term commitments. In this way, tariff gaps reflect hidden risks embedded in trade policy, and serve as a useful proxy for TPU. Empirical studies confirm that larger tariff gaps correlate with reduced trade flows and lower firm entry rates into export markets, as businesses are less willing to commit resources in an environment where trade costs could shift unexpectedly (Osnago *et al.*, 2018).

Chart 14: WTO members' average tariff, 2022



Source: WTO Secretariat.

Theoretical models further explain why such gaps exist. Tariff bindings under trade agreements function as a commitment device in the face of uncertainty and imperfect enforcement. In this framework, bound tariffs are deliberately set above applied rates to give governments policy space when future contingencies are hard to foresee and contracts cannot be fully enforced (Horn, Maggi and Staiger, 2010; Amador and Bagwell, 2013). Yet, this also leaves room for discretion, as this same flexibility creates the conditions for TPU. As long as applied tariffs remain below bound levels, governments retain discretion to adjust trade policy. Hence, tariff water is not merely a technical feature of trade agreements, but is also a source of TPU embedded in their very design.

Other ways to capture TPU

While the tariff gap is a key structural indicator of policy space, other methods also help capture TPU dynamics. One widely used approach is based on news-based economic uncertainty indices, which measure the frequency and tone of media coverage related to trade policy. These text-based indicators show a strong correlation between rising TPU and declining economic activity (Caldara *et al.*, 2020).

Firm-level surveys are another valuable source. These capture businesses' expectations and strategic responses to policy risks, offering insight

into how TPU affects behaviour in real time. Historical events – such as China's WTO accession or the ratification of major trade agreements – serve as natural experiments to study the impact of reduced uncertainty. Research shows that resolving policy uncertainty can increase investment, stimulate exports and raise consumer welfare via lower prices (Graziano *et al.*, 2020; Osnago *et al.*, 2018).

Conversely, policy reversals or unilateral tariff hikes can have immediate negative effects, even before they are implemented. TPU also interacts with firm heterogeneity: more productive firms are better equipped to manage risk, while smaller or less competitive exporters may exit markets entirely. This dynamic can have long-run implications for export composition and productivity growth.

Quantitative trade model: basics and the modelling of TPU

Brief description of the Global Trade Model

The impact of tariff increases and TPU is analysed using the WTO Global Trade Model.² This is a recursive dynamic computable general equilibrium model calibrated to the GTAP Data Base, V11.3 (base year 2017). The 2017 data are projected forward to a 2024 base year using standard approaches in the literature (see, for example, Bekkers *et al.* or Fouré *et al.*).³

The model features multiple sectors, including services, multiple factors of production, and intermediate linkages. Trade is modelled based on product differentiation by country of origin (based on the Armington assumption), which generates the same effects as in a model based on Ricardian comparative advantage (the Eaton-Kortum model). The trade balance is equal to savings minus investment. Savings is a fixed share of income, and country-level investments respond to changes to the real rate of return on capital.

To project the short-term effects of tariffs and TPU for 2025 and 2026, the trade elasticities measuring the responsiveness of trade to changes in trade costs are scaled down by 40% relative to the long-term elasticities (taken from the GTAP Data based on the gravity literature (Anderson and Yotov, 2024)).

Modelling TPU in the Global Trade Model

Recognizing the importance of trade policy uncertainty and its potential macroeconomic effects, TPU was incorporated through tariff water into the Global Trade Model (GTM), using the approach in Bekkers and Teh (2021) which is based on the framework developed by Handley and Limão (2017).

TPU is introduced by adjusting firms' discount rates rather than directly reducing their expected future profits. An increase in TPU will raise discount rates, implying that per-period fixed costs of exporting rise (for given sunk entry costs), thereby discouraging firms from entering foreign markets and reducing exports. To determine the change in per-period fixed costs (or equivalent iceberg trade costs) due to changes in TPU,⁴ the model combines three inputs: (i) the estimated impact of tariff water on trade; (ii) the projected change in tariff water, and (iii) the projected change in the probability of tariff increases. Together, these inputs generate an estimate for the *ad valorem* equivalent trade cost increase.

The estimated impact of tariff water on trade is taken from Osnago *et al.* (2018). For the projected change in tariff water, two scenarios are developed. The first scenario focuses on bilateral uncertainty between the United States and its trading partners. The second scenario assumes that TPU expands globally, reflecting a broader proliferation of

uncertainty that affects trade across all economies. Notably, the simulations do not incorporate TPU in services trade, as current discussions remain focused on merchandise trade.

The projected increase in the probability of tariff increases is included to reflect that the trade effect of water in the tariffs employed is based on estimates employing data for a relatively calm period with tariffs being increased to the bounds relatively rarely. Jakubik and Piermartini (2021) report that the probability that tariffs were increased between 1997 and 2011 is about 7%, whereas currently the probability of tariff increases is allegedly higher.⁵

TPU primarily affects trade through its impact on firms' investment in new trade relationships. While existing trading ties are unlikely to be abandoned immediately, firms may delay or avoid entering new markets or expanding operations that require additional sunk costs. The employed modelling approach allows for a structured simulation of how increased policy uncertainty translates into higher trade costs over time. Consistent with empirical findings that businesses react gradually to rising uncertainty, the model assumes that approximately 20% of TPU-induced trade cost increases take effect in the first year, with 75% materializing over four years (Carballo *et al.*, 2022).

The analysis of trade policy uncertainty is subject to two caveats. First, the effects of increases in broader policy uncertainty and possible financial market repercussions are not incorporated, since they are difficult to model with a trade model, and are also difficult to assess at the moment. The simulations focus on uncertainty related to trade. Second, the element most difficult to project is the increase in the probability of tariff increases and the current approach provides the best assessment of the increase in uncertainty.

Scenarios

Four cumulative trade policy scenarios are presented. The first scenario accounts for heightened uncertainty surrounding trade with the United States. We assume that the water increases by 25 percentage points on merchandise trade with all trading partners, based on the fact that 25% has been the focal point of sectoral tariff increases. The *ad valorem* trade cost increase of this TPU in

the long run is about 2.4%, assuming long-run trade elasticity of 5 and no surge in the probability of tariff increases.⁶ Hence, in the long run, a 10 percentage-point increase in tariff water is roughly equivalent to the effect of a 1 percentage-point increase in applied tariffs, further underscoring the economic relevance of persistent trade policy uncertainty.

The second scenario is the best assessment of the current situation and serves as inputs for the adjustments to the forecast presented in this publication. It includes the TPU from the first scenario and includes all tariff increases since the beginning of 2025 up until 14 April 2025. These consist of:

- US steel and aluminium tariffs rising to 25%.
- An increase in US tariff rates by 25 percentage points on imports of motor vehicles and related products.⁷
- Additional compliance costs due to a 25% tariff on non-USMCA-compliant US imports from Mexico and Canada.

- An increase in US tariff rates by 10 percentage points on imports from most trading partners (“reciprocal tariffs”), with exemptions for products such as motor vehicles, computers and some electronic equipment already facing higher tariffs.
- An increase in US tariff rates on imports of all goods from China by 145 percentage points (with exemptions for computers and electronic equipment), and an increase in Chinese tariffs rates on imports of all goods from the US by 125 percentage points.
- An increase in Canadian tariffs rates on imports from the US on a limited set of products.

The third scenario is equal to the second scenario but incorporates the reciprocal tariff rates initially announced by the United States for all trading partners.⁸

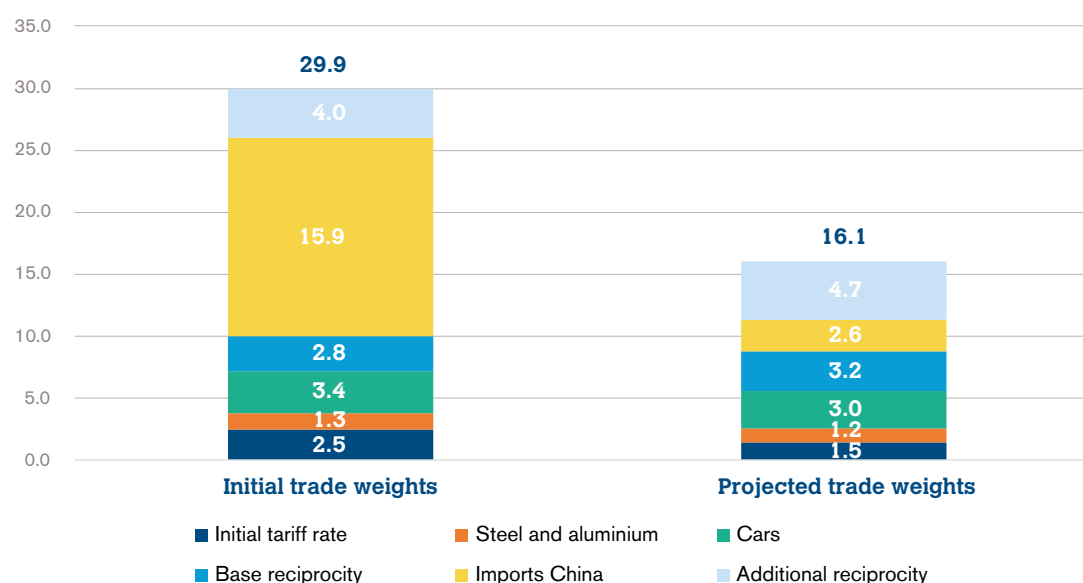
Finally, the fourth scenario builds on the third but adds a broader proliferation of uncertainty, where TPU extends beyond the United States and affects bilateral merchandise trade between all economies.

Table 3: Projected change in growth rate of trade and GDP for different regions

	US TPU only	Actual tariffs	Reciprocal tariffs	TPU spreads
Trade				
World	-0.5	-2.9	-3.5	-4.3
North America	-3.7	-13.7	-15.3	-14.6
South and Central America and the Caribbean	-0.5	-0.9	-0.6	-1.2
Europe	0.2	-0.3	-0.6	-0.8
Europe excl. intra-EU	-0.1	-0.8	-1.4	-3.8
CIS	0.1	0.4	0.4	-0.8
Africa	0.1	0.2	0	-0.9
Middle East	0.0	0.1	0.1	-1.0
Asia	0.0	-1.6	-2.2	-3.9
World excl. intra-EU	-0.7	-3.5	-4.2	-5.4
LDCs	0.1	0.9	-0.4	-0.9
GDP				
World	-0.25	-0.61	-0.65	-1.12
North America	-0.69	-1.6	-1.69	-1.73
South and Central America and the Caribbean	-0.2	-0.23	-0.21	-0.3
Europe	-0.09	-0.12	-0.13	-0.76
CIS	-0.01	0.03	0.03	-0.69
Africa	-0.04	0.01	0.0	-0.51
Middle East	-0.07	-0.03	-0.02	-0.64
Asia	-0.07	-0.33	-0.36	-1.1
LDCs	-0.09	-0.02	-0.07	-0.74

Note: The table displays the change in the percentage point growth rate of real trade (simple average of real exports and real imports) and real GDP for 2025.

Source: Simulations with the WTO Global Trade Model.

Chart 15: Trade-weighted average US tariff increase and contribution of different policies

Source: US Census tariff and trade data. Own interpretation of US executive orders. Projected trade weights are based on simulations with the WTO Global Trade Model.

The water is assumed to increase to 25%, minus the current bound tariff rates.

Chart 15 displays the projected trade-weighted average tariff increase for the United States under the actual scenario (scenario 2), using 2024 as trade weights and the projected trade weights for 2025. The figure shows that the trade-weighted average US tariff rate, using initial weights, will rise to 25.9% and by another four percentage points (to 29.9%) adding the potentially increasing reciprocity tariffs. The largest contribution comes from the increased tariff rate on imports from China. Employing adjusted trade weights, the average tariff rate would only rise to 11.4% (16.1% minus the potentially increasing reciprocity tariffs of 4.7%). The largest contribution would come from the base reciprocity tariff increases, which actually increase with adjusted weights compared to initial weights, because trade diversion leads to a shift away from imports from China towards other sources of supply.

Simulation results: how TPU affects trade and growth

The simulations suggest that TPU has a meaningful dampening effect on trade flows, leading to lower exports and weaker economic activity. By combining gravity-based estimates with historical trends in

tariff adjustments, the model captures the short-term impact of recently implemented measures and the broader impact of heightened uncertainty.

Chart 16 shows the projected change in the percentage point growth rate of real exports and real GDP in 2025 for the four scenarios. Table 3 provides more detailed results for the various aggregate regions. The simulations project that TPU in trade with the United States reduces the projected growth in global exports and global GDP by 0.5 percentage points and 0.25 percentage points, respectively, with most of the losses occurring in North America. The reason is that a large share of trade with the United States takes place within the Northern American region.

In the second scenario, which is employed to adjust the baseline global trade forecast, a 3-percentage-point decline in global real merchandise exports is projected, as well as a 0.61-percentage-point reduction in global GDP in 2025. Hence, around one-sixth of the trade contraction (0.5 out of 3 percentage points) is attributable to TPU alone, while the remainder reflects the direct effects of newly implemented trade measures.

For GDP, about 40% of the impact (0.25 percentage points of 0.61 percentage points) stems from trade policy uncertainty, highlighting the broader

macroeconomic consequences of unpredictability in trade relations. In the second scenario too, most of the losses would occur in North America, in which reduced imports and exports of the United States plays an important role. The fall in exports comes both from a real appreciation, making it harder to compete in export markets and an enhanced focus on producing goods for the domestic market. Also increased prices of intermediate inputs play a role.

Somewhat surprisingly, LDCs are projected to see their exports rise in the second scenario. The reason is that some LDCs – for example, Cambodia, Bangladesh and Lesotho – can expand their exports to the United States because their exports are highly dependent on products for which China currently has a large import share in total US imports, such as clothing and textiles, as well as electronic equipment. Hence, these LDCs can benefit from shifting demand towards their products. However, because of the adverse impact of TPU vis-à-vis the United States in the second scenario, the simulations still project a small reduction in real GDP of LDCs.

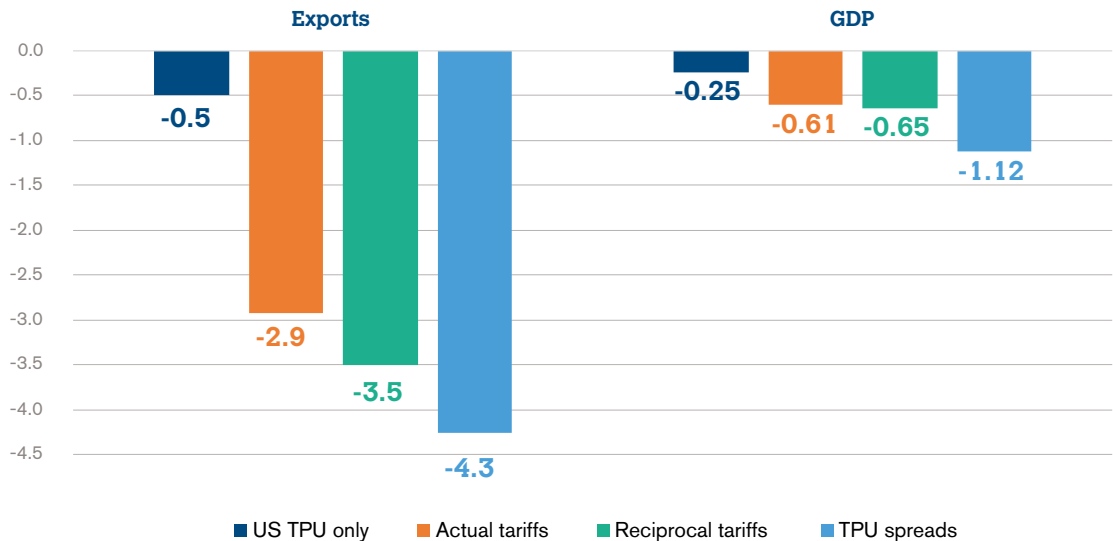
In the third scenario, with tariff rate increases going back to the initially announced reciprocity tariffs, the reduction in global trade growth would rise to 3.5 percentage points. However, the additional loss in global GDP is relatively limited, rising from

0.61 percentage points to 0.65 percentage points. Additional trade reductions are concentrated in Europe and Asia; the trade reduction of South and Central America and the Caribbean could even slightly fall, because of trade diversion effects.

Finally in the fourth scenario TPU would spread globally, beyond US-related trade relationships. There are three reasons why trade policy uncertainty could spread. First, trade diversion leads to economic pressure for the introduction of trade-restrictive measures. Second, geoeconomic considerations can lead to political pressure to introduce tariffs or other trade-restrictive measures. Third, the credibility of the principles of the multilateral trading system can be affected, raising trade policy uncertainty.

In this more severe case, with TPU spreading, global real merchandise exports are projected to fall further, with a cumulative decline of 4.3 percentage points, and with global GDP losses reaching 1.12 percentage points. These additional effects result from the diffusion of uncertainty across all trading relationships. This broader uncertainty would likely weigh more heavily on high-income economies, which typically have lower tariff bounds and thus have been less exposed to unpredictable trade policy shifts in the past. However, the simulations also show that LDCs would be particularly affected

Chart 16: Projected change in growth rate of world trade and GDP



Note: The chart displays the change in the percentage point growth rate of real trade (simple average of real exports and real imports) and real GDP for 2025.
Source: Simulations with the WTO Global Trade Model.

by a spread of trade policy uncertainty, since their projected GDP losses would rise to 0.74 percentage points.

The findings on the impact of trade policy uncertainty are consistent with broader empirical and theoretical work showing that TPU acts as a drag on trade and growth. They underscore the importance of stable and predictable trade policies to foster global economic activity and reduce uncertainty for businesses operating in international markets.

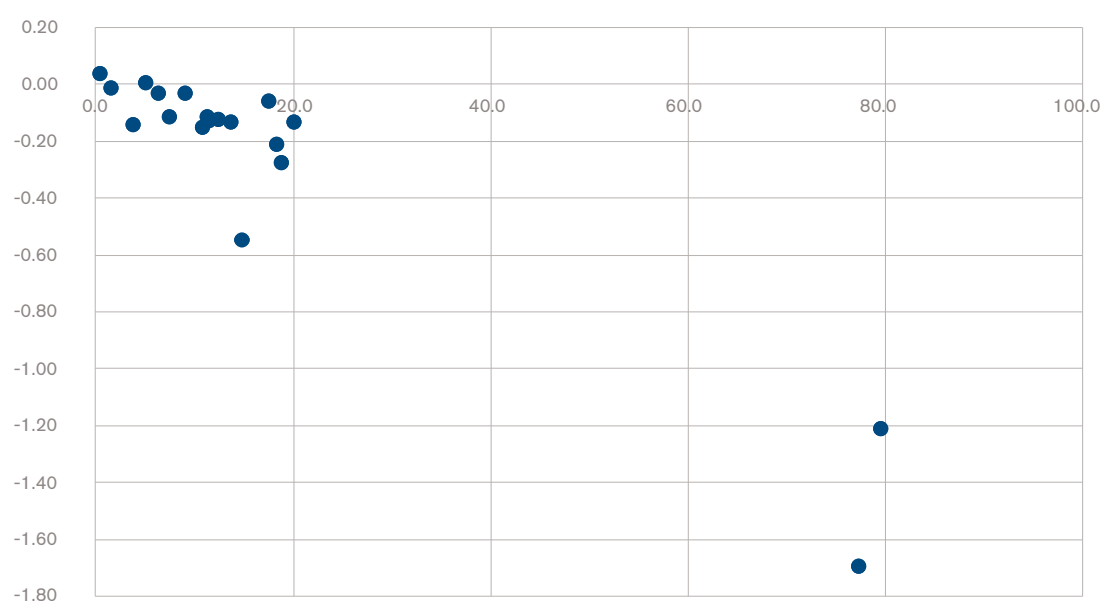
Chart 17 displays the correlation between the projected fall in GDP on the vertical axis and the share of merchandise exports to the United States in the second scenario. There is a strong negative correlation, with two economies having much larger export shares to the United States than others (Mexico and Canada). However, overall the export share to the US explains about 80% of the projected variation in real GDP.⁹ The increase in the trade weighted average tariff rate is not a significant determinant of the projected GDP loss. The main reason is that Mexico and Canada face relatively small tariff increases but are still projected to incur large GDP losses, because of their large

exposure to increased trade policy uncertainty given their high export share to the United States.

Chart 18 sheds light on the projected global shifts in trade patterns. The top panels display the per cent changes in exports to the United States (left panel) and the per cent changes in imports from China (right panel). These charts make it clear that most regions are projected to see a fall in exports to the United States with the largest reduction for China (77%). The CIS region is projected to raise exports, which is mostly related to exemptions for natural resources. Asia (excluding China) and in particular LDCs are projected to take over some of the lost market share of China facing higher tariffs. Hence, the reduced presence of China in the US market generates additional export opportunities for some other economies. This happens in particular in sectors where China currently has a large US market share, such as textiles and (parts of) electronic equipment.

The right panel shows, as expected, that most regions will see increases in imports from China. The rise in import volumes from China is 4% to 6% for all regions except for North America (excluding the United States) and South and Central America

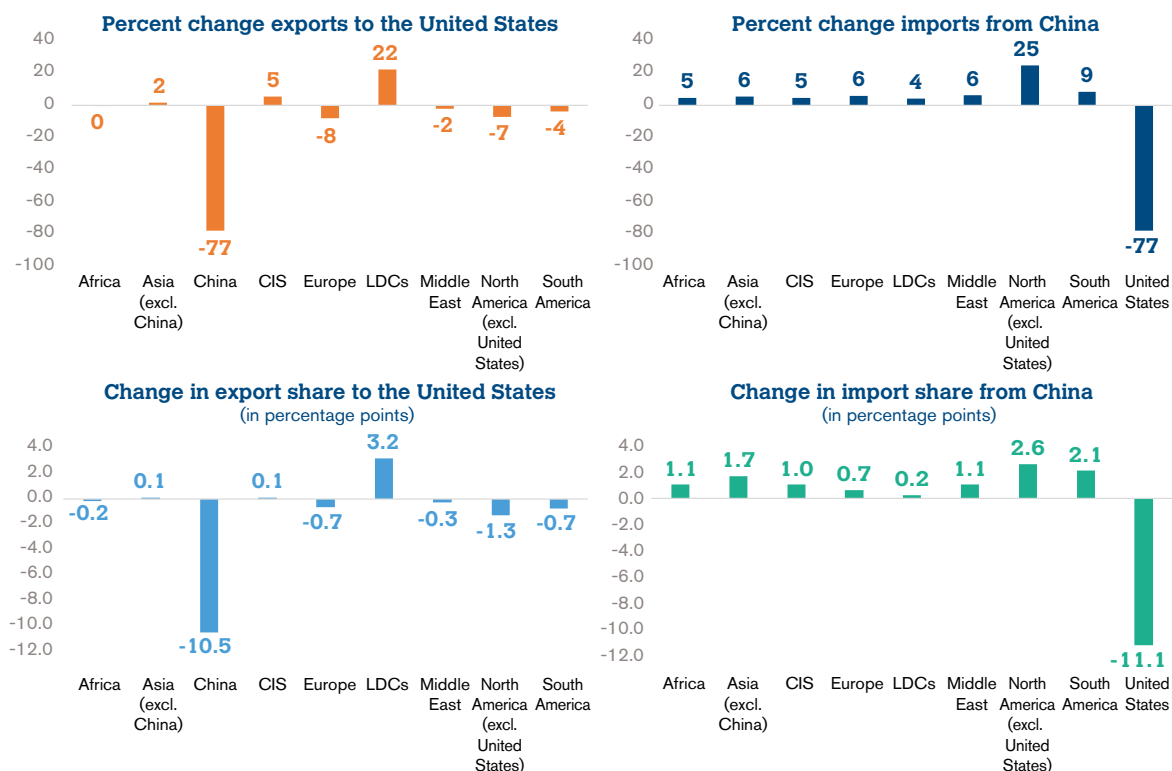
Chart 17: Projected changes in real GDP as a function of the share of exports going to the United States



Note: The chart displays the projected change in the percentage point growth rate of real GDP as a function of the initial export share to the United States.

Source: Simulations with the WTO Global Trade Model.

Chart 18: Trade diversion impacts: projected per cent changes in merchandise exports to the United States and imports from China and projected percentage point changes in merchandise export shares to the United States and import shares from China



Note: The table displays for the second scenario in turn the projected percent changes in exports from aggregate regions and China to the United States (upper left panel) and of imports from China to aggregate regions and the United States (upper right panel). The lower left panel displays the projected per cent change in export shares to the United States from aggregate regions, whereas the lower right panel shows the projected change in import shares from China to the different aggregate regions and the United States. All results are for merchandise trade for 2025. Note that the changes in shares in the lower panels do not add up, as they represent changes in import and export shares for individual regions.

Source: Simulations with the WTO Global Trade Model.

and the Caribbean, whose projected surge in imports is larger. The reason is that these regions have the largest import shares from the United States, which is projected to reduce their exports due to the real appreciation of the US exchange rate and the shift towards more domestic production in the United States.

The lower panels display what these percent changes mean for percentage point changes in trade shares (in volumes). The left panel shows the projected change in the share of exports to the United States and the right panel displays the change in the share of imports from China. This change is determined both by initial export and import shares to the United States and from China and the percentage change in the volume of exports to the United States and of imports from China. For example, the simulations project that the share of Chinese exports going to the United States falls by 10.5 percentage points, whereas the share of

imports coming from China in the United States is projected to decrease by 11.1 percentage points.

The largest increase in percentage point import shares from China is projected for North and South America, which is driven both by high initial import shares and by relatively large projected increases in imports (displayed in the upper panel). LDCs are projected to see relatively large increases in the share exported to the United States (+3.2 percentage points) and a relatively limited increase in imports from China (+0.2 percentage points).

These numbers represent averages for all merchandise exports in aggregate regions, thus not showing variation across sectors and economies. However, the impact of the increasing imports can also be positive for domestic output if mostly intermediates are imported, as it would enable regions to become more competitive through a larger availability of intermediate inputs.

Endnotes

1. Real household disposable income experienced higher growth in 2024 relative to 2023 in some of the main trading nations: China (based on first half of 2024 data – National Bureau of Statistics), Germany, France, Italy, the United Kingdom, Spain (based on Q3 2024 data, OECD) and Japan (2024 data, Statistics Bureau of Japan).
2. Bekkers *et al.* (2025) contains a formal description of the model and Aguiar *et al.* (2019) provides a technical documentation of the model.
3. As in quantitative trade models (such as Caliendo and Parro) employing exact hat algebra baseline trade and spending shares are equal to actual spending shares.
4. As shown in Bekkers and Teh (2021), changes in fixed entry costs and iceberg trade costs have an identical impact on trade and income in a (Melitz) firm heterogeneity model when calibrated to the same estimated partial trade effect. Since the impact of trade cost changes in a Melitz model and Armington model are in most circumstances similar, in the simulations, the standard Armington model with iceberg trade cost changes is employed.
5. Polymarket (<https://polymarket.com/>) indicates that the probability that a large tariff increase would occur has been on average 40% since US President Trump took office. This implies that the probability of a tariff increase has increased by a factor of five to six relative to the period on which the estimates are based.
6. This aligns with the global trade war scenarios in Bekkers and Teh (2021), who calculate a global ad valorem equivalent of 2.9% for a tariff increase of 29.6%.
7. For imports of motor vehicles from USMCA partners, the share of US content has been exempted from tariffs. The methodology is still being developed by the US administration, and the higher tariffs on Canada and Mexico have not yet been imposed. However, given that these tariffs will be introduced, they were included in the scenario.
8. For imports from China, the tariff rate increases remain at 145 percentage points in this scenario.
9. Simple regression analysis shows that the export share in GDP has a slightly poorer fit, implying that the export share in GDP is not a driver of projected export losses in the simulations.

Appendix Table 1: Leading exporters and importers in world merchandise trade, 2024

Billion US\$ and %

Rank	Exporters	Value	Share	Annual percentage change	Rank	Importers	Value	Share	Annual percentage change
1	China	3,577	14.6		1	United States of America	3,359	13.6	
2	United States of America	2,065	8.5		2	China	2,587	10.5	
3	Germany	1,683	6.9	-1	3	Germany	1,425	5.8	-3
4	Netherlands	921	3.8	-2	4	United Kingdom	816	3.3	3
5	Japan	707	2.9	-1	5	Netherlands	812	3.3	-4
6	Korea, Republic of	684	2.8	8	6	France	750	3.0	-5
7	Italy	674	2.8	0	7	Japan	743	3.0	-5
8	Hong Kong, China	646	2.6	12	8	Hong Kong, China	704	2.8	8
	Domestic exports	34	0.1	60		Retained imports ¹	184	0.7	0
	Re-exports	612	2.5	11					
9	France	640	2.6	-2	9	India	702	2.8	4
10	Mexico	617	2.5	4	10	Mexico	644	2.6	4
11	United Arab Emirates ¹	603	2.5	6	11	Korea, Republic of	632	2.6	-2
12	Canada	568	2.3	0	12	Italy	615	2.5	-4
13	Belgium	536	2.2	-6	13	Canada	573	2.3	0
14	United Kingdom	513	2.1	-2	14	United Arab Emirates ¹	539	2.2	14
15	Singapore	506	2.1	6	15	Belgium	513	2.1	-8
	Domestic exports	215	0.9	1					
	Re-exports	291	1.2	10					
16	Chinese Taipei	474	1.9	10	16	Spain	472	1.9	0
17	Switzerland	447	1.8	6	17	Singapore	459	1.9	8
						Retained imports ¹	168	0.7	5
18	India	443	1.8	3	18	Chinese Taipei	401	1.6	12
19	Spain	424	1.7	0	19	Poland	379	1.5	2
20	Russian Federation	417	1.7	-2	20	Viet Nam	379	1.5	16
21	Viet Nam	403	1.7	14	21	Switzerland	369	1.5	1
22	Poland	380	1.6	0	22	Türkiye	344	1.4	-5
23	Australia	341	1.4	-8	23	Thailand	307	1.2	6
24	Brazil	337	1.4	-1	24	Malaysia	300	1.2	13
25	Malaysia	330	1.4	6	25	Australia	296	1.2	3
26	Saudi Arabia, Kingdom of	305	1.2	-5	26	Russian Federation ²	295	1.2	-3
27	Thailand	301	1.2	5	27	Brazil	278	1.1	10
28	Indonesia	265	1.1	2	28	Indonesia	234	0.9	5
29	Czech Republic	263	1.1	3	29	Czech Republic	232	0.9	0
30	Türkiye	262	1.1	2	30	Saudi Arabia, Kingdom of	232	0.9	12
Total of above ³		20,332	83.2	-	Total of above ³		20,391	82.4	-
World ³		24,431	100.0	2	World ³		24,747	100.0	2

(1) Secretariat estimates.

(2) Imports are valued f.o.b.

(3) Includes significant re-exports or imports for re-export.

 Source: WTO-UNCTAD. More data available at <http://stats.wto.org/>.

Appendix Table 2: Leading exporters and importers in world merchandise trade excluding intra-EU trade, 2024

Billion US\$ and %

Rank	Exporters	Value	Share	Annual percentage change	Rank	Importers	Value	Share	Annual percentage change
1	China	3,577	17.8	6	1	United States of America	3,359	16.4	6
2	Extra-EU exports	2,796	13.9	1	2	Extra-EU imports	2,634	12.8	-3
3	United States of America	2,065	10.3	2	3	China	2,587	12.6	1
4	Japan	707	3.5	-1	4	United Kingdom	816	4.0	3
5	Korea, Republic of	684	3.4	8	5	Japan	743	3.6	-5
6	Hong Kong, China	646	3.2	12	6	Hong Kong, China	704	3.4	8
	Domestic exports	34	0.2	60		Retained imports ¹	184	0.9	0
	Re-exports	612	3.0	11					
7	Mexico	617	3.1	4	7	India	702	3.4	4
8	United Arab Emirates ¹	603	3.0	6	8	Mexico	644	3.1	4
9	Canada	568	2.8	0	9	Korea, Republic of	632	3.1	-2
10	United Kingdom	513	2.6	-2	10	Canada	573	2.8	0
11	Singapore	506	2.5	6	11	United Arab Emirates ¹	539	2.6	14
	Domestic exports	215	1.1	1					
	Re-exports	291	1.4	10					
12	Chinese Taipei	474	2.4	10	12	Singapore	459	2.2	8
						Retained imports ¹	168	0.8	5
13	Switzerland	447	2.2	6	13	Chinese Taipei	401	2.0	12
14	India	443	2.2	3	14	Viet Nam	379	1.8	16
15	Russian Federation	417	2.1	-2	15	Switzerland	369	1.8	1
16	Viet Nam	403	2.0	14	16	Türkiye	344	1.7	-5
17	Australia	341	1.7	-8	17	Thailand	307	1.5	6
18	Brazil	337	1.7	-1	18	Malaysia	300	1.5	13
19	Malaysia	330	1.6	6	19	Australia	296	1.4	3
20	Saudi Arabia, Kingdom of	305	1.5	-5	20	Russian Federation ²	295	1.4	-3
21	Thailand	301	1.5	5	21	Brazil	278	1.4	10
22	Indonesia	265	1.3	2	22	Indonesia	234	1.1	5
23	Türkiye	262	1.3	2	23	Saudi Arabia, Kingdom of	232	1.1	12
24	Norway	168	0.8	-3	24	Philippines	134	0.7	0
25	South Africa	110	0.5	-1	25	South Africa ¹	123	0.6	-6
26	Iran ¹	106	0.5	9	26	Norway	97	0.5	2
27	Iraq ¹	102	0.5	3	27	Israel	92	0.4	0
28	Chile	100	0.5	6	28	Egypt ¹	86	0.4	4
29	Qatar	94	0.5	-4	29	Iraq ¹	86	0.4	31
30	Kazakhstan	82	0.4	5	30	Chile	84	0.4	-1
Total of above ³		18,369	91.5	-	Total of above ³		18,530	90.3	-
World excluding EU intra-trade ³		20,076	100.0	-5	World excluding EU intra-trade ³		20,512	100.0	3

(1) Secretariat estimates.

(2) Imports are valued f.o.b.

(3) Includes significant re-exports or imports for re-export.

Source: WTO-UNCTAD. More data available at <http://stats.wto.org/>.

Appendix Table 3: Leading exporters and importers of commercial services, 2024

Billion US\$ and %

Rank	Exporters	Value	Share	Annual percentage change	Rank	Importers	Value	Share	Annual percentage change
1	United States of America	1,077	12.4	8	1	United States of America	787	9.9	9
2	United Kingdom	645	7.4	11	2	China	608	7.7	11
3	Ireland	519	6.0	20	3	Germany	550	6.9	6
4	Germany	465	5.4	4	4	Ireland	467	5.9	11
5	China	444	5.1	17	5	United Kingdom	399	5.0	11
6	Singapore	395	4.6	10	6	Singapore	351	4.4	8
7	France	391	4.5	6	7	France	339	4.3	2
8	India	374	4.3	11	8	Netherlands	306	3.9	5
9	Netherlands	329	3.8	4	9	India	268	3.4	9
10	Japan	223	2.6	9	10	Japan	240	3.0	6
11	Spain	219	2.5	12	11	Switzerland	215	2.7	12
12	Switzerland	179	2.1	10	12	Italy	161	2.0	7
13	United Arab Emirates ¹	176	2.0	...	13	Korea, Republic of	161	2.0	7
14	Canada	158	1.8	3	14	Canada	158	2.0	5
15	Italy	154	1.8	5	15	Belgium	157	2.0	-1
16	Luxembourg	153	1.8	3	16	Sweden	124	1.6	9
17	Belgium	143	1.7	-5	17	Luxembourg	123	1.6	2
18	Korea, Republic of	138	1.6	11	18	Denmark	120	1.5	7
19	Denmark	126	1.5	9	19	Spain	111	1.4	16
20	Sweden	118	1.4	12	20	Australia	107	1.4	7
21	Poland	117	1.3	7	21	United Arab Emirates ¹	106	1.3	...
22	Türkiye	115	1.3	8	22	Brazil	101	1.3	17
23	Hong Kong, China	109	1.3	12	23	Saudi Arabia, Kingdom of	94	1.2	6
24	Austria	94	1.1	5	24	Hong Kong, China	90	1.1	14
25	Israel	83	1.0	2	25	Austria	87	1.1	4
26	Australia	83	1.0	9	26	Russian Federation	80	1.0	6
27	Thailand	71	0.8	27	27	Poland	74	0.9	12
28	Mexico	62	0.7	11	28	Thailand	73	0.9	12
29	Portugal	61	0.7	8	29	Chinese Taipei	71	0.9	11
30	Chinese Taipei	58	0.7	9	30	Mexico	70	0.9	-6
Total of above		7,279	83.8	-	Total of above		6,599	83.2	-
World		8,687	100.0	9	World		7,935	100.0	8

(1) Secretariat estimates. Quarterly data not available.

... indicates unavailable or non-comparable figures.

Note: Preliminary estimates based on quarterly statistics. Figures for a number of countries and territories have been estimated by the Secretariat. More data available at <http://stats.wto.org/> and the Global Services Trade Data Hub.

Source: WTO-UNCTAD.

Appendix Table 4: Leading exporters and importers of commercial services excluding intra-EU trade, 2024

Billion US\$ and %

Rank	Exporters	Value	Share	Annual percentage change	Rank	Importers	Value	Share	Annual percentage change
1	Extra-EU exports	1,642	23.2	8	1	Extra-EU imports	1,437	22.1	6
2	United States of America	1,077	15.2	8	2	United States of America	787	12.1	9
3	United Kingdom	645	9.1	11	3	China	608	9.4	11
4	China	444	6.3	17	4	United Kingdom	399	6.1	11
5	Singapore	395	5.6	10	5	Singapore	351	5.4	8
6	India	374	5.3	11	6	India	268	4.1	9
7	Japan	223	3.1	9	7	Japan	240	3.7	6
8	Switzerland	179	2.5	10	8	Switzerland	215	3.3	12
9	United Arab Emirates ¹	176	2.5	...	9	Korea, Republic of	161	2.5	7
10	Canada	158	2.2	3	10	Canada	158	2.4	5
11	Korea, Republic of	138	1.9	11	11	Australia	107	1.7	7
12	Türkiye	115	1.6	8	12	United Arab Emirates ¹	106	1.6	...
13	Hong Kong, China	109	1.5	12	13	Brazil	101	1.6	17
14	Israel	83	1.2	2	14	Saudi Arabia, Kingdom of	94	1.4	6
15	Australia	83	1.2	9	15	Hong Kong, China	90	1.4	14
16	Thailand	71	1.0	27	16	Russian Federation	80	1.2	6
17	Mexico	62	0.9	11	17	Thailand	73	1.1	12
18	Chinese Taipei	58	0.8	9	18	Chinese Taipei	71	1.1	11
19	Norway	57	0.8	7	19	Mexico	70	1.1	-6
20	Malaysia	53	0.8	25	20	Norway	64	1.0	7
21	Saudi Arabia, Kingdom of	53	0.7	14	21	Indonesia	58	0.9	12
22	Philippines	52	0.7	8	22	Malaysia	56	0.9	8
23	Brazil	48	0.7	7	23	Türkiye	52	0.8	8
24	Russian Federation	41	0.6	4	24	Israel	44	0.7	-6
25	Macao, China	40	0.6	11	25	Philippines	37	0.6	24
26	Indonesia	39	0.5	16	26	Viet Nam	35	0.5	22
27	Qatar	30	0.4	-2	27	Qatar	32	0.5	-15
28	Egypt	27	0.4	-16	28	Kuwait, the State of	26	0.4	-7
29	Morocco	27	0.4	9	29	Egypt	25	0.4	22
30	Viet Nam	23	0.3	19	30	Argentina	22	0.3	1
Total of above		6,522	92.0	-	Total of above		5,867	90.4	-
World (excl. intra-EU)		7,088	100.0	10	World (excl. intra-EU)		6,490	100.0	8

(1) Secretariat estimates. Quarterly data not available.

... indicates unavailable or non-comparable figures.

Note: Preliminary estimates based on quarterly statistics. Figures for a number of countries and territories have been estimated by the Secretariat. More data available at <http://stats.wto.org/> and the Global Services Trade Data Hub.

Source: WTO-UNCTAD.

Appendix Table 5: Leading exporters and importers of digitally delivered services, 2024

Billion US\$ and %

Rank	Exporters	Value	Share	Annual percentage change	Rank	Importers	Value	Share	Annual percentage change
1	United States of America	707	15.2	7	1	United States of America	424	10.9	8
2	United Kingdom	452	9.8	9	2	Ireland	399	10.3	11
3	Ireland	417	9.0	25	3	Germany	266	6.8	7
4	Germany	272	5.9	5	4	United Kingdom	202	5.2	7
5	India	269	5.8	8	5	Netherlands	194	5.0	5
6	China	221	4.8	6	6	France	176	4.5	2
7	Singapore	204	4.4	8	7	Singapore	165	4.3	5
8	Netherlands	201	4.3	3	8	China	165	4.2	4
9	France	200	4.3	8	9	Japan	162	4.2	7
10	Luxembourg	126	2.7	3	10	Switzerland	143	3.7	11
11	Switzerland	122	2.6	11	11	India	117	3.0	7
12	Japan	118	2.5	1	12	Luxembourg	92	2.4	3
13	Belgium	89	1.9	-2	13	Belgium	87	2.2	-3
14	Canada	84	1.8	0	14	Italy	83	2.1	6
15	Spain	82	1.8	14	15	Canada	82	2.1	1
16	Sweden	80	1.7	12	16	Sweden	82	2.1	10
17	Italy	69	1.5	9	17	Korea, Republic of	73	1.9	6
18	Korea, Republic of	68	1.5	8	18	Spain	55	1.4	12
19	Israel	60	1.3	-1	19	Brazil	51	1.3	21
20	Poland	54	1.2	14	20	Denmark	46	1.2	4
21	United Arab Emirates	52	1.1	...	21	United Arab Emirates	42	1.1	...
22	Hong Kong, China	48	1.0	7	22	Poland	41	1.0	13
23	Denmark	39	0.8	11	23	Austria	40	1.0	4
24	Austria	38	0.8	4	24	Thailand	33	0.9	11
25	Chinese Taipei	29	0.6	6	25	Australia	29	0.7	7
26	Finland	27	0.6	20	26	Chinese Taipei	28	0.7	4
27	Brazil	24	0.5	8	27	Mexico	28	0.7	-6
28	Philippines	23	0.5	9	28	Indonesia	27	0.7	12
29	Cyprus	22	0.5	21	29	Finland	27	0.7	5
30	Norway	22	0.5	6	30	Hong Kong, China	26	0.7	7
Total of above		4,216	90.9	-	Total of above		3,386	87.1	-
World		4,637	100.0	8	World		3,888	100.0	7

... indicates unavailable or non-comparable figures.

Note: More data available at WTO Global Services Trade Data Hub
(https://www.wto.org/english/res_e/statis_e/services_trade_data_hub_e.htm)

Source: WTO-UNCTAD.