WORLD TRADE ORGANIZATION
ORGANISATION MONDIALE DU COMMERCE
ORGANIZACIÓN MUNDIAL DEL COMERCIO

WTO STATS

TECHNICAL NOTES

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1 CONCEPTS AND METHODS

1.1 International trade statistics

1.1.1 Merchandise trade

The compilation of international merchandise trade statistics relies principally on customs records complemented, as appropriate, by additional sources to enhance their coverage (for instance, to include electricity, or trade in vessels and aircrafts). These statistics essentially reflect the physical movement of goods across borders.

1.1.1.1 Trade system

Two systems of recording merchandise exports and imports are in common use: the general trade system and the special trade system. The two systems differ mainly in the way warehoused and re-exported goods are treated.

To the extent possible, total merchandise trade is defined according to the **general trade** system. It covers all types of inward and outward movement of goods through a country or territory including movements through customs warehouses and free zones.

General trade figures are larger than the corresponding **special trade** figures because the latter exclude certain trade flows, such as goods shipped through bonded warehouses.

For further explanations, see the United Nations methodological guidelines, International Merchandise Trade Statistics: Concepts and Definitions 2010.

1.1.1.2 Trade flows

Exports of domestic goods - the outward movement of goods produced in the reporting economy, including imported foreign goods that have since been significantly transformed or enhanced in value within the reporting economy.

Re-exports of foreign goods - the export of foreign goods which have entered the reporting economy and are exiting the reporting economy in the same condition in which they entered.

Imports of foreign goods - goods entering the reporting economy.

Re-imports of domestic goods - imports of domestic goods which had previously been exported.

Note: due to the use of the general trade system for recording merchandise trade statistics, re-exports and re-imports are included in total merchandise trade.

1.1.1.3 Valuation

Free on board (**FOB**) valuation - Unless otherwise indicated, **exports** are valued at transaction value, including the cost of transportation and insurance to bring the merchandise to the frontier of the exporting country or territory.

Cost insurance and freight (**CIF**) valuation - Unless otherwise indicated, **imports** are valued at transaction value plus the cost of transportation and insurance to the frontier of the importing country or territory.

1.1.2 Trade in commercial services: Balance of Payments (BOP) and Foreign Affiliates Statistics (FATS)

For a complete measurement of international trade in services two separate but complementary statistical domains are required: (i) the **Balance of Payments (BOP**); (ii) the **Foreign Affiliates Statistics (FATS)**.

While the BOP covers international services transactions between residents and non-residents of an economy, FATS provide a measure of services supplied by and to residents of the same economy.

The respective location of the service supplier and the consumer at the time of the service supply determine the relevant mode of supply according to the WTO General Agreement on Trade in Services (GATS). Similarly to trade in goods, **mode 1** (cross-border supply) takes place when both the supplier and the consumer remain in their respective home territories. The GATS covers also cases where consumers are outside their home territory to consume services (**mode 2** – consumption abroad), or where service suppliers are in the territory of the consumers to provide their services, whether by establishing affiliates through direct investment abroad (**mode 3** – commercial presence), or through the presence of natural persons (**mode 4**). This modal distinction has direct implications on the measurement of international trade in services. Services transactions in the BOP measure trade in commercial services through modes 1, 2 and 4; to estimate mode 3, it is necessary to use FATS.

FATS are a relatively recent statistical domain which provides several indicators on the operations of foreign-controlled affiliates, in which a foreign investor owns more than 50 per cent of the voting power at each stage of the ownership chain. The indicator which provides the closest measure of trade in services through mode 3 is the sales by foreign-controlled affiliates primarily engaged in services activities.

World and regional/economic grouping estimates contained in this database are entirely based on BOP statistics. Thus, they cover only trade in services though modes 1, 2, and 4.

For further explanations, see the Manual on Statistics of International Trade in Services 2010.

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1.2 Tariff indicators (applied, bound and preferential tariffs)

Key indicators related to market access are included in this database. Bound and applied tariffs are compiled following the Harmonized Commodity Description and Coding System, also known as the Harmonized System (HS), a product nomenclature developed by the World Customs Organization.

The bound tariffs are based on concessions on goods that a WTO Member made in trade negotiations, or negotiated during its accession to the WTO. Applied MFN and preferential tariffs are supplied by each WTO Member. Notification of yearly applied tariffs is an obligation of each WTO member even if there exist data gaps for selected Members. Applied tariffs are also notified by non-WTO Member countries which are currently negotiating their accession to the WTO. Applied tariffs data at the level of national tariff line code applied by each country are stored in the Integrated Database (IDB). Bound tariffs are stored in the Consolidated Tariff Schedules (CTS) database. These two tariffs databases are the main sources of data used in the estimation of the indicators.

1.2.1 By Sector – Agricultural (AG) and Non-Agricultural (Non-AG)

There are only two sectors – agricultural (AG) and non-agricultural (Non-AG). In the World Trade Organization context, AG products are those listed in Annex 1 of the Agreement on Agriculture (AoA). The Annex defines the list of HS codes corresponding to products covered by the AoA. Products corresponding to HS codes not in this Annex are considered not covered by the AoA and are referred to as Non-AG products. In effect, non-AG products are those in the negative list of the AoA products. This dichotomy between AG and non-AG does not necessarily correspond to the definition of agricultural products used by other international organizations, like the Food and Agricultural Organization. For example, the AoA Annex 1

does not include the HS codes for fish and fish products and thus, these products are considered non-AG products in WTO negotiations.

1.2.2 Harmonized System (HS)

The Harmonized Commodity Description and Coding System known as the Harmonized System (HS) is an internationally adopted product nomenclature system in world trade. It has been developed and maintained by the World Customs Organization (WCO). It comprises about 5,000 commodity groups; each identified by a six digit code, arranged in a legal and logical structure and is supported by well-defined rules to achieve uniform classification. WTO members adopt the HS in their national tariff nomenclature. The HS was introduced in 1988 and has undergone several changes in the classification of products. These changes are called revisions.

The HS is a hierarchical code in which each small group of similar products is designated a 6-digit code. Each code can be broken down into three parts. The first two digits (HS-2) identify the chapter the goods are classified in; the next two digits (HS-4) identify headings within that chapter; and finally the next two digits (HS-6) refer to the subheading.

For example, HS code 09.02.10 refers to
Chapter 09 - Coffee, Tea, Maté and Spices
Heading 09.02 - Tea, whether or not flavored
Subheading 09.02.10 - Green tea (not fermented) in immediate packings …

For more information, please see the file which contains the full list of database codes and labels, including country and product group definitions.

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2 INDICATOR DEFINITIONS AND SOURCES

2.1 International trade statistics

2.1.1 Merchandise trade values

Merchandise exports by product group – annual (Million US dollar)
Merchandise imports by product group – annual (Million US dollar)

Annual statistics on merchandise exports and imports are available for over 200 economies (individual economies, selected regional agreements, regions, and world total).

When available, exports and imports by product group are published. All product groups are defined according to Revision 3 of the Standard International Trade Classification (**SITC Rev. 3**). For more information, please see the file which contains the full list of database codes and labels, including country and product group definitions.

Sources: annual merchandise trade data at total product level with partner world, from 2014 onwards, are jointly produced with UNCTAD. Data are mainly sourced from national statistical sources, UN Comtrade, the International Monetary Fund (IMF) International Financial Statistics, Eurostat and the Trade Data Monitor online database. Where needed, reported data are complemented by estimates produced by the WTO.

Total merchandise exports/imports - quarterly (Million US dollar)

Quarterly statistics on total merchandise exports and imports are available for over 100 economies (individual economies, regions, and world total).

Sources: data are compiled from national data sources, as well as from WTO monthly merchandise trade statistics, the International Monetary Fund (IMF) International Financial Statistics and the Trade Data Monitor online database. If data from national sources are not available at the time of release, estimates are produced based on partner trade statistics.

Total merchandise exports/imports - monthly (Million US dollar)

Monthly statistics on total merchandise exports and imports for over 70 individual economies are available, accounting for approximately 90 per cent of world trade.

Sources: data are sourced from national statistical agency official websites. Statistics of the member states of the European Union are sourced from the Eurostat Comext online database. Additional sources include the International Monetary Fund (IMF) International Financial Statistics and the Trade Data Monitor online database.

2.1.2 Merchandise trade indices and prices

Merchandise export/import value chained indices - annual (Previous year =100)
Merchandise export/import volume chained indices - annual (Previous year =100)
Merchandise export/import unit value chained indices - annual (Previous year =100)
Merchandise export/import value fixed-base indices - annual (2015 =100)
Merchandise export/import volume fixed-base indices - annual (2015 =100)
Merchandise export/import unit value fixed-base indices - annual (2015 =100)
Merchandise export/import volume change – annual (% change over previous year)

These indices and growth rates present the change in value, volume, or unit value of merchandise exports/imports over the previous year (base period = previous year), relative to the year 2015 (base period = 2015), or directly in annual percentage change.

Statistics on merchandise trade in value terms (or in nominal terms, or in terms of current US dollars) reflect changes in prices and in quantities of exported and imported goods.

Statistics on merchandise trade in volume terms (or in real terms) reflect changes in the quantity only of internationally traded goods.

The unit value is a representative price of a product in a particular period. The unit value indices reflect changes in the average prices of internationally traded goods.

Annual indices and growth rates are available for over 200 economies (individual economies, selected regional agreements, regions and world total).

Estimates on value, volume and unit value indices are available by product group for the world total, in base 2015=100. All product groups are defined according to Revision 3 of the Standard International Trade Classification (**SITC Rev. 3**). For more information, please see the file which contains the full list of database codes and labels, including country and product group definitions.

Sources: the value indices are calculated by the WTO based on the WTO-UNCTAD annual merchandise trade dataset. Unit value indices are sourced from national sources, ECLAC, EUROSTAT, and estimated when necessary, as a joint production of UNCTAD and the WTO. Volume indices are produced by the WTO by deflating the value indices by the unit value indices.

Merchandise export/import volume indices, not seasonally adjusted - quarterly (2005Q1=100)
Merchandise export/import volume indices, seasonally adjusted - quarterly (2005Q1=100)

Quarterly merchandise trade volume indices are published for selected regions and economies (base period = first quarter of 2005). They are presented both on a seasonally adjusted and non-seasonally adjusted basis.

Sources: the quarterly merchandise trade volume indices are jointly produced with UNCTAD. Data of individual economies are collected directly from national statistical authorities and account for about 75 per cent of world exports and 80 per cent of world imports. The world and regional estimates are produced by the WTO.

Export/import price changes of manufactured goods - monthly (% change over previous month)
Export/import price indices of manufactured goods - monthly (January 2005=100)

The WTO compiles monthly statistics of export and import prices of manufactured goods for the United States of America, Canada, European Union, Switzerland, Japan, China, Republic of Korea, Singapore, and Taipei Chinese. Altogether, they account for approximately 85% and 75% of world exports and imports of manufactured goods, respectively.

The manufacture export and import prices are presented on a monthly percentage change basis and as monthly indices, base period = January 2005 (with the exception of Singapore, base period = March 2010).

Sources: data are sourced from national statistical agency official websites. An estimate for world prices of manufactured goods is produced by the WTO.

2.1.3 Trade in commercial services

Commercial services exports/imports by sector and partner – annual (2005-onwards) (Million US dollar)

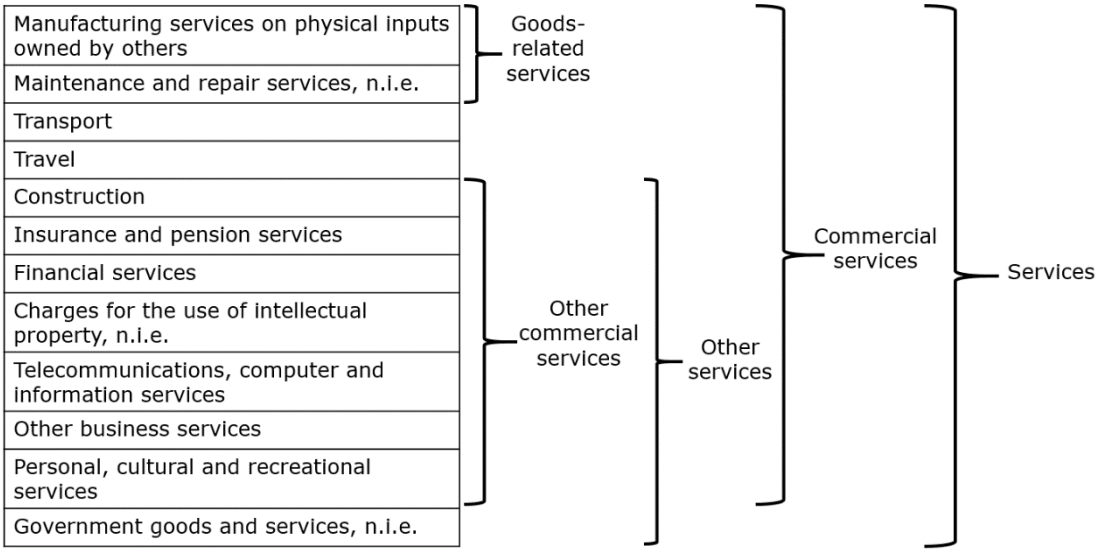
Exports and imports of commercial services are available for over 200 economies (individual economies, selected regional agreements, regions, and world total) covering around 150 service sectors.

This dataset presents exports and imports of commercial services in conformity with the Extended Balance of Payments Services Classification (EBOPS 2010), which is based on the sixth edition of the IMF Balance of Payments and International Investment Position Manual (**BPM6**), but more detailed. Data are broken down by sector and by partner country when available.

In BPM6, the Services account contains 12 standard components. In this database, commercial services comprise all services categories except government goods and

services, n.i.e.. Commercial services are sub-divided into goods-related services, transport, travel, and other commercial services. For more information, please see the file which contains the full list of database codes and labels, including country and product group definitions.

Figure 1: Breakdown of total services (main EBOPS 2010 items)



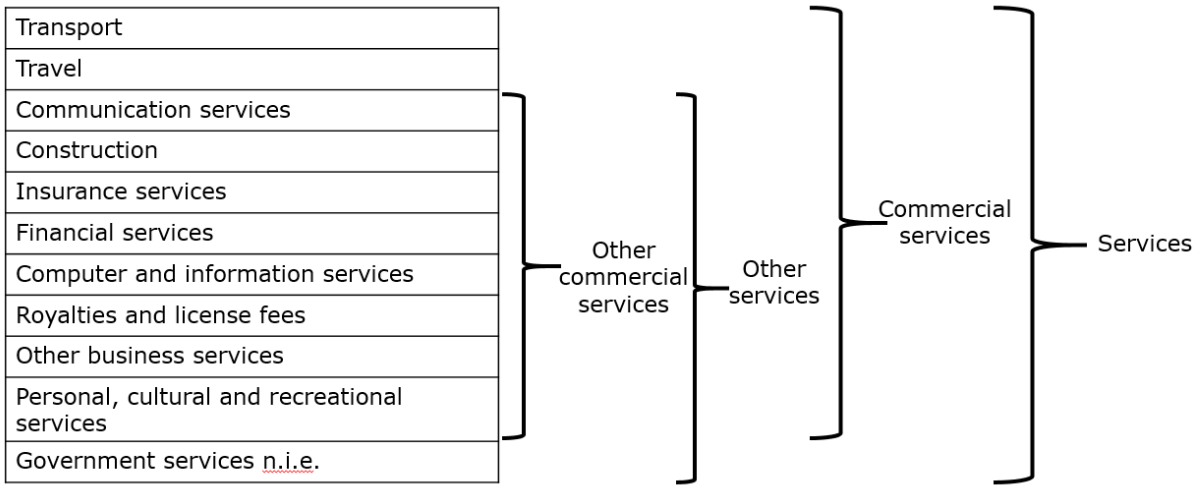
Sources: annual trade in commercial services data are jointly produced with UNCTAD. Data are sourced from Eurostat, the OECD, the International Monetary Fund (IMF), and national statistical sources. Where possible, reported data are complemented by estimates produced by the WTO and UNCTAD.

Commercial services exports/imports by sector – annual (1980-2013) (Million US dollar)

This historical dataset presents exports and imports of commercial services in conformity with the Extended Balance of Payments Services Classification (EBOPS 2002). Data is available for over 200 economies from 1980 to 2013 and covers 15 service sectors. This dataset is no longer updated.

In the fifth edition of the Balance of Payments Manual (BPM5), the Services account contains 11 standard components. In this database, commercial services comprise all services categories except government services, n.i.e.. Commercial services are sub-divided into transport, travel, and other commercial services For more information, please see the file which contains the full list of database codes and labels, including country and product group definitions.

Figure 2: Breakdown of total services (main EBOPS 2002 items)



Sources: annual trade in commercial services data are jointly produced with UNCTAD and ITC. Data are sourced from Eurostat, the OECD, the International Monetary Fund (IMF), and national statistical sources. Where possible, reported data are complemented by estimates produced by the WTO, UNCTAD, and the ITC.

Commercial services exports/imports by main sector – quarterly (Million US dollar)

Quarterly statistics on total commercial service exports and imports for over 150 individual economies are available. Data refer to exports and imports of total commercial services on a balance of payments basis, at current prices, not seasonally adjusted. Four main sub-categories of total commercial services are available in this dataset: goods-related services, transport services, travel, and other commercial services. Data are further broken down by category when available. In addition, total services, other services and government goods and services n.i.e. are included as memorandum items.

Sources: quarterly trade in commercial services data are jointly produced with UNCTAD. Data are compiled from Eurostat, the International Monetary Fund (IMF), and national statistical sources. Where possible, reported data are complemented by estimates produced by the WTO and UNCTAD.

Commercial services exports/imports of selected economies – monthly (Million US dollar)

Monthly statistics on total commercial service exports and imports for over 40 individual economies are available. In general, data refer to exports and imports of total commercial services on a balance of payments basis, at current prices, not seasonally adjusted. Data are further broken down by sector when available.

Sources: data are collected directly from national statistical agency official websites where possible; statistics for certain European Union member states are sourced from Eurostat, including the current European Union as a single reporter. Both extra-European Union and extra-Euro Area trade are released.

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2.1.4 Balanced Trade in Services Dataset (BaTiS)

The WTO-OECD Balanced Trade in Services Dataset (BaTiS) is a complete, consistent and balanced matrix of international trade in services statistics. It contains annual bilateral data covering over 200 reporters and partners, broken down by 26 EBOPS 2010 (BPM6) categories. The present version of dataset covers the years 2005-2024.

The dataset shows final balanced values in millions of USD, which reflect the reconciled bilateral trade flows, where exports equal mirror imports.

The methodology followed to build the dataset is detailed in the accompanying paper, see https://www.wto.org/english/res_e/statis_e/daily_update_e/OECD-WTO_Batis_methodology_BPM6.pdf

Sources: The WTO-OECD methodology leverages all available official statistics and combines them with estimations and adjustments to provide users with a complete matrix covering virtually all economies in the world.

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2.2 Market access indicators (applied, bound and preferential tariffs)

2.2.1 MFN applied tariffs

MFN applied tariffs

The indicators are based on the Most Favoured Nation (MFN) tariffs applied by the reporting country/economy. The statistics are available at different levels of aggregation – overall (country level), by sector, by product group, and by different standard levels of the HS (chapter or HS 2-digits, heading or HS 4-digits and subheading or HS 6-digits). These indicators are available on a yearly basis.

> **Simple average duty (Percent)** - Simple average of the MFN ad valorem duty rates or ad valorem equivalents (AVEs) of non-ad valorem duty rates.
>
> **Trade-weighted average duty (Percent)** - MFN applied tariff averages weighted with import flows for traded national tariff lines.

2.2.2 Preferential tariffs

Preferential tariffs

The indicators are based on tariffs applied by one reporting country/economy to its import partner which are lower than the MFN. The preferential rates could be resulting from a reciprocal trading agreement (e.g. free trade agreement or regional trading agreement) or a non-reciprocal preferential trading scheme like the Generalized System of Preference or preferential tariffs for least-developed countries. The statistics are available on a bilateral basis (i.e., tariff applied by the importing country to the products of the exporting country) and only at the HS 6-digit subheading level. Similar to applied tariffs, preferential tariff indicators are available on a yearly basis.

> **Lowest preferential simple average ad valorem duty (Percent)** - Best or lowest ad valorem preferential applied duty at the HS six-digit subheading level which the exporter (partner) can avail of in the reporter's market. The value refers to the lowest preferential AV duty among the different preferential regimes available to the exporting partner based on all national tariff lines within the subheading. The actual preferential regime corresponding to the lowest rate is displayed as text associated with the value. This indicator is available only at the HS 6-digit level.

2.2.3 Bound tariffs

Bound tariffs

These are the legal maximum tariffs indicated in the official accession document of each WTO member. The bound tariff for each product remains unchanged unless certain legal action is undertaken to have it modified. Hence, bound tariff indicators do not exist as a time series but are indicated with year zero or "final" in the database. The bound tariff refers to the final rate at the end of the implementation period of the concession. However, the schedules of concession are regularly updated to a newer version of the HS and this transposition process could result in changes in the aggregate statistics. The database contains only the schedule of concession of each WTO member in the latest officially approved HS version.

Binding coverage (Percent) - Share of subheadings containing at least one bound tariff line. The percentage share is also presented separately for non-agricultural (Non-AG) tariff lines. Full binding coverage is indicated by 100 without further decimals. If some tariff lines are unbound but the result still rounds to 100 this is reflected by maintaining one decimal, i.e. 100.0.

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3 DISCLAIMER

The statistical data in this database are supplied by and under the responsibility of the relevant statistical authorities. In line with the practice of the WTO Secretariat, this database uses the names of Members as listed in the latest revision to the WTO document WT/INF/43. References to other geographical territories and groupings are based solely on terms provided to the WTO Secretariat by WTO Members and Observers or terms used by relevant international organizations.

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