# International Trade in Services statistics - background

Statistics Explained

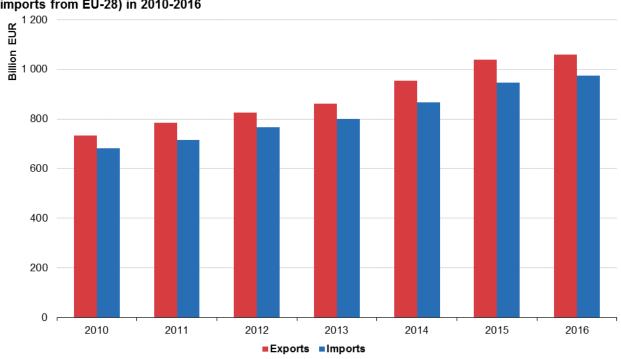
The article provides information on the methodology of the internationally traded services statistics. For better services trade data visualisation, the interactive chart (see below in chapter *Definition*) has been provided which breaks down the services trade data by the EU countries (selecting the country by oneself). In addition, we focus on the challenges to measure the the services statistics, the asymmetries and the connections with other statistical domains.

# **Definition**

The term 'services' covers a heterogeneous range of intangible products and activities that are difficult to encapsulate within a simple definition (Manual on Statistics of International Trade in Services, MSITS 2010, p.8). Services are the result of a production activity that changes the conditions of units or products to be used or consumed ('transformation services') or facilitates the exchange of products or financial assets ('margin services').

Services differ from goods in a number of ways, most commonly in respect of the closeness of the relationship between supplier and consumer, for example in accommodation services. Services usually cannot be stored as they require the physical proximity of the customer and supplier. As a result, services may also be broken down by the way they are provided, taking into account the location of the supplier and customer. This is also described as services provided by their modes of supply. The value of services is recorded when the service is provided, in other words, if ownership of the service changes. This follows the principle of change in economic ownership. In practice services are sometimes difficult to separate from goods with which they may be associated in varying degrees (MSITS 2010).

Intra-EU services trade asymmetries (EU-28 exports into EU-28 compared to EU-28 imports from EU-28) in 2010-2016



Source: Eurostat (bop\_its6\_det)



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alt= an image of a vertical bar chart showing the Intra-EU services trade asymmetries (EU-28 exports into EU-28 compared to EU-28 imports from EU-28) in 2010-2016.

# Scope

The International Trade in Services (ITS) statistics typically cover trade in services, i.e. transactions paid for the services that have taken place between the residents and non-residents. In some countries services trade data are compiled with the survey results from businesses whose main activity is 'services' according to the statistical classification of economic activities in the European Community (NACE). After some adjustments, these data are also used for balance of payments purposes.

The main principles of compiling the ITS statistics are, as described in the MSITS 2010, to record services transactions between residents and non-residents. These principles are consistent with those described in the BPM6 and the 2008 SNA. This allows compilers to use many of the same data sources for compiling both balance of payments and international trade in services statistics (MSITS 2010, p.29).

Besides the trade in services between residents and non-residents (ITS statistics), services may also be supplied through foreign affiliates in the host countries. These types of transactions are covered by foreign affiliates' statistics. Hence, the wider scope of trading in services also adds the commercial presence of the service suppliers' statistics to the balance of payments' perspective, and is also described as international supply of services. For example, a foreign bank creates a subsidiary in a host economy to supply banking services.

# **Trade value (valuation of transactions)**

The trade value of services is the value of services traded between residents and non-residents at market prices. Market prices refer to the current exchange value, i.e. the values at which services are or could be exchanged for cash. Market prices for transactions are defined as the amounts of money that willing buyers pay to acquire something from willing sellers. The exchanges are made between independent parties and are based on commercial activities only. They are sometimes called 'at arm's length' transactions (MSITS 2010, para 3.31, 3.34).

Sometimes 'transfer prices' are used. These involve transactions between affiliated businesses, integrated under the same management but situated in different economies. However they may not be considered to be market transactions. This is due to a lack of independence among the parties to the exchange. In this case transfer prices should be replaced with market prices.

'International transactions in services' are in practice referred to as trade in services: a credit entry represents the exports and a debit entry represents the imports of services.

Transactions in services are recorded on an accrual basis, which means that they are recorded when they are provided to the customer, not when payments are made.

### Classifications

International Trade in Service Statistics are collected using the Extended Balance of Payments Services (EBOPS 2010) classification. This uses more detail when categorising services than the BPM6 product classification of the balance of payments. EBOPS classification of services is provided by international organisations such as the UN and OECD. It was revised in 2010 to bring it into line with the balance of payments statistical framework. A number of additional items and complementary groupings are included to further specify and detail the BPM6 classification of services.

Under both classifications, the services are grouped as follows: • manufacturing services on physical inputs owned by others • maintenance and repair services not included elsewhere (n.i.e.) • transport • travel • construction • insurance and pension services • financial services • charges for the use of intellectual property not included elsewhere • telecommunications, computer and information services • other business services • personal, cultural and recreational services • government goods and services n.i.e.

**Manufacturing services on physical inputs owned by others** include the following activities: (i) processing, (ii) assembly, (iii) labelling and (iv) packing undertaken by businesses that do not own the goods. Examples include (a) oil refining, (b) liquefaction of natural gas and (c) assembly of clothing and electronics. Excluded are the assembly of prefabricated construction (included in construction) and labelling, and packing related to transport (included in transport services).

Maintenance and repair services n.i.e. include maintenance and repair work by residents on goods that are owned by non-residents (and vice versa). The repairs may be carried out at the repairer's site or elsewhere. Maintenance and repairs on ships, aircraft and other transport equipment are included in this item. The following items are excluded: (i) cleaning of transport equipment (included in transport services), (ii) construction repairs and maintenance (included under construction), and (iii) maintenance and computer repairs (included under computer services).

**Transport** covers the process of carrying people and objects from one location to another as well as related supporting and auxiliary services and rentals (charters) of carriers with crew. Transport also includes postal and courier services.

Transport can be classified according to the mode of transport and what is carried — passengers, freight, or other auxiliary services.

Passenger services cover the transport of people. They include all services provided in the international transport of non-residents by resident carriers (export of services) and that of residents by non-resident carriers (import of services).

Freight services cover the transport of goods. They also cover (i) other supporting and auxiliary transport services

and (ii) postal and courier services.

**Travel** covers a range of goods and services used by non-residents in the economy of the country they visit for their own use or to be given away. It covers stays of any length, provided that there is no change in residence. Travel includes both personal and business travel. Business travel covers the acquisition of goods and services by persons whose primary purpose of travel is for business. Personal travel covers goods and services acquired by persons going abroad for purposes such as taking holidays, education- and health-related purposes, etc.

**Construction** covers the creation, management, renovation, repair or extension of fixed assets such as buildings, land improvements of an engineering nature and other constructions, for example roads, bridges and dams. It also includes related installation and assembly work, site preparations and general construction as well as specialised services such as painting, plumbing and demolition. Constructions lasting 1 year or less are included here.

**Insurance and pension services** cover the provision of various types of insurance to non-residents by resident insurance corporations, and vice versa. The total value of these services is derived as the margin between the amounts accruing to the companies (namely, premiums, contributions and supplements) and the amounts accruing to the policyholders (namely, claims and benefits).

**Financial services** cover financial intermediation<sup>1</sup> and auxiliary services, except those of insurance corporations and pension funds. These services include those usually provided by banks and other financial intermediaries and auxiliaries.

Financial services include services provided in connection with transactions in financial instruments<sup>2</sup>, as well as other services related to financial activity. They may be charged for by means of explicit charges, margins on buying and selling transactions, etc.

Charges for the use of intellectual property n.i.e. include charges for using proprietary rights, such as patents, trademarks, copyrights, industrial processes and designs, and trade secrets. This also includes franchises, where rights arise from research and development, as well as from marketing.

**Telecommunications, computer and information services** cover the broadcast or transmission of sound, images, data or other information by telephone, radio and television cable transmission, satellite, electronic mail etc. Computer services consist of hardware- and software-related services and data processing services. Information services consist of news agency services and other information services.

**Other business services** include three groupings: (i) research and development services, (ii) professional and management consulting services and (iii) technical, trade-related and other business services.

Research and development services cover services associated with basic research, applied research and experimental development of new products and processes. Professional and management consulting services include legal, accounting, management consulting, and public relations services, as well as advertising, market research and public opinion polling services.

**Technical, trade-related and other business services cover**: (i) architectural, engineering, scientific and other technical services; (ii) waste treatment and de-pollution, agricultural and mining services; (iii) operating leasing services; (iv) trade-related services and (v) other business services.

**Personal, cultural, and recreational services** include two groupings: (i) audiovisual and related services and (ii) other personal, cultural, and recreational services. Audiovisual and related services cover services associated with audiovisual activities (films, music, radio and television) as well as services relating to the performing arts. Other personal, cultural, and recreational services cover health services, education services, heritage and recreational services and other personal services.

**Government goods and services n.i.e.** include the goods and services of the embassies and the consulates, as well as military units and agencies.

<sup>&</sup>lt;sup>1</sup>The arrangement of the financial services by an intermediary

<sup>&</sup>lt;sup>2</sup>Equity and investment fund shares, debt securities, financial derivatives, loans etc

The following chart describes the shares of different services categories. In the EU, the biggest share of services is made up of the group which includes research and development, professional management and consulting and trade-related services (namely 'other business services'). To view the data on the export and import shares of the services categories by EU aggregate and by countries:

# Legislation and international methodology

The production of ITS statistics in the EU is defined in Regulation (EC) No 184/2005 of the European Parliament and of the Council which establishes a common framework for reporting international trade in services statistics. This Regulation has been further amended in line with the new international standards (such as the BPM6) by Commission Regulation (EU) No 555/2012. The regulations do not specify the data sources from which ITS statistics have to be collected but list the data requirements and the definitions of the different services categories to be reported. In other words, it defines the statistical output, not the statistical input. MSITS 2010 sets out the methodology for statistics on ITS. In addition, the MSITS 2010 Compilers Guide provides practical guidance on how to compile ITS statistics (including the methodology for foreign affiliates' statistics).

# Asymmetries in international trade in services statistics

Internationally agreed methodological guidelines and standards provide a common framework for reporting on EU statistics. This aims to ensure that the same concepts and definitions are used and, ultimately, that comparable statistics are attained. However, the measurement of services statistics are to some degree open to different interpretations. This makes it likely that some output will remain asymmetric.

Bilateral asymmetries in services trade data are a long-acknowledged phenomenon. In total services in intra-EU trade, reported exports systematically exceed reported imports of the partner country (see Figure 1). Exports and imports reported by one country should, in theory, correspond with the imports and exports of that counterpart country. In reality, however, for various reasons, it is rarely the case that two data sources provide exactly the same results and so they lead to an asymmetrical situation.

A non-exhaustive list of reasons which may lead to asymmetric data for trade in services includes: • diversity of compilation methods (business surveys, bank-reporting system, administrative sources); • different thresholds used in the surveys and administrative sources; • assumptions used in modelling based estimates; • misclassifications (partner country, service item, goods vs services); • triangular transactions (for instance, invoicing concerns country A but services are delivered in country B).

# ITSS in relation to other statistics

# **National Accounts**

The European System of Accounts (ESA 2010) is an integrated system related to the economic activities and sectors of a country's economy. It provides a definition of services and distinguishes transformation services from margin services, such as transport and distribution (wholesale and retail). To capture the transactions between one economy and all others, the 2008 SNA provides what it refers to as the 'rest of the world account', also known as the 'external transactions account'. Within this there is an 'external account of goods and services', in which trade in goods and services are separately recorded, which is fully consistent with the BPM6 framework. In the SNA, the product classification used is the classification of products by activity (CPA). However, ITSS is measured by the BPM6 classification. Therefore, by integrating services statistics and national accounts statistics, there is also the need for better consistency between classifications across the various domains.

# Merchandise trade statistics

Users may be interested in getting statistics of international trade in goods and services by aggregating statistics on (i) international trade in services from balance of payments statistics and (ii) international trade in goods from international merchandise trade statistics (IMTS). There are conceptual differences between these two sets of

statistics and if these are not taken into account, aggregation may lead to double counting or omissions.

Merchandise trade does not take into account the principle of change in ownership, but ITSS does. The difference arises for example from the goods for processing and their ownership. IMTS counts all the goods crossing the borders in international trade in goods statistics, independently of who owns them. At the same time the recording of general merchandise trade in the balance of payments statistics depends on who is judged to be the owner of the goods, whether it is the goods' processor or the party who ordered the processing work (customer). Should it be the customer, only the processing fee is recorded between the national economies of the processor and its customer under 'manufacturing services on physical inputs owned by others' (MSITS 2010, p.3.64). The physical goods remain in customers' ownership and are recorded in trade only when the ownership of the goods changes internationally.

# **FATS**

Foreign affiliates statistics (FATS) is an important analytical tool, because with the growing globalisation of the world economy businesses are seeking to (i) increase proximity to their markets, (ii) reduce labour costs, (iii) avoid trade barriers and (iv) search for the proximity between suppliers and consumers of services licences from the consumer's country (e.g. bookkeeping, medical services licences).

FATS also serves the interest of the WTO's General Agreement on Trade in Services (GATS). It gives information on the international commercial presence while providing the services. FATS statistics serve mode 3 of services supply (see below) and give the full breakdown of services provided by their modes of supply.

# Other ITSS related topics

# Trade in services by modes of supply

GATS, which came into effect on 1 January 1995, defines trade in services as the supply of services through four modes of supply: (i) cross-border, (ii) consumption abroad, (iii) commercial presence and (iv) presence of natural persons. Eurostat carried out a pilot exercise in 2016 to estimate services flows by the four modes of supply. The breakdown of services by their modes of supply is of particular interest for trade negotiators and analysts. The breakdown takes into account the location of the service supplier and the consumer. Under mode 1 and 2, the services supplier is not physically present within the consumer's territory, but under mode 3 and 4 he/she is.

### Services trade by enterprise characteristics (STEC)

Conventional ITS statistics offer a picture of trade flows between countries, broken down by types of services. While this is an important input for trade analyses, we know that these data do not offer insights into the traders, or the types of firms, that are actually engaged in cross-border trade. Hence, we also need to know which type of firms export and import services. STEC data provide information on services traders, by breaking down traditional services trade statistics by firm size, firm ownership and industry. For example, STEC data highlight in which industries foreign-owned firms dominate the trade in services. Eurostat has also published some initial results on STEC data. In November 2017, Eurostat jointly with OECD published the new STEC Compilers Guide, providing recommendations on how STEC statistics can be compiled. More specifically, this guide provides methodological guidance on how to produce statistics by linking different statistical datasets. It also provides useful insights to the national experiences.

### **Data sources**

Services are compiled from a wide range of data sources: • the international transactions reporting system (ITRS) • surveys of businesses, including international merchandise trade statistics (IMTS) • administrative data sources • information obtained from partner countries • other sources, such as household surveys.

As regards **international trade in services statistics (ITSS) surveys**, a common approach is to survey a representative sample of the population that are engaged in international trade in services and then weighted up<sup>3</sup>to

<sup>&</sup>lt;sup>3</sup>Also "grossed up" term is sometimes used, which means the calculation of the total value, by adding the amount that is missing due to the sample survey

the total trade. This is the most common method for collecting statistical data on international trade in services within the EU. However, the methods used to define the population and to draw the samples can vary largely from one country to another. Also, the amount of information collected in the surveys varies: some countries do not collect the partner country's data for smaller businesses and others do not collect either partner nor the type of service.

ITRS is originally an administrative system which has been used as part of a foreign exchange control system. The system is now also used for other purposes, for example statistical purposes such as balance of payments. The ITRS is fundamentally different from the survey approach in the sense that it is the money flows that are recorded. Therefore it is often the banks that report the trade on behalf of their clients. Every time a transaction is made to a foreign bank, it will be classified for balance of payments' purposes. When international trade in services is collected in this system, no weighting up is needed since all transactions are captured. As ITRS has several limitations (e.g only those services transactions are recorded, that are recorded in the bank of the reporter country), hence it will more often replaced by the surveys and/or the direct reporting data collection systems.

Administrative sources are often used for compiling financial and insurance services, e.g. value added tax data.

A household survey is one of the data sources used for compiling travel services (also comprising in many countries the value of goods traded by travellers).

# Context

Services provide important support to the whole economy. More specifically, through finance, logistics and communications, for example, they may improve the performance of the industries in the economy. Services can provide intermediate inputs, especially in an increasingly interlinked and globalised world. The role of services in EU trade has been growing steadily over the last decade. The ratio of services-to-goods exports in the balance of payments statistics' framework increased from around 38 % to over 45 %<sup>4</sup>.

International trade flows can take place not only through the transactions between residents and non-residents that are recorded in balance of payments accounts, as specified in the sixth edition of the Balance of Payments<sup>5</sup> and International Investment Position Manual (BPM6) and the 2008 System of National Accounts (SNA). They can also happen through establishing a commercial presence abroad (so-called foreign affiliates' statistics). For services, this method of serving foreign markets is particularly important as often it could be the only method that allows close and continuing contact between service providers and their customers. However, traditional presentations do not combine the presentation of statistics on international trade in services and statistics on foreign affiliates' services.

### **External links**

- Trade in Services by GATS Modes of Supply: Statistical Concepts and First Estimates
- · Asymmetries in EU Current Account Data

View this article online at  $http://ec.\ europa.\ eu/eurostat/statistics-explained/index.\ php/International\_Trade\_in\_Services\_Statistics\_-\_background$ 

<sup>&</sup>lt;sup>4</sup>J. Rueda-Cantuche et al, 2016

<sup>&</sup>lt;sup>5</sup>The balance of payments is a statistical statement that summarises the transactions of residents of an economy with non-residents during a given period, also involving those connected with the provision of services. Data on services trade are also collected quarterly under the BOP accounting framework (Regulation (EC) No 184/2005 of the European Parliament and of the Council)