

Services Trade by Enterprise Characteristics (STEC)

Methodology

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Introduction¹

NEED TO CHARACTERISE COMPANIES TRADING SERVICES INTERNATIONALLY

Conventional international trade statistics provide data on trade flows between countries, disaggregated by type of good or service. Although they are an important input for the analysis of international trade, such data do not provide information on the actors, or the type of enterprises, that are actually trading across borders.

However, this type of information is in increasingly high demand from researchers and trade policy makers. This demand is partly driven by the increasingly important role that services play in international trade. The share of traded services in total trade flows is increasing, and the blurring of the lines between goods and services, as well as the fragmentation of global value chains, indicate that the manufacturing of many products is closely linked to trade in services or contains a significant amount of value-added services. At the same time, since the mid-1990s, much academic research began to provide strong evidence that different enterprise-level factors such as size range measured in number of employees, or foreign control of the enterprise, were important determinants of companies' trade propensity, trade intensity and productivity, which has led to a significant increase in demands for more detailed and timely statistical information on the types of companies involved in international trade.

Services Trade by Enterprise Characteristics (STEC) aims to respond to these demands by disaggregating traditional international trade in services statistics by company size, ownership or control of the company, and by its main economic activity, and even by the export and import intensity of companies engaged in trade in services. STEC data therefore seeks to investigate², for example, the extent to which large companies dominate international trade in services and the role of Small and Medium-sized Enterprises (SMEs) in the international provision of services. STEC also identifies which industries export or import the different types of services, bridging the gap between traditional international trade in services statistics disaggregated by type of service according to the *Extended Balance of Payments Classification of Services (EBCPS)*, and the classification by economic activity (*CNAE-NACE/ISIC*) used in business statistics and national accounts. These data show how companies in different economic sectors purchase and provide services and how this relates to their core economic activity, which may be the production of goods. STEC can also shed light on the role of multinational enterprises in globalisation, and the relationship between trade and investment, by identifying the control (ownership) of the company involved in trade, whether domestic or foreign.

All this information about the companies involved in international trade in services is very important to improve understanding of the drivers and consequences of international trade in services, and more generally of globalisation, as well as to better

¹This introduction relates to the content of Chapter 1: Introduction to Trade in Services by Company Characteristics from the Compilation Guide for Statistics of Trade in Services by Company Characteristics (STEC), ed. 2017, produced by Eurostat in co-operation with the OECD:

<https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/ks-gq-16-007>

² See, e.g., Bernard and Jensen (1995), 'Exporters, Jobs, and Wages in U.S. Manufacturing: 1976-87', Brookings Papers on Economic Activity, 67- 112; and Melitz (2003), 'The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity', *Econometrica*, 71(6): 1695-1725.

inform and promote tailor-made trade policies. STEC also contributes to the broader statistical agenda of statistical measurement of economic globalisation and Global Value Chains (GVCs).

The STEC can help to improve the allocation of exports and imports of services to the different branches of activity in drawing up the domestic Origin-Destination Tables and Input-Output Tables (ODTs/IOTs). These tables, in turn, are a key input for the development of the global ODTs/IOTs that support the *Trade in Value Added (TVA)*¹ indicators prepared by the OECD-WTO, as well as for Eurostat's FIGARO ² initiative. Moreover, by refining assumptions about the type of companies that trade services, STEC data are essential to account for the heterogeneity of firms participating in Global Value Chains (GVCs), facilitating the scaling up of ODTs. This provides insight into the role of SMEs, but also into how multinational enterprises (MNEs) shape GVCs through trade flows between different countries and industries.

ADVANTAGES OF MICRO-DATA LINKING (MDL)

An important advantage of the STEC data is that it can be produced without adding any additional statistical burden on enterprises, as STEC is not collected via a specific survey; its data are produced via existing official data sources in Spain.

Specifically, STEC data are constructed by cross-checking services micro-data with the characteristics of the enterprises involved in such international trade. Statistics collected within the *International Trade in Services Statistics (ITSS)* as part of the compilation of the *Balance of Payments* currently provide information on the monetary value of trade in services, disaggregated by service heading (e.g. computer services or legal services), and by counterparty country. Cross-referencing these data on international trade in services with other data identifying companies using a common identifier (in Spain, the TIN) present in both the national statistical register of companies (in Spain, the CCD) and in other statistical sources, makes it possible to obtain new cross-referenced information, presenting already known statistical series in an innovative way, and generate new informative value from existing data.

RELATIONSHIP BETWEEN ECT AND STEC

STEC emerged out of a similar initiative in the area of foreign trade in goods called TEC³ (Trade by Characteristics of Enterprises). The TEC data provide annual data on foreign trade in goods disaggregated by different categories of enterprises, such as ownership, activity and size. The development of the TEC was jointly initiated by Eurostat and

¹ The FIGARO project (Full International and Global Accounts for Research in Input-Output Analysis) aims to establish an annual output of EU Inter-country Input-Output Tables and a five-year output of EU Inter-country Supply, Use and Input-Output Tables (EU-IC-SUIOTs). See: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/edn-20210526-1>

² See <http://oe.cd/tiva>

³ TEC information in Eurostat: https://ec.europa.eu/eurostat/cache/metadata/en/ext_tec_sims.htm and http://ec.europa.eu/eurostat/statistics-explained/index.php/International_trade_by_enterprise_characteristics
For Spanish TEC data: <https://sede.agenciatributaria.gob.es/Sede/estadisticas/estadisticas-comercio-exterior/datos-comercio-exterior-caracteristicas-empresa.html>

OECD in response to questions from trade policy makers on the nature of enterprises involved in international trade in goods. The principle of re-using existing data was adopted as a strategy to ensure more informative value is extracted from the data already collected without increasing the burden on companies and with rather limited costs for the compilers of the TEC data, with the first data collection starting in 2006.

Since companies organise their international activities through combinations of trade in goods and services, STEC and TEC complement each other by providing a comprehensive overview of companies involved in international trade in goods and services. Based on the extensive experience in the development of TEC, its methodology was introduced in the domain of international trade in services, and in 2012 the development of STEC was endorsed by the *European Statistical System Committee (ESSC)* chaired by Eurostat.

STEC IN RELATION TO OTHER INTERNATIONAL METHODOLOGICAL STANDARDS

STEC's international trade in services values are defined in accordance with the 6th Balance of Payments and International Investment Position Manual (6BPM) and Regulation (EC) No 555/2012 on Balance of Payments, International Trade in Services and Foreign Direct Investment, as well as the Manual on International Trade in Services Statistics (MECIS 2010) developed by the Inter-Agency Task Force on International Trade in Services Statistics. The promoters of the MECIS 2010 concluded that the same developments based on the cross-checking of external trade in goods data with statistical business registers, which had represented significant gains in statistical information at the micro level in the domain of trade in goods, would also have great potential in the domain of trade in services. It was further noted that such micro-data cross-checks would improve compatibility between international trade statistics and business statistics¹.

Similar principles were expressed in the domain of business statistics. For example, Eurostat's 2014 Riga Memorandum² outlined principles for the development of global business statistics, emphasising the importance of service sector statistics, as well as the benefits of efficient re-use of statistical information through data integration methodologies to produce valuable results on international outsourcing (of business functions) and trade by business characteristics. The national statistical business register used in STEC (CCD, in Spain) follows the Eurostat manual of recommendations on statistical business registers.

STEC IN THE FRAMEWORK OF THE EUROPEAN BUSINESS STATISTICS REGULATION

The legal mechanism for EU countries to produce an STEC with a common output to allow for homogeneous comparisons stems from the European Union's requirement to

¹ MECIS 2010, p.142, para. 5,112

² Eurostat, Riga Memorandum "Towards better measurement of the globalised world", 24-26 September 2014, available at

<https://ec.europa.eu/eurostat/documents/13019146/13237859/DGINS+memorandum+2014.pdf/b425bd92-e61b-44e9-bf20-c6a400656f5e?t=1465827232000>

provide data on Services Trade by Enterprise Characteristics (STEC¹) from the reference year 2022 onwards.

These European requirements are set out in:

- REGULATION (EU) 2019/2152 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 November 2019 concerning European Business Statistics repealing ten legal acts in the field of business statistics, referred to as the EBS Regulation (EBS-R²). <https://www.boe.es/buscar/doc.php?id=DOUE-L-2019-81961>
- COMMISSION IMPLEMENTING REGULATION (EU) 2020/1197 of 30 July 2020 laying down technical specifications for the implementation of the EBS-R. <https://www.boe.es/buscar/doc.php?id=DOUE-L-2020-81288>

Detailed technical specifications for STEC are included in Annexes I and VI of this regulation. In particular, in *Table 17 (Annex I): National business statistics on trade in services by company characteristics. Annual data.*

1 Aims

The *Services Trade by Enterprise Characteristics* Survey (STEC) is a structural set of statistics of synthesis and analysis, whose main aim is to characterise companies that engage in international trade of services in contrast to those that limit themselves to the domestic market, based on three main characteristics: *Main economic activity of the company (according to the CNAE)*, *size range measured in number of employees* and *type of control exercised over the company (domestic/foreign)*.

STEC's compilation consists of disaggregating the values of trade in services by company-specific characteristics by including on a mandatory basis the three mentioned above. In addition, optionally, companies that engage in international trade in services can be cross-checked with other statistical (or administrative) sources that help to provide additional information on them. For example, obtaining information on companies' turnover and purchases by cross-checking with the Central Business Directory (CCD) and with sample enterprises participating in the Structural Business Statistics (SBS), in order to calculate indicators of export and import intensity.

All these particular characteristics of enterprises are important because:

- They provide information regarding the nature of service operators in the EU.
- They clearly pave the way for the integration of trade in services data into GVC analysis.
- They allow for more sophisticated economic analyses of trade in services (shedding light on issues such as employment growth in the services sector in large companies vs. SMEs, for example), which could serve as a basis for more precise and effective economic policies related to services.

While STEC, in principle, covers all service headings of the CABPS-2010, not all services can be disaggregated by the aforementioned company characteristics due to

¹ Services Trade by Enterprise Characteristics (STEC)

² European Business Statistics Regulation (EBS-R)

their specific nature, which prevents them from being allocated to individual companies or sectors of activity.

2 Type of Operation

This operation can be considered a *set of synthesis and analysis statistics* given that its main inputs are the results of the *Balance of Payments for Services and the International Trade in Services and Other International Transactions Survey (ITSS)*, together with information from the *Central Companies Directory (CCD)*.

3 Content of the operation

3.1 POPULATION SCOPE

The studied population comprises the institutional units resident in Spain that trade in services with non-residents, and whose annual values of receipts/payments are included in the Balance of Payments Statistics on Services (ITSS) compiled by the Bank of Spain (BdE).

Although by regulation the STEC data totals must be exactly equal to the BdE ITSS totals by type of service and country, according to the EBS-R only the ITSS data for companies (market producers) are distributable by the three STEC characteristics (activity, size and control). The remaining institutional units that contribute to the ITSS data and are not "market producers" should contribute to the STEC totals as "non-distributable" values for activity, size and control.

3.2 GEOGRAPHICAL OR TERRITORIAL SCOPE

The investigation encompasses all units resident in the Spanish economic territory that are within the population scope.

3.3 DATA REFERENCE PERIODS

The reference period is the calendar year.

3.4 STUDY AND CLASSIFICATION VARIABLES

3.4.1 STUDY VARIABLES

The study variable is the *value of trade in services between residents and non-residents at market prices*. In other words, it would be the **exports (receipts) / imports (payments) of services** recorded in the Balance of Payments.

According to the BPM6, market prices refer to the current exchange value, i.e. the values at which services are or could be exchanged for money taking into account any refunds, returns or other adjustments. In cases where market prices are not available (swaps, services provided free of charge) or where the actual exchange values are not at market prices, market-equivalent prices should be used. In addition, the exchange of services between affiliated companies may not be at market value, unlike transactions between independent companies. In such cases, the value should be estimated on the basis of the costs of the service or any other value assigned by the company (BPM6, 3.78).

Transactions in services should be recorded on an accruals basis and excluding VAT (BPM6, 3.47), i.e. at the time the service is rendered rather than at the time payment is made. This is particularly important for services that are provided on a continuous basis such as construction services, which should be recorded on a continuous basis over the period in which they are provided.

In STEC (share distributable by the three STEC characteristics) the *statistical value* (which coincides with the market value of the service provided) of exports (receipts) and imports (payments) of services performed exclusively by the units considered as enterprises (market producers) is required in particular.

3.4.2 CLASSIFICATION VARIABLES

The classification variables of the operation are of two types: some refer to the dimensions present in the Balance of Payments of services: geographical area and type of service, and other STECs refer to the characteristics of the companies: main economic activity (CNAE), size and control.

As regards the **dimensions present in the Balance of Payments for services**, receipts and payments for international services transactions are broken down to a very high level of disaggregation by service type and counterparty country/geographical area, although STEC only requires:

- **Service type** according to the Expanded Balance of Payments Classification for Services (CABPS-2010) as contained in the United Nations Manual on International Trade in Services Statistics (MECIS-2010) et al. and the IMF's 6th Balance of Payments and International Investment Position Manual (BPM6). The main headings of the CABPS considered in STEC are:
 - a) **Services for the processing of goods without transfer of ownership**
 - b) **Maintenance and repair services**
 - c) **Travel**
 - d) **Transport services**
 - Valued at contract value without accounting adjustments (optional)
 - e) **Construction services**
 - f) **Insurance and pension services**
 - g) **Financial services**
 - h) **Intellectual property services**
 - i) **Telecommunications, computer and information services**

- j) **Other business services:**
 - i) Research and development services (optional)
 - ii) Professional and management consultancy services (optional)
 - iii) Technical, trade-related and other business services (optional)
 - k) **Personal, cultural and recreational services**
 - l) **General government goods and services not included elsewhere**
 - m) **Non-attributable service¹**
- **Counterparty country or geographical area of origin or destination** of each transaction. In Balance of Payments, data are broken down at country level, however, for STEC only these disaggregations are required:
- a) **Intra-EU**
 - b) **Extra-EU**
 - c) **27 individualised intra-EU countries (except Spain), the UK and US.**
(optional and only for Total services 1-12)

The characteristics that are not included in the Balance of Payments for business services, and which must be obtained by cross-checking the data with other sources such as ECIS and CCD, relate to the three STEC variables:

- **Main economic activity** according to the following CNAE-2009 groupings required in the regulation:
- a) **A+B** (Agriculture, livestock farming, forestry and fishing; Extractive industries)
 - b) **C** (Manufacturing Industry)
 - c) **D+E** (Supply of electricity, gas, steam and air conditioning + Water supply, sewerage, waste management and remediation activities)
 - d) **F** (Construction)
 - e) **G** (Wholesale and Retail Trade; repair of motor vehicles and motorcycles)
 - f) **H** (Transport and storage)
 - g) **J** (Information and communication)
 - h) **K** (Financial and insurance activities)
 - i) **M** (Professional, scientific and technical activities)

¹ The category "Not attributable" within the classification variables service, activity, size or control is incorporated in the regulation (there it is called "Unknown") for those enterprises to which it is potentially not possible to assign any of these variables, either because the basic source itself does not include it, or because cross-checking with the basic statistical sources that contribute in STEC to provide this characteristic (see section 4.2) is unsuccessful. The reasons may be either a mismatch in the unit identifier (TIN) in the sources, or because the source does not contain information on the required variable, even though there has been cross-checking. This category is also used to collect in an aggregated form the data of "non-market producers" which, while contributing to the ITSS figures, are outside the scope of STEC as they are not companies (market producers). Finally, "Non-attributable" also includes ITSS data from sources other than the basic sources (e.g. travel), and accounting adjustments from the Balance of Payments or any other value added which, while contributing to the ITSS figures, does not allow cross-checking at the micro-data level with the basic sources (ECIS (initials in Spanish) - International Trade in Services and Other International Operations Survey) and CCD).

- j) **N** (Administrative and support services activities)
- k) **I+L+O+P+Q+R+S+T+U** (Hospitality + Real estate activities + Gen. Government and defence; Compulsory social security + Education + Health and social services activities + Artistic, recreational, and entertainment activities + Other services + Activities of households as employers of domestic staff; activities of households as producers of goods and services for own use + Activities of extraterritorial organisations and bodies)
- l) **Non-attributable activity**¹
 - **Size:** Size range of the number of employees (employees plus self-employed), according to 4-6 ranges:
 - a) 0-49:
 - i) 0-9 (optional)
 - ii) 10-49 (optional)
 - b) 50-249
 - c) +250
 - d) Non-attributable size²
 - **Control**³, taking into account whether or not it belongs to a group of companies and, in the latter case, whether control is exercised by a Spanish or foreign company:
 - a) Companies under national control
 - i) No own subsidiaries abroad: Domestic group or independent company (optional)
 - ii) With own subsidiaries abroad: Spanish multinational group (optional)
 - b) Enterprises under foreign control
 - c) Non-attributable control⁴

4 Characteristics of the operation

4.1 STATISTICAL UNIT

The statistical unit or unit to which the data with which STEC is compiled refer shall be the "statistical enterprise" (SE), also referred to as the Enterprise Statistical Unit (ESU).

¹ See footnote 10

² See footnote 10

³ The concept of control refers to that included in para. 3.8 (Concept of control) of Chapter 3 (Statistical units and concepts) of the *European business statistics compilers' manual for foreign affiliates statistics (ed. 2024)*: <https://ec.europa.eu/eurostat/documents/3859598/18622388/KS-GQ-23-018-EN-N.pdf/bfcf28ea-1430-e089-d971-76f85800623a?version=3.0&t=1709546836946>

⁴ See footnote 10

In the case of the "statistical enterprise" (SE), "enterprises" resident in Spain shall be considered a statistical unit, regardless of their main economic activity, size and ownership, and provided that they are market-producing units.

The definition of a "statistical enterprise" (SE) or SEU is set out in COUNCIL REGULATION (SEC) No 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community (known as SU-R).

An SEU or SE is the smallest combination of legal units which constitutes an organisational unit producing goods or services and which has a certain degree of autonomy in decision-making, especially with regard to the allocation of its current resources.

It is necessary to clarify that the concept of a "statistical enterprise" or SEU is defined in the SU-R (1993), although it is not developed in depth. Nor is this concept very explicitly detailed in the EBS-R. Prior to the entry into force of the EBS-R in 2019, in 2015 Eurostat made an in-depth interpretation and development of the statistical concept of enterprise included in the SU-R, which must be applied as a statistical unit in most business statistics, and even more compulsory after the entry into force of the EBS-R.

This detailed interpretation is included in "*Annex 2 to the Notice of intention of the Business Statistics Directors Groups and the Directors of Macroeconomic Statistics on the consistent implementation of Council Regulation (EC) No 696/93 on statistical units (2015)*", which includes:

- *Definition of Statistical Units as in CR 696/93, Annex Section III and IV: Statistical Units definitions (with the definition of all possible statistical units in the various business, trade and summary statistics).*
- *Operational rules for its implementation as developed by the Task Force Statistical Units (with the operational rules for the practical implementation of these units in the various economic statistics).*

The "*Notice of intention*" drafted by the Eurostat Task Force "*Statistical Units*" and adopted by the ESS Directors of Business Statistics (BSDG) and Macroeconomic Statistics (DMES) is available at the following link.

[https://circabc.europa.eu/sd/a/0203fc33-9780-4ffa-8cb8-8adbbe6cf00d/Notice%20of%20intention%20of%20BSDG%20and%20DMES%20on%20the%20consistent%20implementation%20of%20Council%20Regulation%20\(EC\)%20No%20696%2093%20on%20statistical%20units.doc](https://circabc.europa.eu/sd/a/0203fc33-9780-4ffa-8cb8-8adbbe6cf00d/Notice%20of%20intention%20of%20BSDG%20and%20DMES%20on%20the%20consistent%20implementation%20of%20Council%20Regulation%20(EC)%20No%20696%2093%20on%20statistical%20units.doc)

According to this statistical concept of an Enterprise (SE or ESU), an 'enterprise' can be:

- An independent Legal Unit (ULE) that is not part of the corporate group, meaning that it should have decision-making autonomy.
- A company group comprising one or more Legal Units.
- A subset of one or more Legal Units of a company group.

This change in the treatment of companies, which has also been implemented in the *Statistical Exploitation of the Central Company Directory (CCD)*, was announced by the INE in a press release on 17 December 2019:

https://www.ine.es/prensa/nueva_definicion_empresa.pdf

It should be noted that most of the “statistical enterprises” are independent Legal Units, so the equivalence of Enterprise=Legal Unit remains valid. The change will only affect Legal Units that are part of corporate groups (about 3.1% of the total).

Most of the statistical units covered by the Balance of Payments for services are SEs or ESUs¹, although there are other institutional units or resident entities which, without being strictly "enterprises" from either an economic or statistical point of view, may carry out international transactions in services (public administration bodies, non-profit institutions, associations, sports federations, etc.). As mentioned above, STEC only considers the distribution by the three STEC variables of the services trade values included in the Balance of Payments for services for SEs or ESUs (market producers).

4.2 BASIC STATISTICS

The basic statistics that serve as input for the implementation of the STEC are:

4.2.1 BALANCE OF PAYMENTS FOR SERVICES (BANK OF SPAIN)

It collects monthly, quarterly and annual data on exports (international receipts) and imports (international payments) for various disaggregations of services by type of service and country/geographical area.

In particular, the data used by STEC are those corresponding to the annual *International Trade in Services Statistics (ITSS²)* compiled by the Bank of Spain (BdE) to be sent to Eurostat as part of its Balance of Payments statistics³.

The Bank of Spain compiles the Balance of Payments for Services in compliance with European Commission Regulation (EU) 555/2012 of 22 June 2012, amending Regulation (EC) 184/2005 of the European Parliament and of the Council concerning Community statistics on Balance of Payments, International Trade in Services and Foreign Direct Investment, known as the BoP Regulation (BoP-R⁴).

To compile the Balance of Payments for Services, the Bank of Spain uses the ITSS (which is a basic set of statistics mainly compiled from direct collection via questionnaires, and to a lesser extent, from tax records), as one of the main inputs for estimating the "Other services" heading, adds information from other sources and makes accounting adjustments, in order to comply with international standards: *6th IMF Balance of Payments Manual (BPM6)* and *UN Manual on International Trade in Services (MITSS 2010)*.

¹ The "Other services" heading of the Balance of Payments for services is estimated using the ITSS as the main input, which has the SE or ESU as its statistical unit, although it uses the legal unit (ULE) as the collection or observation unit. See new ITSS methodology: https://www.ine.es/metodologia/t37/metodologia_ITSS.pdf

² International Trade In Services Statistics (Eurostat): https://ec.europa.eu/eurostat/statistics-explained/index.php?title=International_Trade_in_Services_statistics_-_background#Scope

³ External Statistics - Balance of Payments and International Investment Position Data (Bank of Spain): <https://www.bde.es/webde/es/estadisticas/temas/estadisticas-exteriores.html>

⁴ Balance of Payments Regulation (BoP-R)

In order to compile the STEC, the INE uses these data from the Balance of Payments for Services (ITSS) adjusted to international standards and, when possible¹, provides this information according to the characteristics of the companies that carry out this international trade in services. As the three characteristics: activity, size and control are not to be found in ITSS as they are not required in BoP-R, it is necessary to use other sources that have them, so as to be able to conduct the distribution of ITSS values according to these three characteristics, in the case of ITSS units that cross-reference with these other sources. Some ITSS may be distributed, but some may not, for a number of reasons. However, in compliance with EBS-R as far as STEC is concerned, there should be full equivalence between the ITSS and STEC totals, and therefore the sum of the distributable and non-distributable part of STEC will equal the ITSS totals per country and type of service.

4.2.2 SURVEY ON INTERNATIONAL TRADE IN SERVICES AND OTHER INTERNATIONAL OPERATIONS - ITSS (INE)

It collects quarterly information on the value of imports and exports of non-tourist services, as well as payments and receipts of other international transactions linked to the income and capital account of the balance of payments, carried out by institutional units resident in Spain (companies and other entities) with non-residents.

The main aim of the ITSS is to serve as a basic statistical source for the Bank of Spain (BdE) and the INE itself in the compilation of Balance of Payments statistics (heading "Other services") and National Accounts of the Spanish economy, in compliance with the EU BoP-R and ESA-2010 regulations (European System of National and Regional Accounts), respectively.

To this end, the ITSS is also aligned with existing international statistical manuals in this field: *United Nations Manual of International Trade in Services Statistics 2010 et al. (MITSS 2010)* and the *International Monetary Fund's 6th Balance of Payments and International Investment Position Manual (BPM6)* in that the services covered follow the *2010 Extended Balance of Payments Classification of Services (EBCPS 2010)* and its definitions, which are included in both manuals.

ITSS² is primarily a sample statistic with direct data collection that measures raw levels. However, it could also be considered a mixed type operation by combining direct collection with the use of administrative data (in the case of ITSS, tax data) that are available simultaneously with the data collected via questionnaire.

¹ This is possible when the ITSS data comes entirely or partially from ECIS. This makes it possible, for that part of common value, to identify at the micro-data level the enterprises (market producers) that generated that value and thus assign them their characteristics (activity and size) included in ITSS or (control) in CCD.

² The ITSS was thoroughly reformed in 2022 to adapt it mainly to the new EU statistical demands (the STEC itself and the MoS), taking the opportunity also to renew its sampling framework, statistical unit, design and imputation system, among other changes. See New ITSS Methodology at:

https://www.ine.es/metodologia/t37/metodologia_ITSS.pdf.

For the former ITSS (2014-2022):

https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736174702&menu=ultiDatos&dp=1254735576778

The legal units (ULEs) initially selected from the ITSS sample framework (sample ULEs) contribute through the profiling process of the CCD units to identifying and selecting the sample "statistical enterprises" (SEs), which are the subject of the set of statistics.

In order to reduce the burden on reporting units, only a direct data collection via questionnaire is carried out for the initially selected sample ULEs. The information from the rest of the ULEs (non-sampled ULEs) of each sampled "statistical enterprise" (SE) is imputed, based on the tax information available from these ULEs and the data collected directly from the rest of the units.

In the first quarter of the year, the ITSS questionnaire¹ collects updated information on the main economic activity of the sample unit. It allows the respondent to modify this economic activity in the same questionnaire if the one originally assigned by the INE on the basis of the CCD is not correct or is not up to date.

On the other hand, the ITSS questionnaire collects every quarter the number of employees of each sample unit (salaried and non-salaried staff).

Thus, on the one hand, **ITSS** serves as the main input for estimating payments/receipts for a large number of types of services by geographical area for the heading "Other services", in line with the international standards of the Balance of Payments for Services, and, on the other hand, it **collects at the micro-data level (TIN of each sample unit) two of the three characteristics of the companies that carry out international trade in services. These two reasons make ITSS a primary source for estimating the distributable share of STEC, characterising ITSS companies according to these two characteristics.**

4.2.3 CENTRAL BUSINESS DIRECTORY - CCD² (INE)

Directories of business entities for statistical purposes are compiled for the basic purpose of serving as sampling frames for official enterprise surveys. In recent years, directories have been playing a very important role in other domains of interest, enhancing their role as statistical information generators. The methodology linked to the management processes of the CCD makes it possible to quantify and classify the populations of units existing in our economy, making it possible to analyse the business fabric from a static point of view, as well as to evaluate the dynamism of the economy by monitoring the business units over time.

The CCD management processes are in line with the methodological guidelines contained in the Manual of Recommendations on Business Registers, published by EUROSTAT in collaboration with the Member States.

The CCD has implemented a profiling process³ of complex enterprises, which makes it possible to identify, account for and characterise statistical enterprises as SEs or ESUs which, due to their complexity, may be either an independent Legal Unit (ULE) that is not part of a corporate group, and therefore is assumed to have decision-making

¹ ITSS questionnaire at: https://www.ine.es/metodologia/t37/cuestionario_ITSS.pdf

² See Statistical Exploitation of the CCD at: https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736160707&menu=ultiDatos&dp=1254735576550

³ See: https://www.ine.es/metodologia/t37/t3730200_profiling.pdf

autonomy, or a corporate group made up of several Legal Units (ULEs), or a subset of one or several Legal Units of a corporate group (see 4.1).

This profiling makes it possible to link each ULE with its SE by means of an appropriate set of identifiers, so one can identify which ULEs (identified by their TIN) make up each SE (identified by its own company identifier). In this way, for each ITSS sample SE, selected from a previous selection of ULEs (TINs) which are the observation or collection units (selected sampled unit), the rest of the non-sampled units that make up the SE, which is the true statistical unit for both ITSS and STEC, are also known.

At the end of each ITSS collection period, for each SE or sample ESU, there is information collected via questionnaire at a microdata level (ULE or TIN) from the sample ULEs of the SE, and there is also information from the non-sampled ULEs of the SE, whose information is estimated via imputation. For both types of unit, we have both their data on international trade in services by country and service, as well as their activity and size. In the case of sample units, these two variables are collected in the questionnaire, and in the case of non-sample units, the information comes from the CCD.

As STEC uses the SE as its statistical unit (and not the ULE or TIN), the cross-referencing at the microdata level with the CCD (and its profiling) allows all the following information to be ascertained at the SE level:

- The exports/imports of the SE, since these variables are additive, and are therefore the sum of the exports/imports of services of each of its ULEs, whether sampled or non-sampled.
- The main economic activity of the SE, which can be found in the CCD and may differ from that of some of its ULEs.
- The size of the SE, which, being also an additive variable, equals the sum of employees of its ULEs.
- The type of control of the SE, which also appears in the CCD at both the ULE and SE level, and which is the same for all the ULEs that make up the SE.

In short, the cross-referencing at the microdata level of the ULE of the ITSS with the CCD and its profiling, allows it to be characterised by the three STEC variables of both the ULE and the SE to which these ULEs belong.

The CCD and its profiling, in addition to the variable type of control of the SE, also has information on the institutional sector of the SE, which makes it possible to select only the information of those SEs in the ITSS sample that are coded in the sectors associated with the "market producers" (companies), as these are the only statistical units subject to STEC.

4.3 STATISTICAL COMPANIES PRODUCING MARKET STATISTICS

The information compiled by the ITSS to estimate a very important part of the different types of services included under the heading "Other services" of the Balance of Payments for Services (ITSS) refers to the SE or ESU.

The statistical unit of the ITSS is what is referred to as the institutional unit, which includes enterprises or SEs that are market producers (the main target of distributable

STEC), but also many other institutional units that are "non-market producers" (all kinds of administrative bodies, non-profit institutions serving households such as foundations, NGOs, associations, federations, households themselves, etc.).

Therefore, in the case of the Balance of Payments for Services, the institutional unit could be any operator trading internationally in services, classified in one of the following main categories of institutional sector:

Sectors and subsectors			Public	National private	Foreign controlled	
Non-financial corporations		S.11	S.11001	S.11002	S.11003	
Financial corporations		S.12				
Monetary financial institutions (MFIs)	Central bank	S.121				
	Other monetary financial institutions (OMFI)	Deposit-taking corporations except the central bank	S.122	S.12201	S.12202	S.12203
		Money market funds (MMFs)	S.123	S.12301	S.12302	S.12303
Financial corporations except MFIs and Insurance corporations and pension funds (ICPFs)	Non-MMF investment funds	S.124	S.12401	S.12402	S.12403	
	Other financial intermediaries, except insurance corporations and pension funds	S.125	S.12501	S.12502	S.12503	
	Financial auxiliaries	S.126	S.12601	S.12602	S.12603	
	Captive financial institutions and money lenders	S.127	S.12701	S.12702	S.12703	
	Insurance corporations (IC)	S.128	S.12801	S.12802	S.12803	
ICPFs	Pension funds (PF)	S.129	S.12901	S.12902	S.12903	
General government		S.13				
Central government (excluding social security funds)		S.1311				
State government (excluding social security funds)		S.1312				
Local government (excluding social security funds)		S.1313				
Social security funds		S.1314				
Households		S.14				
Employers and own-account workers		S.141 + S.142				
Employees		S.143				
Recipients of property and transfer income		S.144				
Recipients of property income		S.1441				
Recipients of pensions		S.1442				
Recipients of other transfers		S.1443				
Non-profit institutions serving households		S.15				
Rest of the world		S.2				
Member States and institutions and bodies of the European Union		S.21				
Member States of the European Union		S.211				
Institutions and bodies of the European Union		S.212				
Non-member countries and international organisations non-resident in the Europe		S.22				

For the purpose of STEC, it is necessary to identify the ECIS SEs that have been included in the estimation of the various ITSS service headings, and which are market-producing SEs. These are the SEs that are classified in the institutional sectors: S.11 (non-financial companies), S.12 (financial institutions) and partly S.14 (sole proprietors forming part of the Households sector).

The institutional units in these sectors are assimilated to the SE (statistical enterprise), since the SE as a STEC statistical unit must be a market producer, and, in addition, the STEC survey variables (exports and imports) are required at market value (or statistical value as it is called in the EU regulation).

Units in other institutional sectors, although they may carry out international services transactions according to the information collected in ITSS and contribute to the Balance of Services data, are not taken into account in the distribution by the three STEC characteristics as they are "non-market producers".

The institutional sector code is available in the CCD profiling, whereby through cross-checking at the micro-data level of the CCD with the ES of the ITSS contributing to ITSS, these can be coded by institutional sector, thus selecting only those that are assigned an S.11 or S.12 code (and part of S.14).

4.4 DISTRIBUTABLE AND NON-DISTRIBUTABLE ITSS SERVICES

Some of the CABPS-2010 service types included in the Balance of Payments for Services (ITSS) cannot be distributed by the three STEC variables (activity, size and control) that characterise firms trading services internationally.

Among the main ones are those headings of the CABPS-2010 that the ITSS does not estimate from the ITSS, for example, the *Travel* heading (of great importance in the Spanish economy) which is estimated from demand sources: tourism expenditure of non-resident tourists, tourism expenditure of resident households, tourism expenditure from credit cards and other sources, which do not refer to companies.

On the other hand, there are certain sub-headings within the main headings of the CABPS-2010 that the ITSS estimates via administrative sources from aggregated information, which does not allow cross-checking at the micro-data level with the SE. In addition, the BPM6 requires macro-accounting adjustments to certain sub-items such as *the CIF/FOB adjustment in the case of freight (goods transport services)*, the proper valuation of *insurance and pension services*, the estimation of *illegal cross-border services* within personal services or the estimation of *Financial Intermediation Services Indirectly Measured (FISIM)* within financial services, among others.

All this ITSS information is external to ITSS, which prevents it from being assigned to specific companies, preventing the distribution of its value by the three STEC variables.

Table 1 provides a summary of the EBOPS headings that can, cannot or only partially be disaggregated by the three STEC variables.

TABLE 1: DISTRIBUTABLE AND NON-DISTRIBUTABLE ITSS SERVICES¹

STEC SERVICES: Main headings of the EBOPS-2010	DISTRIBUTABLE	REASON
Services for the processing of goods without transfer of ownership	YES	ITSS estimates from ECIS*
Maintenance and repair services	YES	ITSS estimates from ECIS*
Travel	NO	ITSS estimates it from other sources: surveys of non-resident tourists and resident households, credit cards and other sources.
Transport services	PARTLY	ITSS estimates freight from other sources and makes CIF/FOB adjustment
Construction services	YES	ITSS estimates from ECIS*
Insurance and pension services	PARTLY	ITSS estimates from other sources, except insurance auxiliary services
Financial services	PARTLY	ITSS estimates the share of Financial Services Indirectly Measured (FISIM) from other sources
Intellectual property services	YES	ITSS estimates from ECIS*
Telecommunications, computer and information services	YES	ITSS estimates from ECIS*
Other business services:	YES	ITSS estimates from ECIS*
Research and development services (optional)	YES	ITSS estimates from ECIS*
Professional and management consultancy services (optional)	YES	ITSS estimates from ECIS*
Technical, trade-related and other business services (optional)	YES	ITSS estimates from ECIS*
Personal, cultural and recreational services	PARTLY	ITSS estimates the share of illegal services from another source
Government services	PARTLY	ITSS estimates a certain share of exports from another source

**Note: "ITSS estimates it from ECIS" does not strictly speaking mean that the ITSS data exactly match the ECIS data for that item, but rather that the ITSS item is estimated from the ECIS data, to which, for various reasons, the Bank of Spain may make adjustments or revisions².*

¹ Annex I at the end of this methodology discusses in more depth the reasons why certain types of ITSS EBOPS-2010 services are not distributable by business characteristics.

² For example, in September 2024, an EU-wide Benchmark Revision of the annual balance of payments data (ITSS) was carried out for the years 2021-2023. The revised ITSS 2022 data were not only based on data from the new ECIS 2022, but also used data from the old ECIS 2022 on a services heading basis, also making use of commonly sampled rates of change, as well as backdated extrapolations of rates from the Balance of Payments itself. For this reason, it happens that the value of those service headings that ITSS estimates directly with the ECIS data, as 2022 is a revision year, the ECIS 2022 (new) data and the revised ITSS 2022 data do not always coincide. For some headings, the revised ITSS 2022 figure is even lower than the figure in the ECIS 2022 (new).

4.5 STEC BREAKDOWNS REQUIRED BY THE EU EBS REGULATION

The European regulation in the STEC part requires the following three breakdowns based on combinations of the survey and classification variables included in sections 3.4.1 and 3.4.2, respectively. The numbers in brackets correspond to the different mandatory and optional dimensions of the study and classification variables considered in STEC. These breakdowns always combine the two ITSS flows of international trade in services (exports/collections and imports/payments) with the main economic activity of the companies generating these flows and the geographical area of origin or destination of these flows. To these combinations common to all three breakdowns, the size range is added in the first breakdown, the type of service in the second, and the type of control in the third.

4.5.1 BREAKDOWN 1 (STEC01): INTERNATIONAL TRADE IN SERVICES BY CNAE ACTIVITY SECTION AND SIZE RANGE

Breakdown 1 includes:

- Statistical value of total business services (2 flows: exports/receivables and imports/payments)
- Main economic activity of the company (12 activities distributed among 8 main sections of the CNAE and 4 groupings of sections: See 3.4.2)
- Size range of company employees (4-6 ranges): See 3.4.2)
- Country or geographical area (3 areas: World total, intra-EU and extra-EU)
- These are six 2 x 2 tables (activity x size range) with the following appearance, depending on whether the table refers to the value of exports/receipts or imports/payments for each of the three geographical areas or zones:

Breakdown type table 1 (STEC01): Activity x size range

		Main economic activity (Sections of the CNAE)														
		A-B	C	D-E	F	G	H	J	K	M	N	OTHER	Non-attrib.	TOT.		
No. Employees	0-49															Distributable ITSS services
	0-9															
	10-49															
	50-249															
	+250															
	Non-attrib.															
	TOT.															
														"Non-market"		Non-distributable ITSS Units and Services
														Travel		
														Freight		
														Insurance		
														FISM		
														Illegal		
														Gov.		
														Other		
														TOTAL		TOT. ITSS

COLOUR	INTERPRETATION OF THE COLOURED AREAS
	This would be distributable ITSS service data that could be disaggregated by activity and size for "market producing" companies. It would be the distributable STEC.
	This would be distributable ITSS data that could not be disaggregated by activity or size of the market-producing firm because at the micro-data level it could not be assigned an activity or size, it would be part of the non-distributable STEC.
	This would be data on ITSS services provided by the "non-market producing" units and therefore cannot be disaggregated by activity and size. Although they contribute to the overall ITSS figures, they are not part of the distributable STEC scope.
	This would be the total DISTRIBUTABLE and NON-DISTRIBUTABLE ITSS figures.

4.5.2 BREAKDOWN 2 (STEC02): INTERNATIONAL TRADE IN SERVICES BY CNAE ACTIVITY SECTION AND TYPE OF SERVICE ACCORDING TO EBOPS

Breakdown 2 includes:

- Statistical value of total business services (2 flows: exports/receivables and imports/payments)
- Main economic activity of the company (12 activities distributed among 8 main sections of the CNAE and 4 groupings of sections: See 3.4.2)
- Type of main service (13-16 main types of EBOPS services: See 3.4.2)
- Country or geographical area (3 areas: World total, intra-EU and extra-EU. Optionally, only the Total Services can be broken down by the 27 EU countries (except Spain), the UK and the US.)

These are six mandatory 2 x 2 tables (activity x type of service) with the following appearance, depending on whether the table refers to the value of exports/collections or imports/payments for each of the three mandatory areas or geographical zones:

Breakdown type table 2 (STEC02): Activity x type of service

		Main economic activity (Sections of the CNAE)												Non-attrib.	TOTAL ITSS			
		A-B	C	D-E	F	G	H	J	K	M	N	OTHER						
Main type of service EBOPS-2010	1. Transformation of assets without transfer of ownership																	
	2. Maintenance and repair																	
	3. Travel																	
	4. Transport																	
	5. Construction																	
	6. Insurance and pensions																	
	7. Financial																	
	8. Intellectual property																	
	9. Telecommunications, IT and information																	
	10. Corporate:																	
	10.1. R&D																	

Breakdown type table 3 (STEC03): Activity x type of control

		Main economic activity (Sections of the CNAE)														
		A-B	C	D-E	F	G	H	J	K	M	N	OTHER	Non-attrib.	TOT.		
Type of control	National:															Distributable ITSS services
	Domestic															
	Multinational															
	Foreign															
	Non-attrib.															
	TOT.															
													"Non-market"		Non-distributable ITSS Units and Services	
													Travel			
													Freight			
													Insurance			
													FISM			
													Illegal			
													Gov.			
													Other			
													TOTAL		TOT. ITSS	

COLOUR	INTERPRETATION OF THE COLOURED AREAS
	This would be distributable ITSS service data that could be disaggregated by activity and type of control for "market producing" companies. The STEC would be distributable
	This would be distributable ITSS data that could not be disaggregated by activity and type of control of the market producing company due to the fact that at the micro-data level it could not be assigned an activity or control type, it would be a non-distributable part of the STEC.
	This would be data on ITSS services provided by the "non-market producing" units and therefore they cannot be disaggregated by activity or control type. Although they contribute to the ITSS figures, they are not part of the scope of the distributable STEC.
	This would be the total DISTRIBUTABLE and NON-DISTRIBUTABLE ITSS figures.

5 Dissemination Plan and Frequency

5.1 DISSEMINATION PLAN

The NSI publishes the same model of tables required for STEC in the Commission Implementing Regulation (EU) 2020/1197 of 30 July 2020, which are the following, already discussed in section 4:

1. **By type of operation, main economic activity, size range and geographic area.**
2. **By type of operation, main economic activity, main type of service and geographic area.**
3. **By type of operation, main economic activity, total services and geographic area/countries selected.**

4. By type of operation, main economic activity, control type and geographic area.

As regards the breakdowns of each variable, the Regulation establishes the following categories:

- **Main economic activity of the company (CNAE-2009):** the following groupings and Sections of the CNAE: A+B, C, D+E, F, G, H, J, K, M, N, rest of CNAE (I+L+O+P+Q+R+S+T+U), "Non-attributable activity".
- **Size range:** 0 to 49 people employed (optional: 0 to 9 and 10 to 49), 50 to 249 people employed, 250 and more people employed, "Size not attributable".
- **Main type of service (EBOPS-2010):** the 13-16 main headings of the EBOPS (see sect. 3.4.2 with the list of services) and "Non-attributable service".
- **Geographical areas:** World Total, European Union (Intra-EU), Outside European Union (Extra-EU), for tables 1, 2 and 4. For table 3, in addition to Intra-EU, individual information is provided for the 26 EU Member States (Spain is excluded), including the category "Within the Union, unallocated" when the EU country is unknown; and in addition to Extra-EU, individual information is provided for the United Kingdom and the United States.
- **Type of control:** Companies under domestic control (without own subsidiaries abroad and with subsidiaries abroad or multinational), Companies under foreign control, "Non-attributable control".

5.2 DISSEMINATION FREQUENCY

The dissemination of information to Eurostat is annual, with an 18-month time lag with respect to the reference period (T+18M, with T=reference year), as indicated in the regulation.

The dissemination of the information nationally in INEbase will initially be twenty-six months behind the reference period (T+26M, with T=reference year).

The possibility of bringing forward the national publication in future to bring it closer to T+18M, the date of sending the national STEC data to Eurostat, or to the date of their European dissemination by Eurostat, is being considered.

Annex I: Types of CABPS-2010 services included in ITSS that are not distributable due to company characteristics

- **Goods transport services (freight), except inland waterway transport (under main heading 3. Transport services):** These data are estimated in the Balance of Payments for Services (ITSS) from aggregated data, mostly from Customs. As these data are aggregated, they cannot be cross-checked at the micro-data level with ITSS. In addition, these data must be adjusted according to the CIF/FOB coefficients which are also calculated on an aggregated basis by geographical area and type of transport.
- **3. Travel:** These data are estimated in the Balance of Payments Services Survey (ITSS) based on information from the Tourism Expenditure Survey (EGATUR), the Resident Tourism Survey (RTS), resident credit card data and other sources, where the reporters are not companies, but individuals or households.
- **6. Insurance and pension services (except services auxiliary to insurance):** Again, these data are estimated in the Balance of Payments for Services (ITSS) from aggregated data from Customs (transport insurance), the Directorate General of Insurance and Pension Funds (all other types of life and non-life insurance, reinsurance, pensions and standardised guarantees), and ITSS.

The main problem is that the insurance data in ITSS are valued according to the BPM6 based not only on the gross premiums and claims collected in ITSS at the micro data level, but also using other aggregated information such as supplementary premiums, volatility adjustments of claims, benefits payable, expected claims, actuarial reserves, etc. from the above-mentioned institutions, which enter into the various insurance service valuation formulas together with the ITSS premiums and claims in a way that cannot be distinguished.

- **Financial intermediation services indirectly measured (FISIM) (within main heading 7. Financial services):** These are data estimated in the Balance of Payments from aggregate data estimated by the Bank of Spain itself.
- **Other personal services (within main heading 11. Personal, cultural and recreational services):** The Bank of Spain includes, in addition to the ITSS data, an aggregate estimate of illegal cross-border services within this sub-heading of the main heading 11, as this is required by the Balance of Payments.

For this reason, the complete data for heading 11. *Personal, cultural and recreational services* is considered by the BdE as confidential in its Balance of payments statistics on services, and it does not publish it on its website (or publishes it aggregated together with heading 12. *Government goods and services n.i.e.o.*).

For this reason, STEC aligns itself with the BdE's confidentiality and disclosure policy.

– **Exports of Other government goods and services (within the main heading 12. Government goods and services n.i.o.e.):**

The Balance of Payments data corresponds to the ITSS export data for this main heading 12, except that the Bank of Spain adds the following export data from another source: Receipts of government services by way of collection of EU traditional own resources, within the subheading Other government goods and services of main heading 12.

However, the Bank of Spain does not disseminate data on its website (neither exports nor imports) for heading 12. Government goods and services n.i.o.e.): As in the case of 11. Personal, cultural and recreational services are considered a confidential heading in its Balance of payments statistics on services, and they are published aggregated together with heading 11. Personal, cultural and recreational services

For this reason, STEC aligns itself again with the BdE's confidentiality and disclosure policy. On the other hand, the weight of this heading in total services is the lowest of all the headings.

It is true that part of the main heading 12. Government goods and services n.i.e. could, in principle be distributed, and if the entire heading is not confidential with regard to the balance of payments, by company characteristics in the STEC domain. Despite the fact that government services are mostly provided by General Government, with "Representations of Spain Abroad" (embassies, consulates, military units, etc.) standing out as "non-market producers" (they are within the institutional sector S.13 General Government), and whose data according to STEC methodology should not be distributed, however, goods and services supplied by resident "market producers" (companies) to Representations of foreign countries and International Organisations based in Spain (non-residents) are also classified as government services.