

Business statistics - scope and main concepts

Preface

This chapter describes:

- (a) the scope of EU business statistics in terms of statistical population and main topics
- (b) the main concepts used to produce business statistics cost-effectively, while also ensuring that the final results are comparable and consistent.

It is part of a more extensive online publication, the [European Business Statistics Manual](#), which provides a comprehensive description of methodologies and background information on how these statistics are produced within the European Statistical System (ESS).

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1. Introduction

This article broadly defines the business population to which the European business statistics refer and describes the main subject areas and topics covered. It also addresses several key measures for guaranteeing or improving comparability and consistency of data, both across the various domains of business statistics, and also in relation to the frameworks used for national accounts and the balance of payments. The article includes a selected topic covering a number of consistency and coverage issues in business statistics related to globalisation.

2. Scope of business statistics

Article 3(1) of the FRIBS Regulation states that European business statistics cover:

- (a) the *structure, economic activities and performance* of the statistical units, their research and development and innovation activities, their ICT usage, e-commerce and global value chains
- (b) the production of manufactured goods and services and the international trade in goods and services.

The **structure** describes how output, employment and other indicators are distributed among different economic sectors.

The term '**economic activities**' is defined by NACE Rev.2 (paragraph 1.2.11):

'An economic activity takes place when resources such as capital goods, labour, manufacturing techniques or intermediary products are combined to produce specific goods or services. Thus, an economic activity is characterised by an input of resources, a production process and an output of products (goods or services).'

From an economic point of view, the definition of economic activity mirrors the production function of output and production factors. Besides current manufacturing techniques as a production factor, the production function¹ also includes *technological progress*, the drivers of which are also mentioned in paragraph (a): R&D, innovation, ICT and e-commerce.

Performance, on the other hand, relates to the interaction between a business and other economic actors. Economically relevant interactions recorded in business accounting include sales, purchases, labour costs, wages and prices. Together, they provide a measure of value added, that is, the value created by businesses, and thereby of these businesses' contribution to economic growth. The focus is on business performance under market conditions of demand and supply, and price setting.

The [global value chains](#) referred to in paragraph (a) represent the impact of globalisation on the economy, and its implications for statistics. Traditional statistical units and trade and business statistics give only a limited national perspective and do not provide users with a comprehensive

¹ The production function can be represented in a simplified form as $Y = F[K, L, M, t]$, where Y = output, F = function transforming inputs to outputs (e.g. manufacturing techniques), K = capital stock, L = labour, M = material/intermediary products and services, t = technological progress.

analytical framework. For more information, see section 7, 'Globalisation and potential impacts on consistency and coverage in business statistics'.

Naturally, at a more detailed level the subject areas — the topics covered by business statistics — target the variables that are most relevant to external stakeholders (e.g. policymakers, businesses and business federations), but also to internal stakeholders which use these data as building blocks in producing the national accounts and the balance of payments (see section 6).

For a detailed description of the scope of the various business statistics under the FRIBS Regulation, see [data requirements](#).²

3. Target statistical population of business statistics and the business register

The type of [statistical units](#) used in European business statistics are:

- [Enterprise \(ENT\)](#)
- [Kind-of-Activity Unit \(KAU\)](#)
- [Local Unit \(LU\)](#)
- Legal Unit (though this is not, strictly speaking, a statistical unit).

International trade statistics are an exception. Here, outcomes are based not on a population based on statistical units, but, rather, on any unit that supplies trading data to customs (as regards extra-EU trade) or the national statistical institute (as regards trade within the EU). International trade statistics focus less on economic actors and more on describing all import and export flows in terms of goods and services.

The ENT (Enterprise) is the statistical unit used for statistics that rely on businesses' profit and loss account. However, it is less suitable for regional breakdowns, for which the Local Unit (LU) is used instead. Local Units may be considered as regional parts of an ENT. Statistics on quarterly registrations and bankruptcies, in which the Legal Unit is the main player on which information is available, are another exception to the use of ENT. The fact that a legal unit is bankrupt does not necessarily mean the same is true of the ENT to which it belongs, and the same applies to registrations. The chief exception to using ENT is in the field of short-term business statistics, in which the KAU is used. The main reason for this is that short-term business statistics are very strongly linked to national accounts (the short-term business statistics provides early advance indicators of the quarterly national accounts, such as the industrial production index, an indicator of the growth of value added in industry).

Statistical units are the units to which business statistics apply and are thus linked with the statistical *output*. However, different units (reporting units) can be used for collecting *inputs* into the statistical

² The stakeholder's interest is apparent not only as regards the variables, but also as regards the degree of granularity of data (i.e. breakdowns). The analytical value for end-users is taken into account as one of the main criteria (see section 2 of '[Classifications in business statistics](#)') when developing classifications (used for these breakdowns).

production process, provided that ‘reporting unit-based’ inputs can be transformed into ‘statistical unit-based’ outputs. More details of this approach are given in section 5.d.

The national Business Register provides key input to defining the total population of statistical units for the purpose of producing business statistics. Article 3(2) states that business register characteristics are required for all statistical units described above, including legal units and enterprise groups. Such information is optional where Kind-of-Activity Units (KAUs) are concerned. The business register should cover all enterprises conducting economic activities that contribute to GDP, including government and the financial sector, irrespective of whether or not they are market producers.

Within the broad population scope of the Business Registers, smaller sub-populations are defined for the purpose of business statistics. These sub-populations, also known as *statistical populations*, are specified as part of the [data requirements](#). The statistical population is defined by 2 dimensions: NACE scope and market/non-market scope. An overview of statistical populations across the various business statistics under FRIBS is provided below.

Domain [a]	NACE-scope [b]	Market/non-market scope
Structural business statistics	B-N, P-R, S95-96	Market producer
Business demography	B-N, P-R, S95-96	Market producer
Short-term statistics [c]	B-D, E36, F-J, L-N	Market output
Foreign affiliates statistics	B-N, P-S	Market producers
Information society statistics	C-J, L-N, S95.1	Not applicable
R&D	A-U	Not applicable
Innovation	B-E, H, J, K, 46, 71-73	Market producer
International trade in goods	A-U [d]	Not applicable
International trade in services	Not applicable	Not applicable
ProdCom	B-C [e]	Market output

- a) For a description of the domains and their data sets: see section 2 of [Data requirements](#).
- b) Broadest scope within the domain as a whole. Individual data sets may have a more limited scope.
- c) For building permits the NACE and market/non-market scope is not applicable.
- d) NACE scope only applicable to "Country-level statistics on importing and exporting enterprises".
- e) Industrial production under divisions 07 to 33, except military and energy products.

Although most business statistics focus on the NACE activities of industry, construction, trade and services, some cover other activities, such as R&D statistics (which include agriculture and government, for example) or country-level business statistics (which include education and health, for example).

The market/non-market scope is a further refinement in addition to the NACE scope. For most business statistics, but again not all, it further limits the target population to market-oriented units. Market/non-market scope is defined in section 4.

4. Operational rules for the market/non-market delimitation

4.1 Introduction

Business statistics covered by the FRIBS Regulation are based either on [statistical units](#) (enterprises, kind of activity units, local units) or, in exceptional cases, on legal units which are consistent across statistics, or on units that are specific to the type of statistics concerned.

As regards statistics that focus on business performance under market conditions, the difference between market and non-market must be precisely defined. This market/non-market delimitation in FRIBS applies only to statistics based on statistical units. There are 2 categories: those based on the enterprise (ENT), and those based on the kind-of-activity unit (KAU).

For statistics based on local units or on legal units, the market/non-market division fully follows the market/non-market delimitation of the enterprise to which these units belongs. It implies that if an enterprise is regarded as a market producer, all its legal units and all its local units are also considered market producers. This approach ensures that FRIBS regional statistics (based on local units) and quarterly demography statistics (based on legal units) are consistent with country-level statistics (based on enterprises) because all units belong to market producers.

In the operational rules for ENT-based statistics (section 5.b) and KAU-based statistics (section 5.c) the idea of economically significant prices is an important criterion for distinguishing market from non-market. ESA 2010 paragraph 3.19 defines economically significant prices as prices with a substantial effect on the amounts of products that producers are willing to supply and the amounts of products that purchasers wish to acquire. Such prices arise when both of the following conditions apply:

- (a) The producer has an incentive to adjust supply, either with the goal of making a profit in the long run or, at a minimum, of covering capital and other costs.
- (b) Consumers have the freedom to purchase or refrain from purchasing, and they make the choice on the basis of the prices charged.

Economically significant prices are checked using the 50 % criterion: the unit has to cover at least half its costs by sales over several years.

Section 5.d covers more detailed operational rules targeting practical cases at national level, taking into account quality or synchronisation issues.

4.2 Operational rules for the scope of business statistics based on Enterprises (ENT)

Many of the FRIBS Regulation's statistics take the [Enterprise](#) (ENT) as a statistical unit. These enterprise-based statistics in FRIBS are limited to **market producers** as defined by ESA 2010, meaning institutional units (IUs) classified into the following institutional sectors:

- non-financial corporation (S11)
- financial corporation (S12)
- households as entrepreneurs (S14.1 or S14.2).

They exclude **non-market producers**, notably the general government (S13) and non-profit institutions serving households (S15). For market producers as defined here, the Institutional Unit is identical to the Enterprise.

For an overview of the type of producers and their main activities or functions and sectors, see the table below (from ESA 2010, page 34):

Type of producer	Principal activity and function	Sector
Market producer	Production of market goods and non-financial services	Non-financial corporations (S.11)
Market producer	Financial intermediation including insurance Auxiliary financial activities	Financial corporations (S.12)
Public non-market producer	Production and supply of non-market output for collective and individual consumption, and carrying out transactions intended to redistribute national income and wealth	General government (S.13)
Market producer or private producer for own final use	Consumption Production of market output and output for own final use	Households (S.14) As consumers As entrepreneurs
Private non-market producer	Production and supply of non-market output for individual consumption	Non-profit institutions serving households (S.15)

Both current Regulation 177/2008 and FRIBS require EU countries to provide the sector and subsector code in the business register for each enterprise. It is recommended that the institutional sector code (S11 to S15) be integrated in the business register with a sufficient quality for it to be used to identify which enterprises can be classed as market producers. The ISC has a vital role to play in determining the population of ENT-based FRIBS statistics and the population of general government statistics. These should be mutually exclusive and are thus complementary building blocks of national accounts.

If the ISC within the Business Register is not sufficiently decisive in terms of S11, S12 or S14.1 or S14.2, the following operational rules can be applied to determine whether the ENT can at least be classified as a market producer:

- Given the mutual exclusiveness of the 2 categories, an ENT is by definition a market producer (S11, S12, S14.1/2) if it is not a non-market producer S13 or S15.
- Non-market producers classified under general government (S13) are government-controlled units whose output has no economically significant prices or which have no competitors. The [manual on government deficit and debt](#) (part i: definition of the general government sector) provides detailed operational rules on classifying units in S13.
- Non-market producers classified as non-profit institutions serving households (S15) are units as defined by ESA 2010, paragraphs 2.129 and 2.130, meaning ‘separate legal entities, which serve households and which are private non-market producers. Their principal resources are voluntary contributions in cash or in kind from households in their capacity as consumers, from payments made by general government and from property income.’

These operational rules can be used to determine whether the ENT unit is a market producer. If EU countries wish to subdivide this further into the precise sector code, it is recommended that they:

- determine first whether the unit is a household (S14.1 or S14.2) or a corporation (S11 or S12) and

- secondly, use the NACE code to decide whether the corporation is financial (S12) or non-financial (S11).

Sharing and using the same ISC in producing national accounts, general government statistics and the business statistics covered by the Framework Regulation Integrating Business Statistics (FRIBS) strengthens the Business Register's role as one of the backbones of economic statistics.

Currently, 24 EU countries provide information on the ISC in their Business Registers. The table below summarises the current level of detail of implementation of the ISC in these countries, based on a 2016 survey to which 21 countries responded. It shows the level of detail in which they had implemented the ISC, although the extent to which its quality meets its additional purpose of defining the population of business statistics needs to be checked at national level.

The institutional sectors and sub-sectors											
Sectors and Subsectors	Description1	Description2	ESA 2010 code	Number of MS with enterprises in NSBR	Public	Number of MS with public enterprises in NSBR	National/Private	Number of MS with national private enterprises in NSBR	Foreign/Controlled	Number of MS with foreign controlled enterprises in NSBR	
Non-financial corporations			S.11	21	S.11001		17	S.11002	17	S.11003	16
Financial Corporations			S.12	19							
Monetary financial institutions (MFIs)	Central Bank		S.121	18							
Monetary financial institutions (MFIs)	Other Monetary financial institutions (OMFI)	Deposit-taking corporations except the central bank	S.122	18	S.12201	13	S.12202	16	S.12203	15	
Monetary financial institutions (MFIs)	Other Monetary financial institutions (OMFI)	Money market funds (MMFs)	S.123	5	S.12301	4	S.12302	3	S.12303	2	
Financial corporations except MFIs and Insurance corporations and pension funds (ICPFs)	Non-MMF investment funds		S.124	15	S.12401	4	S.12402	11	S.12403	8	
Financial corporations except MFIs and Insurance corporations and pension funds (ICPFs)	Other financial intermediaries, except insurance corporations and pension funds		S.125	18	S.12501	14	S.12502	16	S.12503	15	
Financial corporations except MFIs and Insurance corporations and pension funds (ICPFs)	Financial auxiliaries		S.126	18	S.12601	15	S.12602	16	S.12603	15	
Financial corporations except MFIs and Insurance corporations and pension funds (ICPFs)	Captive financial institutions and money lenders		S.127	16	S.12701	8	S.12702	15	S.12703	14	
ICPFs	Insurance Corporations (IC)		S.128	17	S.12801	11	S.12802	16	S.12803	15	
ICPFs	Pension Funds (PF)		S.129	11	S.12901	1	S.12902	8	S.12903	4	
General Government			S.13	20							
Central Government (excluding social security funds)			S.1311	18							
State Government (excluding social security funds)			S.1312	4							
Local Government (excluding social security funds)			S.1313	18							
Social security funds			S.1314	18							
Households			S.14	21							
Employers and own-account workers			S.141+S.142	10							
Employees			S.143	2							
Recipients of property and transfer income			S.144	2							
Recipients of property income			S.1441								
Recipients of pensions			S.1442								
Recipients of other transfers			S.1443	2							
Non-profit institutions serving households			S.15	20							
Rest of the World			S.2	11							
Member States and institutions and bodies of the EU			S.21	8							
Member States of the European Union			S.211	5							
Institutions and bodies of the European Union			S.212	2							
Non-member countries and international organisations non-resident of the EU			S.22	7							

4.3 Operational rules for the scope of business statistics based on Kind of Activity Unit (KAU)

Statistics based KAUs which are also market producers need to distinguish between market oriented units and non-market producers, but also between units with economic activities that fall into their scope and activities that are not to be covered (see figure below). In this section first the distinction between market and non-market KAUs is discussed. Afterwards the problem of identifying KAUs with relevant economic activities is briefly presented.

KAU	Market	Non-Market
STS NACE	Market KAU with an STS relevant activity	Non-market KAU with an STS relevant activity
Outside NACE	Market KAU with an activity not covered by STS	Non-market KAU with an activity not covered by STS

In FRIBS, short-term business statistics (STS) and ProdCom are based on [KAUs](#) producing **market output**, meaning that over half the costs are covered by sales. As regards this market/non-market criterion, it is recommended to use the same definitions of costs and sales as those applicable at the level of institutional units, clarified in more detail in paragraph 3.33 and 3.44 of ESA 2010.

Note that the sales used in the market/non-market criterion are valued against **basic prices**, defined as sales at market prices MINUS taxes on products PLUS subsidies on products. Subsidies on products, however, should exclude the part intended ‘to compensate for persistent losses which they incur on their productive activities as a result of charging prices which are lower than their average costs of production as a matter of deliberate government or European economic and social policy’ (see ESA 2010, paragraph 4.35(c)). Moreover, sales should include the goods and services which one local KAU provides to a different local KAU belonging to the same institutional unit (see ESA 2010, paragraphs 3.14, 3.15).

ESA 2010, paragraph 3.16 – 3.19, clarifies the meaning of market output. According to 3.17, market output is output that is disposed of on the market or intended to be disposed of on the market.

As regards the classification of institutional units into market and non-market units, paragraph 1.37 of ESA 2010 sets out the following market conditions:

- Sellers act to maximise their profits in the long term, and do so by selling goods and services freely on the market to whoever is prepared to pay the asking price.
- Buyers act to maximise their utility given their limited resources, by buying according to which products best meet their needs at the offered price.
- Effective markets exist where sellers and buyers have access to, and information on, the market. An effective market can operate even if these conditions are not met perfectly.

Economically speaking, this definition of what counts as the market coincides with the definition of economically significant prices (see section 4.1.)

By definition, KAUs belonging to ENTs classified as market producers produce market output. This actually means that they produce no non-market output (apart from output for their own final use). By definition, such ENTs have no non-market KAUs. This implies that all sales between KAUs within a market producer ENT are, by definition, market output; this also applies under special intercompany price conditions. Section 4.2 explains the operational rules for ENT market producers.

In the case of a non-market enterprise with only one KAU, this KAU by definition produces non-market output. If several KAUs belong to an ENT classified as a non-market producer, however, one or more of these KAUs may produce market output.

STS/ProdCom is only interested in market KAUs, meaning units that primarily produce market output; non-market KAUs are excluded from the scope.

According to the FRIBS basic act, particularly Article 3, paragraph a.iii, only **significant** and **relevant** market KAUs need to be identified in the national business registers:

- (a) *"In accordance with the definitions given in the Annex of Regulation (EEC) 696/93 of the Council and subject to the limitations specified in this Article, the national statistical business registers, which shall comprise:*
 - iii. *the Kind-of-Activity-Units (KAU) or the NACE code as laid down in Regulation (EC) No 1893/2006 of the European Parliament and of the Council and size of each KAU of which those enterprises consist restricted to those enterprises which because of their size have a significant influence on the aggregated (national) data".*

As the aggregated national data refers to the market-oriented FRIBS domain, it implies for KAU-based statistics that only those market KAUs of non-market producers need to be identified that have a *significant* influence on the final aggregated data because of their size. It implies that the KAU should also be *relevant*: the market KAU may have a significant size, but with a NACE that is not covered by the KAU-based statistic, it becomes irrelevant and the KAU does not need to be included in the statistical population. These criteria of *significance* and *relevance* also apply to the definition of KAUs of market-producers.

For reasons of consistency across KAU-based statistics, and in the light of the broader NACE scope of the STS, it is recommended that ProdCom be based on the KAUs identified for short-term statistics (STS).

Market KAUs with an activity relevant for STS may be part of an enterprise which is not classified as having an activity that is relevant for STS. One example (European System of National Accounts, paragraph 3.40) might be the sales of reproductions of pictures in a bookshop of a museum.

Theoretically, such cases fall within the scope of STS. In practice however the quantitative relevance of these cases for the statistical results are small and a systematic collection of data for these cases is

generally not called for. If appropriate the occurrence and relevance of such cases should be reported in the national metadata.

5. Key concepts and cost-effective production

5.1 General principles and quality framework

Article 2 of the general statistical [Regulation 223/2009](#) defines the main statistical principles underpinning the development, production and dissemination of statistics:

1. ‘professional independence’ - *statistics must be developed, produced and disseminated in an independent manner, particularly as regards the selection of techniques, definitions, methodologies and sources to be used, and the timing and content of all forms of dissemination, and the performance of those tasks is free from any pressures from political or interest groups or from Union or national authorities;*
2. ‘impartiality’ - *statistics must be developed, produced and disseminated in a neutral manner, and all users must be given equal treatment;*
3. ‘objectivity’ - *statistics must be developed, produced and disseminated in a systematic, reliable and unbiased manner; it implies the use of professional and ethical standards, and that the policies and practices followed are transparent to users and survey respondents;*
4. ‘reliability’ - *statistics must measure as faithfully, accurately and consistently as possible the reality that they are designed to represent and implying that scientific criteria are used for the selection of sources, methods and procedures;*
5. ‘statistical confidentiality’ - *the protection of confidential data related to single statistical units which are obtained directly for statistical purposes or indirectly from administrative or other sources and implying the prohibition of use for non-statistical purposes of the data obtained and of their unlawful disclosure;*
6. ‘cost effectiveness’ - *the costs of producing statistics must be in proportion to the importance of the results and the benefits sought, that resources must be optimally used and the response burden minimised. The information requested shall, where possible, be readily extractable from available records or sources.*

These principles are further elaborated by the [European Statistics Code of Practice](#), established by Article 11 of the same Regulation 223/2009.

The European Statistics Code of Practice is based on 15 principles covering:

- the institutional environment
- the statistical production processes
- the output of statistics.

A set of good practice indicators for each principle provides a reference for reviewing the implementation of the Code. The quality criteria for European statistics are defined in Regulation 223/2009. Statistical authorities - the Commission (Eurostat), national statistical institutes and other national authorities responsible for developing, producing and disseminating European statistics, together with governments, ministries and the European Council, commit themselves to abiding by the Code. The principles of the Code of Practice, together with general quality management principles, represent a common quality framework within the European Statistical System.

Together with the Code of Practice, the European Statistical System Committee has adopted the [Quality Assurance Framework](#). Together with its detailed [quality reporting guidelines/handbooks](#), it serves as guidance on how to implement the European Statistics Code of Practice.

As regards implementing quality reporting on data sent to Eurostat, see [Reference metadata](#). The quality reporting focuses on *process quality criteria* as well as *output quality criteria*.

5.2 The cost-effectiveness principle when compiling business statistics

Article 2 (f) of Statistical Regulation 223/2009 defines 'cost effectiveness' as: '*meaning that the costs of producing statistics must be in proportion to the importance of the results and the benefits sought, that resources must be optimally used and the response burden minimised. The information requested shall, where possible, be readily extractable from available records or sources*'

What is the significance of this principle for the development, production and dissemination of business statistics? It states that producing statistics should be as **efficient** as possible for both respondents (i.e. businesses) and for data compilers (e.g. national statistical institutes), which means keeping costs as low as possible.

How is this to be achieved? Regulation 223/2009 gives data compilers at national level full responsibility for selecting the best possible mix of data sources and processing methods (*subsidiarity principle*). It also enables data compilers to reuse as much existing information as possible, thereby minimising the administrative burden on businesses. In reusing information, data compilers are supported by ESS methodological guidelines and by the outcomes of new ESS development projects designed to harness new data sources and promote efficiency in production processes (see section c).

Effectiveness, on the other hand, takes account of the fact that users need their statistics to meet high quality standards. In addition to general provisions designed to ensure output quality, business statistics are covered by specific measures designed to consolidate or improve cross-domain consistency; this includes consistency with other statistical domains, such as government statistics and national accounts. Effectiveness can also be boosted by improving dissemination (see [improving the dissemination of statistics in future](#)).

A number of projects have been started as part of the [ESS Vision2020](#) which are expected to make the development, production and dissemination of business and other statistics more cost-effective.

5.3 Subsidiarity in terms of data sources and national processing

The FRIBS Regulation does not stipulate how business statistics are to be collected or processed (except for intra-EU exports³). It is up to data compilers to ensure that statistics are compiled as efficiently as possible, in terms of both costs and the burden on businesses.

One reason for applying the **subsidiarity principle** is that national institutions are best placed to decide:

- which data sources to use, in view of the institutional environment and existing administrative information

which processing methods to use to transform these inputs into statistical outputs usable both in European business statistics and for specific national purposes.

Another implication of subsidiarity is that there is no need for EU output requirements to be identical to national input requirements. National input variables, for instance, may be more detailed or even defined slightly differently from output variables, provided that inputs are correctly transformed into EU output variables in the statistical processing phase and that they comply with EU quality reporting requirements.

Subsidiarity with regard to **data sources and processing methods** at national level must go hand-in-hand with **transparency** as regards **the quality of the processing and output** of European business statistics. Such transparency is essential to ensure that flexibility at national level does not militate against high-quality results at the European level.

5.4 Measures to avoid an unnecessary burden on respondents

In view of the subsidiarity principle, the burden on respondents depends mainly on how the statistical production process is organised at national level. However, there are — or there will be — a number of European provisions and guidelines in place to help national data compilers avoid unnecessary burden on business. These include:

- Subsidiarity as regards input at national level implies that the national authorities have some leeway to tailor business reporting requirements to national bookkeeping practices and to the specifics of existing sources of administrative data.
- Key EU cross-domain variables now take international accounting principles into account more explicitly.
- A number of EU data requirements for small and/or medium-sized businesses or countries have been simplified.
- Reuse of existing microdata (administrative data, microdata linking, microdata exchange, BigData) is being promoted and improved (see section 3 of [Data sources](#)).

³ The FRIBS Regulation stipulates certain minimum coverage levels for data on intra-EU exports so as to enable data compilers to reuse such data to produce intra-EU import statistics. There are also additional provisions and measures regarding the exchange of microdata between the statistical authorities, which is a prerequisite.

- The article on [processing methods in business statistics at national level](#) provides national authorities with some guidelines on how to alleviate the burden on respondents.

5.5 Guaranteeing output quality

The criteria used to define the quality of outputs (i.e. European business statistics), as set out in the [ESS handbook for quality reports \(section 3.1\)](#), are as follows:


- Outputs meet users' needs.
- They depict reality accurately and reliably.
- They are released at useful intervals and punctually.
- They are presented in a clear and comprehensible form, released in a suitable and convenient manner, and they are made available and accessible on an impartial basis, with supporting metadata and guidance.
- Outputs are consistent both internally and over time, and they are comparable between regions and countries; related data from different sources can be combined and used jointly. See paragraph e for cross-domain consistency measures in business statistics.

The handbook for quality reports lists indicators that are useful in assessing these criteria. In business statistics, these indicators — also referred to as *reference metadata* — are reported annually by the data compilers and published by Eurostat.

5.6 Cross-domain consistency measures

The European Business Statistics Manual highlights a series of measures designed to support cross-domain consistency in business statistics:

- uniform definitions of cross-domain variables
- uniform use of [common classifications](#)
- the coordinating role of the [Business Register](#) and [EuroGroups Register](#), which helps provide consistent statistical populations
- uniform rules on [statistical units](#)
- uniform rules on the [market/non-market scope of business statistics](#)
- [methods for improving cross-domain comparability and consistency](#), including:
 - reusing microdata cross-domain
 - microdata integration
 - cross-domain validation checks
 - other checks at output level, for instance with national accounts.

 Cross-domain consistency implies not that the results will be identical, but that they will be comparable. There may be methodological reasons why they are not identical, for example if different samples are used.

6. Business statistics as building blocks for national accounts (and the balance of payments)

As described in [Building the system of National Accounts](#),⁴ the data sources used in compiling the accounts are based on statistical sources and administrative sources as direct inputs. Business statistics and the underlying microdata are an important part of these statistical sources, and they are used for both annual and quarterly accounts.

Inputs to national accounts come from a variety of statistical domains, such as agriculture, businesses and government. The Business Register and Classifications and the harmonised rules for defining statistical units and the market/non-market scope play an essential role in producing consistent building blocks, a prerequisite for aggregates such as gross domestic product (GDP).

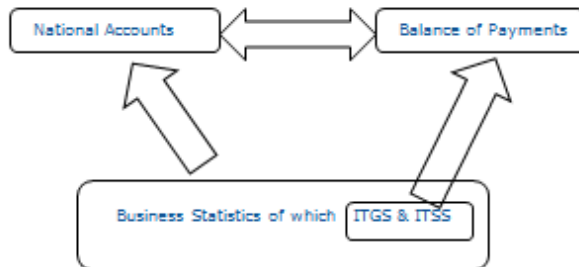
In national accounts, there are 3 approaches to estimating GDP:

- **Production approach** - GDP is the sum of the value added created by businesses, government and other producers.
- **Expenditure approach** - GDP is the sum of final consumption, investment, the trade balance of goods and services (exports minus imports), and changes in stocks.
- **Income approach** - GDP is the sum of employee benefits and gross operating surpluses and mixed income, plus other taxes on production.

Balancing these approaches is one of the main objectives and challenges in the process of compiling national accounts.

Business statistics on the international trade in goods and services are one of the building blocks for determining the GDP base using the expenditure approach. In parallel, international trade statistics in goods (ITGS) and services (ITSS) also feed into the accounting system of the balance of payments, which is another building block of national accounts.

⁴ The publication on which this 'Statistics Explained' article 'Building the system of National Accounts' is based, is entitled 'Essential SNA: Building the basics'. It is aimed primarily at users from the developing world; this is why it refers to SNA instead of ESA. .



The current methodologies of the 2 accounting systems, BPM 6 and ESA 2010, have been harmonised and are now uniformly based on the same concept of **economic ownership**. As explained in a [short introductory article on ESA 2010](#), this harmonisation has caused a change with respect to **goods sent abroad for processing**. The value of such goods will no longer affect gross export and import figures in the national accounts, as ESA 2010 uses an approach based on the change in economic ownership, rather than on physical movements, as in the past. ESA 2010 just records the import or export of a processing service. This will reduce the level of exports and imports of goods, but will not affect the overall current account balance.

Moreover, a wide range of business statistics provides detailed inputs for calculating GDP by means of the production approach. Businesses' value added is calculated as total output minus intermediate consumption. This approach is based on the [Supply and Use tables](#).

The supply and use framework makes both the production and expenditure approaches to estimating GDP more accurate, as it is consistent not only for the economy in general, but also where products are concerned. Estimating GDP through supply and use tables is the best way to make sure that both results for GDP (estimated by the production approach and by the expenditure approach) are equal, since there is no scope for statistical discrepancy.

The business statistics (mining, manufacturing, construction, services) used for producing the **Supply tables**, are as follows:

- economic census (i.e. Business Register data), annual enterprise surveys covering all non-agricultural economic activities
- specific statistical surveys: manufacturing industry surveys on turnover and number of employees and on product production, construction and/or investment surveys, labour force surveys, wholesale and retail trade surveys, price statistics surveys, construction permits
- international trade in goods statistics and international trade in services statistics.

For the **Use tables**, the following sources of business statistics are used:

- final consumption expenditure: retail trade surveys
- gross capital formation: economic census, annual enterprise surveys covering all non-agricultural economic activities, construction and/or investment surveys, capital expenditure and inventory surveys, construction building permits
- international trade in goods statistics and international trade in services statistics.

The domain of business statistics also includes 2 additional packages of variables at NACE 2-digit levels, specifically required for the purpose of national accounts.

- The first NA-specific package — compiled annually — comprises: gross margin on goods for resale, change in stock of goods (for resale), expenses of long term rental and operational leasing, breakdown of gross investment (land, acquisition of existing buildings and structures, construction), sales of tangible investment goods, net turnover from principal activity, and purchases of energy.
- The second package — produced multi-annually (3 or 5 year) — covers: breakdown of net turnover into main NACE aggregates, payments to subcontractors, income from subcontracting, gross investment in intangible non-current assets other than goodwill, and investment in purchased software.

To calculate economic growth (changes in real GDP based on volume), price information is needed to transform (i.e. deflate) values into volumes. To this end, various prices statistics from the domain of business statistics are used as an input, notably producer prices (including price indices for services) and import and export price indices.

For more detailed information on the statistical sources used in national accounts, see [sources for annual accounts](#) and [sources for quarterly accounts](#).

It is also worth noting that European business statistics are based on statistical units (see section 3 of this chapter) that are different from the [local kind-of-activity units](#) (LKAU) required by ESA 2010 as the relevant statistical unit for analysing flows occurring in the process of production and in the use of goods and services. The short-term business statistics and ProdCom, however, are based on KAU and are therefore close to the preferred statistical unit of national accounts. However, where data sources are based on units other than LKAU, it is advisable to adjust the data based on supplementary information, to meet the methodological requirements of the supply and use table.

The close link between national accounts (NA) and short-term business statistics (STS) is not limited to the use of the latter as a building block within the first. The STS also provide monthly production- and price-indices, which may be regarded as early and partial indicators of quarterly NA output and prices. In some EU countries, the close link between NA and STS is also strengthened by the fact that the weighing/aggregation schemes of STS are based on sources including NA data.

7. Selected topic: Globalisation and potential impacts on consistency and coverage in business statistics

The increasingly global nature of economic transactions and growing interdependence present a challenge to the application of the traditional concepts of business statistics at national level. The statistical system of business statistics is based on concepts and, more importantly, on implicit assumptions established mainly before the rapid expansion of globalisation. One of the basic assumptions was, and is, that the factors of production are mobile within domestic territories only; international division of labour is based on, but also limited by, the exchange of goods across borders.

Many national borders are no longer an obstacle when it comes to deciding where to invest or produce. Many economic agents are economically active in many countries at the same time. But globalisation is not limited to arms-length and cross-border intra-group trade. As explained in the [Sturgeon report](#) (pp. 4 and 5), today's economic globalisation also includes external 'internal sourcing'. This calls for high levels of explicit coordination and is a largely unmeasured form of trade. One of the more difficult statistical issues concerns the treatment of intra-group cross-border use of intellectual property. For a summary of the typology of global production arrangements and transactions, see [Guide to measuring Global Production](#) (UNECE, 2015), table 2.1, p. 9.

Under these changed circumstances, the question arises of whether existing statistical concepts are still adequate for describing and analysing various phenomena, and which building blocks of the present system of business statistics may be affected. These issues also depend on the extent to which the various domains of business statistics use the concept of economic ownership.

The concept of economic ownership is a national accounts and balance of payments concept. In fact, it is a fundamental principle in both accounting systems to record product transactions on the basis of the change of economic ownership. SNA 2008 and ESA 2010 define the economic owner as *'the economic owner of goods and services, natural resources....[...] the institutional unit entitled to claim the benefits associated with the use of the entity in question in the course of an economic activity by virtue of accepting the associated risks'*.⁵ In the context of globalisation, the economic ownership principle can have a significant impact on how the output/value added and trade in goods and services are attributed to individual countries.

In business and trade statistics, no explicit reference is made to whether or not the principle of economic ownership is to be applied. Where business statistics are used in compiling macro-economic aggregates such as GDP, these statistics need concepts and definitions from which SNA/ESA concepts can be derived. However, it could also be that it is not the business statistics themselves, but their (detailed) sources which are feeding SNA/ESA-based calculations. Business statisticians can also produce tabulations and indicators based on the intended uses of the business statistics as end products. In all cases the source statistics should preferably be based on suitable concepts for all their user groups, whether macroeconomic accountants or business statisticians.

⁵ SNA 2008, para. 3.26; ESA 2010, para. 15.06.

Closely related to the principle of economic ownership is the NACE classification if a statistical unit outsources part of its production. The basic definitions and rules are described in [Annex II of NACE Rev.2](#). More detailed operational rules on outsourcing can be found [here](#).

A more detailed analysis of these globalisation issues can be found in [Globalisation and its potential impacts on the scope and concepts of business statistics](#).<link will be added in the future, based on the outcomes/reports of the new joint BSDG/DMES task force on this topic >

8. See also

- Overview of methodologies of European business statistics: [EBS manual](#)
- Legal aspects related to this chapter can be found in the following [overview](#)
- [Business Register](#) and [EuroGroups Register](#)
- [Data sources](#)
- [Processing methods in business statistics at national level](#)
- [Global value chains](#)
- Data requirements under FRIBS: [data requirements](#)

- [statistical units](#)
- [Enterprise \(ENT\)](#)
- [Kind-of-Activity Unit \(KAU\)](#)
- [Local Unit \(LU\)](#)
- [local kind-of-activity units](#)

- [Classifications in business statistics](#)
- [Reference metadata](#)

- [Building the system of National Accounts](#)
- [Short introductory article on ESA 2010](#)
- [Supply and Use tables](#)
- [sources for annual accounts](#) and [sources for quarterly accounts](#)

9. Further Eurostat information

- [Manual on government deficit and debt](#)
- general statistical [Regulation 223/2009](#)
- [ESS Vision2020](#)
- [European Statistics Code of Practice](#)
- [Quality Assurance Framework](#)
- [Quality reporting guidelines/handbooks](#)
- [ESS handbook for quality reports \(section 3.1\)](#)
- Study on globalisation: [Sturgeon report](#)
- [Guide to measuring Global Production](#)

Outsourcing

- Basic rules and definitions: [Annex II of NACE Rev.2](#)
- [Detailed operational rules](#)

10. External links

11. Contacts

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