Beginners:Structural business statistics

Statistics Explained

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This article is part of Statistics 4 beginners, a section in Statistics Explained where indicators and concepts are explained in a simple way to make the world of statistics a bit easier for pupils and students as well as for everyone else with an interest in this topic.

What are structural business statistics?

Structural business statistics, or SBS, describe the structure and performance of **businesses** in the European Union with an analysis by **economic activity**.

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What is an 'economic activity'? What are the SBS variables and indicators?

An economic activity takes place when resources such as capital goods (like machinery or equipment), labour (workers), 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).



SBS produce indicators and a large number of related variables reflecting this logic of economic activities.

The basic variables can be summarised as follows:

1. Basic business demography variables, such as the number of enterprises.

2. *Variables providing accounting-type data* (generally collected and presented as monetary values). Among many others, these include:

- **turnover** (particularly relevant for the analysis of distributive trades activities), which is broadly similar to sales;
- value added and the gross operating surplus, which are the key monetary variables for SBS, similar to gross value added and gross operating surplus in national accounts;
- the value of personnel costs (wages, salaries and social security contributions), which is the difference between value added and the gross operating surplus and is similar to the compensation of employees concept in national accounts;
- · gross investment in tangible goods, similar to gross fixed capital formation in national accounts.

3.Non-monetary labour input indicators such as:

- the number of (paid) employees ;
- the number of **persons employed** (including paid employees, working owners and unpaid family workers);
- the 'volume' of labour input, measured by the total number of hours worked by employees within a year.

As well as these basic variables, Eurostat publishes many*derived indicators* that are relevant for analysis. Among others, these include:

- average personnel costs, showing how much is paid for wages, salaries and social security contributions per employee;
- apparent labour productivity, showing how much value is added on average for every person employed;
- wage adjusted labour productivity, which combines the previous two indicators to show how much value is added for every euro spent on personnel;
- the **gross operating rate**, which is a measure of profitability showing the ratio between the gross operating surplus and turnover.

What is a business?

In SBS, there are two key **types of statistical units** : the **enterprise**, used when reporting national data, and the **local unit**, used for regional data.

An enterprise is defined as an organisational unit producing goods or services, with a certain degree of autonomy in decision-making. It can be situated at more than one location and it may consist of one or more **legal units**. The local unit is an enterprise or part thereof (such as a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place, where an economic activity is carried out. Generally, for each local unit there is one or more persons working for the enterprise.

The detailed definitions of these (and other) types of statistical units are laid down in Council Regulation (EEC) No 696/93 .

Defining the enterprise as a unit can be quite complex for a number of reasons. For example, some enterprises are part of national or international **enterprise groups**, which raises questions about their 'autonomy'. Equally, administrative rules defining different types of legal units differ between EU Member States. To support a harmonised implementation, the regulation was supplemented by operational rules adopted in 2015.

What is the business economy?

For SBS, the 'business economy' is currently defined as:

- **industry** (mining and quarrying, manufacturing, utilities such as electricity and gas supply, and water supply and sewerage);
- construction ;
- distributive trades (wholesale, retail and motor trades, also including maintenance and repair);
- other service activities (transportation and storage, accommodation and food service activities, information and communication, financial services, real estate activities, professional, scientific and technical activities, and administrative and support service activities).

Note that service activities include financial services, such as banking and insurance. However, the data compiled for financial services are generally quite different from the others, due to the different nature between the different sectors.

For this reason, it is common to see SBS data presented for the **non-financial business economy** only. There are plans to compile a larger range of regular SBS data for financial services in the future.

Based on the above coverage, SBS do not cover agriculture, forestry and fishing, but they do cover the subsequent processing of products from and related to these activities (such as food and wooden products). There are other services that do not fall within the SBS, such as health, education, arts, entertainment and recreation services.

In the next few years, the coverage of the business economy within SBS will be widened to include many of the services that are currently excluded. Nevertheless, the services coverage for SBS will continue to exclude public administration and defence, compulsory social security, and activities of membership organisations (such as trade unions), as well as continuing to exclude activities of households as employers and activities of extraterritorial organisations and bodies.

The list and definitions of economic activities used in EU statistics are specified in the **statistical classification of economic activities in the European Community**, commonly referred to as **NACE**, where economic activities are organised according to a four-level hierarchical structure.

Although there were earlier classifications of activities in the EU under different names, the first edition of NACE was adopted in 1970. Three revisions at fairly long intervals have led to the current version of the classification, referred to as NACE Rev. 2.

In this classification, the highest level is composed of sections (coded with a single letter, such as C for manufacturing) while the next three levels — divisions, groups and classes — are coded with two, three or

four-digits respectively.

At the most detailed NACE level, the entire economy is divided into 615 classes. Of these, 513 fall within the current business economy coverage of SBS, which can be summarised as Sections B to N and Division 95.

At their most detailed level, SBS data are presented for the class (four-digit) level of NACE. Furthermore, data are published for some special aggregates, which are often composed of selected activities used for particular analytical purposes, such as to identify **knowledge intensive services**.

An example of an industrial activity is the *manufacture of plastic plates, sheets, tubes and profiles* (NACE Class 22.21). An example of a service activity is *event catering activities* (NACE Class 52.61).

An enterprise can carry out more than one economic activity, as can a local unit. For this reason, enterprises and local units are classified according to their **principal activity** (also called their main activity).

For example, a unit which manufactures leather products (such as shoes) and several different types of wearing apparel (such as workwear, other outerwear and underwear) will be classified to whichever of these economic activities is the largest, for example the manufacture of workwear.

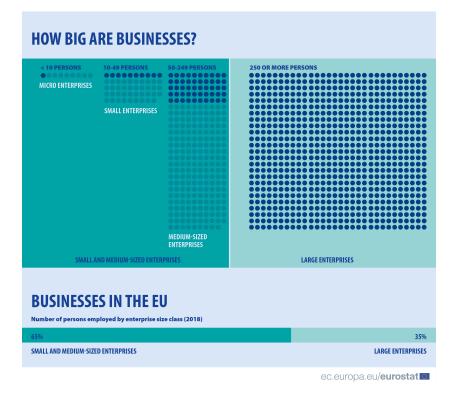
How big are businesses: enterprise size classes

For a few key variables, SBS data are analysed according to the size of enterprises. The size of an enterprise can be determined in several ways, but the most common ones are based on labour input (the number of **persons employed** by the enterprise) or **turnover** (the sales made by the enterprise).

While turnover size classes are used for some SBS data concerning distributive trades activities, the standard size measure used in SBS for all activities is that based on employment.

Although different enterprise size classes are used for different activities, they can all be combined to provide at least a breakdown into:

- · small and medium-sized enterprises , including
- · micro enterprises with less than 10 persons employed,
- · small enterprises with 10-49 persons employed,
- · medium-sized enterprises with 50-249 person employed;
- · large enterprises with 250 or more persons employed.



Where are the businesses: regional classification (NUTS)

SBS data are also available for a subset of variables with an analysis by region. The regions are specified in the classification of territorial units for statistical purposes, more commonly known by its acronym NUTS.

Within NUTS, there is a hierarchical classification dividing the whole territory of each EU Member State into regions. Three levels exist, namely NUTS levels 1, 2 and 3, with NUTS level 3 being the most detailed regional division of each national territory.

The NUTS classification is updated every few years, for example to reflect changes in administrative regional boundaries within Member States. From 1 January 2021 Eurostat has adopted NUTS 2021, replacing the previous classification NUTS 2016.

At their most detailed level, SBS data are presented at NUTS level 2, with an aggregation also available for the less detailed NUTS level 1 regions. In total, the 27 EU Member States are composed of 281 regions at NUTS level 2 (according to NUTS 2016).

Have a look at a video about the NUTS classification here .

Presentation of SBS data, frequency and time coverage

SBS generally produces and presents basic variables as monetary values, or as counts (for example, the number of enterprises or of persons employed). However, many of the derived indicators are presented as percentages or as values per person, such as euros per employee (for average personnel costs).

This is in contrast to short-term business statistics, where the data are presented as indices (generally in relation to a base year).

SBS data are usually compiled annually; nonetheless there is a small number of indicators which are compiled less often and require specific periodicity. In fact, SBS data generally relate to flows occurring during a year, such as the total turnover generated during a year or the value of investments made during a year.

But what is defined as a year? While the aggregated data for activities are presented for calendar years, the raw data for individual enterprises generally relate to accounting years: this is often, but not always, the calendar year.

For example: the **change in stocks** shows the change in stock levels between the first and the last day of a year; employment data may be based on averages of employment levels on specific dates, such as the first day of each quarter.

Have a look at an example of SBS data here :

What types of indicators are not covered by SBS

As SBS data are activity-based rather than product-based data, they don't provide information on individual goods and services, for example concerning their production, international trade or **prices**.

SBS data can be used to analyse, for example, the performance of motor vehicle manufacturing, but SBS do not provide information on the number or value of petrol/diesel/electric cars produced or traded.

Apart from SBS, there are several specialist types of activity-based business statistics that are similar and relate to annual data for the business economy, but they focus on different types of indicators.

Examples include the use of **information and communication technologies** by enterprises as well as their **research**, **development** and **innovation** activities. There are also some other statistical domains that have data for indicators that are similar to SBS, but have a different focus, such as **FATS** which concern businesses that are **foreign affiliates**.

So, what are SBS?

Now that we have some idea of what is meant — from an EU statistical perspective — by the terms business, economic activity and the business economy, as well as information on the classifications used and the indicators presented, we can look again at the initial question: what are structural business statistics?

SBS data provide — simultaneously — the most comprehensive and the most detailed picture of the business economy. SBS data are available for a wide range of variables, at the most detailed activity level. Furthermore, for some specific cases, SBS also provide information according to enterprise size or region.

SBS are widely used for the development or monitoring of regional, national and international policies, for example sectoral policies (such as for chemical manufacturing or food and drink manufacturing) or enterprise policy (concerning small and -medium-sized enterprises and entrepreneurship).

They are also widely used for research purposes, for example looking at issues like **competitiveness** or globalisation. A number of articles on Eurostat's Statistics Explained website provide examples of how SBS statistics can be used to analyse the business economy.

What makes SBS data difficult to compile?

In spite of their appearance, there are many issues coming with the production and dissemination of structural business statistics.

Data collection

The statistical authorities in each EU Member State can implement what they consider to be the most appropriate

data collection methods.

Generally these use a combination of sources, such as:

- information in **statistical business registers** (which should provide an up-to-date snapshot of the businesses that are active within an economy);
- · administrative data , such as tax declarations or information relating to social security contributions;
- direct statistical surveys of businesses;
- · estimations and modelling .

Statistical surveys used to be the main source for the collection of statistical data, however, even though they still represent a key piece of statistical infrastructure, over time they have been increasingly integrated by other sources, as administrative data.

Compared with statistical surveys, administrative data have some disadvantages, mainly resulting from the fact that they were often not designed for statistical purposes; consequently, the data they can provide do not necessarily align perfectly with the definitions and methods required for SBS.

However, direct statistical surveys are costly to conduct and may burden the business community, requiring them to periodically fill in detailed statistical questionnaires. For these reasons, many national statistical authorities combine administrative data and statistical sample surveys to produce SBS data.

Timeliness

Another issue faced by the producers (and subsequently also the users) of SBS data is timeliness. Precisely because they are comprehensive and detailed it takes time for businesses to provide data, for these to be checked by the statistical authorities and then for the results to be produced and published.

The accounting-type data used for many of the variables are often sourced from company accounts and for some enterprises the accounting year may not follow the calendar year. As such, it may be several months after the end of a calendar year before some enterprises finish their accounting year and several months more before they finalise their own company accounts.

For SBS, the targets are to produce:

- preliminary results (for a few indicators at a less detailed activity level) 10 months after the end of a calendar year;
- full results 18 months after the end of a calendar year.

For example, the full set of results concerning SBS data for 2018 were published in autumn 2020.

Why are some data missing? They might be confidential

The common thread of all SBS data is an analysis by activity, rather than data for individual enterprises or individual products.

There is an explicit aim*not* to publish data for individual enterprises, or even for activities in which the data for an individual enterprise can (with a reasonable effort) be identified. Statistical disclosure control (or confidentiality treatment) is the name given to efforts to 'protect' data for individual enterprises within the data for activities.

In general, data for a particular activity are not published if the data for an individual enterprise might be identifiable. In such cases, a colon (:) and the letter c appear in Eurostat's databases to show that the data are 'not available': in reality, they are available, but may not be disseminated.

This issue of confidentiality tends to be more common for regions or EU Member States with relatively small populations of businesses, as well as certain activities that have traditionally been dominated by natural monopolies, such as rail or air transport.

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Links to other statistics

Many types of statistics have links to SBS data or appear to overlap in some way. Three are mentioned below:

1. As indicated above, many of the key SBS indicators are directly related to key **national accounts** concepts. From the perspective of SBS, the main advantages compared with national accounts are the provision of more detailed data by activity as well as an analysis by enterprise size class.

Many national statistical authorities use SBS data to compile annual national or regional accounts, as they are particularly useful for the production approach to calculating gross domestic product .

2. Short-term business statistics (commonly referred to as STS) also provide detailed data by activity and do so much more quickly than SBS.

From the perspective of SBS, STS have the advantage to provide absolute values rather than indices which show changes over time, a much wider range of indicators, and the availability of data by region or by enterprise size class. Many national statistical authorities use SBS-like data to compile weights used for the calculation of STS indices.

3. The **labour force survey** (commonly referred to as the **LFS**) also provides data on labour input, with a much wider range of socioeconomic breakdowns of the labour force, such as by age, sex or **occupation** of workers.

From the perspective of SBS, the main advantages compared with LFS data are i) the provision of more detailed data by activity ii) an activity classification based on information in the statistical business register, rather than being based on a workers' judgement of the principal activity in which their employer operates (the common method used in the LFS, which is a household survey) and iii) the possibility to link accounting-type data with the labour input data.

Legal basis

In 1996, the first EU regulation on SBS was adopted, covering industry, construction, distributive trades and services; this replaced older legislation (from 1964 and 1972) restricted to industrial and construction activities.

As business statistics systems developed — facilitated by the implementation of statistical business registers in all EU Member States in the second half of the 1990s — various additions were made to the regulation. In 2008, these were integrated in a recast regulation (in other words the original regulation and subsequent expansions were consolidated), which has been the legal base in recent years.

In 2019, the SBS legislation was combined with legislation for many other business statistics domains (such as STS), resulting in the European business statistics regulation. That regulation applies from the 2021 reference year: the first SBS data to be published under this new basis are therefore expected at the end of 2022 for preliminary data and in the second half of 2023 for final data.

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Other articles

Related articles in Statistics 4 beginners :

- Short-term business statistics
- Labour market
- GDP

Related articles in Statistics Explained:

· All articles on structural business statistics

Glossary items in Statistics Explained:

- Structural business statistics
- Economic activity
- Types of statistical units
- Enterprise
- · Local unit
- · Legal unit
- Enterprise group
- Non-financial business economy
- · Principal activity
- · Statistical classification of economic activities in the European Community
- Knowledge intensive services
- Enterprise size class
- Persons employed
- Turnover
- · Small and medium-sized enterprises
- Large enterprises
- · Classification of territorial units for statistical purposes
- · Business demography
- Turnover
- Value added
- Gross operating surplus
- · Gross value added
- Gross operating surplus
- National accounts
- Personnel costs
- Social security contributions
- Compensation of employees
- Gross investment in tangible goods
- · Gross fixed capital formation
- Employees
- Persons employed
- Hours worked by employees
- Average personnel costs
- · Apparent labour productivity
- Wage adjusted labour productivity

- Gross operating rate
- Prices
- Information and communication technologies
- Research and development
- Innovation
- FATS
- Foreign affiliates
- Short-term business statistics
- Change in stocks
- Competitiveness
- Statistical business registers
- Administrative data
- Statistical surveys
- Estimations
- Modelling
- Gross domestic product
- · Labour force survey
- Occupation