European business statistics methodological manual for short-term business statistics

2021 edition





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Foreword

Short-term business statistics (STS) are the earliest statistics released to show emerging trends in the European economy. STS provide data for the major economic domains, industry, construction, trade and services.

The major advantage of the monthly and quarterly released STS data is that they are available very shortly after the end of the reference period, providing timely information for policy makers, people and businesses.

This manual provides an overview of the most important methodological issues concerning STS. It briefly describes the role and content of STS, its legal base and main building blocks, the transmission of data from National Statistical Authorities (NSAs) to Eurostat and the compilation of European aggregates. It also discusses the quality of STS data, their dissemination and their revision. Moreover, it contains introductions to all STS indicators such as production, turnover, producer prices, labour input etc.

STS provides a very rich set of data. This manual cannot discuss the methodological details of all questions concerning STS and its numerous indicators. A great number of specialised methodological guidance on the various aspects of STS production exists and this manual provides access to the methodological guidance available.

This EBS methodological manual for STS was drafted by a number of Eurostat experts in consultation with national experts. Eurostat appreciates the contributions of all participants.

Petra Sneijers

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Eurostat

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Content, role and legal base of STS

Content and role of STS

STS INDICATORS

Short-term business statistics – for short: STS – describe the most recent developments of European economies. STS cover industry, construction, trade, and services. The economic development of these sectors is reflected by indicators such as net turnover, production, number of employees and self-employed persons, hours worked by employees, wages and salaries. In addition there are indicators for producer prices (industry, construction, and services), import prices (industry), and (as an alternative for construction producer prices) construction costs. In 2021 quarterly business demography indicators (business registrations and bankruptcies) have been added.

The majority of indicators is published with a monthly frequency; they cover all Member States of the European Union (EU) as well as aggregate data for the EU and the euro area.

STS indicators represent the general economic trend in the form of (time-series) indices, i.e. they show the changes of a variable (production, turnover etc.) over time but not the absolute amount or monetary value of the variable. Generally, STS-indices have a fixed base year. The index value for any given period in a time series represents the change of the underlying variable compared to a single fixed base which is the same for all indices in that time series. In order to reflect structural changes in the economies the base year is generally adjusted every five years.

In line with the principle of subsidiary, the STS indicators for the single European countries are established by the national statistical authorities. Depending on the specific situations in the countries the data might be derived from different sources (usually surveys and administrative data). Where necessary to ensure comparability, data transmitted to the European Statistical Office (Eurostat) are adjusted so as to respect a common and harmonised methodological framework.

USE OF STS DATA

European short-term statistics were introduced in 1998 as a prerequisite for the establishment of the euro area and for monitoring the European monetary policy. STS are used by the European Central Bank and National Central Banks, European Commission services, national governments, research institutes, businesses and business organisations. News releases about short-term statistics generally receive wide attention in the media. Last but not least, STS also provide important input for other statistical areas such as national accounts.

Economic trend analysis, forecasting and modelling are the most important uses of STS. Yet, the data are also required for the preparation of policy decisions, for research purposes, to check and validate data from other sources and to prepare business decisions (e.g. in market research).

A large number of the Principal European Economic Indicators (PEEIs) that have been developed to monitor the economic development of the EU and its Member States and in particular for steering monetary policy in the euro area are STS indicators (i.e. industrial production, industrial producer prices, industrial import prices, production in construction, turnover in retail trade and in other

services, service producer prices and building permits).

FURTHER READING

Statistics Explained Article, Introduction to STS

Legal base

As of 1 January 2021 the legal base for STS are the European Business Statistics Regulation (EU) No 2019/2152 (EBS Regulation) and the Commission Implementing Regulation (EU) No 2020/1197 of 30 July 2020 (EBS General Implementing Regulation).

The EBS Regulation and the EBS General Implementing Regulation do not only concern STS but are the comprehensive base for the majority of European Business Statistics (structural business statistics, industrial production statistics, the international trade in goods and services etc.) ensuring coherence between all business and trade statistics. The EBS Regulation also provides a common framework for statistical business registers (SBR).

EBS REGULATION

The EBS Regulation is a framework regulation, it provides for:

- A definition of the subject matter of EBS (article 1)
- The scope of EBS (article 2), i.e. structure of European business, their activities and performance
- Definitions of statistical concepts (article 3), i.e. statistical units, market activities
- Rules regarding data sources and methods (article 4)
- Rules regarding the access to data sources (article 5)
- General data requirements for European statistics (article 6)
- Rules regarding the exchange of confidential data
- Rules regarding the quality of data (article 17)

As regards the domain short-term statistics the EBS Regulation defines five topics:

- Business population (quarterly statistics on the registrations of businesses and declarations of bankruptcies)
- Labour inputs (quarterly or monthly statistics on employment, hours worked and labour costs)
- Prices (monthly or quarterly import prices and producer prices)
- Outputs and performances (monthly or quarterly data on production and sales volumes as well as net turnover)
- Real estate (quarterly or monthly data on real estate)

The EBS Regulation is a framework regulation, it does not contain detailed information on the data that have to be collected by national statistical authorities and transmitted to Eurostat. There are two exceptions from this principle: the EBS Regulation stipulates the reference periods, i.e. whether data have to be produced monthly or quarterly and also determines that the kind-of-activity unit (KAU) is used as the standard observation unit for most STS indicators.

EBS GENERAL IMPLEMENTING REGULATION

More detailed provisions for the STS data production are laid down in the Commission Implementing Regulation, No 2020/1197 of 30 July 2020. According to the EBS General Implementing Regulation the following STS variables (indicators) have to be produced:

- Registrations and bankruptcies
- Number of employees and self-employed persons, hours worked by employees, wages and salaries
- Import prices (euro area and non-euro area)
- Producer prices (domestic and non-domestic, euro area and non-euro area)
- Production
- Volume of sales
- (Net) turnover (domestic and non-domestic, euro area and non-euro area)
- Quarterly or monthly data on real estate (building permits (number of dwellings and square meters))

The EBS General implementing Regulation also describes the scope of the statistics, i.e. for which industries/sectors the different variables have to be produced and at what level of detail using the Statistical Classification of Economic Activities in the European Community (NACE). Moreover, it restricts STS to market activities.

In addition the implementing regulation provides detailed rules on the following subjects:

- Measurement unit (as a rule STS provides indices, exceptions are the registrations and bankruptcies as well as the building permits for which absolute values are collected).
- Adjustment (some variables are to be provided in unadjusted form, esp. prices, registration and bankruptcies, in general however data are to be provided in calendar adjusted and in seasonally and calendar adjusted form).
- Deadlines for data transmission (from Member States to Eurostat); deadlines range from 30 days between the end of the reference month and the transmission to Eurostat for the volume of retail trade to 3 months and 15 days for 'hours worked' and 'wages and salaries' of small countries.
- Reference year and base year the reference year is the year for which STS indices are set to equal 100, generally the reference year is also the base year, i.e. the year from which the weights for the aggregation of indices are taken. The reference/base year is usually changed every five year.
- First reference period, i.e. the first mandatory month or quarter for which time series have to be produced and transmitted. (Generally January/first quarter 2000 for variables that were already required under the original STS Regulation).
- Transition period (period after which the NSAs have to be fully compliant with the regulations).

DEROGATIONS

Where the application of the EBS Regulation and its implementing regulation necessitates major adaptations in the national statistical system of a Member State article 24 of the EBS Regulation foresees the possibility that the Commission grants derogations from the requirement for a maximum duration of three years.

A number of Member States have requested such derogations and the Commission decided on the derogations in its Implementing Decision (EU) 2021/1003 of 18 June 2021. Derogations were granted for the following countries: Belgium, Denmark, Estonia, Ireland, Spain, Italy, Cyprus, the Netherlands, Austria, Portugal, Slovakia, and Finland. Six countries of them do have derogations for the STS domain.

FURTHER READING

Statistics Explained Article, Short-term business statistics - legal base

1

EBS Regulation, (EU) 2019/2152

EBS General Implementing Regulation, (EU) 2020/1197

Commission Implementing Decision on derogations (EU) 2021/1003

Basic building blocks of STS

Statistical units

Statistical units (SUs) are the entities for which data are collected and the data of which are aggregated into STS indicators (e.g. turnover, production). In order to represent the statistical population correctly the units have to be defined in a way that one unit cannot be confused with any other unit, and it must be possible to count units without omissions or duplication. Statistical units may be identifiable legal or physical entities but could also be statistical constructs. Common definitions of statistical units are a prerequisite for comparable European statistics; they are laid down in the Council Regulation 696/93 (SU Regulation).

For business and economics statistics, the SU Regulation defines eight types of statistical units, i.e.:

- the enterprise;
- the institutional unit;
- the enterprise group;
- the kind-of-activity unit (KAU);
- the unit of homogeneous production (UHP);
- the local unit;
- the local kind-of-activity unit (LKAU);
- the local unit of homogeneous production (LUHP).

For STS the KAU is used for the majority of indicators. It should be noted that while the legal unit is not listed as a statistical unit in the SU Regulation it is used for quarterly business demography. Also note that in the past STS used two statistical units, the KAU for industry and construction and the enterprise for trade and services.

The KAU is defined as part of an enterprise. Therefore, and despite the fact that the enterprise is itself no longer a statistical unit in STS, it is necessary to provide a description of the enterprise. The enterprise is the smallest combination of legal units that form an organisational entity producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations.

An enterprise may be a sole legal unit. Larger enterprises are however often made up of several legal units. Some of these may perform activities exclusively for other legal units of the enterprise and their existence can often be explained by administrative factors (e.g. tax reasons, publicity requirements, labour law). Such legal units should be seen as ancillary activities of the parent legal unit they serve, to which they belong and to which they must be attached to form an enterprise used for economic analysis.

The economic transaction between legal units of the same enterprise need to be consolidated in order not to inflate statistical aggregates with values that are actually internal to the enterprise. The

enterprise improves the comparability of international statistics since different legal provisions concerning taxation etc. might lead to different enterprise structures (one legal unit or many) in different countries.

The KAU groups all the parts of an enterprise contributing to the performance of an activity at class level (four digits) of NACE Rev. 2 and may correspond to one or more operational sub- divisions of the enterprise. The enterprise's information system must be capable of indicating or calculating for each KAU at least the value of production, intermediate consumption, manpower costs, the operating surplus and employment and gross fixed capital formation.

The purpose of the KAU is to reduce the heterogeneity of activities which take place in an enterprise and at the same times avoids being an artificial construct that could not be implemented.

FURTHER READING

Statistics Explained Article, Statistical Units in STS

Council Regulation (EEC) No 696/93 of 15 March 1993 on statistical units for business statistics European business statistics methodological manual for statistical business registers - 2021 edition

Market activities

In the EBS Regulation, STS are based on KAUs producing market output, meaning that over half the costs of the KAU 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.

By definition, KAUs belonging to enterprises 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 enterprises have no non-market KAUs. This implies that all sales between KAUs within a market producer enterprise are, by definition, market output; this also applies under special intercompany price conditions.

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 enterprise classified as a non-market producer, however, one or more of these KAUs may produce market output.

FURTHER READING

European business statistics manual, 2.4.3. Operational rules for the scope pf business statistics based on KAUs

Statistical classification systems

CLASSIFICATION OF ECONOMIC ACTIVITIES IN THE EUROPEAN UNION (NACE)

In STS statistical units are mainly distinguished according to their economic activities defined on the basis of the common statistical classification of economic activities, usually abbreviated as NACE (nomenclature statistique des activités économique dans la Communauté européenne) in its second revision (Rev. 2). Besides the NACE Rev. 2, the Classification of Products by Activities (CPA) is also important and will be described in the following sections.

Statistical classification systems are closely interlinked. In a horizontal perspective some systems (e.g. national systems) are a more detailed version of higher order systems. In a vertical perspective there is a harmonisation between classifications of a different nature but at the same territorial level, especially between activity and product classifications. In this context, harmonisation means not aggregation or disaggregation but the maintenance of consistent conceptual relationships.

The NACE is based on the United Nations' International Standard Classification Industrial

Classification of all economic activities (ISIC, Rev. 4). The NACE distinguishes between more than 500 classes of economic activities which are characterised by a four-digit code. The four digit classes (e.g. C13.93 manufacture of carpets and rugs) are combined in groups (three digit codes, e.g. C13.9 manufacture of other textiles) and further in divisions (two digit codes, e.g. C13 manufacture of textiles) and finally in sections (one digit letter code, e.g. C manufacturing).

An economic activity according to the NACE means the combination of resources such as equipment, labour, manufacturing techniques, information networks or intermediate products etc. in order to produce specific goods or services. An activity is characterised by an input of products (goods or services), a production process and an output of products.

Sectors of the economy in STS according to NACE:

- For STS purposes industry covers mining and quarrying, manufacturing, electricity, gas and water-supply and similar businesses, i.e. sections B to E of the NACE Rev. 2.
- Construction covers construction of buildings, civil engineering and specialised construction activities, i.e. section F of NACE Rev. 2.
- Trade covers section G, i.e. wholesale trade, retail trade and the trade of motor vehicles.
- Services cover transportation, accommodation and food services, publication, legal services, real estate services, business services but not financial and banking services or the services of public and quasi-public institutions, i.e. sections H to N of the NACE Rev.2 excluding section K.

MAIN INDUSTRIAL GROUPINGS (MIGS)

MIGs provide an activity breakdown of industry (Sections B to E) which represents an intermediate level between the sections and the divisions of the NACE. The need for an intermediate level comes from the fact that the three sections (B, C, D) provide only a limited amount of detail and in all EU Member States manufacturing dominates largely. The sub-sections belonging to these three Sections on the other hand are too numerous and too different in size to make it possible to explain succinctly the development of industry over time.

The composition of the MIGs is defined in Annex II of the EBS General Implementing Regulation. There are five MIGs, which regroup all of the activities without exception in sections B to E. These are:

- intermediate goods;
- capital goods;
- consumer durables;
- non-durable consumer goods;
- energy.

These groupings of are based on the three digit level of NACE Rev.2. However, there is no connection with the two digit level as the majority of divisions consist of three digit groups that belong to at least two MIGs. MIGs are not comparable in size, in particular the consumer durables group is smaller than the others are.

CLASSIFICATION OF TYPES OF CONSTRUCTIONS (CC)

The Classification of Types of Constructions (CC) is based on the United Nations' Central Product Classification (CPC). The CC consist of a four level hierarchical system. The principal breakdown, at the Section level is between civil engineering and buildings. Below this level, the CC differentiates primarily according to the technical design which results from the special use of the structure and, in particular for buildings, according to the main use.

The CC was used in STS for the classification of building activities (NACE section F). With the European Business Statistics Regulation the CC was replaced by the NACE Rev. 2 for production in

construction and by CPA 2.1 for construction producer prices or costs and for real estate indicators. There is a transitional arrangement until 2024 and during the transitional period CC codes are transcoded to NACE and CPA 2.1. EBS requirements by types of buildings can be transcoded between CC and CPA 2.1.

CLASSIFICATION OF PRODUCTS BY ACTIVITIES (CPA)

The classification of products by activities, Version 2.1 (CPA 2.1) is important for STS as the statistics on import prices and also some real estate indicators (prices and building permits) are collected in terms of the CPA.

Product classifications are designed to categorise products (goods and services) that have common characteristics. They provide the basis for preparing statistics of the price, production, distribution, consumption, external trade and transport of such products. The revised worldwide activity classification, ISIC Rev.3.1, on which the European NACE is based has as its counterpart the Central Product Classification (CPC). The European version of the CPC is the Classification of Products by Activity (CPA)

The CPA is a product classification whose elements are related to activities as defined by NACE Rev. 2. Each product is assigned to one and only one NACE Rev.2 activity. The linkage to activities as defined by NACE Rev.2 gives CPA a structure parallel to that of NACE Rev.2. However, the detailed linkage between products and activities can only be established to a certain degree. There are cases where products can be assigned to activities only at a higher level than the class level (for example textile yarn and fabrics) and where the classification is based on certain conventions (for example waste and scrap).

FURTHER READING

Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2

NACE Rev. 2 - Statistical classification of economic activities, Eurostat 2008

On the Eurostat metadata server, RAMON:

- Classification by Types of Constructions (CC)
- Classification of Individual Consumption by Purpose (COICOP)
- Statistical Classification of Economic Activities in the European Community (NACE)
- Statistical Classification of Products by Activity in the European Union, Version 2.1

Business registers

Business registers are of fundamental importance to the compilation of economic statistics. Ideally, a business register provides up to date information on all statistical units active within a country's territory and generating value added, as well as their relevant statistical and administrative attributes.

Regulation 2019/2152 provides for the NSAs to include the KAU in the national business register either as a separate statistical unit or as secondary activities of enterprises.

The main role of the statistical business register is to transform data from administrative sources into data suitable for statistical use, i.e. business registers are a bridge between administrative and statistical units.

The main uses of business register data are the preparation of business surveys and enterprise panels (groups of sampled units that are surveyed over several time points). In particular, business registers are used for the detection and construction of statistical units - statistical units are often constructed units which do not always correspond to legal or administrative units. Administrative sources provide information on the creation and existence of legal units, including the address details.

Business registers are used for the preparation and coordination of surveys. This includes:

- Providing a directory from which mailing lists can be assembled for the dispatch of questionnaires;
- Providing a (frame) population of the business community for which efficient sampling schemes can be designed and panels monitored;
- Providing the basis for grossing-up results from sample surveys to produce (frame or target) population estimates;
- Helping to prevent duplications and omissions in the collection of information on enterprises;
- Improving congruence between the results of different surveys;
- Improving coverage or reveal inaccuracies;
- Allowing coordination between the departments conducting surveys, if a register is central and covers units from all activities;
- Keeping the statistical burden on small enterprises under control by keeping track of the questions put to units in surveys and avoiding selection of the same units more than once.

Statistical surveys should avoid asking for information that the enterprise has already supplied to other authorities. One problem often encountered is that administrative units do not always correspond to statistical units. By correlating administrative units and statistical units, the register offers a partial solution to these difficulties.

Business registers are not only indispensable to prepare surveys, they themselves and important source of information, e.g. for the statistical analysis of the business population and its demography. Today the statistics on business demography are mainly based on the business registers.

Finally, business registers provide an infrastructure for globalisation statistics. With the inclusion of enterprise groups and the control links between units belonging to the groups, the business registers serve as a basic tool to harmonise the treatment of control and ownership data for many statistics related to globalisation, as well as they give some basic data on enterprise groups themselves.

FURTHER READING

European business statistics methodological manual for statistical business registers - 2021 edition European business statistics manual, chapter 4, business registers

National data collection and transmission

Data sources

In accordance with the principle of subsidiarity, Member States are responsible for the production of the national STS data. In most Member States data collection and the compilation of the majority of the STS is done by the national statistical authorities (NSAs). In order to guarantee a sufficient coordination in the production of STS all Member States have nominated coordination offices from the NSAs for the implementation of the statistical law.

Member States may use any relevant data sources for the collection and compilation of STS while avoiding excessive burden on respondents and taking due account of the cost effectiveness of the NSAs (article 4, EBS Regulation).

In particular the following sources may be used (also in combination):

- surveys;
- administrative records, including information from tax and customs authorities such as annual financial statements;
- exchanged microdata;
- any other relevant sources, methods or innovative approaches insofar as they allow for the production of data that are comparable and compliant with the applicable specific quality requirements.

FURTHER READING

European Business Statistics Manual 2021, chapter 9, data sources

Approximations (estimations)

STS concepts may to some extent be approximated by other data and also be estimated. The EBS General Implementing Regulation explicitly foresees the following approximation for STS:

Table 1: Approximation for STS, foreseen in the EBS General Implementing
--

STS concept	Approximation	Scope	Other restrictions
Employees and self- employed persons	Employees only	-	-
KAU	Enterprise	NACE G-N (excl. K, M701, M72, M75)	Until December 2024
Producer prices in construction	Construction costs	CPA 41.00.1 excluding 41.00.14	-
Service Producer Prices B2All	B2B	NACE H-N (excl. K, M701, M72, M75)	B2Consumer negligible

The EBS Regulation and the Implementing Regulation do not contain detailed rules on estimations for STS. Generally, estimations are possible (e.g. for unavailable or incomplete data) or for conflicting data from different sources. Estimates should be marked as such.

In the context of European Sampling Schemes (EBS General Implementing Regulation, (EU) 2020/1197, Annex III.C) the focus on the most relevant foreign trade articles aims at reducing the costs and burden of the reporting countries.

FURTHER READING

European Business Statistics Manual 2021, chapter 10, data processing Handbook of methodology of modern business statistics

Transmission of national data to Eurostat

NSAs transmit required data to Eurostat via EDAMIS (Electronic Data files Administration and Management Information System) which provides a single entry point for all data transmissions to Eurostat.

STS data are to be transmitted according to a specific SDMX (Statistical Data and Metadata Exchange) format.

The European business statistics compilers' manual for STS provides the data compilers with detailed guidelines how to transmit STS data to Eurostat under the EBS Regulation.

FURTHER READING

European Business Statistics Manual 2021, chapter 13, EDAMIS

European Business Statistics Manual 2021, chapter 14, SDMX

European business statistics compilers' manual for STS

CIRCABC folder 'BCS Guidelines', including two reference documents for STS:

- SDMX for EBS STS Guidelines
- ESTAT+BCS+1.0 matrix v0.1.xlsx

European data compilation

EU and euro area aggregates

On the basis of the data series transmitted by the NSAs Eurostat calculates aggregated STS indices for the EU and the euro area.

STS provides indices for fairly specific economic activities (e.g. the manufacturing of parts for motor vehicles) and also for more general activities (e.g. the production of motor vehicles) or even for total industrial production. In the activity aggregation (also called vertical aggregation), indices for more specific activities are combined to higher level indices by multiplying the index values of the specific activities with their weight in the higher level activity and summing up the weighted indices. For the national level the activity aggregation is generally carried out by the NSAs which send complete data sets including indices for specific and more general activities to Eurostat.

Apart from time and activity, STS indices have a geographical dimension. At the European level the indices from Member States are aggregated to an index for the whole EU and to an index for the euro area (geographical aggregation). In this aggregation the differences in the magnitude of the various economic activities in the European countries are taken into account, and the resulting index series are scaled so that the current base year equals 100. The production of aggregated indices for the EU and for the euro area is the main added value provided by Eurostat's short-term statistics.

DATA TREATMENT AND ESTIMATION OF MISSING DATA

Before national data can be uploaded into the public database Eurostat runs a couple of tests, e.g. for unusually high revisions of individual data entries or for unusual growth rates. Checks are also carried out to exclude negative index values. Where unusual data are detected Eurostat contacts the NSAs to verify, and if necessary, correct the data. Sometimes data series also need a pre-treatment before they can be used for the calculation of European aggregates (e.g. conversion of absolute data into indices, re-referencing of data if data of different reference years are sent to Eurostat, estimation of missing data).

Regarding the estimation of missing data two cases need to be distinguished: the production of seasonally adjusted series and the estimation of missing aggregates.

Where a Member State does not transmit a seasonally adjusted series for a certain index this seasonally adjusted series is produced by Eurostat on the basis of the corresponding calendar adjusted series.

Sometimes not only seasonally adjusted data are missing but also some unadjusted or calendar day adjusted data. In such cases Eurostat has to produce estimates. Generally, such data cannot be estimated if an index value is missing at the lowest level of aggregation.

If for example, an industrial production index for country A and month t is available for NACE Rev. 2 classes C10.11 (Processing and preserving of meat) and C10.12 (Processing and preserving of poultry meat) but not for C10.13 (Production of meat and poultry meat products) Eurostat has no information on which it could base an estimate for the missing index for C10.13.

However, it is often possible to produce an estimate for the next higher level of aggregation (e.g. for NACE Rev. 2 group C10.1, Processing and preserving of meat and production of meat products). Such an estimate is produced by Eurostat if the sum of the weights of the available lower level indices amounts to at least 80% of the weight of the higher aggregate. The index for the higher aggregation level is calculated by distributing the weight of the missing index proportionally over the available indices. The relatively high threshold of 80% guarantees the quality of the estimations. When Eurostat publishes estimated data these are flagged as such in the database.

It should be mentioned that these estimations are never carried out for seasonally adjusted data. Seasonally adjusted data are only derived by seasonally adjusting calendar adjusted data.

The above estimation example is valid for all levels of activity: If the available country data at one level of aggregation represent more than 80% of the weight of the next higher level of aggregation the missing data are estimated with the help of so-called "branch lists". A branch list is a complete and detailed list of weights for each country and each indicator of the NACE activities for which data have to be transmitted by the country according to the EBS Regulation along with the respective weights.

EUROPEAN AGGREGATES AND WEIGHTS

For each series Eurostat uses specific weights representing the size of the respective economic activity in a national economy in relation to the whole EU or euro area. At a very detailed level this could lead to the identification of individual companies since in some special activities there might only be a very few companies in a country. Therefore the detailed weights used by Eurostat in STS are confidential.

Eurostat only publishes European aggregates if the total available country data represent at least 60% of the total European weights for the EU or the euro area. The weights used for the geographical aggregation are the same as for the activity aggregation.

The threshold of 60% is applied to each individual series. Thus it might be the case that a production index for manufacturing of paper and paper products (NACE Rev. 2, division 17) can be published but not a production index for wallpaper (NACE Rev. 2, class 17.24) or vice versa. For similar reasons it can happen that an indicator can be published for the EU but not for the euro area.

FURTHER READING

Statistics Explained article, STS data compilation

Rebasing

The economic structure of European economies changes over time. Some national economies grow faster than others and some activities may expand or shrink at a different tempo in the different countries. Therefore the fixed weights used to calculate European indices tend to reflect the economic reality less well for years that are farther away from the fixed base year. For this reason the EBS Regulation foresees that the weights used for the aggregation of STS indicators (by Eurostat and also by the NSAs) are updated at least every five years.

Theoretically, base years should be years that are "normal" or at least not greatly influenced by special events. Mainly for reasons of comparability and simplicity however, the EBS Regulation prescribes that the selected base years are usually years ending with 0 or 5. There is one exception in the regulation, instead of 2020 the next STS base year will be 2021.

The update of the weights should take place not later than three years after the end of the new base year.

FURTHER READING

Statistics Explained article, Base year 2015

Working day and seasonal adjustment

Economic indicators such as turnover or production do not develop smoothly over time. These data may follow a long-term trend but there are also strong infra-annual influences that make a direct month-on-month or quarter-on quarter comparison of unadjusted data difficult. Eurostat publishes national and European short-term statistics indicators of the following types:

- unadjusted/gross data (nsa), i.e. data without any adjustment;
- calendar adjusted (working day adjusted) data (ca) in which calendar effects (leap years, public holidays, etc. have been removed;
- seasonally and calendar adjusted data (sca) in which not only calendar effects have been removed but also seasonal effects.

Seasonal patterns differ between economic industries (e.g. summer holidays result lower industrial production, Christmas increases December retail trade) but there are also considerable differences between different countries.

For many variables (e.g. production volume, volume of sales, net turnover, building permits) the EBS Regulation requires Member States to transmit not only unadjusted data but also calendar adjusted and seasonally adjusted data to Eurostat (at the latest as of 2024). In the past, under the STS Regulation usually only unadjusted and calendar adjusted data were required. The transmission of seasonally adjusted data was voluntary.

INDIRECT SEASONAL ADJUSTMENT FOR EUROPEAN AGGREGATES

As of 1 March 2012 Eurostat changed the method for seasonal adjustment of European STS data from direct to an indirect approach. The terms "direct" and "indirect" refer to the geographical dimension of the STS data, i.e. the way in which national data are aggregated to European data. In another context direct and indirect methods might be used, for instance, to aggregate data from sub-industry level to industry level etc.

In the indirect approach seasonally adjusted European aggregates are calculated as follows:

- where national seasonally adjusted time series are available (see above), these are used;
- where seasonally adjusted series are not available they are calculated by Eurostat on the basis of the available national unadjusted data or calendar adjusted data;
- a weighted average of these seasonally adjusted series of the EU-Member States (or of the euro area) is calculated for each NACE and CPA heading if the data availability exceeds 60% in terms of weights.

The approach is called indirect because the seasonally adjusted European aggregate is not seasonally adjusted itself but is based on national inputs which have been adjusted before the aggregation. In the former direct approach the national time series (either calendar adjusted or unadjusted data) were first weighted and aggregated and the seasonal adjustment was then performed directly on the European aggregate.

The indirect approach has several advantages. In particular seasonally adjusted European averages are fully consistent with national seasonally adjusted data. Where e.g. seasonally adjusted national data and European aggregates are published in the same tables, users can check the consistency by weighting and adding up the data for the Member States. This is not the case with the direct approach. Consistent national and European data entail greater immediate plausibility of the results.

If new European aggregates have to be calculated (because the composition of the EU or the euro area changes, for instance) it is not necessary to define new seasonal adjustment specifications for the new aggregate, only a new weighting scheme would have to be developed.

NSAs have more detailed information available which they can employ for the calculation of their seasonal adjustment. Using these data as input can be expected to lead to higher quality in the

FURTHER READING

data.

Statistics Explained article, Seasonal adjustment in STS

European aggregates than using one single European adjustment method on the aggregated input

ESS Guidelines on Seasonal Adjustment, Eurostat 2015

Handbook on Seasonal Adjustment, Eurostat 2018

Eurostat site on seasonal adjustment

CROS-Portal on seasonal adjustment

CROS-Portal – Seasonal adjustment Centre of Excellence

Dissemination of results by Eurostat

Dissemination of STS data

European short-term statistics are almost exclusively disseminated on-line. All short-term statistics related information (data, reference metadata, publications, methodological information, legal texts etc.) is available at the short-term-business-statistics section dedicated on the Eurostat website.

DISSEMINATION TOOLS

Eurostat publishes 48 **STS news releases** per year, i.e. a monthly release for the four central STS indicators – industrial production, industrial producer prices, production in construction, and volume of retail trade. These four indicators are also part of the eights STS Principal European economic indicators (PEEIs) which are used for the monitoring of the economic and financial development of the Euro area. The publication date of the news releases is announced in advance in the Eurostat and the STS release calendar.

All STS indicators are published in the **Eurostat online database**. Apart from pre-defined tables the extraction modes also give users the possibility to download data according to their specific needs as regards indicator, countries and EU aggregates, format (unadjusted, calendar adjusted, seasonally adjusted), length of time series etc. All data are provided in the form of indices and in the form of growth rates, as monthly data (where available), quarterly, and annual data. Access to all data is free of charge.

Statistics Explained is Eurostat's central publication platform. Within Statistics Explained a number of articles on short-term statistics has been published. Overview articles provide information on all individual short-term indicators as well as data and political context. Background articles explain specific statistical-methodological issues pertinent to short-term statistics such as the compilation of European aggregates, seasonal adjustment, revisions, the legal base etc. Moreover, a glossary with important statistical terms and an introductory article on STS are published in Statistics Explained.

STS data are also distributed via special **news items** and as part of other publications, e.g. the European Statistical Recovery Dashboard and as part of the Euro indicators.

The European business statistics compilers' manual for STS provides further details on Eurostat dissemination products which include STS data.

STS DATA IN THE DISSEMINATION

European aggregates are generally published as indices and growth rates. In particular, growth rates constitute a natural instrument for the analysis of cyclical developments. Some Member States also disseminate absolute figures for STS data.

All STS indices are published with the same reference year. Reference years are changed every five years and are usually years with end with a 0 or 5.

Where available, data are published with a monthly frequency. In several cases the reference period is the quarter (e.g. labour input data). In addition to these high frequency data annual aggregates are

produced.

Growth rates are provided as month-on-month rates, as quarter-on-quarter rates and as annual rates (a reference period is compared to the previous reference period). Annual growth rates are also calculated for monthly and quarterly data by comparing a reference period to the same period one year ago.

Indices and growth rates are published in different forms of adjustments, i.e. as unadjusted (gross) data, calendar adjusted data and data that are both calendar and seasonally adjusted.

FURTHER READING

Eurostat website, STS dedicated section

Statistics Explained article, Dissemination of STS

European business statistics compilers' manual for STS

Release and revision policy of short-term business statistics

In the past all STS data, including the EU and euro area aggregates, were revised whenever additional information from national statistical authorities became available. This procedure resulted in almost daily - usually small - revisions since Member States sent their data on different days to Eurostat. In February 2012 the European Statistical System Committee (ESSC) approved guidelines on how to deal with the various types of revisions for the PEEIs.

For STS, the following principles were implemented as of October 2012:

- European aggregates are generally released and revised only once per month. This new policy is applied for all PEEIs and for the retail trade turnover indicator.
- Presently continuous revisions are still applied for all STS labour input indicators (numbers
 of persons employed, hours worked, gross wages and salaries), for construction producer
 prices and costs and for the industrial turnover indicator.
- National data are revised whenever new information becomes available.
- The calendar with the STS release dates is published on the Eurostat website. For
 indicators subject to a monthly news release, the European aggregates are revised on the
 same dates.
- For other STS PEEIs and retail trade turnover, the release and revision dates are identical
 and lie within a few working days after the end of the deadline for new data transmissions
 from the Member States. Hence data releases and revisions always take place in the
 beginning of each month.

The new revision policy concerns only routine revisions. Detected errors in national data or in European aggregates are corrected immediately and an error report is released.

Users will be informed about the forthcoming major revisions (e.g. due to methodological changes) in news releases and on Eurostat's website before the event takes place.

FURTHER READING

Statistics Explained article, Revisions in STS

Eurostat STS dedicated section, publications (release calendar)

Report to the European Parliament and the Council on STS - 2021

Confidential data

Sometimes it is possible that national STS data for certain economic activities would allow identifying individual businesses (e.g. when there is only one major business in a certain industry dominating that sector). In such cases short-term statistics cannot publish country data for reasons of confidentiality. Nevertheless Eurostat must receive the data from national statistical institutes in order to calculate European aggregates. The confidential data are only disseminated when they combined with other data in a form that ensures that statistical units cannot be identified directly or indirectly.

Data which are declared confidential by the Member States in line with national legislation or practice are transmitted to Eurostat marked with a special confidentiality flag. Apart from the STS indicators the weights used by Eurostat for compiling indices are sometimes confidential because they might also allow identifying individual businesses.

Data that are sent before the publication by NSAs and are under embargo are not published by Eurostat before the embargo expires. In individual cases data that are considered confidential by Member States but are not covered by the confidentiality definition of Regulation 322/97 might not be published. In such cases Eurostat will consider the relative weight of user needs and the national confidentiality concerns.

FURTHER READING

Council Regulation 223/2009 on the transmission of confidential data

Data quality, metadata, revisions

Data quality

Eurostat monitors Member States' compliance with the statistical regulation in terms of timeliness and completeness. Twice per year, a comprehensive compliance score covering all required datasets is calculated for each country. Generally, the results of the monitoring show a high degree of compliance with the EBS Regulation. The European business statistics compilers' manual for STS provides further details on the compliance assessment of the STS data transmissions.

The quality of the STS data is developed on the basis of the various quality aspects outlined in the European Statistics Code of Practice.

With the EBS Regulation, common definitions for short-term statistics were introduced in order to ensure the coherence and comparability of data. Eurostat and the national statistical offices work closely together to maintain and improve accuracy, reliability and coherence of the short-term statistics indicators. The methodological framework originally established by the STS Regulation is continuously improved through consultation with technical experts and special thematic task forces.

Despite uniform definitions, approaches do not have to be identical across Member States for compiling statistical data. In keeping with the principle of subsidiarity and in order to take account of national differences, e.g. as regards size, economic structure and availability of administrative data, the EBS Regulation leaves it to Member States to decide on the most efficient and effective ways of collecting and processing the data. Eurostat also works with other international organisations to increase the comparability of data and methodology beyond the European Union.

Short-term statistics are among the first official data to provide an indication of the most recent economic developments. The EBS Regulation sets very short deadlines for the delivery of national data to Eurostat. In general, the timeliness of short-term statistics can be considered very good. Delays usually only occur if the target delivery day falls on a weekend or on a public holiday. Users are informed about news release publication dates well in advance by means of the news release calendar on the Eurostat website.

FURTHER READING

Statistics Explained article, Quality and scope of STS

European business statistics compilers' manual for STS

European statistics Code of Practice

Report to the European Parliament and the Council on STS - 2021

Metadata

Metadata provide information about other data, i.e. STS indicators. Structural metadata are necessary to identify and understand data values and have to accompany all values. For example the data point "105.6" needs to be accompanied by information such as "index of total retail turnover

in the EU, January 2021, 2015=100" to be meaningful. Reference metadata describe statistical concepts and methodologies used for the collection and generation of data, and provide information on data quality.

STS reference metadata follow the ESMS (Euro SDMX Metadata Structure) reporting standard. ESMS files are standardized, user-oriented files used for describing the statistical data sets published by Eurostat on its website. The purpose of the ESMS files is to document the methodologies, the quality aspects, and the statistical production processes in general.

ESMS files are based on SDMX (Statistical Data and Metadata eXchange) standards. The SDMX is an international initiative for the standardisation and modernisation of the mechanisms and processes for the exchange of statistical data and metadata among international organisations and their member countries.

SDMX sponsoring institutions are Eurostat, the Bank for International Settlements (BIS), the European Central Bank (ECB), the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), the United Nations Statistics Division (UNSD), and the World Bank.

The 19 high-level concepts of STS metadata are derived from the SDMX cross domain concepts. They encompass:

- 1. Contact
- 2. Metadata update
- 3. Statistical presentation
- 4. Unit of measure
- 5. Reference period
- 6. Institutional mandata
- 7. Confidentiality
- 8. Release policy
- 9. Frequency of dissemination
- 10. Accessibility and clarity
- 11. Quality management
- 12. Relevance
- 13. Accuracy
- 14. Timeliness and punctuality
- 15. Coherence and comparability
- 16. Cost and burden
- 17. Data revisions
- 18. Statistical processing
- 19. Comment

STS reference metadata are updated annually. The European business statistics compilers' manual for STS describes the metadata reporting for STS data under the EBS Regulation.

FURTHER READING

Eurostat STS Metadata

National STS Metadata

European business statistics compilers' manual for STS

Eurostat website - Information regarding metadata

European Business Statistics Manual 2021, chapter 12, reference metadata

SDMX website

Revisions

Revisions are any change in a value of a statistic released to the public. Revisions occur for several reasons. Routine revisions of short-term business statistics are necessary because of late incoming data, seasonal adjustment or regular benchmarking. Main revisions are the consequences of methodological changes and changes of the reference and base year, they often are large in size but take place less frequently and regularly than routine revisions. Finally, revisions occur in the correction of errors.

LATE DATA, SEASONAL ADJUSTMENT, BENCHMARKING

STS publish monthly and quarterly indicators within one to three months after the end of the reference period. To meet these deadlines STS requires early estimations which may have to be revised later when more complete data becomes available. Late data arrival can occur at least at two different levels.

Firstly, some respondents of statistical surveys in the Member States send their questionnaires after the national deadlines and the statistical authorities need to estimate the missing data when sending national data to Eurostat. Later, the estimated values are replaced by the more complete data that are re-transmitted to Eurostat.

Secondly, Eurostat often releases its first estimates at the time when some Member States' data are still missing. In short-term business statistics, small countries have often 15 days more time to prepare their national contributions. Later, when all countries have sent their data and some have even revised their first estimates, Eurostat revises the European aggregates.

Short-term statistics are adjusted for seasonal effects in order to allow comparing month-on-month or quarter-on-quarter changes whenever indicators are subject to seasonal variation. The estimation of seasonal effects requires long time series. The mathematical models used to identify seasonal effects work in a way that a new observation can change the seasonal factors applied to the whole time series. Consequently, when the new seasonal factors are applied to the older data, the whole time series may need to be revised. Additionally, an annual (or more frequent) overhaul of seasonal adjustment models is needed to maintain the quality of the models. When models are changed, the adjusted time series are also revised.

Benchmarking (also called data confrontation or consolidation) is defined as the adjustment of (generally) higher frequency data to take account of more complete lower frequency results, which become available only later. Short-term statistics can be confronted with structural business statistics, labour statistics or national accounts.

METHODOLOGICAL CHANGES AND REBASING

Methodological changes, including changes of definitions and classifications, are a trigger for major revisions. They cause statistics to be redefined so that the results for the old and the new time series are different, if they are even comparable at all.

Revisions can also be caused by changes to the base and reference year, which, together with new weighting systems, can alter the paths of time series. Changing the weighting system affects the growth rates of the European aggregates, if the weights of the different countries change considerably. The change of the reference year only means that all values of the time series are divided by the average of the new reference year. This can change the index levels for time series, but it does not have an impact on the growth rates.

CORRECTIONS

Alterations to the data may also stem from correcting errors. It is not possible to entirely rule out errors during the compilation process in the Member States and in Eurostat. The correction of such errors requires revisions of the published statistical results. The correction of Member States' data leads also to corrections of the European aggregates. Opposite to all other revisions presented above, corrections of errors cannot be planned in advance, but it is possible to inform the users on how errors are dealt with. Significant errors need to be corrected as soon as possible.

CONCLUSIONS

Outside the major revisions, the short-term statistics price indicators are generally rather stable after the first months following the initial release. However, but volume indices of production in industry and construction, net turnover and sales volume indices as well as the building permits indicators show some volatility - even long after their first release.

When big countries revise their data, the European aggregates are also revised and this can be observed in the revision tracks of the European main aggregates. The major methodological changes, for example the change of classifications, the base year or the seasonal adjustment method understandably introduce revisions to the entire length of the concerned time series.

FURTHER READING

Statistics Explained article, Revisions in STS

Report to the European Parliament and the Council on STS - 2021

ESS Guidelines on Revision Policy for PEEIs

Eurostat Quality-Related Initiatives (Dedicated Section)

Eurostat's internal dissemination error management policy

STS variables: Production

Variable

140101 Production (volume).

Concept/definition

In STS production (volume) is understood as the own output of a unit excluding the inputs from other units. Thus output (volume) conceptually conforms to the value added of a unit and should in general approximate the definition of value added in National Accounts.

Value added is a composite indicator of net operating income, adjusted for depreciation, amortization and employee benefits, all components being recognized as such by the statistical unit during the reference period. Its value is given by the formula:

- + Net turnover
- + Income from product- or turnover-related subsidies
- + Capitalized output
- ± Change in stock of goods
- Total purchases of goods and services.

The production (volume) is to be presented in the form of a Laspeyres-type index.

Since many data that are necessary for an exact calculation of a value added index are not available at infra-annual periodicity the production index may be approximated by suitable methods. In particular the estimation with the following data is possible: turnover, labour input, energy consumption, consumption of materials, gross production values, and volumes.

Services production may be calculated on the basis of service turnover deflated by a suitable service producer price index.

Scope, granularity, form, reference period, deadline

STS provides production indices for industry, construction, and services.

For industry the NACE sections B, C, D (excluding D353) are covered, for construction the NACE section F, and for services the NACE sections H, I, J, L, M (excluding M701, M72, and M75), and N are covered.

The breakdowns (granularity, degree of detail) of the NACE sections depends on the country size.

Indices are to be reported in unadjusted, calendar adjusted and in (calendar and) seasonal adjusted form.

With the EBS Regulation the reference period for most production indicators is the month (and

quarter for index of production in construction for the smallest countries).

Data transmission deadlines are T+Im10d for industry, T+1m15d for construction (large and medium countries) and T+2m for small countries. For services production the deadline is T+2m.

FURTHER READING

Statistics Explained article, Industrial production index

Statistics Explained article, Production construction index

Statistics Explained article, Index of services production

STS requirements

STS requirements by country size

Eurostat Guide on Developing an Index of Services Production (ISP)

European business statistics methodological manual for compiling the monthly index of production in construction

UN International Recommendations for the Index of Industrial Production 2010

European System of National Accounts, ESA 2010

NACE Rev. 2, Annex II, Outsourcing

Outsourcing Manual (NACE Rev. 2 Implementation Manual, 2014)

8 Net turnover

Variables

140301 Net turnover (value)

140302 Domestic net turnover (value)

140303 Non-domestic net turnover (value)

140304 Non-domestic net turnover (value) (euro area) (optional for non-euro area countries)

140305 Non-domestic net turnover (value) (non-euro area) (optional for non-euro area countries)

Concept/definition

Net turnover consists of all income arising during the reference period in the course of ordinary activities of the statistical unit, and is presented net of all price reductions, discounts and rebates granted by it. Income is defined as increases in economic benefits during the reference period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants. The inflows referred to are arising from contracts with customers and are realized through the satisfaction by the statistical unit of performance obligations as foreseen in said contracts. Usually, a performance obligation is represented by the sale (transfer) of goods or the rendering of services, however, the gross inflows can also contain revenues obtained as a yield on the use by others of the statistical unit's assets.

Excluded from net turnover are:

- all taxes, duties or levies linked directly to revenue;
- any amounts collected on behalf of any principal, if the statistical unit is acting as an agent in its relationship with said principal;
- all income not arising in the course of ordinary activities of the statistical unit. Usually, these types of income are classified as "other (operating) income", "financial income", "extraordinary income" or under a similar heading, depending on the respective set of generally accepted accounting standards used to prepare the financial statements.

Infra-annual statistics such as STS may not be able to take into account aspects such as annual price reductions, subsidies, rebates and discounts and may therefore approximate the net turnover variable.

Industrial turnover is to be split into domestic and non-domestic net turnover according to the first destination of the product based on the change of ownership (whether or not there are also corresponding physical movements of goods across frontiers). The destination is determined by the residency of the third party that purchased the goods and services.

There is no geographic breakdown of the trade and services net turnover indicators.

Scope, granularity, form, reference period, deadline

STS provides net turnover indices for industry, trade and services but not for construction.

For industry the NACE sections B and C are covered but not sections D and E. For trade the complete NACE section G is covered, for services the NACE sections H, I, J, L, M (excluding M701, M72, M75), and N are covered.

The breakdowns (granularity, degree of detail) of the NACE sections depends on the country size.

Indices are to be reported in unadjusted, calendar adjusted and in (calendar and) seasonal adjusted form.

With the EBS Regulation the reference period for all turnover indicators is the month.

Data transmission deadlines are T+2m for industry, for the trade and repair of motor vehicles (NACE G45) and wholesale trade, and for services. For retail trade the deadline is T+1m for the main aggregates.

FURTHER READING

Statistics Explained article, Industrial turnover index

Statistics Explained article, Services turnover index

STS requirements

STS requirements by country size

Volume of sales

Variable

140201 Volume of sales

Concept/definition

The volume of sales represents the value of net turnover in constant prices and as such is a quantity index. It can be calculated as net turnover at current prices, deflated by the appropriate price indicator, or as a quantity index derived directly from the quantity of goods sold.

Scope, granularity, form, reference period, deadline

The volume of sales indicator has to be produced for NACE section G (trade) as well as for the divisions of section G, i.e. G45 (trade and repair of motor vehicles), G46 (wholesale trade), and G47 (retail trade).

In addition certain special aggregates are mandatory, i.e. division G47 excluding G473 (retail trade without sales of fuel in specialised stores), aggregate of NACE class G4711+ NACE group G472 (food), aggregate of NACE class G4719 and NACE groups G474+G475+G476+G477+G478+G479 (non-food, excluding fuel), and NACE group G473 (sales of fuel in specialised stores).

For medium and large countries there are additional requirements, i.e. groups in NACE section G and classes G4711, G4719 and G4791.

Data have to be transmitted in the form of unadjusted, calendar adjusted and calendar and seasonally adjusted form.

The reference period for all sales volume data is the month.

The transmission deadline is T+1m for G47 and the special aggregates of G47 as well as for G473. The transmission deadline for the other volume of sales data is T+2m.

FURTHER READING

Statistics Explained article, Retail trade volume index

STS requirements

STS requirements by country size

Industrial and services producer prices

Variables

130201 Producer prices

130202 Domestic producer prices

130203 Non-domestic producer prices

130204 Non-domestic producer prices (euro area)

130205 Non-domestic producer prices (non-euro area)

Concept/definition

Producer price indices measure the development of transaction prices of economic activities in industry, construction, and services (construction producer prices are discussed in a special section together with construction costs). All price-determining characteristics of the products are taken into account, including e.g. quantity of units sold, transport provided, surcharges, discounts, rebates, service conditions, guarantee conditions, destination etc.

Producer prices measure the price development from the point of view of the producer/seller. Therefore value added tax (VAT) and similar deductible taxes directly linked to turnover as well as all duties and taxes on the goods and services invoiced by the unit are deducted. On the other hand, subsidies on products received by the producer, if there are any, should be added.

In order to show the true development of price movements, it should be an actual transaction price, and not a list price.

In order to show pure price movements, the producer price index compilation should take into account and adjust for quality changes in products. The specification must be such that in subsequent reference periods, the observation unit is able uniquely to identify the product and to provide the appropriate price per unit.

The index should in principle reflect the average price during the reference period. In practice the information actually collected may refer to a particular day in the middle of the reference period that should be determined as a representative figure for the reference period. For products with a significant impact on the national economy that are known to have, at least occasionally, a volatile price development, it is important that the index does indeed reflect average prices.

Price data should reflect prices at the moment of the actual transaction, i.e. when claims and obligations arise. Service prices should in principle be recorded when the service is provided. If the service delivery spans over several time periods or when services are bought in advance of the service delivery, appropriate adjustments have to be made

The service producer price index for an economic activity measures the average price development of all services, Business-to-All, which is composed of Business-to-Business – B2B, and Business-to-consumers – B2C. Sales to public sector, Business-to-Government – B2G, is also included in B2B.

The (industrial) domestic producer price index measures the average price development of all goods and related services resulting from sales on the domestic market. The non-domestic price index shows the average price development (converted to local currency) of all goods and related services resulting from sales outside of the domestic market.

When combined, these two indices show the average price development of all goods and related services. For producer prices of the non-domestic market, the price should be calculated at national frontiers, fob (free on board).

The indices of domestic and non-domestic prices require separate producer price indices to be compiled according to the destination of the product. The destination is determined by the residency of the third party that has ordered or purchased the product. Euro area countries have to break the non-domestic further to euro area and non-euro area prices at NACE Rev.2 division level. European sampling schemes are applicable to the scope of this breakdown.

The Service producer price indices (SPPIs) are Business-to-All (B2All). Where the share of transactions with private consumers (B2C) is negligible, the SPPIs may be approximated by Business-to-business (B2B) indicators. For reference periods before 2021, the SPPIs may be approximated by B2B indicators instead of B2All indicators.

Indices based on actual producer prices are preferable. If those are not available, approximations may be used for H49, H50, H52, I55, I56, J58, J59, J60, L68, M74, N77, N79, N81 and N82. Products (CPA) may be used to approximate activities (NACE).

Scope, granularity, form, reference period, deadline

Industrial producer prices cover NACE section B (excl. B0721), C (excl. C2446, C254, C301, C303 and C304), D and Division E36.

The division into domestic and non-domestic prices only applies for industrial producer prices (not for services or construction prices).

The industrial producer prices are to be transferred for total industry (sum of NACE B+C+D, E36), for the MIGs, for the sections B, D, and D and for division E36. Medium sized countries also have to transmit the data at division level, large countries also at group and class level (representing at least 90% of value added of section C).

Industrial producer prices are to be transmitted in unadjusted form. The reference period is the month. The transmission deadline is T+1m.

SPPIs cover NACE sections H, I, J, L, M (excl. M701, M72and M75) and N. Apart from the aggregate of these NACE sections service producer prices have to be transmitted for the individual sections and the divisions.

SPPIs are to be produced in unadjusted form. The reference period is the quarter. The transmission deadline is T+3m.

FURTHER READING

Statistics Explained article, Industrial producer price index

Statistics Explained article, Service producer price index

Handbook on industrial producer price indices (PPI)

Eurostat OECD Methodological guide for developing producer price indices for services

IMF Producer Price Index Manual

STS requirements

11

Industrial import prices

Variables

130101 Import prices130102 Import prices (euro area)130103 Import prices (non euro area)

Concept/definition

Import price indices measure the monthly transaction price development of goods purchased by residents from non-residents. All the related services are initially excluded from the scope except for those covered by CIF (cost, insurance, freight) trade agreement. The price indices should track the price movements of comparable items over time.

All price-determining characteristics of the products have to be taken into account, including quantity of units sold, transport provided, rebates, service conditions, guarantee conditions origin and destination. The specification must be such that in subsequent reference periods, the observation unit is able uniquely to identify the product and to provide the appropriate price per unit.

The following limitations apply for the scope of import prices:

- imports by households, government units and non-profit institutions are excluded,
- the underlying trade system is the special trade system so normal imports as well as imports
 for inward processing and after outward processing, when the reporting unit acquires the
 ownership of goods, are included. Imports for repair are not covered,
- the product coverage is limited to the CPA B, C and D products. Related services are excluded.
- The appropriate price is the CIF price at the border excluding all duties and taxes on the goods and services to be shouldered by the reporting unit.
- The prices should be actual transaction prices, not list prices, therefore discounts should be deducted from the price.
- In order to show pure price movements the price index compilation should take into account and adjust for quality changes in products.
- Other price-determining characteristics of the products should be treated in a consistent way as well.
- The imports are recorded when the ownership of the goods is transferred (i.e. when the
 parties record transaction in their books or account).

The transfer of ownership of vessels and aircraft, as well as spacecraft from a person established in another country to a person established in the Member State in question is counted as an import.

The index should reflect the average price during the reference period. In practice the information actually collected may refer to a particular day in the middle of the reference period that should be determined as a representative figure for the reference period. For products with a significant impact on the national economy that are known to have, at least occasionally, a volatile price development, it is important that the index does indeed reflect average prices.

The indices of the import prices require a separate calculation according to the country of consignment of the goods (euro area and non-euro area). The country of consignment is determined in a consistent way with customs rules.

Only euro area countries are required to transmit this indicator in the EBS Regulation. European sampling schemes are applicable so that countries applying them only need to transmit import prices for products from outside the euro area (130103).

Scope, granularity, form, reference period, deadline

Industrial import prices are defined according to the Classification of Products by Activity (CPA), the cover section B (excl. B0721, uranium and thorium ores, and B09, mining support services), section C (excl. C18, printing and recording services, C2446, processed nuclear fuel, C254, weapons and ammunition, C301, ships and boars, C303, air and spacecraft, C304 military fighting vehicles, and C33, repair and installation services of machinery and equipment) and section D.

Data have to be produced for the MIGs in CPA section B, for the CPA aggregate of sections B, C, and D (with the exceptions mentioned above) and at section level for CPA B, C, and D (with the exceptions mentioned above). Medium and large countries also have to produce the data at division level.

Data have to be transmitted as unadjusted indices, the reference period is the month, the deadline T+1m15d.

FURTHER READING

Statistics Explained article, Industrial import price index

STS requirements

Construction producer prices and costs

Variable

130201 Producer prices

Concept/definition

Conceptually construction producer prices are similar to industrial producer prices and services producer prices. They measure only the development of new residential buildings and exclude residences for communities, non-residential buildings, land prices and architect's and other fees. (A new residential building is any building which is constructed for permanent or temporary residential use or a building which is converted from other use to a permanent or temporary residential use, and for which a building or planning permit is required in national legislation.)

They reflect the prices paid by the client to the construction company. They therefore do not only reflect the variations in the cost factors of construction, but also the changes in productivity and profit margins. In addition, a temporal difference exists between the output price and the corresponding costs of production.

The total construction costs of new residential buildings can be used as a proxy for the producer prices. The construction cost index shows the development of costs incurred by the contractor to carry out the construction process. Costs that constitute the total construction costs of new residential buildings are material costs, labour costs, plant and equipment, transport, energy and other costs. Costs of residences for communities, non-residential buildings, land prices and architect's and other fees are not parts of the construction costs.

The material costs are generally calculated using material prices. Prices of materials should be based on actual prices rather than list prices. Prices should be based on a sample of products and suppliers. Prices are valued excluding VAT.

The labour costs should cover wages and salaries and social security charges for all persons employed. Social security charges include: i) statutory social contributions payable by the employer, ii) collectively agreed, contractual and voluntary social contributions payable by the employer and iii) imputed social contributions (social benefits paid directly by the employer).

Scope, granularity, form, reference period, deadline

The construction price/construction cost indicators cover CPA 41.00.1 without CPA 41.00.14, i.e. new residential buildings excluding residences for communities.

The indicator is to be transferred in unadjusted form. The reference period is the quarter.

The transmission deadlines are T+3m for large countries and T+3m15d for small and medium sized countries.

FURTHER READING

Statistics Explained article, Construction producer prices and construction cost index

STS requirements

STS requirements by country size

Methodological aspects of construction price indices

Sources and methods construction price indices

13 Building permits

Variables

150101 Building permits, number of dwellings

150102 Building permits – Square metres (of useful floor area or alternative size measure)

Concept/definition

A building permit is an authorisation to start work on a building project. As such, a permit is the final stage of planning and building authorisations from public authorities, prior to the start of work. The purpose of the building permit indicator is to provide an early indication of the workload for the building industry in the near future, although this may not be the case when a large proportion of permits are not used or when there is a long time lag between permits and building starts.

STS provides two types of building permits indicators, one for the number of dwellings, the other for the square meters (useful floor area).

STS building permits focus on the permits for new buildings and conversions of non-residential building into residential buildings, it is recognised however that building permits may be granted for other constructions and works.

The building permits indicator is subdivided into residential and non-residential buildings. Residential buildings are constructions at least half of which is used for residential purposes. If less than half of the overall useful floor area is used for residential purposes, the building is classified under non-residential buildings in accordance with its purpose-oriented design.

This variable is compiled from the number of dwellings in new residential buildings for which building permits have been granted (covering one-dwelling residential buildings and residential buildings with two and more dwellings). A dwelling is a room or suite of rooms and its accessories in a permanent building or structurally separated part thereof which by the way it has been built, rebuilt, converted and so on, is intended for private habitation. It should have separate access to a street (direct or via a garden or grounds) or to a common space within the building (staircase, passage, gallery, and so on). Detached rooms for habitation which are clearly to be used as a part of the dwelling should be counted as part of the dwelling. A dwelling may thus be constituted of separate buildings within the same enclosure, provided they are clearly intended for habitation by the same private household.

Extensions of existing residential buildings for which no building permit is required are not considered as dwellings for these statistics.

The indicators based on square meters is compiled from the square metres of useful floor area of new residential and non-residential buildings for which permits have been granted. The useful floor area of a building is measured within its external walls, excluding:

 construction areas (e.g. areas of demarcation components, supports, columns, pillars, shafts, chimneys),

- functional areas for ancillary use (e.g. areas occupied by heating and air-conditioning installations, or by power generators),
- thoroughfares (e.g. areas of stairwells, lifts, escalators).

The part of the overall useful area of a building used for residential purposes includes the area used for kitchens, living rooms, bedrooms and ancillary rooms, cellars and common rooms of the residential units.

If the information on useful floor area is not directly available from the collected data, it may be estimated on the basis of the available sources.

Scope, granularity, form, reference period, deadline

The building permit indicator for the number of dwellings covers CPA 41.00.1 excl. 41.00.14, i.e. new residential buildings only, excluding residences for communities.

The data are to be broken down into CPA 41.00.11 (one-dwelling buildings) and the sum of CPA 41.00.12 and CPA 41.00.13 (two-dwelling buildings plus three or more dwelling buildings).

The building permits indicator for square meters covers CPA 41.00.1 and 41.00.2, i.e. new residential and non-residential buildings only.

For the square meter index more breakdowns are mandatory, they include: CPA 41.00.1 without CPA 41.00.14 (residential buildings without residences for communities), CPA 41.00.11 (one-dwellings buildings), sum of CPA 41.00.12 and CPA 41.00.13(two or more dwelling buildings), CPA 41.00.14 (residences for communities); CPA41.00.2 (non-residential buildings), CPA 41.00.2 without 41.00.23 (non-residential buildings excluding office buildings), CPA 41.00.23 (office buildings).

The absolute values, measured in number of dwellings and useful floor area, are to be transmitted in unadjusted, calendar adjusted and seasonally and calendar adjusted form.

The reference period for the building permits indicator is the quarter (monthly data optional).

The deadline is T+3m.

FURTHER READING

Statistics Explained article, Building permits index

STS requirements

Labour input, employment

Variable

120101 Number of employees and self-employed persons

Concept/definition

The number of employees and self-employed persons is the sum of the number of employees and self-employed persons.

The number of employees is defined as the average number of persons who were, at some time during the reference period, employees of the statistical unit. An employee is a person hired by the statistical unit to provide services to it on a regular basis in exchange for benefits and where the services provided are not part of an independent business. Apprentices, if hired under such conditions, are considered employees.

The average should be calculated as the arithmetic mean of the number of employees over the shortest time periods of equal length fitting into the reference period, for which regular observations are practicable (e.g. daily, weekly, monthly, quarterly, etc.).

The number of self-employed persons is the average number of persons who were at some time during the reference period the sole owners or joint owners of the statistical unit in which they work. Family workers and outworkers whose income is a function of the value of the outputs of the statistical unit are also included.

Scope, granularity, form, reference period, deadline

Labour input data in STS cover industry (NACE Sections B, C, D, E36), construction (NACE section F), trade (NACE section G) and services (NACE sections H, I, J, L, M, excluding, M701, M72 and M75 and NACE section N).

Data have to be provided for Main Industrial Groupings (MIGs) of NACE Sections B, C, D and Division E36, for the aggregate of the NACE sections (B+C+D+E36, H+I+J+L+M (excl. M701, M72, M75)+N) and for the individual NACE Sections (B, C, D, F, G, H, I, J, L, M (excl. M701, M72, M75) and N) as well as for the NACE divisions E36, G45, G46, G47, and G47 (excl. G473).

Medium and large countries also have to provide the division level of sections B, C, and D (i.e. industry).

Data have to be provided as indices in unadjusted form.

The reference period is the quarter.

The transmission deadline for the employment indicators it is T+2m for large countries and T+2m15d for small and medium sized countries.

FURTHER READING

Statistics Explained article on STS labour input data STS requirements STS requirements by country size

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Labour input, hours worked by employees, wages and salaries

Variables

120201 Hours worked by employees 120301 Wages and salaries

Concept/definition

Total hours worked by employees represents the number of hours actually worked by employees, for the output of the statistical unit during the reference period. Time spent on adjacent work, indirectly contributing to the output (e.g. planning, preparation, administrative and alike), as well as time spent without actual work, but deemed and remunerated as such by the statistical unit (e.g. short breaks, short disruptions due to slack in production, trainings and alike) is included. Time spent on work, be it adjacent work, without actual remuneration (e.g. unpaid overtime) is also included.

Remunerated time spent without actual work and not deemed as such by the statistical unit (e.g. annual leave, sick leave, maternity leave, official holidays, longer breaks, meal breaks, strikes, commuting and alike) is excluded.

Infra-annual statistics may not be able to take into account all these items such as unpaid overtime.

Wages and salaries include all expenses incurred during the reference period on the total gross remuneration, in cash or in kind, of all employees of the statistical unit. The total gross remuneration, in cash or in kind, contains as examples, but is not limited to the following items: direct remuneration, bonuses, allowances, gratuities, tips, commissions, payments to employees' saving schemes, payments for days not worked, wages and salaries in kind, company products, staff housing, company cars, stock options and purchase schemes, amounts to be withheld by the employer (social security contributions of the employee, personal income tax, etc.). Infra-annual statistics may not be able to take into account all these items.

Expenses regarding services provided through agency workers, as well as the expenses of social security contributions and other similar fiscal obligations (tied directly or indirectly to wages and salaries), if incurred by the employer, are excluded.

Scope, granularity, form, reference period, deadline

Labour input data in STS cover industry (NACE Sections B, C, D, E36), construction (NACE section F), trade (NACE section G) and services (NACE sections H, I, J, L, M, excluding, M701, M72 and M75 and NACE section N).

Data have to be provided for Main Industrial Groupings (MIGs) of NACE Sections B, C, D and Division E36, for the aggregate of the NACE sections (B+C+D+E36, H+I+J+L+M (excl. M701, M72, M75)+N) and for the individual NACE Sections (B, C, D, F, G, H, I, J, L, M (excl. M701, M72, M75) and N) as well as for the NACE divisions E36, G45, G46, G47, and G47 (excl. G473).

Medium and large countries also have to provide the division level of sections B, C, and D (i.e. industry).

Data have to be provided as indices in unadjusted and in calendar adjusted form.

The reference period is the quarter or (optional) the month.

The transmission deadlines for hours worked and wages and salaries the transmission deadline is T+3m for large and T+3m15d for small and medium sized countries.

FURTHER READING

Statistics Explained article on STS labour input data

STS requirements

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Business demography, registrations and bankruptcies

Variables

110101 Registrations110102 Bankruptcies

Concept/definition

Registrations are defined as the number of entered legal units in the register at any time during the reference quarter, according to the respective administrative or legal procedure. The registration of a business signals primarily an intention to engage in business activity but is not yet an enterprise birth which means the commencement of actual business activities with turnover, investment, employment etc.

In every country, administrative rules of registrations differ, so the quarterly data are presented in dissemination as an index series to improve comparability.

Bankruptcies are defined as the number of legal units that have started the procedure of being declared bankrupt, by issuing a court declaration, at any time during the reference quarter. The court declaration may be provisional and does not always mean termination of an activity.

Data on bankruptcies are an early indicator on the business climate. Bankruptcies differ from data on the death of enterprises since the latter also include the cessation of business activities due to other reasons. In order to be recorded as an enterprise death in annual business demography typically all production factors have been dissolved.

Quarterly business demography data on bankruptcies are based on legal units, while annual business demography data on deaths is based on the statistical unit enterprise. As for the registration of businesses there are differences in the legal rules for bankruptcies in Member States.

Scope, granularity, form, reference period, deadline

Quarterly statistics on registrations and bankruptcies cover NACE Sections B to N (industry, construction, trade and services), and P to R (education, health) and divisions S95 and S96 (household related and other services). The coverage is thus much broader than for the other STS indicators.

Reporting countries shall transmit to Eurostat absolute values ("pure number" of registrations and declarations of bankruptcies).

Data are collected on a quarterly basis. The transmission deadline it T+40.

FURTHER READING

Statistics Explained article on quarterly registrations and bankruptcies
Eurostat-OECD Manual on Business Demography Statistics
STS requirements
STS requirements by country size

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EU law and related documents

For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR-Lex at: http://eur-lex.europa.eu

Open data from the EU

The EU Open Data Portal (http://data.europa.eu/euodp/en) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.

European business statistics methodological manual for short-term business statistics

Short-term business statistics (STS) are the earliest statistics released to show emerging trends in the European economy. STS provide data for the major economic domains, industry, construction, distributive trade and services.

This manual provides an overview of the most important methodological issues concerning STS. It briefly describes the role and content of STS, its legal base and main building blocks, the transmission of data from National Statistical Authorities to Eurostat and the compilation of European aggregates. It also discusses the quality of STS data, their dissemination and their revision. Moreover, it contains introductions to all STS indicators such as production, turnover, producer prices, labour input etc.

For more information https://ec.europa.eu/eurostat/

