



BCS Joint Harmonised EU Programme of Business and Consumer Surveys¹

Concept
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Description

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Data description (metadata)

Surveys

The **Directorate-General for Economic and Financial Affairs (DG ECFIN)** of the European Commission conducts five monthly, harmonised surveys for the economies in the European Union (EU) and in the candidate countries. They are addressed to representatives of the industry (manufacturing), services, retail trade and construction sectors, as well as to consumers. A few additional questions are asked on a quarterly and biannual basis. These surveys allow comparisons among different countries' business cycles and have become an indispensable tool for monitoring the evolution of the EU and the euro area economies, as well as monitoring developments in the candidate countries.

The **Business and consumer survey (BCS)** database comprises the following surveys:

Industry survey

- *Monthly questions* on production, order book levels, stocks of finished products, perceived economic uncertainty, selling prices and employment.
- *Quarterly questions* on factors limiting production, production capacity, development of (overall and export) order books and months of production assured by them, capacity utilisation, competitive position.
- *Biannual questions* on investment activity, as well as structure of and factors stimulating investment (annual).

Services survey

- *Monthly questions* on business situation, demand, perceived economic uncertainty, employment and selling prices.
- *Quarterly questions* on factors limiting business and capacity utilisation.
- *Biannual questions* on investment activity, as well as structure of and factors stimulating investment (annual).

Retail trade survey

- *Monthly questions* on business activity, stocks of goods, orders placed with suppliers, perceived economic uncertainty, employment, selling prices.
- *Quarterly questions:* –

Construction survey

- *Monthly questions* on building activity and factors limiting it, order books, employment, perceived economic uncertainty, prices charged.
- *Quarterly questions* on operating time ensured by current backlog.

Data description

Consumer survey

- *Monthly questions* on financial situation, perceived economic uncertainty, general economic situation, price trends, unemployment, major purchases and savings.
- *Quarterly questions* on intention to buy a car, purchase or build a home, home improvements.

Indicators

Monthly Confidence Indicators (CIs) reflecting overall perceptions and expectations are calculated separately for all four business sectors covered by the survey programme, as well as consumers. The computation is done both at country and aggregate level (EU and euro area).

A monthly Economic Sentiment Indicator (ESI) is calculated based on a selection of questions from the industry, services, retail trade, construction and consumer surveys at country level and at aggregate level (EU and euro area) in order to track overall economic activity. The ESI has been calculated since 1985.

Since 2020, the set of monthly composite indicators also contains an Employment Expectations Indicator (EEI), which helps getting a timely indication of expected changes in dependent employment. The indicator is constructed as a weighted average of the employment expectations of managers in four surveyed business sectors (industry, services, retail trade and construction).

Following the introduction of a dedicated question on perceived economic uncertainty in the industry, services, retail trade, construction and consumer surveys in 2021, the set of monthly composite indicators also includes an Economic Uncertainty Indicator (EUI). The index is constructed as the weighted average of the balance series summarising perceived economic uncertainty in the five surveyed sectors.

Since January 2024, the programme also features a Labour Hoarding Indicator (LHI), which reports the (weighted) percentage of firms which expect (i) output to decrease, but (ii) employment to increase or remain unchanged. The indicator is available for all four surveyed business sectors, as well as the economy as a whole, both at country and aggregate EU/EA level.

A monthly euro area Business Climate Indicator (BCI) is available for industry.

Detailed methodological information about the BCS surveys and indicators is provided in a user guide to the Joint Harmonised EU Programme of Business and Consumer Surveys: https://ec.europa.eu/info/files/user-guide-joint-harmonised-eu-programme-business-and-consumer-surveys_en.

¹ This document is based on a template provided by Eurostat and based on the SIMS standard for reporting on reference metadata and quality of statistical products. The content is the sole responsibility of the publisher.

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| Statistical population | <p>All enterprises of a given sector and resident households. Across all EU countries, the nominal samples of the monthly surveys comprise about 38 000 units in the industry survey, 47 000 in services, 28 000 in retail trade, 22 000 in construction, as well as 32 000 consumers.</p> <p>For details at the country level, see the metadata sheets available on DG ECFIN's website.</p> |
| Reference period | <p>Depending on their exact formulation, the monthly and quarterly survey questions have the following reference periods:</p> <p>For business surveys:</p> <ul style="list-style-type: none"> • The release month of the survey results, • The three months preceding the release month • The three months following the release month • In the case of questions relating to investment: the current, preceding or next year <p>For the consumer survey:</p> <ul style="list-style-type: none"> • The release month of the survey results, • The twelve months preceding the release month • The twelve months following the release month |
| Frequency of dissemination | Depending on the survey question, dissemination is at monthly, quarterly, biannual or annual frequency. |
| Geographical reference area | The EU BCS programme covers the European Union, the euro area, the 27 EU Member States and 5 candidate countries (Albania, the Republic of North Macedonia, Montenegro, Serbia and Türkiye). |
| Unit of measure | The data are published as balances, i.e. the differences between positive and negative answers (in percentage points of total answers), as index, as confidence indicators (arithmetic average of balances), unadjusted (NSA) and seasonally adjusted (SA). |
| Basic statistical concepts and definitions | <p>Business and consumer surveys provide essential information for economic surveillance, short-term forecasting and economic research. Nearly all the questions are of a qualitative nature.</p> <ul style="list-style-type: none"> • The industry survey is largely qualitative. The main questions refer to an assessment of recent and expected production trends, the current level of order books and stocks, perceived economic uncertainty, as well as expected selling prices and employment. In addition, the survey provides on quarterly basis quantitative information on two variables that are not reported in conventional statistics, namely capacity utilisation and the number of months of production assured by the current order books. Finally, the survey includes biannual questions about firms' investment activity, as well as the structure of and factors stimulating investment (annual). • The services survey provides information about managers' assessment of their recent business situation and of the past and future changes in their company's turnover and employment, as well as perceived economic uncertainty. All the replies are qualitative. Furthermore, the survey contains a quarterly question on capacity utilisation and biannual questions about firms' investment activity, as well as the structure of and factors stimulating investment (annual). • The information provided by the retail trade survey is entirely qualitative. Managers are asked about recent and expected developments of their business activity, the current level of stocks, perceived economic uncertainty, as well as their expectations about a number of other economic variables, such as orders placed with suppliers, employment and selling prices. • The construction survey is an important source of information concerning short-term developments in this sector. The construction survey provides qualitative information on variables such as past building activity and current order books, perceived economic uncertainty, as well as a quantitative (quarterly) question on the number of months of production secured by the work in hand. • The purpose of the consumer survey is twofold: first, to collect information on households' spending and savings intentions, and second, to assess their perception of the factors influencing these decisions. To this end, the questions are organised around four topics: households' financial situation, the general economic situation, savings and intentions with regard to major purchases. Finally, the survey also includes a question on perceived economic uncertainty. <p>Answers obtained from the surveys are aggregated in the form of balances, constructed as the difference between the percentages of respondents giving positive and negative replies. The Commission (DG ECFIN) calculates EU and euro area aggregates on the basis of the national results and seasonally adjusts the balance series.</p> <p>The balance series are used to build composite indicators. First, for each surveyed sector, the Commission calculates confidence indicators as arithmetic means of answers (seasonally adjusted balances) to a selection of questions closely related to the reference variable they are supposed to track (e.g. industrial production for the industrial confidence indicator). These indicators thus provide information on economic developments in the different sectors. Second, selected questions of all business surveys and the consumer survey are further aggregated into the Economic Sentiment Indicator (ESI), whose purpose is to track GDP growth at country, EU and euro area level. Furthermore, DG ECFIN produces an Employment Expectations Indicator (EEI), which summarises managers' employment plans in four surveyed business sectors (industry, services, retail trade and construction) and thus provides a timely indication of expected changes in dependent employment. Furthermore, the set of composite indicators includes an Economic Uncertainty Indicator (EUI), which summarises the level of uncertainty as perceived by the surveyed managers/consumers. Finally, there is a Labour Hoarding Indicator (LHI), derived from managers' expectations with respect to their company's output and employment.</p> <p>The Business Climate Indicator (BCI) is produced as a timely composite indicator for the manufacturing sector in the euro area. The indicator uses, as input series, five balances of opinion from the industry survey: production trends in recent months, order books, export order books, stocks and production expectations. The BCI therefore deviates from the industrial confidence indicator, which is based on only three input series. Also, the method to construct the BCI is different from that of the confidence indicator. The BCI is based on the notion that each of the five component questions can be represented by a common factor that summarises the underlying cyclical situation at a particular moment in time and by a specific factor that applies to the particular survey question only. The basic idea of this division is to separate out the information that is common to all series from idiosyncratic movements in the specific series. The BCI is then defined as the common factor, while the specific factors are left out. The BCI is supposed to</p> |

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| | move contemporaneously with overall industrial activity in the euro area. |
| Classifications used | <p>Data are compiled in accordance with the framework of the Joint Harmonised EU Programme of Business and Consumer Surveys, Commission Decision C(97) 2241 of 15 July 1997.</p> <p>For all business surveys (industry, services, retail trade and construction), survey results are broken down by branches according to the Classification of economic activities in the European Community (NACE), Rev. 2, at the two-digit level. The change in the identification and grouping of similar economic activities associated with the move to NACE Rev. 2 in May 2010 implied a statistical break in the time series, particularly at the branch level.</p> <p>The sector coverage of the services survey varies across countries. From May 2010, the results are based on NACE Rev. 2 and are provided only as totals.</p> <p>For the consumer survey, respondents are categorised according to five criteria: income, occupation, education level, age and sex.</p> |
| Statistical Confidentiality | <p>The Commission (DG ECFIN) receives the results of the business surveys only at aggregated level (i.e. at the three or two-digit level of the Classification of economic activities in the European Community (NACE), Rev. 2, and higher). While DG ECFIN does receive the results of the consumer survey at individual respondent level, the respondents are fully anonymised.</p> |
| B | Data quality |
| Relevance | <p>Business and consumer surveys provide essential information for economic surveillance, short-term forecasting and economic research. Moreover, they are used to detect turning points in the economic cycle. The survey data generated within the EU BCS programme are particularly useful for monitoring economic developments at country, EU and euro area level.</p> <p>Outside the Commission, the European Central Bank, national central banks, research institutes and financial institutions frequently use the survey data for both qualitative and quantitative analysis.</p> |
| Timeliness | <p>The timing is common to all the harmonised surveys. Fieldwork for the monthly surveys is generally performed in the first two to three weeks of each month and the quarterly surveys are carried out in the first two to three weeks of the first month of each quarter (January, April, July and October). Consequently, the questions that are asked only on a quarterly basis are included in the questionnaires in January, April, July and October. The biannual and annual investment questions in the industry and services surveys are surveyed in the first two to three weeks of, depending on the Member State, March or April and October or November.</p> <p>The business survey results are sent by email to DG ECFIN at least five working days before the end of the reference month and in accordance with a predefined format. The deadline for the delivery of consumer survey results is generally seven working days before the end of the month.</p> <p>Early data for the Flash Consumer Confidence Indicator (FCCI) is sent by email to the Commission (DG ECFIN) in line with an agreed deadline which is at least one week before the scheduled full press release of the reference month. The FCCI for both EU and euro area are released on the date of the deadline.</p> |
| Accuracy and reliability | <p>Source data: The harmonised surveys are carried out at national level by partner institutes such as ministries, statistical offices, central banks, research institutes, business associations or private companies.</p> <p>The Commission (DG ECFIN) calculates EU and euro area aggregates on the basis of the national results and seasonally adjusts the balance series.</p> <p>The sample size for each survey varies across countries according to the heterogeneity of their economies and is generally positively related to their respective population size. About 134 000 firms and 32 000 consumers are surveyed every month across the EU.</p> <p>Frequency of data collection: Five surveys are currently conducted on a monthly basis in the following sectors: manufacturing industry, services, retail trade, construction and consumers.</p> <p>Additional questions are asked on a quarterly basis in January, April, July and October in all sectors apart from the retail trade sector.</p> <p>Furthermore, biannual and annual questions on investment are included in the industry and services surveys.</p> <p>Data collection and methods used: The survey samples are derived from a frame, which is supposed to register all the units of the whole population under question. The frame can be created from official or statistical registers, or from membership lists of business associations and chambers of commerce. Taking into account the various changes that might occur in the population (mergers, bankruptcies, starting of new firms, etc.), a regular update of the frame is necessary in order to keep it representative. The coverage rate of the sample, generally measured via turnover or employment, indicates at which percentage rate the sample represents the target population (the frame).</p> <p>In order to make a random sample more efficient (a smaller sample for a given level of precision), many institutes use some form of stratified random sampling that involves the separation of the population into non-overlapping sub-populations, called strata, which have smaller variance with regard to the key variables covered in the survey. Stratification is applied according to different criteria. The stratification criteria used for business surveys are mainly firm size and activity sector. For consumer surveys, the sex, age, education, income and region of residence of the person are commonly used for the selection of the respondents.</p> <p>The national questionnaires may include additional questions beyond the harmonised ones. Similarly, the sectoral breakdown in the questionnaires may be more detailed than the one set in the EU BCS programme. The national institutes are also free to organise the fieldwork the way that best suits their needs. In particular, the sample design, the sample size, the survey mode, and other methodological considerations are left to their discretion.</p> <p>Nevertheless, institutes are invited to implement the international guidelines on data collection and survey design developed by the Commission and the OECD in cooperation with the national institutes.</p> <p>The Commission (DG ECFIN) produces aggregate survey results for the EU and the euro area on the basis of the aggregate results received from the Member States. EU and euro area aggregate replies to the questionnaires are calculated as weighted averages of the country-aggregate replies.</p> <p>The weights are the shares of each of the Member States in an EU (euro area) reference series, and are smoothed by calculating a two year moving average. The weights are usually updated every year in January. The reference series are extracted from Eurostat and for the most recent period, where yearly reference series are not available, the DG</p> |

ECFIN forecast is used.

DG ECFIN plays a leading role in the further improvement and (cross-country) harmonisation of the methodology underlying the EU BCS programme. It regularly commissions feasibility studies on relevant methodological issues and organises an annual workshop with all participating institutes in order to discuss harmonisation issues, such as changes in the questionnaires and developments in the survey programme. Every two years, DG ECFIN organises a joint meeting with the OECD with a view to examining methodological issues of common interest to both EU and non-EU countries.

Data validation: Data received from the countries and the European indices are validated using logical validation rules.

Data compilation: Business and consumer surveys provide monthly judgements and anticipations concerning diverse facets of economic activity in the different sectors of the economy. Based on the detailed results of the EU BCS programme, the Commission (DG ECFIN) calculates and publishes a set of monthly composite indicators.

Balances are the difference between positive and negative answering options, measured as percentage points of total answers. In particular, if a question has three alternative options, positive (P) (up, more, more than sufficient, good, too large, increase, improve, etc.), neutral (E) (unchanged, as much, sufficient, satisfactory, adequate, etc.) and negative (M) (down, less, not sufficient, too small, decline, etc.), and if P, E and M (with $P + E + M = 100$) denote the percentages of respondents having chosen respectively the option positive, neutral and negative, the balance is calculated as $B = P - M$.

Sectoral Confidence Indicators

For each of the five surveyed sectors, so-called **confidence indicators** are produced to reflect overall perceptions and expectations at the individual sector level in a one-dimensional index. Each confidence indicator is calculated as the simple arithmetic average of the (seasonally adjusted) balances of answers to specific questions chosen from the full set of questions in each individual survey.

- The **industrial confidence indicator** is the arithmetic average of the balances (in percentage points) of the answers to the questions on production expectations, order books and stocks of finished products (the last with inverted sign).
- The **services confidence indicator** is the arithmetic average of the balances (in percentage points) of the answers to the questions on the past business situation and on recent and expected evolution of demand. Balances are seasonally adjusted.
- The **retail trade confidence indicator** is the arithmetic average of the balances (in percentage points) of the answers to the questions on the present and future business activity, and on current stocks (the last with inverted sign).
- The **construction confidence indicator** is the arithmetic average of the balances (in percentage points) of the answers to the questions on current order books and employment expectations.
- The **consumer confidence indicator** is the arithmetic average of the balances (in percentage points) of the answers to the questions on the past and expected financial situation of households, the expected general economic situation and the intentions to make major purchases over the next 12 months.

Economic Sentiment Indicator (ESI)

The Economic Sentiment Indicator (ESI) is made up of the 15 individual components of the previously described **confidence indicators**.

Explicit weights are allocated to the different sectors for the computation of the **composite indicator**:

- Industry: 40 %
- Services: 30 %
- Consumers: 20 %
- Construction: 5 %
- Retail trade: 5 %

The given weights have been determined according to two criteria, namely 'representativeness' of the sector in question and tracking performance vis-à-vis the reference variable. Corresponding to the broad scope of the ESI, the obvious reference variable is GDP growth, tracking the movements of the economy as a whole.

The exact calculation of the ESI on the basis of its component series can be summarised by the following three simple steps:

(1) For each component $j = 1, \dots, 15$

$$Y_{j,t} = \frac{X_{j,t} - \bar{X}_j}{S_j} \quad \text{where} \quad \bar{X}_j = \frac{1}{T} \sum_{t=1}^T X_{j,t} \quad \text{and} \quad S_j = \sqrt{\frac{1}{T-1} \sum_{t=1}^T (X_{j,t} - \bar{X}_j)^2}$$

$$(2) Z_t = \frac{\sum_j w_j \cdot Y_{j,t}}{(\sum_j w_j)_t} \quad \text{where} \quad (\sum_j w_j)_t \quad \text{is the sum of the weights of the available series at time } t$$

$$(3) ESI_t = \left(\frac{Z_t - \bar{Z}}{S_Z} \right) \cdot 10 + 100 \quad \text{where} \quad \bar{Z} = \frac{1}{T} \sum_{t=1}^T Z_t \quad \text{and} \quad S_Z = \sqrt{\frac{1}{T-1} \sum_{t=1}^T (Z_t - \bar{Z})^2}$$

The X_j variables represent the 15 components of the confidence indicators for industry (3 components), services (3 components), consumers (4 components), construction (2 components) and retail trade (3 components), seasonally adjusted balances. The moments for standardisation (step 1) are computed over a frozen sample to avoid

monthly revisions of the index. The starting point is January 2000. The end-point of the sample, which is updated once a year in January, corresponds, in any given year t , to December of the year $t-1$. To compute the weighted average Z_t (step 2), the above-mentioned sector weights are divided by the number of opinion balances making up the related confidence indicator. So, for example, the three standardised balances relating to service confidence each receive a weight of 10 %, adding up to the total services weight of 30 %. As long as not all of the 15 components are available, the weighted sum of those series that are available is divided by the sum of the allocated weights. In the last step (step 3), the resulting weighted average is scaled to have a long-term mean of 100 and a standard deviation of 10, where the same sample is used as for the standardisation of the individual components in step 1. Values greater than 100 indicate an above-average economic sentiment, whereas values below 100 indicate a below-average position. Assuming approximate normality, the imposed standard deviation of 10 implies that in about 68 % of the cases the ESI will be within the range of 90 to 110.

Employment Expectations Indicator (EEI)

The Employment Expectations Indicator (EEI) is made up of four seasonally adjusted balances (in percentage points) which summarise managers' answers to a question about their employment plans (level of total employment in their enterprises) in, respectively, the industry, services, retail trade and construction sector. Before being summarised in one **composite indicator**, the four balance series are weighted so that the relative importance of each economic sector for overall employment is adequately reflected. To that end, a time series of weights is created for every sector, reporting the ratio of the sector's employment over total employment in all four sectors. The time series are calculated on the basis of annual National Accounts employment data from Eurostat starting in 2000. The final weight for each sector corresponds to the average value reported in the sector-specific time series. Every year in January, the weights are updated, taking on board newly released employment data for the calculation of the above-described average.

The weights are applied to the four balance series, which are expressed in standardised form. The prior standardisation is essential to make the balance series comparable in terms of both their mean level and volatility before aggregation, especially since the series capture developments in different sectors of the economy. If standardisation was skipped, balance series with a relatively high characteristic amplitude would dominate the evolution of the composite indicator, i.e. the nominal weights would not reflect the factual contribution of each component to the profile of the composite indicator.

The exact calculation of the EEI on the basis of its four component series can be summarised by the following three simple steps:

(1) For each component $j = 1, \dots, 4$

$$Y_{j,t} = \frac{X_{j,t} - \bar{X}_j}{S_j} \text{ where } \bar{X}_j = \frac{1}{T'} \sum_{t=1}^{T'} X_{j,t} \text{ and } S_j = \sqrt{\frac{1}{T'-1} \sum_{t=1}^{T'} (X_{j,t} - \bar{X}_j)^2}$$

(2) $Z_t = \sum_j w_j \cdot Y_{j,t}$ where w_j is the weight of series j as described above and $\sum_j w_j$ is equal to 1 by construction.

$$(3) EEI_t = \left(\frac{Z_t - \bar{Z}}{S_z} \right) \cdot 10 + 100 \text{ where } \bar{Z} = \frac{1}{T'} \sum_{t=1}^{T'} Z_t \text{ and } S_z = \sqrt{\frac{1}{T'-1} \sum_{t=1}^{T'} (Z_t - \bar{Z})^2}$$

The X_j variables represent the four balance series. The moments for standardisation (step 1) are computed over a frozen sample to avoid monthly revisions of the index. To ensure consistency with the calculation of the sectoral weights, the starting point of the sample considered is 2000 or, in the case of countries with shorter employment expectation series, the first year in which employment expectations are available for all four business sector. The end-point of the sample, which is updated once a year in January, corresponds, in any given year t , to December of the year $t-1$. Once the weighted average of all four standardised balance series is computed (step 2), the resulting time series is scaled to have a long-term mean of 100 and a standard deviation of 10 (step 3). The sample considered for standardisation is the same one as in step 1. Values greater than 100 indicate that managers' employment expectations are high by historical standards, while the opposite holds true for values below 100. Assuming approximate normality, the imposed standard deviation of 10 implies that in about 68 % of the cases the EEI will be within the range of 90 to 110. Considering that it summarises the employment plans of managers across four major economic sectors, the performance of the EEI in anticipating/tracking developments in official statistical data can be assessed by comparing its evolution to developments in total (quarter-on-quarter) dependent employment growth.

Economic Uncertainty Indicator (EUI)

The Economic Uncertainty Indicator (EUI) is made up of five balances (in percentage points) which summarise (industry, services, retail trade, construction) managers' as well as consumers' answers to a question inquiring the level of perceived economic uncertainty. The series are not seasonally adjusted, as they do not yet have the necessary minimum length of three years (the harmonised questions became an obligatory component of the EU BCS Programme in 2021).

Before being summarised in one composite indicator, the five balance series are weighted by the same weights as those deployed for the Economic Sentiment Indicator:

- Industry: 40%
- Services: 30%
- Consumers: 20%
- Construction: 5%
- Retail trade: 5%

The exact calculation of the EUI on the basis of its five component series is as follows:

For each component $j = 1, \dots, 5$

$EUI_t = \sum_j w_j \cdot X_{jt}$ where w_j is the weight of series j as described above, $\sum_j w_j$ is equal to 1 by construction and the X_j variables represent the five balance series.

Labour Hoarding Indicator (LHI)

The construction of the LHI is based on a survey question capturing managers' employment expectations ("How do you expect your firm's total employment to change over the next 3 months? It will... + increase, = remain unchanged, - decrease") and a corresponding question on their output expectations. The latter differs slightly across the four business surveys, in so far as it focuses on production (in industry), demand/turnover (in services) and business activity/sales (in retail trade). As there is no output expectation question in the construction survey, the LHI is constructed using managers' assessments of current overall order books (with the answering options "+more than sufficient (above normal), =sufficient (normal for the season), -not sufficient (below normal)").

The construction of the LHI involves several steps:

- (1) Firms which (i) expect output to decrease / assess orders as insufficient (below normal) and (ii) expect employment to increase or remain unchanged are categorized as hoarding labour (LHI = 1). All firms with different answering pattern are categorized as LHI=0.
- (2) The resulting binary values for the individual firms are aggregated for a given country and sector (e.g. Belgium industry) as weighted averages. While the weighting-scheme deployed can slightly vary across countries, depending on country specificities and data availability, it is usually based on the number of employees for the first stage (within branches) and sectoral value added for higher aggregates. The resulting value reflects the (weighted) percentage of firms that hoard labour in a specific country and in each of the four sectors.
- (3) The following headline indicators are created:
 - for each country, an aggregate LHI capturing the prevalence of labour hoarding in the entire economy, calculated as the weighted average of the sector-specific LHIs,
 - at EU and euro-area (EA) level, sector-specific LHIs (e.g. EU industry, EA services, etc.), calculated as the weighted average of the country-specific sectoral LHIs,
 - at EU and EA level, an aggregate LHI, calculated as the weighted average of the EU/EA sectoral LHIs defined in the previous bullet.

The weights applied reflect employment shares.

- (4) Finally, all of the above LHIs are seasonally adjusted.

Adjustment: Leaving aside strikes, elections, large exchange rate movements, very cold weather and other special events, business and consumer survey data record opinions that may be influenced by events taking place at the same time every year. This is the case of, for instance, regular events, such as Christmas, certain public holidays, or the receipt of extraordinary wage bills in a given month of the year. Even though respondents are usually explicitly asked not to take into account such seasonal variations, in practice the answers frequently show seasonal patterns. Such variations in businesses' and consumers' perceptions, opinions or expectations should ideally be eliminated when comparing two consecutive months. This is the goal of seasonal adjustment. Once the balances per question for each survey at the aggregate (country, EU, euro area) level are calculated, they are seasonally adjusted. Since 1 May 2022, the Commission (DG ECFIN) uses Tramo-Seats with automatic outlier detection for seasonal adjustment, implemented as part of the JDemetra+ package and in line with the Guidelines of the European Statistical System (ESS). The RegARIMA model coefficients are updated once a year, in January. Tramo-Seats replaces the previously used Dainties method.

Publications:

BCS data and indicators are made available to users through the following channels:

- [Press releases](#) on DG ECFIN's website.
- The quarterly [European business cycle indicators](#), available on DG ECFIN's website.
- All data reported in the press releases plus additional data (long-time series, non-seasonally adjusted sector series and seasonally adjusted branch data) are downloadable (as Excel files) from [DG ECFIN's website](#).
- Data are also available in [Eurostat's database](#) as either ready-made tables or datasets. They can be accessed via the dedicated section for [Euro-indicators and PEEIs](#) on Eurostat's website.

Accessibility and clarity

Quality documentation:

The reference methodology for compilation is fully described in the [User Guide of the Joint Harmonised EU Programme of Business and Consumer Surveys](#).

All information concerning the methodology used in each country for each survey as well as other useful information on the national organisation conducting the survey (such as the contact person) is available in the [metadata section of the EU BCS website](#).

DG ECFIN's website also contains a [list of 'best practice' for the conduct of business and consumer surveys](#).

Coherence and comparability

Geographical: To achieve comparability between countries, all national partner institutes use the same harmonised questionnaires and a common timetable.

Over time: There has been a high level of methodological consistency in the programme, with many of the national partner institutes being in the programme for several decades. In case of methodological changes or breaks in the series, partner institutes have to provide consistent back-casts of data prior to the change or break, calculated on the basis of overlapping samples of at least three months.

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Contact and update

Contact organisation

European Commission, Directorate-General for Economic and Financial Affairs (DG ECFIN)

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| Contact name | DG ECFIN Unit A3 - Economic situation, forecasts, business and consumer surveys Sector 'Business and consumer surveys and short-term forecast' |
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| Metadata update | November 2023 |