

**Documentation of statistics for
Business tendency surveys 2024**

1 Introduction

The monthly tendency survey provides a quick and up-to-date overview of actual conditions and expectations within the manufacturing industries, construction, retail trade and services. The surveys are directly connected to and defined by the Business and Consumer Survey joint harmonized program as managed by the Directorate-Generale for Economic and Financial Affairs (DG ECFIN), European Commission.

2 Statistical presentation

The business tendency surveys are a qualitative assessment on past three month's developments and next three month's expected developments. The survey assesses developments within production, employment, stock of orders, stock of finished products, capacity utilization, investment plans, limits to production, and others.

2.1 Data description

The monthly tendency survey provides a quick and up-to-date overview of actual conditions and expectations within the business sectors.

The survey is a qualitative assessment on developments over the past three months and expected developments over the next three month, based on various variables: **production, employment, new orders, new export orders, competitive position on domestic market, competitive position on foreign market, selling prices, current overall order books, current export order books, current stock of finished products, current stock of raw materials, production capacity, capacity utilization, production assured by current overall order books (in month) and limits to production.**

2.2 Classification system

The industries in the survey is defined by [DB07](#), which is the Danish industrial classification system similar to the international NACE rev. 2 system.

2.3 Sector coverage

Construction, manufacturing industries, retail trade and services.

2.4 Statistical concepts and definitions

CVR: Central Business Register. A statutory central, nationwide basic register of all registered businesses. Associations and public authorities are also registered. The purpose is to have a unique numbering system (CVR number) for legal entities and their associated production units. Additionally, it aims to make basic data available to public authorities and institutions as well as private entities. Established in 1999.

2.5 Statistical unit

The units in the survey are enterprises defined by legal unit, which is identified by "CVR-number" from the Central Business Register.

2.6 Statistical population

The population is enterprises with main activity in the covered sectors. Corresponding to the following 2-digit numbers in NACE 2: Manufacturing industries: 10 - 33 Construction: 41 - 43 Retail trade: 45 and 47 Services: 49 - 95 (excluding 59-60, 66, 75 and 84-88).

2.7 Reference area

Denmark.

2.8 Time coverage

Construction: 1998 - Manufacturing: 1990 - Retail trade: May 2011 - Services: May 2011 -

2.9 Base period

Not relevant for these statistics.

2.10 Unit of measure

Percentages, months and Balances.

2.11 Reference period

The reference point is the first day of the survey month. Questions are asked concerning the past three month and the coming three month.

2.12 Frequency of dissemination

The survey is published monthly.

2.13 Legal acts and other agreements

The survey is voluntary, and therefore not subject to any Danish legal act.

The survey is conducted according to agreement with the EU Commission. The legal framework of the survey is "The Joint Harmonized European Union Programme on Business and Consumer Surveys" approved by the European Commission on 12 July 2006 COM (2006)379.

2.14 Cost and burden

The survey is voluntary, therefore no burden as such. If one decides to participate the questionnaire is supposed to only take a minute to complete. Joint reporting is accepted if same organization includes several companies representing unique legal units, but within same industry-class.

2.15 Comment

Information about the statistics here [Business tendency surveys](#). The statistics is part of the The Joint EC Business and Consumer Surveys programme managed by Directorate-Generale for Economic and Financial Affairs (DG ECFIN) please refer to their [Guidelines](#).

3 Statistical processing

Monthly business survey data is collected from a sample of approximately 800 manufacturing enterprises, 900 enterprises in construction, 1400 enterprises in retail and 2900 enterprises in services. Data is reported either online at <http://www.VIRK.dk> or in paper questionnaire, and consists of qualitative assessment of changes in net sales, employment, inventories, orders, etc.. The collected data are enumerated from the sample to the total enumeration population (similar to Frame or Survey Population) weighted by employment data, and distributed at industry and enterprise size groupings. If seasonal variation patterns are detected for the indicators that constitute the composite confidence indicator, data is adjusted for this.

3.1 Source data

The statistics is compiled from data collected via questionnaires. The sample is based on information in the Central Business Register. The survey is carried out with a panel based stratified sample. Because of drop-out the sample is updated two times a year.

The sample is stratified into lines of industries as is seen in that statbank tables.

3.2 Frequency of data collection

Data is collected each month during the first 2-3 weeks of survey month

3.3 Data collection

Data is collected either by paper questionnaire send to the respondent including postage pre-paid envelope, or by online reporting. In the latter case, respondents receive an e-mail request to log in to the reporting system VIRK, and fill the online questionnaire. Respondents are urged to report online, and if so the respondent the subsequent months only receives an email request about reporting.

Notification is send the day before deadline.

Response rate is about 77-80 pct. on average. Deadline for reporting to the current month's questionnaire is usually the second Friday of the month. Here, about two third of the answers have arrived. The rest, one third, arrives within two weeks and are included in the statistics.

3.4 Data validation

To fill the questionnaire one has to tick one of three options for each question. This does not call for data validation. Non-response errors are corrected for in the enumeration process. By online reporting the system warns the respondent if a question is not ticked. However in both cases, online reporting or reporting by mail, it is accepted that some questions are left un-ticked.

In the processing, basic data is checked if bigger deviations as compared to last month occurs. Usually the reason is either unidirectional change in assessments by several big companies or missing reporting from some few big companies.

3.5 Data compilation

The enterprises' responses are weighted according to their average number of full-time employees. Within each stratum answers are distributed into percentages answering *increase*, *unchanged* and *decrease* adding up to 100 pct. The group of non-responding enterprises within the stratum is assigned same percentage distribution as the group of responding enterprises (which is considered a imputing method).

Hereafter, the responses are enumerated to the number of full-time employees of the total population, within each industry-grouping.

Confidence indicator for a variable is calculated and denominated *balance*. Is is the difference between percentages of enterprises (weighted by number of employees) that have answered *increase* and *decrease* (or *too small* and *too large*). The balance figures do not measure the size of the increase or decrease, but only indicates that an overweight of enterprises expect either increase or decrease.

The *Composite confidence indicator* is the arithmetic average of balance figures.

Especially regarding the questions on Production limiting factors, e.g. lack of workforce, the indicators reflects the share of companies that have ticked of the specific questions. The share of companies is weighted according to the average number of full-time employees within the specific companies. Hereafter the result is enumerated to cover the full population within each industry grouping.

3.6 Adjustment

Data is seasonally adjusted, if seasonal pattern is detected, and only for the indicators that constitutes composite confidence indicators.

4 Relevance

Users of the statistics are trade organizations, banks, politicians, public authorities, international organizations, business enterprises and the news media. The results are reflected upon every month in financial and business related news medias.

4.1 User Needs

The statistics is considered a supplement to other short-term statistics relating to this area. Users of the statistics are trade organizations, banks, politicians, public authorities, international organizations, business enterprises and the news media.

4.2 User Satisfaction

There are no measurements of user satisfaction.

4.3 Data completeness rate

The Business Surveys are conducted in partnership with the EU commission, Directorate General Economic and Financial affairs and follows as far as possible the [methodological guidelines](#) provided by them.

All data produced is published, however as a matter of confidentiality some line of business has been aggregated in larger groups.

5 Accuracy and reliability

Sampling error is estimated to plus/minus 1-2 percentage points for the confidence indicators. Non-sampling error occurs in connection to non-responses and drop out of the sample. Especially big companies' non-responses a certain month may influence the development from month to month. Finally, there is measurement error connected to the statistics associated with the respondents level of information and knowledge about the company's current state.

5.1 Overall accuracy

The statistics covers a substantial part of enterprises in the selected industries and is considered as statistically representative. In general, sampling error at plus/minus 1-2 percentage point is expected for the indicators. Non-sampling errors are caused by non-response errors (about 23 pct. non-responses), and especially missing responses from large companies may cause fluctuations from month to month.

Also measurement errors influence the statistics. A senior person in the company is asked to check mark his perception of the developments over the past three months and his expectations for the next three months. Those assessments are associated uncertainty, depending on the respondent's current level of information and knowledge about the current state of the company.

5.2 Sampling error

The survey variables are mostly categorical - with answer options of the type *increase, unchanged* or *decrease*. For each month' statistics is calculated confidence interval with upper and lower values for the three variables constituting the Composite Confidence Indicator. The confidence interval varies from month to month, and depends on the actual number of responses in each answer category. In general, a sampling error at plus/minus 1-2 percentage point is associated the indicators.

5.3 Non-sampling error

There is no systematically checking for errors. By sample update, new enterprises may inform they are not registered in correct business sector and therefore not relevant. Between lines of businesses there may be some over-coverage because of wrong or changed registration.

The tendency surveys are subjects to measurement errors: A senior person in the company is asked to check mark his perception of the developments over the past three months and his expectations for the next three months. The expectations are inherently uncertain. The perception of the development over the past may also be associated uncertainty, depending on the respondent's current level of information.

Several types of non-responses are associated the survey. - There are non-responses because of liquidation or because an active statement about not to participate in the survey. - Then there are unit non-responses, about 23 pct. The respondent stays in the sample but has not responded the current month or responds after ultimate deadline.
- Item non-responses are few, and is estimated not to exceed the unit-non-response level with more than a couple of percent.

5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

5.6 Quality assessment

The statistics covers a substantial part of enterprises in the selected industries and is considered as statistically representative. The strength of the statistics is that results are published in same months as data is collected and related to. Variations in figures from month to month should be interpreted with caution, since it is not necessarily a development in trend, but rather attributed to the uncertainty of the statistics.

5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the [Revision Policy for Statistics Denmark](#). The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

5.8 Data revision practice

Only final figures are published in the survey results.

The published figures are not subject to revision but for investments there are four measurements for each year (October the preceding year, April same year, October same year and the final numbers in April the following year). In IFIO1, IFSO1, IFIO2 and IFSO2 only the latest version is shown. In IFIO1R, IFSO1R, IFIO2R and IFSO2R the revisions are shown so you can see all four estimates of a given year come April the following year.

6 Timeliness and punctuality

The statistics is usually published between the 20th and 25th of the survey month. The process runs punctual. In April and October the semiannual figures for investment plans are published.

6.1 Timeliness and time lag - final results

No preliminary numbers are published.

6.2 Punctuality

The process runs punctual with no delays.

7 Comparability

The statistics is carried out in collaboration with the EU-commission since October 1963. Historical data for Denmark and other European countries is available at the homepage of [\(DG ECFIN\)](#).

7.1 Comparability - geographical

The statistics is carried out in collaboration with the EU-commission, and the same survey is carried out in other EU-countries. Please refer to [\(DG ECFIN\)](#).

7.2 Comparability over time

As of august 2014 the questionnaires were harmonized with the DG ECFIN guidelines. This led to breaks in the timelines for certain indicators regarding stock of finished products and order books.

Changes in the NACE has to be taken into account when comparing older time series with current ones. Longer historic series can be found in the ECFIN [database](#).

7.3 Coherence - cross domain

The Business Tendency Survey is a supplement to other short-term statistics. Weighted together with tendency indicators from the construction survey, services survey, retail trade survey and consumer survey the industry indicators forms the "Tillidsindikator" similar to the Economic Sentiment Indicator published by the EU commission. Also the "Erhvervstillidsindikator" (business sentiment indicator) consisting only of indicators from the businesses is calculated. The figures are published in the [Statbank](#). The EU is describing the methodology here in [user guide](#).

7.4 Coherence - internal

The data set to the survey is consistent.

8 Accessibility and clarity

Results of the surveys are published monthly at [Statistics Denmark](#); Key indicators are published in the newsletter edition [Nyt fra Danmarks Statistik, Konjunkturbarometer for erhvervene](#) and in English at the homepage [Short term trends](#). Detailed data is available in English version at [Statbank](#). Read [here](#) about the statistics.

8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

8.2 Release calendar access

The Release Calendar can be accessed on our English website: [Release Calendar](#).

8.4 News release

Newsletter [Nyt fra Danmarks Statistik, Konjunkturbarometer for erhvervene](#) is published monthly.

8.5 Publications

The statistics is not part of any publications from Statistics Denmark.

8.6 On-line database

The statistics are published in the StatBank under the subjects in the following tables:

[Business tendency surveys](#)

8.7 Micro-data access

Scientists and analysts have the option to buy detailed micro-data through the [Division of Research Services](#), Statistics Denmark. In this case data will be anonymized in order to ensure enterprises confidentiality.

8.8 Other

Data are sent to and published at the homepage of the EU-commission partner [Directorate General Economic and Financial affairs \(DG ECFIN\)](#) along with similar data from other EU countries.

8.9 Confidentiality - policy

[Data confidentiality policy at Statistics Denmark](#)

8.10 Confidentiality - data treatment

Data is aggregated into wider groupings if necessary to ensure confidentiality especially for large enterprises.

8.11 Documentation on methodology

Please refer to the EU-commission partner DG ECFIN's homepage on [methodological guides](#).

8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

9 Contact

The administrative placement of this statistic is in the division of Short Term Statistics. The person responsible is Simon B. Halifax, tel. +45 3917 3088, e-mail: sbh@dst.dk

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