

**Documentation of statistics for  
Business Cycle Tracer 2017**

## 1 Introduction

Business Cycle Tracer is a graphic tool to analyze the business tendency based on confidence indicators for Manufacturing industries, Construction industry, Services and Retail trade - please refer to documentation for those statistics.

## 2 Statistical presentation

The Business Cycle Tracer is plotted in a scatter graph. Y-values depict indicator level. X-values depict changes in indicator level month over month. Along the curve is traced the development month by month.

### 2.1 Data description

Contrary to a traditional graphical representation of the economic cycle on a timeline the data in a business cycle have been traced in a system of coordinates defined by the four economic stages; increase above trend, decrease above trend, decrease below trend and increase below trend. The four stages are also called; boom, downswing, recession and upswing, but these terms are normally used in a wider connection including more indicators e.g. BNP and unemployment.

The visual course enables one to compare a current economic cycle with earlier economic cycles, in regard to how fast the change occurs and the size of the fluctuations compared to underlying trends. The course is subject to a certain degree of uncertainty especially when looking at the latest month's development, which is continuously revised, but overall, the results are sturdy.

The economic cycle is a graphical presentation of the market trend development created by a method similar to what is used by the EU commission (DG ECFIN). The interactive presentation tool has been provided by Statistics Netherlands.

### 2.2 Classification system

The industries in the survey are defined by DB07, which is the Danish industrial classification system similar to the international NACE rev. 2 system.

### 2.3 Sector coverage

Based on [Business Tendency Survey](#).

### 2.4 Statistical concepts and definitions

Business Cycle: The economy, e.g. measured in GDP, varies over time. The movements can be decomposed into a Trend (T) component, a Cyclical (C) component, a Seasonal component (S) and a Irregular component (I). By various mathematical filter methods the Cyclical component can be extracted. The Economic Cycle or Business Cycle cycle is a wave through upswing (expansion) and downswing (contraction) levels of the economic activity.

## **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**

Sectors which are covered by Business Tendency Surveys. This is Manufacturing, Construction, Services and Retail Trade, which constitutes the major part of the businesses. Excluded are Agriculture, fishing, mining, as well as energy and water supply.

## **2.7 Reference area**

Denmark.

## **2.8 Time coverage**

Launched October 2013 with time series from 1998 and onwards.

## **2.9 Base period**

Not relevant for these statistics.

## **2.10 Unit of measure**

Market trend value.

## **2.11 Reference period**

Business Cycle Tracer is a graphic tool to analyze the business tendency based on confidence indicators for Manufacturing industries, Construction industry, Services and Retail trade - please refer to documentation for [those](#) statistics.

## **2.12 Frequency of dissemination**

Monthly update at [homepage](#).

## **2.13 Legal acts and other agreements**

Based on [Business Tendency Survey](#).

## **2.14 Cost and burden**

Based on [Business Tendency Survey](#).

## 2.15 Comment

For more information on the subject page [Business Cycles](#).

## 3 Statistical processing

Based on Business Tendency Survey data, a composite indicator is calculated by Principal Component Analysis for each sector.

### 3.1 Source data

Based on [Business Tendency Survey](#).

### 3.2 Frequency of data collection

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

### 3.3 Data collection

Based on [Business Tendency Survey](#).

### 3.4 Data validation

Based on [Business Tendency Survey](#).

### 3.5 Data compilation

Based on [Business Tendency Survey](#).

### 3.6 Adjustment

Method description in Danish: [Konjunkturcyklus-metode](#).

## 4 Relevance

Users of the statistics are trade organizations, banks, politicians, public authorities, international organizations, business enterprises and the news media.

### 4.1 User Needs

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

## **4.2 User Satisfaction**

No measurements.

## **4.3 Data completeness rate**

Not relevant for these statistics.

## **5 Accuracy and reliability**

Based on [Business Tendency Survey](#). Furthermore refer to method description in Danish: [Konjunkturcyklus-metode](#).

### **5.1 Overall accuracy**

Based on [Business Tendency Survey](#). Furthermore refer to method description in Danish: [Konjunkturcyklus-metode](#).

### **5.2 Sampling error**

Based on [Business Tendency Survey](#). Furthermore refer to method description in Danish: [Konjunkturcyklus-metode](#).

### **5.3 Non-sampling error**

Based on [Business Tendency Survey](#). Furthermore refer to method description in Danish: [Konjunkturcyklus-metode](#).

### **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

Based on [Business Tendency Survey](#). Furthermore refer to method description in Danish: [Konjunkturcyklus-metode](#).

## 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

Based on [Business Tendency Survey](#). Since Business Tendency data is smoothed by Hodrick-Prescott filter data is revised by model back in time each month. This mostly affect the most recent months.

## 6 Timeliness and punctuality

Update each month the second workday.

### 6.1 Timeliness and time lag - final results

Monthly updates at homepage.

### 6.2 Punctuality

Monthly update at homepage.

## 7 Comparability

Containing time series from 1998 and onwards

The method follows the method established by DG ECFIN, EU, [European Business Cycle Indicators](#). Furthermore see the method description: [Konjunkturcyklus-metode](#) (in Danish).

### 7.1 Comparability - geographical

The method follows the method established by DG ECFIN, EU, [European Business Cycle Indicators](#). Furthermore refer to method description in Danish: [Konjunkturcyklus-metode](#).

### 7.2 Comparability over time

Launched October 2013 and containing time series from 1998 and onwards.

### **7.3 Coherence - cross domain**

Computed by same method as used by Directorate General for Economic and Financial Affairs (DG ECFIN).

### **7.4 Coherence - internal**

Based on [Business Tendency Survey](#). Furthermore refer to method description in Danish: [Konjunkturcyklus-metode](#).

## **8 Accessibility and clarity**

Data is published in the Statbank (<https://www.dst.dk/statbank>) in the table KONCYK1. Furthermore accessible in interactive graph tool at <https://www.dst.dk/konjunkturcyklus>. Furthermore, A newsletter, Temanyt, was published for October 2013, and for May 2015 a newsletter is published.

### **8.1 Release calendar**

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

### **8.2 Release calendar access**

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

### **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.

### **8.4 News release**

A newsletter, Temanyt, was published for October 2013, and for May 2015 a newsletter is published.

### **8.5 Publications**

Monthly updates on dynamic and static graphs at [homepage](#). Furthermore, A newsletter, Temanyt, was published for October 2013, and for May 2015 a newsletter is published.

### **8.6 On-line database**

Monthly on-line database updates [here](#).

### **8.7 Micro-data access**

Not relevant for these statistics.

### **8.8 Other**

Not relevant for these statistics.

### **8.9 Confidentiality - policy**

These statistics is subject to the [Data Confidentiality Policy at Statistics Denmark](#).

### **8.10 Confidentiality - data treatment**

Based on [Business Tendency Survey](#). Furthermore refer to method description in Danish: [Konjunkturcyklus-metode](#).

### **8.11 Documentation on methodology**

No remarks.

### **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 these statistics are in the division of Short Term Statistics. The person responsible is Erik Slentø, tel. +45 39 17 30 88, e-mail: [esl@dst.dk](mailto:esl@dst.dk)

### **9.1 Contact organisation**

Statistics Denmark

### **9.2 Contact organisation unit**

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