Documentation of statistics for
Retail Trade Survey 2015

1 Introduction

The monthly tendency survey provides a quick and up-to-date overview of actual conditions and expectations within the retail trade. Statistics Denmark took over the Retail trade tendency survey in May 2011. The survey is directly connected to and defined by the Business and Consumer Survey joint harmonized programme as managed by the Directorate-Generale for Economic and Financial Affairs (DG ECFIN), European Commission. Within same programme is also carried out monthly tendency surveys on Manufacturing Industries, Construction, Services and Consumer expectations as well as the biannual survey on Manufacturing Industry Investments.

2 Statistical presentation

The Tendency survey provides information about actual conditions and expectations within the Retail trade business. The survey is a qualitative assessment on developments over the past three months and expected developments over the next three month, based on the variables *sales*, *employment*, *sales prices*, *orders placed by supplier* and *current stock*.

2.1 Data description

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The questionnaire is divided in three sections.

- In first section is asked about the development over the past 3 month regarding the four indicators *sales*, *employment*, *sales prices*, *orders placed by supplier*. It is possible to tick mark one of three options, either *decrease/deteriorate*; *unchanged* or *increase/improve*.
- In second section is asked similar questions about expected development over the next three month regarding the same four indicators.
- In third section is asked about *current stock* at the beginning of the reference month, and it is possible to tick mark either *too small*; *adequate*; *too big* - or *no stock*.

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

The survey covers the Retail Trade including wholesale and retail trade and repair of motor vehicles and motorcycles. Please refer to *Source data*.

2.4 Statistical concepts and definitions

Retail Trade: Industries in the business sector dealing with direct sales of goods to private consumers, either from shops or via internet or mail order. The Retail Trade Survey also includes wholesale and retail trade and repair of motor vehicles and motorcycles.

Confidence Indicator: An indicator for the present position in the business cycle. The marked economy evolves in cycles between boom, decrease, recession and upswing.

Business Tendency Survey: Business Tendency Survey or Business Survey. Compared to traditional statistical surveys, which only cover one or a few related variables from one area of the economy, business surveys collect information about a wide range of variables selected for their ability, when analysed together, to give an overall picture of a sector of the economy. The surveys include questions such as the volume of production, order books, order inflow, stocks of finished goods, exports, employment and prices. The range of information covered by business surveys also goes beyond variables normally captured by classical statistics. Qualitative information may be collected for variables, which are difficult or impossible to measure by conventional methods such as: capacity utilisation, production bottlenecks and views on the overall economic situation.

Composite Confidence Indicator: Composite indicators are calculated as the simple arithmetic average of the (seasonally adjusted if possible) balances of answers to specific questions chosen from the full set of questions in the survey. In the case of Retail Trade survey the composite indicator reflects the average of the three indicators on Sales over the past three month, the present Volume of stock and Sales expectations over the next three months.

Balance: 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" ("up", "more", "more than sufficient", "good", "too large", "increase", "improve", etc.), "neutral" ("unchanged", "as much", "sufficient", "satisfactory", "adequate", etc.) and "negative" ("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 $B = P - M$.

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 universe population includes trades 45 and 47 in the Danish classification system DB07, almost identical to the international NACE rev. 2 system. The target population consists of 4650 enterprises, and covers all business in the selected trades with 5 or more employees.

2.7 Reference area

Denmark.

2.8 Time coverage

The survey has been conducted by Statistics Denmark since May 2011; However survey data for Denmark further back in history, processed by a different supplier, is available at DG ECFIN.

2.9 Base period

Not relevant for these statistics.

2.10 Unit of measure

Percentages 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 - the second last working day. However results of the December survey is first published in the beginning of January.

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 (206)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.

Enterprises with 4 or less employees are not included in the survey sample.

Joint reporting is accepted if same organization includes several companies representing unique legal units, but within same industry-class. This can e.g. be the case with chain of shops.

2.15 Comment

Information about the statistics here. 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.

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3 Statistical processing

Monthly business survey data is collected from a sample of approximately 1400 Retail Trade stores, including auto wholesales. Data is reported either online at http://www.VIRK.dk or in paper questionnaire, and consists of qualitative information about changes in net sales, employment, inventories, orders, etc., which are not validated. The collected data are enumerated from the sample to the total population weighted by employment data, and distributed at industry and 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 are compiled from data collected via questionnaires. The sample is based on information in the Central Business Register.

The survey is a panel based stratified sample consisting initially of 1400 enterprises representing about 48 % of the total number of full-time employees in selected trades. Because of drop-out the sample is updated once or twice year. Typically the sample is added 350-400 new enterprises at update.

The sample is stratified into trade groupings and size groups in terms of full time employees.

The trade strata are defined by:

- Sales of motor vehicles incl. wholesale (45,1)
- Repair and maintenance of motor vehicles etc. (45,2-45,4)
- Retail trade of Food, Beverage and Tobacco (47,1; 47,2; 47,8)
- Retail sale of automotive fuel (47,3)
- Retail sale of other goods (47,4-47,7; 47,9)

The three size strata are defined by:

- above 25 employees
- 10-24 employees
- 5-9 employees

The monthly responses from individual enterprises are stored with the following information:

- Journr (identification)
- ID of the business establishment
- Sector (NACE2 / Danish Industrial Classification of All Economic Activities 2007)
- Address
- Telephone number
- Employment
- Year
- Month
- Trends, actual: Sales, employment, sales prices, orders placed by supplier
- Trends, expected: Sales, employment, sales prices, orders placed by supplier
- Stock ultimo previous month

3.2 Frequency of data collection

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

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 notification telling it is time to log in to the reporting system VIRK, and fill the online questionnaire. Respondents are urged to respond online.

Response rate is about 76 pct. on average. Deadline for responding to the current month's questionnaire is about the 6'th of the month. Here, about two third of the responses have arrived. The rest, one third, arrives within two weeks and are included in the statistics.

Reminder is send about the 13th giving new deadline about the 20th of the survey month.

Information to the respondents about the statistics is found here (in Danish).

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. The paper questionnaires are scanned automatically, and questionnaires refused in this process are handled manually.

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 post, it is accepted that some questions are left un-ticked. In the data enumeration process, basic data is checked if bigger deviations as compared to last month - 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 *decline, unchanged* and *Increase* 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*. It is the difference between percentages of enterprises (weighted by number of employees) that have answered *increase* and *decrease*. The balance figures does 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 for recent sales (past 3 months) and expected (coming 3 months) development of sales and current stock. The latter calculated with inverted sign since stock *too large* is considered affecting the confidence indicator negatively and vice versa.

3.6 Adjustment

No adjustments are carried out, besides seasonal adjustment.

4 Relevance

Users of the statistics are trade organizations, banks, politicians, public authorities, international organizations, business enterprises and the news media. The confidence indicators provide valuable information about the state of the business economy and are reflected upon every month in financial related news medias. There has been no survey if the statistics meets the needs of clients.

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

No measurements of user satisfaction has been carried out.

4.3 Data completeness rate

The Business Surveys are conducted in partnership with the EU commission, Directorate Generale Economic and Financial affairs (DG ECFIN) and follows as far as possible the guidelines provided by them. As a matter of confidentiality some line of business has been aggregated in larger groups.

5 Accuracy and reliability

Regarding *precision*, sampling error is estimated to plus/minus 1-2 percentage points for the confidence indicators. The figures are by definition *reliable*, since they are not revised.

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 uncertainty at plus/minus 1-2 percentage point is expected for the indicators. Non-sampling errors are caused by non-response errors (about 24 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. 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.

5.2 Sampling error

The survey variables are mostly categorical 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.

5.3 Non-sampling error

Basically the statistics is assumed to cover the target population satisfactory.

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.

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. In general, sampling error uncertainty at plus/minus 1-2 percentage point is expected for the indicators. Non-sampling errors are caused by non-response errors (about 24 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. 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.

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 data is published. However, since questions are targeting "next 3 month" and "past 3 month" it is possible to analyze if expectations for the next 3 month afterwards has been realized.

6 Timeliness and punctuality

The Survey is launched about 5 working days before the beginning of the survey month. Questionnaire or e-mail notification is send out. Deadline for responses is about the 6th of the survey month. Reminder is send about the 13th giving new deadline about the 20th of the survey month. The statistics is compiled about the 24th immediately before deadline for sending data to EU-partner DG ECFIN. Last but one working day before the end of the survey month, data is published in both Denmark and EU. The process always runs punctual.

6.1 Timeliness and time lag - final results

The statistic is published the last working day but one of the survey month as a principal rule, i.e. about 30 days after the date of reference. Data is not revised afterwards.

6.2 Punctuality

The process always runs punctual with no delays.

7 Comparability

The Tendency survey in Retail trade was launched in May 2011 by Statistics Denmark. Data is comparable over time with similar tendency survey data up until April 2011 provided by the EC Business and Consumer Surveys programme and managed by Directorate-Generale for Economic and Financial Affairs, 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

The Tendency survey in Retail trade was launched in May 2011 by Statistics Denmark. Data is comparable over time with similar tendency survey data up until April 2011 provided by the EC Business and Consumer Surveys programme and managed by Directorate-Generale for Economic and Financial Affairs, DG ECFIN.

As of September 2014 some phrasings in the questionnaire have been revised in order to harmonize fully to the guidelines of DG ECFIN. Previous, questions of this type: "Regarding Sales, how was the development the last 3 month (e.g. May-July) as compared to the previous 3 month (e.g. February-April)? please tick either *less*; *unchanged* or *bigger*". Now there are no comparison between two 3-month periods, and instead is asked: "How has your Sales developed *over* the past 3 month? please tick either *decreased*, *unchanged* or *increased*" The results are believed to be the same, and no data break has been detected. The same change has been made for questions concerning the future development over the next 3 month. Furthermore the answer possibilities regarding *Current volume of stock* has been changed from *less*; *unchanged* or *bigger* to *too small*; *adequate* or *too large*.

7.3 Coherence - cross domain

Data from the Tendency survey in Retail trade supplements the other short-term statistics relating to this area. Similar surveys are conducted by the other EU member states through the EC Business and Consumer Surveys programme managed by Directorate-Generale for Economic and Financial Affairs (DG ECFIN).

7.4 Coherence - internal

The data set of 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, Detailhandel](#) and in English at the homepage [Short term trends](#). Detailed data is available in English version at [www.statbank.dk](#); choose English language and look for the tables KBD1, KBD2 and KBD3. Read [here](#) about the statistics. Also, data are published at the homepage of the EU-commission partner [Directorate Generale Economic and Financial affairs (DG ECFIN)](#) along with similar data from other EU countries.

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

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

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

Newsletter [Nyt fra Danmarks Statistik, Konjunkturbarometer for detailhandel](#) is publish every month, the second last working day. Also a brief message occurs on Tweeter.

8.5 Publications

Based on the confidence indicators the dynamic graphical presentation [Business Cycle Tracer](#) (konjunkturcyklus) is updated. As the title indicates the graph traces the development in the business cycle, whether it is in a upswing or downswing phase.

8.6 On-line database

Data is available in English version in [www.statbank.dk](#) - choose English language.

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 anonymized in order to ensure enterprises confidentiality.

8.8 Other

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

8.9 Confidentiality - policy

The statistics is subject to the confidentiality policy of Statistics Denmark, in Danish [here](#).

8.10 Confidentiality - data treatment

Data is aggregated into wider industry groupings if necessary to ensure confidentiality especially for large enterprises. Furthermore response rates within individual industry groupings are not public available.

8.11 Documentation on methodology

Please refer to the EU-commission partner DG ECFIN's homepage on [methodological guides.](#). In the database TIMES4 is entered descriptions on the variables of the statistics.

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 Erik Slentø, tel.: +45 3917 3088, e-mail: esl@dst.dk

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