**Documentation of statistics for
Industry Investment Survey 2021 Month 04**

1 Introduction

The purpose of Investment Survey in Manufacturing industries is to provide an estimate of the expected future investments in manufacturing industries. The survey can be characterized as a tendency survey since the managements in the participating enterprises are asked to give an estimate on the annual investments in current prices. The survey has been carried through since 1982 according to demands from the EC.

From 2021, the statistics have been entered under [Investment survey for manufacturing industry](#) and the content of this documentation deals with the archived statistical bank tables .

2 Statistical presentation

The investment survey in manufacturing industries is a tendency survey in which the expectations regarding the annual change in industrial investments are summarized twice a year (March and October). The survey gives information on expected investments in the current year and the forthcoming year and the results are presented as percentage changes.

2.1 Data description

The investment survey in manufacturing industries is a tendency survey in which the expectations regarding the annual change in industrial investments are summarized twice a year (March and October). The survey gives information on expected investments in the current year and the forthcoming year and the results are presented as percentage changes.

In the Mach survey enterprises are requested to state investments last year (T-1) and planned investment current year (T). In the October survey enterprises are asked for planned investments for current year (T) and coming year (T+1).

Figures are entered in thousands DKK in the [questionnaire](#).

2.2 Classification system

The industries in the survey is defined by the EU classification Main Industrial Grouping (MIG) which is composed of different industries across the manufacturing sector as defined in [DB07](#), which is the Danish industrial classification system similar to the international NACE rev 2 system. The EU informs about [MIG](#) and presents a detailed list of [allocation of NACE industries into MIG groups](#).

2.3 Sector coverage

The statistics targets enterprises within manufacturing sector and is published in five industry groups.

C Industry, total - CDUR Durable consumer goods - CNDU Non-durable consumer goods - INTM Intermediate goods (excluding mining and quarrying) - INVE Investment goods

2.4 Statistical concepts and definitions

Investments: Additions and disposals of fixed assets, i.e. real property (land, buildings, etc..) and durable goods (machinery, vehicles, furniture, etc..) and intangible assets (software, licenses, etc..). Additions are stated at cost before depreciation and other adjustments, and includes both purchased and leased assets. Departure valued at selling price or, where this is not known to the impaired value.

Kind of Activity Unit (KAU): Defined as the observation unit. A KAU (Kind of Activity Unit) is a group of local units with identical activity code belonging to the same enterprise, which is identified by "CVR-number" from the Central Business Register.

2.5 Statistical unit

The sample is based on Kind of Activity Units (KAU's) as the observation units. A KAU is a group of local units with identical activity code belonging to the same enterprise, which is identified by "CVR-number" from the Central Business Register.

2.6 Statistical population

The universe population includes enterprises within main group *C Manufacturing*, covering industry groups 10 to 33 in Danish classification system [DB07](#), almost identical to the international NACE rev. 2 system. Also *B Mining and quarrying* , excluded oil extraction, is covered. The target population consists of about 4700 enterprises with mail activity within manufacturing industries and with 20 or more employees on annual basis.

2.7 Reference area

Denmark.

2.8 Time coverage

The survey has been conducted since 1982 as requested by the EU.

2.9 Base period

Not relevant for these statistics.

2.10 Unit of measure

Year-by-year increase rates in percentages.

2.11 Reference period

The survey is carried through twice a year. In March the participating enterprises are asked to give estimates for the investments in the current year and the preceding year. In October the questions relate to estimates for investments in the current year and the coming year. Over a two-year period the collected information forms the basis of four successive calculations of the expected annual change in industrial investments.

2.12 Frequency of dissemination

The investment survey in manufacturing industries is published twice a year.

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 19 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.

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.

3 Statistical processing

Not relevant for these statistics.

3.1 Source data

The survey is based on questionnaires. The source for the sample and updating of company specific information is the Central Business Register. Annual investment information from *Regnskabsstatistik* (Industrial accounts statistics) forms the basis of the weighting system.

The survey is carried out with a panel based sample consisting initially of 800 enterprises representing about 65 pct. of the total number of full-time employees in selected trades within the included strata.

Because of drop-out the sample is updated ones a year. Typically the sample is added 100-120 new enterprises at update.

3.2 Frequency of data collection

Data is collected twice a year (March and October).

3.3 Data collection

Data is collected either by paper questionnaire send to the respondent including postage pre-paid envelope, or by online reporting. The cover letter urges to log in to the reporting system VIRK, and fill the online questionnaire.

Reminder is send about the 25th in the survey month, with new deadline about the 4th next month.

Response rate is 80-85 pct. Deadline for responding is about the 20th of the month. Here, about two third of the answers have arrived. The rest, one third, that arrives within four weeks and are included in the statistics.

3.4 Data validation

Data validation of returned questionnaires is done manually. Figures are compared to previous reported figures. Also is compared to latest available investment figures from the annual accounts statistics.

The filled paper questionnaires are scanned automatically. If rejected the automatic scan they are handled by manual entry. By on-line reporting the system warns the respondent if a question is not ticked, however some issues can be missed on purpose from the reporter's hand and validation is done manually as described above.

3.5 Data compilation

As far as possible lacking response figures are imputed from previous responses from same enterprise. Normally the imputation rate is about 9 pct. (un-weighted).

If the sample has been updated with new respondents, historical data is lacking for the year-by-year change calculations. Those data are impute them from the Accounting Statistics. Each figure is evaluated if it looks realistic (different workplaces and industries)

In the enumeration process the sample is clustered in 7 record groups. Within each record group is calculated the growth rates of the units that have responded in the relevant periods.

Total investment figures for the year T is based on the latest Account Statistics (+ 18 month) from year T-2. So, first is calculated the total investment figures for year T-1 by multiplying with the growth rate figures for that year. In second step those figures are multiplied with the present growth rate figures, and absolute figures in DKK for the total investment is the result.

the 7 record groups refers to the EU's classificationsystem [Main Industris Grouping (MIG) [(https://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Main_industrial_grouping_(MIG)).

- 29 Manufacture of motor vehicles, trailers and semi-trailers
- CDUR Durable consumer goods
- CNDU Non-durable consumer goods
- FOBE Food and beverages industry (10.1-10.5, 10.7-10.8, 11, 12)
- CONS Consumer goods (CDUR+CNDU)
- INTM Intermediate goods (excluding mining and quarrying)
- INVE Investment goods (includes 29)

Out of those Statistics Denmark dessiminates four groups: INVE; INTM; CDUR and CNDU along with the total.

3.6 Adjustment

No adjustments are carried out.

4 Relevance

Users of the statistics are trade organizations, banks, politicians, public authorities, international organizations, business enterprises and the news media. The confidence indicators provides 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 main users of the survey are various industry confederations, the financial sector, politicians, public authorities, private organizations and the news media. Investment is an important leading indicator and the information on expected future investment contributes to the forecasting of overall economic activity.

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 (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

No overall accuracy has been calculated. Is has been observed a tendency that 2nd and 3rd measurement of a survey-year shows higher growth rates as compared to 1st and 4th measurement. The reason for this seems to be measurement errors.

5.1 Overall accuracy

The statistics covers a substantial part of enterprises in the selected industries and is considered as statistically representative.

Non-sampling errors are caused by non-response errors (about 20 pct. non-responses), and especially missing responses from large companies may cause fluctuations from year to year.

The survey is subject to measurement errors: A senior person in the company is asked to give a quick estimate on investment - either realized or planned.

5.2 Sampling error

No sampling error calculations.

5.3 Non-sampling error

In general the sample covers the population adequate. By sample update new enterprises may inform they are not registered in correct industry and therefore not relevant. Between lines of businesses there may be some over-coverage because of wrong or changed registration.

The survey is subject to measurement errors: A senior person in the company is asked to give a quick estimate on investment - either realized or planned. Therefore, the answer depends on the level of information and the stage of the company's investment cycle.

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. Those two types of non-responses are deleted from the registrations and enumeration files and thus excluded from the statistics. Then there are unit non-responses, about 20 pct. The respondent stays in the sample but has not responded the current year 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. The total non-response is about 25 per cent for each survey.

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.

Non-sampling errors are caused by non-response errors (about 15 pct. non-responses), and especially missing responses from large companies may cause fluctuations from year to year.

The survey is subject to measurement errors: A senior person in the company is asked to give a quick estimate on investment - either realized or planned.

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

In the survey there are no final figures on investments. The survey is carried through twice a year. In March the participating enterprises are asked to give estimates for the investments in the current year and the preceding year. In October the questions relate to estimates for investments in the current year and the coming year. Over a two-year period the collected information forms the basis of four successive calculations of the expected annual change in industrial investments. It is a characteristic of the survey that the first reporting from enterprises on expected investments is comparatively uncertain, while there is only a minor difference between the estimates in the third and fourth reporting.

The estimates on annual changes in the survey can be compared with subsequent annual final results in *regnskabsstatistik* (Industrial accounts statistics), cf. 3.2. and 4.2.

6 Timeliness and punctuality

The half-yearly survey is launched by means of questionnaires about 20 days before the survey month beginning. Deadline for responses is about the 12th in the survey month. Two weeks after, about the 26th, a reminder is send to the remaining admitting a new deadline about the 4th the month after the reference month. About the 15th the statistics is enumerated. About the 22nd results are published and send to the EU-partner DG ECFIN. The process runs punctual.

6.1 Timeliness and time lag - final results

The results of the survey are published twice a year. The March survey is published about the 22nd of April. The October survey is published about the 22nd of November.

6.2 Punctuality

The process runs punctual with no delays.

7 Comparability

The statistics is carried out in collaboration with the EU-commission since 1982. Please refer to (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 collection of data for these statistics has not been affected by COVID-19.

The survey was initiated i 1982 in Statistics Denmark and is conducted in agreement with the EEC, now EU-commission. Taking use of historical data from the homepage of Directorate-Generale for Economic and Financial Affairs (DG ECFIN)) it is possible to compare data over longer time span.

Since March 2009 the statistics has been processed and published with classification according to "Dansk Branchekode 2007" (Danish Industrial Classification of All Economic Activities, DB07, which is based on the EU classification NACE Revision 2.

7.3 Coherence - cross domain

The estimates on annual changes in the survey can be compared with subsequent annual results in *regnskabsstatistik* (Industrial accounts statistics), cf. 3.2. The survey follows the harmonized EU guidelines as recently described in a Commission Decision of July 15 1997. The European Commission, DG ECFIN, publishes the results of the European surveys.

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, Industriens investeringsforventninger and in English at the homepage Short term trends.

Detailed data is available in English version at Statbank; choose English language and look for the tables INVEST1 & INVEST2.

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 detailed 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.

8.3 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 Calender can be accessed on our English website: Release Calender.

8.4 News release

Key indicators are published in the newsletter edition Nyt fra Danmarks Statistik, Industriens investeringsforventninger and in English at the homepage Short term trends.

8.5 Publications

Not relevant for these statistics.

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Sejrøgade 11
DK 2100 København Ø

8.6 On-line database

The statistics are published in the StatBank under the subject [Manufacturing industries, Investment survey](#) in the following tables:

- [INVEST1](#): Investment survey in manufacturing industries by industry (DB07), calculation (time of collection) and time
- [INVEST2](#): Investment survey in manufacturing industries by industry (DB07) and time
- [INVESTF](#): Investment survey in manufacturing industries by industry (DB07), purpose and time

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

Also, data are 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

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

8.10 Confidentiality - data treatment

Since data is only published at sector level, no measures to ensure confidentiality.

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

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