STATISTICS DENMARK

Documentation of statistics for Danish Foreign Affiliates 2022

Statistics Denmark
Sankt Kjelds Plads 11
DK 2100 København Ø

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1 Introduction

The purpose of the statistics Danish Foreign Affiliates is to shed light on the Danish companies activities abroad through its controlled affiliates. Hence the statistics contributes considerably to the description of globalization, which is increasingly important to the development of the Danish economy and society. The statistics are comparable from 2007 onwards.

2 Statistical presentation

This is a yearly statistic, covering foreign affiliates (outside of Denmark) owned or controlled by parent companies in Denmark. The statistic measures the number of foreign affiliates as well as the number of employees, with breakdowns by activity and country of location.

2.1 Data description

This statistics concern foreign affiliates to Danish companies. The variables covered are localization (country), activity (industry) and number of employees. The number of employees in the foreign affiliate is defined as head counts and as an annual average.

2.2 Classification system

Danish foreign affiliates is published using the affiliates placement in: - Individual countries - International geographical regions - Main activities (based on the Danish Industrial Classification 2007 (DB07)) Danish Activity Code 2007 (in Danish)

2.3 Sector coverage

This statistics cover foreign affiliates in the private business sector, and this also reflects the activity covered regarding the Danish reporting units.

2.4 Statistical concepts and definitions

Affiliate: An affiliates is defined as an independent and autonomous unit, e.g. with its own management, that can hire/fire employees, delivers its own annual report, etc. (a branch is here not regarded as a foreign affiliate).

Control: "Control" is considered to exist when one is able to exercise controlling influence over the affiliate. This happens when one owns or controls (directly/indirectly) more than 50 per cent of the shares/votes of the affiliate. (The statistics is working with the concept of "affiliate" in the annual report, which means that the affiliate is considered a part of the enterprise group).

Direct/Indirect Control: Direct control is achieved when one owns or controls 50 per cent or more of the shares/votes in e.g. company (A). Indirect control is achieved if one owns or controls 50 per cent or more of the shares/votes in e.g. company (A), and that company (A) in return owns 50 per cent or more of the shares/votes in e.g. company (B). The result is therefore that one owns/controls company (A) directly and company (B) indirectly.

Foreign: The affiliate must be located outside Denmark (The Faroe Islands and Greenland are not considered a part of Denmark in this regard).

Foreign affiliates: The statistics include affiliates that are controlled by the parent enterprise and are not located in Denmark. The parent enterprise is considered having the control if it, directly or indirectly, owns more than 50 percent or have a controlling influence.

Parent Company: Company that are able to control one or more underlying affiliates.

2.5 Statistical unit

Statistical unit The statistical unit for Danish foreign affiliates is the foreign affiliate. The statistics covers affiliates and any underlying affiliates, which are located outside Denmark and are owned/controlled (directly/indirectly) by a Danish company (the parent company). The parent company is regarded to have control if it, directly or indirectly, owns 50 per cent or more of the shares/votes and/or have controlling influence over the affiliate.

Reporting unit The reporting unit of Danish foreign affiliates is a Danish company that is the direct owner of one or more foreign affiliates. This means that the survey also covers foreign affiliates that, via a Danish company, ultimately are controlled abroad.

2.6 Statistical population

The statistic covers foreign affiliates in the private non-agricultural business sector. From 2010 and onwards this means the activities 05-09, 10-39, 41-43, 45-47, 49-53, 55-56, 58-63, 64-66, 68, 69-75, 77-83, 85, 86-88, 90-93 and 94-96 in NACE Rev. 2. Regarding the years 2007-2009 the statistic uses NACE Rev.1.1, covering the activities 10-14, 15-37, 40, 41, 45, 50-52, 55, 60-64, 65-67, 70-74, 80, 85 and 90-93. The above mentioned covered activities also reflects the activity cut-off regarding the Danish reporting units. There is no cut off activity limit introduced for the survey for the parent enterprises or the affiliates.

2.7 Reference area

The statistical unit (the foreign affiliate) is located outside Denmark, with no further geographical delimitation in scope. The reporting unit (the Danish company) is located within Denmark.

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2.8 Time coverage

2007 -

2.9 Base period

Not relevant for this statistics.

2.10 Unit of measure

Number of Danish foreign affiliates and number of employees.

2.11 Reference period

2022

2.12 Frequency of dissemination

Danish foreign affiliates is an annual survey and is published yearly.

2.13 Legal acts and other agreements

Statistics Denmark Act § 8, section 1. Regulation (EC) No 716/2007 of the European Parliament and of the Council of 20 June 2007 on Community statistics on the structure and activity of foreign affiliates

2.14 Cost and burden

The burden is estimated to 1,3 million DKK in 2014.

2.15 Comment

Globalisation website

3 Statistical processing

Data is collected annually via questionnaire in a census survey of all companies in Denmark that own or control affiliates abroad. Data is validated, both during and after data collection, to ensure a high data quality of data for the statistic.

3.1 Source data

Danish foreign affiliates statistics is a census survey (not a sample survey), which means that the statistics is intended to be based on information from all Danish companies that own or control affiliates abroad. At the same time this means that a grossing up of the figures is not carried out.

The survey is a mandatory questionnaire based survey.

Sources for background information is a number of internal sources notably the Business Register and external sources, notably the Foreign Direct Investment Register of the Central Bank, Annual Company Reports and commercial data sources. In that way all enterprises in Denmark with controlling influence in foreign affiliates will contribute to this statistics.

Background information regarding the Danish companies are based on internal sources in Statistics Denmark, primarily the Business Register.

3.2 Frequency of data collection

Information on Danish foreign affiliates is collected annually.

3.3 Data collection

Danish foreign affiliates is an questionnaire based survey. The questionnaire are mainly answered online via https://www.dst.dk/virk, however some mainly large Danish company use alternative methods for reporting.

In order to ensure a high response-rate, written reminders are sent by the postal system, and also, if possible, by email.

3.4 Data validation

The received data for Danish foreign affiliates are validated both during the collection of data phase, but mainly when data collection is completed.

Several data validation procedures which are different in nature are conducted on the transmitted data in order to ensure a high data quality. Some variables are sought completely fulfilled, e.g. the country of the affiliate and the activity conducted in this. The reason is both to ensure high data quality but also in order to determine relevance (meaning is the affiliate a part of the scope of the survey).

The data on Danish foreign affiliates are validated and corrected on micro level, meaning the individual affiliate. Next the data are validated on reporting unit level, meaning the Danish company. And finally the data are validated on macro level, this means on the aggregated data broken down on the affiliates main activity and/or geographical break down. The data validation is prioritized, and errors/developments that have a huge impact on the statistics are validated first, thus meaning that a selective and prioritised data validation is carried out.

With micro-level data-treatment complete, the data is validated on a more aggregated level, e.g. on main activity breakdown of the combined affiliates, on the geographical breakdown of the combined affiliates and also on reporting unit level. The purpose is here to validate the developments from one year to the next, in order to catch major developments which could indicate possible errors.

The data validation on micro level is undertaken in order to correct actual errors, whereas the data validation on macro level aims at trying to understand the data and to find sound explanations on developments found between survey-years. This is carried out in close contact with the reporting unit.

Insufficient or faulty data submissions from large and thereby significant units (based on the previous year data transmission) are sought made complete and corrected, primarily by contacting the reporting unit.

In the case of missing information after this, values are imputated - primarily by using available register or annual report information, alternatively the data reported in the previous year. In that regard it should be mentioned that it is mainly on data transmissions containing zero-values.

3.5 Data compilation

Danish foreign affiliates statistics is a census survey (not a sample survey), which means that the statistic is intended to be based on information from all companies in Denmark that own or control affiliates abroad. At the same time this means that a grossing up of the figures is not carried out. Furthermore, and due to the generally high response-rate, imputation of missing units (unit non-response) is only carried out to an insignificant extent, primarily by using information available in registers or annual reports, alternatively in the data submitted the previous year.

3.6 Adjustment

No other correction of data are carried through, besides the corrections mentioned under data validation and data compilation.

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4 Relevance

The primary users of the statistics are ministries and other public institutions, and international organizations such as OECD and the European Commission. In addition the users cover news media, various industrial organizations and others with interest in globalization and the involvement abroad by Danish companies.

Surveys on the users level of satisfaction have not been carried out, but users of the statistics express that they are satisfied with the statistics and its value.

4.1 User Needs

The primary users of the statistics are politicians, ministries, departments, regions and municipalities and also OECD and the European Commission (Eurostat). In addition the users cover news media, various industrial organizations and researchers and others with interest in globalization and the involvement abroad by Danish companies.

Users of the statistics, primarily the European Commission (Eurostat), have expressed the need for additional variable, namely the value added variable.

4.2 User Satisfaction

Users of the statistics are content about the statistics and its value, but at the same time calls for additional information regarding the foreign affiliates.

4.3 Data completeness rate

This indicator is based on the data delivery to Eurostat. Information required to perform this calculation for a given survey-year will be available in the 2. half of the survey-year +2 years.

(Regarding the 2019-survey this indicator was 100 per cent - which means that Statistics Denmark delivers all data requested by Eurostat)

This indicator on the completeness of data regarding the publication on national level is not being calculated, but is estimated to be 100 per cent as well.

5 Accuracy and reliability

The survey result is based on submission of data from all relevant Danish parent companies with foreign affiliates. Any sample techniques and/or active use of thresholds have not been implemented. Thus the number of parent companies in the survey is approx. 5.000 and the number of foreign affiliates is approx. 15.000.

It is estimated that missing values/data submissions in the survey have a insignificant impact on the statistical value.

5.1 Overall accuracy

The survey result is based on submission of data from all relevant Danish parent companies with foreign affiliates. Thus the number of parent-companies in the survey is approx. 5.000 and the number of foreign affiliates is approx. 15.000.

The statistical results are considered highly accurate, however a minor underestimation may occur, e.g. due to missing data submissions and/or missing knowledge of relevant foreign affiliates. This however is appraised to be insignificant for the statistics. The experience is significant unit non-response or lacking inclusion of foreign affiliates only occur very rarely, and underestimation is assessed to be less than 1 per cent in terms of the number of foreign affiliates, and considerably below 1 per cent in terms of the number of employees.

Number of employees should be reported as the average number of employees in the foreign affiliates for the reference period, regardless of these employees work full-time or part-time. Thus meaning that the number reported should be based on head-count. It can be challenging for the reporting unit to deliver this information, hence that the number of employees reported could in fact be number of full-time equivalents (FTE's) and/or reported as end-of-year employees (and not the annual average). This is very difficult for Statistics Denmark to intercept in the data validation.

The foreign affiliates are, due to their geographical localization throughout the world, subject to different national regulations on annual reports, e.g. in regards to when these reports are to be delivered/made public. Therefore the submitted survey data could in fact belong to a previous period, as the reporting units does not have access to any newer data.

The data providers, which are a source for the survey, base their knowledge on foreign affiliates and their association to a Danish company, on world-wide annual reports from the companies and affiliates. This might mean that a company, with a relevant foreign affiliate, first will be a part of the survey a year later than it should have been. This discrepancy is due to the fact that the source material used in population determination is incomplete when it is needed, as e.g. the relevant annual report not has been made public at that time. This, however, is mainly the case for reporting units that are not already a part of the survey, as existing reporting units in the survey that have additional affiliates are required to add these to the form.

5.2 Sampling error

Not relevant.

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5.3 Non-sampling error

The response rate for Danish foreign affiliates is generally on more than 95 per cent. The statistical results are considered highly accurate, however a minor underestimation may occur, e.g. due to missing data submissions and/or missing knowledge of relevant foreign affiliates. This however is appraised to be insignificant for the statistics. The experience is significant unit non-response or lacking inclusion of foreign affiliates only occur very rarely, and underestimation is assessed to be less than 1 per cent in terms of the number of foreign affiliates, and considerably below 1 per cent in terms of the number of employees.

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Number of employees should be reported as the average number of employees in the foreign affiliates for the reference period, regardless of these employees work full-time or part-time. However this is very difficult for Statistics Denmark to detect in the data validation.

As no sources are available the survey is not being compensated for unit and item non-responses. The extent of item non-response is not monitored and is therefore not able to be calculated. The impact of unit and item non response is estimated to be of small extent.

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 quality of the survey in general is appraised to be high.

The survey result is based on submission of data from all relevant Danish parent-companies with foreign affiliates. Any sample techniques and/or active use of thresholds have not been implemented. Thus the number of parent-companies in the survey is approx. 5.000 and the number of foreign affiliates is approx. 15.000.

With the sources used and available it is appraised that the value and results of the survey presents a true and fair view, however underestimation may occur, e.g. due to missing data submissions and/or missing knowledge of relevant foreign affiliates.

Number of employees should be reported as the average number of employees in the foreign affiliates for the reference period, regardless of these employees work full-time or part-time. Thus meaning that the number reported should be based on head-count. It can be challenging for the reporting unit to deliver this information, hence that the number of employees reported could in fact be number of full-time equivalents (FTE's) and/or reported as end-of-year employees (and not the annual average). This is very difficult for Statistics Denmark to intercept in the data validation.

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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 disseminated. In general there are no regular revisions of the statistics.

6 Timeliness and punctuality

Danish foreign affiliates statistics is published approx. 14 months after the end of the calendar-year. The statistical information is collected in between May and November. Danish foreign affiliates is made public without delay in accordance with the scheduled date.

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6.1 Timeliness and time lag - final results

The figures are being made public within 14 months after the end of the reference period. Data transmitted to Eurostat is being delivered within 18 months after the end of the reference period.

6.2 Punctuality

Danish foreign affiliates is made public without delay in accordance with the scheduled date. The timeliness are measured in the latest calendar-year.

7 Comparability

This survey is also carried out in other European countries. Due to different approaches one cannot directly compare the results published in Denmark with the figures in Eurostat's database. The results published in Denmark cover all enterprises in Denmark that own/control foreign affiliates, regardless of ultimate controlling country. The figures in Eurostat solely cover enterprises that have the compiling country as ultimate controlling country.

7.1 Comparability - geographical

The survey is based on the Regulation (EC) No 716/2007 of the European Parliament and of the Council of 20 June 2007 on Community statistics on the structure and activity of foreign affiliates

In the population used for the survey on Danish foreign affiliates all relevant companies registered in Denmark regardless if these are ultimately owned from Denmark or owned from abroad.

The survey is carried through in the majority of the European member countries. But due to the above mentioned circumstances one should take caution when comparing the Danish figures (published by Statistics Denmark) with the figures within e.g. the Eurostat database. The Danish figures in the Eurostat database consist of foreign affiliates exclusively owned by Danish companies that are ultimately owned from Denmark.

Likewise it should be mentioned that between the countries there might be discrepancies in the establishment of ultimate owning country, which potentially might influence the figures.

7.2 Comparability over time

From the year 2010 and onwards the activity in the foreign affiliates is based on DB07 (Dansk Branchekode 2007) which is the Danish interpretation of NACE, rev. 2.

Previously the activity in these foreign affiliates, meaning the years of 2007-2009, was based on DB03 (Dansk Branchekode 2003) which is the Danish interpretation of NACE, rev. 1.1.

The change in activity codes means that long time series on activity of the foreign affiliates are not possible.

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7.3 Coherence - cross domain

Under the theme of globalization there are other statistics available. E.g. regarding foreign owned affiliates in Denmark, which is also annually and in addition an ad-hoc survey on International sourcing 2001-2006.

Another ad-hoc survey on International sourcing have been conducted for the reference period 2009-2011. This survey also includes some information on Danish foreign affiliates.

7.4 Coherence - internal

Aggregated regions and activities are calculated from the more detailed data material, which secures that data are internally consistent.

8 Accessibility and clarity

These statistics are published yearly in a Danish press release, at the same time as the tables are updated in the StatBank. In the StatBank, these statistics can be found under the subject Danish Foreign Affiliates. For further information, go to the International enterprises.

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

The results from the survey is published yearly in a Danish press release from Statistics Denmark. Newsletter overview on the topic International enterprises

8.5 Publications

One time thematic publication on globally engaged Danish companies: Grænseoverskridende virksomheder – Danske datterselskaber i udlandet 2008 (in Danish only, but with an English summary) Find it here: Danske datterselskaber i udlandet 2008

8.6 On-line database

The statistics are published in the StatBank under the subject Danish subsidiary companies abroad in the following tables:

- OFATS1: Danish foreign affiliates by industry, unit and time
- OFATS2: Danish foreign affiliates by countries, unit and time
- OFATS3: Danish foreign affiliates by countries, industry, unit and time
- OFATS4: Danish foreign affiliates by country, unit and time

8.7 Micro-data access

Tailor-made data extractions are available for a fee on the published data. Due to the sensitive nature of the data material submitted by the enterprises researchers does not have access to the data.

8.8 Other

Not relevant for these statistics.

8.9 Confidentiality - policy

Data Confidentiality Policy at Statistics Denmark.

8.10 Confidentiality - data treatment

Danish foreign affiliates is published on a detailed level, that requires confidentiality treatment, in order to make sure that one is not able to identify the individual companies. This means that information based on less than 3 reporting units, will not be disclosed. The practical meaning of this will be that main activity groupings will be grouped together, e.g. on a more aggregated level, and that information, on e.g. individual country-level, will not be disclosed.

8.11 Documentation on methodology

The variables in the statistics are documented in TIMES (Danish only) Danish foreign affiliates statistics in TIMES

No further description of methods is available.

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 is in the division of Business Dynamics. The contact person is Alina Grecu, tel.: + 45 3055 1824, and e-mail: AGC@dst.dk.