**Documentation of statistics for
Purchases and sales by enterprises 2024**

1 Introduction

The purpose of the statistics Purchases and sales by enterprises is to monitor business cycles in Denmark, based on sales of enterprises. The statistics is based on information on value added tax (VAT) reported by the enterprises to the Danish Tax Authorities.

The statistics is compiled and disseminated monthly and provides a short-term status of Danish business economy. The statistics have been published with variation in calculation methods and frequencies, since value added tax (VAT) was introduces in Denmark in 1967. In its current form, the statistics is comparable from 2011 onwards.

2 Statistical presentation

Purchases and sales by enterprises is a monthly statement of purchases and sales of goods and services. The Statement is calculated in millions (Danish kroner). The statement is calculated at industry level defined in the Danish Industrial Classification of All Economic Activities 2007 (DB07). In addition, the statistics are divided into domestic purchases and sales.

2.1 Data description

The statistics Purchases and sales by enterprises is a statement of sales at industry level (DB07). Depending on the level of detail on the industry level the sales is distributed by months, quarters and years.

The statistic has four variables: *domestic purchase* and *domestic sale* as well as *purchases in total* and *sales in total*. This separation originates from what is reported as VAT-subject and non-VAT-subjects purchases and sales to the Danish Tax Agency.

The definition of the variables is described on the web page (in Danish).

2.2 Classification system

The statistics is calculated at the industry levels defined in the Danish Industrial Classification of All Economic Activities 2007 (DB07). The statistics Purchases and sales by enterprises covers all industry levels in DB07, and is published at 19-, 36-, and 127-industry level. News from Statistics Denmark (NYT) on Purchases and sales by enterprises was published until December 2023, and here NYT data is calculated at the 10-industry level.

2.3 Sector coverage

The statistics covers all activities at industry level, defined in the Danish Industrial Classification of All Economic Activities 2007 (DB07).

2.4 Statistical concepts and definitions

Enterprise: Enterprise, organisation registered in the CVR. In FIKS an enterprise is always equal to legal unit, i.e. A/S, Aps, sole proprietorship etc

2.5 Statistical unit

Enterprises (legal units).

2.6 Statistical population

Enterprises with a sale above 50.000 kr. per. year.

2.7 Reference area

The statistics covers Denmark, with exception of the Faroe Islands and Greenland. Enterprises without permanent address in Denmark are furthermore included, if The Danish Tax Agency have assigned the given enterprise a SE-number.

2.8 Time coverage

The time period from the year 2009 onwards is covered by the statistics

2.9 Base period

The statistics do not have a base year.

2.10 Unit of measure

On the webpage, StatBank Denmark the amount in tables is calculated in million DKK.

2.11 Reference period

The reference period is months.

2.12 Frequency of dissemination

The statistics are published monthly.

2.13 Legal acts and other agreements

Legal authority for data collection is found in § 6, subsection 1 of the Act on Statistics Denmark, cf. Legislative Decree No. 610 of 30 May 2018.

Statistics requested by Eurostat prepared from these statistics are based on Regulation (EU) 2019/2152 of the European Parliament and of the Council of 27 November 2019 on European business statistics.

2.14 Cost and burden

The statistics is based on administrative data. The data originates from the Tax Agency's register of VAT that the enterprises have reported that they owe to the Tax Agency. The statistics are therefore not an extra workload for the enterprises, as no enterprises have to fill in an extra questionnaire in order to contribute to the statistics.

2.15 Comment

Purchases and sales by enterprises have a [webpage](#) (Danish). Terms and definitions in the VAT scheme are on the webpage [Danish Tax Agency's legal guidance on VAT](#) (Danish). Read more about the VAT Act [here](#) (Danish).

3 Statistical processing

Data originates from the Danish Tax Agency's VAT registers plus information from the Central Business Register (CVR). Missing reports are replaced with imputed values, which are values estimated for each missing report. Imputed values are provisional and removed when the enterprise has reported VAT to the Tax Agency or the enterprise's business status in the CVR register is updated as inactive. The report follows the enterprise's main industry.

3.1 Source data

The statistics is based on the Danish Tax Agency's VAT register. The VAT register contains information on VAT enterprises reports monthly, quarterly or half-yearly. This data is supplemented with background information from CVR.

If enterprises expected annual sales in total (excluding VAT) exceed 50 million Danish kroner, they must report VAT every month. If sales are expected to be between 5 and 50 million Danish kroner the enterprise has to report VAT quarterly and if it is less than 5 million Danish kroner, it must report half-yearly. Statistics Denmark receive data, when the enterprises have reported VAT to the Tax Agency.

3.2 Frequency of data collection

Data is collected monthly.

3.3 Data collection

Data files are transferred every month from the Tax Agency. The data files contain data with the companies' reported VAT.

3.4 Data validation

Data is checked for errors at enterprise level and at industry level. Search for errors is done at enterprise level the current month with last month's reports and reports same month last year. In the case of large fluctuations, the enterprise is contacted.

3.5 Data compilation

In Denmark, enterprises report the value of the VAT they have received on sales or purchases to the Tax Agency. The companies use their SE numbers when they register their report.

In Denmark, the general VAT rate is 25 percent. There are a few exceptions to the general VAT rate, they are listed in §13 of the Danish VAT Act (Momsloven). As the general VAT rate is 25 percent. of sales value, the value of the purchase or the value of the sale is calculated as the reported value multiplied by four. These are the values in the variable domestic purchase or domestic sales.

The sale is registered on the CVR number to which the SE number is linked. Some companies are part of a group that jointly reports VAT. The distribution of sales between these companies is distributed according to the number of employees per CVR number.

Statistics Denmark imputes when no VAT has been reported. The primary reason for the shortfall is when an enterprises report VAT either quarterly or half-yearly. The value is imputed by multiplying the latest reported value by a growth rate calculator. The growth rate is calculated as an average of the current and the last 2 years' growth rates seen from the previous to the current month, quarter or half year, in the industry group the enterprises belong to. For enterprises, that reports VAT quarterly or half-yearly, imputed values are spread over months. This is done by: First, the entire quarter or half year for the enterprise is imputed. Next, the imputed value is distributed over months according to a distribution key. The distribution key is based on reports from enterprises that report monthly. The distribution key is calculated for the 127-industry level (DB07). Values reported quarterly or half-yearly are distributed over months following the distribution key set by the enterprises reporting VAT monthly. The assumption is for the distribution of the values over month for the quarterly or half-yearly reports is the same as for the enterprises reporting VAT monthly.

In the case, an enterprise has not reported for 2 months in a row, the latest imputation is based on the previous imputation. For all reporting types, it applies that there will only be imputed for maximum periods of 2 months/quarters/six months back in time. The imputation is then set to value of 0 DKK. Subsequent declarations, i.e. corrections that enterprises have made for previous periods are distributed over the relevant months. In a similar way, an imputation is removed if the company's business status in the CVR register is registered as inactive. Enterprises whose latest VAT report is negative are imputed with the value 0 DKK to avoid large negative values.

The publication of the statistics is on an aggregated industry level (DB07). The variable "total sales" is seasonally adjusted at the 19- industry level (DB07).

3.6 Adjustment

Data is seasonal adjust at two levels: 1) extended 10-industry level (DB07) and 2) the 19-industry level (DB07).

1) The extended 10-industry level (DB07) consists of:

- TOT business.
- In total, excluding energy (B, D and E).
- Agriculture, forestry and fishing.
- Industry, extraction of raw materials and utilities B Extraction of raw materials C Industry (D +E) Energy supply, water supply and renovation.
- Construction.
- Trade and transport etc. G trade, H Transport and I Hotels and restaurants.
- Information and communication.
- Financing and insurance.
- Property trading and letting.
- Business service.
- Public administrations, education and health.
- Culture, leisure and other services.
- Undisclosed activity.

2) The 19 -industry level (DB07) consist of:

TOT, Business in total A. Agriculture, forestry and fishing. B. Raw material extraction. C. Industry. D. Energy supply. E. Water supply and renovation. F. Construction. G. Trade. H. Transportation. I. Hotels and restaurants. J. Information and communication. K. Financing and insurance. L. Property trading and letting. M. Knowledge service. N. Travel agencies, cleaning and other operational services. O. Public administration, defence and police. P. Education. Q. Health and social services. R. Culture and leisure. S. Other services etc. X. Undisclosed activity.

If you want to read more about seasonal adjustment.

4 Relevance

Users of the statistics are ministries, researchers, students and organizations. Used for e.g. analysis of business trends and market research. In Statistics Denmark, the statistic provides supporting information to e.g. the National Accounts and statistics on foreign trade. Data contribute to the Danish compliance with requirements in the European business statistics regulation regarding turnover on industries on service and trade. In order to comply with requirements, monthly turnover must be distributed to Kind of Activity Units (KAU). A model is used to split legal units into KAU.

4.1 User Needs

The statistics basic data and results are in addition used on a series of other areas of statistics in Statistics Denmark e.g. foreign trade statistics, retail turnover index and national accounts.

- Users: Ministries, private companies, researchers, students and organizations that represent business, employers or workers.

- Areas of application: Short-tern statistics, analysis of business trends and market research etc.

4.2 User Satisfaction

The Committee for Industrial Statistics (Danish) meet twice a year and discuss among other topics this statistic.

4.3 Data completeness rate

National: The rate of Data completeness is calculated for table "FIKS44: Purchases and sales (detailed) by industry (DB07) and amount" that can be found in StatBank Denmark. The rate of Data completeness: R1(user) = (the numerator is the subset of available/provided data cells) / (the denominator is the set of relevant data cells) R1(user) = 536 / 741 = 0,72.

The above is calculated for 2023Q4 on the May 1st, 2024. The model for the rate of data completeness is described at page 3 in ESS guidelines for the implementation of the ESS Quality and performance indicators (QPI).

Eurostat: To meet part of the regulatory requirement in the European business statistics regulation (EBS- regulation) data form this statistic is used. With these statics we have a short-term estimate for turnover. To meet the regulation, we deliver data on the following industry levels.

Service:
Aggregated level: (H+I+J+L+M (excl. M701, M72 and M75)+ N) NACE Sections: H, I, J, L, M (excl. M701, M72 og M75) and N Divisions of NACE Sections: H, I, J, L, M (excl. M701, M72 og M75) and N

Trade: Section G Divisions G45 and G46 Groups G451, G452, G453, G454, G461, G462, G463, G464, G465, G466, G467, G469

The rate of Data completeness: R1(producers) = (subset provided) / (the set of data cells required).

For Denmark R1(producers)=1, this means that the required datasets are provided.

The model for the rate of data completeness is described at page 3 in ESS guidelines for the implementation of the ESS Quality and performance indicators (QPI).

5 Accuracy and reliability

The statistics is based on VAT, reported by enterprises to the Tax Agency. The precision is strengthened by the fact that all companies subject to VAT are included. It is weakened by too little information sales not subject to VAT, e.g. train tickets and recycled clothes. The reliability increases as the enterprises report and revise values. It's possible to revise up to three years after submission. Values are considered final after three years. The sales are used as an estimate for turnover. Please notes that turnover includes more than sales, e.g. revenue from investments.

5.1 Overall accuracy

The goal of the statistics is a value for the enterprise's sales that can be used as an estimate for the enterprise's turnover. The fact that statistics contains data from all VAT-liable enterprises strengthens the precision. Furthermore, the information on the three variables domestic purchases, total purchase and domestic sales, is important for the amount of VAT that the enterprises are obliged to pay to the Tax Agency. It has a direct impact on the enterprise's finances, it therefore motivates the enterprises to fill in data on the three variables correctly. The enterprises do not have the same motivation when it comes to reporting exports and non-VAT sales. The field in the report is called "section C". The value of sales from recycled goods in category C is considered to be understated.

There are no calculations on uncertainty.

5.2 Sampling error

The study is based on register information. The sampling uncertainty is zero, since it is a total count.

5.3 Non-sampling error

Coverage error: Two cases have been identified where the frame population covers the target population, and the actual level is underestimated: 1. Enterprises with an annual turnover below 50,000 DKK are not part of the framework population. 2. Enterprises that report VAT only using One Stop Shop, are not part of the frame population.

Over-coverage rate: Over-coverage occurs when enterprise becomes inactive and the CVR register is not updated. At the specific point in time, the company continues to be part of the frame population but not part of the target population. When an enterprise becomes inactive, its values are imputed until the enterprise's status is updated in the CVR register. The statics are then adjusted. Imputations are made for a maximum of three periods, which are either months, quarters or six months.

Measurement error: Four types of measurement error have been identified: 1. Errors in reporting are either typos or a conscious or unconscious attempt to cheat. The extent of this type of error is not known. 2. Another type of measurement error is a result of how we divide the sales into months from enterprises that only report VAT quarterly and half-yearly. We have made the assumption that the enterprises that report VAT quarterly and half-yearly have the same behaviour as enterprises that report VAT monthly. 3. A third type of measurement error is because of the way we divide sales for enterprises that reports VAT on a joint SE number ("fællesindberetter"). The split of values depends on how many employees each CVR has. The size of this measurement error is unknown. 4. A fourth measurement is when we place all sales from CVR in the industry group where the enterprise generates the largest added values.

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

Examples of lack of quality when enterprises report VAT:

Uncertainty about the end user. Errors can occur if the enterprise is not aware of 1) Only report VAT when the goods or services reach the end user 2) Goods not subject to VAT must be registered in "Rubrik C". The extent of any errors from this source is unknown.

Misreporting that may affect the detailed industries without being detected in the month of release but will most often be corrected in quarterly releases.

Below is a list of possible quality issues in relation to statistics processing:
The definition of split of joint VAT reporter. Enterprises that report VAT jointly have one SE number, which covers several CVR numbers. We do not have knowledge of how the values in a joint VAT report are divided into the individual CVR numbers. For a joint report, purchases and sales are distributed among the individual enterprises in relation to the number of employees and the industry's turnover per employee. A change of industry for a CVR number included in a joint report can affect all the industries included in the joint report.

Comparison with Danish statistics: From 2010, the statistics are based on register data. A register of the VAT returns that companies report to the Danish Tax Agency. This means that the data in the statistics is comparable over time from the year 2010, as the statistics include all companies that report VAT. The statistics contain the variable "Salg i alt", which can be used as an estimate of the enterprises' net turnover and can be compared with the net turnover in other statistics such as General enterprise statistics. When comparing, you need to take into account differences such as which types of sales or turnover are included, whether excise duties are included, and whether smaller companies are included in the statistics.

Comparison with foreign statistics: Note that the statistics on "total sales" can be used as an estimate of the net turnover of firms or variable 140301. Note that according to the definition of variable 140301 (net turnover) the following must not be included
- all taxes and duties directly related to revenue. - amounts collected on behalf of a principal if the statistical unit acts as an agent in relation to that principal any income that cannot be linked to the ordinary operations of the statistical unit.

The statistics have the following shortcoming to the above definition. When calculating "total sales", indirect taxes are included e.g. excise duties. Furthermore, as it is not possible to break down sales to invoice level, sales collected via authorisation (reverse charge) and sales that cannot be linked to the statistical unit's ordinary operations cannot be deducted.

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

The first publication of a period is provisional. The reason why the first period is provisional is firstly that enterprises have the right to revise data for that period and secondly, it is a period that contains imputed data for missing reports. The imputed data covers reports from enterprises that report for a quarter or half-year and have not yet reached the deadline. The imputed data also covers data from enterprises that report on a monthly basis but have not reported despite the deadline for reporting having passed. Enterprises can revise a period that goes back three years.

6 Timeliness and punctuality

The statistics are published approximate 40 days after the end of the reference period. The statistics contain a statement of sales that are subject to VAT. A statement of an enterprise's sales subject to VAT can be used as an estimate of the enterprise's turnover, which is why the statistics are used for short-term statistics on turnover. The publication date is announced at least 6 months in advance, and it is rare that a publication of the statistics is delayed.

6.1 Timeliness and time lag - final results

The first publication of a period is approximately two months (around 40 days) after the reference month. The first publication at the detailed industry level is approximately three months (around 90 days) after the reference month. Enterprises report information on VAT to the Danish Tax Agency either monthly, quarterly or half-yearly depending on the enterprise's annual turnover. Values are estimated for missing data while we wait for the enterprise to report. A period is considered provisional the first few times it is published and after 12 months the period is considered final, recognising that the company has the right to revise a report for a period of up to 3 years.

6.2 Punctuality

The statistics is published immediately in relation to the pre-announced publication time in the publication calendar.

7 Comparability

From 2010, the statistics are based on register data, the information on VAT that enterprise report to the Tax Agency. From the year 2010, data is comparable year to year, as it includes all enterprises that report VAT. The variable "salg i alt" can be used as estimate for the enterprises' net turnover and can be compared with the net turnover in other statistics, e.g. General Enterprise Statistics. When comparing, take into account the differences, for example which types of sales or revenue are included, whether excise duties are included, and whether smaller companies are included.

7.1 Comparability - geographical

The statistics are compiled according to EU guidelines and are comparable with statistics from other EU countries. Data from the statistics is used to publish turnover indices and production indices for the service and non-retail trade sectors, respectively. These can be viewed on Eurostat's website.

Note that the calculation of the variable 'total sales' can be used as an estimate of firms' net turnover (EBS variable 140301). Note that according to the definition of variable 140301 (net turnover) the following are excluded from net turnover: - all taxes, duties or levies linked directly to revenue; - any amounts collected on behalf of any principal, if the statistical unit is acting as an agent in its relationship with said principal; - all income not arising in the course of ordinary activities of the statistical unit.

The Danish statistics have the following shortcomings compared to the above definition. When calculating the variable "salg i alt", indirect taxes such as excise duties are included. Furthermore, since it is not possible to break down the sales at invoice level, no deduction can be made for sales that are collected on behalf of any principal (reverse charge). Lastly, sales that cannot be linked to the statistical unit's ordinary operations can't be identified.

The shortcomings described above are accepted, because, indirect taxes are industry-specific, and therefore have no impact on the overall economic development. Reverse charge and other income than ordinary operations are expected to be identified with the introduction of digital invoicing.

7.2 Comparability over time

The history of the statistics:

VAT (value added tax) was introduced in Denmark on 3rd of July 1967, and data is used in a quarterly statistic called "Merværdiafgift og omsætning i byerhvervene", this statistic was published first quarter of 1968.

Back to the year 1969, there are annual statistics based on VAT reports. During the years covered by the statistics, there have been a number of changes in VAT rules, statistical units and the industry classification used, which makes long historical analyses difficult.

In January 2001, the publishing cadence is changed to monthly, and the title was changed to "Purchases and sales by industry". At the same time, the counting unit in the statistics was changed from the reporting unit (SE number) to the legal unit (CVR number).

January 2009 the statistics on Purchases and sales by industry was introduced. This statistic is based on a machine processing of the reports from enterprises to the Danish Tax Agency.

Breach in the data series:

Data breach in the data series between 2009 and 2010: From the 1st of January 2010, when exporting of services, the enterprises use reverse charge, whereas this was previously subject to VAT in Denmark and included in domestic sales; similarly for the import of services. This causes a breach in the data series of domestic purchases and sales from 2009 to 2010.

7.3 Coherence - cross domain

You can compare this statistic with other statistics published by Statistics Denmark e.g. General enterprise statistics, Accounts statistics, External trade in goods (crosses Danish border). You must be aware of differences in definition, for example whether all types of turnover are included, whether excise duties are included or not, and whether the smaller companies are also covered.

Statistics' calculation of the variable "salg i alt" can be used as an estimate for the companies' net turnover. This net turnover is used as an estimate until the net turnover is calculated in one of the structural statistics, such as the Accounts Statistics.

7.4 Coherence - internal

Data is collected by The Danish Tax Agency and sent to Statistic Denmark. There is no integration of different sources or registers, this means there is consistency in the sources of the statistics. Counting units and groups are treated the same, both at the Danish Tax Agency and Statistics Denmark, and there is therefore consistency in the data set. A given unit or grouping appears the same across tables found on the webpage of StatBank Denmark.

8 Accessibility and clarity

The statistics are published on the webpage StatBank Denmark under the topic Purchases and sales by Enterprises. Until December 2023, the statistics was published monthly in a Danish newsletter called NYT.

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

Until December 2023 the statistics was published monthly in Nyt from Statistics Denmark about Purchases and sales by enterprises.

8.5 Publications

Up until 2017 the statistic was included in the Statistical Yearbook.

8.6 On-line database

The statistics are published in the StatBank under the subject [Purchases and sales by enterprises](#) in the following tables:

- [FIKS11](#): Purchases and sales by industry (DB07), amount and seasonal adjustment (monthly)
- [FIKS22](#): Purchases and sales (19-grouping) by industry (DB07), amount and seasonal adjustment (monthly)
- [FIKS33](#): Purchases and sales (36 and 127-grouping) by industry (DB07) and amount (monthly)
- [FIKS44](#): Purchases and sales (detailed) by industry (DB07) and amount (qt.)
- [FIKS55](#): Purchases and sales by industry (DB07), amount and time (year)
- [FIKS9](#): Purchases and sales historic summary by amount

8.7 Micro-data access

Researchers and other analysts from authorized research institutions, can be granted access to the underlying Micro-data by contacting [Research Service](#).

8.8 Other

Eurostat is the international statistical bank that receives a limited portion of data from the statistics every month. Data for Eurostat are calculated on Kind of Activity Units (KAU). You can find data in the following statistics:

The turnover index for service [Turnover in services](#).

Turnover index with the industry groups (DB07) for trade G, G45 and G46 in [Turnover and volume of sales in wholesale and retail trade](#).

8.9 Confidentiality - policy

Statistics Denmark's [data privacy policy](#) is followed in the preparation of the statistics Purchases and sales by enterprises.

8.10 Confidentiality - data treatment

If single cells in the data cannot be displayed due to discretion, then they are omitted from the statistics, and possible adjustments are made any additional discretion in the case of primary and secondary discretion, see further on Annex 1 in [Data confidentiality policy](#).

8.11 Documentation on methodology

On Eurostat's recommendation, the data is seasonally adjusted using the program [JDemetra+](#). Read more about how Statistics Denmark uses the program in the [general introduction to seasonal correction](#).

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 Short Term Statistics. The contact person is Lina Pedersen, tel.: + 45 5168 7280, and e-mail: LIP@dst.dk.