

Documentation of statistics for Purchases and Sales by Firms ("VAT Statistics") 2017 Month 02



1 Introduction

The purpose of the statistics is to monitor business trends and economic activity in Denmark through information on purchases and sales as reported by business enterprises covered by the Danish VAT system. The statistics contain information about domestic sales, total sales, domestic purchases and total purchases.

VAT (value added tax) was introduced in Denmark in 1967, and the administrative information on the tax system was primarily used as a source for compiling quarterly statistics on VAT from 1968. Later a detailed Annual VAT Statistics has also been published. Starting with January 2001 the statistics became monthly, and the title changed to Purchases and Sales by Firms. In 2012 the statistics was changed, and there are new series from January 2009. There are adjustments and changes in calculation methods. Now we have quarterly data for the detailed industry groups. Monthly data are published for the 19-, 36- and 127-groupings, and also for the 'NYT'-grouping, which is the 10-grouping supplemented with more detailed information about the largest industry groups.

2 Statistical presentation

The VAT statistics give a monthly picture of the development in most business sectors in Denmark. For each group (industry, trade etc.) information is available regarding total purchases and total sales, and the domestic part of it.

Actual and seasonally adjusted data are published for detailed sectors and groups of businesses. Seasonally adjusted data for the 19-grouping and for the 'NYT'-grouping are published.



2.1 Data description

Sales total and Purchases total are measures for turn over that are based on the VAT report made by businesses. The statistics contains information about domestic sales, total sales, domestic purchases and total purchases.

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VAT (value added tax) was introduced in Denmark in 1967, and the administrative information on the tax system was primarily used as a source for compiling quarterly statistics on VAT and turnover in non-agricultural industries, which were published for the first time as from the 1st quarter 1968. Information on VAT in each industry has, however, been excluded since the 1st quarter 1983, and the article was entitled 'Omsætning i byerhvervene' (Turnover in non-agricultural industries). However, over the years changes in the industrial classification have been made as well as minor extensions of the domains, which are liable to VAT. An Annual VAT Statistics has also been published. The first detailed annual statistics, which also included agriculture and fishing, was published from the year 1970.

Starting with January 2001 the statistics became monthly, and the title changes to Purchases and Sales by Firms.

In 2012 the statistics was changed, and there are new series from January 2009. There are e.g. adjustments and changes in calculation methods and distributions. Now we have quarterly data for the detailed industry groups. Monthly data are published for the 19-, 36- and 127-groupings, and also for the 'NYT'-grouping, which is the 10-grouping supplemented with more detailed information about the largest industry groups.

2.2 Classification system

The industry groupings are based on <u>Danish Industrial Classifications</u>, <u>Dansk Branchekode 2007</u>. 'Dansk Branchekode' is the National version of the EU nomenclature <u>NACE rev.2</u>.

2.3 Sector coverage

All sectors.

2.4 Statistical concepts and definitions

Enterprise: Enterprise - a legal business unit with commercial purpose.

2.5 Statistical unit

Businesses enterprises.

2.6 Statistical population

Businesses with annual turnover above Dkr 50.000 or those who have voluntarily been registered for VAT.



2.7 Reference area

Denmark excluding Faroe Islands and Greenland. The statistics also covers enterprises without a Danish address if the Danish tax authority "SKAT" gave the enterprise an "SE"-number.

2.8 Time coverage

2009-

2.9 Base period

Not relevant for this statistics.

2.10 Unit of measure

Mio. DKK.

2.11 Reference period

For the standard groups of DB07 <u>Dansk Branchekode 2007</u> the statistics refers to the relevant month and for sectors in FIKS44 the relevant quarter.

2.12 Frequency of dissemination

Monthly.

2.13 Legal acts and other agreements

Section 6 of the Act on Statistics Denmark, as subsequently amended by Act no. 599 of 22 June 2000.

Council Regulation (EC) No 1165/98 of 19 May 1998 concerning short-term statistics.

2.14 Cost and burden

There is no response burden as the data are supplied by the Customs and Tax Authorities.

However in the period 2001 to 2011 Statistics Denmark occasionally carried out an annual survey among some 260 joint declarers (units reporting for two or more corporations) in order to ascertain the percentage share of each corporation covered by a joint declaration, but participation in this survey is voluntary. From 2012 this split up is made on basis of administrative information, and the cost of burden is 0.

2.15 Comment

For detailed information on concepts and definitions relating to the Danish VAT system please refer to the homepage of the Danish tax authority <u>SKAT</u>.



3 Statistical processing

Data are loaded and recalculated to the unit 1000 DKK. Data for missing/expected declarations are imputed. Quarterly and semi-annual data are recalculated and spread onto months. Additional declarations are spread over periods. Regulations are made to incorporate export declarations, and data are aggregated to the 'CVR' unit, main industry unit etc. Joint unit declarations are divided. Output is aggregated and data are seasonally adjusted.

3.1 Source data

VAT declarations, i.e., monthly, quarterly or semi-annual reports (forms) submitted to the Central Customs and Tax Administration in connection with the payment of VAT.

Background information from the Danish Business Register is also used.

3.2 Frequency of data collection

Monthly, quarterly or semi-annually.

The yearly turnover of a business enterprise determines its VAT declaration frequency. The frequency is monthly if the amount exceeds DKK 50 million, quarterly in the interval between DKK 5 million and DKK 50 million, and half-yearly if it is less than DKK 5 million.

3.3 Data collection

Data comes from VAT declarations submitted to the Central Customs and Tax Administration.

3.4 Data validation

Error detections are made at the industry and enterprise level.

3.5 Data compilation

We load data and recalculate to DKK 1000, which is the unit we use throughout the system until it is recalculated to mio. DKK. when data are published. Data are at the se-unit, which is the the reporting number. Missing data are imputed. Quarterly and semi-annual data are recalculated and spread onto months. Additional declarations are spread over periods. Regulations are made to incorporate export declarations. Data are aggregated to the 'CVR' unit, main industry unit etc. Joint unit declarations are divided and placed on different CVR units. In connection to the publishing of data output is aggregated and data are seasonally adjusted for the most aggregated industry levels.

3.6 Adjustment

There are not made any corrections of data except for what is already described under data validation and data compilation. Seasonally adjustments are made for the expanded DB07 10-grouping and the DB07 19-grouping. Further reading on seasonal adjustment can be found at seasonal adjustment.



4 Relevance

- Users: government departments, business organisations, private businesses, embassies, researchers, students and other private individuals.
- Applications: Analysis of business trends, market research, feasibility studies etc.

The primary data are also used by Statistics Denmark as a supplementary source in the compilation of other statistics such as external trade statistics, enterprise statistics, the retail trade index and the national accounts.

4.1 User Needs

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Applications: Analysis of business trends, market research, feasibility studies etc.

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4.2 User Satisfaction

The statistics is discussed with a number of primary users in <u>Kontaktudvalg for industristatistik</u>, who meet twice a year.

4.3 Data completeness rate

There are data for all industries, but we lack information about turn over for industries that are not liable to VAT.

5 Accuracy and reliability

The statistics covers all Danish VAT declared sales and purchases. The primary data are defined on the basis of Danish VAT laws.

5.1 Overall accuracy

The statistics provide complete coverage of all Danish VAT declarations, and the primary data are clearly defined on the basis of a detailed set of rules and established practices with systematic administrative controls.

The VAT information regarding domestic purchases of firms, the category purchases total and the domestic sale of firms are regarded high quality, since these information has an influence on the VAT payments of companies, which can be inspected by "SKAT". On the other hand VAT information regarding export and sales not payable to VAT and thereby also the category sales total is expected to be more uncertain.

There are no calculations of uncertainty.



5.2 Sampling error

The statistics is based on registers.

5.3 Non-sampling error

Estimation: It is normally the yearly turnover of a business enterprise that determines its VAT declaration frequency, which is monthly if the amount exceeds DKK 50 million, quarterly in the interval between DKK 5 million and DKK 50 million, and half-yearly if it is less than DKK 5 million.

Given that results must be published for the total population of units - both big and small firms - it is necessary to estimate (impute) figures for the quarterly and half-yearly declarers (and for the monthly declarers not yet received). Once the quarterly and half-yearly VAT declarations are received, the reported figures replace the estimated ones, but the breakdown into months of the

Joint registration: Another problem is joint registration of legal units, which means that one VAT declaration covers two or more legal units, for instance two companies in different kind-of-activity groups or different locations.

Statistics Denmark has no way of knowing exactly how to allocate these monthly reported amounts among the individual legal units of a joint registration. The method used is to apply standard distribution percentages to each amount of a joint declaration.

In these instances we have chosen to distribute purchases and sales to the individual units proportionate to their latest information about employment and the turnover per employed in the industry, so as to make the turn over of the industry more exact. This mechanical update of the distribution plan is a methodological change, that can influence the distribution of turn over on industries.

Exporting units: Conversely, in some cases a legal unit may cover two or more (partial) registration units. Ordinarily, the VAT declarations concerned can be simply added up to represent the legal unit, but not if one of the partial units is an exporting unit. In order to claim an early refund of VAT paid on raw materials and other inputs forming part of products intended for export, some major business enterprises have opted for separate exporting units which make fictitious purchases of the products from the other partial units before exporting them. In order to avoid double counting in such cases, Statistics Denmark consolidates the exporting units with the other partial units to form the entire legal unit, but in practice it is not always possible to do this exactly correct.

Administrative checks: The VAT system has some inherent checks and balances as regards domestic purchases and sales because the VAT received by one business is the VAT paid (and deductible) by another in a chain reaching right down to the final consumer. However, in the case of exports no or very little VAT is collected, so the administrative checks may not be very thorough because they are not so important from a financial point of view.

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 provide complete coverage of all Danish VAT declarations, and the primary data are defined on the basis of a detailed set of rules and established practices with systematic administrative controls. The VAT information regarding domestic purchases of firms, the category purchases total and the domestic sale of firms are regarded high quality, since these information has an influence on the VAT payments of companies, which can be inspected by SKAT. On the other hand VAT information regarding export and sales not payable to VAT and thereby also the category sales total is expected to be more uncertain.

There are no calculations of uncertainty.

5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the <u>Revision Policy for Statistics</u> <u>Denmark</u>. 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 data are temporary, since there are current changes from 'SKAT', when businesses have changed their declaration. The series can be revised three and a half year back, but will usually primarily be revised in the latest periods. Extraordinarily there can be revisions in data for specific industries over the whole period, but that has up till now only rarely happened.

The tables FIKS11, FIKS22 and FIKS33 in Statbank Denmark are monthly tables, and they are made when data from the businesses has come in.

The table FIKS44 with the most detailed industry divisions is also updated every month with the latest data from 'SKAT', but a new period in the table is only made when the businesses that declare quarterly has given in their VAT declarations. There can be revisions, which cover more years.

6 Timeliness and punctuality

The statistics is published ca. 40 days after the reference period ends. The statistics is made public with a very high degree of punctuality.



6.1 Timeliness and time lag - final results

Main results: preliminary figures for purchases and sales are published at the 10-grouping level some 40 days after the end of a new month, both in a seasonally adjusted and in a non adjusted version.

Detailed industry data are published three months after the end of the reference period.

Data for November are published later than already mentioned due to Christmas holiday, and the prolonged deadline.

The month of June may be delayed because Danish businesses have a longer VAT declaration period during the holiday season. This means that data for June often are revised more than normal.

6.2 Punctuality

During the past year the statistics have been published according to schedule every month.

7 Comparability

From the year 2010 all information in the statistics are comparable over time. The statistics can be compared to general enterprise statistics, account statistics, Interna-tional trade in goods, Production and turnover in manu-facturing industries and Retail trade index. There are differences in definitions regarding these statistics which influence the reported figures. These definitions include which types of sale/turnover which is included and the minimum size of included enterprises.

7.1 Comparability - geographical

The statistics is made on the basis of Eurostat guidelines and is hence comparable to statistics from other EU countries under same regulation. The groupings 4-8 of the 10-standard-grouping are published as a national index on the <u>Eurostat homepage</u>.



7.2 Comparability over time

VAT (value added tax) was introduced in Denmark in 1967, and the administrative information on the tax system was primarily used as a source for compiling quarterly statistics on VAT and turnover in non-agricultural industries, which were published for the first time as from the first quarter of 1968. After 1982 the VAT amounts were dropped from the statistics, which were consequently renamed Turnover in non-agricultural industries.

Starting with January 2001 the statistics became monthly, the statistical reference unit was changed from the VAT-reporting unit to the legal unit (corporation/enterprise/firm), and the agricultural sector was included, hence the title Purchases and Sales by Firms.

In the statistics there has not been information on purchases total and sale total for the period January 2010 to April 2012. This means that the statistics has only included domestic purchases and domestic sales - and not the import and export. The background for this to be left out was that total sales during 2010 had a development that could not be found in other statistics. The development of export etc. based on the VAT declarations deviant from the export from the balance of payments, which led to purchases total and sales total not to be published can also be found in the current data. It must primarily be ascribed to a change in the content of the spaces of the VAT form, and a change in the behavior of businesses.

The current monthly statistics for purchases and sales of business's start with data for January 2009. The new published data from 2009 are primarily based on a mechanical computation of the business's VAT declarations. Very large errors are corrected - often after having been in contact with the business.

Break in series between 2009 and 2010: From 1. January 2010 export of services is reverse charge (excl. VAT), while this was payable to VAT in Denmark prior to this, and thereby it was part of domestic sales; equivalently for import of services. This results in a break in series in the VAT from 2009 to 2010.

7.3 Coherence - cross domain

Figures from the General enterprise statistics, Account statistics, Interna-tional trade in goods, Production and turnover in manu-facturing industries and Retail trade index can be compared to the figures of this statistics. There are differences in definitions regarding these statistics which influence the reported figures. These definitions include which types of sale/turnover which is included and the minimum size of included enterprises.

7.4 Coherence - internal

Data is collected from a single source: The Danish tax authorities "SKAT". Hence no data integration is performed from different sources/registries and the sources of the statistics are therefore consistent. Units and groups in the statistics are treated in the same way both at "SKAT" and Statistics Denmark, and the data set is thus consistent. A given unit/grouping will appear in the same way in all published tables so that output data is also consistent.



8 Accessibility and clarity

The main results of the statistics are published in 'Nyt fra Danmarks Statistik' (News from Statistics Denmark). In "[Statistikbanken]"(http://www.statistikbanken.dk/statbank5a/default.asp?w=1200) tables are published monthly: FIKS11, FIKS22, FIKS33, quarterly: FIKS44 and annually: FIKS55 and FIKS9. The statistics has a https://www.statistikbanken.dk/statbank5a/default.asp?w=1200) tables are published monthly: FIKS11, FIKS22, FIKS33, quarterly: FIKS44 and annually: FIKS55 and FIKS9. The statistics has a https://www.statistikbanken.dk/statbank5a/default.asp?w=1200) tables are published monthly: FIKS11, FIKS22, FIKS33, quarterly: FIKS44 and annually: FIKS55 and FIKS9. The statistics has a https://www.statistikbanken.dk/statbank5a/default.asp?w=1200) tables are published monthly: FIKS11, FIKS22, FIKS33, quarterly: FIKS44 and annually: FIKS55 and FIKS9. The statistics has a https://www.statistikbanken.dk/statbank5a/default.asp?w=1200) tables are published monthly: FIKS11, FIKS22, FIKS33, quarterly: FIKS44 and annually: FIKS55 and FIKS91, data and annually: FIKS12, data and annually: FIKS12, data and annually: FIKS13, data and annually: FIKS14, data and annually: FI

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 9:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published. Theme publications etc. may be published at other times of the day. The National Statistician can decide that such publications may be released before their official publication time, e.g. to the media and other stakeholders.

8.4 News release

Link to FIKS emneside

8.5 Publications

No publications.

8.6 On-line database

StatBank Denmark



8.7 Micro-data access

For each month a complete survey file exists, comprising all amounts and background data for each legal unit (corporation/enterprise/firm) in the VAT statistics. It is thus possible to compile more detailed tabulations than those published or to combine the data with other information with the same kind of basic unit (the CVR number). Historic data with annual results from 1974 to 2000 are available, but they refer to the reporting unit (the SE number) which may not be identical with the CVR number.

It is possible to gain access to Micro-data through researcher's access to Micro-data at Statistics Denmark.

website for Research Services..

8.8 Other

It is possible to buy more detailed/special data.

website for Customer service.

Quarterly deliveries for the National Accounts and Eurostat.

8.9 Confidentiality - policy

Danmarks Statistiks datafortrolighedspolitik.

8.10 Confidentiality - data treatment

If some cells in data cannot be shown due to 'diskretionering', then they are left out of the statistics, and a secundary 'diskretionering' is made.

8.11 Documentation on methodology

The variables used are described in Statistics Denmark's documentation system called Times. <u>Times</u>.

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 statistics is administratively placed in the Office for Short Term Statistics. The person responsible for the statistics is Pia Cordsen, tel. +45 39 33 65, e-mail: pco@dst.dk and Lina Maria Pedersen tel. 39 17 36 75 e-mail: lip@dst.dk

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