

Documentation of statistics for Consumption and sales of Alcohol and Tobacco 2015



1 Introduction

The purpose of the statistics on consumption of alcohol and tobacco is to describe the consumption, sales and cross-frontier purchase of alcoholic beverages and tobacco.

2 Statistical presentation

The statistic show the consumption of alcoholic beverages distributed on beer, wine, spirits and Alco pops as well as the consumption of tobacco. The consumption is composed of the domestic dutiable sales and cross-frontier purchases, where the Danes purchase abroad is added and foreigners consumption in Denmark is deducted.

2.1 Data description

The statistic show the consumption of alcoholic beverages distributed on beer, wine, spirits and Alco pops as well as the consumption of tobacco.

The consumption is composed of the domestic dutiable sales.

The sale of alcohol and tobacco are based on the assumption that business transactions purchased goods are sold to consumers immediately after.

The dutiable sale is the sale of alcoholic beverages and tobacco to retail stores.

From 2005 the figures are adjusted for the moderation settlement for beer.

Alco pops are separated from the alcohol type they are based on from 2006. Figures for sales and consequently also for consumption before and after 2006 are thus not directly comparable. This is especially the case for spirits.

2.2 Classification system

The statistics is grouped by type of alcohol. I.e., beer, wine, spirits and alcopops. Furthermore, the number for liters of pure alcohol are calculated.

2.3 Sector coverage

The statistic covers the domestic taxed sales and cross-border trade with alcohol and tobacco.



2.4 Statistical concepts and definitions

Duties: In the calculations of pure alcohol the tax authorities estimates of the alcohol percentage of the different duty classifications are used. The table below gives delimitations of the duty classifications:

Duty classification Duty (DKK per liter) 01.01.2015 - 31.12.2017 1 5,34 2 11,61 3 15,55 Added duty for sparkling wine etc. 3,35 Added duty for wine based alco-pops (10 pct. or less) 7,13 Added duty for wine based alco-pops (more than 10 pct.) 11,5

Duty Classification: In the calculations of pure alcohol the tax authorities estimates of the alcohol percentage of the different duty classifications are used.

The duty classifications for wine, fruit based wine and wine based alco-pops:

- Duty classification 1: Alcohol contents >1,2 6 pct.
- Duty classification 2: Alcohol contents >6 15 pct.
- Duty classification 3: Alcohol contents >15 22 pct.

Alcohol Consumption: the volume of sold alcoholic beverages: Wine, lager equivalents, spirits and Alco pops, added to the estimated volume of the cross-frontier purchase of these alcoholic beverages.

Consumption of Pure Alcohol: The volume of alcohol sold converted to an alcohol percentage of 100 added to the volume of cross-frontier purchase converted to an alcohol percentage of 100 as well.

Tobacco Consumption: the volume of sold tobacco products added to the estimated volume of the cross-frontier purchase.

Cross-Frontier Purchase of Alcohol: Net volume of cross-frontier purchase of spirits, wine, beer and Alco pops. Before 2006 cross-frontier purchase of Alco pops is included in the figures for cross-frontier purchase of spirits.

Cross-Frontier Purchase of Pure Alcohol: Net volume of cross-frontier purchase of alcohol converted to an alcohol percentage of 100. In the convertion from volumes of alcohol sold to volumes of alcohol with a percentage of 100 for the cross-frontier purchases the average alcohol percentage used is the same as the average alcohol percentage in the domestic sales which is assumed to be that of a lager equivalent namely 4.6 percentage.

Cross-frontier Purchase of Tobacco: Net volume of cross-frontier purchase of tobacco products.

Lager Equivalent: Corresponds to a beer with an alcohol percentage of 4.6.

Sales of Alcohol: Sales of alcohol which is the volume of sold spirits, wine, lager equivalents and Alco pops.

Sales of Pure Alcohol: the volume of sold alcohol converted to an alcohol percentage at 100.

Sales of Tobacco: The volume of sold tobacco products.



2.5 Statistical unit

Numbers for consumption and sales are published per liter pure alcohol, liter pure alcohol per capita, number of cigarettes, number of cigarettes per capita, liters of beer, liters of wine, liters of spirits and liters of alcopops.

2.6 Statistical population

The statistic covers all sales and consumption of alcohol and tobacco in all of Denmark

2.7 Reference area

Denmark.

2.8 Time coverage

The statistics covers time period from 1955 and onwards.

2.9 Base period

Not relevant for these statistics.

2.10 Unit of measure

- Total liters
- Liter per person
- Total number of cigarettes
- Number of cigarettes per person
- Tons of tobacco
- Index

2.11 Reference period

The consumption covers the calendar year. The calculated revenue from dutiable products refers to the time of assessment, corresponding to the time of the sales.

2.12 Frequency of dissemination

Yearly

2.13 Legal acts and other agreements

Data originate from another public authority in accordance with §6 in the Statistical Code of Statistics Denmark. The collection of data is not based on an EU-regulation.



2.14 Cost and burden

There is no direct response burden as the statistics is based on administrative data collected by the Danish tax authoritites.

2.15 Comment

Further infirmation about the statistics can be found on the statistics' website.

3 Statistical processing

- Data is collected from the Danish tax authorities, thus they perform the data validation.
- Data is corrected for the breweries' moderation scheme.

3.1 Source data

Data is provided by the fiscal authorities (Central Customs and Tax Administration). Estimations of the average alcohol percentages are data from The Danish Ministry of Taxation.

3.2 Frequency of data collection

Data is collected from the fiscal authorities on a yearly basis.

3.3 Data collection

Data for this statistics is collected from administrative registers with the Danish tax authorities.

3.4 Data validation

Data validation is performed by the tax-authorities.



3.5 Data compilation

On the basis of the yearly tax revenue on sales of alcohol and tobacco the sold amounts of alcohol are calculated according to the taxation classes for alcohol set up by the Danish tax authorities.

- For beer the amount of pure alcohol sold is calculated on the basis of the tax revenue on beer and the current duty on beer. Whilst the calculation of the amount of beer sold is calculated using an estimate of the average percentage of alcohol in beer and amount of pilsner equivalents is calculated given that the alcohol percentage in such is 4,6 pct. vol
- For wine the amount sold is based on the tax revenue and current duty on wine. The sold amount of pure alcohol, however, is calculated using assumptions of the average alcohol percentage for wine in different taxation classes
- For spirits the amount of pure alcohol sold is calculated on the basis of the tax revenue and current duty on spirits. Whilst the calculation of the amount of spirits sold is calculated using stamped amounts
- For alco-pops both the amount sold and the the amount of pure alcohol sold on the basis of the tax revenue from the added taxes for alco-pops under the assumption that the average alcohol percentage is 5.5 vol.pct.

Separation of alco-pops from other types of alcohol

Since 2005 it has been possible to separate spirits from alco-pops i the data sources, thus, this separation was implemented in the calculations immediately. The added duties for alco-pops is a supplement to the actual duty, which is added in the same way for related types of alcohol, i.e. beer, wine and spirits. A part of the revenue from beer, wine and spirits, thus, comes from alco-pops. This revenue is subtracted from the data before calculating volumes and volumes of pure alcohol.

Moderation scheme

Breweries pay taxes of the alcohol contents of the beer brewed. According to the moderation scheme, breweries producing less that 200.000 hl beer per year can have a share of their beer duties reimbursed to even put the competitive conditions with larger breweries. The reimbursed duties are subtracted in the data from the Danish tax authorities. At Statistics Denmark the duties are added to avoid an underestimation of the beer sales corresponding to the reimbursement.

3.6 Adjustment

Not relevant for these statistics.

4 Relevance

The aim of the statistic is to provide institutions, such as unions and producers of alcohol and tobacco, and persons interested in the subject with general information. Generally the users are satisfied with the statistics. All suggestions to change the statistics are considered and implemented if possible and statistically responsible.

4.1 User Needs

The aim of the statistic is to provide institutions, such as unions and producers of alcohol and tobacco, and persons interested in the subject with general information.



4.2 User Satisfaction

Knowledge of user satisfaction is not collected regularly. However, Statistics Denmark is in contact with the users on a regular basis. User wishes are taken into consideration and, if deemed possible, implemented.

4.3 Data completeness rate

The statistic is not based on any regulation, thus, it does not have to live up to any guidelines. Data comes from the Danish tax-authorities and covers all of Denmark.

5 Accuracy and reliability

The calculation of the taxable sales of alcohol is based on data collected by the Danish tax authorities. They use the data ensure that the correct amount of taxes is being paid for the sales of alcohol. Thus, the data is scrutinized and must be expected to be of a high quality. In the calculation of amounts average alcohol percentages specified by the Danish tax authorities are used. These percentages are estimated by the Danish tax authorities based on their experience and surveys. A part of the precision, thus, depends on the precision of these estimates. Data covers the total sale of alcohol in Denmark. Therefore, no measure of sampling error is calculated.

5.1 Overall accuracy

The figures for sales are based on administrative administrative data. This data is submitted to thorough scrutiny by the tax authorities to secure correct payment of taxes.

Possible storage, waste and illegal import and trade with dutiable products are not included in the estimated consumption.

Sales of pure alcohol, which is the volume of alcohol sold converted to an alcohol percentage of 100, is estimated by The Danish Ministry of Taxation on the basis of investigations. These investigations are encumbered with uncertainty.

5.2 Sampling error

There is no sampling errors as the statistic is compiled on the basis of a administrative data.



5.3 Non-sampling error

There are different kinds of inaccuracies connected to the statistics:

The calculation of dutiable sales: The fiscal authority sometimes revises the data as the result of actual errors or discrepancies in the accounts of the reporting firms. These revisions are handled in the following way:

- Actual errors are corrected.
- Additional payments are added if it is possible to place them within a single calendar year, while additional payments regarding several years are excluded.
- Returned taxes on goods that are never sold and therefore refunded by tax authorities are not offset in the data. Returned taxes constitute under a thousandth of the production in 2018.
- Alcopops can no longer be calculated separately. This is due to the additional tax on alcoholic beverages that is the basis for the calculation is no longer charged.

Depending on the impact of the individual duty, the volume of sold alcohol or volume of sold pure alcohol is estimated using certain assumptions:

- Beer: The volume of pure alcohol sold is calculated directly from the revenue and the given duty, while the estimation of lager equivalents illustrating the volume sold in a more comprehensive way is calculated using the alcohol percentage of 4.6 in a lager equivalent.
- Wine: The volume wine sold is calculated directly from the revenue and the given duties, while the estimation of the volume of pure alcohol is conducted using assumptions of the average alcohol percentage for wine at different taxation levels.
- Spirits: The volume of pure alcohol sold is calculated directly from the revenue and the given duty, and the volume of spirits sold is calculated directly from information about volumes with a revenue label.
- lco pops: The volume of the Alco pops sold is calculated directly from the revenue and from the additional duties for the different types of Alco pops. The volume of sold pure alcohol in Alco pops is estimated under the assumption that the average alcohol percentage for all Alco pops is 5.5.

The calculation of cross-frontier shopping (2000-2010): Figures for cross-frontier shopping with alcohol are taken from the publication "Status over Grænsehandel" from The Danish Ministry of Taxation. Cross-frontier purchase includes purchase abroad by Danes and excludes foreigners consumption in Denmark. The Ministry of Taxation uses a number of different sources to illustrate this subject. You are kindly referred to "Status over Grænsehandel" for further information.

5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.



5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

5.6 Quality assessment

This statistic is based on a census that stems from validated, administrative data.

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

Only final figures are published. However a smaller revision of the latest years figures can occur, cf. 3.2.

6 Timeliness and punctuality

The statistic is published approximately 6 months after the end of the calendar year in question. It is usually published at the announced time.

6.1 Timeliness and time lag - final results

The statistic is normally published 6 months after the end of the year in question.

6.2 Punctuality

The statistic are usually published without delay in relation to the scheduled date.

7 Comparability

Go to section "Comparability over time".

7.1 Comparability - geographical

Statistics on the sales of alcohol is also produced in other European countries, e.g. the Norwegian statistical agency produces the quarterly "Statistics on alcohol sales". This statistic follows a calculation method very similar to the Danish. The calculation of the sales of alcohol is not based on EU regulation, thus, there may be some differences in the methods applied across the countries.



7.2 Comparability over time

Due to a change in the regulations governing taxes on beer in 1991, there is a small break in the series of the total consumption of beer.

A change in the duty on beer in 2004 implies that sold beer, total and sold beer on different taxation levels are no longer estimated. Instead, the sale is estimated for lager equivalents.

From 2000 onwards the cross-frontier purchase has been included in the consumption of alcohol and tobacco.

From 2006 Alco pops have been separated from beer, wine and spirits and is regarded as an independent item. Due to this, figures for spirits - both sales and consumption - from before and after 2006 are not comparable.

In 2010 the average alcohol percentage for vine i taxation class 2 and 3 has been revised. Comparisons of consumption of pure alcohol of vine between 2009 and 2010 must be done with caution.

7.3 Coherence - cross domain

The Danish Ministry of Taxation publishes yearly a report on cross-frontier trade, where the same data sources are used.

7.4 Coherence - internal

No relevant for this statistics as all data comes from the same data source.

8 Accessibility and clarity

The statistic is published in "*Nyt fra Danmarks Statistik*". In the Statbank the numbers are published in the tables <u>ALKO2</u>, <u>ALKO3</u> and <u>ALKO4</u>. Furthermore, the numbers are included in yearly publications of Statistical Yearbook and Statistical Ten-Year Review. Se more on the statistics' <u>website</u>.

8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

8.2 Release calendar access

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

8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.



8.4 News release

The statistics is published in <u>News from Statistics Denmark</u>

8.5 Publications

The statistics is included in the <u>Statistical Yearbook</u> and <u>Statistical Ten-Year Review</u>.

8.6 On-line database

The statistics are published in the StatBank under the subject <u>Consumption and sales of alcohol and</u> <u>tobacco</u> in the following tables:

- <u>ALKO2</u>: Consumption and sales of alcohol and tobacco, subject to excises duties, by pop. by type and time
- <u>ALKO3</u>: Consumption and sales of alcohol, subject to excises duties by type and time
- <u>ALKO4</u>: Consumption and sales of alcohol and tobacco, subject to excises duties by type and time

8.7 Micro-data access

Not relevant for these statistics.

8.8 Other

Not relevant for this statistics.

8.9 Confidentiality - policy

<u>Policy on confidentiality of data</u> for Statistics Denmark

8.10 Confidentiality - data treatment

The statistics is not published on a level of details that requires discretion of data.

8.11 Documentation on methodology

Not relevant for these statistics.

8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

9 Contact

The administrative placement of this statistic is in the division of Prices and Consumption. The person responsible is Christian Lindeskov, tel. +4539 17 34 35, e-mail: chl@dst.dk

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