

**Documentation of statistics for  
Consumption and sales of Alcohol and Tobacco 2019**

## **1 Introduction**

The purpose of the statistics on consumption of alcohol and tobacco is to describe the sales of alcoholic beverages and tobacco in Denmark. The sales statistics has been produced since 1939 whilst consumption statistics was produced from 2000 to 2010.

## **2 Statistical presentation**

The statistics shows yearly the sales of alcoholic beverages distributed on beer, wine and spirits as well as the sales of tobacco in Denmark.

### **2.1 Data description**

The purpose of the statistics is to describe the sales and consumption of alcohol, i.e. beer, wine, spirits and alco pops, along with the sales and consumption of tobacco in Denmark. The sales has been calculated since 1939, whilst the consumption has been calculated from 2000 to 2010. The consumption was calculated on the basis of the domestic taxed sales. Thus, it is based on the assumption that all goods purchased by businesses is sold to the consumers immediately. However, if the businesses are buying the goods for stock this assumption does not hold. The domestic taxed sales is thus equal to the sales for retail. Alco pops are separated from the alcohol type they are based on from 2006 to 2017. Figures for sales and consequently also for consumption before and after 2006 to 2017 are thus not directly comparable. This is especially the case for spirits.

Figures are published for the sales of alcohol (sales of alcohol which is the volume of sold spirits, wine, lager equivalents and Alco pops), the sales of pure alcohol (the volume of sold alcohol converted to an alcohol percentage at 100) and sales of tobacco (the volume of sold tobacco products) in Denmark.

### **2.2 Classification system**

The statistics is grouped by type of alcohol. I.e., beer, wine, spirits and alcopops.

### **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**

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

### **2.5 Statistical unit**

Figures are published for the total sales of alcohol and tobacco in Denmark.

### **2.6 Statistical population**

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

## 2.7 Reference area

Denmark.

## 2.8 Time coverage

The statistics covers time period from 1939 and onwards. Sales figures have been calculated for the entire period, whilst consumption has been calculated from 2000 to 2010.

## 2.9 Base period

Indices for sales and consumption of lager equivalents, wine and spirits are all calculated with the base year 2000 = 100, whilst indices for the sales and consumption of alco pops has the base year 2006 =100.

## 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.

## 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 authorities.

## 2.15 Comment

Further information about the statistics can be found on the statistics' website [Consumption and sales of alcohol and tobacco](#) or by contacting Statistics Denmark.

### **3 Statistical processing**

Data is collected from the Danish tax authorities, who also performs the data validation. Data is corrected for the breweries' moderation scheme.

#### **3.1 Source data**

Data is provided by the Danish tax authorities. Estimations of the average alcohol percentages are data from The Danish Ministry of Taxation.

#### **3.2 Frequency of data collection**

Yearly.

#### **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 duty classes for alcohol set up by the Danish tax authorities.

**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

The amount of pure alcohol is calculated differently depending on the type: - 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

No corrections are made for this statistics besides the ones described under Data validation.

## 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. Data is used 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. Thus, a part of the precision, depends on the precision of these estimates. Data covers the total sale of alcohol in Denmark. No measure of sampling error is calculated.

### **5.1 Overall accuracy**

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

From 2000 to 2010, the consumption was calculated under the assumption that what is bought is also consumed. Thus, potential storage, waste and illegal import and trade with taxable products are not included in the estimated consumption.

The number for sales of pure alcohol, which is the volume of alcohol sold converted to an alcohol percentage of 100, may also be uncertain as the average alcohol percentages per tax group is estimated by the Danish Tax Authorities on the basis of the own research. These investigations are encumbered with uncertainty. Taxes on beer and spirits are calculated on the basis of the amount of pure alcohol in the item. The tax on wine is calculated per liter and is differentiated according to the alcohol percentage in the wine. Thus, part of the precision of the statistics depends on the precision of the tax authorities' calculations for the different tax group.

### **5.2 Sampling error**

The statistics is a total inventory of the taxable sale of alcohol and tobacco and it is based on administrative data. Thus, there is no sampling error. Potential illegal import at trade with taxable goods is not calculated in the statistics.

### **5.3 Non-sampling error**

The figures for sales are based on administrative data. This data is submitted to thorough scrutiny by the tax authorities to secure correct payment of taxes. The tax collection demands thorough preparations to ensure that the taxes are collected correctly. Thus, no issues with coverage, non-response or recurring observations are expected. Should there still be corrections to the income lists from the tax authorities, Statistics Denmark usually receives these corrections in due time before the statistics has been calculated. This works to avoid larger measurement errors. Over-coverage may occur in the statistics as returned tax stamps and label on goods that were never sold to the consumers, and thus are refunded, are not set off in the calculations. In 2018 this made up less than a per mille, whereas issues with over-coverage are not expected to be significant. All calculations are automated in a dedicated production system which has been thoroughly tested prior to implementation, thus calculation error is not expected to be an issue. Depending on the different taxes, some assumptions are made: - For beer, the sold amounts of pure alcohol are calculated on the basis on the tax revenue and the applicable tax, whilst the calculation of pilsner equivalents, which portrays the sales in a more tangible manner, is calculated using the alcohol percentage of 4,6 per cent volume per pilsner equivalent - For wine, the sold amounts of wine are calculated on the basis on the tax revenue and the applicable tax, whilst the amount sold of pure alcohol in wine is calculated assumptions about the average alcohol percentages for the different tax groups in wine - For spirits, the sold amounts of pure alcohol are calculated on the basis on the tax revenue and the applicable tax, whilst the amount sold of pure alcohol in spirits is calculated using the tax stamped amounts - For alcopops the sold amounts and the sold amounts of pure alcohol in alcopops are calculated on the basis of the tax revenue from the added tax for the different types of spirits and under the assumption that the average alcohol percentage for alcopops is 5,5 vol. per cent

### **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**

Data is assessed to be of a high quality, as it collected by the Danish tax authorities to ensure that the correct amount of taxes is being paid for the sales of alcohol and tobacco. 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 on the basis of their own research. Part of the precision of the statistics thus hinges on the precision of the tax authorities' calculations for the tax groups. To ensure the quality all calculations are conducted in a dedicated production system and different validity controls are performed regularly on both in data and results.

### **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 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 [ALKO2](#), [ALKO3](#) and [ALKO4](#). Furthermore, the numbers are included in yearly publications of Statistical Yearbook and Statistical Ten-Year Review. See more on the statistics' website [Consumption of alcohol and tobacco](#).

### 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 Calendar can be accessed on our English website: [Release Calendar](#).

### 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 [News from Statistics Denmark](#)

#### **8.5 Publications**

The statistics is included in the [Statistical Yearbook](#) and [Statistical Ten-Year Review](#).

#### **8.6 On-line database**

The statistics are published in the StatBank under the subject [Consumption and sales of alcohol and tobacco](#) in the following tables:

- [ALKO2](#): Consumption and sales of alcohol and tobacco, subject to excises duties, by pop. by type and time
- [ALKO3](#): Consumption and sales of alcohol, subject to excises duties by type and time
- [ALKO4](#): 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**

[Policy on confidentiality of data](#) 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

### **9.1 Contact organisation**

Statistics Denmark

### **9.2 Contact organisation unit**

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