

**Documentation of statistics for  
Sales of Alcohol and Tobacco 2022**

## 1 Introduction

The purpose of the statistics is to describe the sale of tobacco and alcohol in Denmark. The sale statistics has been produced since 1939 and goes back to 1921.

## 2 Statistical presentation

The *sale of alcohol and tobacco* is a yearly statistic based on the duty paid to SKAT. The statistics is split by type of goods in the first transaction stage, i.e. typically sale from producer or wholesale to retail.

### 2.1 Data description

The statistics contain information about the sale of alcohol and tobacco by beer, wine and spirits, respectively, as well as cigarettes, smoking tobacco, cigars and cigarillos.

The groupings of type of alcohol and tobacco follow the duty classes set by the tax authorities. In addition, statistics for liters of pure alcohol is estimated.

The statistics cover alcohol and tobacco traded in Denmark of which a tax is levied. Note that data on alcohol is corrected for the breweries' *moderation scheme*, which entails that reimbursed taxes which are subtracted from the tax revenue in the Danish Ministry of Taxation's data is added.

### 2.2 Classification system

Duty classes:

- Beer - duty per liter of pure alcohol
- Spirits - duty per liter of pure alcohol
- Wine - duty on end product (>6-15 pct. alcohol)
- Cigarettes - duty per cigarette and value-added tax on retail price
- Smoking tobacco - duty on coarse and fine cut tobacco
- Cigars - duty per cigarette and value-added tax on retail price
- Cigarillos - duty per cigarette and value-added tax on retail price

### 2.3 Sector coverage

Not relevant for this statistic.

## **2.4 Statistical concepts and definitions**

Lager equivalent: Standard size e.g. for use statistics on sales of alcohol, defined as one beer with an alcohol percentage of 4.6.

Wine: Table wine and fortified wine brewed on grapes or other fruit with an alcohol percentage of up to 21.9.

Spirits: Beverages with an alcohol percentage of 22 and above.

Smoking tobacco: Fine and coarse-cut smoking tobacco. Smoking tobacco is subject to a different tax class than cigarettes and cigars, etc. Smoking tobacco is typically used in home-rolled tobacco products.

Moderation scheme: Scheme, where breweries that produce less than 200,000 hectolitres beer in a given year, are reimbursed a share of their paid taxes on beer in order to level out the terms of competition compared to larger breweries. These reimbursed taxes are subtracted from the tax revenue in the Danish Ministry of Taxation's data.

## **2.5 Statistical unit**

Units of alcohol and tobacco.

## **2.6 Statistical population**

The taxable sale of alcohol and tobacco (excl. chewing tobacco) from producer/wholesale to retail.

## **2.7 Reference area**

Denmark.

## **2.8 Time coverage**

The statistics covers the time period from 1921 and onwards.

## **2.9 Base period**

Index: 2000 = 100.

## **2.10 Unit of measure**

The statistics is calculated in volume. The sale of alcohol is calculated in 1000 liters and the sale of tobacco is calculated in million units for cigarettes, cigars and cigarillos, whilst smoking tobacco is calculated in tons. Indices are also calculated for the sale of alcohol and tobacco.

- Total liters (in total)
- Liter per person (pure alcohol)
- Total units (cigarettes, cigars and cigarillos)
- Units per person (cigarettes)
- Tons (smoking tobacco)

### **2.11 Reference period**

The statistic refers to a given calendar year.

### **2.12 Frequency of dissemination**

Yearly.

### **2.13 Legal acts and other agreements**

Data is collected from another public authority in accordance with §6 in [Act on Statistics Denmark](#), cf. statutory order no. 610 of 30th May 2018.

### **2.14 Cost and burden**

The statistics is based on administrative data. Thus, there is no direct reporting burden related to the estimation of this statistic.

### **2.15 Comment**

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

## **3 Statistical processing**

Data is retrieved from the Danish tax authorities, whom also conduct basic data validation. The data is corrected for the breweries moderation scheme prior to publication. The taxable sale is, therefore, the sale of alcohol and tobacco to the retail trade. The revenue from the taxes are recalculated to volumes on the basis of the Danish Ministry of Taxation's tax classes.

### **3.1 Source data**

Data on the sale of alcohol and tobacco, in the form of tax revenue, is retrieved from the Danish Ministry of Taxation. The estimations of pure alcohol relies on the tax authorities' assessment of the specific tax classes' average alcohol percentage.

### **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 primarily conducted by the tax authorities. If there are movements in the data out of the ordinary, then the data is investigated before calculations are made. The statistics is not revised as a starting point.

### **3.5 Data compilation**

On the basis of the Danish Ministry of Taxation's yearly tax revenue from the sale on alcohol and tobacco to the retail trade, sold quantities are estimated on the different types of alcohol and tobacco in accordance with the tax authorities' classes of taxation.

The quantity of pure alcohol is estimated on different types:

- For beer the estimation of pure alcohol sold directly is based on the tax revenue and the applicable tax, while calculations on quantities of beer and lager equivalents, which illustrates the sale in a more straightforward manner, is calculated based on the estimated average alcohol percentage in the sold beer and the alcohol percentage in a lager equivalent on 4.6 pct.
- For wine the estimation of quantities sold directly is based on the tax revenue and the applicable taxes, while the estimated sold quantity of pure alcohol is founded on assumptions about the average alcohol percentage for wine in different tax classes.
- For spirits the estimated quantity of sold pure alcohol directly is based on tax revenue and the applicable tax, while the sold quantity of spirits is calculated based on the bannered volume (bänderolerede volume). The reimbursed taxes, which are subtracted from the tax revenue in the tax authorities' data according to the moderation scheme, is added back to the data in order to avoid that the sale is underestimated.

The sale of tobacco is not recalculated, but in strict accordance with the tax authorities' classes of taxation.

### **3.6 Adjustment**

No corrections of the data are made beyond what has already been described under Data validation and Data treatment above.

## **4 Relevance**

The statistic provides an overview for institutions, e.g. industry organisations and producers of the sector for production of alcohol and tobacco, and others with an interest for the subject.

### **4.1 User Needs**

The statistic gives an overview to lobbying groups and producers of alcohol and tobacco, in addition to people with an interest for the subject.

## **4.2 User Satisfaction**

User satisfaction is not regularly surveyed, but Statistics Denmark is in continuous contact with users, and their wishes are included in considerations and implementations, given that it is possible and statistically sound.

## **4.3 Data completeness rate**

Not relevant for this statistics.

## **5 Accuracy and reliability**

The data covers the taxable sale of alcohol and tobacco. Only the final numbers are published.

### **5.1 Overall accuracy**

The data of which is the basis for the calculations are administrative information, subject to the control of the tax authorities, necessary to secure that the correct amount of taxes are collected on the sale of alcohol and tobacco.

The statistics' numbers for pure alcohol contain some uncertainty. The average percentage of alcohol for each tax class is based on analyses by the Danish Ministry of Taxation. Taxes on beer and spirits are estimated on the basis of the volume of pure alcohol in the good, while the tax applicable on wine is calculated per liter of wine and is differentiated by the alcohol percentage in the wine. A part of the statistics precision, therefore, depends on the precision of the Danish Ministry of Taxation's average calculations for the classes of taxation.

### **5.2 Sampling error**

Not relevant for this statistics.

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

The statistic is founded on data on the tax authorities' tax revenue from the sale on alcohol and tobacco. The tax collection require a thorough preparation to secure that taxes are collected correctly, where it is not expected to be significant issues with the coverage, lapse or duplicates in the data. If there should be problems with the tax authorities' revenue lists, then Statistics Denmark receive corrects prior to the production of the statistic. This process reduces the risk of measurement error.

There can be a small degree of overestimation of the statistics due to returned tax stamps on goods that have not been sold, and therefore refunded by the tax authorities since these are not subtracted from the data. These refunds constituted less than a permille of the production in 2018, and the degree of overestimation is assessed to be insignificant.

All calculations are processed in a computerised production system, which have been thorough tested prior to its deployment. Moreover, different validations controls of the results are continuously used so that the risk of calculation errors are assessed to be insignificant for the statistic.

#### **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, albeit if errors are identified data is revised.

### **6 Timeliness and punctuality**

The statistic is published yearly and usually published according to the announced time without delay.

#### **6.1 Timeliness and time lag - final results**

The statistics is published yearly app. 6 months after the respective calendar year. Only final figures are published.

## 6.2 Punctuality

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

## 7 Comparability

Statistics Denmark have calculated different versions of this statistics since 1921. Data breaks occur whenever there are changes to the rules and taxes on alcohol and tobacco. No directly comparable statistics internationally are known.

### 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

Because of changes to rules and taxes on alcohol, the statistics have multiple data breaks, where comparability across time must be conducted with caution. A change in the tax on beer in 1991 means a smaller break in the calculation of total sales of beer. The consumption of alcohol and tobacco was calculated for 2000 to 2010, where an estimate for cross-border trade was included. Tables ALKO3 and ALKO4 are accessible in the archives. Between 2006 and 2017, alcoholic soda pops was reported separately. During 2010, the average alcohol percentage for wine in tax classes 2 and 3 adjusted upwards. This caused a change in the level of the calculations of pure alcohol for wine, which makes comparability of consumption of pure alcohol for wine before and after 2010 carefully. Up to 2010, alcoholic soda pops did not include cider, which was classified as wine. This was because cider did not have an additional tax contrary to other alcoholic soda pops. Since 1.8.2010, an additional tax was levied on cider products, allowing cider to be identified among wine products. Thus, cider was added with alcoholic soda pops. This change took effect from 2011. Data exists in the Statbank back to 1921.

### 7.3 Coherence - cross domain

The Danish Ministry of Taxation continuously produce reports on cross-border trade based on the same data sources. This statistic is, however, not directly comparability with the Danish Ministry of Taxation's reports. The consumption was, in the period 2000 to 2010, calculated on the assumption, that purchased goods are consumed instantaneously. Hence, there are not estimates for inventories or waste. Nor is illegal import and trade with taxable goods included in the calculations for consumption. This have given reason to fluctuations in consumption, especially when taxes increase where inventory stocks are increased prior to the effect of the tax increase. Consumption has not been estimated since 2010. The statistics on alcoholic soda pops was calculated in the periods 2006-2010 and 2011-2018. Since 2018, the additional tax on alcoholic soda pops was removed, thus removing the basis for the estimations.

### 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.

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

### 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 [Sales of alcohol and tobacco](#) in the following tables:

- [ALKO2](#): Sales of alcohol and tobacco, subject to excises duties, by pop. by type and time
- [ALKO5](#): Sales of alcohol, subject to excises duties by type and time
- [ALKO6](#): 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 these statistics is in the division of Prices and Consumption. The contact person is Christian Lindeskov, tel.: + 45 2122 2857, and e-mail: [CHL@dst.dk](mailto:CHL@dst.dk).