

9 DENMARK: ECONOMIC IMPACT OF BEER³⁴

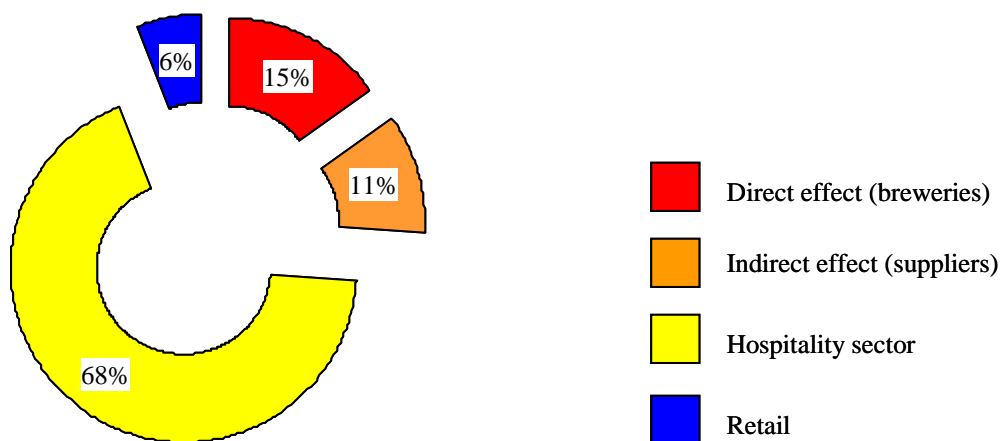
9.1 Highlights of economic impact

The economic impact of the brewing sector can be expressed as follows:

- On a global scale, Danish brewers produce 96.9 million hectolitres of beer annually. Domestic production is 8.5 million hectolitres. Domestic beer sales are 4.9 million hectolitres annually.
- The world's fifth-largest brewery is a Danish company.
- The Danish brewing sector is an intensive export sector. Exports are almost as high as domestic consumption and exceed half of the domestic production.
- Denmark has relatively high private imports from Germany
- The market consists of few large breweries, a number of medium sized breweries and a large and increasing number of micro- and pub breweries.
- The beer sector creates some 28,500 full-time jobs of which 4,150 are in the breweries, 3,200 with suppliers and 22,200 jobs in the retail and hospitality sectors.
- Beer-related VAT, excise and income tax revenues amount to some 800 million euros.

The employment effects of the brewing sector are depicted below:

Total employment due to production and sale of beer: 28,500 jobs

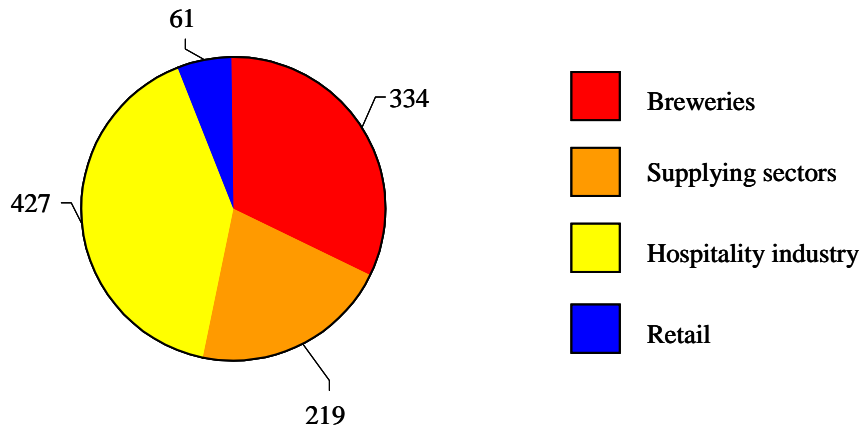


The contribution of the brewing sector to the Danish economy can also be expressed in terms of value added. Total value added of the Danish brewing sector and value added generated by

³⁴ Values were calculated using a conversion rate of €1 = 7.45 Danish kroner.

firms in the supply, hospitality and retail sectors due to the production and sale of beer amounts to around 1.0 billion euros:

Value added due to production and sale of beer: 1,040 million euro



The share of the brewing sector in overall value added arising from the production and sale of beer is estimated at 32 percent. This is far more than the share of direct employment connected to breweries as a fraction of total employment arising from the production and sale of beer (15 percent). An important explanation is that productivity in terms of value added per employee in the Danish brewing sector is relatively high compared to other sectors.

9.2 The brewing sector: market structure, trends and developments

Danish brewers produced 96.9 million hectolitres of beer in 2004, of which 8.5 million hectolitres were brewed inside Denmark³⁵. According to official statistics, domestic consumption is some 96 litres per person per year. However substantial private imports and exports influence this figure.

Key variables	Million hectolitres	Illustration
• Production	> 8.5	This figure includes only the domestic production by the members of the Danish Bryggeriforeningen. The total figure is higher.
• Exports	4.9	4.2 official exports plus an estimated 0.7 private exports
• Imports	1.9	0.4 official imports plus an estimated 1.5 private imports
• Consumption	5.6	4.9 official sales plus some 0.8 net private imports.
• Draught	13%	13% of 4.8 million hectolitres official sales. This excludes private imports and exports.
• Home consumption	75%	75% of 4.9 million hectolitres official sales. This excludes private imports and exports

Source: The Brewers of Europe, Bryggeriforeningen, Danish National Statistics Agency and own calculations

There are 42 breweries in Denmark, including 3 national brewers, 5 middle size brewers and a substantial number of traditional, micro- and pub-breweries. The larger brewers are also particularly active in the soft drinks and mineral water markets. Some brewing companies also own their own malting plants. The number of micro- and pub-breweries is growing annually.

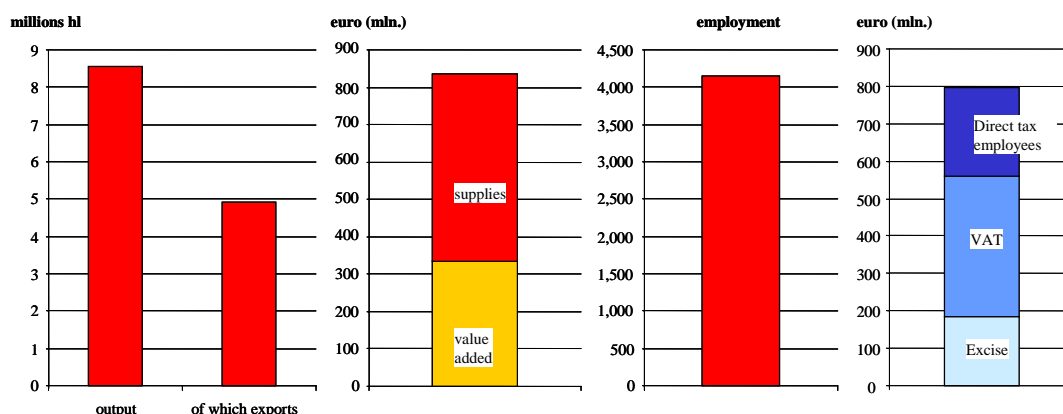
The total volume of beer bought inside Denmark is declining, following the general Western European trend. One explanation is that domestic beer sales are under high pressure from private imports. Another reason is the shift from beer to spirits, following a substantial lowering of the spirits excise duties in 2003. Private alcoholic beverage imports and exports play an important role throughout Scandinavia due to relatively large consumer price differences, largely because of lower VAT and excise rates in Germany³⁶. Estimates of the volume of private imports from Germany to Denmark vary from one-fifth to one-third of the total beer consumption.

³⁵ Source: Danish Brewers' Association (Bryggeriforeningen) and Danish National Statistics Agency.

³⁶ Source: Konkurrencestyrelse (2001), *Priser og avancer i grænsehandelen med øl og sodavand*

9.3 The direct effect of the brewing sector

When considering direct effects, two issues are generally important: employment and value added. Danish breweries employ some 5,000 personnel, 4,150 of them performing beer-related activities. The middle sized breweries each employ around 50 workers. These numbers are relatively low because many processes have been automated and services have been outsourced (benefiting supplying sectors and thus contributing to the indirect effect of the brewing sector). Value added generated by Danish brewing companies inside Denmark and due to the production of beer is estimated at €334 million³⁷. This figure is lower than total value added generated by Danish brewing companies with brewing activities (estimated at some €590 million), because of international activities and non beer activities such as soft drinks production and distribution (value added generated with non beer activities is estimated at some €300 million).



Another direct effect is tax revenue. There are several types of taxes, including excises and VAT. The applicable VAT rate is 25%. In the European Union there are no member states with higher VAT rates for beer; the Danish VAT rate is much higher than the applicable VAT rate in neighbouring Germany. Danish annual VAT revenues from beer sales are estimated at €375 million.

Although excise levels were lowered by 12.7% in January 2005, Danish excise levels are still higher than the EU average (€34.09 per hectolitre of beer at 5% ABV. This compares to €29.17 in the EU). Especially, excise rates are much higher than in the neighbouring Germany (€9.45). Total 2004 excise revenues from beer were an estimated 1,363 million Danish kroner³⁸ (€184 million).

³⁷ Source: Estimate by Ernst & Young on the basis of the questionnaire used for this study and publicly available sources such as Eurostat statistics using country comparisons to extrapolate.

³⁸ Source: Danish Ministry of Taxation.

Denmark also has an excise on beer containers. Danish breweries pay a packaging tax for each bottle they fill for the Danish market. The packaging tax is a flat rate tax dependent on the size of the container. The most common container sizes are 25 cl. and 33 cl. For these containers, the tax is DKK 0.10 per container. Given that Danish brewers sell around 3.8 million hectolitres of beer packaged in bottles or cans in their home market, the revenues from this excise on beer containers can be estimated at an additional €20 million.

Environmental taxes, including energy and water taxes and corporate taxes from beer companies, are difficult to determine. Corporate taxes are especially difficult to measure since the three dominant brewers also have other activities and profits cannot always be directly assigned to single activities. In 2004 the three largest brewers – together holding a market share of some 90% – paid a total sum of 647 million Danish kroner (€87 million, source: annual reports) on corporate tax. As noted, this includes taxed profits from other activities (such as soft drinks or food products), exported products and consolidated activities in other countries.

A third direct effect is of great importance, namely the brewers' contributions to culture, charity and social activities. It is worth mentioning here the Carlsberg and Tuborg Foundations as solid contributors to cultural and social activities. 51% of Carlsberg shares are held by the Carlsberg Foundation. The foundation is governed by a board, appointed by the Danish Science Board. The Carlsberg Foundation has substantial annual revenues from dividends, which it invests in art, science, sports and other projects benefiting society.

Another direct effect of the Danish brewing sector is on the return logistics sector. Dansk Retursystem A/S handles return logistics of beer and soft drinks in Denmark. The company employs some 100 workers and has a net turnover of DKK 223 million.

9.4 The economic impact of breweries on suppliers of goods and services

The major proportion of goods and services is sourced domestically. All major brewers have their own water wells and most of the malt is purchased from Danish malters.

Besides the economic impact of the domestic beer production on suppliers, it is worth mentioning that Denmark is one of the world's largest malt and malting barley exporters. In 2003, Danish companies exported some 1 million tonnes of malting barley and 151.5 thousand tonnes of malt³⁹. The economic impact of this industry is enormous. Though malt pro-

³⁹ Source: e-malt.

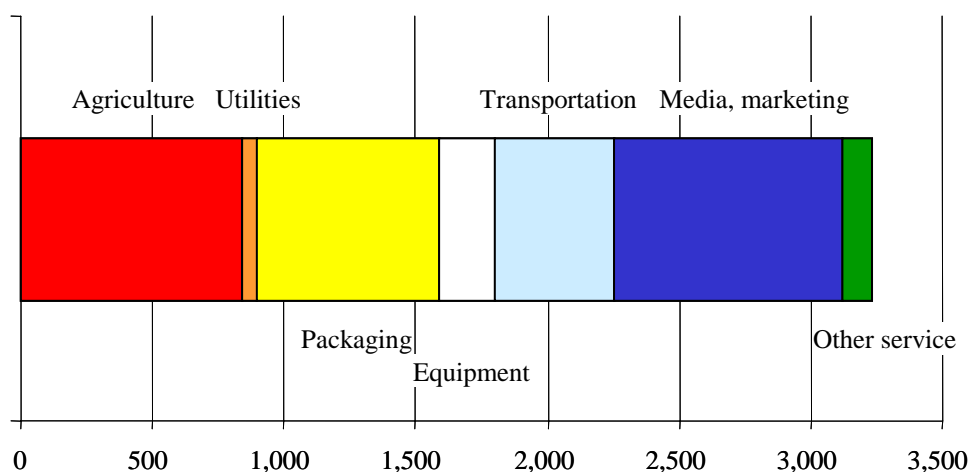
ducers themselves employ no more than 300 personnel, many more Danish farmers produce malting barley that is transformed into brewing malt.

Sectors	Stimu- lus	Stimulus for the Danish economy		Personnel costs ⁴⁰		Labour costs per employee	Number of em- ployees
	(mln. €)	%	(mln. €)	% of stimu- lus	(mln. €)	(in €)	
• Agriculture	81	75%	61				545
• Utilities	39	100%	39	5%	2	53,088	40
• Packaging industry	121	70%	85	23%	19	42,960	445
• Equipment	66	40%	26	23%	6	42,960	140
• Transport	76	100%	76	18%	14	47,340	295
• Media, marketing	105	100%	105	30%	32	55,764	565
• Services	13	100%	13	30%	4	55,764	70
Total	501						2,100
Primary impact as % of total impact							65%
Total indirect effect of brewing sector							3,200

Source: Own calculations on the basis of National Statistics and Eurostat

Total indirect employment connected to the supplying sectors is depicted below:

Indirect employment



⁴⁰ Source: Eurostat (also for labour costs per employee).

9.5 Retail and hospitality sectors

Danish breweries do business directly with the retailers. There are few beer wholesalers; only customers with special requirements are serviced through wholesalers. Other retailers are supplied directly by the breweries, who also distribute other brands than their own. Some 75 percent of Danish beer⁴¹ is distributed through the off-trade sector (supermarkets, shops and convenience stores). The remaining 25% is distributed through the on-trade channel. The off-trade sector is dominated by a few large supermarket chains and is characterised by increasing price competition. The average price thus differs substantially between the retailing and on-trade channels. Where the average price in the off-trade channel lies somewhere around 10 Danish kroner per litre (€1.62, including VAT), the average price in the on-trade channel is around 70 kroner per litre (€9.68, including VAT).⁴² According to the Danish competition authorities, average beer price lies at 97% of a comparison group of 9 EU-countries⁴³.

Hospitality sector

Employment arising from beer sales in the hospitality sector is estimated at 19,600 jobs:

- 25 percent of registered beer consumption takes place in the hospitality sector.
- This means that some 1.22 million hl are sold by Danish pubs, restaurants and the like.
- For the purpose of this calculation, we have estimated the average consumer price of a litre of beer in the hospitality sector at 7.75 euros per litre (excl. VAT). This means that consumers spend 945 million euros (excl. VAT) on beer in pubs and restaurants.
- Turnover per employee in the Danish hospitality sector is 48,000 euros a year.
- Total employment in the Danish hospitality sector can be calculated by dividing the turnover of beer by the average turnover per employee. The employment in the hospitality sector attributable to beer thus equals 19,600 employees.

Retail

The importance of the brewing sector for retail can be similarly assessed:

- About 75 percent of total beer consumption is home consumption.
- With an average consumer price of 1.30 euros per litre (excluding VAT), total consumer expenditure on retail beer is estimated at 570 million euros.

⁴¹ Source: AC Nielsen.

⁴² These prices are estimates of the average prices in the on-trade and the off-trade channels. In reality, prices vary considerably depending on many different factors including the size of the container or glass, the type of establishment and the location. Prices are based on ACNielsen figures and are in line with our own observations and the publication by Konkurssestyreelse (2001), *Priser og avancer i grænsehandelen med øl og sodavand*.

⁴³ Source: www.ks.dk/publikationer/konkurrenceredegoerelsen/kr2005/kap02.htm, table 2.5

- Because turnover per employee is estimated at 347,500 euros, this means 1,600 people owe their jobs to the sale of retail beer.
