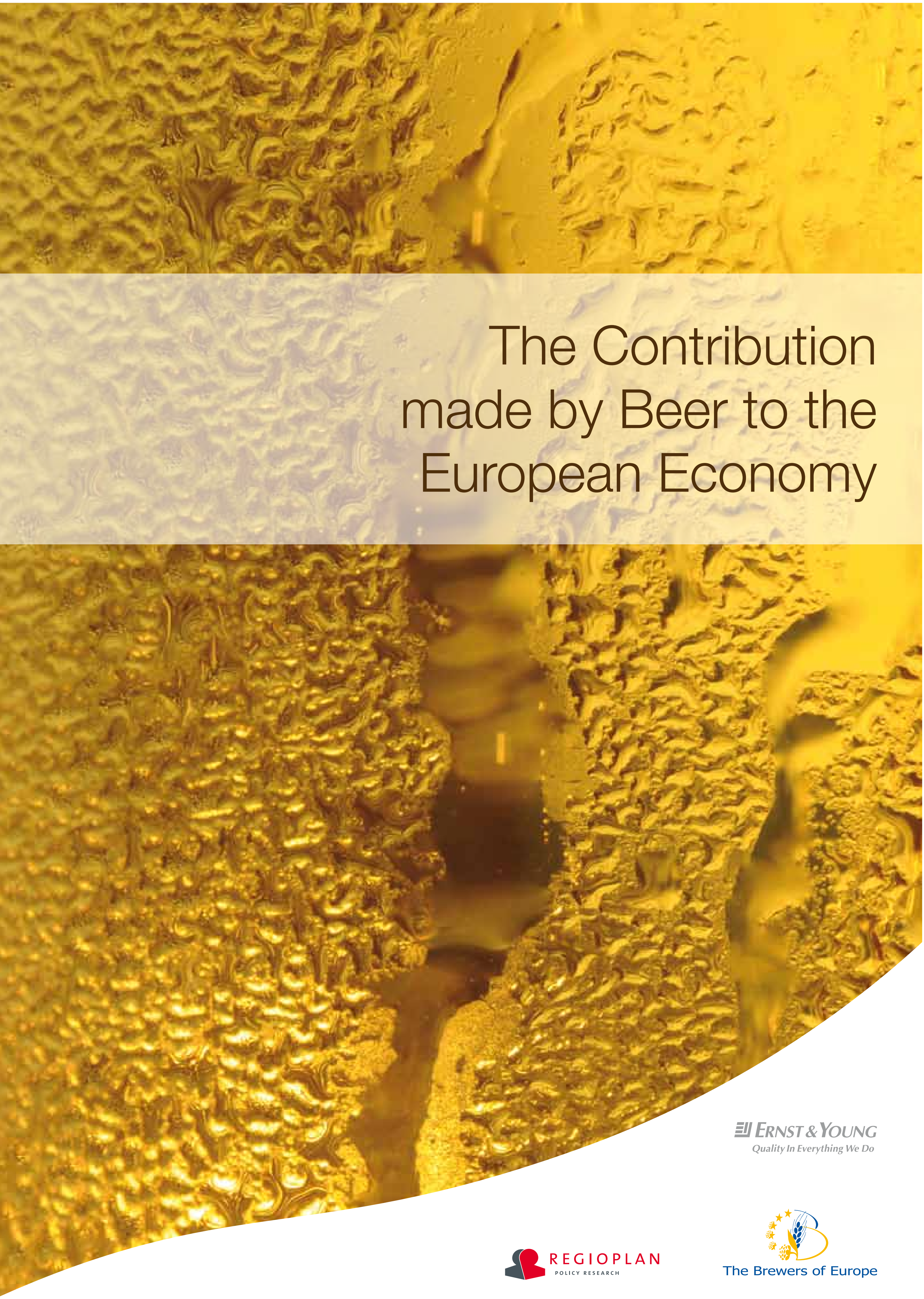

The Contribution made by Beer to the European Economy

Ernst & Young
Quality In Everything We Do

REGIOPLAN
POLICY RESEARCH

The Brewers of Europe

The Contribution made by Beer to the European Economy

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Amsterdam, September 2011

A report commissioned by The Brewers of Europe and conducted by
Ernst & Young Tax Advisors and Regioplan Policy Research

REGIOPLAN POLICY RESEARCH

ERNST & YOUNG Quality In Everything We Do

The Brewers of Europe

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Foreword by the President of The Brewers of Europe

Foreword by the President of The Brewers of Europe

It gives me great pleasure to commend to you this important study. The Brewers of Europe, uniting brewing associations from the European Union, Norway, Switzerland and Turkey, commissioned this report in order to make available an independent analysis of the economic impact of the brewing sector as a whole.

This comprehensive and authoritative insight demonstrates the enormous economic contribution delivered by beer throughout the whole value chain, from suppliers of agricultural raw materials, utilities and packaging, to the brewing companies themselves, to those who transport, market, retail and serve our products.

Ernst & Young and Regioplan have quantified the economic impact made by the brewing sector in each country in terms of the number of jobs that are supported, the value generated in monetary terms and the revenues provided to national governments. The headline figures in the EU section of the report - total sales amount to €106 billion, direct and indirect employment totals 2 million jobs and government revenues benefit by €50.6 billion – make impressive reading.

The study has tracked developments across Europe since 2008. There are early indications that the brewing sector has weathered the initial impact of the global economic storm, with a slight recovery in 2010. The study underlines the fact that the European brewing sector has resilience, remains a global leader and has a very positive impact on the European economy.

However, it is all too apparent that global economic recovery remains fragile and it is essential to nurture those sectors that can grow the economy. The report clearly demonstrates that the economic downturn, coupled with rapidly increasing taxes on beer, has had a detrimental effect on Europe's brewing sector and the contribution beer makes to the economy. The figure of 260,000 jobs lost in just two years is shocking in this regard. A 6% reduction in government tax receipts, despite beer excise duty rates being increased in 15 EU Member States is another pertinent indicator.

A notable impact has been the consumer shift from on-trade (pubs, bars and restaurants) to off-trade (supermarkets and convenience shops), with the regrettable knock-on effect this has on the brewing sector's economic impact as a whole, reduced principally because serving beer in on-trade, rather than selling in the off-trade for home consumption, is more labour intensive.

This report, whilst clearly presenting the contribution that beer makes to Europe's economy, shows how, with the right support from governments and policy makers, the brewing sector can play a leading role in the economic recovery that is of such fundamental importance to us all.

Alberto Da Ponte
President of The Brewers of Europe

Executive summary

Executive summary

In 2011, Ernst & Young and Regioplan Policy Research jointly conducted, for the fourth time, a study focusing on the economic impact of the production and sale of beer in Europe.

The study encompasses the brewing sector in 31 European countries. However consolidated data relate to the 27 Member States of the European Union. Below we have listed the key economic messages from the 2011 survey in respect of EU-27.

Contribution made by beer to the European Union Economy

Compared to 2008 the production of beer in the European Union (EU) in 2010 fell by 6 percent (to 383 million hectolitres), consumption in the same period declined by 8 percent (to 343 million hectolitres). The greatest decline in production occurred in 2009, whereas the decline in consumption has been constant over the two years of this study.

The decline in production and consumption of beer over the last two years, has resulted in the sector making a lower contribution to the economy of the EU. Over two years 260.000 jobs related directly or indirectly to the production and consumption of beer, were lost; a decrease of 12 percent compared to 2008. In the same period, the total employment in the EU decreased by 2%.

Not only were 260.000 jobs lost because of this decrease in production and consumption of beer, it also resulted in a decrease in the total value-added attributed to beer by 10%, and 6% less tax revenues for the 27 Member States governments. The latter is despite a large number of rises in VAT and excise rates across the EU.

The dominant factor in the diminishing economic impact of the brewing sector in the EU is the ongoing reduction in beer consumption. This is not only driven by the recent global economic downturn, but also by four trends in the beer market.

These are:

- Decreasing consumption per capita; this trend started a number of years ago and is expected to continue.
- Consumers buying less premium brands of beer.
- Relatively more beer being consumed at home instead of in bars or restaurants, the result being fewer jobs, less value added and lower government revenues being generated by each litre of beer consumed in the EU.
- Increasing tax burden, especially consumer taxes which have increased in many Member States, and this trend will probably continue for the foreseeable future. Higher taxes on beer lead to higher prices, and reduces beer consumption particularly in the hospitality sector, strengthening the trend for consumption of beer in the home.

The brewing sector is also facing other pressures including price rises for raw material inputs. We have already calculated for the period 2009-2010 that the value added for the breweries decreased by a larger percentage than the value of the materials to produce their beers, due to the increased competition and smaller margins for breweries.

Against this background it is more likely that any further increase will need to be passed on to the consumer in full, despite the negative impact of higher prices on the economic impact of beer.

About the study

About the study

→ Purpose of the study

This study was commissioned by The Brewers of Europe to quantify the economic impact of the brewing sector in the 27 Member States of the European Union.

In addition we also quantified the economic impact for the brewing sector in four other European countries: Croatia, Norway, Switzerland and Turkey. The results of the calculations for these four countries are not included in the figures we present in the first seven chapters of this study on the aggregate economic impact of the brewing sector.

The current study is the fourth edition of the economic impact research undertaken by Ernst Young and Regioplan. The first was published in January 2006, the second in September 2009 and the third in March 2011.

→ Economic impact

Three different effects were considered in order to provide a complete picture of the economic impact of the brewing sector; direct, indirect and induced impacts.

The **direct impact** is the effect generated directly by brewing companies.

The **indirect impact** represents the impact of beer producers on their suppliers. A highly diverse range of goods and services needs to be purchased to facilitate beer production. To mention just a selection: water, agricultural products and packaging materials such as bottles and cardboard. Breweries also hire engineers, marketers, communications agencies and many more services. This study considers six supply sectors: suppliers of raw materials, utilities, packaging industry, transport, media and marketing and other services.

The **induced impact** is the economic contribution of firms in off trade outlets and the hospitality sector arising from the sale of beers. The sale of beer by off trade outlets and hospitality firms is an important source of economic benefit. It is important to note that effects caused by the sales of other drinks in the hospitality sector (e.g. spirits and wine) are not within the scope of the study and are thus not taken into account.

We measured the effects in three areas: employment, value-added and government revenues.

→ Data collection

Most of the reported outcomes in this report are derived from the following data sources:

- Statistics from The Brewers of Europe.
- Data obtained from a questionnaire completed by national associations representing the brewing sector.
- Data collected directly from individual breweries across Europe through a detailed questionnaire.
- Data from the European Commission and Eurostat.
- Other sources.

For a small number of reported outcomes we have relied on a reuse of existing data from our 2009 study.

→ 2010

Our calculations were made for the year **2010**.

→ Disclaimer

The report is intended to serve general information purposes only. The information provided was collected and composed with continuous care and attention by Ernst & Young and Regioplan.

In this process the national brewers' associations from the countries covered by the study were given opportunities to react to the information and figures for their respective national beer market. Comments or reactions were not provided by all of them. Therefore, no rights can be derived from the information in this report. Ernst & Young and Regioplan are under no circumstances liable for damages of whatever nature, in anyway resulting from the use of this report or resulting from or related to the use of information presented on or made available through this report or damages resulting from the non-availability of this information in our report.

01

The European beer market

01

1 | Highlights

Highlights of the European beer market (EU-27)

- Beer production has been decreasing since 2008.
- Consumption of beer in the European Union continues to fall. It decreased from 374 million hectolitres in 2008 to 343 million hectolitres in 2010.
- Beer sales in the hospitality sector (bars, restaurants, events, etc.) declined by 15% and in off-trade (retail outlets) sales fell by 4% since 2008, resulting in a consumption value of 106 billion euro (including VAT).
- Resultant job losses were not compensated for by the increase of number of breweries in 2010 in the European Union, since these were mainly microbreweries.
- Nevertheless, the EU remains one of the major beer producing territories in the world. In 2010 the total of 3,638 breweries in the EU produced 383 million hectolitres of beer.
- The effects of the global economic situation (i.e. a decrease in production and consumption, as well as loss of jobs caused by the beer industry) are more prominent in Eastern Europe than in Western European countries.

2 | Production

In 2010, 3,638 breweries (including microbreweries) produced a total of 383 million hectolitres of beer in the European Union. In 2008 production totaled 408 million hectolitres (minus 6 percent).

Europe maintains a strong position as one of the world's most important beer producers (403 million hectolitres), as compared with Russia (101 million hectolitres), Brazil (122 million hectolitres), the United States (207 million hectolitres)[1] and China (466 million hectolitres)[1]. In 2008 China passed the EU as the biggest beer producer in the world.

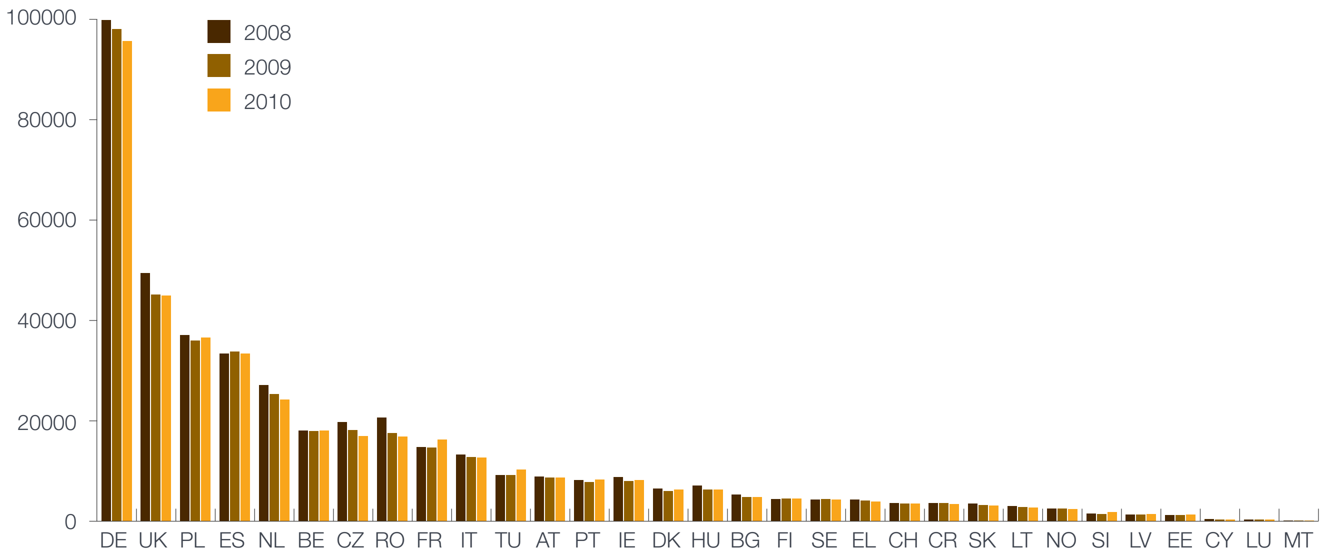
European beer brands are sold worldwide, either brewed in Europe and exported, or produced abroad mainly by subsidiaries of the larger European brewing companies or under licence by other brewers in those countries. A significant number of independent small- and medium-sized brewing companies and microbreweries contribute to the rich variety of beer brands available to consumers worldwide.

Despite the decrease in production, the total number of breweries (including microbreweries) in Europe was higher in 2010 (3,638) than in 2008 (3,071 breweries). The number of breweries is somewhat underestimated, because complete figures could not be provided by some countries. This means that the number of breweries is likely to be even higher than that presented. Although exact figures are not available, we estimate that over 70% of the 3,638 breweries in Europe are microbreweries.

In the European Union, Germany has the largest number of breweries (1,325). Six other Member States have more than 100 breweries each: United Kingdom (824), Italy (353), Austria (172), the Czech Republic (145), Belgium (135), Denmark (120) and Poland (103).

[1] Source: Canadean Global Beer Trends 2010, October 2010

› *Graph 1.1. / Development 2008-2010 in production (hectolitres) per country*

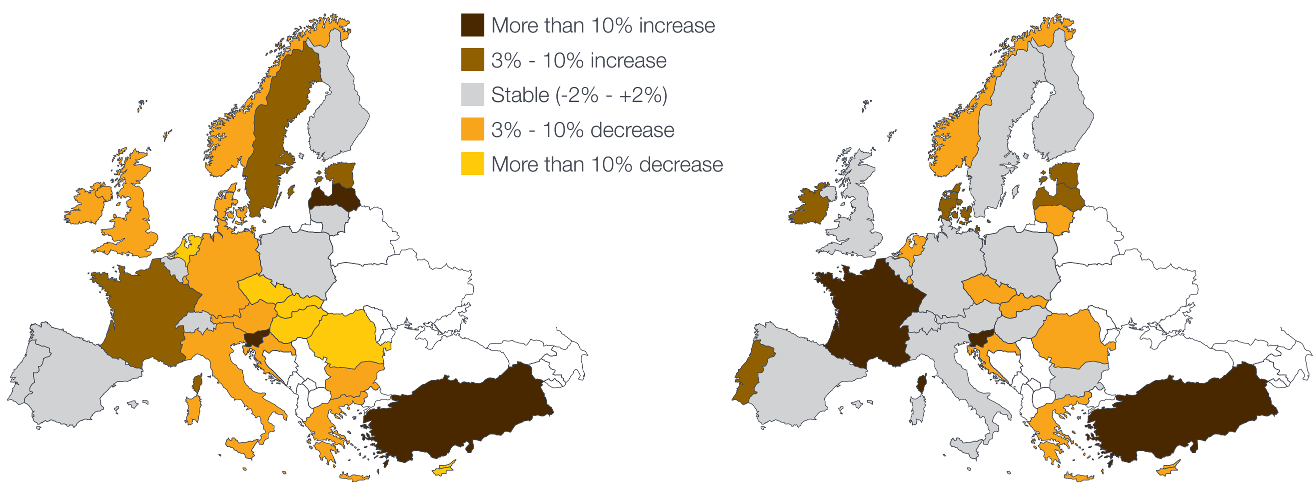


› Sources: Ernst & Young questionnaire among brewers' associations (2011).

In the majority of European countries (the 27 Member States, Croatia, Norway, Switzerland and Turkey), the production volume decreased since 2008. The decline is especially high in Central-Eastern European countries (Poland, Slovakia, Hungary, Romania and Bulgaria) and Greece.

In Western Europe, the United Kingdom and the Netherlands show a decline in production volume. Within the EU-27, France and Latvia are the countries to display an increase production volume in 2010 compared to both 2008 and 2009. Outside the European Union, Turkey displays a significant increase in production volume.

› *Graph 1.2. / European production per country in 2010 compared to 2008 (left) and 2009 (right)*



› Source: Ernst & Young calculation based on input from the National Brewery Associations (2011).

01

3| Exports and imports

Some 71 of the 383 million hectolitres of beer produced in one of the 27 EU Member States is exported outside their national borders (19% of total beer production in the EU). This is a minor increase compared to the 2008 (70 million hectolitres), but a significant recovery compared to 2009 (+8%, 66 million hectolitres).

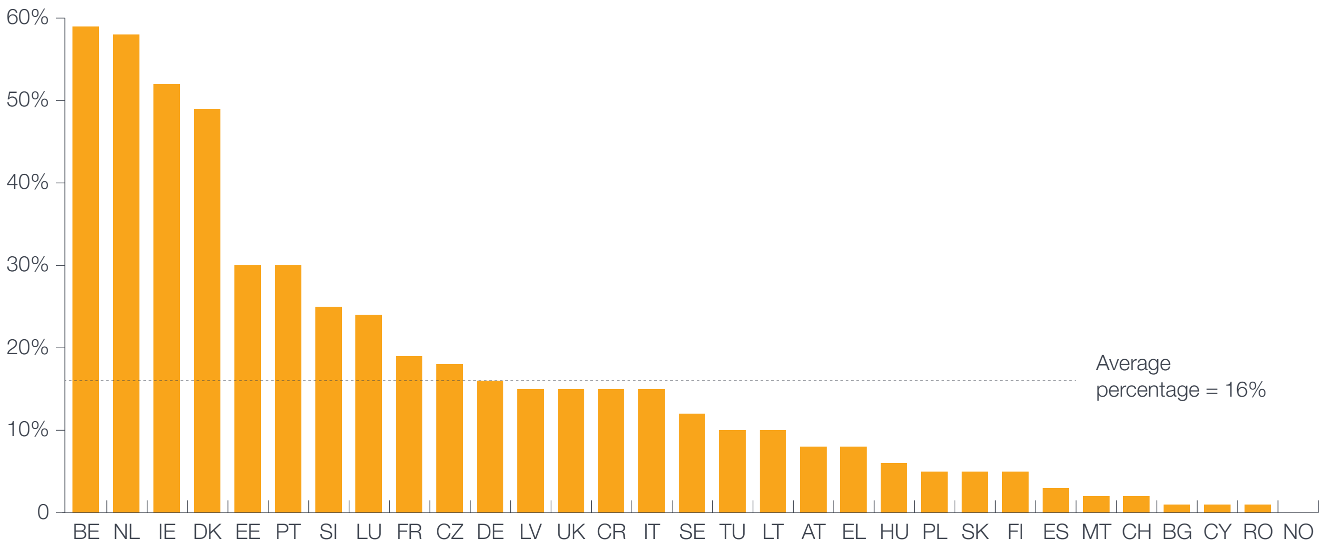
All of the 27 Member States also import beer to a greater or lesser extent. In 2010 the total import volume for the 27 countries was 43 million hectolitres of beer, a small increase compared to 2008 (42 million hectolitres). In 2009 the import volume was almost 39 million hectolitres.

The export and import figures presented here represent flows between countries.

The exact destination or origin of these exports and imports (within or outside the EU-27) could not be deduced from the figures obtained. However, qualitative data from the questionnaire indicates that most export partners are located within Europe. The most important export partner outside Europe is the United States. The majority of import flows seem to stay within Europe as well.

Exports are especially important for the Netherlands, Belgium, Denmark and Ireland, where the percentage of exports compared to total domestic beer production is high (between 49 and 59%). The reason for the scale of exports from these countries can be explained in large part by the fact that they are home to some important multi-national brewing companies.

› *Graph 1.3. / Exports 2010 as percentage of production per country*



› Sources: Ernst & Young questionnaire among brewers' associations (2011), The Brewers of Europe "Beer Statistics" (2010), Canadean "Global beer trends" (2010), Eurostat.

The export and import figures illustrate that the beer market is an open and global one. Based on Eurostat data[2] from 2008, we estimate that approximately 42% of the total exports comprised exports within Europe[3]. The other 58% was exported to countries outside Europe.

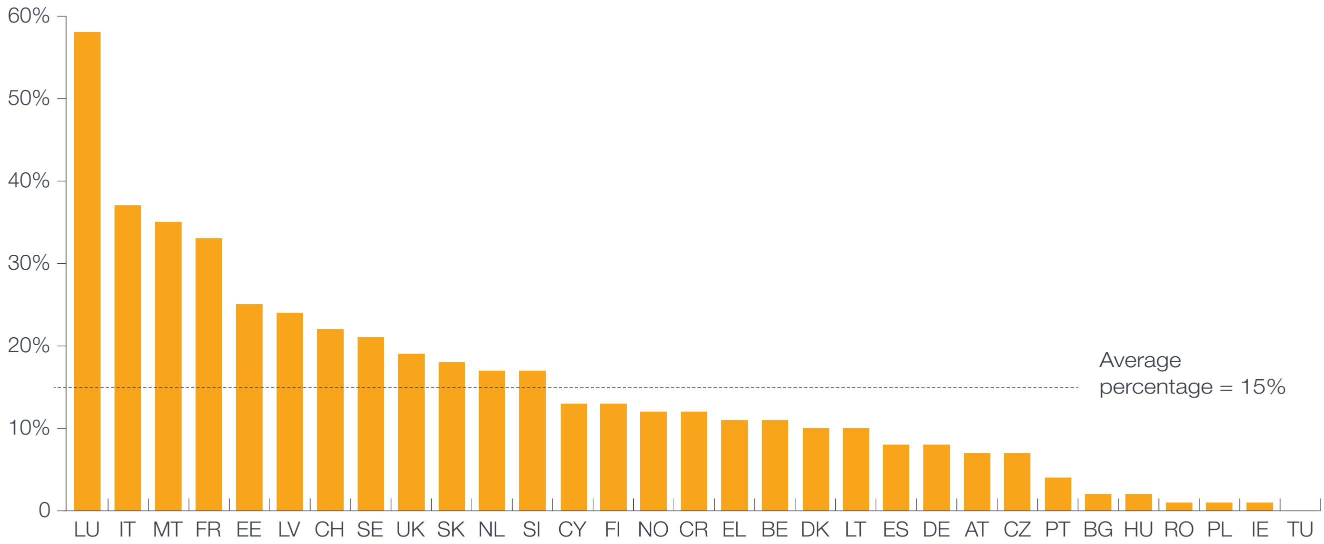
Although consumers in many countries prefer to drink beers brewed domestically and locally, European beers are appreciated worldwide, with the United States being the most important export market, followed by Canada, Angola, Taiwan, Russia, Equatorial Guinea and Australia[4].

[2] Source: Eurostat: EU27 Trade Since 1995 By SITC (DS_018995).
[3] These figures only relate to the 27 EU members. Norway, Switzerland, Croatia and Turkey are not included.
[4] Source: Europeam Commission, Market Access database.

Over 43 of the 343 million hectolitres of beer consumed in 2010 within the European Union were imported (i.e. both intra-EU and extra-EU). The main countries importing beer are Luxembourg, Italy, Malta and France where the percentage of imports compared to the total consumption of beer lies between 33 and 58%.

Whereas for Malta and Luxembourg the phenomenon may be explained by the small size of the countries, in Italy and France the situation is due to the structure of the local brewing sector including the presence of larger international brewing companies, delivering international brands to the local market.

› *Graph 1.4. / Imports as percentage of consumption per country*



› Sources: Ernst & Young questionnaire among brewers' associations (2011);
The Brewers of Europe "Beer Statistics" (2010), Canadean "Global beer trends" (2010), Eurostat.

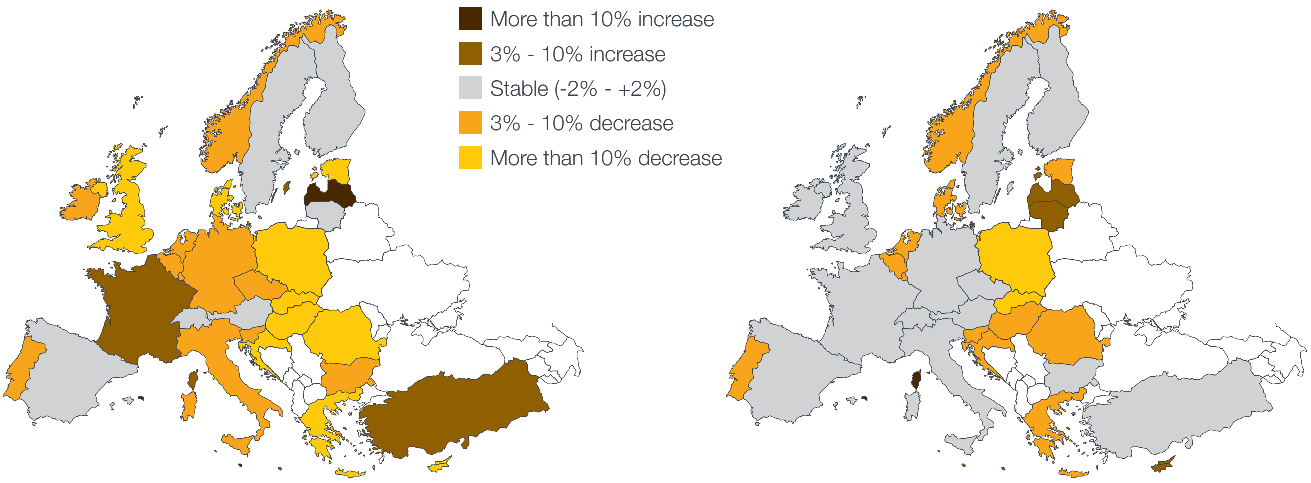
01

4| Consumption

In 2010, the consumption of beer in Europe (EU27) decreased from 374 in 2008 and 358 in 2009 to 343 million hectolitres (a decrease of 8 percent in two years). The decrease in consumption is especially high in Central-Eastern European countries such as Poland, Slovakia, Romania and Hungary and Bulgaria.

In most Scandinavian and Western European countries consumption in 2010 was relatively stable compared to 2009. However, Denmark and the United Kingdom display a decrease of more than 10% compared to 2008. Germany, the biggest beer producing country in Europe, shows a further decrease in consumption (3% less than in 2008).

› Graph 1.5. / European consumption per country in 2010 compared to 2008 (left) and 2009 (right)



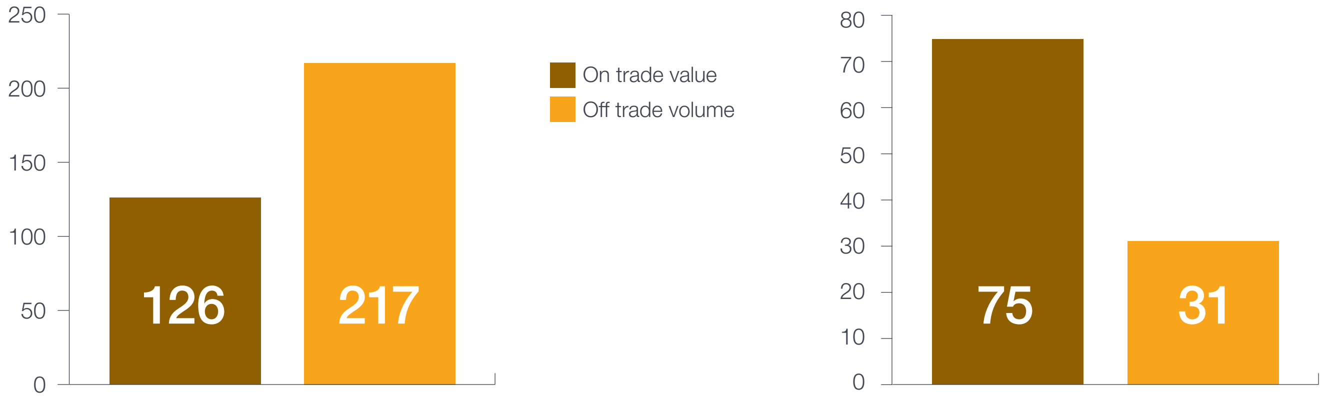
› Source: Ernst & Young calculation based on input from the National Brewery Associations (2011).

Of this European Union consumption, it is estimated that over 63% is purchased in supermarkets and other retail outlets; referred to here as the ‘off-trade’. The other 37% is consumed in the hospitality sector (pubs, restaurants et cetera); referred to as the ‘on-trade’.

In real terms off-trade consumption decreased from 225 million hectolitres in 2008 to 223 million hectolitres in 2009 and 217 in 2010 (i.e. a decrease of 3% compared to the previous year). However, the decrease in on-trade volume was even larger. That volume decreased from 149 million hectolitres in 2008 to 135 in 2009 and 126 in 2010. This is equivalent to a decrease of almost 15% compared to 2008 and 7% compared to 2009, representing two times the decrease in off-trade volume over the same time period.

The size of the European beer market can also be estimated in euro. The total value (paid by consumers) of European beer consumption in 2010 is estimated at approximately 106 billion euro (including VAT). In 2008 the total value was estimated at 117 billion euro. Of this figure, 70% is represented by turnover in pubs and restaurants, which shows a slight decline compared to 2008 (72%) and 2009 (71%). In terms of euro the retail channel is less important (31 billion euro).

› Graph 1.6 / Volume of EU beer consumption in million hectolitres (left) and billion euro (right)



› Source: Ernst & Young calculation based on input from the National Brewery Associations (2011); The Brewers of Europe "Beer Statistics" (2010).

01

02

Government revenues

1 | Highlights

2 | Government revenues

02

Highlights of government revenues in Europe (EU-27)

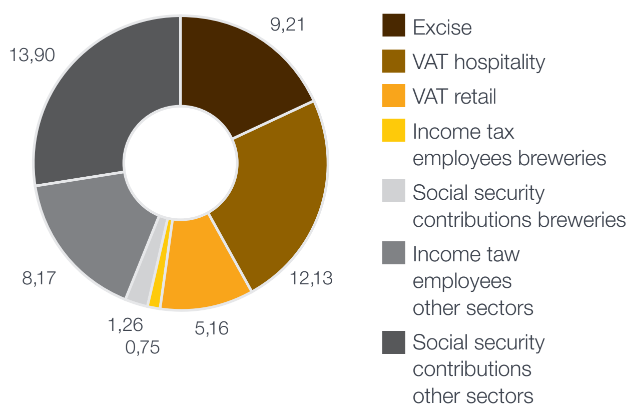
- Since 2008, total government revenues arising from beer in terms of VAT, excise, income taxes, payroll taxes and social security contributions fell by 6 percent to 50.6 billion euro in 2010.
- Income tax and social security paid by employers and employees were the largest contributors in fiscal terms; estimated at over 24 billion euro.
- VAT received from the retail and hospitality sectors provided over 17 billion euro. In 2010 VAT revenues due to beer were collected mainly from the hospitality sector, although the amount from that source decreased faster between 2008 and 2010 than those collected from the retail sector.
- The contribution from excise tax was estimated to be approximately 9.2 billion euro, less than in 2008, when the figure amounted to 9.78 billion euro.
- Although the tax burden on beer has grown in recent years due to increases of the excise and VAT rate in many Member States, the total revenues from these taxes did not show comparable increases. In some cases the revenues on excises even decreased despite an increase in rates.

The brewing sector provides substantial benefits to national governments in fiscal terms. Due to the production and sale of beer, governments receive significant revenues from excise, VAT, income-related taxes and social security contributions paid by workers and their employers in the brewing sector and in other sectors where jobs can be attributed to 'beer'. As presented in the table below in 2010 these revenues amounted to approximately 50.6 billion euro. These levels are similar to those in 2009, but considerably lower than those in 2008, when total government revenues were almost 54 billion euro.

The figure above only includes revenues which we were able to quantify with our economic impact model. Governments also benefit from corporate taxes, property taxes, community taxes, environmental taxes (such as climate change levy), vehicle excise duty and stamp duty land tax. However, since these taxes are not directly related to the production and sales of beer (in volume or value) we are not able to calculate these revenues. Because of this, the 50.6 billion euro figure can be seen as an underestimation of actual government revenues.

It should be noted also that the model does not include government costs resulting from support to the unemployed whose jobs were related to beer supply or delivery, and which have increased due to lower beer consumption in Europe.

› Graph 2.1. / Government revenues due to the production and sale of beer in the European Union : 50.6 billion euro

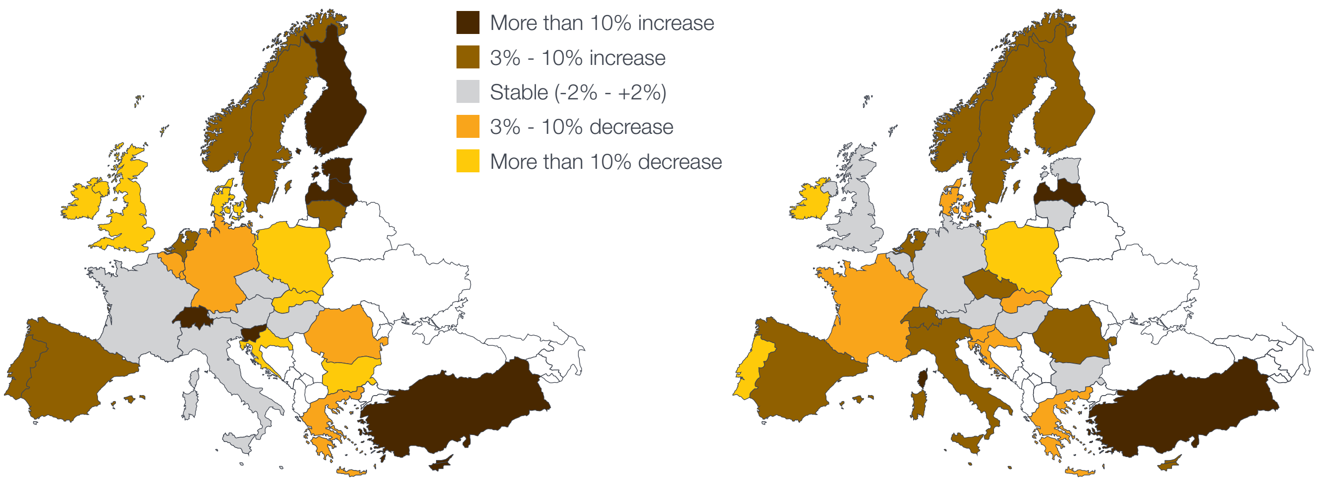


› Source : Ernst & Young calculation (2011).

Revenues from beer differ markedly between European countries. Although total government revenues in Europe were almost the same as in 2009 this is due to the impact of tax changes and consumption variations.

In 13 countries, additional revenues were generated, but in 9 there were substantial decreases, as shown in the table below.

› *Graph 2.2. / Development of government revenues due the production and sale of beer per country in 2010 compared to 2008 (left) and 2009 (right)*



› Source: Ernst & Young calculation based on input from the National Brewery Associations (2011).

→ Income and payroll taxes

The most important sources of tax revenues due to the production and consumption of beer within the European Union, are income and payroll taxes and social security contributions paid by employers and employees. These taxes and contributions are paid by employers and employees in the brewing sector, the supplying sectors, in retail and in the hospitality sector where jobs can be attributed to the production and sale of beer. We estimate these income-related taxes and contributions in 2010 to be 24.1 billion euro. In 2008 this figure was 25.3.

→ VAT revenues

The second important category of tax revenues due to beer, originate from Value Added Tax(VAT), which is levied on the turnover of beer sales in retail and hospitality outlets in the Member States. VAT revenues for the EU Member States on the consumption of beer within the European Union totaled 17.3 billion euro in 2010. Seventy percent (12.1 billion euro) was generated by beer consumption in bars and restaurants, while beer sales in retail outlets accounted for the other thirty percent (5.2 billion euro). Compared to 2008, when these revenues within the European Union amounted to 18.8 billion euro, VAT revenues declined by 8 percent.

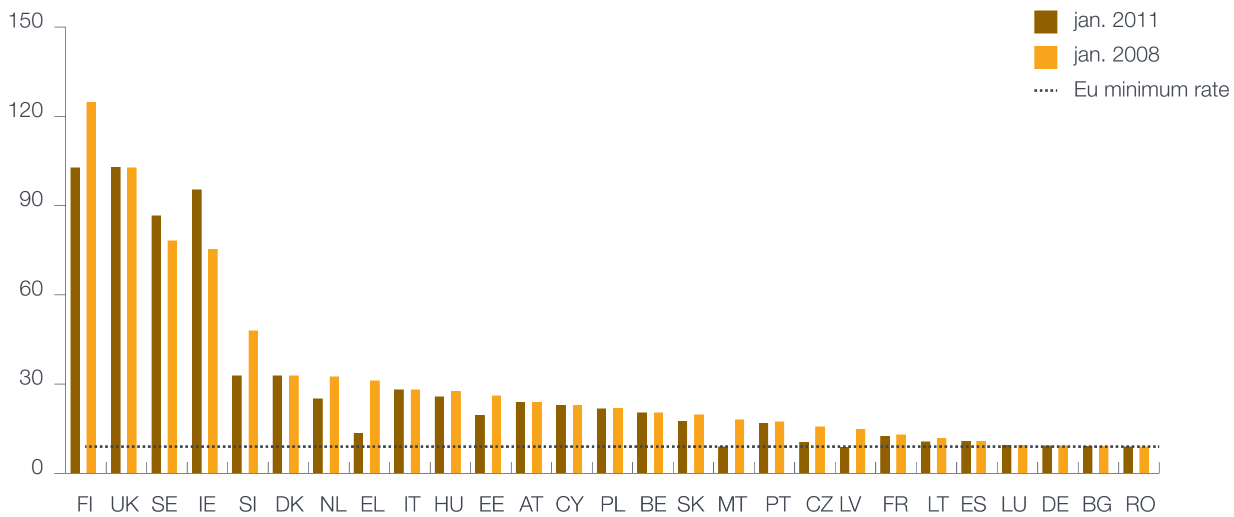
02

→ Excise duty revenues

Finally, excise duty revenues are also an important source of revenues for national governments. These revenues were estimated to be approximately 9.21 billion euro in 2010; less than in 2008, when they amounted to 9.78 billion euro.[5] This is despite 15 countries having increased excise duty rates during this period. Member States are free to set excise rates at the level they chose, as long it is greater than or equal to the EU minimum rate, which amounts to approximately 9 euro per hectolitre of beer (12 degrees plato, 4.8% alcohol).

In graph 2.3 we show for each Member State the excise duty rate in euro on January 1st 2008 and on January 1st 2011. In shows for both years variation between countries in excise rates levied, but also that in some countries the excise duty rate in euro has increased. The graph also shows some decrease in the Euro rate, this is (except for Ireland) due to changes in the exchange rate of the countries own currency and the Euro.[6]

› Graph 2.3. / 2008 and 2011 excise duty rates per hectolitre of beer in euro (12 degrees Plato, 4.8 percent alcohol)



› Source: Ernst & Young calculation based on input from the National Brewery Associations (2011).

[5] Source: European Commission, Excise duty tables, July 2010. For the year 2008 we had to make a recalculation for the amount of excises. In the 2008 report we partly used information on excises delivered by national associations, for 2009 we could only use the statistics of the European Commission on excise revenues. To be able to compare the 2008 and 2009 figures, we had to recalculate the 2008 figures and base them solely on information of the Commission.

[6] Because we want the different excise duty rates with the EU minimum rate we had to use the excise duty dominated in Euro.

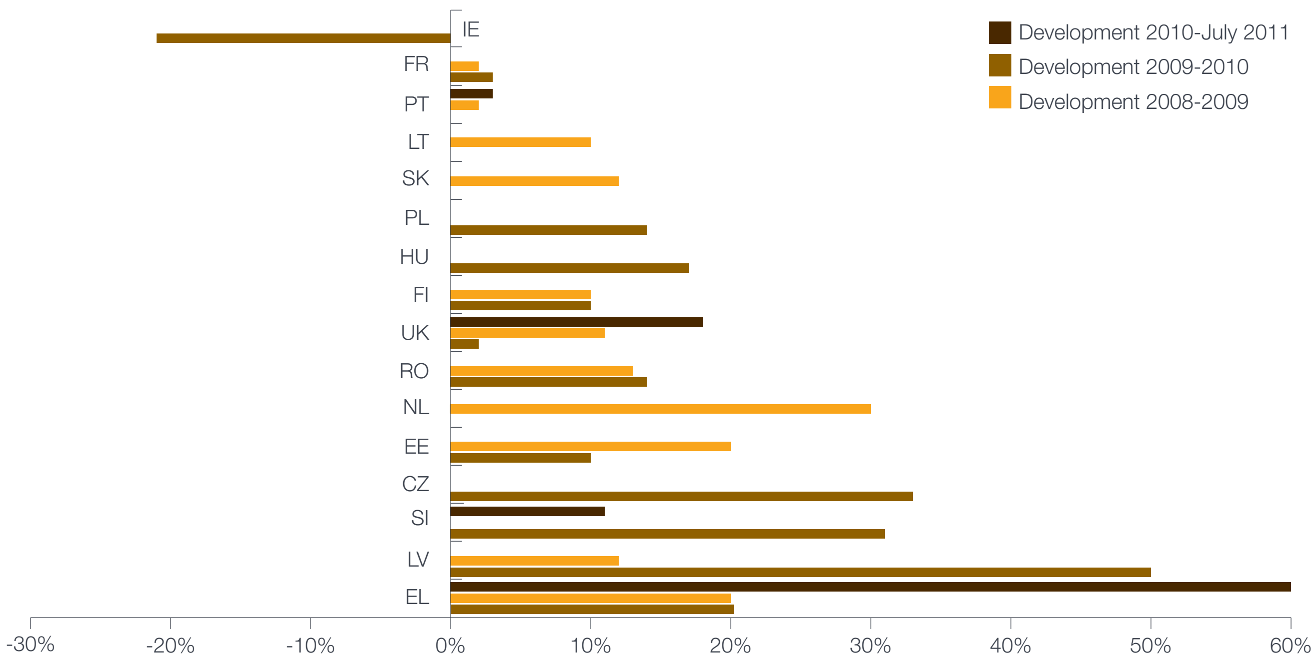
3| Changing tax burden

→ Changes in excise duty rates

If we take a close look in to the development in excise duty rates on beer between January 2008 and July 2011, we conclude that within the European Union in 15 Member States the excise duty rates were increased. Ireland is the only EU Member State that decreased the duty rate. In the four countries studied outside the EU, the excise rate was also increased in Turkey and Norway in this period.

Graph 2.4 shows the developments in the excise duty rates for the European Union Member States only. In the graph we divided the period January 2008 till July 2011 in three separate periods. It shows that the increases in excise duty rate vary from moderate yearly rises in Portugal and France, to a very huge yearly increase in Greece. Also in countries where the excise burden was already relatively high, like Finland and the United Kingdom, excise rates increased substantially over the last years.

› Graph 2.4. / Development (%) excise duty rates per hectolitre of beer Jan. 2008 – July 2011 (12 degrees Plato, 4.8% alcohol)



› Source: European Commission, The Brewers of Europe; situation as of July 2011

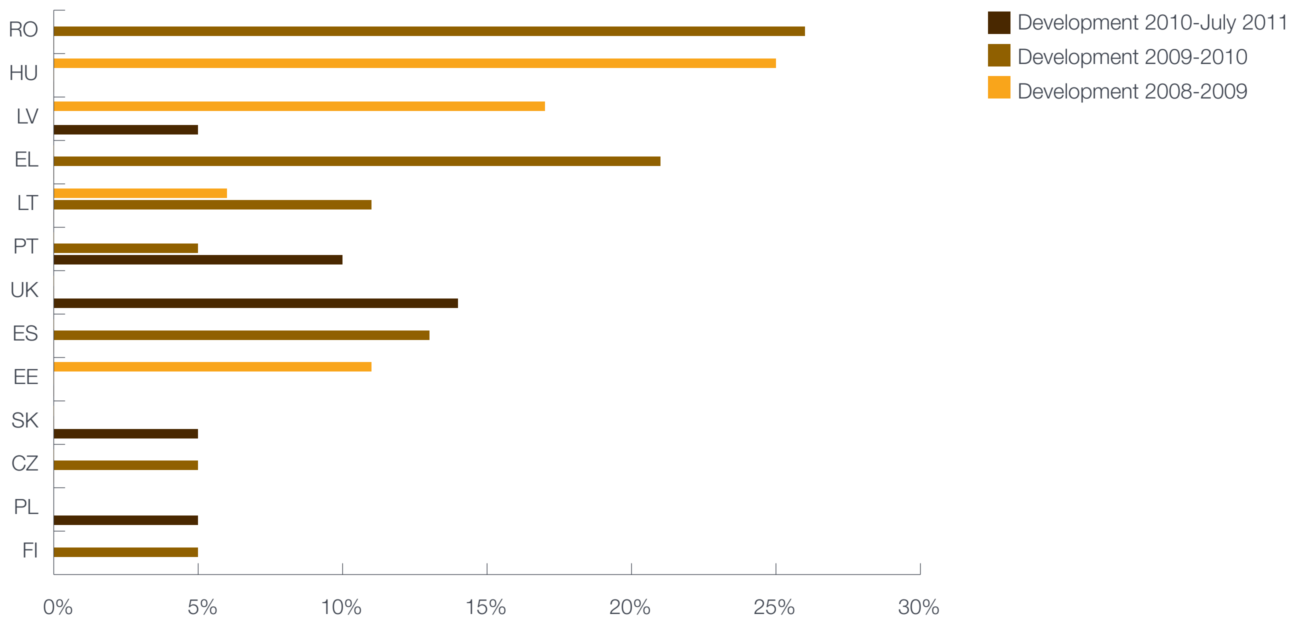
→ Changes in VAT rates

Between January 2008 and July 2011 several countries changed their VAT rate, adapting to economic circumstances. Among them, thirteen EU Member States increased their VAT rate, and of the four countries outside the EU covered by the study, the rate decreased in Croatia.

Graph 2.5 shows developments in VAT rate for the European Union Member States only. It shows that the increases in VAT rate were at least around five percent, but were particularly high in Romania, Greece and Hungary. The average standard VAT rate in EU27 increased markedly from 19,4 percent in 2008, to 20.7 percent in 2011.

02

› *Graph 2.5. / Development (%) VAT rates Jan. 2008 – July 2011*



› Source: European Commission, situation as of July 2011

→ Consequences

It is realistic to assume that a part of the decrease in beer consumption in the European Union can be explained by the rise in excise and VAT rates in some of its Member States, which has impacted consumption in the rest of the EU[7].The explanation is that excise and VAT rises are to some extent passed on in consumer prices. Although it is partly passed through, the rises also have an impact on the profitability of the whole chain due to lower investment levels, closing activities and similar effects.

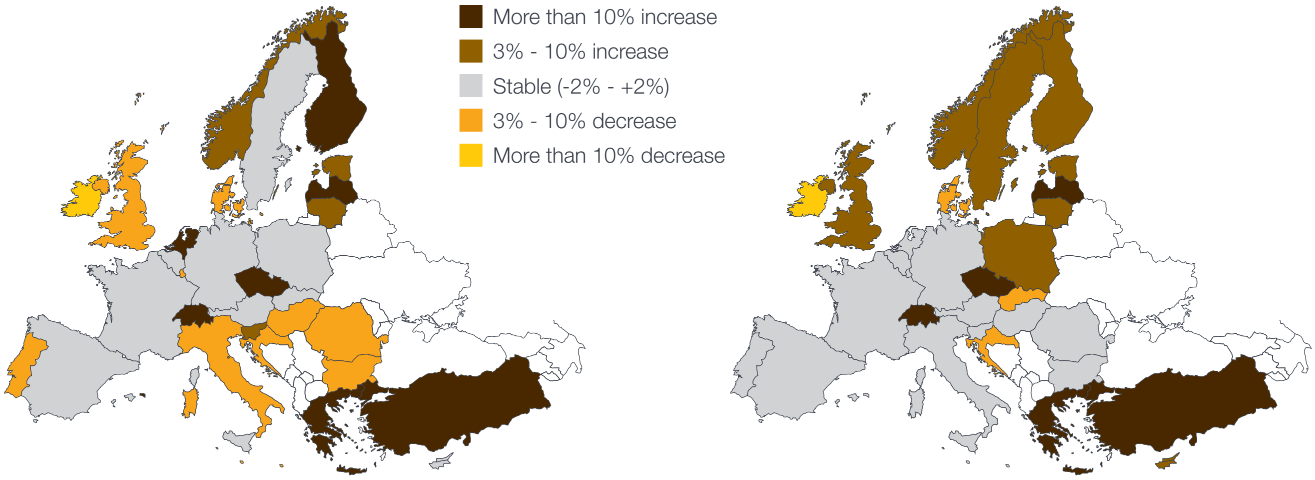
In addition, it is important to note that the demand for beer is price elastic. This means that a higher price (here due to a rise in the excise and VAT rate) leads to a decrease in demand for beer. The level of passing on is higher in the hospitality sector than in the retail sector[8], and the demand for beer is also more price elastic in the hospitality sector. This means that the same percentage increase leads to a greater fall in consumption in the hospitality than in the retail sector. Combining these research findings[9] would mean that higher excise and VAT rates will decrease the consumption of beer in the hospitality sector to an even greater extent than in the retail sector.

However, our calculations also show that the sale of beer in the hospitality sector gives rise to relatively more jobs than in the retail sector. Tax revenues are also higher when beer is consumed in bars and restaurants. – Therefore job losses in the hospitality sector result in lower government revenues.

Both the changes in so-called consumer taxes and changes in consumption will influence the revenues from these taxes in different EU member states, and of course for the EU as a whole. Graph 2.6 shows that in the majority of European countries, excise revenues have increased compared to 2009 (average 13%). The Czech Republic, Greece and Latvia showed an increase in excise revenue of over 20% compared to the previous year, whereas Ireland, Denmark and Slovakia were among the countries to experience a decrease in excise revenues. In most Western European countries, excise revenues in 2010 remained stable compared to 2008 and 2009. The three Baltic countries displayed an increase in excise revenues. Outside the European Union, this also applied to Switzerland and Turkey. Finally it is important to note that government revenues on VAT and excise rates may also be impacted after a longer time lag.

[7] Source: PriceWaterhouseCoopers, Taxing the brewing sector: a European analysis of the costs of producing beer and the impact of excise duties, 2010.
[8] One explanation is that off trade excises rises can be absorbed more easily because there are much more different product streams than in the hospitality.
[9] Same as footnote 6.

› Graph 2.6. / Development of excise revenues per country in 2010 compared to 2008 (left) and 2009 (right)



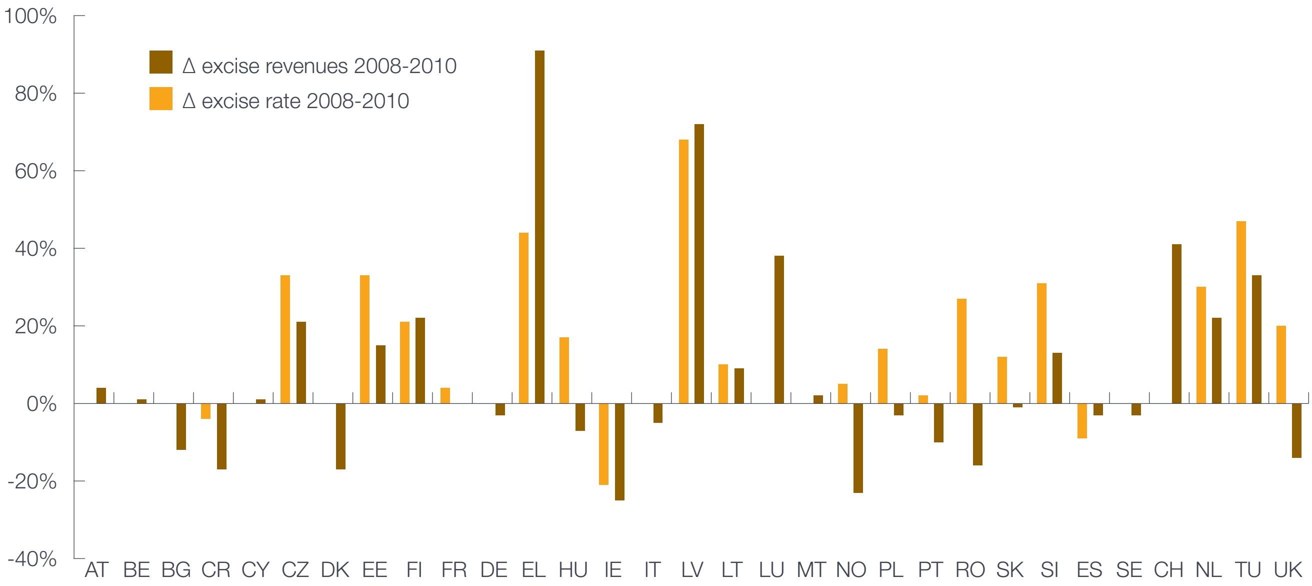
› Source: Ernst & Young calculation based on input from the National Brewery Associations (2011).

In our research we also examined the relationship between changes in excise rates over the period 2008-2010 and actual excise revenues. The results of this are presented in the next graph.

This shows that, for the period 2008-2010, in most countries excise revenues grew less than the percentage increase in the excise rate. For some countries the revenues even decreased.

02

› *Graph 2.7. / Relationship between excise rate changes and the development in excise revenues per country*



We didn't study with the same degree of detail the relation between the changes in VAT rates and the changes in VAT revenues at country level. At the level of the EU as a whole, we calculated that, despite thechanges in the VAT rates in several countries, the overall VAT revenues decreased by 8 percent (from 18,86 billion euro in 2008 to 17,28 in 2010).

The loss of VAT revenues was highest in the hospitality sector, which decreased by 10 percent (13.52 versus 12.13 billion euro), whereas in the retail sector, the revenues decreased by 3 percent (5.34 versus 5.16 billion euro). This difference can be explained by the trend for more consumers to buy their beer off trade, rather than on-trade.

03

Value added

1 | Highlights

2 | Value-added by sector

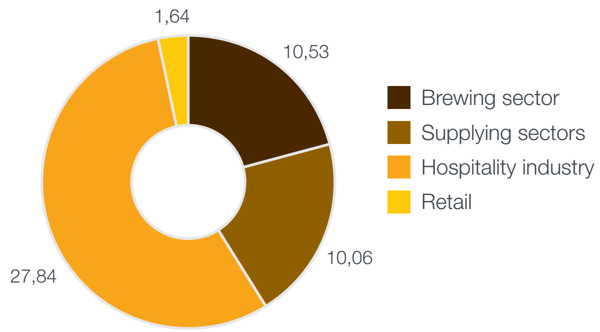
03

Highlights of value-added in Europe (EU-27)

- Brewers contribute 0.42% to EU's total gross domestic product (GDP).
- 50 billion euro is the estimated total value-added directly and indirectly by the production and consumption of beer in the European Union in 2010.
- For 2008 we calculated a total value added of 55.3 billion euro, so compared to 2008 the 2010 value added decreased by 10%.
- Most of the decline in the value added occurred in 2009.

Another contribution of the brewing sector is the value-added directly, and that created by the supplying, retail and hospitality sectors. Value-added can be defined as the difference between the production value and the value of purchased inputs (goods and services). Value-added is used for paying employees' wages and to reward lenders and entrepreneurs for their capital or entrepreneurship. For governments in Europe, value-added is an important measure since they levy a tax on it (VAT, see chapter 2). We estimate the total value-added related to the production and sale of beer in the European Union was approximately 50 billion euro in 2010.

› Graph 3.1. / Value added due to the production and sale of beer in the EU: 50 billion euro.



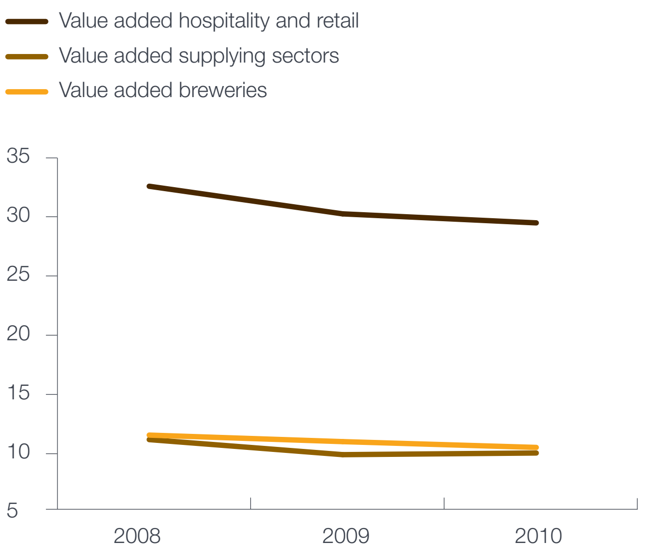
› Source: Ernst & Young calculation (2011) (see Annex III for an explanation on methodology).

This total of 50 billion euro of value-added in the European Union is generated by 2 million employees working in the brewing sector and in the supplying, hospitality and retail sectors. This only includes jobs relating to beer; jobs due to other aspects of the businesses are not included. The average value-added per employee is estimated to be some 24,598 [10] euro a year.

[10] This is calculated as follows: 53.3 billion euro divided by 2.2 million employees.

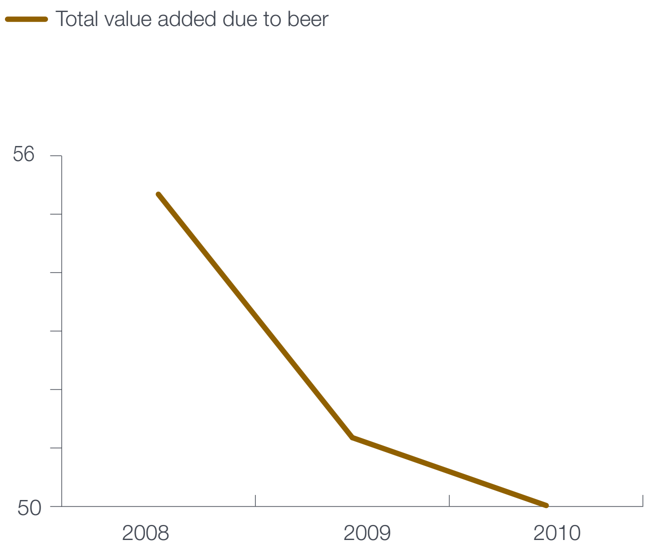
In 2008, the total EU value-added due to beer amounted to 55.3 billion euro, in 2009 it was almost 51.1 billion euro. Graph 3.2 shows the trend over the last three years in value added per sector. As can be seen, the value added decreased most in the hospitality and retail sectors. Graph 3.3 shows the same trend for the total value added due to beer.

› Graph 3.2. / Development 2008-2010 in value added (billion euro) per sector



› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

› Graph 3.3. / Development 2008-2010 in total value added (billion euro) due to beer



› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

The 2010 total value-added related to the production and sale of beer in the European Union (50 billion euro) is more than for the example the gross domestic product (GDP) of countries like Luxembourg (41 billion euro in 2010) or Bulgaria (36 billion euro in 2010).[11] The GDP of the EU-27 in 2010 was some 11,984[12] billion euro in 2010. This means that the brewing sector's contribution to the economy of the European Union is approximately 0.42% of total GDP. For 2008 we calculated that the contribution was slightly higher, at 0.43%.

[11] Source: Eurostat, Annual national accounts, 2011.
[12] Source:EY data calculation, based on Eurostat: http://appsso.Eurostat.ec.europa.eu/nui/show.do?dataset=nama_gdp_k&lang=en, July 2011

03

04

Employment

1 | Highlights

2 | Total employment

04

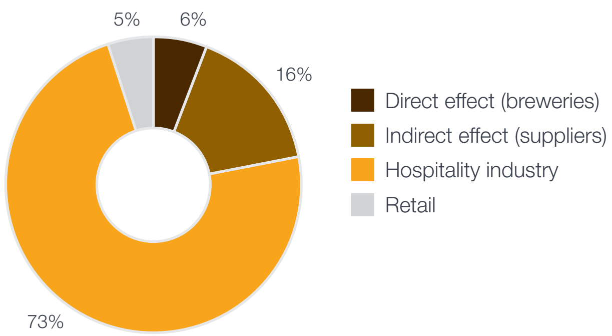
Highlights of employment effect of beer in Europe (EU-27)

- In 2010, over 2 million jobs in the European Union could be attributed to the production and sale of beer (1% of all jobs in Europe).
- The majority of jobs deriving from beer are in the hospitality sector (73%).
- Jobs created directly in beer production and delivery are 6% of the total employment attributed to beer.
- Between 2008 and 2010 the number of jobs attributed to the production and sale of beer decreased by 12% (from 2.2 million jobs in 2008 to 2 million in 2010). Comparing 2010 and 2009, job losses amounted to 3%.
- Jobs were lost both within breweries and also within the related sectors; most jobs (226,000) were lost in the hospitality sector.
- The beer sector was confronted with more job losses than other sectors. The total employment in the European Union decreased by 2%.

The European Union has a strong brewing sector which has a heavy expenditure on goods and services (see the next chapters). The consumption of beer also leads to significant turnover in the retail and hospitality sectors. This fact explains the considerable contribution of beer to the European Union economy. One of the main effects is the employment generated from the production and sale of beer. In 2010, the production and consumption of beer in Europe gave rise to almost 2 million jobs.

Expressed as a share of the total number of jobs in the European Union (approximately 216 million[13]), this figure shows that approximately 1% of all jobs can be attributed to the production and sale of beer. The total employment effect of the brewing sector is comparable to the total employment of countries such as Finland (2.4 million jobs) or Slovakia (2.3 million jobs).[14]

› Graph 4.1. / Total employment due to beer in the EU: 2 million



› Source: Ernst & Young calculation (2011) (see Annex III for an explanation on methodology).

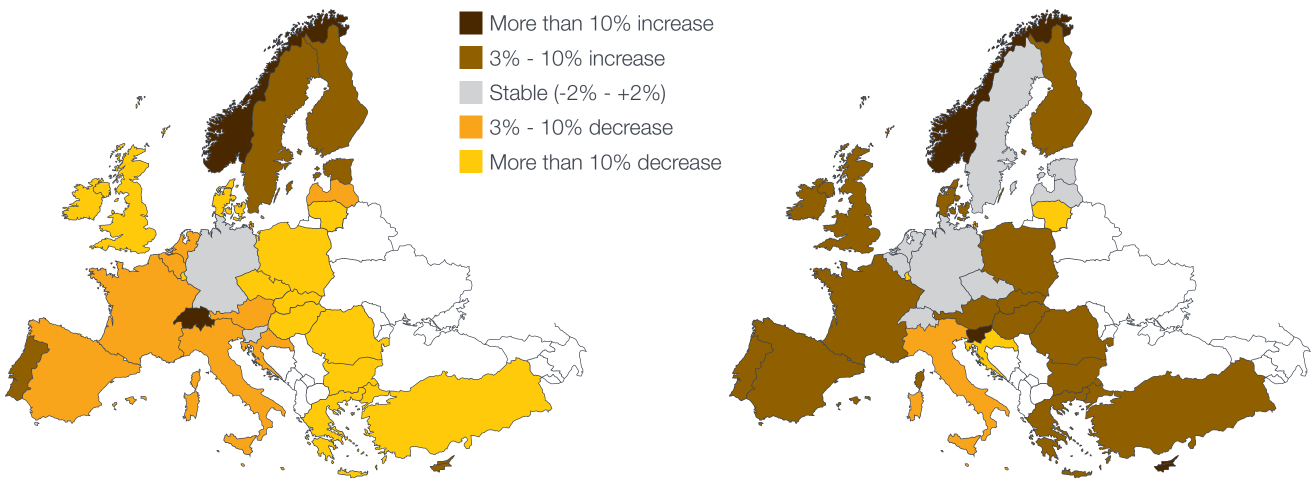
Although job creation due to beer is significant, this has decreased over the last two years. The total jobs created due to beer decreased by approximately 264,000 in comparison to 2008. A large part of this decrease was in 2009, the worst year of the current economic slowdown. In 2010 particularly, the absolute number of 'jobs relating to beer' in the hospitality sector decreased significantly. The beer sector was confronted with more job loss than other sectors. The total employment in the European Union decreased by 2%.

[13] Estimate based on Eurostat: 2011.
[14] Source: Eurostat: 2011.

Within Europe, the loss of jobs is especially high in Eastern European countries. Although in the United Kingdom the number of jobs created by the beer industry dropped by 17% compared with 2008. Apart from Denmark, the Scandinavian labour market created by the beer industry seems to be growing despite the economic downturn.

Portugal also showed a moderate job growth of 3% compared to 2008. After a decline in 2009, in Italy the number of jobs created by the beer industry displayed a slight increase.

› Graph 4.2. / Development in total employment per country in 2010 compared to 2008 (left) and 2009 (right)



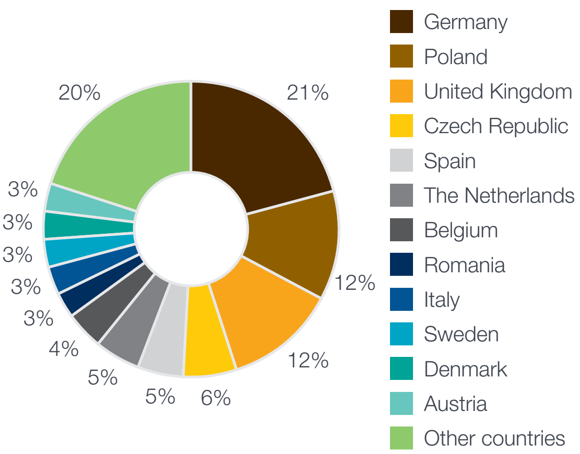
› Source: Ernst & Young calculation based on input from the National Brewery Associations (2011).

04

3| Direct employment

Breweries in the European Union together provide more than 128.800 jobs; this is the so-called direct employment effect. When comparing with 2008 data (141.000 jobs) a decrease of 9% must be noted.

› Graph 4.3. / Direct employment in the brewing sector in 2010 in the EU: 128,800 jobs



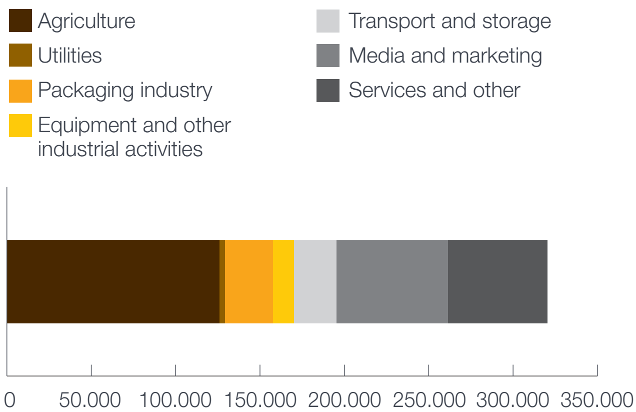
› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation on the methodology).

Germany has the largest number of employees (approximately 27.500 jobs) followed by Poland and the United Kingdom.

4| Indirect employment

The brewing sector also generates a substantial indirect employment effect. The production and sale of beer by breweries is only possible because various sectors provide the necessary goods and services, ranging from raw materials to energy and transportation capacity, and a variety of industrial products and services (see chapter 5). Based on the information collected from the 2010 study, we estimate that more than 320,000 jobs of the total number of jobs in these supplying sectors can be attributed to the production and sales of beer. Those figures are close to the number of jobs that was measured in 2008. The explanation may lie in the fact of improved data collection or changes in the employment structure.

› Graph 4.4. / Indirect employment due to beer in the EU: 320,000 jobs



› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation on the methodology).

For 2010, we calculated that 40% of the total purchases made by breweries involved the services sectors (including marketing and media), and 17% the agricultural sector. We also calculated that the services, media and marketing sectors together generated 39% of the indirect employment, equal to the share of agriculture. The share of the agricultural sector in the employment effect is much higher than its share in the total purchases by the brewing sector. Although 40% of the total number of jobs generated by the brewing sector consists of jobs in agriculture, only 17% of purchases by breweries occur in this sector. This is explained by the relatively low turnover and labour costs per employee in the agricultural sector in comparison with other sectors.

5 | Induced employment

In addition to the direct and indirect impact of the brewing sector, the number of jobs created by beer sales in the hospitality and retail sectors shows a far greater effect.

→ Hospitality sector

The hospitality sector consists of tourism, hotels, restaurants and the like. The sector in Europe is made up of around 1.7 million enterprises, employing some 9.5 million workers. Most of these companies are relatively small, both in terms of turnover and workforce. They represent an essential part of the countries cultural and social landscape and form the backbone of European tourism. The number and size of enterprises differs between countries. Most countries in the survey provided estimated numbers. Data received from United Kingdom, Spain and France gives an insight of the number of enterprises and the number of people employed.

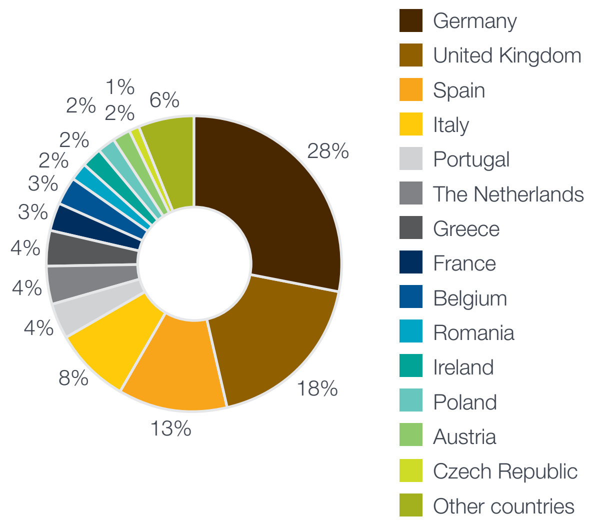
› *Table / Number of enterprises and workers in the hospitality sector in some European countries*

Country	Number of enterprises	Employed
United Kingdom	113,593	1,929,000
Spain	643,392	1,421,200
France	207,598	492,624

› Source: questionnaires of national brewery associations.

Beer is served in many outlets in the hospitality sector, and therefore a proportion of the jobs in these sector can be attributed to beer. In the European Union in 2010 almost 1.5 million jobs can be attributed to the sales of beer, this is almost 16% of all hospitality jobs. In 2008, more than 1.7 million jobs were attributed to the sale of beer, so the employment effect of beer in the hospitality sector decreased by 13%.

› *Graph 4.5. / Employment in the EU hospitality sector due to beer: 1.5 million jobs*



› Source: Ernst & Young calculation (2011) (see Annex III for an explanation on methodology).

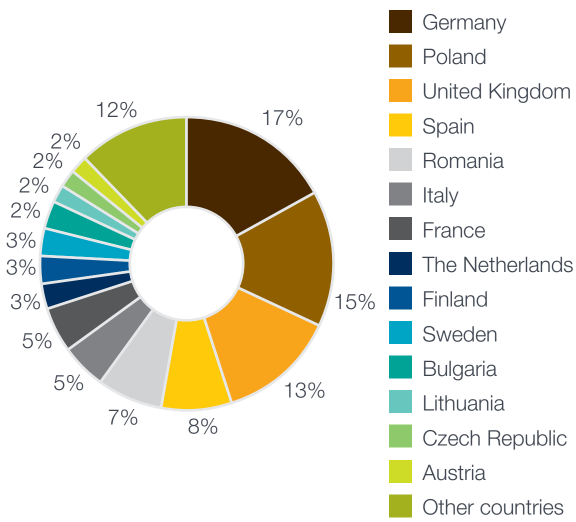
Compared to other sectors, the number of jobs created by beer in the hospitality sector is relatively large. This can be explained by the relatively low turnover per employee in the sector. It is also the reason that the reduction in consumer spending in the hospitality sector (as a result of the combined effect of the economic downturn and the trend to drink more at home instead of in bars and restaurants) has the largest effect on the employment figures in the hospitality sector.

→ Retail sector

The retail industry is a sector of the economy that is comprised of individuals and companies engaged in the selling of finished products to end user consumers. There are no European-wide data on of the number of enterprises in this sector and most individual countries do not have such figures. Therefore only the employment figures that can be attributed to the sale of beer are given here. In the retail sector of the European Union in 2010 more than 103,000 jobs can be attributed entirely to the sale of beer. In 2008 there were more than 129,000 retail jobs due to beer; in other words a decrease of 20%. The main reasons for this large decrease is a substantial decrease in the average price of beer in the retail sector and a large increase in the turnover per person employed in the retail sector in the same period.

04

› Graph 4.6. / Employment in the EU retail sector due to beer: 103,000 jobs



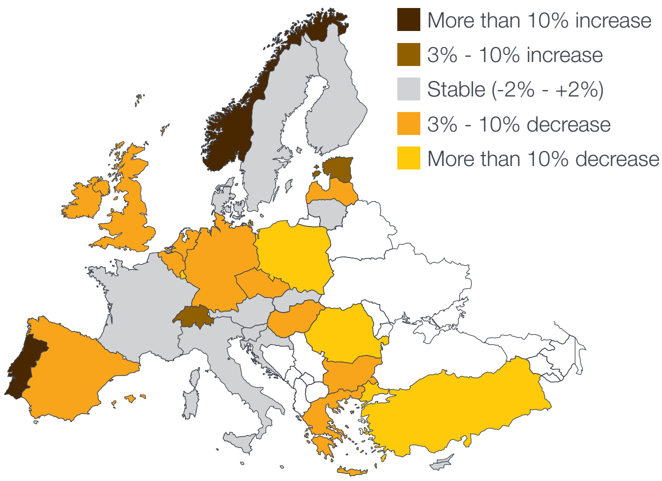
› Source: Ernst & Young calculation (2011) (see Annex III for an explanation on methodology).

→ Hospitality versus retail

There is a large difference between the Member States of the European Union in the percentage of on-trade (consumption in the hospitality sector) and off-trade (consumption obtained in the retail sector). In countries like Ireland, Portugal, Spain and Greece, over 60% over the beer is sold in pubs and restaurants. In countries like the Baltic states most beer consumption is in the home. In the countries where the majority of beer is sold in the hospitality sector, the induced employment effect is relatively high.

Despite the cultural differences of drinking beer in the pub or at home, in almost all countries there is an ongoing trend towards off-trade consumption of beer (see graph 4.7). Within the European Union, in 20 Member States the percentage on-trade consumption decreased, in 5 Member States it remained stable and in 2 Member States it increased. Looking at the non EU-members we studied, in Norway and Switzerland relatively more beer is bought in the hospitality sector. In Sweden the on-trade percentage decreased, and the percentage is stable in Croatia.

› Graph 4.7. / Development in the on trade consumption of beer per country in 2010 compared to 2008



› Source: Ernst & Young calculation based on input from the National Brewery Associations (2011).

The economic downturn explains the impact of employment figures, due to changes in consumption habits.
The reduction of purchasing power has led to the shift from on- to off-trade. Additionally, consumers have turned towards private labels at the expense of branded beers.
As a result of this the average off-trade price has fallen.

05

Purchases made by breweries

1 | Highlights

2 | Purchases by sector

05

Highlights of purchases made by breweries in Europe (EU-27)

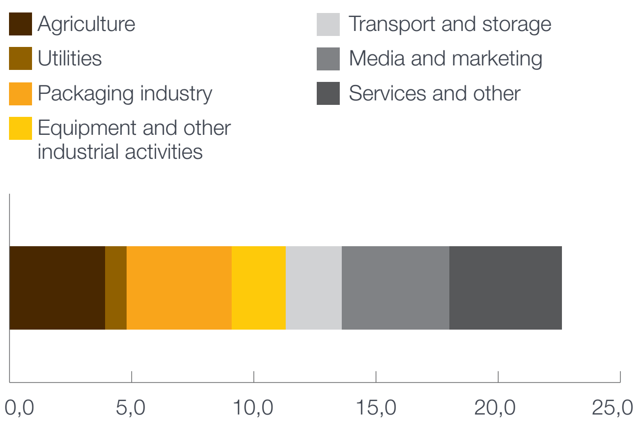
- 21.8 billion euro was spent on goods and services in 2010 by breweries from the EU-27.
- Most money was spent in the services sector, agriculture and the packaging industry. This confirms the pattern found in our earlier studies.
- Expenditure fell by 1.5 billion euro compared to 2008 (23.3 billion euro), due to lower beer production.
- Compared to 2008, the European breweries spent a relatively larger part of their gross turnover on purchases of goods and services.
- As a result of this, the percentage decrease in the value added of the breweries was larger than the decrease in the value of their purchases (-6% versus -9%).

In 2010, various sectors provided goods and services to facilitate the production of 383 million hectolitres of beer within the European Union. These goods and services range from barley, malt, hops and packaging to transportation and a variety of industrial products and services.

Based on information on purchase management by individual breweries, we estimate that in 2010 the European brewing sector purchased goods and services from supplying sectors with a value of 21.8 billion euro (compared to 23.3 billion euro in 2008, 21.3 billion euro in 2009). The percentage decrease in the value of purchases (-6%) reflects the percentage decrease in volume of beer produced in Europe. In the same period, the value added by the brewing sector itself decreased by 9 percent, from 11.57 billion euro in 2008 to 10.53 billion euro in 2010. This means that in 2010 breweries spent a relatively greater percentage of their gross turnover on the purchases of goods and services than they did in 2008. The explanation for this is that the price at which breweries can sell their beer to retailers and the hospitality sectors developed differently to the price at which they must purchase goods and services.

Breweries do not make all purchases in their own countries, some of these goods and services are imported. In our calculations of the other economic impacts of beer (see the previous three chapters), imported purchases have not been taken into account. This is because we have no information on the country of origin of these imports (within or outside the EU). It does however mean that the economic impact of the brewing sector would be even greater than that calculated in this study if imported goods and services were taken into account.

› Graph 5.1. / 2010 purchases of goods and services in billion euro in EU



Source: Ernst & Young calculation (2011) ‹
(see Annex III for an explanation on methodology).

3| The Packaging and Bottling Industry

In 2010, a large share (40%) of the purchases made by European breweries was carried out in the services sector (including marketing and media). In 2008 also 40% was spent on services, media and marketing. Apparently, the economic downturn did not have a great impact on expenditure on services, advertising and media. On the contrary, according to the answers to our questionnaire, nine breweries indicated that they had spent more on media and marketing in 2010, compared with 2009.

Other important supplying sectors for breweries are agriculture and packaging. In 2010, 19% was spent on packaging and 17% on agricultural products. For 2008 and 2009 these percentages were almost the same. According to the answers to our questionnaire, 7 breweries indicated that they spent more on packaging materials in 2010, compared to 2009. Another five breweries indicated that they spent more on agricultural products in 2010. In 2010, most breweries spent less on equipment and raw materials compared to 2009.

Packaging is essential to protect and transport beer to the point of consumption (hospitality venues or the home). Primary packaging includes bottles (glass or plastic), cans (aluminum or steel), kegs (steel or aluminum), casks (steel, aluminum or plastic) and bulk tanks (steel with plastic liners). Secondary packaging includes multi-pack cardboard boxes, sleeves, trays and plastic shrink wrap. Tertiary packaging includes wooden pallets and plastic locator boards.

→ Bottles

Most beer bottles sold in Europe are made of glass, with a growing use in some regions in recent years of plastic bottles.

The use of container glass is facilitated by the fact that it is produced in all Member States of the European Union with the exception of Ireland and Luxembourg. The EU is the largest producing region for glass containers worldwide, counting approximately 140 installations [15].

In the questionnaire distributed among individual breweries, information was sought on what packaging was used. In relation to glass, 19 breweries in 13 different countries with a joint production volume of 178 million hectolitres of beer provided data indicating glass usage of approximately 1 million tonnes. Further indications were provided by a larger group of breweries (26 in 15 different countries) on the glass origin, pointing at Germany, Netherlands, Poland and Portugal as supply countries. [16]

The emergence of plastic for beer as customer choice, as for other drinks, comes from its lightweight, resealable, shatter-resistant and recyclable character [17]. From the questionnaire it was shown that 20 breweries in 15 different countries producing around 174 million hectolitres of beer used a total of 23 thousand tonnes of plastics. The survey identified 14 countries as origin of this packaging with Germany, France and Spain being the largest providers.

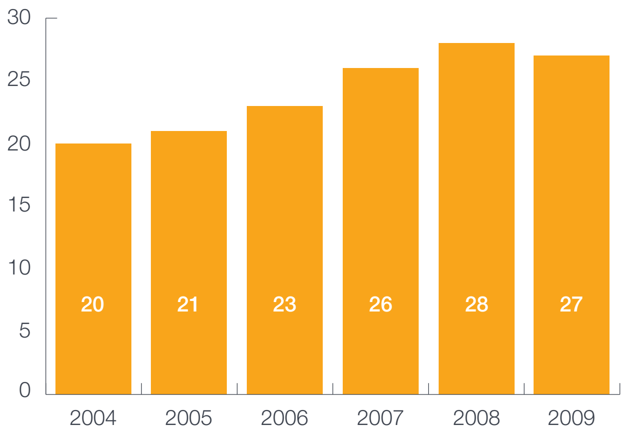
→ Cans

Cans are commonly used to package beer. Cans for beer are made of steel or aluminum. Packaging oof beer in cans has been increasing in recent years, as shown in graph 5.2 below.

[15] Source: European Container Glass federation (FEVE) website, www.feve.org
[16] Questionnaire breweries, Ernst and Young, 2011
[17] NAPCOR, 2010

05

› *Graph 5.2. / Can fillings for beer in Europe 2004-2009 (billions of units)*



› Source: Beverage Can Makers Europe, BCME, 2010 [18]

From the feedback to the questionnaire, received from 20 breweries, most breweries purchase their cans in Portugal, United Kingdom, France, Germany and Netherlands [19]. The largest markets for beer cans in volume terms are the United Kingdom, Poland, Spain and the Netherlands [20].

→ Kegs or casks

A keg is a cylindrical pressure vessel in which the beer is transported and from which it is dispensed. Casks are used for the transport and dispense of traditional draught beer, mainly in UK pubs. There is also a small number of draught beer systems for use in the home. Kegs or casks are usually made of aluminium or stainless steel. They are returned to the brewery for refilling.

Companies did not provide sufficient data on the use and the origin of these containers for a meaningful analysis to be carried out.

[18] http://www.bcme.org/home.htm
[19] Questionnaire breweries, Ernst and Young, 2011
[20] Source: Beverage Can Makers Europe, BCME, 2010

06

Agricultural products

1 | Highlights

2 | Barley and malt

06

Highlights of purchases made by breweries in Europe (EU-27)

- The main ingredients of beer are from an agricultural origin: malting barley and hops.
- Europe is one of the main worldwide producers of barley and hops, and also has the world's largest malting industry; a strong brewing sector being the main reason for this.
- Prices of agricultural products have risen in recent years. Because of the small margins on beer, in most cases this increase has led to an increase in beer prices.

Beer is produced from raw materials of agricultural origin. The key components of beer are water, cereals, hops and yeast. Of these four ingredients, cereals, particularly malting barley, are of major importance.

Before malting barley is used for the production of beer it is normally malted. Malting is the controlled germination of cereals to convert stored starch to fermentable sugars and to release enzymes that will be used in the brewing process.

→ Barley production in Europe

Total barley production in the EU-27 is approximately 54 mtonnes[21]. Around twenty percent of barley production is estimated to be used for malting barley. The table below provides information on the five key countries producing malting barley in the European Union. In 2010, Euromalt[22] estimated a European production of eleven million tonnes on average per year. According to Euromalt, this provides a part of the income for more than 150.000 farmers in the greater Europe.

› Table 6.1./ Key players of malting barley in Europe (2011/2012 estimates)

	Total barley production (tonnes)	Malting barley (%)	Malting barley production (tonnes)
France	10,169,175	37%	3,762,595
UK	5,375,250	39%	2,096,348
Germany	10,077,440	13%	1,310,067
Denmark	3,416,250	30%	1,024,875
Czech Republic	1,679,350	42%	705,327

› Source: Euromalt

Total world barley production fell sharply in 2010. In EU27, barley production fell from 65 million tonnes in 2008/2009 to 53 million tonnes in 2010/2011 (see table 6.2). The poor harvest in 2010 was responsible for this decrease.

In 2011 the sector was also confronted with the effects of the poor 2010 harvest in the Ukraine and Russia, where severe drought cut grain production.[23]

[21] Datasheet Euromalt, (2011/2012 crop estimates), EU27+4 (Croatia, Norway, Switzerland, Turkey) production for 2011/2012 is estimated on 61,5 million tonnes of barley.
[22] Euromalt is the association representing the interests of the malting industry in the European Union.
[23] Guardian, Rain brings some relief to parched W-Europe wheat, 31 May 2011, http://www.guardian.co.uk/business/feedarticle/9672654

Excessive rainfall during harvesting badly damaged grain crops (especially malting barley) in Scandinavia and Germany. The total production of EU malting barley fell from 12.60 million tonnes in 2009/10 to 10.30 million tonnes in 2010/2011. The immediate effect was that between the month of June 2010 and the end of the year the value of EU malting barley in France, for example, almost doubled going from 150€ per tonne to 230€ per tonne. In 2011 the industry has also been confronted with the effect of the poor 2010 harvest in the Ukraine and Russia where a severe spring/summer drought cut grain production, smaller barley crops meant that a large percentage of European malting barley was actually purchased by feed barley consumers.

The 2011/12 will also be a difficult season. A very severe spring drought coupled with a heat wave damaged grain crops in France, Germany and the U.K. in all these countries the total production of malting barley will be affected. Luckily the weather has been much more favorable in central Europe and Scandinavia.

› *Table 6.2./ Barley production in previous years*

Year	2008/2009	2009/2010	2010/2011	2011/2012*
E.U.(as 27)	65,47	61,98	53,14	54, 61

› Source: Euromalt.
* Estimation

→ Malt production in Europe

The actual EU malt production capacity is 9,60 million tonnes, which is the largest in the world. Malt is produced in maltings. Although many breweries buy their malt on the market, some breweries have their own malting plant. In our questionnaire at least nine breweries indicated that they owned at least one maltings. Our questionnaire [24] gathered information from 22 breweries in 14 different countries on where they purchase their malt if they do not have their own maltings. Five breweries indicated that they purchase (part of) their malt in Germany, five in the Netherlands, five in France and four in Poland.

The number of maltings in Europe is presented in the table below (table 6.3). Germany, Czech Republic, United Kingdom and France have the largest number of maltings in their country [25].

› *Table 6.3. / Number of maltings in Europe*

Number of maltings in Europe (2010)	
Germany	56
Czech Republic	34
United Kingdom	29
France	15
Spain	6
Poland	6
Slovakia	6
Belgium / Luxembourg	5
Bulgaria	4
Other	28
Total (EU27)	186
Total (EU27 and Turkey and Croatia)	189

› Source: Euromalt.

The European Union is also the leading worldwide malt exporter, representing approximately forty percent of the World malt trade. The EU malt exports stands for a 735 million euro foreign earnings equivalent [26].

[24] Questionnaire breweries, Ernst and Young, 2011
[25] Countries with 3 maltings are Denmark, Netherlands, Lithuania.
Countries with two maltings are: Finland, Ireland, Italy, Austria, Greece, Portugal, Hungary, Turkey. Countries with one malting: Sweden, Romania and Croatia.
[26] Presentation Euromalt (Feb. 2011). Malteurs de France 2008 export figures ; malt estimated at 350 €/t

06

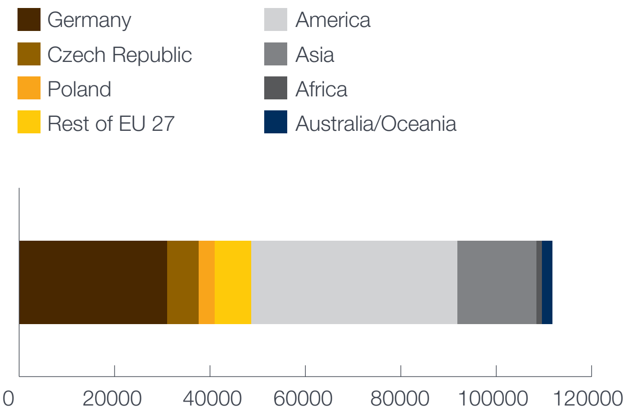
3| Hops

Hops are another important ingredient of beer; added in the process for bitter flavour and as a stability agent. Although the majority of hops are used in beer production, some are used for various purposes in other beverages and in herbal medicines. There are different types of hops, each giving the beer a particular flavour.

In 2009, around 44% hops produced worldwide were of European origin. Germany is by far the most important hop-producing country, followed by the Czech Republic and Poland. The United States accounted for some 39% of global hop production.[27] In 2009, the production of hops in the USA increased (from 30%) and the production in Europe decreased (from 53%). However, 2010 figures show that acreage in the USA has dropped back to an area comparable to 2008. In Germany the total acreage remained stable in 2010.

Twenty-five breweries in sixteen different countries indicated in their questionnaire where they purchase their hops. The majority, 24 breweries, answered that they purchase (part of) their hops in Germany. Eight breweries mentioned the USA and six breweries buy (part of) their hops in the Czech Republic[28].

› Graph 6.1. / Production of hops (in tonnes)



› Source: Barth-Haas group, The Barth Report (2009/2010)

The total value of hops indicated by thirty breweries in eighteen different countries is around 62 million euro[29]. These breweries together produce around 110 million hectolitres of beer.

› Table 6.4. / Area harvested and yield of Hops, EU+ (total), 2004-2009

	2004	2005	2006	2007	2008	2009
Area harvested (Ha)*	30899	30636	30659	31101	32139	32143
Yield (Hg/Ha)**	16488	17852	14437	15899	18070	18882

› Source: European Commission.
* May include official, semi-official or estimated data
**Calculated data

[27] Barth-Haas group, The Barth Report (2009/2010).
[28] Questionnaire breweries, Ernst and Young, 2011
[29] Questionnaire breweries, Ernst and Young, 2011

07 Major developments

1 | Highlights

2 | Decreasing beer consumption

07

Four major developments

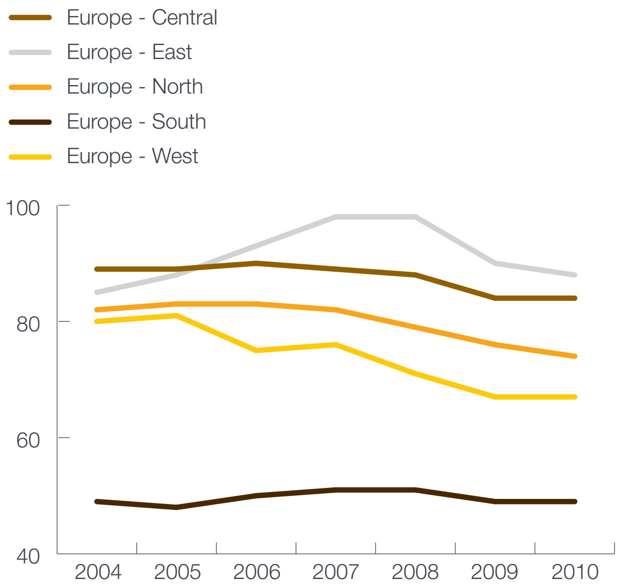
The major trends that will influence the impact of beer on the European Union economy for the foreseeable future are:

- Decreasing beer consumption
- Changing patterns of beer consumption
- Higher prices for agricultural products
- Increasing tax burden

Consumption of beer per capita is decreasing. Graph 7.1 shows this trend. For this graph we divided Europe (EU, Croatia, Norway, Switzerland and, Turkey) into five regions.[31] The graph shows that the decrease in per capita beer consumption is a Europe-wide phenomenon and for some regions started several years ago. The decline is most long-established and steepest in western Europe.

Decreasing beer consumption is a threat to the beer sector itself, but also for its wider contribution to the economy of Europe. Decreasing consumption results in fewer jobs, less value added and reduced government revenues.

› Graph 7.1. / 2004-2010 development in the consumption of beer per capita (litre)



› Source: The Brewers of Europe, national brewers associations

[31] Europe – North stands for Ireland, United Kingdom, Denmark, Finland, Sweden, Estonia, Latvia and Norway, Europe – South for Cyprus, Greece, Italy, Malta, Portugal, Spain, Croatia and Turkey, Europe – West for Belgium, France, Luxembourg and the Netherlands, Europe – Central for Austria, Germany, Switzerland and Hungary, and finally Europe – East for Bulgaria, Czech Republic, Lithuania, Poland, Romania, Slovakia and Slovenia.

3| Changing patterns of consumption

A decreasing consumption per capita is not the only threat the European brewing sector has to deal with.National brewers' associations point out that the preferences of beer consumers are changing. The main trends are that consumers drink more beer at home rather than in the hospitality sector. Purchasing beer for drinking at home from the retail sector they also leads to significant changes in the choice of beer brands. This trend was reported by the national associations of the Czech Republic, Poland, Latvia, Bulgaria, Croatia, Estonia, Cyprus, the Netherlands and Romania.

The consumer trend from on-trade to cheaper off-trade consumption of beer has already been presented in paragraph 4.5 of this report. It is a European-wide phenomenon., Both at European level , but also at the level of the 31 countries studied, the percentage of beer consumed in the hospitality sector by 38% to 36%. It is important to note that this shift to home consumption is not only due to the overall economic situation and the price differential between beer in the hospitality sector and the retail sector. Interventions by authorities, like smoking bans in bars, have also had a significant impact in on-trade consumption in recent years.

The switch to off-trade consumption is compounded by the fact that in some countries there is downward pressure on average price of branded beers in the retail sector. The importance of the retail sector due to its concentration has been highlighted for Germany, leading to an increase in the number of special prices and offers. In Italy the impact on retail prices was due to the supply of wider choice of beers to the off trade. The increasing importance of the discount segment on beer sales has been highlighted for Poland. In Turkey beer sales increased in off-trade channels due to price differences as a result of an increase in the number of supermarkets and decrease in the number of groceries.

The shift to off-trade consumption has had a detrimental effect on the sector's contribution to the European economy. Beer consumed in bars or restaurants provides more jobs, value added and government revenues than the same volume of beer consumed at home.

From an environmental perspective, a side effect of the switch to off-trade consumption is that the off-trade use of packaging materials per litre of beer consumed is larger than on-trade.

4| Higher prices for agricultural inputs

As pointed out in chapter 6, the European brewing sector has been confronted in recent years by higher prices of agricultural materials needed for beer production. This is mainly because the worldwide production of hops and malting barley has decreased as a result of poor harvests. These higher prices are also a result of growing worldwide demand of agricultural land for the production of crops as inputs for bio-fuel production. Altogether this has led to a very tight world market for agricultural inputs needed for beer and correspondently higher prices. In our survey, national associations pointed out that it seems rather certain that in the coming years the sector will again experience higher prices for agricultural inputs.

The increasing price of agricultural inputs will be reflected in the final price of beer. however, market competition also sets the rythm on the pass-through of this impact.

5| Increasing tax burden

The content of paragraph 2.3 of this report makes clear that in recent years the tax burden on beer has grown, largely due to changes in excise and VAT rates in many of the Member States. We also pointed out it is realistic to assume that a part of the decrease and changes in beer consumption in Europe can be explained by changes in taxation detrimental to beer, resulting in higher consumption at home than in bars or restaurants. As mentioned before, consumption within the hospitality sector has a more positive impact on the economy. More jobs, value added and government revenues are created by each litre of beer consumed than in the retail sector.

Another negative side effect of an increasing tax burden on beer, reported by some countries is that cross-border trade is growing. This has for example been observed in Poland and Sweden It is known that not all imported beers from neighbouring countries are imported legally, so it is likely that governments looses revenues on this cross border trade.

Most recent changes in the tax burden on beer in Member States are driven by an attempt to raise revenues to help meet the large government deficits which are faced by most of the countries in this study. Historically, raising excise duties on alcoholic beverages and higher VAT rates have often been the means by which revenues are increased. Such fiscal constraints are expected to continue in 2011 and beyond, because of economic conditions affecting public finances.

Country chapters

Countries

08

Austria

1 | Highlights

08

Country profile	
Population[1]	8,388,000
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100)[2]	124

Beer market	2008	2009	2010
Total production (in hectolitres)	8,937,000	8,728,000	8,670,000
Total exports (in hectolitres)	565,000	668,000	696,000
Total imports (in hectolitres)	600,000	616,000	615,000
Total consumption (in hectolitres)	9,146,000	8,905,000	8,878,000
Consumption of beer per capita (in litres)	109.7	106.5	105.8
Beer producing companies (including micro brewing companies)	164	163	163
Beer producing companies (excluding micro brewing companies)	60	60	62
Breweries (including micro-breweries)	173	172	172
Breweries (excluding micro-breweries)	69	69	71

› Source: Austrian Brewers

Economic impact	2010	Compared to 2008
Total jobs due to beer	38,292 jobs	-5%
Total value added due to beer	1,366 million euro	-4.3%
Total government revenues due to beer	1,472 million euro	+3.4%

[1] Source: Austrian brewers association, 2011
[2] Source: Eurostat, 2011

2 | Market structure, trends and developments

The production of beer in Austria is significant with a total of 8.7 million hectolitres being produced in 2010. Austria is among the top of European beer consuming countries, even though beer consumption per capita decreased from 109.7 in 2008 to 105.8 litres in 2010. Together with countries such as Germany, Belgium and the Czech Republic, Austria has a long tradition in the art of brewing and of beer culture. Beer consumers in Austria are loyal to their local beer (brand and type of beer)[3]. Austrian beer is also famous as a tourist destination and brewery visits are a tourist attraction.

However, Austria saw consumer expenditure on beer fall during the last three years by almost 3%. One of the reasons for this could be a change in consumption patterns. According to the Austrian brewers association, consumption of 'Radler' (beer mixed with non-alcoholic beverages) has increased.

The production of beer in Austria has decreased to some extent in recent years. In 2008 total production amounted to 8.9 million hectolitres; in 2010 it was slightly lower with a volume of 8.7 million hectolitres (- 2,3%). Beer exports increased significantly from 565,000 hectolitres in 2008 to 696,000 hectolitres. Beer imports have been relatively stable over the last three years accounting for 615,000 hectolitres.

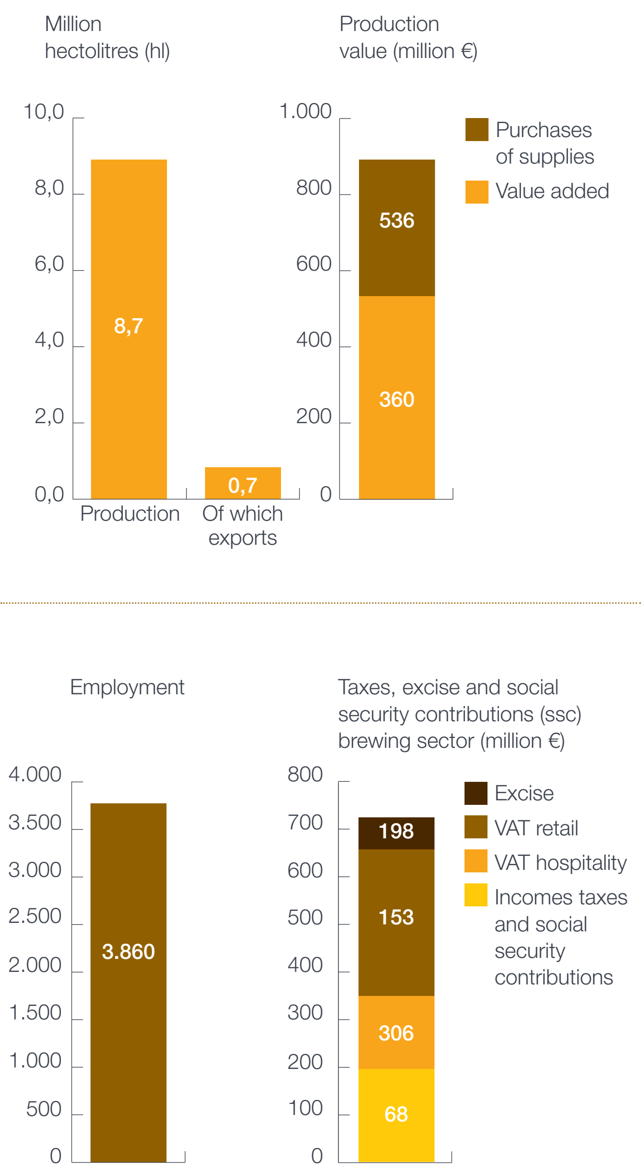
On the Austrian market one company has the largest market share. Brau-Union AG owns the Gösser, Zipfer, Schwechater, Wieselburger and Puntigamer breweries, accounting for over half of Austrian beer sales. The top five companies account for more than 80% of the Austrian beer market. Austria has a well developed cluster of supplying sectors to the brewing sector. Even though the country is relatively small, a large proportion of purchases by breweries are made domestically.[4]

Since January 2009 a smoking ban has been implemented in Austria, leading to a general smoking ban in Austrian bars and restaurants. This smoking ban is eased by a number of exceptions and leaves innkeepers a certain freedom to choose.

3 | Direct effect of the brewing sector

The direct economic impact of the brewing sector covers more than 3,860 employees who together produce beer, representing a value of 896 million euro. Compared to 2008, the total value decreased slightly by 2.6%. However, the direct economic benefit of the brewing sector for the Austrian economy is still significant.

› Graph 8.1. / Direct effect of the beer sector



› Source: Ernst & Young calculation (2011)

[3] Verband der Brauereien Österreichs, Jahresbericht Juni 2007 bis Juni 2008
[4] Euromonitor International "Beer in Austria" (March 2008)

08

4 | Economic impact of breweries on goods and services suppliers

With 40% of the value of the output produced staying within the firm as value-added, the other 60% of the 912 million euro of total turnover accrues to a number of suppliers.

This stimulus of 536 million euro has a significant economic impact on sectors outside the brewing sector. This effect can be observed in the following table.

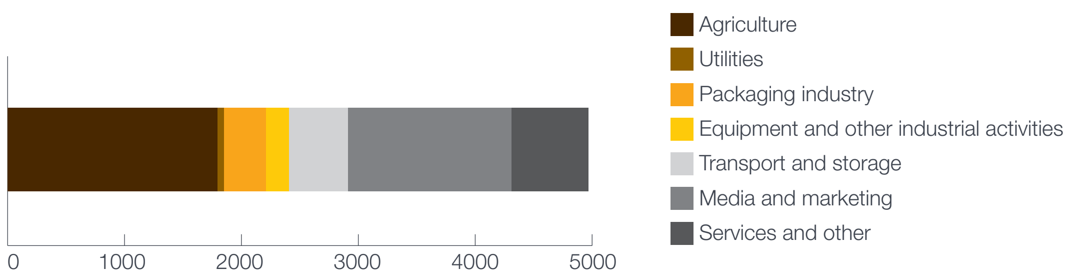
Sectors	Stimulus[5]	Stimulus for Austria		Turnover per employee[6]	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	70.26	58%	45.76	39.189	1,168
Utilities	25.01	100%	25.01	724,788	35
Packaging industry (in hectolitres)	80.34	67.2%	53.96	231,121	233
Equipment	57.68	51.2%	29.54	231,121	128
Transport	63.25	97.9%	61.92	188,752	328
Media, marketing	160.59	84.1%	135.03	148,519	909
Services	78.95	90.7%	63.76	148,519	429
Total	536.08		415		3,200
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					4,969

› Source: Ernst & Young Questionnaire among breweries (2011)

The major sectors in which indirect employment is generated by the brewing sector are agriculture, media and marketing and services. The total first-round employment effect of the brewing sector on supplying sectors is around 3,200 employees.

This primary effect is estimated to be about 65% of the total impact. Therefore, the total impact will be approximately 5,000 jobs. Indirect employment effects are illustrated below:

› *Graph 8.2. / Indirect employment*



› Source: Ernst & Young calculation (2011)

[5] (Domestic) stimulus is calculated on basis of the questionnaire survey and Eurostat data.
[6] Turnover per employee is obtained from Eurostat.

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- Approximately 33% of all beer consumed in Austria is sold by the hospitality sector (on-trade), which means 2.9 million hectolitres is sold on-trade.
- The average consumer price of beer in Austrian pubs and restaurants is 6.26 euro per litre (including VAT), so that total consumer spending on beer in the hospitality sector is 1.8 billion euro (including VAT).
- Net consumer spending on beer is thus estimated at 1.5 billion euro (using a 20% VAT rate).
- With an average hospitality turnover of 55,900 euro (excluding VAT) per person, this results in 27,300 hospitality sector jobs attributable to beer sales.

→ Retail

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

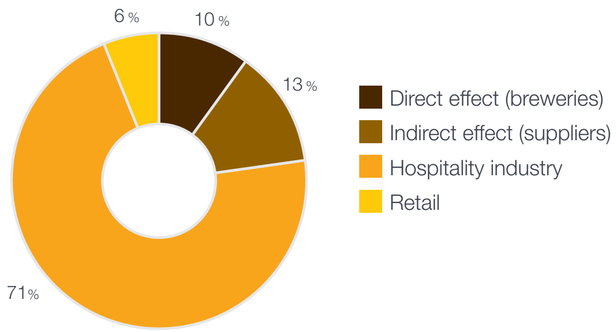
- Approximately 67% of total beer consumption (5.95 million hectolitres) in Austria is of beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.54 euro per litre (including VAT), total retail consumer spending on beer is estimated at 916 million euro. Total consumer spending excluding VAT is thus 763 million euro.
- With turnover per employee estimated at 358,000 euro (excluding VAT), this means 2,100 people owe their jobs to retail beer sales.

6| Total employment due to beer

Approximately 3,860 people were employed in the Austrian breweries in 2010. Employment in supplying sectors is very important with a total number employed in these sectors arising from the brewing sector of around 5,000.

Around 27,300 jobs in the hospitality sector and 2,100 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in Austria is therefore 38,300 jobs. Compared to 2008, this means a decrease of 2000 jobs.

› Graph 8.3. / Total employment because of beer: 38,300 jobs

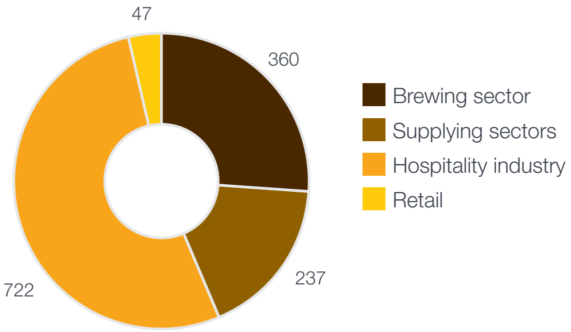


› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

7 | Total value added due to beer

The contribution of the brewing sector to the Austrian economy can also be expressed in terms of value added. The total value-added generated by these 38,300 jobs is estimated at 1.366 billion euro:

› Graph 8.4. / value added due to production and value of beer 1.4 billion euro



› Source: Ernst & Young calculation (2011)

The share of the brewing sector in the overall value-added due to the production and sale of beer equals 26.4%, which is higher than the share of the brewing sector in total employment due to beer (10%). An important explanation for this is the high productivity of employees in the brewing sector, compared to sectors such as retail and hospitality in terms of value-added.

8 | Total government revenues due to beer

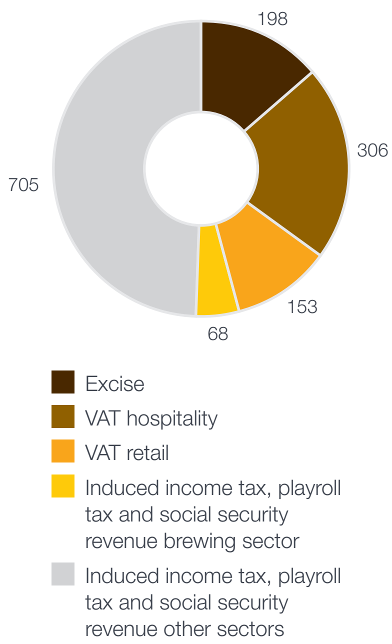
08

The total revenue of excise, VAT and income-related contributions due to beer production and sales is estimated at 1.4 billion euro:

- The VAT revenue is estimated as 459 million euro, the main proportion being generated in the hospitality sector.
- The total excise revenue on beer is 198 million euro.
- Income-related revenue due to beer production and sales is approximately 741 million euro, comprising 208 million euro income tax, 216 million euro social security contributions paid by employees and 317 million euro social security taxes and payroll taxes paid by employers.

In 2008 we calculated that the revenues of excise, VAT and income-related contributions due to beer production and sales were also 1.4 billion euro.

› Graph 8.5. / Government revenues due to the production and sale of beer: 1.4 billion euro



› Source: Ernst & Young calculation (2011)

09

Belgium

09

1 | Highlights

Country profile	
Population[7]	10,839,905
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100)[8]	116

Beer market	2008	2009	2010
Total production (in hectolitres)	18,565,000	18,008,800	18,122,662
Total exports (in hectolitres)	10,597,000	10,224,000	10,608,152
Total imports (in hectolitres)	1,169,000	894,000	925,259
Total consumption (in hectolitres)	9,137,000	8,680,000	8,439,769
Consumption of beer per capita (in litres)	82	81	78
Beer producing companies (including micro brewing companies)	124		123
Breweries (including micro-breweries)	135		135

› Source: The Union of Belgian Brewers (2011)

Economic impact	2010	Compared to 2008
Total jobs due to beer	48,700 jobs	-9.9%
Total value added due to beer	2,350 million euro	+6.1%
Total government revenues due to beer	1,858 million euro	-8.7%

[7] Source: Eurostat, data per december 31st 2010
[8] Source: Eurostat, 2011

2| Market structure, trends and developments

Belgium is Europe's largest beer-exporting country (measured as share of beer production)[9], together with the Netherlands, Denmark and Ireland. The actual volume of beer produced in Belgium however decreased by 2.4% in 2010, although the number of breweries in Belgium has remained stable.

In 2010, more than half of the total beer production in Belgium was exported. Exports of beer have been exceeding domestic consumption since 2006. The main export markets for Belgian beers are France, the Netherlands and Germany. Sales of imported beer have decreased as well, from 1.2 million hectolitres in 2008 to 0.93 million hectolitres in 2010.

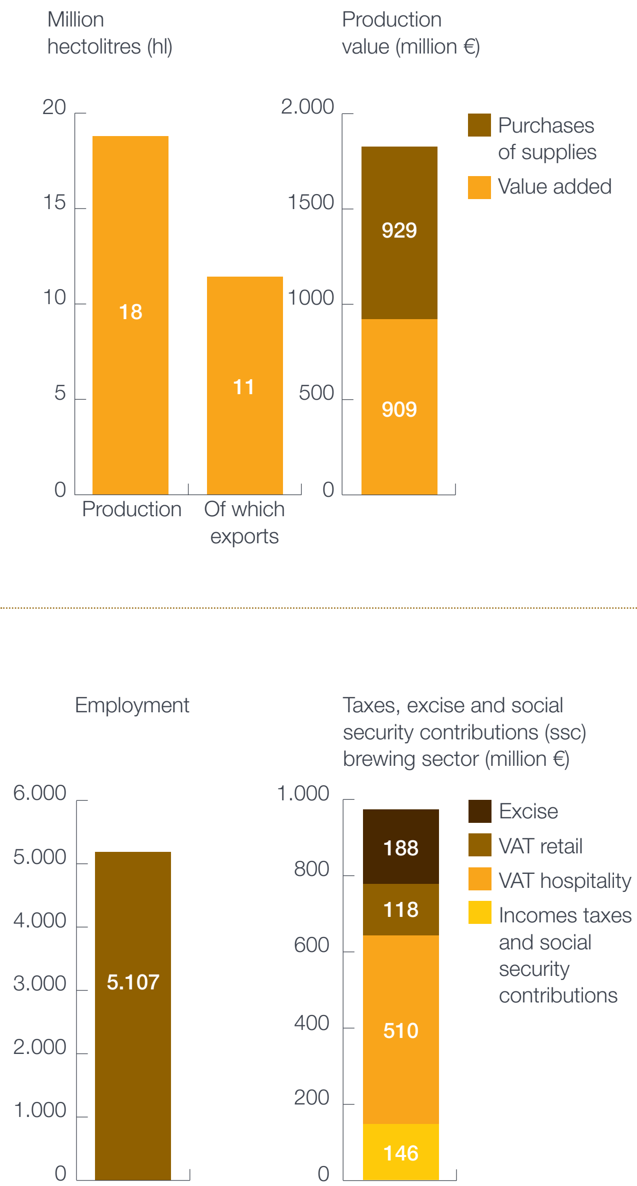
The Belgian brewing sector is well established and, together with local brewers, it also encompasses several international players. Belgium is home to one of the world's largest brewing companies (AB InBev). A specific characteristic of the Belgian beer landscape is its diversity, as the Belgian brewers have a long tradition in brewing a range of beer types. Although lager forms the largest proportion of total beer consumption (81%), other unique beer styles such as Amber, Abbey, Trappist, White, Gueuze, Fruit beer or Strong Blond beer and other regional specialities are also popular in the country and are exported abroad.

Beer remains among the most popular beverages in Belgium, even if consumption has been falling in volume terms over the years. On-trade consumption has been declining slightly since 2008. Although the café and bar culture in Belgium remains strong, off-trade consumption exceeded on-trade sales for the first time in years (52% in 2010).

3| Direct effect of the brewing sector

The direct economic impact of the brewing sector involves 5,107 employees, who together produce beer worth over 1.83 billion euro. Consequently, the direct economic benefit of the brewing sector for the Belgian economy is very significant.

› Graph 9.1. / Direct effect of the beer sector



› Source: Ernst & Young calculation (2011)

[9] Beer statistics 2010, Brewers of Europe

4 | Indirect effects of the brewing sector

09

49% of the value of the output produced remains within the firm as value added and the other 51%(of 1.84 billion euro in total turnover) accrues to a number of suppliers.

This stimulus of 929 million euro has a significant economic impact on sectors outside the brewing sector, as can be observed in the table below:

Sectors	Stimulus	Stimulus for Belgium		Turnover per employee	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	134.22	58,8%	78.97	109,649	720
Utilities	25.01	100%	46.61	1,591,200	29
Packaging industry (in hectolitres)	191.76	35.7%	68.41	401,000	171
Equipment	126.52	62.4%	78.97	401,000	197
Transport	56.31	91.3%	51.41	260,800	197
Media, marketing	115.25	85.8%	98.84	173,639	569
Services	258.81	85.9%	222.34	173,639	1,280
Total	929.48		645.54		3,164
First-round impact as % of total impact					65
Total indirect effect of brewing sector					4,867

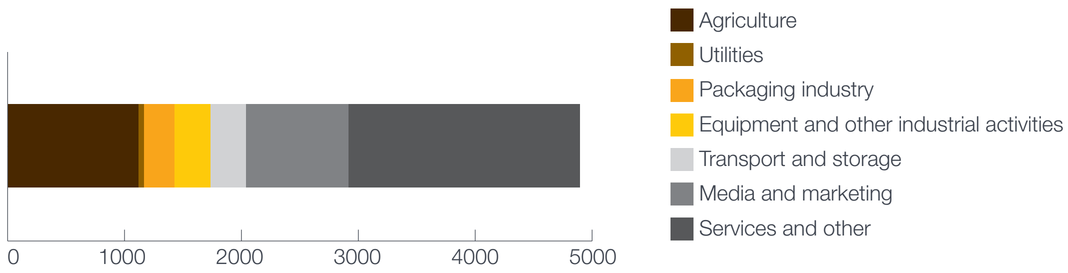
› Source: Ernst & Young Questionnaire among breweries (2011)

40% of all the indirect employment generated by the brewing sector is within the services sector. Other substantial effects can be observed in agriculture and media and marketing. The total first-round employment effect of the brewing sector on supplying sectors is almost 3,200 employees.

As this primary effect can be estimated at about 65% of the total impact, the total impact will be almost 4,900 jobs.

Indirect employment effects are illustrated below:

› Graph 9.2. / Indirect employment



› Source: Ernst & Young calculation (2011)

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- About 48% of all beer consumed in Belgium is sold by the hospitality sector (on-trade), which means almost 4.1 million hectolitres is sold on-trade.
- The average consumer price of beer in Belgian pubs and restaurants is estimated at 7.26 euro per litre (including VAT), so that total consumer spending on beer in the hospitality sector is 2.9 billion euro (including VAT).
- Net consumer spending on beer is thus estimated at 2.4 billion euro (using a 21% VAT tariff).
- With an average hospitality turnover of 64,400 euro (excluding VAT) per person, this results in 37,743 hospitality sector jobs attributable to beer sales.

→ Retail

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

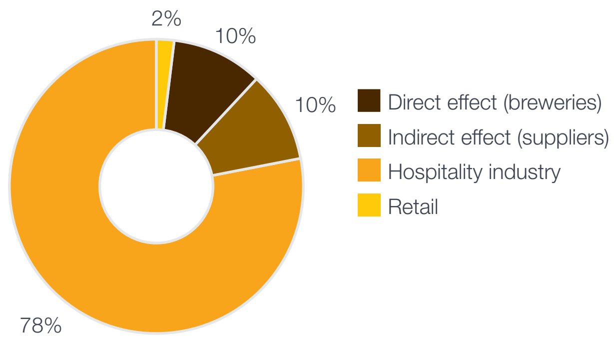
- Around 52% of total beer consumption (4.4 million hectolitres) in Belgium is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.55 euro per litre (including VAT), total retail consumer spending on beer is estimated at 680 million euro. Total consumer spending excluding VAT is thus 562 million euro.
- With turnover per employee estimated at 569,500 euro (excluding VAT), this means 987 people owe their employment to the brewing sector value added.

6| Total employment due to beer

Approximately 5,100 people were employed in Belgian breweries in 2010. Employment in supply sectors due to the production and sale of beer amounts to 4,900 jobs. Around 37,743 jobs in the hospitality sector and 987 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in Belgium is therefore 48,700 jobs. This means a decrease of 5,400 jobs, in comparison with 2008.

The employment impact of the brewing sector is presented in the figure below:

› Graph 9.3. / Total employment because of beer: 48,700 jobs

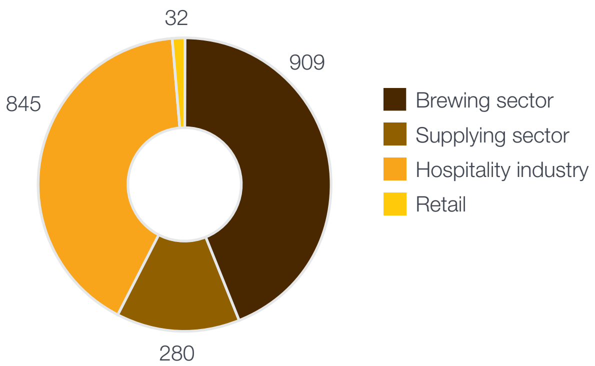


› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

7| Total value added due to beer

The contribution of the brewing sector to the Belgian economy can also be expressed in terms of value added. The total value-added generated by these 48,700 jobs is estimated as 2,067 million euro.

› Graph 9.4. / Value added due to the production and sale of beer: 2,067 million euro



› Source: Ernst & Young calculation (2011)

The brewing sector share in overall value-added arising from the production and sale of beer is 44%, which is higher than the brewing sector share in total employment arising from beer (10%). An explanation for this effect is the high productivity of brewing sector employees.

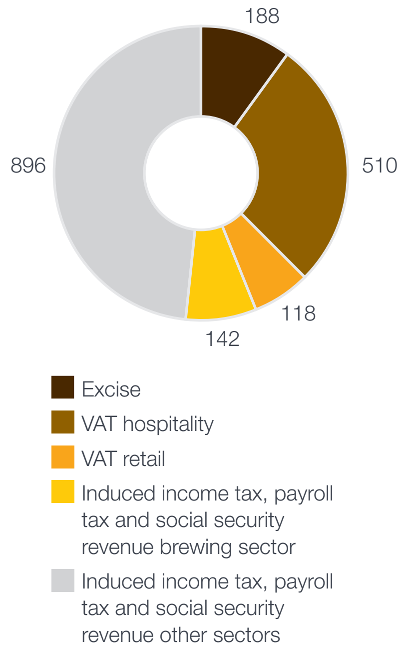
8| Total government revenues due to beer

09

The total revenue of excise, VAT and income-related contributions due to beer production and sales is estimated at 1,858 million euro:

- VAT revenue is estimated at 628 million euro. The main portion of these VAT revenues is generated in the hospitality sector.
- The total of excise revenue on beer is 188 million euro.
- Income-related revenue due to beer production and sales are approximately 1.037 billion euro, comprising 418 million euro income tax, 208 million euro social security contributions paid by employees and 412 million euro social security taxes and payroll taxes paid by employers.

› Graph 9.5. / Government revenues due to the production and sale of beer: 1.9 billion euro



› Source: Ernst & Young calculation (2011)

10

Bulgaria

1 | Highlights

10

Country profile	
Population [10]	7,563,710
Currency	Bulgarian Lev (BGL)
GDP per capita in PPS (2009, EU27 = 100) [11]	44

Beer market	2008	2009	2010
Total production (in hectolitres)	5,360,000	4,825,000	4,800,000
Total exports (in hectolitres)	80,000	51,000	62,000
Total imports (in hectolitres)	51,000	98,000	97,820
Total consumption (in hectolitres)	5,370,000	4,900,000	4,891,000
Consumption of beer per capita (in litres)	73	67	67
Beer producing companies (including micro brewing companies)	9	9	10
Beer producing companies (excluding micro brewing companies)	6	6	6
Breweries (including micro-breweries)	11	11	12
Breweries (excluding micro-breweries)	9	8	8

› Source: Union of brewers in Bulgaria 2011

Economic impact	2010	Compared to 2008
Total jobs due to beer	27,112 jobs	-40.4%
Total value added due to beer	112 million euro	-30.7%
Total government revenues due to beer	152 million euro	-19.9%

[10] Source: Source: Eurostat, data per december 31st 2010
[11] Source: Eurostat, 2011

2 | Market structure, trends and developments

The Bulgarian beer market has suffered a substantial decline in recent years. Production and consumption has fallen by around 10% over the last three years (since 2008). According to the Union of Brewers in Bulgaria (UBB), production in 2010 was 4.8 million hectolitres of which 62,000 hectolitres were exported. Consumption was approximately 4.89 million hectolitres. The volume of imported beer doubled since 2008 from 51,000 to 98,000 hectolitres. The average consumption per capita decreased to 67. [12]

There are currently eight breweries in Bulgaria, operated by six companies. [13] There are also four microbreweries. Until the democratic reforms in 1989, all Bulgarian breweries were owned by the State. Subsequently, the brewing sector was privatised rapidly and, as consequence, a large part of the beer market is now in the hands of foreign investors who produce locally- and internationally-branded beers in Bulgaria. The three largest companies are Zagorka, Kamenitza and Carlsberg Bulgaria, which have market shares of respectively 31.0, 28.5 and 27.5 %.

The economic impact of the brewing sector is influenced by the following trends, developments and characteristics of the Bulgarian economy:

→ Brewing sector internal characteristics:

- Decline in local production of malting barley and other raw materials.
- Decline in on-sale and off-sale and a decline in number of enterprises in hospitality sector.
- An increase in PET-bottle sales and a decline in glass bottle sales.
- New key accounts with cheap local beer brands located in Bulgaria.

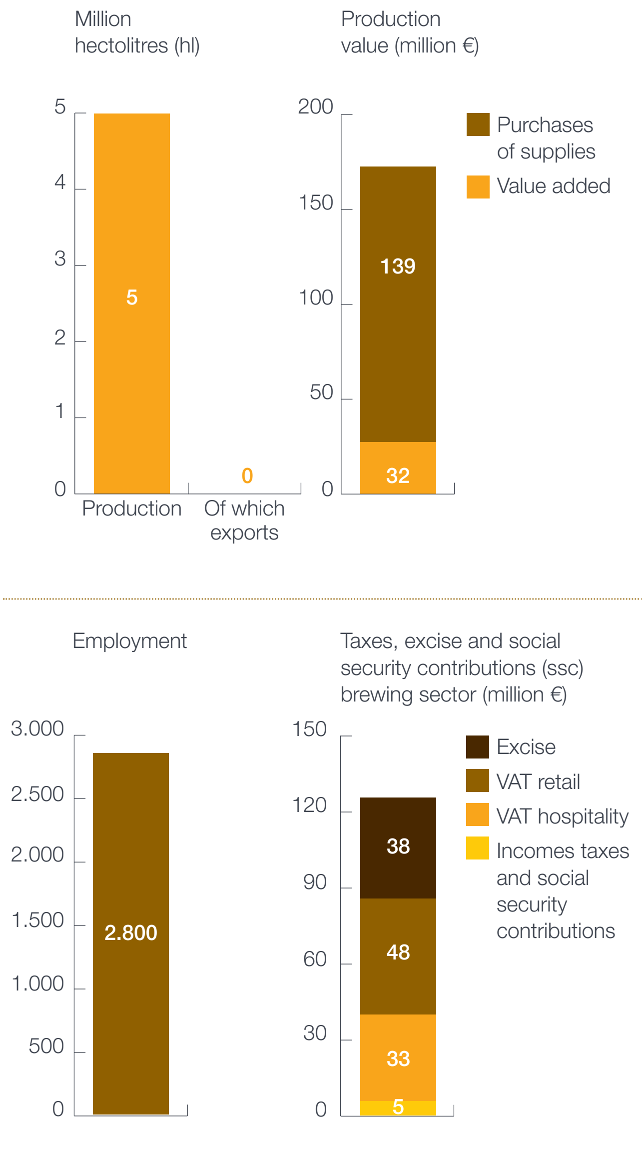
→ Context in which the brewing sector operates:

- On 1 June 2009 the Bulgarian National Assembly adopted legislation for a public smoking ban. However, the introduction of this ban has been postponed with amendments in national legislation.To date (July 2011) the ban has not been introduced.

3 | Direct effect of the brewing sector

According to the Union of Brewers in Bulgaria (UBB), direct employment related to Bulgarian breweries is 2,800 jobs, which is an increase of almost 17% compared to 2008. These 2,800 jobs represent a value of 171 million euro.

› Graph 10.1. / Direct effect of the beer sector



› Source: Ernst & Young calculation (2011)

The sector generates 32 million euro of value-added. Of the total production value of 171 million euro, an estimated 139 million euro is spent on goods and services produced by supplying sectors.

[12] Source: the Union of Brewers in Bulgaria (UBB), 2011.
[13] Source: the Union of Brewers in Bulgaria (UBB), 2011.

4 | Indirect effects of the brewing sector

10

This stimulus of 139 million euro has a significant impact on sectors outside the brewing sector.

This effect can be observed in the following table.

Sectors	Stimulus[14]	Stimulus for Bulgaria		Turnover per employee[15]	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	26.28	70.3%	18.48	10,858	1,702
Utilities	7.18	100%	7.18	72,570	99
Packaging industry (in hectolitres)	32.59	58%	18.91	26,855	704
Equipment	16.23	50%	8.11	26,855	302
Transport	11.09	100%	11.09	26,548	418
Media, marketing	27.28	83.6%	22.80	20,232	1,127
Services	18.70	93.2%	17.43	20,232	861
Total	139.34		104		5,213
First-round impact as % of total impact					65
Total indirect effect of brewing sector					8,021

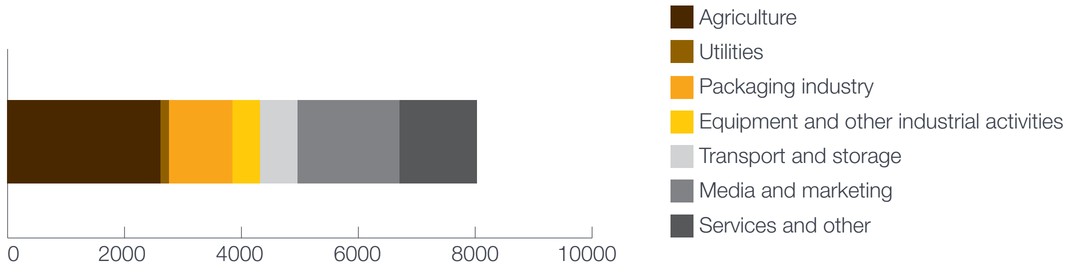
› Source: Ernst & Young calculation (2011)

One-third of the indirect employment is generated within the agricultural sector. The effects in the packaging industry, the media and marketing sector and the services sector are also substantial.

The total first-round employment effect of the brewing sector on supplying sectors is around 5,200 jobs. This primary has been estimated at about 65% of the total impact. Therefore, the total impact will be around 8,000 jobs.

Indirect employment effects are illustrated below:

› Graph 10.2. / Indirect employment



› Source: Ernst & Young calculation (2011)

[14] (Domestic) stimulus is calculated on basis of the questionnaire survey and Eurostat data.
[15] Turnover per employee is obtained from Eurostat.

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- Only 26% of all beer consumed in Bulgaria is sold by the hospitality sector (on-trade), which means almost 1.3 million hectolitres is sold on-trade.
- The average consumer price of beer in Bulgarian pubs and restaurants is estimated at 1.54 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is 195.8 million euro (including VAT). In 2008 the average consumer price was 1.80 euro a litre.
- Net consumer spending on beer is thus estimated at 163.2 million euro (using a 20% VAT tariff).
- With an average hospitality turnover of 11,890 euro (excluding VAT) per person, this results in 13,700 hospitality sector jobs attributable to beer sales. The number of jobs has been halved in the past three years; in 2008 the number of hospitality sector jobs attributable to beer sales was 29,500.

→ Retail

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

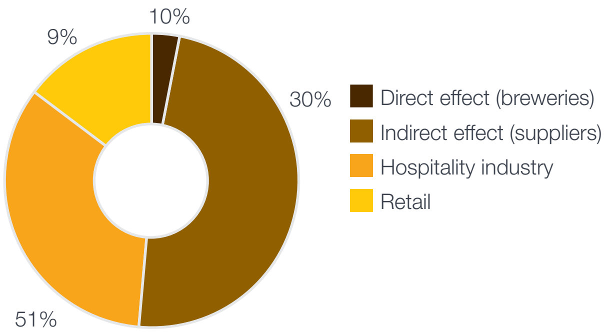
- Around 74% of total beer consumption (3.6 million hectolitres) in Bulgaria is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 0.79 euro per litre (including VAT), total retail consumer spending on beer is estimated at 285.9 million euro. Total consumer spending excluding VAT is thus 238.3 million euro.
- With turnover per employee estimated at 92,900 (excluding VAT), this means 2,600 people owe their jobs to retail beer sales.

6| Total employment due to beer

Approximately 2,800 people are employed in the Bulgarian breweries in 2010. The employment in supply sectors due to the production and sale of beer amounts to 8,000 jobs. Around 13,700 jobs in the hospitality sector and 2,600 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in Bulgaria is therefore 27,100 jobs. This means a decrease of 18,400 jobs, in comparison with 2008. The decrease is mainly due to less consumption in the on-trade sector and the consumption of cheaper beers.

The employment impact of the brewing sector is presented below:

› Graph 10.3. / Total employment because of beer: 27,100



› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

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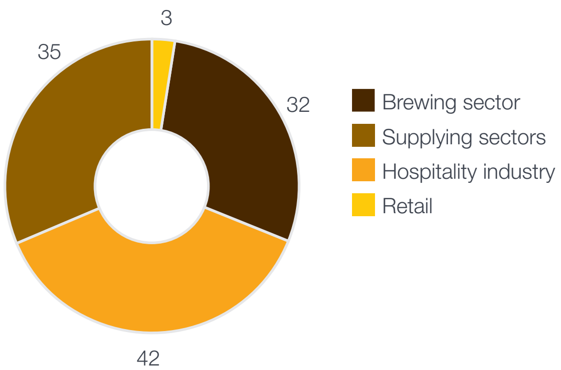
7| Total value added due to beer

The contribution of the brewing sector to the Bulgarian economy can also be expressed in terms of value added. The total value-added generated by these 27,100 jobs is estimated at 112 million euro:

› Graph 10.4. / Value added due to the production and sale of beer: 112 million euro



› Source: Ernst & Young calculation (2011)

The brewing sector share in overall value-added arising from the production and sale of beer is 29%, while the share in employment of the brewing sector is approximately 10%. A significant explanation for this is the high productivity of employees in the Bulgarian brewing sector.

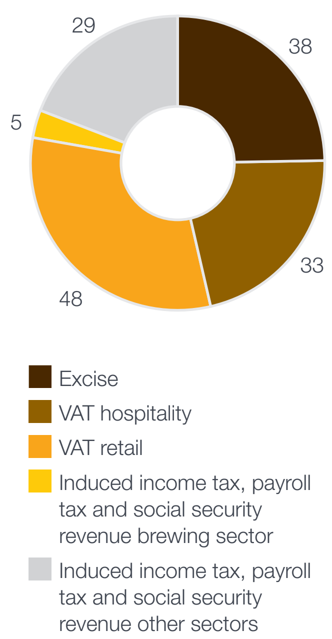
8| Total government revenues due to beer

The government also benefits from the brewing sector by receiving tax revenues. In 2010 the total revenue from excise, VAT and income-related contributions due to beer production and sales were estimated at 152 million euro:

- VAT revenue is estimated at 81 million euro, the major proportion being generated in the hospitality sector.
- The total in excise revenue on beer is 38 million euro.
- Income-related revenue due to beer production and sales are approximately 34 million euro, comprising 8.4 million euro income tax, 9.1 million euro social security contributions paid by employees and 16.3 million euro social security taxes and payroll taxes paid by employers.

In 2008 we calculated that the revenues of excise, VAT and income-related contributions due to beer production and sales were 190 million euro.

› Graph 10.5. / Government revenues due to the production and sale of beer: 152 million euro



› Source: Ernst & Young calculation (2011)

11

Croatia

11

1 | Highlights

Country profile	
Population[16]	4,432,001
Currency	Croatian Kuna (HRK)
GDP per capita in PPS (2009, EU27 = 100)[17]	64

Beer market	2008	2009	2010
Total production (in hectolitres)	3,587,000	3,673,000	3,438,132
Total exports (in hectolitres)	495,000	538,500	513,400
Total imports (in hectolitres)	688,000	364,700	396,750
Total consumption (in hectolitres)	3,780,000	3,500,000	3,321,482
Consumption of beer per capita (in litres)	85	79	74
Beer producing companies (including micro brewing companies)	17		15
Breweries (including micro-breweries)	17		15

› Source: Affiliation of beer, malt and hop producers Croatia (2010)

Economic impact	2010	Compared to 2008
Total jobs due to beer	27,333 jobs	-6.02%
Total value added due to beer	358 million euro	-2.72%
Total government revenues due to beer	277 million euro	-11.22%

[16] Source: Source: Eurostat, data per december 31st 2010
[17] Provisional value

2 | Market structure, trends and developments

The Croatian beer market is dominated by two breweries, Zagrebacka Pivovara and Karlovacka Pivovara, which are owned by two major European brewing companies. A third major European brewing company entered Croatia by acquiring Panonska brewery in 2002.

Both production (-4%) and consumption (-12%) have decreased in recent years. The major part of the beer that is consumed is brewed in Croatia. The volume of imported beer has decreased by 42%.

The economic impact of the brewing sector is influenced by the following main trends, developments and characteristics of the Croatian beer market:

- Beer is the most popular alcoholic beverage in Croatia
- The consumption of beer per capita decreased from 85 litres in 2008 to 74 litres per capita in 2010.
- Croatians have a so-called 'café culture'. This means that the bars are filled with people the whole day. In the morning they usually serve hot beverages (coffee and tea), in the evening beer and spirits are most popular[18].
- Beer or wine is typically consumed with meals at least once a week (often every day), and drinking often takes place in restaurants, pubs and bars.
- There is a trend in Croatia towards drinking more cocktails made with spirits, in particular tequila, whisky, rum and gin.

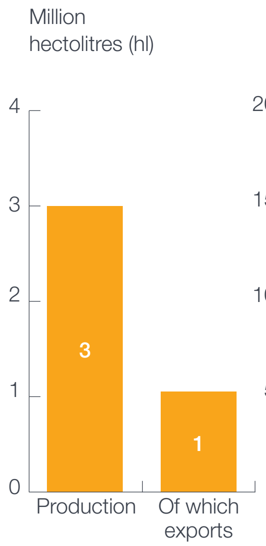
Other relevant developments are:

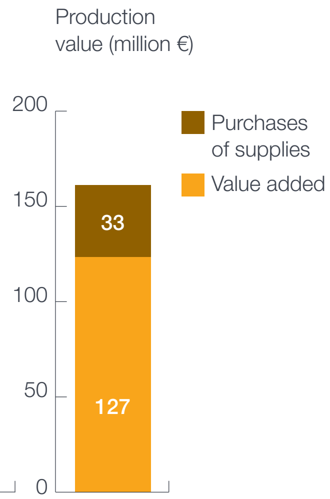
- Croatia became an official European Union candidate in 2004 and completed its EU membership negotiations in June 2011.
- The Croatian beer market for hotels, restaurant and cafés benefits substantially from tourism.
- Tourism is one of Croatia's main industries. However, since 2008 tourism revenues have decreased.

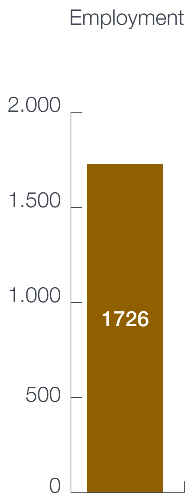
3 | Direct effect of the brewing sector

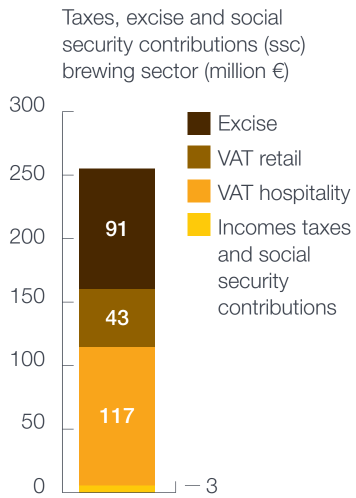
The direct brewing sector economic impact covers more than 1,726 employees who together produce 161million hectolitres of beer. Compared to 2008, this total brewery production value decreased slightly by 4.2%.

› Graph 11.1. / Direct effect of the beer sector









› Source: Ernst & Young calculation (2011)

[18] Based on: Agri-Food Trade Service, The Hotel, Restaurant and Institutional Market, Market Brief-Croatia, November 2007, http://www.atssea.agr.gc.ca/europe/4553_e.htm; Royal Danish Embassy Zagreb, Food & Retail market in Croatia, Prepared for Landbrugsraadet, 2007; Canadean, Global Beer Trends 2008, Country Profile – Croatia.

11

4 | Indirect effects of the brewing sector

The purchase of goods and services by breweries has a significant economic impact on the supplying sectors.

The value to the sectors is estimated at 127 million euro.

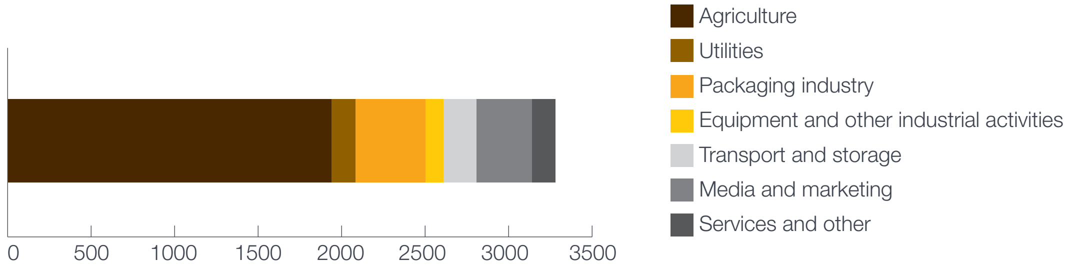
Sectors	Stimulus	Stimulus for Croatia		Turnover per employee	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	26.22	50.2%	13.16	10,464	1,258
Utilities	7.31	100%	7.31	77,924	94
Packaging industry (in hectolitres)	31.00	52.5%	16.28	59,846	272
Equipment	11.00	39%	4.29	59,846	72
Transport	13.87	89.9%	12.47	98,419	127
Media, marketing	25.40	84%	21.34	98,723	216
Services	12.49	72.5%	9.06	98,723	92
Total	127.29	50.2%	13.16		2,130
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					3,277

› Source: Ernst & Young calculation (2011)

The major part of the indirect employment effect is generated in the agriculture sector. Other sectors which benefit substantially, are the packaging industry and the media and marketing sector.

The total first-round employment effect of the brewing sector on supplying sectors is estimated to be more than 2,100 jobs. The total indirect effect is estimated to be almost 3,300 jobs. The total employment generated in supplying sectors is divided as follows:

› *Graph 11.2. / Indirect employment*



› Source: Ernst & Young calculation (2011)

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- About 50% of all beer consumed in Croatia is sold by the hospitality sector (on-trade), which means almost 1.7 million hectolitres is sold on-trade.
- The average consumer price of beer in Croatian pubs and restaurants remained stable as compared to 2008, and is estimated to be 3.69 euro per litre (including VAT)[19], so that total consumer spending on beer in the hospitality sector is 612.8 million euro (including VAT).
- Net consumer spending on beer is thus estimated at 510.7 million euro (using a 22% VAT rate).
- With an average hospitality turnover of 24,630 euro (excluding VAT) per person, this results in 20,700 hospitality sector jobs attributable to beer sales.

→ Retail

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

- Around 50% of total beer consumption (1.7 million hectolitres) in Croatia is in the form of beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.56 euro per litre (including VAT)[20], total retail consumer spending on beer is estimated at 259 million euro. Total consumer spending excluding VAT is thus 216 million euro.
- With turnover per employee estimated at 135,200 euro (excluding VAT), this means 1600 people owe their jobs to retail beer sales.

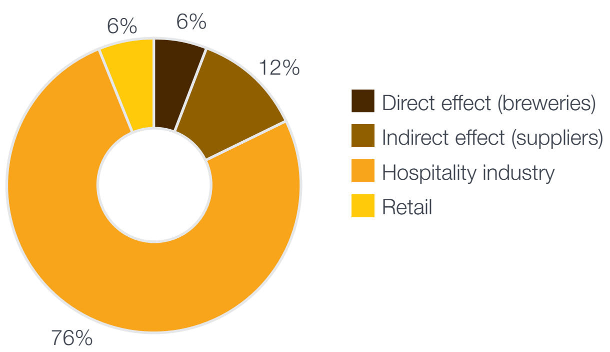
6| Total employment due to beer

Approximately 1,726 people are employed in the Croatian breweries in 2010. Employment in supplying sectors is very important with a total number employed in these sectors arising from the brewing sector of around 3,277.

Around 20,700 jobs in the hospitality sector and 1,600 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in Croatia is therefore 27,333 jobs. This means that since 2008, the total number of jobs has decreased by 1800.

The employment impact of the brewing sector is presented below:

› Graph 11.3. / Total employment because of beer: 27,333 jobs



› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

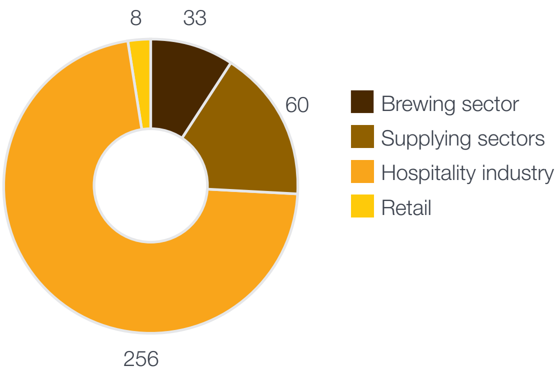
[19] Source: Ernst & Young questionnaire among breweries, 2011.
[20] Source: Ernst & Young questionnaire among breweries, 2011.

11

7| Total value added due to beer

The contribution of the brewing sector to the Croatian economy can also be expressed in terms of value added. The total value-added generated by these 27,333 jobs is estimated at 358 million euro:

› Graph 11.4. / Value added due to the production and sale of beer: 358 billion euro



› Source: Ernst & Young calculation (2011)

The brewing sector share in overall value-added arising from the production and sale of beer equals 9%, which is higher than the brewing sector share in total employment arising from beer (6%). A significant explanation for this is the slightly higher productivity of brewing sector employees.

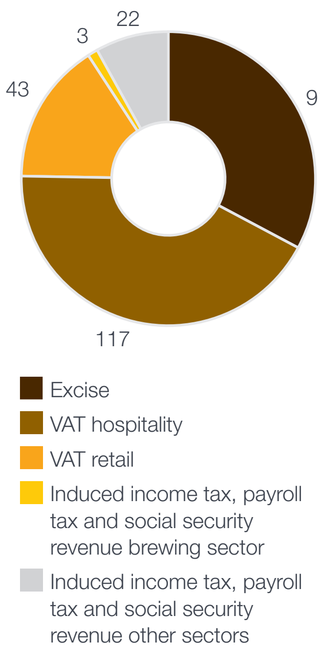
8| Total government revenues due to beer

The total revenue of excise, VAT and income-related contributions due to beer production and sales is estimated to be 277 million euro:

- VAT revenue is estimated to be 161 million euro. The main part of these VAT revenues is generated in the hospitality sector.
- The total of excise revenues on beer is 91 million euro.
- Income taxes paid by employees in the brewing sector, supplying sectors and the hospitality and retail sector are estimated to be approximately 25 million euro.

In 2008 we calculated that the revenues of excise, VAT and income-related contributions due to beer production and sales were 312 million euro, which refers to a decrease of 11.2 %.

› Graph 11.5. / Government revenues due to the production and sale of beer: 277 million euro



› Source: Ernst & Young calculation (2011)

12

Cyprus

12

1 | Highlights

Country profile	
Population [21]	803,147
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100) [22]	98

Beer market	2008	2009	2010
Total production (in hectolitres)	410,000	355,000	340,000
Total exports (in hectolitres)	10,000	4,700	4,200
Total imports (in hectolitres)	40,000	27,000	52,000
Total consumption (in hectolitres)	440,000	379,000	392,000
Consumption of beer per capita [23] (in litres)	58.2	51.0	52.3
Beer producing companies (including micro brewing companies)	2	2	2
Breweries (including micro-breweries)	2	2	2

› Source: Cyprus brewers association, 2011

Economic impact	2010	Compared to 2008 [24]
Total jobs due to beer	3,910 jobs	+16.6%
Total value added due to beer	96 million euro	+14%
Total government revenues due to beer	60 million euro	+24.1%

[21] Source: Eurostat, data per december 31st 2010
[22] Source: Eurostat, 2011
[23] Note: Beer consumption is divided by the population number. It does not take into account the millions of tourists that visit Cyprus
[24] In 2010 the on trade consumer price was € 8,00 per litre. In 2008, numbers were calculated with an estimated on trade consumer price of € 5.33 euro per litre. Therefore, total amounts increased over the past three years, even though consumption and production decreased.

2 | Market structure, trends and developments

With a consumption of 0.39 million hectolitres in 2008, Cyprus is one of the smaller beer markets in Europe. The majority of beer in the local market is produced by Cypriot Breweries. There are two breweries on the island: Photos Photiades Breweries and KEO Plc. Their annual production has decreased in recent years from 410,000 hectolitres in 2008 to 340,000 hectolitres in 2010 (-17%).[25] The decline in consumption is 11%.

Due to the fact that Cyprus is a small country, most of the goods purchased for the brewing industry come from abroad. All agricultural inputs and most of the packaging materials are obtained from the European mainland. Utilities (e.g. water, electricity), transport and storage are purchased on the island.

Factors that influence the impact of the brewing sector on the Cypriot economy are the following:

→ Brewing sector internal characteristics:

- A consolidated market with two breweries.
- Although there are imported beer brands on the market, the majority of beer sold is locally brewed.
- Cypriot export has more than halved from 10,000 to 4,200 hectolitres of beer per year. However, beer import increased by 30 percent.
- According to the Cyprus brewers association, there was a significant increase in the price of raw materials and packaging during the second half of 2010.

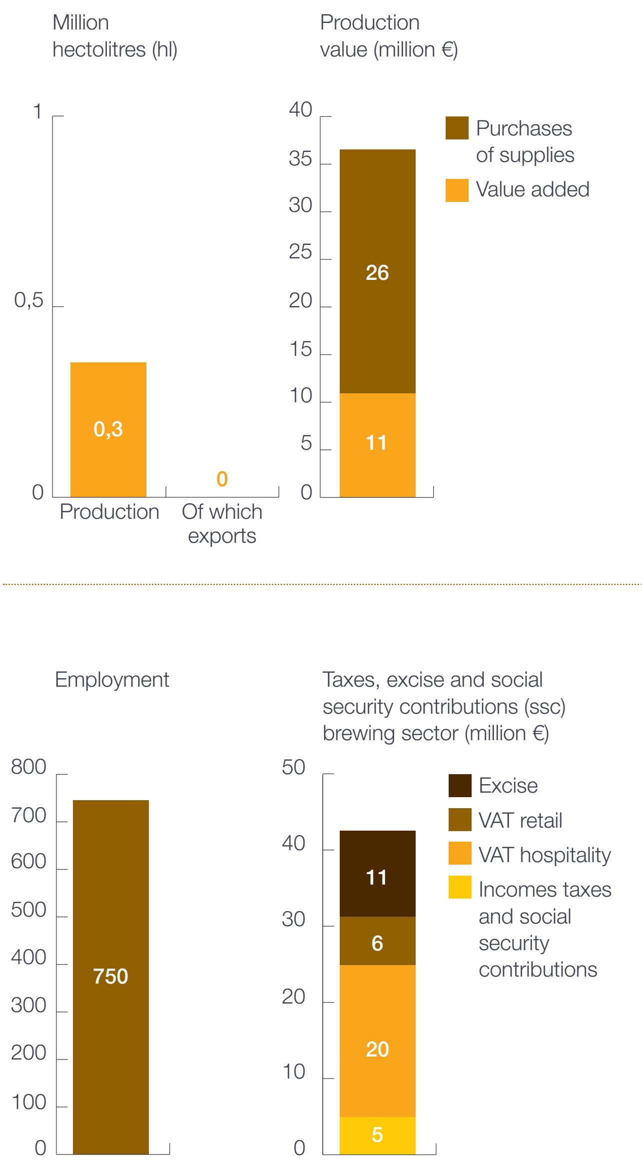
Context in which the brewing sector operates:

- Tourism generates a significant number of consumers for the local beer market.

3 | Direct effect of the brewing sector

The Cypriot brewing companies employed 750 people in 2010. These workers together produce a value representing 37 million euro (45 million in 2008), of which approximately 26 million euro was spent on purchase of goods and services from supplying sectors. This means that the Cypriot breweries realise about 11 million euro of value-added.

› Graph 12.1. / Direct effect of the beer sector



› Source: Ernst & Young calculation (2011)

[25] Source: Cyprus Brewers Association, 2011.

4 | Indirect effects of the brewing sector

12

Of the 26 million euro spent on supplies, 11 million euro is spent domestically.

This results in a significant economic impact as shown:

Sectors	Stimulus [26]	Stimulus for Cyprus		Turnover per employee [27]	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	6.24	0.0%	-	26,016	0
Utilities	2.02	100%	2.02	361,522	6
Packaging industry (in hectolitres)	6.63	1.8%	0.12	95,090	1
Equipment	3.41	16.3%	0.56	95,090	6
Transport	1.11	100%	1.11	74,749	15
Media, marketing	2.10	95%	1.99	84,114	24
Services	4.42	87.7%	3.88	84,114	46
Total	25.93		10		97
First-round impact as % of total impact					65
Total indirect effect of brewing sector					150

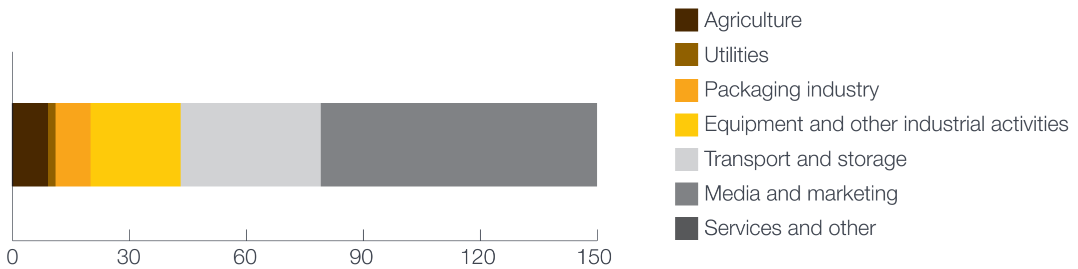
› Source: Ernst & Young Questionnaire among breweries (2011); Eurostat (2006)

As mentioned before, most of the supplies are purchased abroad. Almost half of the indirect employment generated by the brewing sector is within the services sector. Other effects are seen in media and marketing and transport.

The total first-round employment effect of the brewing sector on supplying sectors amounts to almost 100 jobs. This primary effect can be estimated at about 65% of the total impact. Therefore, the total impact will be about 150 jobs.

Indirect employment effects are illustrated below:

› Graph 12.2. / Indirect employment



› Source: Ernst & Young calculation (2011)

[26] (Domestic) stimulus is calculated on the basis of the questionnaire survey and Eurostat data
[27] Turnover per employee is obtained from Eurostat.

5| Induced effects of the brewing sector

The most important economic effect of the brewing sector involves the benefits of the hospitality sector through beer.

→ Hospitality sector

The economic impact of beer on the hospitality sector is assessed as follows:

- Approximately 48% (188,200 hectolitres) of all beer consumed in Cyprus is sold by the hospitality sector.[28]
- The average consumer price of beer in Cypriot hospitality is approximately 8.00 euro per litre, so that total consumer spending on beer in the hospitality sector is 150.5 million euro.
- Net consumer spending on beer is thus estimated at 130.9 million euro (using a 15% VAT tariff).
- Total employment in the Cypriot hospitality sector due to beer sales is estimated at 2,800 jobs.

→ Retail

The importance of the retail sector can be similarly assessed:

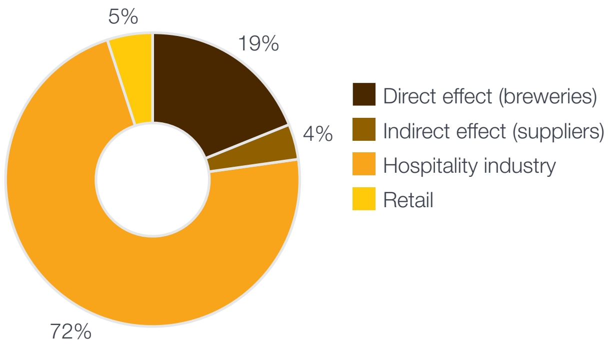
- Approximately 52% of Cypriot beer consumption is sold by supermarkets and other retail companies (203,800 hectolitres).
- With an average consumer price of 2.30 euro per litre (including VAT), total retail consumer spending on beer is estimated at 46.9 million euro. Total consumer spending excluding VAT is therefore 40.8 million euro.
- With turnover per employee estimated at 191,800 euro[29] (excluding VAT), this means 213 people owe their jobs to retail beer sales.

6| Total employment due to beer

Approximately 750 people are employed in the Cypriot breweries in 2010. The employment in supply sectors due to the production and sale of beer amounts to 150 jobs. Around 2,800 jobs in the hospitality sector and 213 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in Cyprus is therefore 3,910 jobs. Compared to 2008, this represents an increase of 558 jobs.

The employment impact of the brewing sector is presented below:

› Graph 12.3. / Total employment because of beer: 3,910 jobs



› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

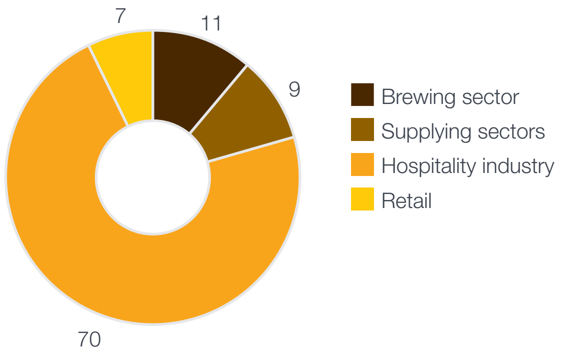
[28] Source: Cyprus Brewers Association, 2009.
[29] Source: Eurostat, statistics on turnover per person employed in retail sector.

12

7 | Total value added due to beer

The contribution of the brewing sector to the Cypriot economy can also be expressed in terms of value added. The total value-added generated by these 3,910 jobs is estimated at 96 million euro. The largest contribution comes from the hospitality sector (70%). Tourism plays an important role in this.

› Graph 12.4. / Value added due to the production and sale of beer: 96 million euro



› Source: Ernst & Young calculation (2011)

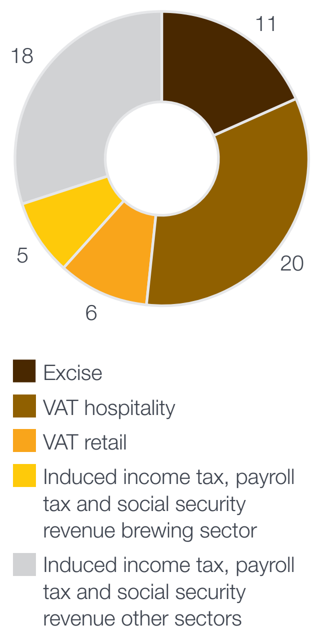
8 | Total government revenues due to beer

The government also benefits from the brewing sector by receiving tax revenues. In 2010 the total revenue from excise, VAT and income-related contributions due to beer production and sales have been estimated to be 60 million euro:

- VAT revenue was estimated as 25.8 million euro, the major proportion being generated in the hospitality sector.
- The total excise revenue on beer was 11 million euro.
- Income-related revenue due to beer production and sales are approximately 23 million euro, comprising 5.5 million euro income tax, 4.5 million euro social security contributions paid by employees and 12.9 million euro social security taxes and payroll taxes paid by employers.

In 2008 we calculated that the revenues of excise, VAT and income-related contributions due to beer production and sales were 48 million euro.

› Graph 12.5. / Government revenues due to the production and sale of beer: 60 million euro



› Source: Ernst & Young calculation (2011)

13

Czech Republic

1 | Highlights

13

Country profile	
Population[30]	10,506,813
Currency	Czech Koruna (CZK)
GDP per capita in PPS (2009, EU27 = 100)[31]	82

Beer market	2008	2009	2010
Total production (in hectolitres)	19,810,000	18,197,000	17,020,000
Total exports (in hectolitres)	3,710,000	3,461,700	2,988,000
Total imports (in hectolitres)	140,000	443,700	999,070
Total consumption (in hectolitres)	16,240,000	15,179,000	15,031,070
Consumption of beer per capita (in litres)	158.1	159.3	144.0
Beer producing companies (including micro brewing companies)	90	120	137
Beer producing companies (excluding micro brewing companies)	37	37	37
Breweries (including micro-breweries)	128	128	145
Breweries (excluding micro-breweries)	45	45	45

› Source : Czech Beer and Malt Association (2011)

Economic impact	2010	Compared to 2008
Total jobs due to beer	42,688 jobs	-21.7%
Total value added due to beer	776 million euro	-20.8%
Total government revenues due to beer	669 million euro	-1.3%

[30] Source : Eurostat, data per december 31st 2010
[31] Source : Eurostat, 2011

2 | Market structure, trends and developments

The Czech Republic can be regarded as 'the home of beer'. The first record of brewing in the Czech territory dates back to the year 993. Today, with an annual consumption of 15 million hectolitres, the Czech beer market is one of the largest in Europe.[32] Beer consumption per capita (144 litres per year) is actually the highest in Europe.

Czech breweries produced 17 million hectolitres of beer in 2010; a decline of 14% in comparison to 2008. The volume of exported beer has decreased by 19% to almost 3 million hectolitres. The Czech brewers main export markets are Germany, Slovakia and Russia. Recent years have shown a significant increase in beer imports. Import numbers are seven times higher than in 2008. The number of hectolitres of beer imported was 140.000 in 2008 and is now almost one million. The main import markets are Poland, Hungary and Slovakia.

The economic impact of the brewing sector is influenced by the following trends, developments and characteristics of the Czech beer market and the brewing sector:

- The Czech brewing sector has a very diverse landscape, with large as well as medium and small (brew-pub) breweries.
- The Czech Republic is one of the largest producers of malting barley (estimated at 705,300 tons in 2011-2012) and has 34 maltings.[33]

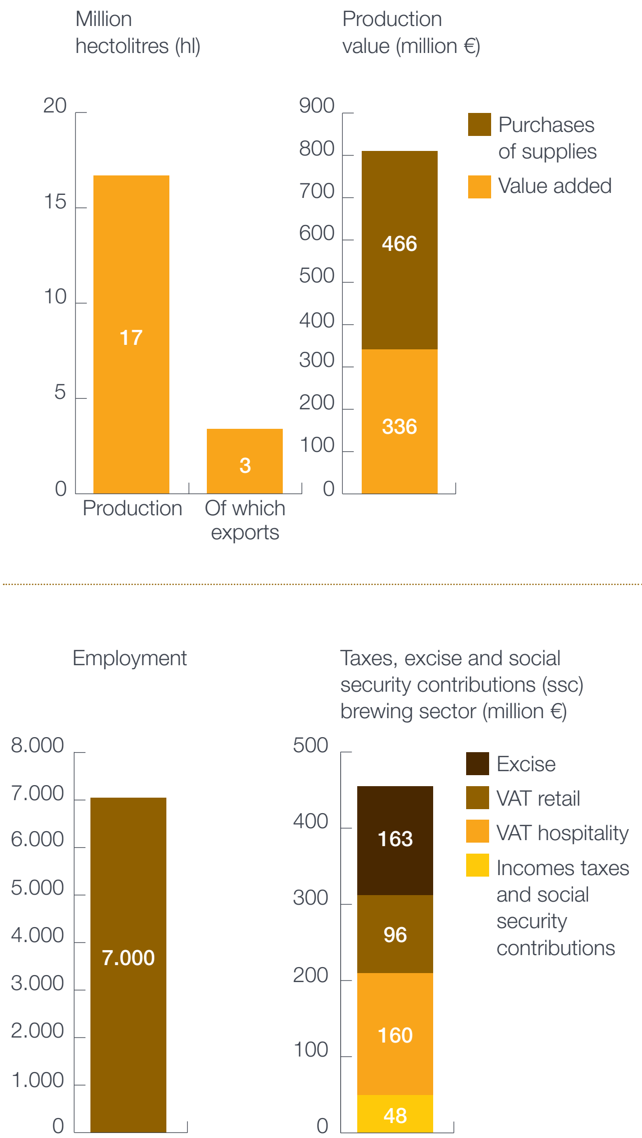
Other developments which influence the economic impact of the brewing sector are:

- Beer consumption per capita has decreased from 159 to 144 litres since 2008.
- A shift of demand from draught to bottled beer.
- Increased consumption of Non-alcoholic beer.
- Declining number of tourists.

3 | Direct effect of the brewing sector

The direct employment in the Czech brewing sector consists of 7,000 jobs. In comparison to 2008, this number has decreased by 5.4%. Czech breweries together realise a production value of approximately 802 million euro, of which 466 million is spent on supplies. The value-added of the Czech brewing sector is thus 336 million euro.

› Graph 13.1. / Direct effect of the beer sector



› Source: Ernst & Young calculation (2011)

[32] Source: Czech Brewers Association, 2011.
[33] Source: Euromalt, 2010.

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4 | Indirect effects of the brewing sector

The Czech breweries spend 466 million euro on purchasing goods and services, which means a substantial economic impact on the supplying sectors.

This effect can be observed in the following table.

Sectors	Stimulus	Stimulus for Czech Republic		Turnover per employee	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	96.42	95%	91.60	28,765	3,184
Utilities	29.66	100%	29.66	362,562	82
Packaging industry (in hectolitres)	85.56	70%	59.89	87,421	685
Equipment	39.64	98%	38.85	87,421	444
Transport	71.26	100%	71.26	66,497	1,072
Media, marketing	83.32	95%	79.15	68,657	1,153
Services	60.60	95%	57.57	68,657	838
Total	466.45		428		7,459
First-round impact as % of total impact					65
Total indirect effect of brewing sector					11,475

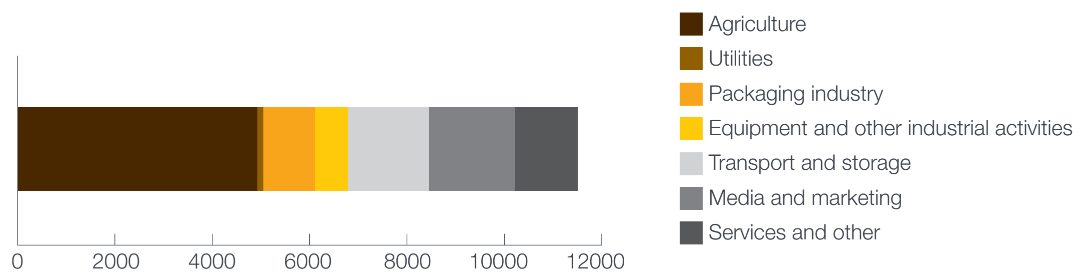
› Source : EY Questionnaire among breweries (2011);

The largest proportion of purchases are in agricultural materials, resulting in around 3,200 jobs in this sector (first round effect). The indirect employment in media and marketing (1,200 jobs) and transport (1,100 jobs) are also substantial.

This primary effect can be estimated at about 65% of the total impact. Therefore, the total impact in these sectors will be at least 11,500 jobs.

The indirect employment effects are illustrated below :

› Graph 13.2. / Indirect employment



› Source : Ernst & Young calculation (2011)

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- Approximately 49% of beer consumption in the Czech Republic is in the hospitality sector.
- This means that 7.4 million hectolitres of beer is consumed in Czech pubs, restaurants and other hospitality facilities.
- With an average consumer price of 1.30 euro per litre (incl. 19% VAT) this means consumers spent approximately 957 million euro (excl. VAT) on beer in pubs and restaurants.
- The average turnover per employee in the Czech hospitality industry is 36,500 euro a year.
- The employment in Czech hospitality sector due to beer sales is 21,900 jobs.

→ Retail

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

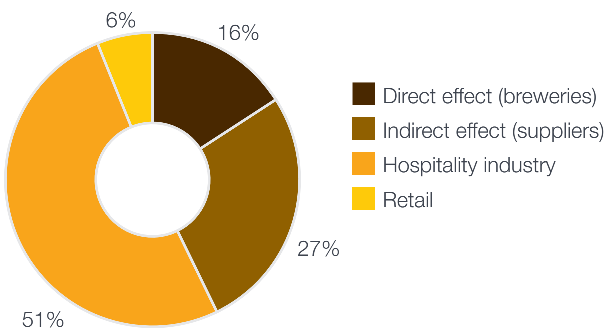
- Of total Czech beer consumption, 51% is sold in supermarkets and other retail companies.
- With an average consumer price of 0.75 euro (incl. 19% VAT) per litre, consumer spending on beer in retail companies is estimated at 575 million euro (incl. VAT). Total consumer spending excluding VAT is 479 million euro.
- Employees in the retail sector realise an annual turnover of 202,700 euro each.
- Total employment in the Czech retail sector through beer sales equals 2,400 employees.

6| Total employment due to beer

Approximately 7,000 people are employed in Czech breweries in 2010. Employment in supply sectors due to the production and sale of beer amounted to 11,500 jobs. Approximately 21,900 jobs in the hospitality sector and 2,400 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in the Czech Republic was therefore 42,700 jobs. Compared to 2008, this represents a decrease of almost 22 percent.

The employment impact of the brewing sector is presented below:

› Graph 13.3. / Total employment because of beer: 42,700 jobs



› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

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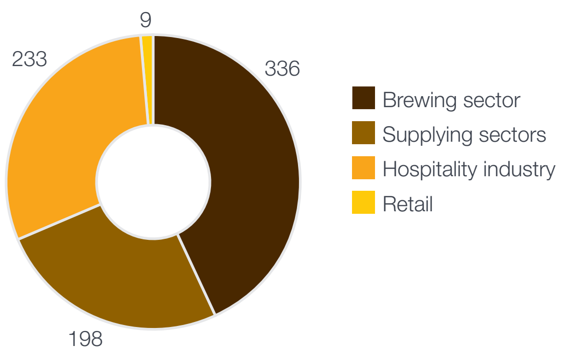
7| Total value added due to beer

The contribution of the brewing sector to the Czech economy can also be expressed in terms of value added. Total value-added of the brewing sector and by those companies in the associated supply, hospitality and retail sectors amounted to around 776 million euro. In 2008, this total value added due to beer was 980 million (-21%).

› *Graph 13.4. / Value added due to the production and sale of beer: 776 million euro*



› Source: Ernst & Young calculation (2011)

The brewing sector share in overall value-added arising from the production and sale of beer is 43%. This is much higher than the share of direct employment in breweries as a fraction of total employment due to beer production and sales in the Czech Republic (16%). This means that productivity in the brewing sector, expressed in value-added per person employed is relatively high in comparison with other sectors.

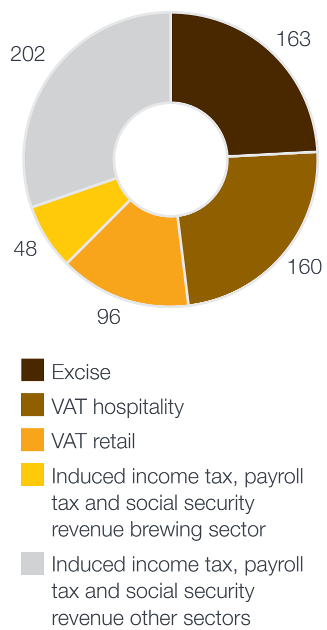
8| Total government revenues due to beer

The government also benefits from the brewing sector from tax revenues. In 2010 the total revenue from excise, VAT and income-related contributions due to beer production and sales have been estimated as 669 million euro:

- VAT revenue was estimated as 255 million euro, the major proportion being generated in the hospitality sector.
- The total in excise revenue on beer was164 million euro.
- Income-related revenue due to beer production and sales was approximately 250 million euro, comprising 52 million euro income tax, 48 million euro social security contributions paid by employees and 150 million euro social security taxes and payroll taxes paid by employers.

In 2008 we calculated that the revenues from excise, VAT and income-related contributions due to beer production and sales were 678 million euro.

› *Graph 13.5. / Government revenues due to the production and sale of beer: 669 million euro*



› Source: Ernst & Young calculation (2011)

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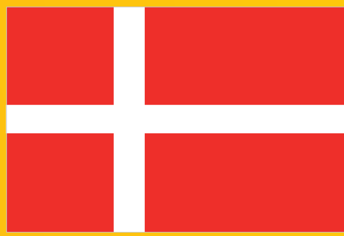


Denmark

1 | Highlights

14

Country profile	
Population[34]	5,534,738
Currency	Danish Krone (DKK)
GDP per capita in PPS (2009, EU27 = 100)[35]	121

Beer market	2008	2009	2010
Total production (in hectolitres)	7,860,000	6,046,000	6,335,000
Total exports (in hectolitres)	3,530,000	2,841,000	3,116,000
Total imports (in hectolitres)	510,000	337,000	367,600
Total consumption (in hectolitres)	4,840,000	3,946,000	3,586,600[36]
Consumption of beer per capita (in litres)	78.3	71.5	68[37]
Beer producing companies (including micro brewing companies)	164	120	120

› Source: Danish Brewers' Association 2011 and Canadean 2010

Economic impact	2010	Compared to 2008
Total jobs due to beer	21,400 jobs	-17.9%
Total value added due to beer	762 million euro	-20.1%
Total government revenues due to beer	659 million euro	-25.9%

[34] Source: Eurostat, data per december 31st 2010
[35] Source: Eurostat, 2011
[36] Calculation by Regioplan, 2011
[37] Source: Forecast Canadean 2010

2| Market structure, trends and developments

The total volume of beer bought in Denmark is declining, following the general trend seen in Western European. In 2010, Denmark recorded a fall in beer production of nearly 20% over the previous three years. Import and export of beer declined also: export by 12%, import by as much as 28% compared to 2008. Total beer consumption decreased by almost 26%. One explanation lies in the increase in tax rates on energy and environmental aspects. Another reason is the shift from beer to wine consumption.

Furthermore, according to the Danish brewers association the following developments had an impact on the sector:

- Liberalisation of product placement rules.
- New regulations regarding environmental end ethical claims in marketing.
- New code of practice for self regulation (alcohol advertisement).
- Introduction of a guideline for minimum risk consumption.

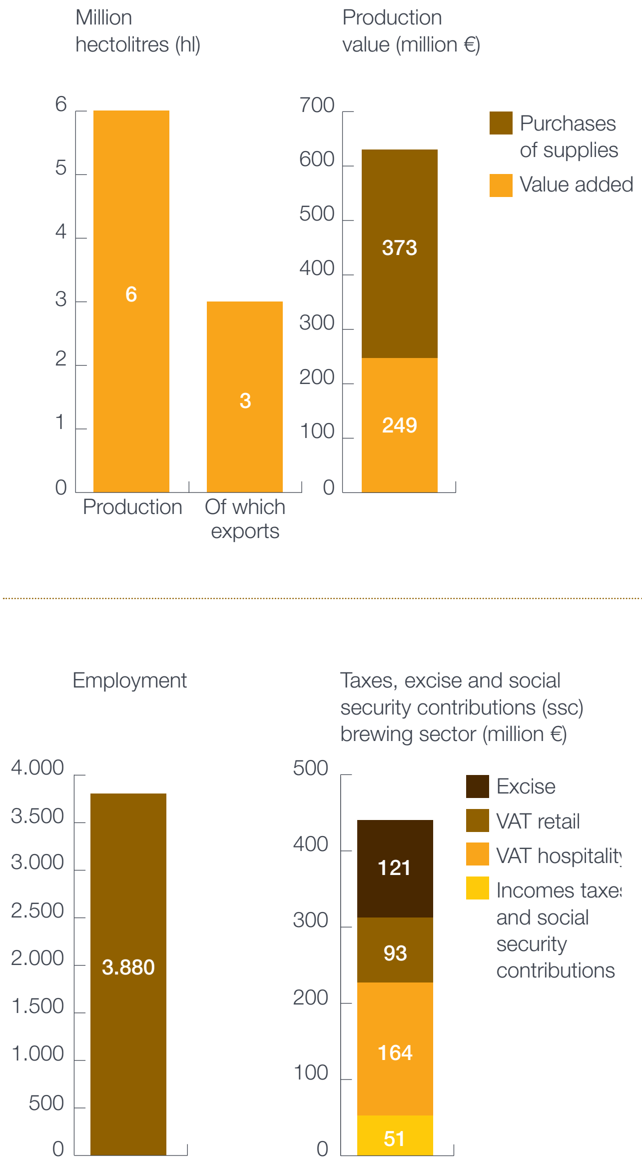
In beer category terms, the Danish market is dominated by pale lager, with more than 95% of total sales. However, stout and other dark beers are increasing in popularity, a trend driven by the market growth of premium-priced beers. The local microbreweries are strong innovators and produce a wide variety of beer styles, including strong India pale ales and stouts. The rapid expansion of the micro-brewing sector has given Denmark a very respectable number of breweries when compared to its population. Carlsberg is the number-one beer company in the Danish beer market, and is the fourth largest brewer in the world with approximately 45,000 employees on three continents. The international brewing groups Carlsberg and Royal Unibrew have a great impact on the Danish overall economy.

The larger Danish brewers are also particularly active in the soft drinks and mineral water markets. Some brewing companies also own their own malting plants.

3| Direct effect of the brewing sector

Danish breweries employ 3,880 staff. The production value of the Danish breweries can be estimated at 622 million euro. Compared to 2008, this value has decreased by 20%.

› *Graph 14.1. / Direct effect of the beer sector*



› Source: Ernst & Young calculation (2011)

14

4 | Indirect effects of the brewing sector

The value-added generated by the Danish breweries amounts to 249 million euro (approximately 40% of total production value).

This means that supplying sectors benefit from purchased goods and services to a value of 373 million euro.
This stimulus has a significant economic impact on sectors outside the brewing sector:

Sectors	Stimulus[38]	Stimulus for Denmark		Turnover per employee[39]	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	60.49	75%	45.76	137,610	330
Utilities	29.12	100%	29.12	1,131,511	26
Packaging industry (in hectolitres)	89.99	70%	62.99	211,703	298
Equipment	49.29	40%	19.72	211,703	93
Transport	56.76	100%	56.76	270,139	210
Media, marketing	78.04	100%	78.04	131,936	591
Services	9.71	100%	9.71	131,936	74
Total	373.39	75%	302		1,621
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					2,494

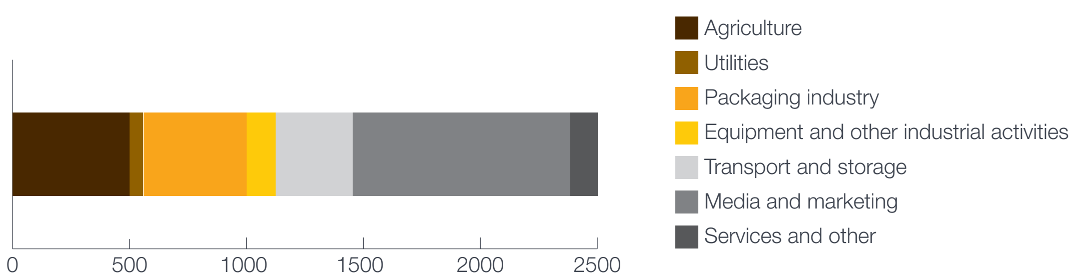
› Source: Ernst & Young calculation (2011); Eurostat (2010)

The major sectors in which indirect employment is generated by the brewing sector are media and marketing, agriculture and the packaging industry. The total first round employment effect of the brewing sector on supplying sectors is around 1,620 employees in the supplying sectors.

This primary effect can be estimated at about 65% of the total impact. Therefore, the total impact will be approximately 2,500 employees.

Indirect employment effects are illustrated below:

› Graph 14.2. / Indirect employment



› Source: Ernst & Young calculation (2011)

[38] (Domestic) stimulus is calculated on basis of the questionnaire survey and Eurostat data.
[39] Turnover per employee is obtained from Eurostat.

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of Danish breweries on the hospitality sector is assessed as follows:

- About 23% of all beer consumed in Denmark is sold by the hospitality sector (on-trade), which means almost 811,000 hectolitres is sold on-trade.
- The average consumer price of beer in Danish pubs and restaurants is estimated at 10.00 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is 819 million euro (including VAT).
- Net consumer spending on beer is thus estimated at 656 million euro (using a 25% VAT rate).
- With an average hospitality turnover of 47,500 euro (excluding VAT) per person, this results in 13,800 hospitality sector jobs attributable to beer sales.

→ Retail

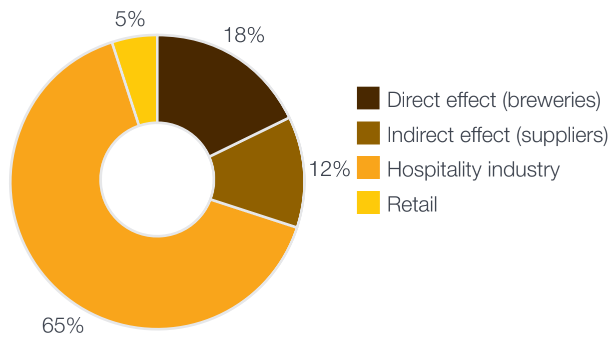
The importance of the brewing sector for retail can be similarly assessed:

- Around 77% of total beer consumption (2.8 million hectolitres) in Denmark is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.65 euro per litre (including VAT), total retail consumer spending on beer is estimated at 463.1 million euro. Total consumer spending excluding VAT is thus 370.5 million euro.
- With turnover per employee estimated at 312,500 euro (excluding VAT), this means 1,200 people owe their jobs to retail beer sales.

6| Total employment due to beer

Approximately 3,880 people were employed in Danish breweries in 2010. Employment in supply sectors due to the production and sale of beer amounted to 2,500 jobs. Around 13,800 jobs in the hospitality sector and 1,200 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in Denmark was therefore 21,400 jobs. Compared to 2008, this means a decrease of almost 5000 jobs.

› Graph 14.3. / Total employment because of beer: 21,400 jobs

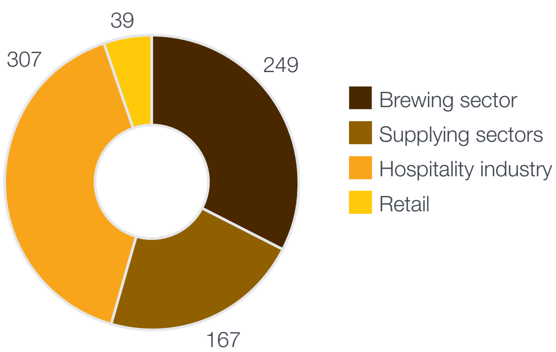


› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

7| Total value added due to beer

The contribution of the brewing sector to the Danish economy can also be expressed in terms of value added. The total value-added generated by these 21,400 jobs is estimated at 762 million euro.

› Graph 14.4. / Value added due to the production and sale of beer: 762 million euro



› Source: Ernst & Young calculation (2011)

The brewing sector's share in overall value-added arising from beer production and sales is 33%, which is far higher than the brewing sector's share in total employment arising from beer (18%). A key explanation for this is the high productivity of brewing sector employees.

8| Total government revenues due to beer

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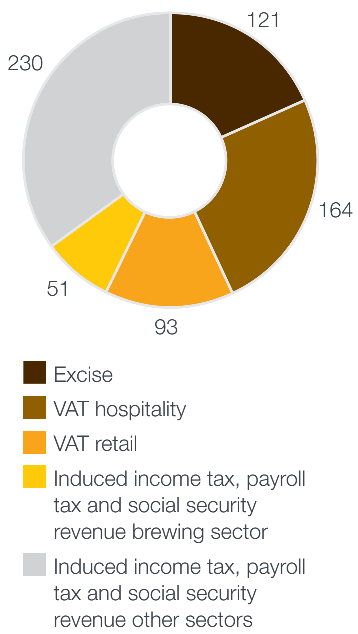
The government also benefits from the brewing sector by receiving tax revenues. In 2010 total revenue from excise, VAT and income-related contributions due to beer production and sales was estimated to be 659 million euro:

- VAT revenue was estimated to be 257 million euro, the major proportion being generated in the hospitality sector.
- The total in excise revenues on beer was 121 million euro.
- Income-related revenue due to beer production and sales was approximately 281 million euro, comprising 261 million euro income tax, 14 million euro social security contributions paid by employees and 7 million euro social security taxes and payroll taxes paid by employers.

In 2008 we calculated that the revenue from excise, VAT and income-related contributions due to beer production and sales was 818 million euro.

› Graph 14.5. / Government revenues due to the production and sale of beer: 659 million euro



› Source: Ernst & Young calculation (2011)

15

Estonia

15

1 | Highlights

Country profile	
Population[40]	1,340,127
Currency	Estonian Kroon (EEK)
GDP per capita in PPS (2009, EU27 = 100)[41]	64

Beer market	2008	2009	2010
Total production (in hectolitres)	1,168,000	1,176,000	1,312,000
Total exports (in hectolitres)	123,000	183,000	394,000
Total imports (in hectolitres)	120,000[42]	192,000	270,000
Total consumption (in hectolitres)	984,000	816,000	1,063,000
Consumption of beer per capita (in litres)	73	61	78
Beer producing companies (including micro brewing companies)	6	6	6
Beer producing companies (excluding micro brewing companies)	3	3	3
Breweries (including micro-breweries)	6	6	6
Breweries (excluding micro-breweries)	3	3	3

› Source: Association of Estonian Breweries (2011)

Economic impact	2010	Compared to 2008
Total jobs due to beer	4,478 jobs	5%
Total value added due to beer	90 million euro	12.6%
Total government revenues due to beer	80 million euro	12%

[40] Source: Eurostat, data per december 31st 2010
[41] Source: Eurostat, 2011
[42] According to the questionnaire of 2011, imports were 32.000 in 2008 and 3500 in 2009.
However, because this does not seem likely, we included data of the former European beer study report of 2009.

2 | Market structure, trends and developments

Estonian brewers produced 1.3 million hectolitres of beer in 2010. An additional 270,000 hectolitres were imported while 394,000 hectolitres of beer were exported. Compared to 2008 import and export volumes have more than doubled. The consumption of beer in 2008 was 1.06 million hectolitres in total and 78 litres per capita.

Estonia is one of the few countries in which beer production has increased over the past three years. Compared to 2008, total beer production increased by 12%. Consumption has increased as well, by 8%. Another interesting characteristic of the Estonian beer market is the relatively high proportion of off-trade sales (91%), compared to beer sold in bars and restaurants (9%).

The Estonian brewing sector is highly concentrated. 80% of total domestic production is produced by two large brewers. The two leaders both have a market share of almost 40%.

Developments within the brewing sector are:

- The average off-trade price per litre decreased by 3% compared to 2009 and by 6% compared to 2008.
- The Mainstream and Economy segments boost market share by volume.
- Consumption of strong beer and beer in large PET bottles has increased.
- Beer sold under private label is also increasing and forcing the average price per litre to decrease.
- Consumers have switched from Premium to Mainstream products.

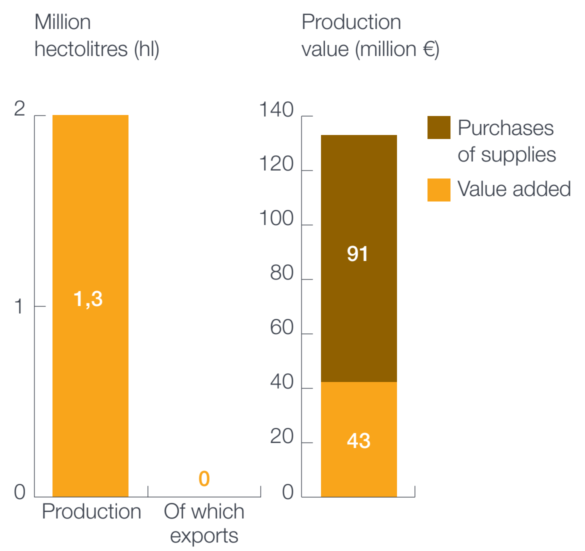
Other important developments are:

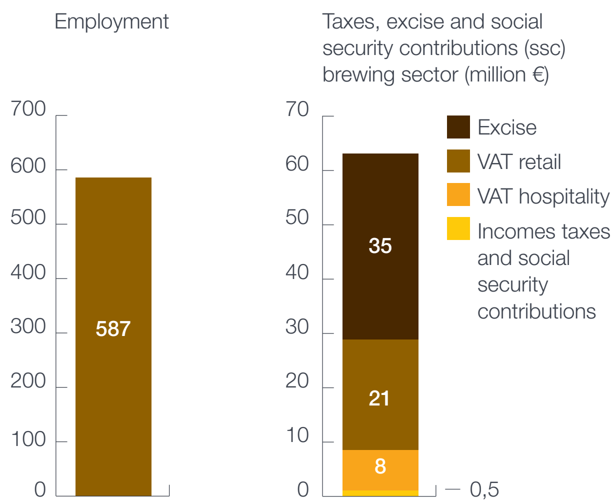
- Since October 2010, the excise duty tax of alcoholic beverages has risen by 10%.
- Since October 2008 a new Advertisement Act came into force, which has limited the possibilities to advertise alcoholic beverages.
- Furthermore, under this act, advertising of alcohol must include the warning: “Attention! This is an alcoholic beverage. Alcohol may cause damage to health.”

3 | Direct effect of the brewing sector

The direct economic impact of the brewing sector covers more than 587 employees involved in beer production, representing a value of 134 million euro. Compared to 2008, the total value increased by 12%.

› Graph 15.1. / Direct effect of the beer sector





› Source: Ernst & Young calculation (2011)

15

4 | Indirect effects of the brewing sector

With 32% of the value of the output produced staying within the firm as value-added, the other 68% of the 134 million euro of total turnover accrues to a number of suppliers.

This stimulus of 91 million euro has a significant economic impact on sectors outside the brewing sector. This effect can be seen in the following table.

Sectors	Stimulus	Stimulus for Estonia		Turnover per employee	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	17.92	30%	5.38	19,115	281
Utilities	4.46	100%	4.46	145,290	31
Packaging industry (in hectolitres)	35.30	50%	17.65	56,413	313
Equipment	-	20%	-	56,413	0
Transport	14.01	80%	11.21	98,096	114
Media, marketing	11.56	95%	10.98	41,534	264
Services	7.73	95%	7.35	41,534	177
Total	90.99		57		1,180
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					1,816

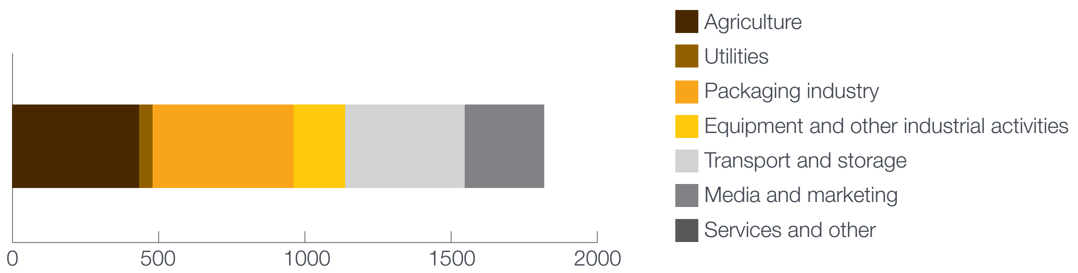
› Source : Ernst & Young Questionnaire among breweries (2011)

The major sectors in which indirect employment is generated by the brewing sector are the packaging industry, agriculture and media and marketing. The total first-round employment effect of the brewing sector on supplying sectors is around 1,180 employees.

This primary effect can be estimated at about 65% of the total impact. Therefore, the total impact will be about 1,816 jobs.

Indirect employment effects are illustrated below :

› *Graph 15.2. / Indirect employment*



› Source : Ernst & Young calculation (2011)

5 | Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- Approximately 9% of all beer consumed in Estonia is sold by the hospitality sector (on-trade), which means 95,670 hectolitres is sold on-trade.
- The average consumer price of beer in Estonian pubs and restaurants is 4.85 euro per litre (including VAT), so that total consumer spending on beer in the hospitality sector is 46.4 million euro (including VAT).
- Net consumer spending on beer is thus estimated at 38.7 million euro (using a 20% VAT rate).
- With an average hospitality turnover of 25,451 euro (excluding VAT) per person, this results in 1,519 hospitality sector jobs attributable to beer sales.

→ Retail

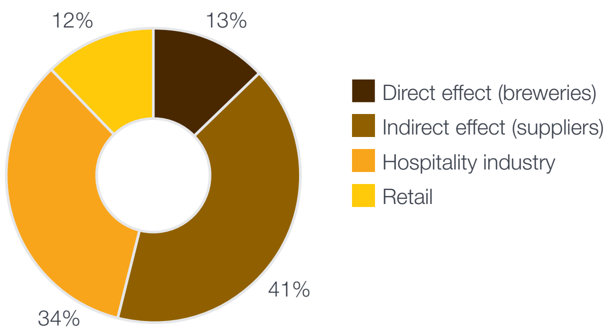
The importance of the brewing sector for retail can be similarly assessed:

- Approximately 91% of total beer consumption (967,330 hectolitres) in Estonia is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.31 euro per litre (including VAT), total retail consumer spending on beer is estimated at 127 million euro. Total consumer spending excluding VAT is thus 106 million euro.
- With turnover per employee estimated at 190,000 euro (excluding VAT), this means 556 people owe their jobs to retail beer sales.

6 | Total employment due to beer

In 2010, approximately 587 people were employed in the Estonian breweries. Employment in the supplying sectors is very important with a total number employed in these sectors arising from the brewing sector of around 1,816. Around 1,519 jobs in the hospitality sector and 556 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in Estonia is therefore 4,478 jobs. Compared to 2008, this represents a decrease of 212 jobs.

› Graph 15.3. / Total employment because of beer: 4,478 jobs



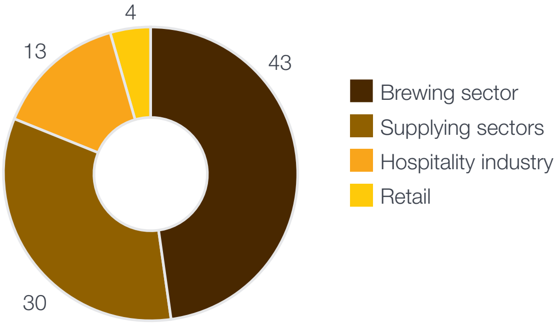
› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

15

7 | Total value added due to beer

The contribution of the brewing sector to the Estonian economy can also be expressed in terms of value added. The total value-added generated by these 4,478 jobs is estimated at 90 million euro:

› Graph 15.4. / Value added due to the production and sale of beer: 90 million euro



› Source: Ernst & Young calculation (2011)

The share of the brewing sector in the overall value-added due to the production and sale of beer equals 47.4%, which is higher than the share of the brewing sector in total employment due to beer (13%). A key explanation for this is the high productivity of employees in the brewing sector, compared to sectors such as retail and hospitality in terms of value-added.

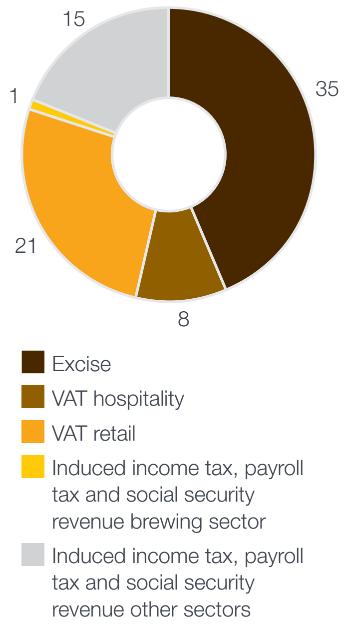
8 | Total government revenues due to beer

The total revenue from excise, VAT and income-related contributions due to beer production and sales were estimated to be 80 million euro:

- VAT revenue was estimated to be 29 million euro, the majority generated in the retail sector.
- The total excise revenue on beer was 35 million euro.
- Income-related revenue due to beer production and sales was approximately 16 million euro comprising 4 million euro income tax, 500,000 euro social security contributions paid by employees and 11 million euro social security taxes and payroll taxes paid by employers.

In 2008 we calculated that the revenue from excise, VAT and income-related contributions due to beer production and sales was 71 million euro.

› Graph 15.5. / Government revenues due to the production and sale of beer: 80 million euro



› Source: Ernst & Young calculation (2011)

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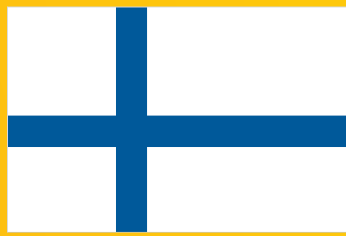


Finland

16

1 | Highlights

Country profile	
Population[1]	5,363,351
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100)[2]	113

Beer market	2008*	2009	2010
Total production (in hectolitres)	4,470,000	4,491,000	4,235,000*
Total exports (in hectolitres)[3]	183,000	171,000	205,000
Total imports (in hectolitres)	471,000	422,000	622,000
Total consumption (in hectolitres)	4,673,000	4,682,000	4,625,000
Consumption of beer per capita (in litres)	89.2	88.9	87.4
Beer producing companies (including micro brewing companies)	18	18	25
Beer producing companies (excluding micro brewing companies)	3	3	3
Breweries (including micro-breweries)	120	20	25
Breweries (excluding micro-breweries)	5	4	3
Companies that only import beer for sale	-	-	24 (+8 restaurants)

› Source: Finnish Federation of the Brewing and Soft Drinks Industry: 2008: Panimoliitto, 2009: The Brewers of Europe 2010: Questionnaire 2011

* Source: This does not include production of companies that are not a member of the Finnish Federation. The figures of these companies are not known.

Economic impact	2010	Compared to 2008
Total jobs due to beer	17,400 jobs	-0.6%
Total value added due to beer	778 million euro	-7.7%
Total government revenues due to beer	1,319 million euro	+13%

[1] Source: Finnish Federation of the Brewing and Soft drinks Industry
[2] Source: Eurostat, 2011
[3] These figures do not include tax free sales.
[4] In our 2009 report the export numbers for 2008 were lower. These numbers were extracted from other statistics: Panimoliitto and The Brewers of Europe report

2| Market structure, trends and developments

In Finland there are three large brewing companies, which have market shares of approximately 44.27 and 19% respectively.[5] Besides these three large players, there are approximately 22 small breweries and microbreweries. The production in 2010 of the companies that are member of the brewers association was approximately 4.24 million hectolitres of which a volume of 0.20 million hectolitres was exported. The main export markets are Estonia, Sweden and Russia. Compared to 2008, the production has increased by 0.09 million hectolitres. The largest Finnish brewers also produce soft drinks, long drinks, cider and mineral water. Since January 2011, an increase in the tax on soft drinks has affected these Finnish brewers.

The market for alcoholic beverages is highly regulated in Finland. The most important example of this is the high level of excise rates on beer. In anticipation of European Union membership of neighbouring country Estonia, the excise rate was lowered by 32% in 2004. But at the beginning of 2008, the Finnish Government decided to modify taxation on fermented alcoholic beverages once again and increased it by 10%. The excise on a litre of beer (at 5% alcohol) has been set at 1.38 euro, reaching the highest level in the European Union (in 2008, the excise was 1.15 euro). Because of this high taxation, the selling price of beer in Finland is rather high compared to neighbouring countries, resulting in private imports from these countries. Because of the high excise rates in Finland and competition by private exports in particular from the Estonian market, the margins on beer are under pressure.

Although the excise rates and the selling price of beer are rather high in Finland, consumption per capita is above the European average (approximately 89 litres per capita). Finnish beer consumption has declined slightly in recent years. Total beer consumption in Finland in 2010 amounted to 4.63 million hectolitres, of which 0.662[6] million hectolitres was imported. Their main import markets are Germany, Estonia en Czech Republic.

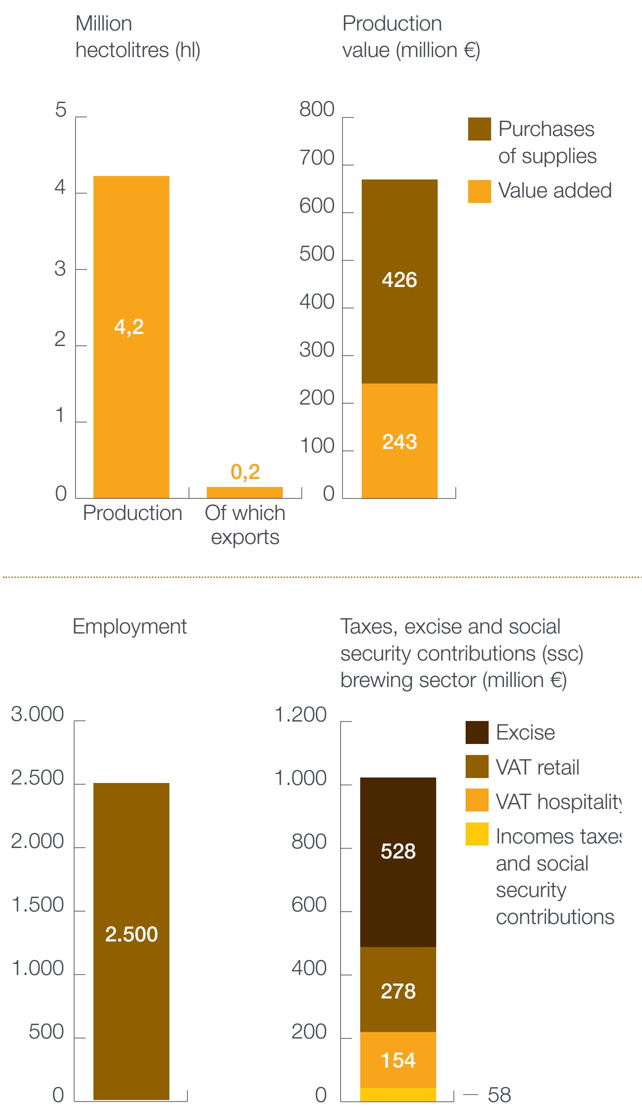
As shown in the table above, the number of operators (microbreweries) has increased in recent years by almost 40%.

Another important development is a discussion on an advertising ban for alcoholic beverages.

3| Direct effect of the brewing sector

Since Finnish brewers also produce mineral water and soft drinks direct effects only for the brewing sector are not easily available. Beer constitutes approximately 50% of the volume produced by the members of the Finnish Federation of the Brewing and Soft Drinks Industry (Panimoliitto). The number of employees of these members is around 2,500.
We calculated the production value of the brewing sector arising from manufacturing beer was 721 million euro in 2010, of which 262 million euro was value-added.
The aforementioned direct effects are higher than measured in 2008.

› Graph 16.1. / Direct effect of the beer sector



› Source: Ernst & Young calculation (2011)

[5] Source: Canadean Ltd: Global Beer Trends, 2010.
[6] Source: Questionnaire 2011

4 | Indirect effects of the brewing sector

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While 243 million euro of the output stays within the brewing sector as value added, the other 426 million euro accrues to a number of suppliers.[7]

This stimulus has a significant economic impact on sectors outside the brewing sector:

Sectors	Total Stimulus[8]	Stimulus for Finland		Turnover per employee[9]	Number of employees
	(mln. €)	% spent in own country	(mln. €)	(in €)	
Agriculture	69.07	89%	61.47	46,440	1,324
Utilities	33.25	98%	32.59	908,710	36
Packaging industry (in hectolitres)	102.75	83%	85.28	361,391	236
Equipment	56.28	83%	46.71	361,391	129
Transport	64.80	98%	63.51	144,475	440
Media, marketing	89.11	86%	76.63	157,785	486
Services	11.08	86%	9.53	71,831	133
Total	426.34		376		2,783
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					4,281

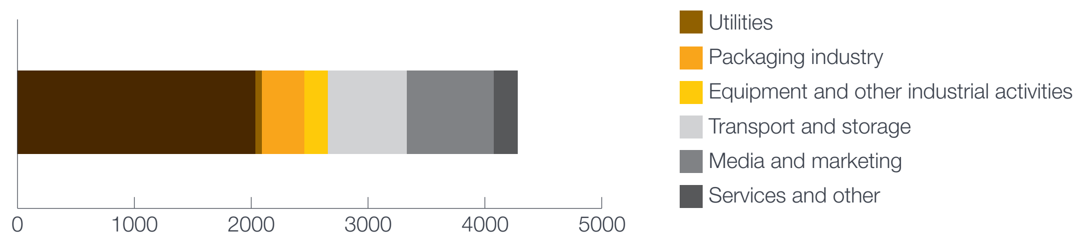
› Source: Ernst & Young calculation (2009); Eurostat (2006)

Almost half of the indirect employment generated by the brewing sector is within the agricultural sector. Other substantial effects are seen in media and marketing, transport and the packaging industry. The total first-round employment effect of the brewing sector on supplying sectors amounts at almost 2,800 jobs.

This primary effect can be estimated at about 65% of the total impact. Therefore, the total impact will be about 4,300 jobs. This amount of indirect jobs due to beer is 160 jobs less than in 2008.

Indirect employment effects are illustrated below:

› Graph 16.2. / Indirect employment



› Source: Ernst & Young calculation (2011)

[7] Source: Eurostat, 2010.
[8] (Domestic) stimulus is calculated on the basis of the questionnaire survey and Eurostat data.
[9] Turnover per employee is obtained from Eurostat.

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- About 15.4% of all beer consumed in Finland is sold by the hospitality sector (on-trade). In 2008 17.2% of the beer was consumed in the on trade.
- The average consumer price of beer in Finnish pubs and restaurants is estimated at 11.6 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is around 673 million euro (excluding VAT).
- With an average hospitality turnover of 86,360 euro (excluding VAT) per person[10], this results in 7,770 hospitality sector jobs attributable to beer sales.

→ Retail

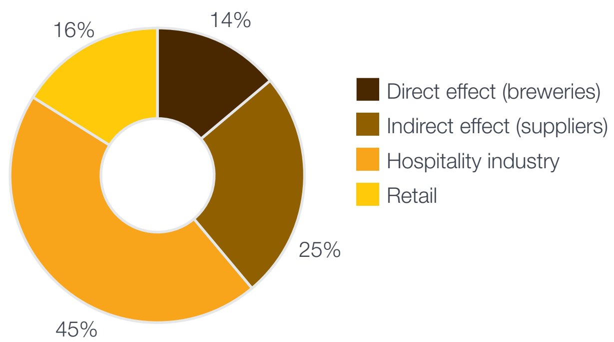
The importance of the brewing sector for retail can be similarly assessed:

- Around 84.6% of total beer consumption (almost 4 million hectolitres) in Finland is sold by supermarkets and other retail outlets.
- With an average consumer price of 3.79 euro per litre (including VAT), total retail consumer spending on beer is estimated at 1.5 billion euro. Total consumer spending excluding VAT is thus 1.2 billion euro.
- With turnover per employee estimated at 429,000 euro (excluding VAT), this means 2,800 people owe their jobs to retail beer sales.

6| Total employment due to beer

Approximately 2,500 people were employed in Finnish breweries in 2010. The employment in supply sectors due to the production and sale of beer amounted to 4,300 jobs. 7,770 jobs in the hospitality sector and 2,800 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in Finland is therefore 17,400 jobs. Compared to 2008, this represents a decrease of 109 jobs.

› Graph 16.3. / Total employment because of beer: 17.400 jobs



› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

[10] Source: Eurostat, 2006.

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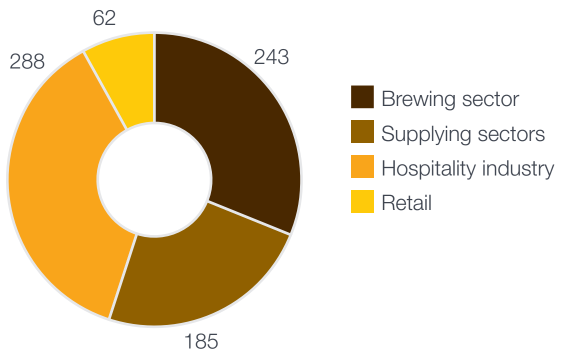
7| Total value added due to beer

The contribution of the brewing sector to the Finnish economy can also be expressed in terms of value-added. Total value-added of the brewing sector in Finland and value-added generated by companies in the supply, hospitality and retail sectors arising from the production and sale of beer amounted to around 778 million euro. This is less value-added than in 2008.

› Graph 16.4. / Value added due to the production and sale of beer: 778 million euro



› Source: Ernst & Young calculation (2011)

The brewing sector share in overall value-added arising from the production and sale of beer is 31%. This is much higher than the share of direct employment in breweries as a fraction of total employment due to beer production and sales in Finland (14%). This means that productivity in the brewing sector, expressed in value-added per person employed is relatively high in comparison with other sectors.

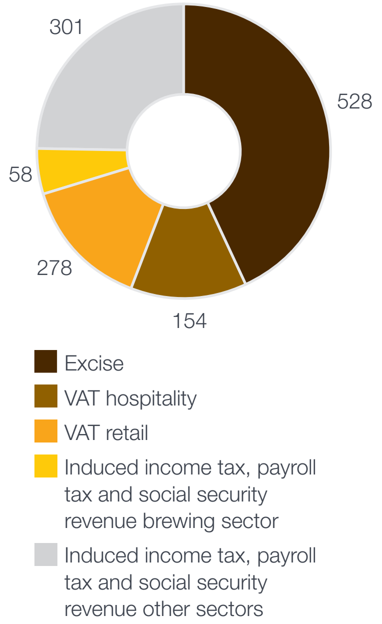
8| Total government revenues due to beer

The government also benefits from the brewing sector by receiving tax revenue. In 2010 total revenue from excise, VAT and income-related contributions due to beer production and sales was estimated to be 1,319 million euro:

- VAT revenue was estimated as 432 million euro, generated predominantly in the hospitality sector.
- Total excise revenue from beer was 528 million euro.
- Income-related revenue due to beer production and sales was approximately 359 million euro comprising 157 million euro income tax, 40 million euro social security contributions paid by employees and 162 million euro social security taxes and payroll taxes paid by employers.

In 2008 we calculated that the revenue from excise, VAT and income-related contributions due to beer production and sales was 1,163 million euro.

› Graph 16.5. / Government revenues due to the production and sale of beer: 1,319 million euro



› Source: Ernst & Young calculation (2011)

17

France

1 | Highlights

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Country profile	
Population [11]	64,716,310
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100) [12]	107

Beer market	2008	2009	2010
Total production (in hectolitres)	16,267,000	16,326,000	16,290,000
Total exports (in hectolitres)	2,378,000	2,200,000	3,143,000
Total imports (in hectolitres)	5,939,000	5,943,000	6,583,000
Total consumption (in hectolitres)	19,828,000	20,068,000	19,730,000
Consumption of beer per capita (in litres)	30.6	30.7	30.5
Beer producing companies (including micro brewing companies)	n.a	333	386
Beer producing companies (excluding micro brewing companies)	n.a	12	14

› Source: Brasseurs de France (2011), Ministère de l'Agriculture Agreste Douanes, Annuaire des brasseries françaises 2010-2011. Robert Dutin - RCD Editions

Economic impact	2010	Compared to 2008
Total jobs due to beer	65,385 jobs	-8.5%
Total value added due to beer	2,936 million euro	-10.8%
Total government revenues due to beer	2,582 million euro	-0.0%

[11] Source: Eurostat, data per december 31st 2010
[12] Source: Eurostat, 2011

2| Market structure, trends and developments

France is traditionally a wine-drinking country, featuring by far the lowest levels of spending on beer out of total alcoholic drinks expenditure. France, which is known as a major wine-producing and exporting country, consumes far more wine than beer. Per capita beer consumption remained stable over the past three years; 30.5 litres, which is less than half the quantity consumed in the UK[13].

France is one of the few countries in which production and consumption of beer has remained relatively stable over the past three years. In comparison with 2008, production increased slightly by 0.1% and consumption decreased by 0.5%. However, export volumes increased by more than 30%. France's main export markets are Spain, United Kingdom and Germany. The volume of import increased as well, by 11%. The main import markets of France are Belgium, Germany and the Netherlands. According to the Brasseurs de France, consumption patterns changed because of the success of premium and specialty beers.

Two brewing companies, both belonging to one of the major five brewing companies in Europe, together represent around three-quarters of the French beer market. France has a large group of artisanal producers of beer in small quantities. Retail is by far the largest sales channel for beer (76% of total sales volume).

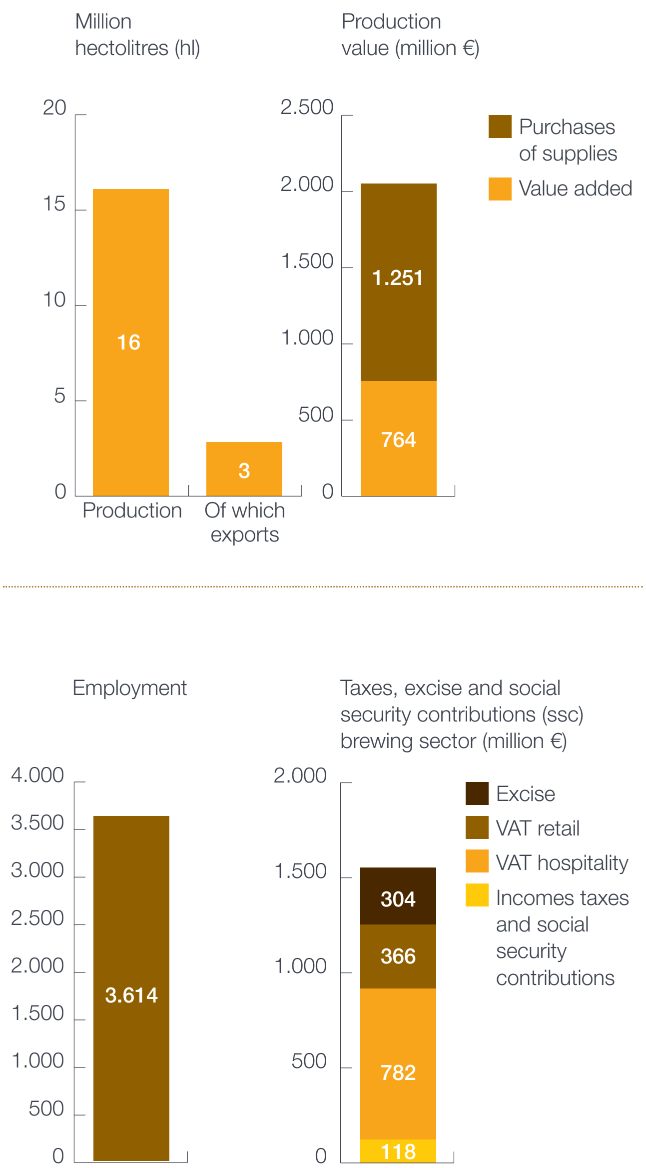
Other developments in the beer sector are:

- New laws regarding the protection of environment and sustainable development. These laws state that 75% of packaging shall be recycled from 2012, and private companies will have to pay 80% of the costs of the collection and sorting. Because of these green laws, the costs of the "green dot" for the breweries will increase. For instance, the cost of the green dot (Eco Emballages) for glass bottles will increase from 19 millions of euro in 2009 to 52 millions of euro between 2011 and 2016.
- Threat of higher tax rates due to the public deficits.
- Difficulties with retail distribution.

3| Direct effect of the brewing sector

The direct economic benefit of the brewing sector for the French economy is significant. In 2010, the direct economic impact of the brewing sector covers more than 3,600 employees who together produce beer, representing a value of 2000 million euro, which is comparable to 2008.

› Graph 17.1. / Direct effect



› Source: Ernst & Young calculation (2011)

[13] Brasseurs de France (2011[14])

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4 | Indirect effects of the brewing sector

38% of the value of the output produced remains within the company as value-added. The other 62% of the 2000 million euro of total turnover accrues to a number of suppliers.

This stimulus of 1250 million euro has a significant economic impact on sectors outside the brewing sector. This effect can be seen in the following table.

Sectors	Stimulus	Stimulus for France		Turnover per employee	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	221.66	59.1%	131.10	71,625	1,830
Utilities	44.73	100%	44.73	432,632	103
Packaging industry	201.53	44%	88.73	259,960	341
Equipment	47.16	65,6%	30.95	259,960	119
Transport	209.98	98,2%	206.28	153,754	1,342
Media, marketing	333.13	81,4%	271.03	145,550	1,862
Services	193.07	90.8%	175.37	145,550	1,205
Total	1,251.27		948		6,803
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					10,466

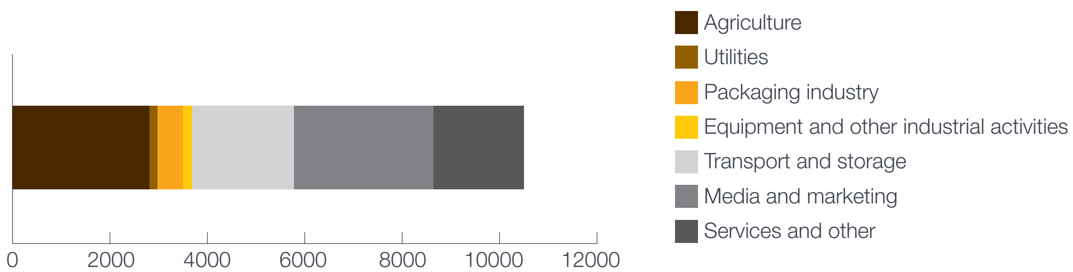
› Source: Ernst & Young Questionnaire among breweries (2011)

The major sectors in which indirect employment is generated by the brewing sector are agriculture, media and marketing and services. The total first-round employment effect of the brewing sector on supplying sectors is around 6,800 employees.

This primary effect is estimated to be about 65% of the total impact. Therefore, the total impact will be approximately 10,500 jobs.

Indirect employment effects are illustrated below:

› *Graph 17.2. / Indirect employment*



› Source: Ernst & Young calculation (2011)

[14] The fiscal revenue from excise duty on beer in 2009 was € 337 million, source: projet de loi de finances 2011 et ANIA. However, at the end of July the European Commission will publish the fiscal revenues of 2010. These new figures will be added to the report.

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- Approximately 24% of all beer consumed in France is sold by the hospitality sector (on-trade), which means 4.7 million hectolitres is sold on-trade.
- The average consumer price of beer in French pubs and restaurants is 10.08 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is 4.8 billion euro (including VAT).
- Net consumer spending on beer is thus estimated at 4.0 billion euro (using a 20% VAT rate).
- With an average hospitality turnover of 86,600 euro (excluding VAT) per person, this results in 46,100 hospitality sector jobs attributable to beer sales.

→ Retail

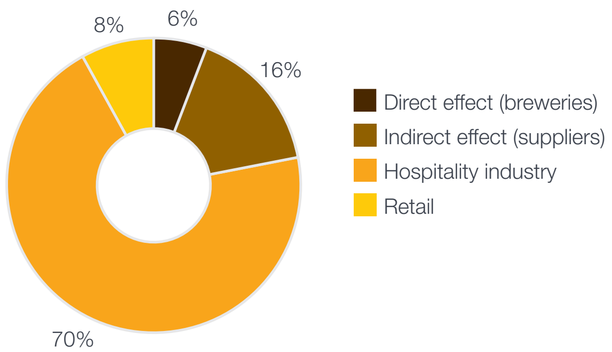
The importance of the brewing sector for retail can be similarly assessed:

- Approximately 76% of total beer consumption (15 million hectolitres) in France is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.49 euro per litre (including VAT), total retail consumer spending on beer is estimated at 2.2 billion euro. Total consumer spending excluding VAT is thus 1.9 billion euro.
- With turnover per employee estimated at 358,300 euro (excluding VAT), this means 5,200 people owe their jobs to retail beer sales.

6| Total employment due to beer

Approximately 3,600 people were employed in French breweries in 2010. Employment in supplying sectors is very important with a total number employed in these sectors arising from the brewing sector of around 10,500. Around 46,100 jobs in the hospitality sector and 5,200 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in France is therefore 65,400 jobs. Compared to 2008, this represents a decrease of 6000 jobs.

› Graph 17.3. / Total employment because of beer: 65,400 jobs



› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

7| Total value added due to beer

8| Total government revenues due to beer

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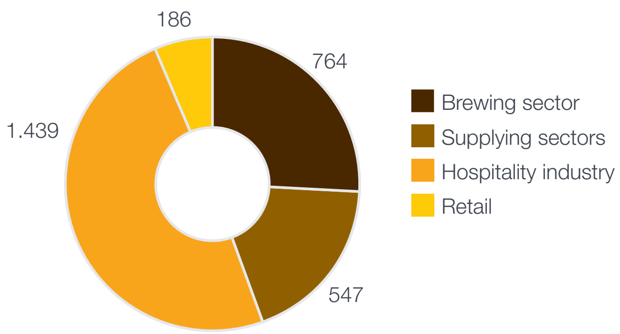
The contribution of the brewing sector to the French economy can also be expressed in terms of value-added. The total value-added generated by these 65,400 jobs is estimated at approximately 2,900 million euro:

› Graph 17.4. / Value added due to the production and sale of beer: 2.936 billion euro



› Source: Ernst & Young calculation (2011)

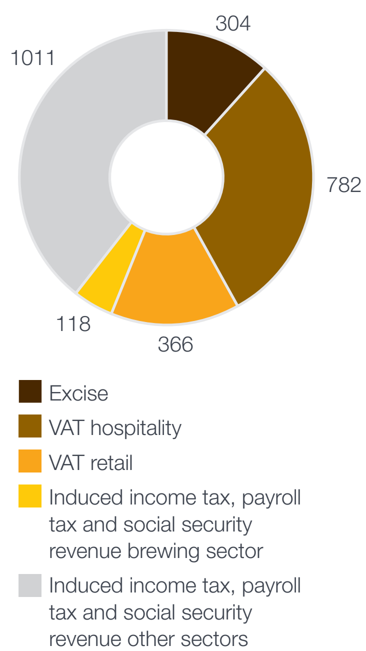
The share of the brewing sector in the overall value-added due to the production and sale of beer is 26%, which is higher than the share of the brewing sector in total employment due to beer (6%). An important explanation for this is the high productivity of employees in the brewing sector, compared to sectors such as retail and hospitality in terms of value-added.

In 2010, total revenue from excise, VAT and income-related contributions due to beer production and sales were estimated to be 2,581 million euro:

- VAT revenue was estimated to be 1,148 million euro, generated predominantly in the hospitality sector.
- The total excise revenue from beer was 304 million euro.
- Income-related revenue due to beer production and sales were approximately 1,148 million euro, comprising 286 million euro income tax, 206 million euro social security contributions paid by employees and 637 million euro social security taxes and payroll taxes paid by employers.

In 2008 we calculated that the revenue from excise, VAT and income-related contributions due to beer production and sales was 2,589 million euro.

› Graph 17.5. / Government revenues due to the production and sale of beer: 2.58 million euros



› Source: Ernst & Young calculation (2011)

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Germany

1 | Highlights

18

Country profile	
Population [15]	81,802,257
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100) [16]	116

Beer market	2008	2009	2010
Total production (in hectolitres)	103,000,000	98,078,000	95,683,000
Total exports (in hectolitres)	15,000,000	13,900,000	15,143,000
Total imports (in hectolitres)	7,000,000	5,692,000	6,918,000
Total consumption (in hectolitres)	91,000,000	89,853,000	87.872.000
Consumption of beer per capita (in litres)	111	110	107
Breweries (including micro-breweries)	1,328	1,331	1,325
Breweries (excluding micro-breweries)	734	704	687

› Source: Deutscher Brauer-Bund (2011)

Economic impact	2010	Compared to 2008
Total jobs due to beer	510,139 jobs	-2.1%
Total value added due to beer	2,592 million euro	-7.1%
Total government revenues due to beer	12,449 million euro	-2.9%

[15] Source: Eurostat, data per december 31st 2010
[16] Source: Eurostat, 2011
[17] Import figure for the year 2007 instead of 2008

2| Market structure, trends and developments

Germany is still the number-one beer producing country in Europe. However, the demographic influence of the ageing population is having a significant effect.[18] Older people tend to drink less alcohol and the middle-aged segment of traditional beer drinkers is diminishing. Growth rates in beer mainly come from younger and, increasingly, female consumers. These young consumer groups increasingly turn away from the traditional beer styles, such as Pilsener which, nevertheless, still accounts for over 55% of all beer volume sold in Germany.

Following an increased beer consumption of more than 1% in volume terms in 2006 as a result of FIFA Football World Cup euphoria and a particularly good summer, consumption has been declining further to approximately 88 billion litres in 2010.[19] Apart from the ageing population, there is an overall trend towards lower beer consumption due to the health and wellness trend and different tastes of younger consumers. The assumption is an average decrease in consumption of 2% per year, which is also reflected in the average consumption per capita in litres. This consumption has reached 107.4 litres compared to 111.8 litres in 2007. For the sector it is important that beer in Germany remains a significant tourist attraction with large events such as the Oktoberfest, the beer drinking festival held in Munich, each year in September.

75% of beer is currently consumed off-trade, and 25% on-trade in bars and restaurants.[20] Overall this means a further decline in on-trade beer sales. In 2008 the on-trade accounted for 29% of total volume. The economic downturn in Germany is one of the reasons for this decline, as people have less money to spend. Furthermore, in 2010 more than 50% of beer from the leading brands has been sold with special offer prices in the retail sector, which has resulted in a reduction in beer prices. By comparison, with prices in on-trade being 7.20 euro per litre versus approximately 0.95 Euro per litre it is not surprising that on-trade sales are in decline.

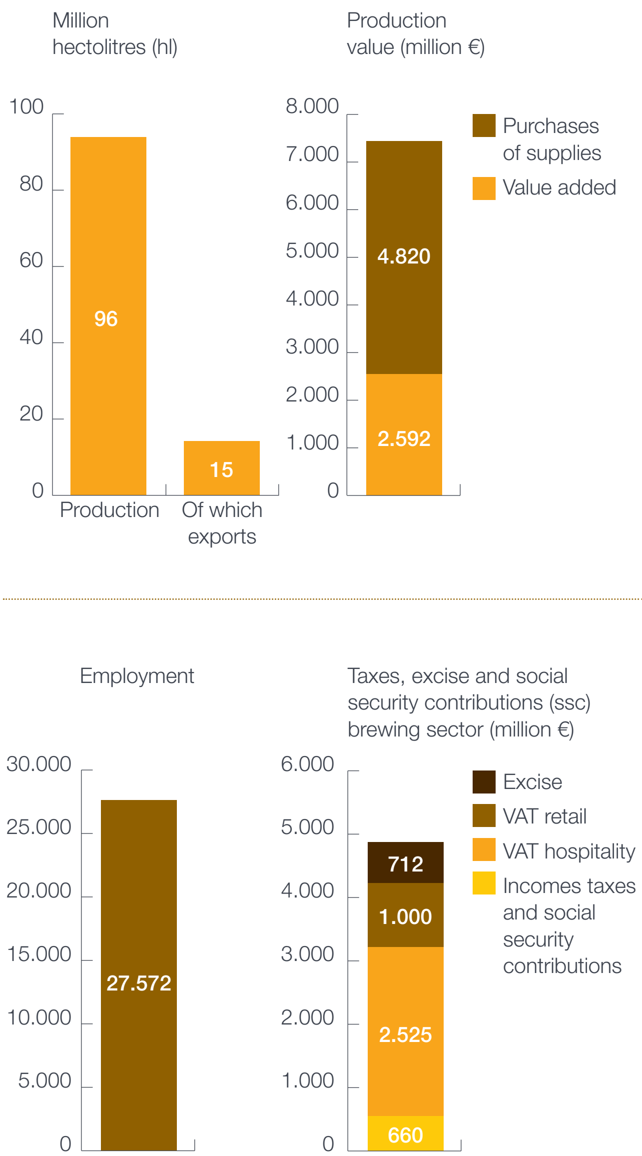
In 2010, Germany exported over 15 million hectolitres of beer, a similar volume to that in 2008. This was a significant increase after the dip in 2009. In that year only 13,9 million hectolitres were exported. Italy is the main export market.

In Germany there is an on-going public discussion on beer and health, binge drinking and public drinking. It is still uncertain what policies this may result in. Another threat for beer production is reduced availability of barley, which has lead to an increase in production costs.

3| Direct effect of the brewing sector

The direct economic impact of the brewing sector covers more than 27,572 employees who together produce beer, representing a value of 7.4 billion euro. Compared to 2008, the total value decreased by 7.1%. However, the direct effect of the brewing sector for the German economy is still significant.

› Graph 18.1. / Direct effect



› Source : Ernst & Young calculation (2011)

[18] Euromonitor International "Beer in Germany" , February 2008.
[19] Euromonitor International "Beer in Germany" , February 2008.
[20] Deutscher Brauer-Bund, 2011.

4 | Indirect effects of the brewing sector

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35% of the value of production output remains within the companies as value-added. The other 65% of 7.9 billion euro in total turnover accrues to a number of suppliers.

This stimulus of approximately 5.2 billion euro has a significant economic impact on sectors outside the brewing sector:

Sectors	Stimulus	Stimulus for Germany		Turnover per employee	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	816.50	79.5%	649.4	€ 43,009	7,901
Utilities	157.22	98.7%	155.1	€ 970,738	160
Packaging industry (in hectolitres)	483.29	85.6%	413.9	€ 249,097	1,662
Equipment	488.80	85.4%	417.4	€ 249,097	1,675
Transport	588.86	87.4%	514.6	€ 149,799	3,435
Media, marketing	486.29	90%	437.7	€ 111,573	3,923
Services	1,798.58	89.4%	1,607.2	€ 111,574	14,405
Total	4,819.54		4,195		33,161
First-round impact as % of total impact					65
Total indirect effect of brewing sector					51,017

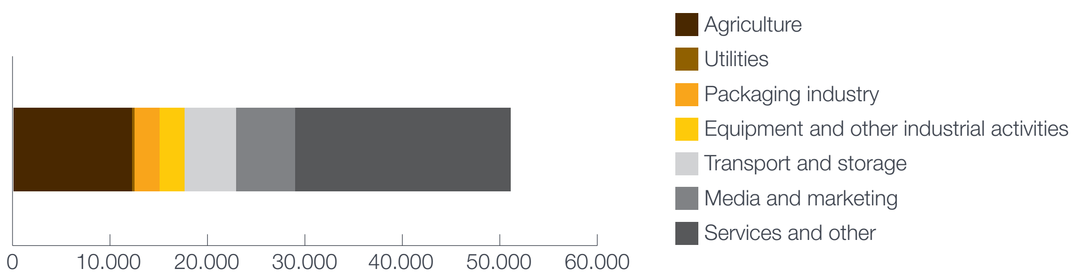
› Source: Ernst & Young Questionnaire among breweries (2011); Eurostat (2008).

Almost half of all the indirect employment generated by the brewing sector is created within the services sector. Other substantial effects can be observed in agriculture, the media and marketing sector and the transport sector. The total first-round employment effect of the brewing sector on supplying sectors is over 33,200 employees.

This primary effect can be estimated at about 65% of the total impact. Therefore, the total impact will be about 51,000 jobs.

Indirect employment effects are illustrated below:

› *Graph 18.2. / Indirect employment*



› Source: Ernst & Young calculation (2011)

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- About 25% of all beer consumed in Germany in 2010 was sold by the hospitality sector (on-trade), which means almost 22 million hectolitres was sold on-trade.
- The average consumer price of beer in German pubs and restaurants is estimated at 7,20 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is 15,8 billion euro (including VAT).
- Net consumer spending on beer was thus estimated as13.3 billion euro (using a 19% VAT rate).
- With an average hospitality turnover of 32,097 euro (excluding VAT) per person, this results in 414.100 hospitality sector jobs attributable to beer sales.

→ Retail

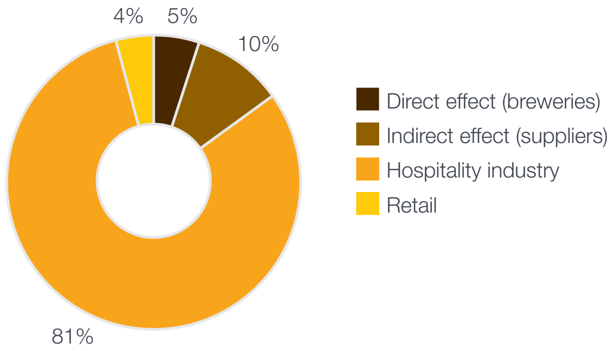
The importance of the brewing sector for retail can be similarly assessed:

- Around 75% of total beer consumption (66 million hectolitres) in Germany is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 0.95 euro per litre (including VAT), total retail consumer spending on beer was estimated to be 6.3 billion euro. Total consumer spending excluding VAT was thus 5.3 billion euro.
- With turnover per employee estimated at 301,602 euro (excluding VAT), this means 17.400 people owe their jobs to retail beer sales.

6| Total employment due to beer

Approximately 27,570 people were employed in German breweries in 2010. Employment in supplying sectors is very important with a total number employed in these sectors arising from the brewing sector of around 51.000. Around 414.100 jobs in the hospitality sector and 17,400 in the retail sector can be attributed to the sale of beer. The total employment impact of the brewing sector is therefore 510,100. Compared to 2008 this represents a decrease of more than 11.000 jobs.

› *Graph 18.3. / Total employment because of beer: 510,100 jobs*



› Source: Ernst & Young calculation (2011) (see Annex III for an explanation of the methodology).

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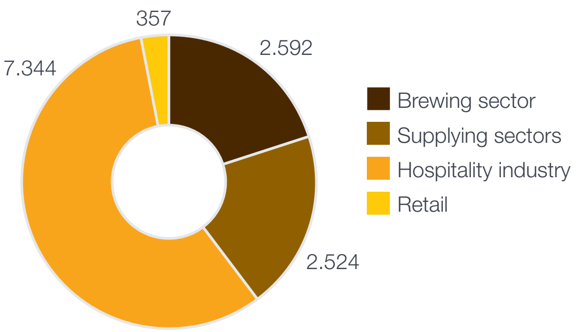
7 | Total value added due to beer

The contribution of the brewing sector to the German economy can also be expressed in terms of value-added. The total value-added generated by these 510,100 jobs is estimated at 12.8 billion euro:

› Graph 18.4. / Value added due to the production and sale of beer: 12,8 million euro



› Source: Ernst & Young calculation (2011)

The brewing sector share of overall value-added arising from the production and sale of beer is 21%, which is significantly higher than the brewing sector share in total employment arising from beer (6%). A key explanation for this is the high productivity of brewing sector employees.

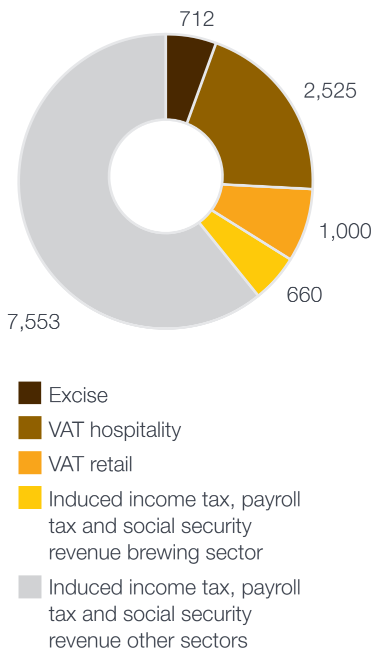
8 | Total government revenues due to beer

Another substantial direct effect of the brewing sector concerns taxes and excises paid by beer brewers and consumers. Excises reached 712 million euro and total VAT income for the German government was estimated at 3.5 billion euro. Personal income taxes and social security contributions paid by employees of the brewing sector amounted to 821 million euro.

In 2010, total revenue from excise, VAT and income-related contributions due to beer production and sales were estimated to be 12,449 million euro:

- VAT revenue was estimated as 3,525 million euro, the main proportion being generated by the hospitality sector.
- The total excise revenues on beer amounted to 712 million euro.
- Income-related revenue due to beer production and sales was approximately 8.213 million, comprising 2,815 million euro in income tax, 2,604 million euro social security contributions paid by employees and 2,794 million euro social security taxes and payroll taxes paid by employers.

› Graph 18.5. / Government revenues due to the production and sale of beer: 12.4 billion euro



› Source: Ernst & Young calculation (2011)

19

Greece

19

1 | Highlights

Country profile	
Population[21]	11,305,118
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100)[22]	94

Beer market	2008	2009	2010*
Total production (in hectolitres)	4,500,000	4,177,000	3,940,000
Total exports (in hectolitres)	400,000	303,000	299,000
Total imports (in hectolitres)	300,000	454,000	451,000
Total consumption (in hectolitres)	4,600,000	4,329,000	4,092,000
Consumption of beer per capita (in litres)	41	38	36
Beer producing companies (including micro brewing companies)	9	9	9
Breweries (including micro-breweries)	11	11	11

› Source : Greek Brewers' Association (2008), Canadean 2010
* Forecast Canadean

Economic impact	2010	Compared to 2008
Total jobs due to beer	59,600 jobs	-15%
Total value added due to beer	1,08 billion euro	-12%
Total government revenues due to beer	997 million euro	-4.3%

[21] Source : Eurostat, data per december 31st 2010
[22] Source : Eurostat, 2011

2 | Industry and market structure, trends and developments

Given its size, Greece is one of Europe's smaller beer markets, with total production in 2010 estimated to be 3.9 million hectolitres.

The two large international companies (one of which recently took control of the Mythos brewery) have together a market share of 80%. Just three lagers (Heineken, Amstel and Mythos) make up approximately 90% of beer sold on the Greek market.

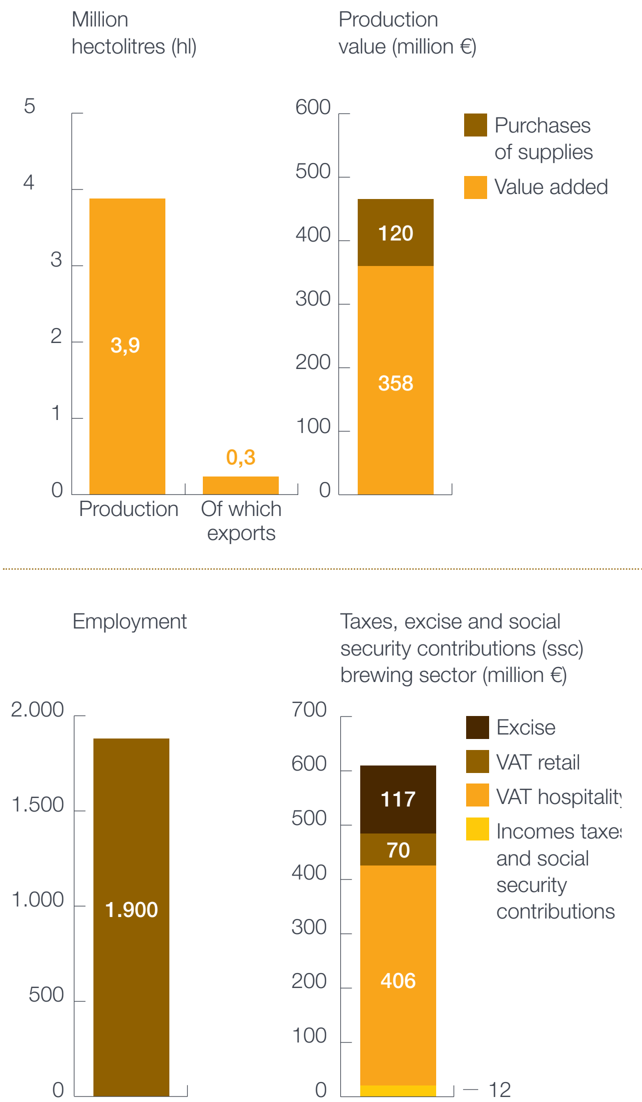
Greece features a high proportion of value sales through the hospitality channel, where it accounts for around 62%. This is partly due to the annual influx of tourists, who generate a considerable proportion of on-trade sales. Moreover, native Greeks tend to experiment with more expensive imported beers when they go out, given that they do not often consume such products at home, where wine is more commonly drunk. Beer consumption has been increasing annually until 2008. Since 2009 there has been a drop in consumption, due to the financial crisis in Greece.

The recent economic crisis has caused a sharp escalation of government deficits, which turned into a public debt crisis in several countries, most notably in Greece. Faced with the need to bring public debt under control, governments were forced to raise revenues and lower their expenditures. The Greek Government decisions lead to substantial increases of beer excise duty rate in the last two years.

3 | Direct effect of the brewing sector

The direct brewing sector economic impact covers more than 1,900 employees who together produce beer worth 478 million euro. Compared to 2008 the production value has decreased.

› Graph 19.1. / Direct effect



› Source: Ernst & Young calculation (2011)

Another substantial direct effect of the brewing sector concerns taxes and excises paid by beer brewers and consumers. Excises account for 117 million euro and total VAT income for the Greek government was estimated at 476 million euro. Direct taxes and social security contributions (ssc) paid by employees of the brewing sector are 12 million euro.

Due to the economic crisis and a smaller production and consumption of beer, the direct government revenues were lower than calculated for the year 2008. The Greek breweries together achieved an estimated 478 million euro in turnover. About 76% of total turnover remins within these companies as value-added (358 million euro).

4 | Indirect effects of the brewing sector

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76% of the value of the output produced remains within the Greek brewing sector as value added. The other 24% of 478 million euro in total turnover accrues to a number of suppliers.

This stimulus of 120 million euro has a significant economic impact on sectors outside the brewing sector, most substantially on the packaging industry and on the media and marketing sector:

Sectors	Stimulus	Stimulus for Greece		Turnover per employee	Number of employees
	(mln. €)	% spent in own country	(mln. €)	(in €)	
Agriculture	11	35%	4	18,893	211
Utilities	4	100%	4	229,320	18
Packaging industry (in hectolitres)	39	65%	25	144,144	176
Equipment	9	65%	6	144,144	41
Transport	17	100%	17	96,406	175
Media, marketing	22	95%	21	120,559	172
Services	17	95%	17	120,559	137
Total	120		94		931
First-round impact as % of total impact					65
Total indirect effect of brewing sector					1,433

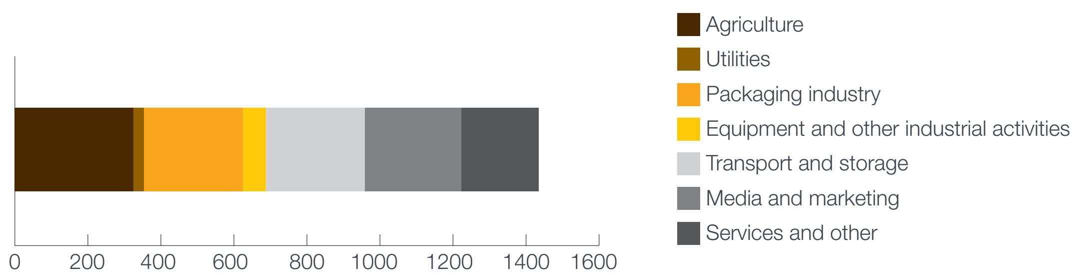
› Source: Ernst & Young calculation, (2011); Eurostat (2006)

Other substantial effects can be observed for transport and services. The total first-round employment effect of the brewing sector on supplying sectors is approximately 931 employees. This primary effect can be estimated at about 65% of the total impact.

Thus,the total impact will be about 1,400 jobs.
For 2008 we calculated 1,700 indirect jobs.

Indirect employment effects are illustrated below:

› *Graph 19.2. / Indirect employment*



› Source: Ernst & Young calculation (2011)

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- About 62% of all beer consumed in Greece is sold by the hospitality sector (on-trade), which means almost 2.5 million hectolitres is sold on-trade.
- The average consumer price of beer in Greek pubs and restaurants is estimated at 8.56 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is 2.2 billion euro (including VAT).
- Net consumer spending on beer is thus estimated at 1.8 billion euro (using a 23% VAT tariff).
- With an average hospitality turnover of 31,200 euro (excluding VAT) per person, this results in 54,400 hospitality sector jobs attributable to beer sales. Compared to 2008 there are 10,000 jobs less due to beer in the hospitality.

→ Retail

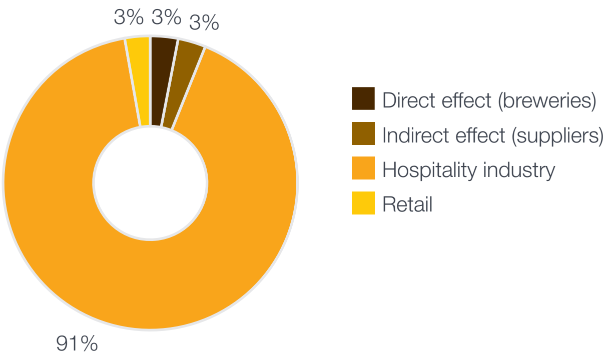
The importance of the brewing sector for retail can be similarly assessed:

- Around 38% of total beer consumption (2.4 million hectolitres) in Greece is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 2.41 euro per litre (including VAT), total retail consumer spending on beer is estimated at 375 million euro. Total consumer spending excluding VAT is thus 289 million euro.
- With turnover per employee estimated at 161,700 euro (excluding VAT), this means 1,800 people owe their jobs to retail beer sales. Compared to 2008 the job loss in the retail is 100.

6| Total employment due to beer

In 2010, Greek breweries employed 1,900 people. Besides this direct employment, the brewing sector generates important indirect effects within supply sectors. It is estimated that 1,430 supply industry jobs can be attributed to the brewing sector (beer sales). Downstream, the hospitality and retail sectors benefit through their beer sales. Around 54,400 jobs in the hospitality sector can be attributed to beer, while in retail some 1,800 people owe their jobs to beer sales. The total employment impact is thus 59,600 jobs. This is a decline in employment in comparison to 2008, when the employment impact of the brewing sector was 70,400.

› Graph 19.3. / Total employment because of beer: 59,600 jobs



› Source: Ernst & Young calculation (2011)

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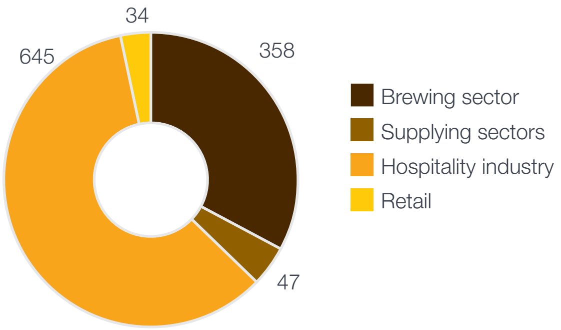
7| Total value added due to beer

The contribution of the brewing sector to the Greek economy can also be expressed in terms of value-added. The total value-added generated by these 59,600 jobs is estimated at 1,084 million euro. In 2008 the total value-added due to beer was higher (1,235 million euro).

› Graph 19.4. / Value added due to the production and sale of beer: 1.1 billion euro



› Source: Ernst & Young calculation (2011)

The brewing sector share of overall value-added arising from the production and sale of beer is 33%, which is significantly higher than the brewing sector share in total employment arising from beer (3%). A key explanation for this is the high productivity of brewing sector employees.

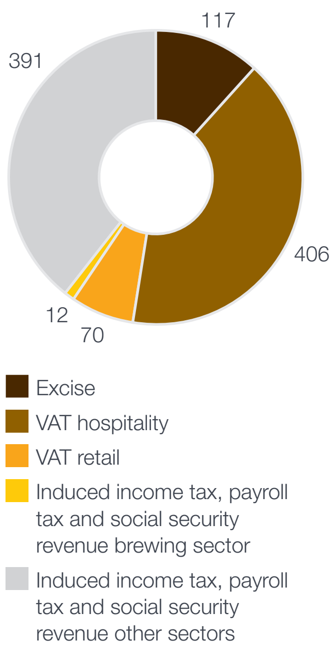
8| Total government revenues due to beer

The 2010 government also benefitted from the brewing sector, receiving some 997 million euro in taxes and excises:

- VAT revenue was estimated to be 476 million euro, the main proportion being generated in the hospitality sector. Despite declining consumption VAT revenue increased due to a higher VAT rate.
- Total excise revenue from beer was 116 million euro.
- Income-related revenue due to beer production and sales was approximately 404 million euro comprising 93 million euro income tax, 138 million euro social security contributions paid by employees and 172 million euro social security taxes and payroll taxes paid by employers.

In 2010 total government revenue due to beer was lower than in 2008 (1.04 billion euro).

› Graph 19.5. / Government revenues due to the production and sale of beer: 997 million euro



› Source: Ernst & Young calculation (2011)

20

Hungary

1 | Highlights

20

Country profile	
Population[23]	10,014,324
Currency	Hungarian Forint (HUF)
GDP per capita in PPS (2009, EU27 = 100)[24]	65

Beer market	2008	2009	2010*
Total production (in hectolitres)	7,049,000	6,347,700	6,295,000
Total exports (in hectolitres)	559,000	251,000	374,000
Total imports (in hectolitres)	463,000	95,000	100,000
Total consumption (in hectolitres)	7,100,000	6,500,000	6,100,000
Consumption of beer per capita (in litres)	72	65	61
Beer producing companies (including micro brewing companies)	55	55	55
Breweries (including micro-breweries)	54	54	54

› Source: National Brewers' Association in Hungary, Magyar Sörgyártók Szövetsége (2011)

Economic impact	2010	Compared to 2008
Total jobs due to beer	28,300 jobs	-16.5%
Total value added due to beer	317 million euro	-4.1%
Total government revenues due to beer	492 million euro	+1.8%

[23] Source: Eurostat, data per december 31st 2010
[24] Source: Eurostat, 2011

2| Market structure, trends and developments

Although Hungary might be better known as a wine-producing country, it has a significant history of commercial beer production. The first commercial brewery in Hungary was established in 1845 (by Peter Schmidt), followed shortly by other breweries, some of which are still active today. In 2010 breweries in total produced 6.30 million hectolitres of beer. Beer consumption in the same year was 6.1 million hectolitres. This means a steady decline in beer production and consumption. In 2008 total production was 7.05 million hectolitres, consumption was 7.1 million hectolitres.

There are three main players in the Hungarian beer market.[25] Together they have a market share of almost 80%. All three have been acquired by major multinational brewing companies. The fourth player is owned by an Austrian brewing company. Besides these four main brewing companies, there are some 50 micro breweries active in Hungary.[26]

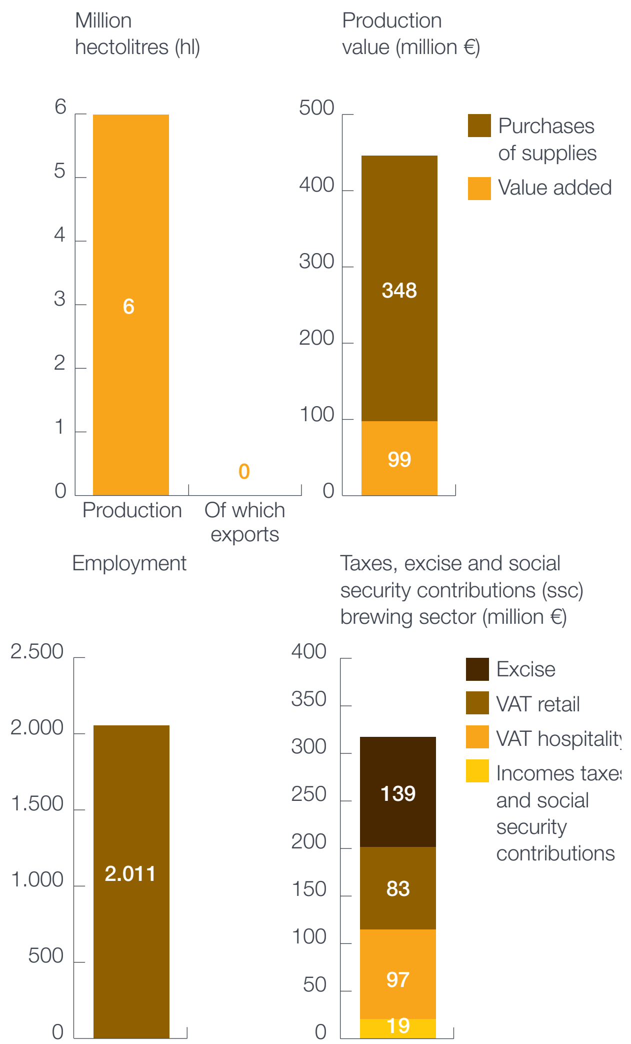
The economic impact of the brewing sector is influenced by the following trends, developments and characteristics of the Hungarian economy[27]:

- Due to changes in legislation (eco-tax laws, excise increases) and the general economic impact on consumption, beer consumption has been decreasing in recent years.
- Consumption per capita has fallen significantly. In the 1980's it was 100 litres per capita, in 2007 it was down to 73 litres. Currently it is even lower at 61 litres per capita. The main causes are the effects of the financial crises that have significantly reduced buying power.
- The Hungarian brewing sector also has to deal with other negative factors; there was an increase in beer excise duty of 10% in January 2010 following a 6.5% increase on 1 July 2009. Also VAT increased in 2010 by 2.5%. These developments have had an adverse effect on consumption.
- Despite the decline in consumption, tax revenues for the State were higher in 2010 than in 2008 due to the increases in excise and VAT rates.
- On top of the volume decline, the share of less expensive brands has been increasing. This trend continued in 2010.
- The four large brewers slightly decreased their premium and mainstream share within the total market.
- Due to the eco-tax law change from 1 January 2009, imported beer enjoys a favourable position compared with domestic production. Beer is mainly imported from Germany, Poland and the Czech Republic.

3| Direct effect of the brewing sector

Hungarian breweries in total produce slightly more than 6.3 million hectolitres of beer with a value of 447 million euro. They employ more than 2,000 people. Compared to 2008, the total value decreased by 10.6%.

› Graph 20.1. / Direct effect



› Source: Ernst & Young calculation (2011)

Another substantial direct effect of the brewing sector concerns taxes and excises paid by beer brewers and consumers. In 2010 excises reached 178 million euro and total VAT income for the Hungarian government was estimated at 180 million euro. Personal direct taxes, social security contributions and payroll taxes paid by employees and employers in the brewing sector add up to another 20 million euro.

[25] National Brewers' Association of Hungary, Magyar Sörgyártók Szövetsége, 2010.
[26] National Brewers' Association of Hungary, Magyar Sörgyártók Szövetsége, 2010.
[27] National Brewers' Association of Hungary, Magyar Sörgyártók Szövetsége, 2009.

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4 | Economic impact of breweries on goods and services suppliers

In 2010, 22% of production value stayed within the companies as value-added. The other 78% of 447 million euro in total turnover accrued to the suppliers of goods and services.

Of this stimulus of 348 million euro, 249 million euro stayed within the country. This stimulus has a significant economic impact on sectors outside the brewing sector, most substantially on the agriculture sector:

Sectors	Stimulus	Stimulus for Hungary		Turnover per employee	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	64	83	53	14,352	3,780
Utilities	19	100	19	1,019,720	17
Packaging industry (in hectolitres)	98	20	20	133,640	68
Equipment	47	60	28	133,640	252
Transport	31	100	31	66,650	421
Media, marketing	78	100	78	129,168	564
Services	36	100	36	34,424	984
Total	373		265		6,088
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					9,366

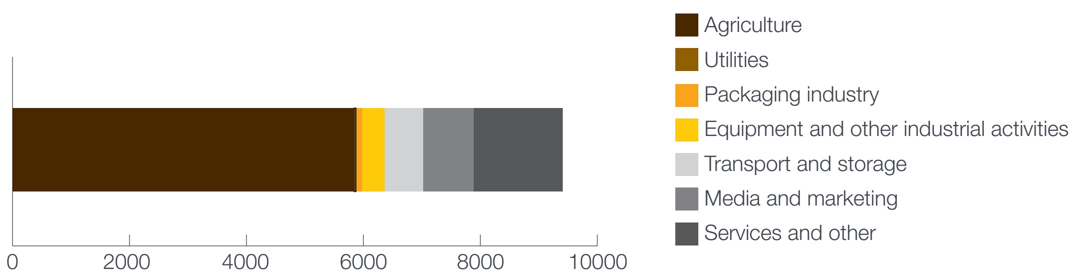
› Source: Ernst & Young calculation (2011); Eurostat (2009

Half of all the indirect employment generated by the brewing sector is within the agriculture sector. Other substantial effects are seen in the media and marketing and services sector. The total first-round employment effect of the brewing sector on supplying sectors is estimated at almost 6,100 employees.

As this primary effect can be estimated at about 65% of the total impact, the total impact can be estimated at approximately 9,366 jobs.

Indirect employment effects are illustrated below:

› Graph 20.2. / Indirect employment



› Source: Ernst & Young calculation (2011)

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- About 38% of all beer consumed in Hungary is sold in the hospitality sector (on-trade), which means almost 2.3 million hectolitres is sold on-trade.
- The average consumer price of beer in Hungarian pubs and restaurants is estimated at 2.09 euro per litre (including VAT)[28], so that total consumer spending on beer in the hospitality sector is 484 million euro (including VAT).
- Net consumer spending on beer is thus estimated to be 388 million euro (using a 25% VAT rate).
- With an average hospitality turnover of 25.900 euro (excluding VAT) per person, this results in almost 15.000 hospitality sector jobs attributable to beer sales.

→ Retail

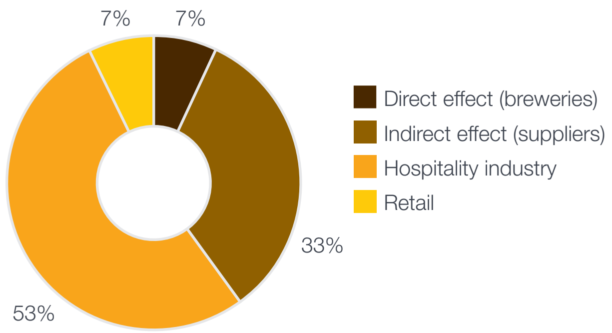
The importance of the brewing sector for retail can be similarly assessed:

- Around 62% of total beer consumption (3.8 million hectolitres) in Hungary is as beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.10 euro per litre (including VAT)[29], total retail consumer spending on beer is estimated at 416 million euro. Total consumer spending excluding VAT is thus 332.8 million euro.
- With turnover per employee estimated at 170,700 euro (excluding VAT), this means 1,950 people owe their jobs to retail beer sales.

6| Total employment due to beer

Approximately 2,000 people were employed in the Hungarian breweries in 2010. Employment in supplying sectors is important with a total numbers employed in these sectors arising from the brewing sector around 9,400. Around 15,000 in the hospitality sector and 1,950 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in Hungary is therefore 28,293 jobs. Compared to 2008, this represents a decrease of around 5,500 jobs.

› Graph 20.3. / Total employment because of beer: 28,293 jobs



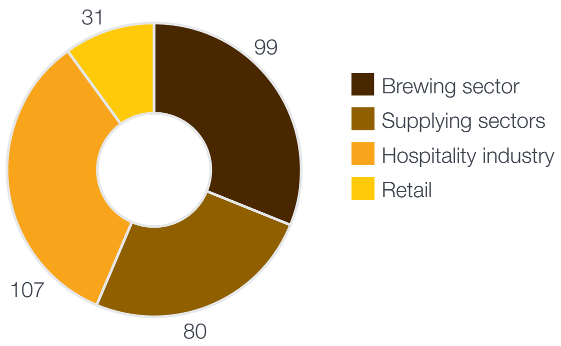
› Source: Ernst & Young calculation (2011) (see Annex III for an explanation of the methodology).

[28] National Brewers' Association of Hungary, Magyar Sörgyártók Szövetsége, 2010.
[29] National Brewers' Association of Hungary, Magyar Sörgyártók Szövetsége, 2010.

7 | Total value added due to beer

The contribution of the brewing sector to the Hungarian economy can also be expressed in terms of value-added. The total value-added generated by these 28,293 jobs is estimated at 317 million euro:

› *Graph 20.4. / Value added due to the production and sale of beer: 317 million euro*



› Source: Ernst & Young calculation (2011)

The brewing sector share of overall value-added arising from the production and sale of beer is 25%, which is much higher than the brewing sector share in total employment arising from beer. A significant explanation for this is the high productivity of brewing sector employees in comparison with productivity in other sectors.

8 | Total government revenues due to beer

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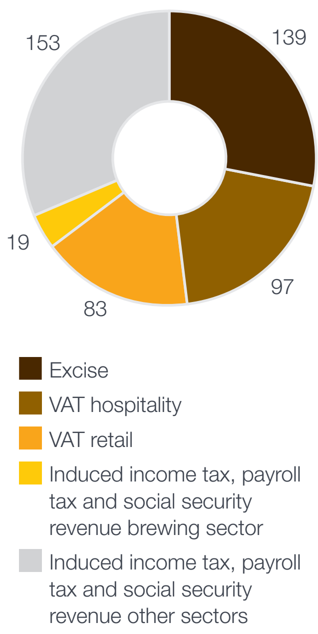
Total revenue from excise, VAT and income-related contributions due to beer production and sales were estimated at 492 million euro:

- VAT revenue was estimated to be 180 million euro, generated mainly in the hospitality sector.
- The total excise revenue from beer was 139 million euro.
- Income-related revenue due to beer production and sales was approximately 172 million euro comprising 57 million euro in income tax, 29 million euro social security contributions paid by employees and 87 million euro social security taxes and payroll taxes paid by employers.

› *Graph 20.5. / Government revenues due to the production and sale of beer: 492 million euro*



› Source: Ernst & Young calculation (2011)

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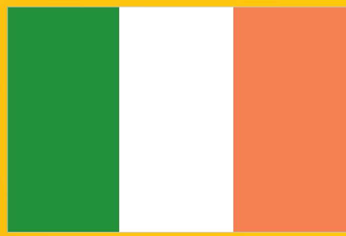


Ireland

21

1 | Highlights

Country profile	
Population[30]	4,470,700
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100)[31]	127

Beer market	2008	2009	2010
Total production (in hectolitres)	8,846,000	8,041,500	8,249,000
Total exports (in hectolitres)	4,525,000*	4,101,165*	4,289,480**
Total imports (in hectolitres)	872,000*	914,665	854,480**
Total consumption (in hectolitres)	5,193,000	4,855,000	4,814,000
Consumption of beer per capita (in litres)	99	91	90
Beer producing companies (including micro brewing companies)	24	24	24
Beer producing companies (excluding micro brewing companies)	2	2	2
Breweries (including micro-breweries)	26	26	26
Breweries (excluding micro-breweries)	5	5	5

› Source: Source: Irish Brewers Association (2011); *Canadean (2010)
** Estimates of Ernst and Young on bases of assumption of estimatied percentage of export by the Irish Brewers Association

Economic impact	2010	Compared to 2008
Total jobs due to beer	44,540 jobs	-15.1%
Total value added due to beer	365 million euro	-6.6%
Total government revenues due to beer	1,144 million euro	-22.9%

[30] Source: Irish Brewers Association
[31] Source: Eurostat, 2011

2 | Market structure, trends and developments

Irish breweries produced 8.249 million hectolitres of beer in 2010, slightly less than in 2008 (8.846 million hectolitres)[32], but a marginal recovery on 2009 (8.041 million hectolitres).Consumption was relatively stable following a period of decline. The annual consumption per capita was approximately 90 litres in 2010.

Most beer is consumed in pubs and restaurants. Around 66% of total beer sales is sold in the on-trade.

The economic impact of the brewing sector is influenced by the following trends, developments and characteristics of the Irish beer market and the brewing sector:

- The Irish beer market is mature and highly competitive.
- The largest Irish brewing company has a market share of over 50%, while the second company has a market share of 25%.[33] There are over 20 microbreweries.

Other developments which influence the economic impact of the brewing sector are:

- Ireland has one of the highest excise duty rates on beer in Europe (15.71 euro per hectolitre per cent of alcohol in beer).
- Beer is the most popular alcoholic beverage, but consumption is shifting from beer to wine.
- Although most beer is still sold in hospitality venues, consumption of beer in pubs and restaurants has declined in recent years. The introduction of a smoking ban in Irish hospitality venues in 2008 might be one of the explanations for this.

The most important characteristics of the Irish beer market are:

- There are two large brewing companies in Ireland with a combined market share of 76%. In 2010 Irish breweries produced 8.249 million hectolitres of beer.
- Direct employment in the Irish brewing sector is 1,441 jobs.
- Employment in supplying sectors arising from beer production and sales is estimated at 5,880 jobs. The induced employment in hospitality is around 35.700 jobs while a little over 1,500 jobs in the retail sector can be attributed to beer sales.
- Total employment in Ireland due to beer production and sales is thus 44.540 jobs.
- Consumption has diminished from 5.508 million hectolitres in 2006 to 4.814 million hectolitres in 2010. This is also shown in the consumption per capita in litres. In 2007 this was 106 litres; in 2010 it was 90 litres.
- Most beer is consumed in the hospitality sector (66%). However, there is an ongoing trend towards off-trade consumption. This is partly due to the economic crisis that hit Ireland hard. People have less to spend.
- Government revenues are estimated to be 1.144 million euro comprising 320 million euro excise, 524 million euro VAT and 320 million euro in income-related contributions and taxes.

[32] Source: Irish Brewers Association.
[33] Source: Canedean Ltd. 2010.
[34] Source: Ernst & Young estimate, 2011

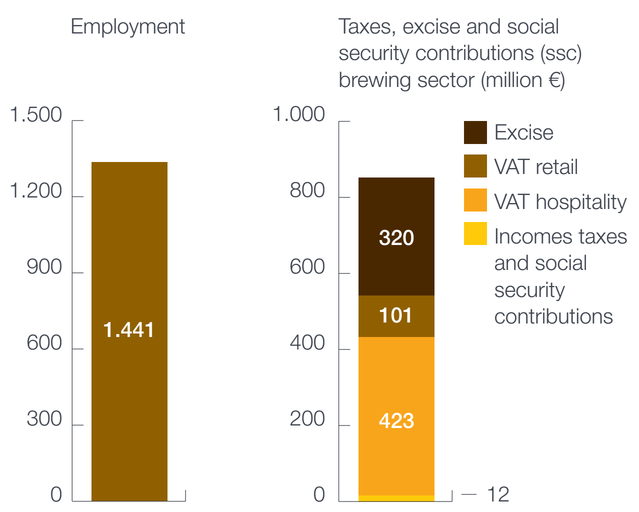
3| Direct effect of the brewing sector

21

The Irish brewing sector employs 1,441 people. Irish breweries together realise a production value of approximately 912 million euro[34] , of which 547 million is spent on supplies.

Another substantial direct effect of the brewing sector concerns taxes and excises paid by beer brewers and consumers. In 2010 excises reached 320 million euro and total VAT income for the Irish government was estimated at 524 million euro. Income taxes and social security contributions paid by employees of the brewing sector add up to another 12 million euro.

› Graph 21.1. / Direct effect of the beer sector



› Source: Ernst & Young calculation (2011)

4 | Economic impact of breweries on goods and services suppliers

40% of production value remains with the breweries. The other 60% of the 912 million euro of total turnover accrues to suppliers.

This stimulus of 547 million euro has a significant economic impact on sectors outside the brewing sector. This effect can be observed in the following table.

Sectors	Stimulus [35]	Stimulus for Ireland		Turnover per employee [36]	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	118	76%	89	33,750	2,649
Utilities	18	100%	18	596,386	30
Packaging industry (in hectolitres)	27	15,5%	4	529,837	8
Equipment	27	40%	11	529,837	21
Transport	118	89%	105	237,689	440
Media, marketing	186	60%	112	216,566	515
Services	53	65%	35	216,566	160
Total	547		373		3,823
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					5,882

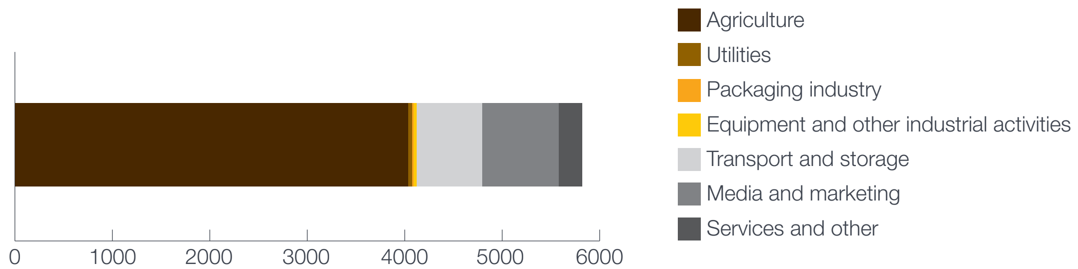
› Source: Ernst & Young calculation (2011) and Eurostat (2008).

Substantial sectors in which indirect employment is generated by the brewing sector are agriculture, media and marketing and transport. The total first-round employment effect of the brewing sector on supplying sectors is around 3,800 employees.

As this primary effect can be estimated at about 65% of the total impact, the total impact will be about 5,880 jobs.

The indirect employment effects are illustrated below:

› *Graph 21.2. / Indirect employment*



› Source: Ernst & Young calculation (2011)

[35] (Domestic) stimulus is calculated on basis of the questionnaire survey and Eurostat data.
[36] Turnover per employee is obtained from Eurostat.

5 | Induced effects of the brewing sector 21

The analysis shows that 64% of the economic impact of the Irish brewing sector on suppliers in terms of employment is concentrated in agriculture. Compared with other European countries this is rather high. There are three explanations for this:

- Approximately 21.5% of the total amount spent by brewing companies is on agricultural goods. This is slightly higher than in other European countries.
- The major quantities (76%) of hops and malt are purchased domestically, whereas a large part of the money spent by brewing companies in other supplying sectors is for purchases abroad.
- The average labour productivity in most sectors in Ireland grew explosively in recent years. In agriculture the turnover per employee remained relatively low. Due to this, a million euro spend by brewing companies in the Irish agricultural sector generates more jobs than a million euro spent in another sector.

Pubs are the dominant outlet channel for beer in Ireland, but in recent years beer sales in the hospitality sector have decreased. In 2006 over 80% of the beer was sold in the on-trade.

→ Hospitality sector

Employment arising from beer sales in the hospitality sector has been estimated to be 35.694 jobs:

- Of the total beer consumption in Ireland approximately 66% is in the hospitality sector.[37]
- This means almost 3.2 million hectolitres were sold by Irish pubs, restaurants and the like.
- The average consumer price of beer in Irish pubs and restaurants is 7.67 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is 2.4 billion euro (including VAT).
- Net consumer spending on beer was thus estimated at 2.0 billion euro (using a 21% VAT rate).
- With an average hospitality turnover of 56,424 euro (excluding VAT) per person, this results in 35,690 hospitality sector jobs attributable to beer sales.

→ Retail

The employment effect of the brewing sector in the retail sector can be similarly assessed:

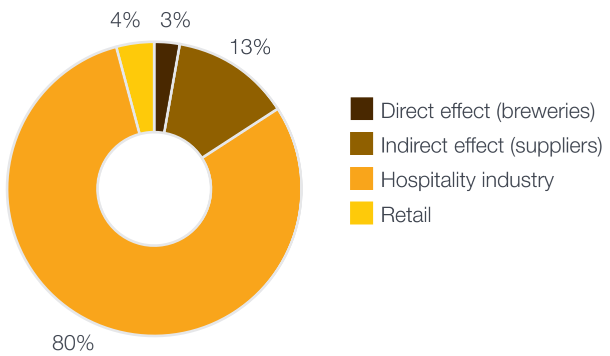
- The share of the retail sector in total beer sales is about 34% (1.6 million hectolitres).
- With an average consumer price of 3.54 euro per litre (including VAT), total retail consumer spending on beer is estimated at 579 million euro. Total consumer spending excluding VAT was thus 479 million euro.
- Because turnover per employee is estimated at 314,265 euro, this means 1,520 people working in the retail sector owe their jobs to the brewing sector.

[37] Source: Irish Brewers Association.

6 | Total employment due to beer

In 2010, approximately 1,441 people were employed in Irish breweries. Employment in supplying sectors is very important with a total number employed in these sectors arising from the brewing sector of around 5,880.
Around 35,690 jobs in the hospitality sector and 1,520 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in Ireland is therefore 44,540 jobs. Compared to 2008, this means a decrease of 7904 jobs. This job loss occurred in the beer industry itself and in the hospitality sector.

› Graph 21.3. / Total employment because of beer: 44,540 jobs

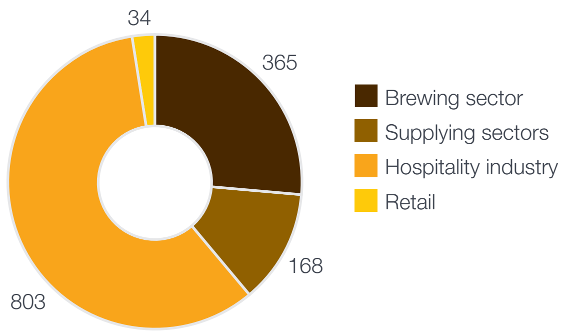


› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

7 | Total value added due to beer

The contribution of the brewing sector to the Irish economy can also be expressed in terms of value-added. Total value-added of the brewing sector in Ireland and value-added generated by firms in supplying sectors and in hospitality and retail sectors arising from the production and sale of beer amounts to 1,370 million euro. This is less than in 2008.

› Graph 21.4. / Value added due to the production and sale of beer: 1,370 million euro



› Source: Ernst & Young calculation (2011)

The brewing sector share of the overall value-added due to the production and sale of beer equates to 27%, which is higher than the share of the brewing sector in total employment due to beer (3%). An key explanation for this is the high productivity of employees in the brewing sector, compared to sectors such as retail and hospitality in terms of value-added.

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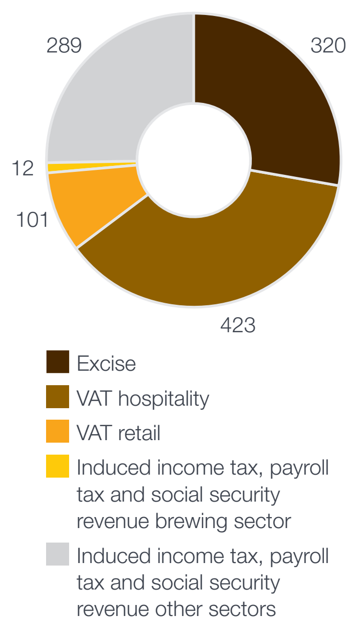
8| Total government revenues due to beer

Total revenue from excise, VAT and income-related contributions due to beer production and sales were estimated to be 1,144 million euro:

- The major proportion of VAT revenues was generated in the hospitality sector (423 million euro). Total VAT revenue was 524 million euro.
- Total excise revenue arising from the brewing industry amounted to 320 million euro.
- Approximately 300 million euro in income-related taxes and contributions were paid due to beer production and sales, comprising156 million euro in income tax, 60 million euro social security contributions paid by employees and 85 million euro social security contributions and payroll taxes paid by employers.

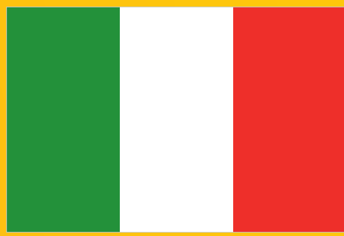
› Graph 21.5. / Government revenues due to the production and sale of beer: 1,144 million euro



› Source: Ernst & Young calculation (2011)

22

Italy



1 | Highlights

22

Country profile	
Population[38]	60,340,328
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100)[39]	104

Beer market	2008	2009	2010
Total production (in hectolitres)	13,273,000	12,776,000	12,814,000
Total exports (in hectolitres)	1,503,000	1,743,00	1,869,000
Total imports (in hectolitres)	5,966,000	5,822,000	6,304,000
Total consumption (in hectolitres)	17,766,000	16,855,000	17,249,000
Consumption of beer per capita (in litres)	29.4	28.0	28.6
Beer producing companies (including micro brewing companies)	266	n.a	347
Beer producing companies (excluding micro brewing companies)	n.a	n.a	8
Breweries (including micro-breweries)	n.a	n.a	353
Breweries (excluding micro-breweries)	n.a	n.a	14
Companies that only import beer for sale	n.a	n.a	8

› Source : National Brewers' Association of Italy, Associazione degli Industriali della Birra e del Malto (2011).

Economic impact	2010	Compared to 2008
Total jobs due to beer	139,442 jobs	-3%
Total value added due to beer	3,157 million euro	-3%
Total government revenues due to beer	3,975 million euro	-1.6%

[38] Source : Eurostat, data per december 31st 2010
[39] Source : Eurostat, 2011

2 | Market structure, trends and developments

Italian breweries produced a combined total of12.8 million hectolitres of beer in 2010, which is lower than in 2008 (13.3 million hectolitres)[40]. Consumption was relatively stable at around 17 million hectolitres. Italian breweries exported 1.9 million hectolitres of beer in 2010, which means an on-going increase in export beer. Also imports grew. In 2010 6.3 million hectolitres were imported.

According to the Italian Brewers Association there are eight large brewing companies, which operate 14 breweries. The largest is an international brewery with a market share of 41%. The second largest brewery has a share of 26%. The number of microbreweries has increased very rapidly in recent years. Because of this increase, employment in the brewing sector has also increased.

The economic impact of the brewing sector is influenced by the following trends, developments and characteristics of the Italian beer market and the brewing sector[41]:

- Per capita beer consumption in Italy is relatively low. In 2007 the per capita beer consumption was half the European average.
- In the period 1975 to 2010, beer consumption per capita increased strongly from 12.8 to 28.6 litres per capita. At the same time alcohol consumption has decreased.
- Although general beer consumption has slightly decreased, the consumption of craft beer has increased.
- The growth in national consumption was satisfied by an increase both in imports and in national production.
- The 14 large breweries are located across the country, including five in Central-Southern Italy.
- There is a marked increase of micro brewing companies, Italy has over 300 microbreweries.

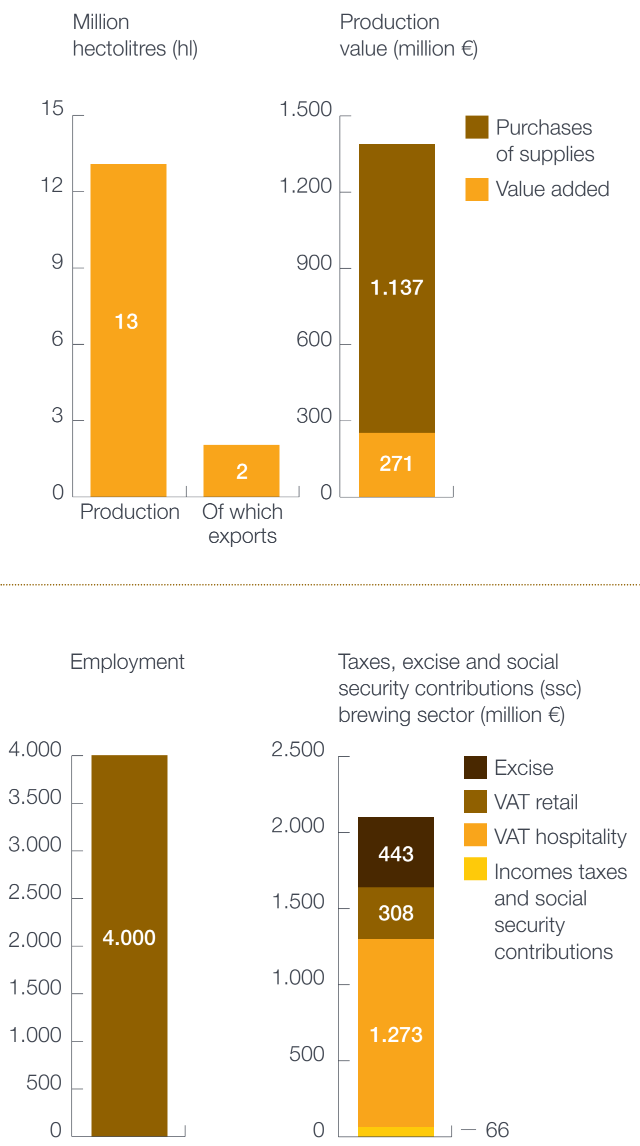
Other developments which influence the economic impact of the brewing sector are:

- Changes in composition of the resident population in Italy: the number of inhabitants coming from foreign countries with an established tradition of beer consumption is growing. At the same time the number of elderly people is increasing due to the lowest birth ratio per capita.
- The impact on the agriculture sector is quite high, because a large share of the malt used is produced in Italy. Italy has two production units, both in Central-Southern Italy.

3 | Direct effect of the brewing sector

The direct economic impact of the brewing sector covers more than 4,000 employees who together produce beer, representing a value of 1,408 million euro. Compared to 2008, the total value decreased by 3.4%. However, the direct economic benefit of the brewing sector for the Italian economy is still significant.

› Graph 22.1. / Direct effect



› Source: Ernst & Young calculation (2011)

[40] Source: National Brewers' Association of Italy, Associazione degli Industriali della Birra e del Malto, 2008 (Questionnaire among brewers' associations).
[41] Information from Associazione degli Industriali della Birra e del Malto, 2009; Associazione degli Industriali della Birra e del Malto, Annual year book 2007.

4 | Indirect effects of the brewing sector

22

In 2010, 19% of output value remained within the companies as value-added. The other 81% of the 1,394 million euro of total turnover accrues to suppliers.

This stimulus of 1,137 million euro has a significant economic impact on sectors outside the brewing sector. This effect can be observed in the following table.

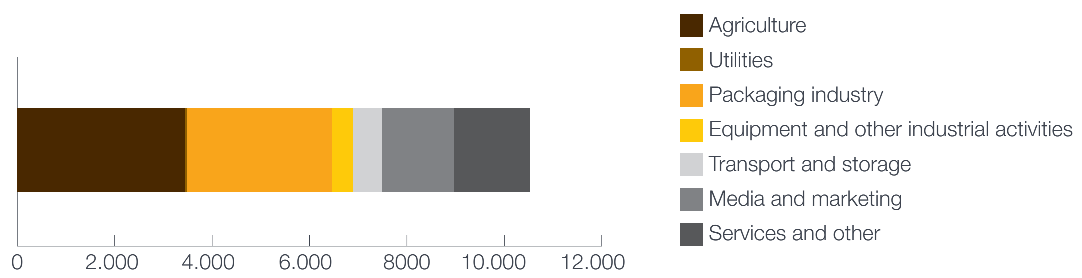
Sectors	Stimulus	Stimulus for Italy		Turnover per employee	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	151	54%	82	36,825	2,231
Utilities	38	100%	38	1,250,323	30
Packaging industry (in hectolitres)	479	83%	396	205,128	1,930
Equipment	62	96%	59	205,128	290
Transport	78	79%	62	164,102	376
Media, marketing	175	83%	146	150,841	968
Services	154	99%	153	150,841	1,011
Total	1,137		936		6,836
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					10,517

› Source : EY Questionnaire among breweries (2011) and Eurostat (2010).

The largest proportion of supplies is purchased from the packaging industry, with further significant spending on services, media and marketing and transport.

Based on the combination of data from the brewing sector in Italy itself and data from the previous study it is estimated that the indirect employment effect is approximately 10,500 employees in the supplying sectors.
The indirect employment effects are illustrated below :

› *Graph 22.2. / Indirect employment*



› Source : Ernst & Young calculation (2011)

The analysis shows that agriculture, the packaging industry and the services sector benefit most from the indirect impact of Italian breweries.

The impact is relatively substantial because a high percentage of goods and services purchased by the breweries are purchased in Italy itself.

5| Induced effects of the brewing sector

Markets for the retail and catering industry in Italy are more balanced than those in other Southern European countries, with around 43% being sold by the hospitality sector and 57% via the retail channel[42].

→ Hospitality sector

Many jobs in the Italian hospitality sector can be attributed to the sale of beer:

- 43% of beer consumption in Italy occurs in the hospitality sector.
- This means 7.4 million hectolitres of beer is consumed in Italian pubs, restaurants and other hospitality facilities.
- The consumer price of beer is approximately 10.30 euro per litre of beer (incl. VAT) in the hospitality sector. so that total consumer spending on beer in the hospitality sector[43] is 7.6 billion euro (including VAT).
- Net consumer spending on beer is thus estimated at 6.4 billion euro (using a 20% VAT tariff).
- With an average hospitality turnover of 53,323 euro (excluding VAT) per person, this results in approximately 119.390 hospitality sector jobs attributable to beer sales.

→ Retail

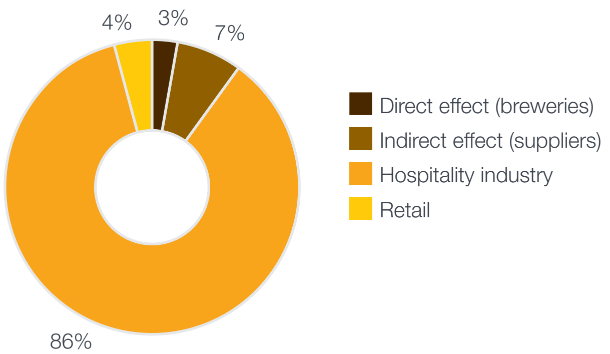
Employment in retail arising from beer sales can be similarly assessed:

- Approximately 57% of total Italian beer consumption is of beer sold by supermarkets and other retail companies.
- With an average consumer price of 1.88 euro per litre (including VAT), total retail consumer spending on beer is estimated to be 1.8 billion euro. Total consumer spending excluding VAT is thus 1.6 billion euro.
- With turnover per employee estimated at 278,309 euro (excluding VAT), this means 5,335 people owe their jobs to retail beer sales.
- With turnover per employee estimated at 170,700 euro (excluding VAT), this means 1,950 people owe their jobs to retail beer sales.

6| Total employment due to beer

In 2010, approximately 4,000 people were employed in Italian breweries. Employment in supplying sectors is important with a total number employed in these sectors arising from the brewing sector of around 10,500.
The hospitality sector has the largest share with around 119.391 jobs, and there are 5,535 jobs in the retail sector which can be attributed to the sale of beer. The total employment impact due to beer production and sales in Italy is therefore 139.442 jobs. This represents a loss of almost 4400 jobs compared to 2008.

› Graph 22.3. / Total employment because of beer: 139,442



› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

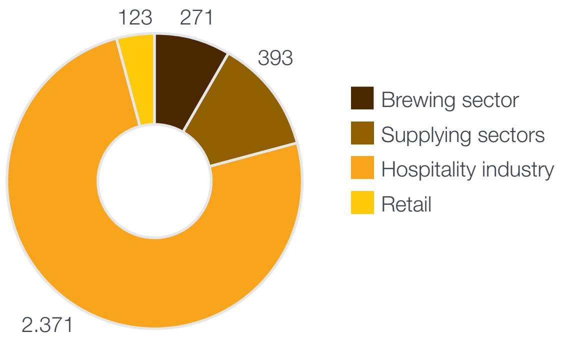
[42] Source: Italian brewers' association, Associazione degli Industriali della Birra e del Malto 2011.
[43] Source: Italian brewers' association, Associazione degli Industriali della Birra e del Malto 2011.

22

7| Total value added due to beer

The contribution of the brewing sector to the Italian economy can also be expressed in terms of value-added. The total value added generated by these 139,442 employees is estimated at 3.2 billion euro:

› Graph 22.4. / Value added due to the production and sale of beer: 3,157 million euro



› Source: Ernst & Young calculation (2011)

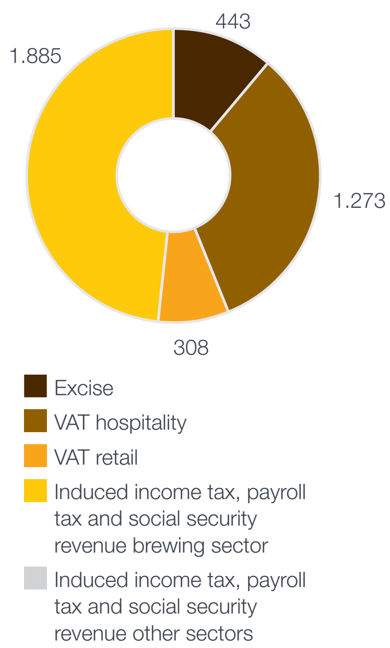
The brewing sector share of overall value-added arising from the production and sale of beer is 9%, which is higher than the brewing sector share in total employment arising from beer. An explanation for this is the higher productivity of employees in the brewing sector in comparison with the productivity of employees in other sectors.

8| Total government revenues due to beer

It is estimated that in 2010, total revenue from excise, VAT and income-related contributions due to beer production and sales were 3,975 million euro:

- VAT revenue was estimated at 1,581 million euro, the major contribution being from the hospitality sector.
- Total excise revenue due to the brewing industry was 443 million euro.
- Income-related revenue due to beer production and sales was approximately 1,951 million euro, comprising 592 million euro income tax, 266 million euro social security contributions paid by employees and 1,093 million euro social security taxes and payroll taxes paid by employers.

› Graph 22.5. / Government revenues due to the production and sale of beer: 3,975 million



› Source: Ernst & Young calculation (2011)

23

Latvia

23

1 | Highlights

Country profile	
Population[44]	2,221,000
Currency	Latvian Lats (LVL)
GDP per capita in PPS (2009, EU27 = 100)[45]	52

Beer market	2008[46]	2009	2010
Total production (in hectolitres)	1,307,000	1,423,400	1,455,000
Total exports (in hectolitres)	102,000	125,000	223,500
Total imports (in hectolitres)	261,500	284,750	361,250
Total consumption (in hectolitres)	1,550,900	1,423,400	1,492,350
Consumption of beer per capita (in litres)	68.6	63.3	69.8
Beer producing companies (including micro brewing companies)	17	17	15
Beer producing companies (excluding micro brewing companies)	3	3	3

› Source : Latvian Brewers'Association (2011)

Economic impact	2010	Compared to 2008
Total jobs due to beer	6,450 jobs	-4.9%
Total value added due to beer	81 million euro	equal
Total government revenues due to beer	67,5 million euro	+22.4%

[44] Source, Eurostat
[45] Source : Eurostat, 2011
[46] Due to new data provided by the Latvian Brewers' Association this figures are adapted and do not correspond with the figures used in the 2008 study.

2 | Market structure, trends and developments

Latvia, with a population over two million people has a beer production which totalled 1,455,000 hectolitres in 2010. The four largest breweries in Latvia have a combined market share of some 70%, more than half of which is accounted for by the market leader.[47]

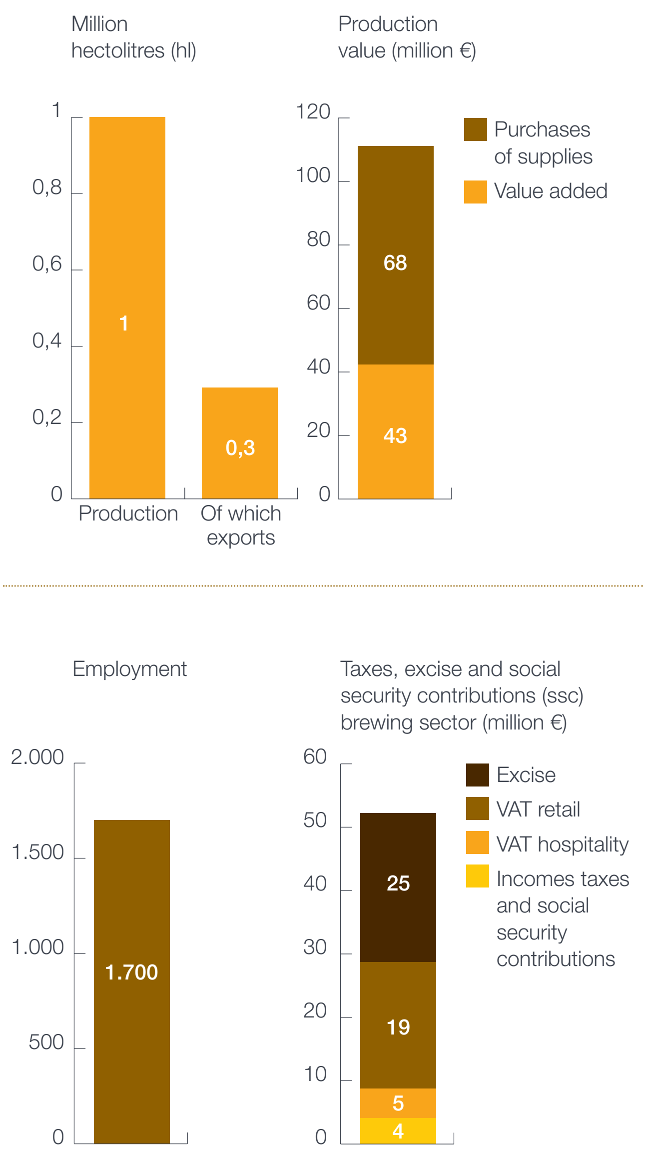
Latvia has experienced a significant increase in prices as well as salary increases until 2008, which resulted in relatively high on-trade prices. As a result, the considerable numbers of tourists travelling to Latvia motivated by the price of food and alcoholic beverages changed their destination. Since "party tourists" were major demand drivers in on-trade alcohol consumption, their reduced presence, combined with a decrease in purchasing power for local consumers, resulted in a sharp decrease of on-trade consumption patterns in 2009. Since 2010, on-trade consumption has stabilised. Nevertheless the on-trade percentage (6%) is very low compared to other countries. Due to the economic situation, including the decrease in salaries over the last 3 years, Latvians prefer to drink off-trade because it is cheaper, and brands choice is also price driven.

It is expected that the Latvian government will impose stricter legislation, which may involve such steps as increasing the legal drinking age from 18 to 20 and other restrictions on alcohol consumption. There is also a discussion going on about a beer advertising ban on TV. These developments in combination may lead to a decrease in beer consumption in the long term.

3 | Direct effect of the brewing sector

The direct economic impact of the brewing sector covers more than 4,000 employees who together produce beer, representing a value of 1,408 million euro. Compared to 2008, the total value decreased by 3.4%. However, the direct economic benefit of the brewing sector for the Italian economy is still significant.

› Graph 23.1. / Direct effect



› Source: Ernst & Young calculation (2011)

[47] Euromonitor International "Alcoholic drinks in Latvia", January 2009.

4 | Indirect effects of the brewing sector

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In 2010, 39% of output value remained within the breweries as value added. The other 61% of 110 million euro in total turnover accrued to suppliers.

This stimulus of 68 million euro has a significant economic impact on sectors outside the brewing sector as shown in the table below:

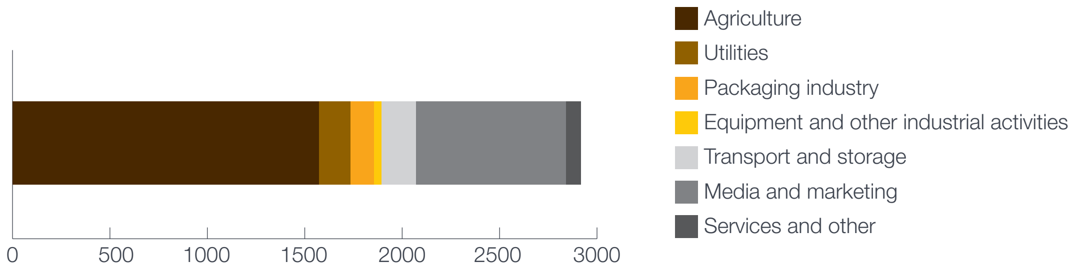
Sectors	Stimulus	Stimulus for Latvia		Turnover per employee	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	23.16	40	9.27	€ 9,094	1,019
Utilities	7.77	100	7.77	€ 74,376	104
Packaging industry (in hectolitres)	7.77	40	3.11	€ 39,667	78
Equipment	1.98	50	0.99	€ 39,667	25
Transport	5.86	100	5.86	€ 50,720	116
Media, marketing	19.42	100	19.42	€ 38,996	498
Services	1.98	100	1.98	€ 38,996	51
Total	67.93		48		1,891
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					2,909

› Source: Ernst & Young calculation, (2011); Eurostat, (2008)

More than one-third of the indirect employment generated by the brewing sector is within the agricultural sector. Employment within the agricultural sector that can be attributed to the growing of crops used for beer has increased since 2008.

Other substantial effects can be observed in media and marketing. The total first-round employment effect of the brewing sector on supplying sectors is about 1,891 employees. This primary effect can be estimated at about 65% of the total impact. Thus, the total impact will be about 2,900 jobs.

› *Graph 23.2. / Indirect employment*



› Source: Ernst & Young calculation (2011)

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- About 6% of all beer consumed in Latvia is sold by the hospitality sector (on-trade), which means almost 0.089 million hectolitres is sold on-trade.
- The average consumer price of beer in Latvian pubs and restaurants is estimated at 2.90 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is 26.0 million euro (including VAT).
- Net consumer spending on beer is thus estimated at 21.5 million euro (using a 21% VAT tariff).
- With an average hospitality turnover of 19,220 euro (excluding VAT) per person, this results in 1,120 hospitality sector jobs attributable to beer sales.

→ Retail

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

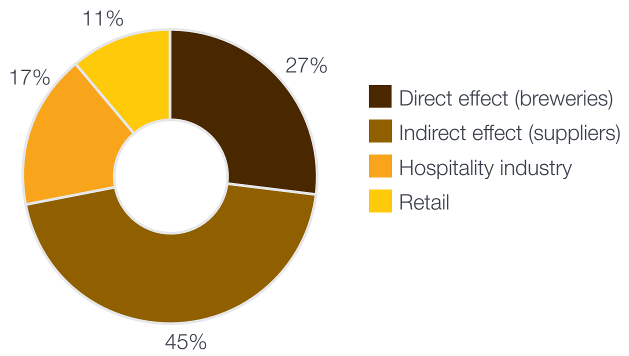
- Around 94% of total beer consumption (1.4 million hectolitres) in Latvia is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 0.78 euro per litre (including VAT), total retail consumer spending on beer is estimated at 109.4 million euro. Total consumer spending excluding VAT is thus 90 million euro.
- With turnover per employee estimated at 124,683 euro (excluding VAT), this means 725 people owe their jobs to retail beer sales.

6| Total employment due to beer

In 2010, approximately 1,700 people were employed in Latvian breweries.. Employment in the supply sectors is rather important with a total number employed in these sectors arising from the brewing sector of a little over 2,900.

Around 1,120 jobs in the hospitality sector and 725 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in Latvia is therefore 6,450 jobs. Compared to 2008 this means a decrease of around 330 jobs, mainly due to the job loss in the hospitality sector which can be attributed to the drinking of beer.

› Graph 23.3. / Total employment because of beer: 6,450 jobs



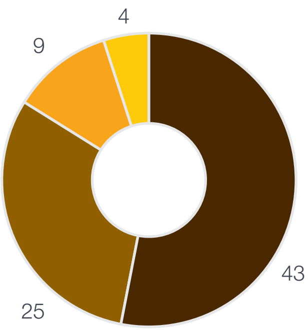
› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

23

7 | Total value added due to beer

The contribution of the brewing sector to the Latvian economy can also be expressed in terms of value-added. The total value-added generated by these 6,450 jobs is estimated at 81 million euro:

› Graph 23.4. / Value added due to the production and sale of beer: 81 million euro



- Brewing sector
- Supplying sectors
- Hospitality industry
- Retail

› Source: Ernst & Young calculation (2011)

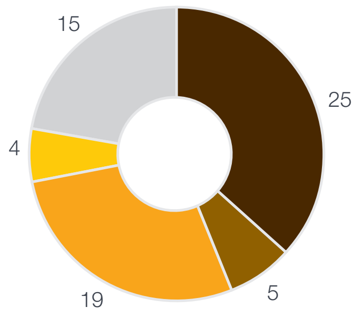
The brewing sector share of overall value-added arising from the production and sale of beer is 53%, which is significantly higher than the brewing sector share in total employment arising from beer (26%). A key explanation for this is the high productivity of brewing sector employees.

8 | Total government revenues due to beer

It has been estimated that total revenue from excise, VAT and income-related contributions due to beer production and sales was 67.5 million euro in 2010:

- VAT revenue was estimated at 24 million euro, the main proportion being generated by the retail sector.
- Total excise revenue from beer was 25 million euro.
- Income-related revenue due to beer production and sales was approximately 20 million euro, comprising 7 million euro in income tax, 4 million euro social security contributions paid by employees and 9 million euro social security taxes and payroll taxes paid by employers.

› Graph 23.5. / Government revenues due to the production and sale of beer: 67.5 million euro



- Excise
- VAT hospitality
- VAT retail
- Induced income tax, payroll tax and social security revenue brewing sector
- Induced income tax, payroll tax and social security revenue other sectors

› Source: Ernst & Young calculation (2011)

24

Lithuania

1 | Highlights

24

Country profile	
Population[1]	3,244,601
Currency	Lithuanian Litas (LTL)
GDP per capita in PPS (2009, EU27 = 100)[2]	55

Beer market	2008	2009*	2010
Total production (in hectolitres)	2,900,000	2,794,000	2,925,000
Total exports (in hectolitres)	140,000	162,000	303,100
Total imports (in hectolitres)	280,000	292,000	506,800
Total consumption (in hectolitres)	3,040,000	2,794,000	2,924,806
Consumption of beer per capita (in litres)	91	84	90
Beer producing companies (including micro brewing companies)	54	48	41
Beer producing companies (excluding micro brewing companies)	11	11	10
Breweries (including micro-breweries)	55	49	42
Breweries (excluding micro-breweries)	8	10	12

› Source: National Brewers' Association in Lithuania (2008),
* Brewers of Europe, 2010

Economic impact	2010	Compared to 2008
Total jobs due to beer	13,348 jobs	-14%
Total value added due to beer	141 million euro	-13%
Total government revenues due to beer	152 million euro	-5.2%

[1] Source: Eurostat, data per december 31st 2010
[2] Source: Eurostat, 2011

2 | Market structure, trends and developments

In 2010, 2.9 million hectolitres of beer was produced by 42 breweries based in Lithuania. The major part of this volume was produced by ten larger breweries.

Beer has always been a popular product in Lithuania. The first brewery was established in 1784 and became a leading brewery in Lithuania. The two leading breweries merged in 2001 and their market share was estimated at 44% in 2010. A large international brewery acquired all the shares of the leading brewery in 2008. The second brewery is Royal Unibrew with a market share of 21%.

Although domestically brewed beer is still most popular in Lithuania, imported beers are gaining in popularity. Until 2003 only 2% of the beer consumption was imported. Since 2005 it has risen to a level of 10% of the consumption.

The economic impact of the brewing sector is influenced by the following trends, developments and characteristics of the Lithuanian beer market and the brewing sector:

- Imported beers are gaining in popularity.
- Beer has always been a popular drink in Lithuania, although per capita beer consumption is decreasing.
- The majority (91%) of beer sales are in the retail (off-trade) sector.
- Lithuanian brewers produced an estimated 2.9 million hectolitres in 2010. Exports of Lithuanian beer are growing. In 2010 11% of this beer was exported compared with 5% in 2008.

Other developments which influence the economic impact of the brewing sector are:

- In 2004, Lithuania entered the EU.
- In 2008, Lithuania joined the Schengen area opening up greater possibilities for free movement for its people.
- Lithuania is the largest tourism market in the Baltic States.
- On 1 January 2007, a total ban on public smoking came into effect. This meant that smoking was no longer allowed in public hospitality establishments such as cafés, bars, clubs and restaurants.
- There are plans for a total ban on alcohol advertising, including beer.

3 | Direct effect of the brewing sector

Lithuanian breweries produced 2.9 million hectolitres of beer in 2010. This production had a value of 208 million euro. Of this production value, 132 million euro was spent on purchases of goods and services needed for the production and sale of beer. The other 76 million euro stayed within the brewing sector as value-added. Lithuanian breweries provide 2,000 jobs. All the economic indicators are comparable with the year 2008.

› Graph 24.1. / Direct effects of the brewing sector

› Source: Ernst & Young calculation (2011)

[3] National Brewers' Association of Lithuania, Lietuvos Aludarių Gildija, 2008
[4] Source: Švyturys brewery. http://www.svyturys.lt/en/main/info/about/history.
[5] Carlsberg, www.carlsberg.com
[6] Source: Canadean, Global Beer Trends (2008) Country Profile – Lithuania and National Brewers' Association of Lithuania, Lietuvos Aludarių Gildija (2008).
[7] Canadean, Global Beer Trends 2008, Country Profile – Lithuania; National Brewers' Association of Lithuania, Lietuvos Aludarių Gildija, 2008; www.svyturys.lt
[8] Lithuanian Development Agency, Tourism in Lithuania, 2008; website of the European Commission ec.europa.eu; Euromonitor, Tobacco in Lithuania, 2008.

24

4 | Indirect effects of the brewing sector

Lithuanian breweries spent 132 million euro on purchases of goods and services needed for production. Most of these purchases were domestic. The stimulus to the supplying sectors is estimated at 98 million euro.

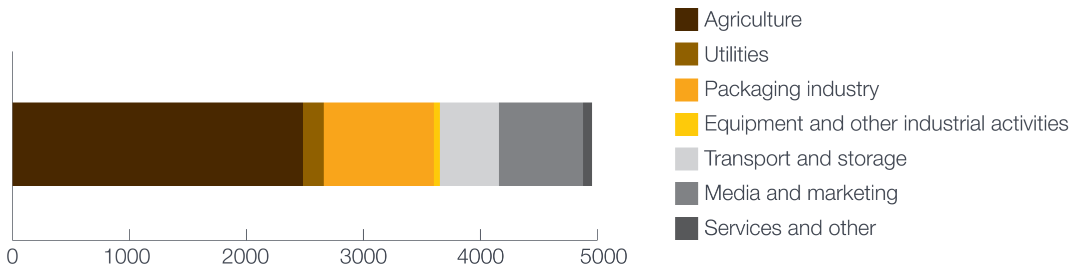
The packaging industry, agriculture, media and marketing sector and transport benefit most from this. In total, there are almost 5,000 jobs created in the supplying sector due to the production and sale of beer in Lithuania.

Sectors	Stimulus	Stimulus for Lithuania		Turnover per employee	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	25	80	20	12,403 [9]	1,614
Utilities	9	100	9	81,276	113
Packaging industry (in hectolitres)	47	65	31	50,433	611
Equipment	7	25	2	50,433	33
Transport	18	90	17	50,224	330
Media, marketing	22	80	18	38,268	468
Services	3	75	2	38,268	52
Total	132		98		3,222
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					4,957

› Source: Ernst & Young calculation, (2011); Eurostat, (2006)

Indirect employment effects are illustrated below:

› *Graph 24.2. / Indirect employment*



› Source: Ernst & Young calculation (2011)

[9] In our 2009 report we used for our calculation for jobs created in the agriculture a higher figure for the turnover per employee in this sector (23,082 euro instead of 12,403). This is because of the lack of data in 2009 on this point.

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- About 9% of all beer consumed in Lithuania is sold by the hospitality sector (on-trade), which means almost 0.3 million hectolitres is sold on-trade.
- The average consumer price of beer in Lithuanian pubs and restaurants is estimated at 2.59 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is around 68 million euro (including VAT).
- Net consumer spending on beer is thus estimated at 56 million euro (using a 21% VAT rate).
- With an average hospitality turnover of 15,317 euro (excluding VAT) per person, this results in 3,678 hospitality sector jobs attributable to beer sales. In 2008 we calculated 4,800 hospitality jobs due to beer.

→ Retail

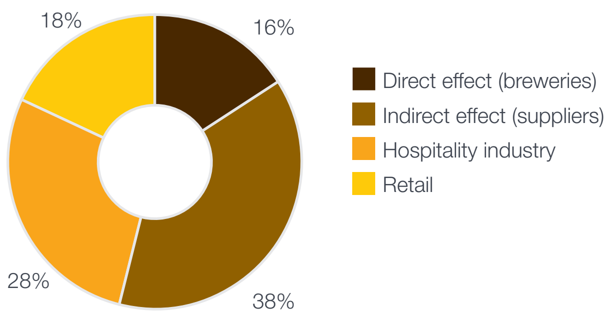
The importance of the brewing sector for retail can be similarly assessed:

- Around 91% of total beer consumption (2.7 million hectolitres) in Lithuania is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.09 euro per litre (including VAT), total retail consumer spending on beer is estimated at 290 million euro. Total consumer spending excluding VAT is thus 241 million euro.
- With turnover per employee estimated at 102,010 euro (excluding VAT), this means around 2,350 people owe their jobs to retail beer sales. In 2008 we calculated 3,300 retail jobs jobs due to beer.

6| Total employment due to beer

Direct employment by Lithuanian breweries is estimated to be 2,000 jobs. As a result of purchases of services and goods needed for the production and sale of beer, there are also almost 4,960 jobs generated in the supplying sectors due to beer. Downstream, the impact on the hospitality and retail sectors is also significant. More than 6,000 jobs are generated in these sectors because of the sale of beer. Of these 6,000 jobs the majority (3,680) are created in the hospitality sector. In 2010, total employment due to beer amounted to almost 13,000. In 2008, we calculated that due to beer 15,600 jobs were created in Lithuania.

› *Graph 24.3. / Total employment because of beer: 12,985 jobs*



› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

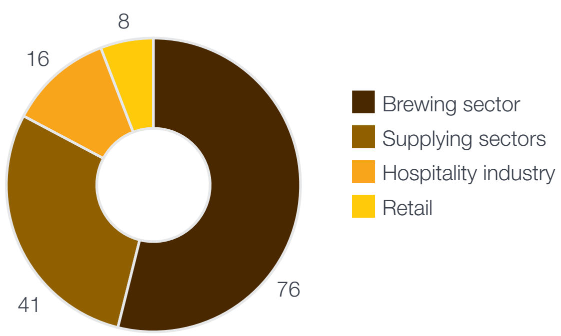
[28] National Brewers' Association of Hungary, Magyar Sörgyártók Szövetsége, 2010.

24

7 | Total value added due to beer

The contribution of the brewing sector to the Lithuanian economy can also be expressed in terms of value-added. The total value-added generated by these 13,000 jobs is estimated at 141 million euro:

› Graph 24.4. / Value added due to the production and sale of beer: 141 million euro



› Source: Ernst & Young calculation (2011)

The brewing sector share of overall value-added arising from the production and sale of beer is 54%, which is much higher than the brewing sector share in total employment arising from beer (15%). A significant explanation for this is the high productivity of brewing sector employees

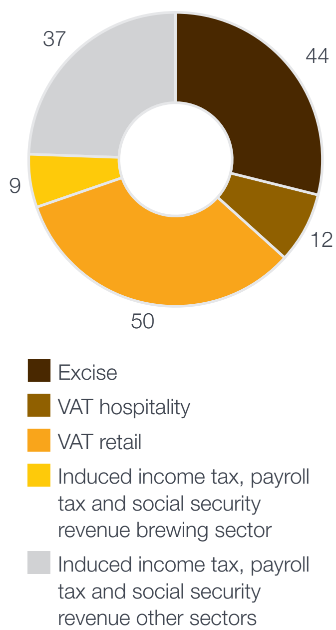
8 | Total government revenues due to beer

The government benefits substantially from the production and sale of beer. We estimated the total government revenue to be approximately 152 million euro in 2010, comprising:

- VAT revenue estimated as 62 million euro, the main proportion being generated by the retail sector.
- Total excise revenue from beer was 44 million euro.
- Income-related revenue due to beer production and sales was approximately 47 million euro, comprising 11 million euro in income tax, 9 million euro social security contributions paid by employees and 27 million euro social security taxes and payroll taxes paid by employers.

In 2010 the government revenues were lower than calculated for 2008 (163 million euro).

› Graph 24.5. / Government revenues due to the production and sale of beer: 152 million euro



› Source: Ernst & Young calculation (2011)

25

Luxembourg

1 | Highlights

25

Country profile	
Population[10]	502,066
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100)[11]	271

Beer market	2008	2009*	2010
Total production (in hectolitres)	312,000	308,000	301,683
Total exports (in hectolitres)	67,000	72,640	72,500
Total imports (in hectolitres)	189,000	185,000	185,000
Total consumption (in hectolitres)	346,000	320,000	317,000
Consumption of beer per capita (in litres)	93.7	85	85
Beer producing companies (including micro brewing companies)	5	7	7
Beer producing companies (excluding micro brewing companies)	3	3	3
Breweries (including micro-breweries)	5	7	7
Breweries (excluding micro-breweries)	3	3	3

› Source: Fédération des Brasseurs Luxembourgeois (2011)

Economic impact	2010	Compared to 2008
Total jobs due to beer	1,536 jobs	-39%
Total value added due to beer	66 million euro	-32%
Total government revenues due to beer	51 million euro	-28%

[10] Source: Eurostat, data per december 31st 2010
[11] Source: Eurostat, 2011

2 | Market structure, trends and developments

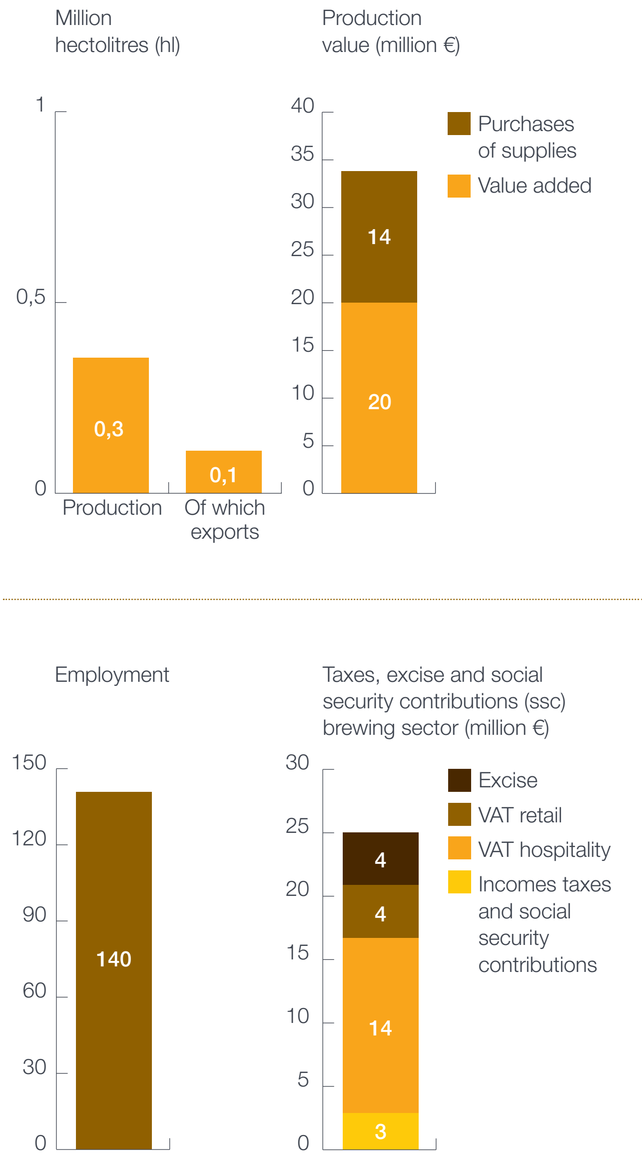
Although Luxembourg is one of Europe's smaller countries, beer sales are relatively high. 418,000 hectolitres of beer were sold within the Luxembourg borders in 2010, while the total population is a little over 500,000. However, not all this beer is consumed by Luxembourg's citizens. Due to its size and the way it is situated between Germany, Belgium and France, cross-border commerce is very important for the Luxembourg economy, estimated at 100,000 hectolitres of beer a year. One cannot consider this economy as standing alone, but as part of the regional market. Prominent examples of this are that 56% of the active population (workforce) lives abroad and 45% of the inhabitants are foreign.

There are three relatively large brewing companies in Luxembourg. The market leader produces 155,000 hectolitres per year, while the second, owned by one of Europe's major brewing concerns, produces 141,000 hectolitres. The third company has an annual production of 16,000 hectolitres. Besides these three companies there are a few microbreweries. Foreign beers also play a substantial role in the market. All major brands are present and in 2009 approximately 185,000 hectolitres of imported beer were sold in Luxembourg.

3 | Direct effect of the brewing sector

The direct economic impact of the brewing sector covers 140 employees who together produce beer, representing a value of 34 million euro. Compared to 2008, the total value decreased slightly by 2.9%.

› Graph 25.1. / Direct effects of the brewing sector



› Source: Ernst & Young calculation (2011)

4| Indirect effects of the brewing sector

25

In 2010, 59% of production value remained within the breweries as value-added. The other 41% of 34 million euro of total turnover accrued to suppliers.

This stimulus of 14 million euro has significant economic impact on sectors outside the brewing sector. This effect can be seen in the following table:

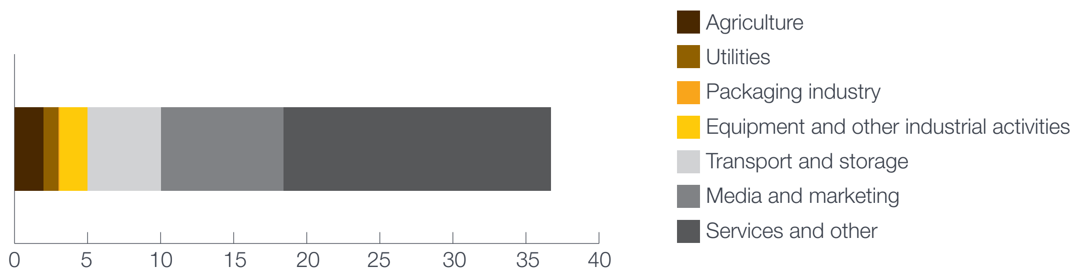
Sectors	Stimulus	Stimulus for Luxembourg		Turnover per employee	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	1.72	7.8%	0.1	83,057	2
Utilities	1.37	88.9%	1.2	1,780,900	1
Packaging industry (in hectolitres)	1.74	8.9%	0.1	680,800	0
Equipment	1.83	36.7%	0.6	680,800	1
Transport	1.12	77.8%	0.9	263,300	3
Media, marketing	1.77	64.4%	1.1	211,774	6
Services	4.28	58.9%	2.5	211,774	12
Total	13.83		7		24
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					37

› Source: Ernst & Young Questionnaire among breweries (2011); Eurostat (2008)

A substantial part of the indirect employment generated by the brewing sector is within the services sector. The total first-round employment effect on supplying sectors is an estimated 24 employees.

This primary effect can be estimated as about 65% of the total impact. Therefore, the total impact will be approximately 37 jobs.
Indirect employment effects are illustrated below:

› Graph 25.2. / Indirect employment



› Source: Ernst & Young calculation (2011)

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- About 55% of all beer consumed in Luxembourg is sold by the hospitality sector (on-trade), which means almost 0.17 million hectolitres is sold on-trade.
- The average consumer price of beer in Luxembourg pubs and restaurants is estimated at 6.00 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is 104.6 million euro (including VAT).
- Net consumer spending on beer is thus estimated at 91.0 million euro (using a 15% VAT tariff).
- With an average hospitality turnover of 68,600 euro (excluding VAT) per person, this results in 1,326 hospitality sector jobs attributable to beer sales.

→ Retail

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

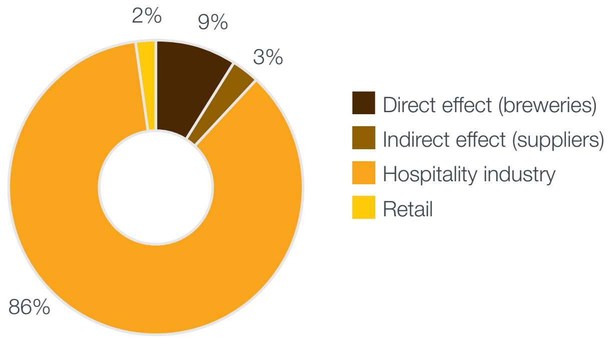
- Around 45% of total beer consumption (0.14 million hectolitres) in Luxembourg is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.90 euro per litre (including VAT), total retail consumer spending on beer is estimated at 27.1 million euro. Total consumer spending excluding VAT is thus 23.6 million euro.
- With turnover per employee estimated at 724,200 euro (excluding VAT), this means 33 people owe their jobs to retail beer sales.

6| Total employment due to beer

In 2010, approximately 140 people were employed in breweries in Luxembourg.. Employment in supplying sectors amounted to 37 people arising from the brewing sector.

Around 1,326 jobs in the hospitality sector and 33 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in Luxembourg is therefore around 1,500. The employment impact of the brewing sector is presented below:

› Graph 25.3. / Total employment because of beer: 1,536 jobs



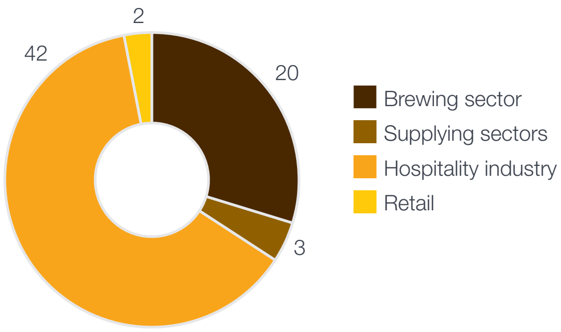
› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

25

7 | Total value added due to beer

The contribution of the brewing sector to the Luxembourg economy can also be expressed in terms of value-added. The total value-added generated by these 1,536 jobs is estimated at 66 million euro:

› Graph 25.4. / Value added due to the production and sale of beer: 66 million euro



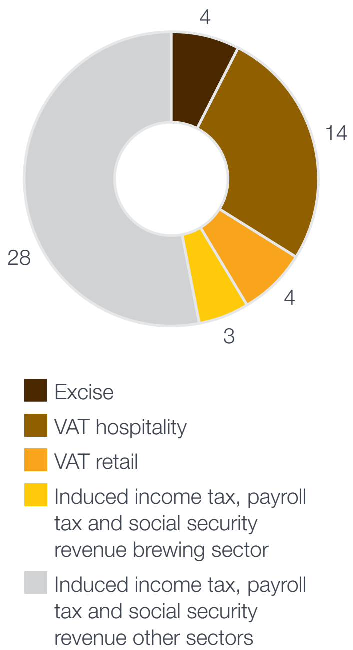
› Source: Ernst & Young calculation (2011)

8 | Total government revenues due to beer

Total revenue from excise, VAT and income-related contributions due to beer production and sales were estimated to be 51.4 million euro:

- VAT revenue was estimated as 17 million euro, the main contribution being from the hospitality sector.
- Total excise revenue from beer was 3.7 million euro.
- Income-related revenue due to beer production and sales was approximately 30 million euro, comprising10 million euro in income tax, 10 million euro social security contributions paid by employees and 10 million euro social security taxes and payroll taxes paid by employers.

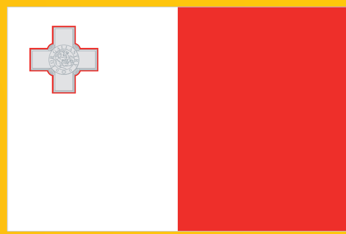
› Graph 25.5. / Government revenues due to the production and sale of beer: 51.4 million euro



› Source: Ernst & Young calculation (2011)

26

Malta



1 | Highlights[12]

26

Country profile	
Population [13]	412,920
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100) [14]	81

Beer market	2008	2009	2010*
Total production (in hectolitres)	110,000	126,500	130,000
Total exports (in hectolitres)	1,000	2,000	3,000
Total imports (in hectolitres)	74,000	60,900	69,000
Total consumption (in hectolitres)	181,000	193,000	196,000
Consumption of beer per capita (in litres)	45	47	47
Beer producing companies (including micro brewing companies)	1	1	1
Beer producing companies (excluding micro brewing companies)	1	1	1

› Source: Canadean, Global Beer Trends (2010) [15]
* these figures are forecasts by Canadean

Economic impact	2010	Compared to 2008
Total jobs due to beer	2,380 jobs	+4.5%
Total value added due to beer	53 million euro	+15.2%
Total government revenues due to beer	19,2 million euro	+6.9%

[12] Due to the nature of the market the Maltese brewing association and the only brewery in Malta were not in a position to participate in the research. Consequently some assumptions had to be made for Malta to carry out the calculations. One of these assumptions is that the share of domestic purchases of the Maltese brewery is similar to the share of domestic purchases of the Cypriot breweries.
[13] Source: Eurostat, data per december 31st 2010
[14] Source: Eurostat, 2011
[15] The National Brewers' Association of Malta was not able to provide more recent figures. The figures on production, consumption, imports and exports are 2007 figures. We have found no indications that there are also microbreweries active in Malta.

2 | Market structure, trends and developments

The beer market in Malta is the smallest in Europe reflecting the size of the country. Malta has some 410,000 citizens and the total beer consumption in 2010 is forecast as 196,000 hectolitres. The most important sector of the Maltese economy is tourism. One could thus expect that a large share of the total consumption is bought by tourists.

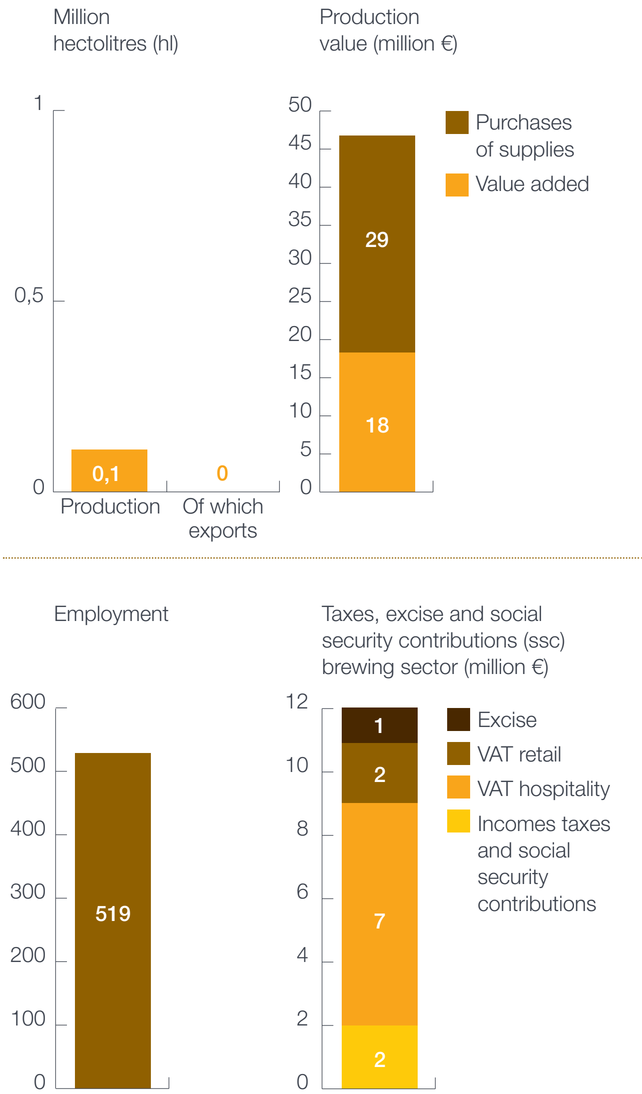
There is only one brewery in Malta. The brewer has two principal beer brands and produced a total volume of 130,000 hectolitres in 2010. A small share of the production is exported to Italy where the Maltese brands are sold in the hospitality sector as speciality/ niche beers.

Besides brewing beer, the Maltese brewery is active in several other markets. Some of their other activities include importing and distributing wines, spirits and beer and bottling and distributing water. In addition to franchising food service chains such as Burger King and Pizza Hut restaurants, the market share of this company on the Maltese beer market is around 65%. The other 35% of total beer consumption in Malta consists of imported beer. Since Malta is a small country, around two-thirds of the supplies for the Maltese brewery are purchased abroad.

3 | Direct effect of the brewing sector

The Maltese brewery produced 130,000 litres of beer in 2010. This production has a value of approximately 47 million euro of which 18 million euro were value-added. Aforementioned direct effects are higher than measured for the year 2008.

› *Graph 26.1. / Direct effects of the brewing sector*



› Source : Ernst & Young calculation (2011)

Another substantial direct effect of the brewing sector concerns taxes and excises paid by beer brewers and consumers. Total government revenue from excises and VAT were estimated to be 1.2 and 9.1 million euro respectively. Personal direct taxes, social security contributions and payroll taxes paid by employees and employers in the brewing sector add up to another 2 million euro.

4| Indirect effects of the brewing sector

26

In 2010, 38% of production value remained within the Maltese brewing sector as value-added. The other 62% of 47 million euro in total turnover accrued to suppliers of goods and services.

Of this stimulus of 29.5 million euro, 11 million euro stayed within the country. This stimulus has a significant economic impact on sectors outside the brewing sector, most substantially on the media and marketing sector:

Sectors	Stimulus	Stimulus for Malta		Turnover per employee	Number of employees
	(mln. €)	% spent in own country	(mln. €)	(in €)	
Agriculture	5.60	0	0	29,789	0
Utilities	1.18	100	1.18	134.478	9
Packaging industry (in hectolitres)	8.85	5	0.44	83,985	5
Equipment	2.95	10	0.29	83,985	4
Transport	0.88	100	0.88	89,889	10
Media, marketing	6.49	95	6.16	33,187	186
Services	3.54	70	2.48	33,187	75
Total	29.49		11		288
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					443

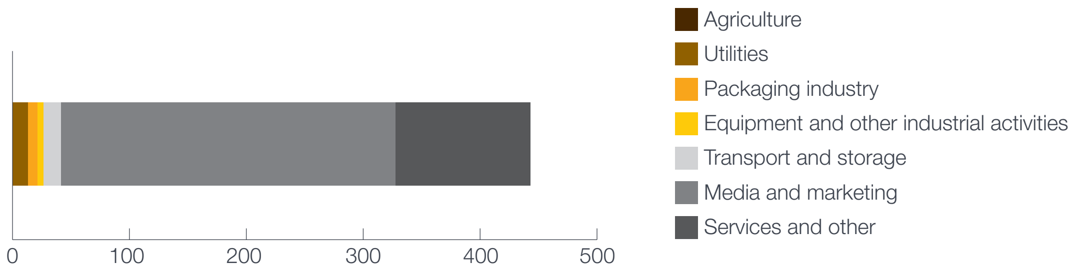
› Source: Ernst & Young calculation (2011) and Eurostat (2008).

Almost two-thirds of the indirect employment effect is within the media and marketing sector. The services sector also benefits substantially from the production and sale of beer. The total first-round employment effect of the brewing sector on supplying sectors is estimated at almost 280 employees.

As this primary effect can be estimated at about 65% of the total impact, the total impact can be estimated to be 440 jobs.

Indirect employment effects are illustrated below:

› *Graph 26.2. / Indirect employment*



› Source: Ernst & Young calculation (2011)

5 | Induced effects of the brewing sector

→ Hospitality sector

The economic impact of the brewery on the hospitality sector is assessed as follows:

- About 60% of all beer consumed in Malta is sold by the hospitality sector (on-trade), which means almost 117.6 thousand hectolitres is sold on-trade.
- The average consumer price of beer in Maltese pubs and restaurants is estimated at 4.15 euro a litre (including VAT)[16], so that total consumer spending on beer in the hospitality sector is 48.9 million euro (including VAT).
- Net consumer spending on beer is thus estimated at 40.1 billion euro (using an 18% VAT tariff).
- With an average hospitality turnover of 30,845 euro (excluding VAT)[17] per person, this results in 1,345 hospitality sector jobs attributable to beer sales.

→ Retail

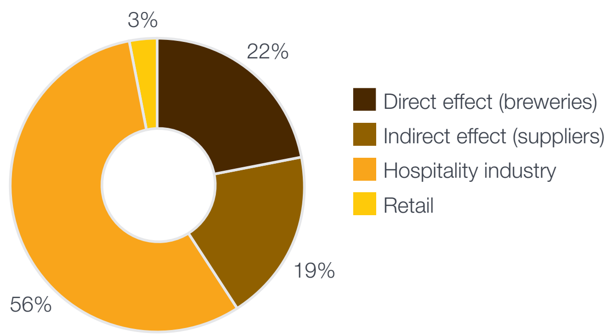
The importance of the brewing sector for retail can be similarly assessed:

- Around 40% of total beer consumption (78.4 thousand hectolitres) in Malta is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.31 euro per litre (including VAT)[18], total retail consumer spending on beer is estimated at 10.27 million euro. Total consumer spending excluding VAT is thus 8.4 million euro.
- With turnover per employee estimated at 113,400 euro (excluding VAT)[19], this means 77 people owe their jobs to retail beer sales.

6 | Total employment due to beer

The only brewery based on Malta provides approximately 520 beer-related jobs. By producing its beer around 440 supply industry jobs can be attributed to the brewing sector. Besides these direct and indirect effects, the hospitality sector and retailers benefit through beer sales. Almost 1,350 jobs in the hospitality sector can be attributed to beer, while in retail some 80 people owe their jobs to beer sales. The total employment impact is estimated

› Graph 26.3. / : Total employment because of beer : 2,380 jobs



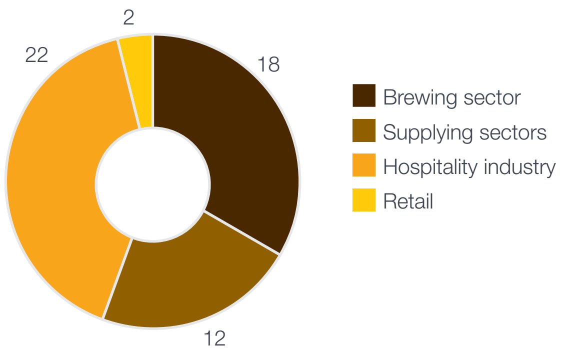
› Source : Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

[16] The Maltese Islands' Online Community Center, http://malta.cc/cost-of-living/food-restaurant-beer-drink-prices/, April 2009.
[17] Estimation of Ernst & Young, 2011 based on earlier Eurostat figures.
[18] Estimation of Ernst & Young, 2011.
[19] Estimation of Ernst & Young, 2011 based on earlier Eurostat figures.

7 | Total value added due to beer

The contribution of the brewing sector to the Maltese economy can also be expressed in terms of value-added. The total value-added generated by the 2,380 jobs due to beer is estimated at 53 million euro. This value added is higher than calculated for 2008.

› *Graph 26.4. / Value added due to the production and sale of beer: 53 millions euro*



› Source: Ernst & Young calculation (2011)

The brewing sector share of overall value-added arising from the production and sale of beer is 34%, which is much higher than the brewing sector share in total employment arising from beer. An explanation for this is the high productivity of brewing sector employees.

8 | Total government due to beer revenues

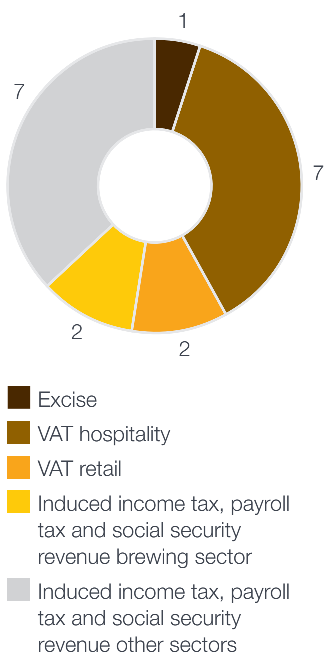
26

The government also benefits from the brewing sector, receiving some 19.2 million euro in taxes and excises in 2010:

- VAT revenue was estimated at 9.1 million euro, the majority being generated in the hospitality sector.
- Total excise revenue from beer was 1.2 million euro.
- Income-related revenue due to beer production and sales was approximately 8.9 million euro, comprising 3.5 million euro in income tax, 2.7 million euro social security contributions paid by employees and 2.7 million euro social security taxes and payroll taxes paid by employers.

In 2010 the government revenues were higher than in 2008 (18 million euro).

› *Graph 26.5. / Government revenues due to the production and sale of beer: 19.2 million euro*



› Source: Ernst & Young calculation (2011)

27

The Netherlands

1 | Highlights

27

Country profile	
Population[20]	16,574,989
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100)[21]	131

Beer market	2008	2009	2010
Total production (in hectolitres)	27,180,868	25,376,300	24,218,017
Total exports (in hectolitres)	16,672,803	15,383,000	14,104,725
Total imports (in hectolitres)	2,402,033	2,043,000	2,123,875
Total consumption (in hectolitres)	12,910,101	12,035,600	12,237,167
Consumption of beer per capita (in litres)	78.5	72.8	72.0
Beer producing companies (including micro brewing companies)	68	68	68
Breweries (excluding micro-breweries)	72	72	72

› Source: National Brewers' Association of the Netherlands, Nederlandse Brouwers (2011)

Economic impact	2010	Compared to 2008
Total jobs due to beer	77,127 jobs	-8.6%
Total value added due to beer	2,798 million euro	-10.7%
Total government revenues due to beer	2,161 million euro	+6.1%

[30] Source: Eurostat, data per december 31st 2010
[31] Source: Eurostat, 2011

2 | Market structure, trends and developments

The Netherlands is Europe's largest beer-exporting country, and ranks fifth in production (behind Germany, the United Kingdom, Spain and Poland). In the rest of the world, only Mexico exports more beer volume. 14.1 million hectolitres of the total beer production in the Netherlands in 2010 (24.2 million hectolitres) is exported to other countries.

The majority of these exports (8.6 million hectolitres in 2008) are for North America. 4.2 million hectolitres of the exported beer remained within the European Union. The United Kingdom and Spain are the European countries which import most Dutch beer. Another substantial volume is consumed in Africa (1.3 million hectolitres) and Asia 1.4 (million hectolitres). In Europe, export volumes are decreasing, while exports to Africa and Asia are increasing.

	Exports in hectolitres in 2008
European Union	4,170,134
United Kingdom	841,521
Spain	781,133
France	615,259
Italy	479,531
Belgium/Luxembourg	557,196
Ireland	210,075
Rest of Europe	392,628
Africa	1,296,886
North America	8,518,825
South America	557,847
Asia	1,494,748
Oceania	160,227

› Source: National Brewers' Association of the Netherlands, Nederlandse Brouwers (2009)

One of the world's largest brewing companies is Dutch. The largest brewery in the Netherlands, belonging to this brewing company, produces 16.3 million hectolitres a year (in three production plants) of which almost 70% is exported.[22] Besides this market leader there are three other brewing companies with a market share above 10%. Although the large Dutch beer manufacturers operate internationally, some medium and smaller breweries have a strong regional consumer base. An example is an independent brewery in the south of the Netherlands, with a company policy of buying ingredients within the home region. Such breweries have a relatively large economic impact on their home areas.

Factors that influence the impact of the brewing sector on the Dutch economy are the following.

Brewing sector internal characteristics:

- Market structure with four biggest players together having a market share of 90%.[23]
- Larger breweries have a strong international orientation and are among the most efficient in Europe.
- The low-price segment is growing at the expense of the premium segment.
- Outsourcing of non-core activities (such as transport).

Context in which the brewing sector operates:

- The Dutch beer market is stagnating (total beer consumption in 2010 was 12.2 million hectolitres, which is a little less than the consumption in 2008 (12.9 million hectolitres).[24]
- The Netherlands is a relatively small and open country, thus a substantial proportion of supplies are imported.
- Strong pressure on supermarket beer pricing, because strong competition between retailers.
- In 2008 a smoking ban was introduced in Dutch pubs and restaurants.

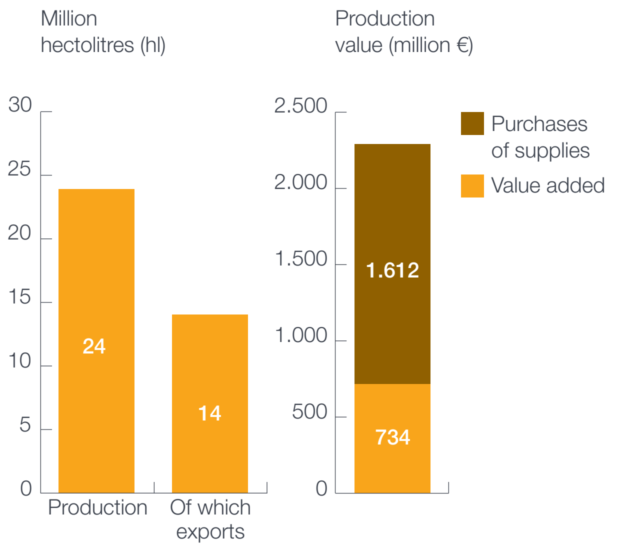
[22] Source: questionnaires among breweries, 2011
[23] Source: Global Beer Trends 2008, Canedean Ltd. 2008.
[24] Source: National Brewers' Association of the Netherlands, Nederlandse Brouwersr, 2011.

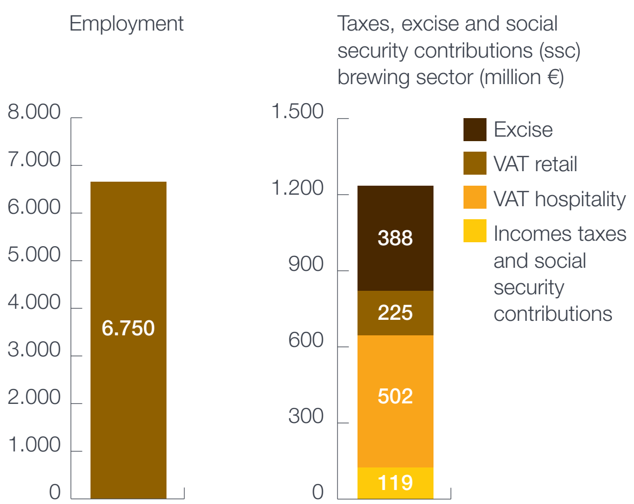
3| Direct effect of the brewing sector

27

Approximately 6,750 people are employed in Dutch breweries. Together they generate a production value of approximately 2.3 billion euro, of which approximately 31% (734 million euro) is value-added. The rest (1.6 billion euro) is spent on purchasing goods and services in supply sectors. The number of people employed in Dutch breweries remained stable between 2008 en 2010.

› *Graph 27.1. / Direct effect of the beer sector*





› Source: Ernst & Young calculation (2011)

4 | Indirect effects of the brewing sector

In 2010, 31% of the output value remained within the breweries as value-added. The other 69% of the 2.3 billion euro of total turnover accrued to a number of suppliers.

This stimulus of 1.6 billion euro has a significant economic impact on sectors outside the brewing sector, most substantially on the packaging industry:

Sectors	Stimulus[25]	Stimulus forthe Netherlands		Turnover per employee[26]	Number of employees
	(mln. €)	%	(mln. €)	(in €)	
Agriculture	242	72.8	176.25	127,643	1,381
Utilities	72	90	64.87	1,557,521	42
Packaging industry (in hectolitres)	712	96.4	687.31	369,054	1,862
Equipment	120	81.1	97.34	369,054	264
Transport	81	83.3	57.76	190,385	353
Media, marketing	219	85.5	187.39	102,696	1,825
Services	165	91.9	151.9	102,696	1,479
Total	1,612		1,432		7,205
First-round impact as % of total impact					65%
Total indirect effect of brewing sector					11,085

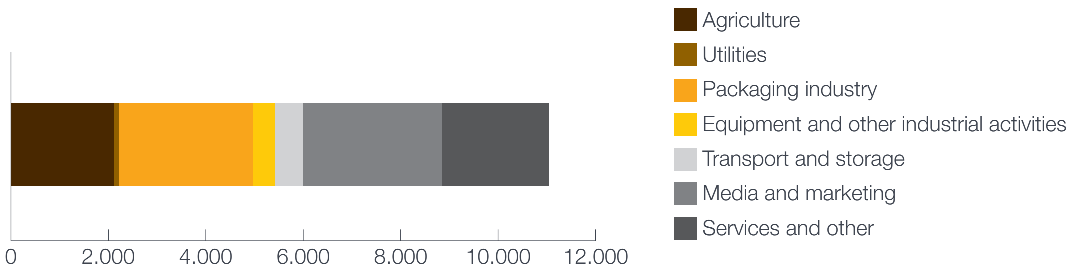
› Source: Ernst & Young Questionnaire among breweries (2011); Eurostat (2008)

The major sectors in which indirect employment is generated by the brewing sector are agriculture, packaging, media and marketing and services. The total first-round employment effect of the brewing sector on supplying sectors is around 7,200 employees.

As this primary effect can be estimated at about 65% of the total impact, the total impact wil be about over 11,000 jobs.

Indirect employment effects are illustrated below:

› Graph 27.2. / Indirect employment



› Source: Ernst & Young calculation (2011)

[25] (Domestic) stimulus is calculated on basis of the questionnaire survey and Eurostat data.
[26] Turnover per employee is obtained from Eurostat.

5| Induced effects of the brewing sector

6| Total employment due to beer

27

→ Hospitality sector

The economic impact of breweries on the hospitality sector is assessed as follows:

- Approximately 27% (3.3 million hectolitres) of the total beer consumption in the Netherlands is sold by the hospitality sector (on-trade).
- The average consumer price of beer in Dutch pubs and restaurants is 9.51 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is 3.1 billion euro (including VAT).
- Net consumer spending on beer is thus estimated at 2.6 billion euro (using a 19% VAT rate).
- Average turnover per person employed in the Dutch hospitality sector amounts to 47,000 euro per year.
- It can be calculated that around 56,100 jobs in the Dutch hospitality sector can be attributed to beer sales.

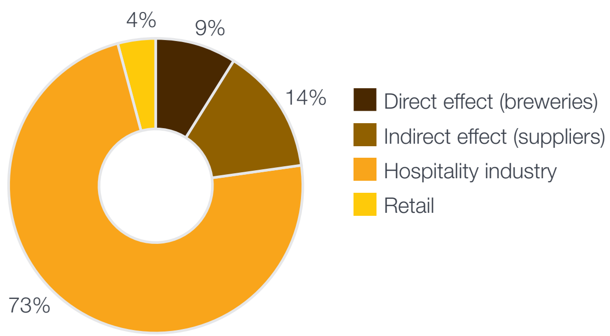
→ Retail

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

- About 73% of total beer consumption (8.9 million hectolitres) in the Netherlands is beer sold by supermarkets and other retail companies.
- With an average consumer price of 1.58 euro per litre (incl. 19% VAT), total consumer spending on retail beer is estimated at 1.4 billion euro. Total consumer spending excluding VAT is thus 1.2 billion euro.
- Because the annual turnover per employee in the retail sector is estimated at 380,300 euro, this means a little over 3,100 people owe their jobs to retail beer sales.

In 2010, approximately 6,750 people were employed in Dutch breweries. Employment in supplying sectors is quite important with a total number employed in these sectors arising from the brewing sector of around 11,100. Around 56,100 in the hospitality sector and 3,100 jobs in the retail sector can be attributed to the sale of beer. The total employment impact due to beer production and sales in the Netherlands is therefore 77,100 jobs. Compared to 2008 this represents a decrease of around 7,200 jobs.

› Graph 27.3. / Total employment because of beer: 77,100 jobs

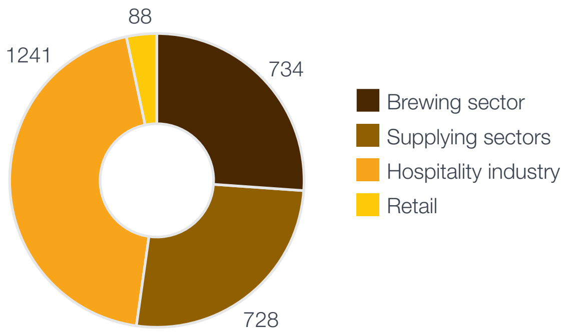


› Source: Ernst & Young calculation (2011)
(see Annex III for an explanation of the methodology).

7 | Total value added due to beer

The contribution of the brewing sector to the Dutch economy can also be expressed in terms of value-added. The total value-added generated by these 77,100 jobs is estimated at 2.8 billion euro:

› Graph 27.4. / Value added due to the production and sale of beer: 2,791 million euro



› Source: Ernst & Young calculation (2011)

The brewing sector share of overall value-added arising from beer production and sales is 26%, which is far higher than the brewing sector share in total employment arising from beer, which is 9%. An explanation for this is the high productivity of the employees in the Dutch brewing sector.

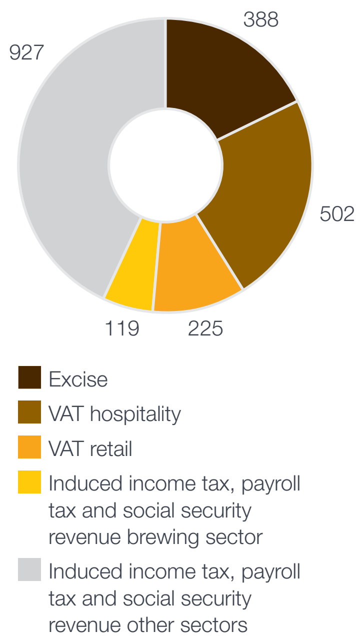
27

8| Total government revenues due to beer

The Dutch government also profits from the brewing sector, by receiving approximately 2.2 billion euro of revenues due to beer production and sales.

- Excise revenue from beer was 388 million euro in 2008. Due to higher excise rates this figure was higher than in 2008, despite consumption being slightly reduced.
- VAT revenue from beer sold in the hospitality sector was 502 million euro, while the revenue from beer sold off-trade was 225 million euro.
- In total, the Dutch government received approximately 1.0 billion euro in income-related revenues due to beer production and sales. This amount consisted of 430 euro in income tax, 333 million euro social security contributions paid by employees and 283 million euro social security contributions and payroll taxes paid by employers.

› *Graph 27.5. / Government revenues due to the production and sale of beer: 2.2 billion euro*



› Source: Ernst & Young calculation (2011)

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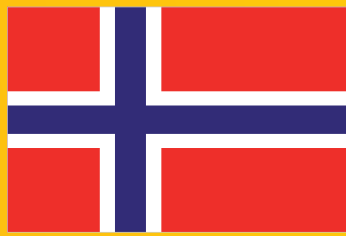


Norway

1 | Highlights

28

Country profile	
Population[27]	4,858,199
Currency	Norwegian Krone (NOK)
GDP per capita in PPS (2009, EU27 = 100)[28]	175

Beer market	2008	2009	2010
Total production (in hectolitres)	2,570,000	2,516,000	2,434,826
Total exports (in hectolitres)	9,400	13,300	-
Total imports (in hectolitres)	100,000	259,000	300,000
Total consumption (in hectolitres)	2,670,000	2,516,000	2,434,826
Consumption of beer per capita (in litres)	54	55	56
Beer producing companies (including micro brewing companies)	20	25	31
Beer producing companies (excluding micro brewing companies)	6	7	7
Breweries (including micro-breweries)	24	29	35
Breweries (excluding micro-breweries)	10	11	11
Companies that only import beer for sale	5	5	5

› Sources: The Brewers of Europe Beer Statistics 2010 edition and Norwegian Brewers

Economic impact	2010	Compared to 2008
Total jobs due to beer	16,200 jobs	+14%
Total value added due to beer	542 million euro	+18.7%
Total government revenues due to beer	1.3 billion euro	-4.9%

[27] Source: Eurostat, data per december 31st 2010
[28] Eurostat, 2011

2 | Market structure, trends and developments

Norwegian breweries produced over 2.4 million hectolitres of beer in 2010 thanks to seven brewing companies in Norway having eleven breweries, and to microbreweries.

Due to the high rate of beer taxation in Norway, compared to other countries, resultant high beer prices lead to cross-border shopping. These beer purchases account for 14% of Norwegian beer consumption.[29]

As Norwegians are very proud of their country and local products, consumer preferences make it difficult for international beer companies to compete with local products. Imported beer is mostly available in bottles and hardly ever on tap.[30] However, all supermarket chains carry a supply of 10 to 50 international brands and consumer market research shows that Norwegians are interested to try more new types of beer. But domestic standard lager is still the most popular type of beer.[31]

→ Exports

The export figures for 2010 are not available yet. The main export market for Norwegian beer is the United States of America.

→ Imports

Approximately 12% of the beer sold in Norway is imported. In 2010 approximately 300,000 hl of beer was imported. The main import markets are Mexico and Germany.

→ Consumption patterns

The consumption per capita is increasing slowly from 54 litres in 2007 to 56 litres in 2010. Generally beer consumption is decreasing from 2.56 million hectolitres in 2008 to 2.43 million hectolitres in 2010. The beer market is losing market share to wine and alcopops (flavoured alcoholic beverages, mix drinks or ready to drink beverages). This is mainly due to the increase in sales of fruit cider, which is categorized as alcopop.

The majority of beer consumed is purchased in the retail sector.

	Beer in 2008	Beer in 2009	Beer in 2010
Off-trade sales	79%	75%	75%
On-trade sales	21%	25%	25%

→ Developments in the beer sector

In 2010 the beer tax increased by 6.9% including 1.9% for the rate of inflation.

→ Hospitality sector

From June 2004 there has been a complete smoking ban throughout the hospitality sector, which seems to have had no negative effect on beer consumption. Most bar and restaurants now have outdoor smoking terraces.

The three most important threats the beer sector will face in the upcoming years are: higher taxes, more restrictions on consumer information and restriction on displaying beer in shops.

[29] Oxford Economics, The consequences of the proposed increase in the minimum excise duty rates for beer, 2006.
[30] Hosley, N.S., Beer Market in Norway, http://www.customessaymeister.com/customessays/Business/1630.htm.
[31] Euromonitor, Beer in Norway, 2008.

28

3| Direct effect of the brewing sector

Norwegian breweries employ 2560 employees who together produce 2.4 million hectolitres of beer. This production has a value of 240 million euro.

› *Graph 28.1. / Direct effect of the beer sector*

› Source : Ernst & Young calculation (2011)

4 | Indirect effects of the brewing sector

In 2010, 35% of production value remained within the Norwegian brewing sector as value-added. The other 65% of 240 million euro in total turnover accrued to suppliers. This stimulus of 156 million euro has a significant economic impact on sectors outside the brewing sector, most substantially on the agriculture sector. This high impact on the agriculture sector is due to the relatively low turnover per employee in this sector in comparison with other sectors.

Sectors	Stimulus	Stimulus for Norway		Turnover per employee	Number of employees
	(mln. €)	% spent in own country	(mln. €)	(in €)	
Agriculture	31.2	0	0	0	0
Utilities	6.3	100	6.3	918,756	7
Packaging industry (in hectolitres)	25.8	40	10.3	327,565	31
Equipment	11.7	50	5.9	327,565	18
Transport	23.7	100	23.7	292,783	81
Media, marketing	35.8	100	35.8	283,883	126
Services	21.7	100	21.7	135,036	161
Total	156	-	104		424
First-round impact as % of total impact					65
Total indirect effect of brewing sector					652

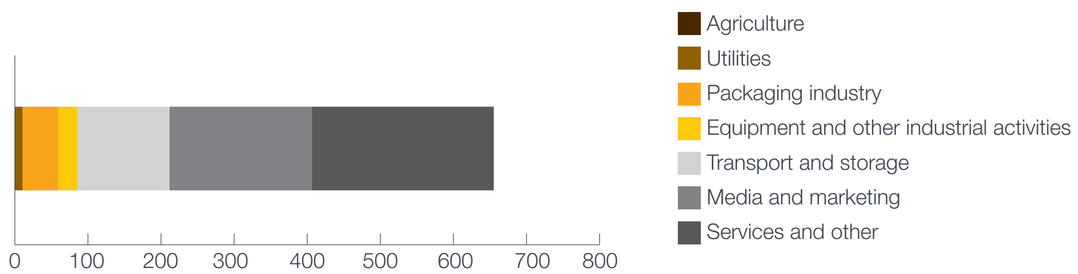
› Source: Ernst & Young calculations

Compared to other countries, there is no domestic agricultural input for Norway. Most jobs are created in the services sector and media and marketing sector. The total first-round employment effect of the brewing sector on supplying sectors is estimated at approximately 400 employees.

‚As this primary effect can be estimated at about 65% of the total impact, the total impact will be about 700 jobs.

Indirect employment effects are illustrated below:

› Graph 28.2. / Indirect employment



› Source: Ernst & Young calculations

5 | Induced effects of the brewing sector

→ Hospitality sector

The economic impact of the breweries on the hospitality sector is assessed as follows:

- About 25% of all beer consumed in Norway is sold by the hospitality sector (on-trade), which means 608,707 hectolitres is sold on-trade.
- The average consumer price of beer in Norwegian pubs and restaurants is estimated at 16.5 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is almost 1 billion euro (including VAT).
- Net consumer spending on beer is thus estimated at 800 million euro (using a 25% VAT tariff).
- With an average hospitality turnover of 78,362 euro (excluding VAT) per person, this results in 10,300 hospitality sector jobs attributable to beer sales.

→ Retail

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

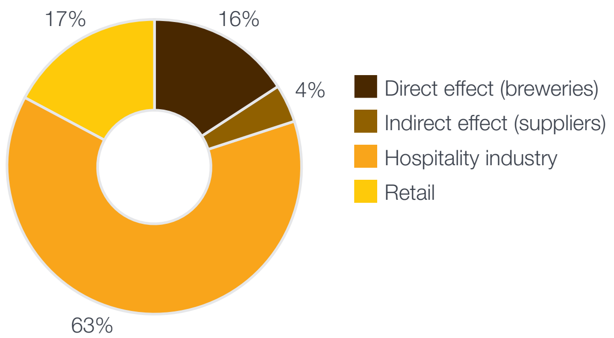
- About 75% of total beer consumption (1.8 million hectolitres) in Norway is beer sold by supermarkets, wholesale and other retail outlets.
- With an average consumer price of 7.6 euro per litre (including VAT), total retail consumer spending on beer is estimated at 1.4 billion euro.
- Total consumer spending excluding VAT is thus 1.2 billion euro.
- With turnover per employee estimated at 427,000 euro (excluding VAT), this means around 2,700 people owe their jobs to retail beer sales.

6 | Total employment due to beer

28

Approximately 2,560 persons are employed at the Norwegian breweries. 700 jobs created in the supplying sector. Some 10,300 jobs are created in the hospitality sector and 2,700 jobs in wholesale and retail due to sales of beer. The total employment is more than 16,200 jobs.

› Graph 28.3. / Total employment because of beer: 16,200 jobs

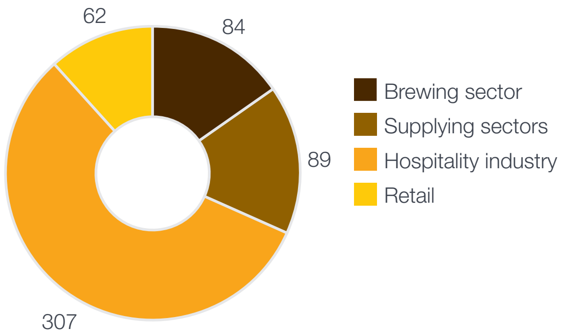


› Source: Ernst & Young calculations

7 | Total value added due to beer

The contribution of the brewing sector to the Norwegian economy can also be expressed in terms of value-added. The total value-added generated by these 16,200 jobs is estimated at 542 million euro:

› *Graph 28.4. / Value added due to the production and sale of beer: 542 million euro*



› Source: Ernst & Young calculations

8 | Total government revenues due to beer

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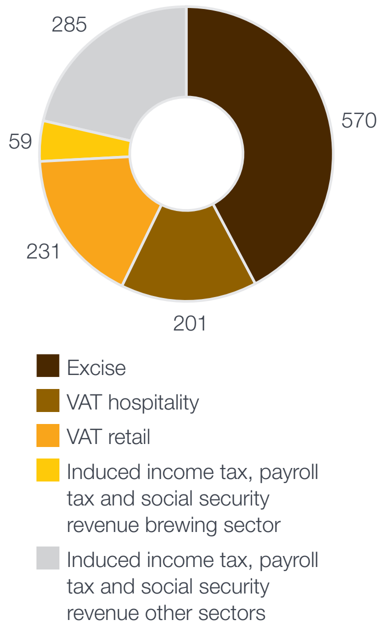
The 2010 revenues of excise, VAT and income-related contributions due to beer production and sales were estimated to be 1.3 billion euro:

- VAT revenue was estimated as 432 million euro, the major proportion being generated in the retail sector.
- Total excise revenue from beer was 570 million euro.
- Income-related revenue due to beer production and sales was approximately 353 million euro, comprising 175 million euro income tax, 65 million euro social security contributions paid by employees and 103 million euro social security taxes and payroll taxes paid by employers.

Graph 28.5. / Government revenues due to the production and sale of beer: 1.345 billion euro



Source: Ernst & Young calculations

29

Poland

29

1 | Highlights

Country profile	
Population [32]	38,167,329
Currency	Polish Zloty (PLN)
GDP per capita in PPS (2009, EU27 = 100) [33]	61

› Source: Eurostat

Beer market [34]	2008	2009	2010
Total production (in hectolitres)	37,107,500	36,235,800	36,621,000
Total exports (in hectolitres)	1,575,000	1,576,000	1,911,900
Total imports (in hectolitres)	341,000	360,100	297,500
Total consumption (in hectolitres)	35,861,000	34,383,400	34,504,909
Consumption of beer per capita (in litres)	94	85	91
Beer producing companies (including micro brewing companies)	43	n.a.	69
Beer producing companies (excluding micro brewing companies)	n.a.	n.a.	42
Breweries (including micro-breweries)	86	89	103
Breweries (excluding micro-breweries)	47	47	48

› Sources: The Brewers of Europe Beer Statistics 2010 edition and Browarie Polsky

Economic impact	2010	Compared to 2008
Total jobs due to beer	157,000 jobs	-24.5%
Total value added due to beer	2.0 billion euro	-25.4%
Total government revenues due to beer	2.4 billion euro	-15.8%

› Source: Ernst & Young calculations

[32] Source: Eurostat, data per december 31st 2010
[33] Source: Eurostat, 2011
[34] Figures from companies that only import beer are excluded

2 | Market structure, trends and developments

→ Exports

In 2010, 1.9 million hectolitres of Polish beer was exported. The main export markets for this beer were the United States of America, Canada, Great Britain and Australia.

→ Imports

Approximately 0.9% of the beer sold in Poland was imported. Although this might seem very low, Poland is self-sufficient with regard to beer supply. The main import markets are Belgium and Italy.

→ Consumption patterns

The consumption per capita has reverted to the level prior to the 2009 economic crisis. Consumers are switching to unpasteurized, local beers with a lower alcohol content. There have been some changes in volume share between the top three players in the Polish beer market. The majority of beer consumed is purchased in the retail sector.

	Beer in 2008	Beer in 2009	Beer in 2010
Off-trade sales	80%	85%	85%
On-trade sales	20%	15%	15%

→ Expenditures

In 2010, the small breweries spent relatively more on packaging and raw materials for their beer production because of increased sales. Also, they spent a relatively lower amount on media and marketing as media houses lowered their prices due to the economic crisis that hit them in 2009. Compared to 2008, the prices for media and marketing were lower.

→ Taxation

In 2010 in Poland, the government held discussions on the possibility of levying excise duty on brewers' yeast. Yeast is one of the most important materials in brewing beer and is responsible for the metabolic processes that contribute to the flavour of beer. There are literally hundreds of varieties and strains of yeast.[35] The issue has been dealt with satisfactorily at EU level. An interpretation of the rules against yeast taxation has been produced.

From January 2011 the VAT rate increased from 22% to 23%.

→ Marketing

The non-pasteurized beer segment is rising in Poland. In 2010, one of the four multinational brewers that operates in Europe added unpasteurized, or so called 'cold filtered' beer to national distribution in Poland.

→ Trade, distribution and retail

The market segment for discounted beers is growing in sales volume over other trade segments. Beer prices are the key factor in purchasing decisions, leading to a marked increase of beer sales in discount outlets such as Aldi, Lidl, and Netto. Also, consumers are purchasing more beer in returnable bottles.

The most important threats the beer sector will face in the forthcoming years are:

- Higher taxes rates in different areas.
- Lower/flat beer consumption.
- Increasing prices for agricultural products and raw materials.
- Price competition among key players.
- Transformation of the trade system in Poland (consolidation of distributors, growth of supermarkets, small shop chains, discounters) and shift of consumers to modern trade (small shops and discounters).
- Advertising restrictions.

[34] Goldammer, T. (2008). The Brewer's handbook.

29

3 | Direct effect of the brewing sector

Polish breweries have around 15,000 employees who together produce 36.6 million hectolitres of beer with a value of 2.3 billion euro.

› Graph 29.1. / Direct effect of the beer sector

› Source: Ernst & Young calculations

Another substantial direct effect of the brewing sector is the revenue paid by beer brewers and consumers. In 2010, excise duties reached 939 million euro and total VAT income for the Polish Government was estimated to be 667 million euro. Personal direct taxes, social security contributions and payroll taxes paid by employees and employers in the brewing sector added up to another 56 million euro.

As already noted, the production value of Polish breweries in 2010 was 2.3 billion euro. A relatively high proportion (34%) of total turnover remains within the brewing sector as value-added. Value-added equals total reward for production factors used: labour costs, interest paid and profits made.

4 | Indirect effects of the brewing sector

With 34% of the value of the output produced staying within the Polish brewing sector as value-added, the other 66% of 2.3 billion euro in total turnover accrued suppliers of goods and services.

This stimulus of 1.5 billion euro has a significant economic impact on sectors outside the brewing sector, most substantially on the agriculture sector. This high impact on the agriculture sector is due to the relatively low turnover per employee in this sector in comparison with other sectors.

Sectors	Stimulus	Stimulus for Poland		Turnover per employee	Number of employees
	(mln. €)	% spent in own country	(mln. €)	(in €)	
Agriculture	226.6	93.7	212.3	8,194	25,913
Utilities	59.4	100	59.4	167,648	354
Packaging industry (in hectolitres)	441	85.2	375.8	78,936	4,760
Equipment	34.9	24.7	8.6	78,936	109
Transport	88.4	100	88.4	55,328	1,598
Media, marketing	1,025	98.7	1,022.8	61,946	16,333
Services	20	6.3	1.3	61,946	20
Total	1,895	-	-	-	49,089
First-round impact as % of total impact					65
Total indirect effect of brewing sector					75,521

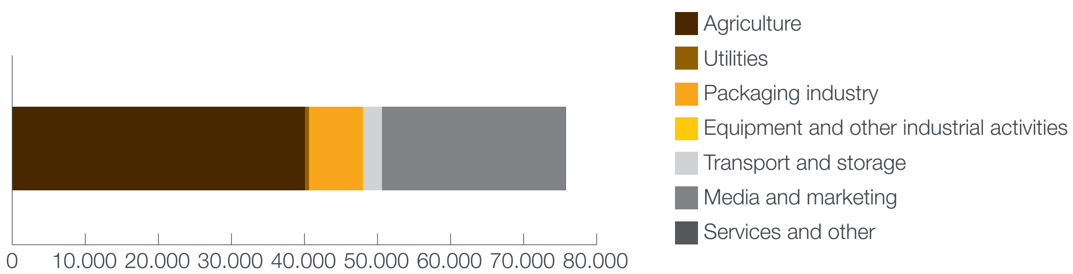
› Source: Ernst & Young calculations

Approximately 35% of the indirect employment effected is generated in the agriculture sector. Other substantial effects are seen in the media and marketing sector. The total first-round employment effect of the brewing sector on supplying sectors is estimated at approximately 49,100 employees.

This primary effect can be estimated at about 65% of the total impact. Hence, tthe total impact will be about 75,500 jobs.

Indirect employment effects are illustrated below:

› Graph 29.2. / Indirect employment



› Source: Ernst & Young calculations

5 | Induced effects of the brewing sector

6 | Total employment due to beer

29

➔ Hospitality sector

The economic impact of the breweries on the hospitality sector is assessed as follows:

- About 15% of all beer consumed in Poland is sold by the hospitality sector (on-trade), which means 5.2 million hectolitres is sold on-trade.
- The average consumer price of beer in Polish pubs and restaurants is estimated at 2.7 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is almost 1.4 billion euro (including VAT).
- Net consumer spending on beer is thus estimated at 1.1 billion euro (using a 22% VAT tariff).
- With an average hospitality turnover of 25,688 (excluding VAT) per person, this results in 44,426 hospitality sector jobs attributable to beer sales.

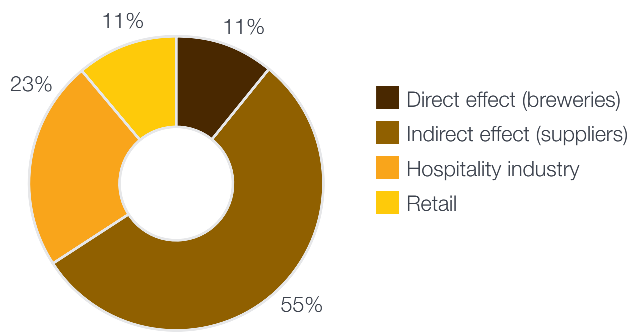
➔ Retail

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

- About 85% of total beer consumption (29.3 million hectolitres) in Poland is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.3 euro per litre (including VAT), total retail consumer spending on beer is estimated at 3.8 billion euro.
- Total consumer spending excluding VAT is thus 2.1 billion euro.
- With turnover per employee estimated at 141,544 euro (excluding VAT), this means around 22,080 people owe their jobs to retail beer sales.

There are approximately 15,000 employees in Polish breweries. A further 75,500 jobs are created in the supplying sector. Some 44,400 jobs are created in the hospitality sector and 22,100 jobs in the wholesale and retail due to sales of beer. The total employment is 157,000 jobs.

› Graph 29.3. / Total employment because of beer: 157,000 jobs

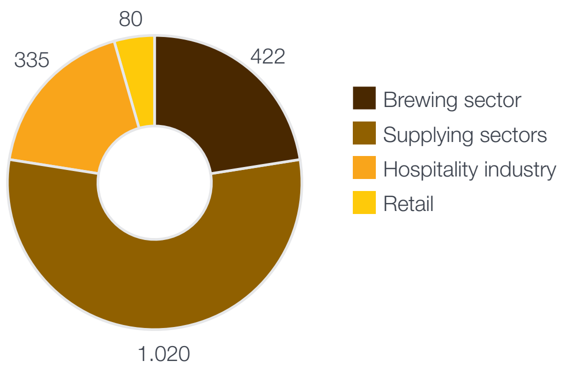


› Source: Ernst & Young calculation (2011)

7 | Total value added due to beer

The contribution of the brewing sector to the Polish economy can also be expressed in terms of value-added. The total value-added generated by the jobs created due to beer is estimated at 2.0 billion euro. This value added is 25.4% less than in 2008.

› Graph 29.4. / Value added due to the production and sale of beer: 2.0 billion euro



› Source: Ernst & Young calculations

8 | Total government revenues due to beer

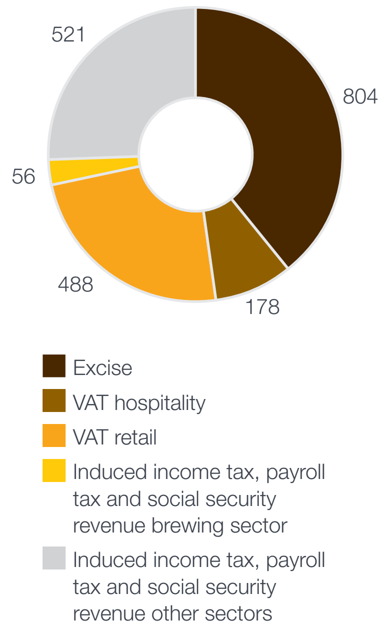
29

The 2010 revenues from excise, VAT and income-related contributions due to beer production and sales were estimated to be 2.4 billion euro; a decrease of 450 million euro.

For 2010:

- VAT revenue was estimated to be 939 million euro. The main part of these VAT revenues is generated in the retail sector.
- Total excise revenue from beer was 804 million euro.
- Income-related revenue due to beer production and sales were approximately 659 million euro, comprising 131 million euro income tax, 243 million euro social security contributions paid by employees and 284 million euro social security taxes and payroll taxes paid by employers.

› Graph 29.5. / Government revenues due to the production and sale of beer: 2.4 billion euro



› Source: Ernst & Young calculations

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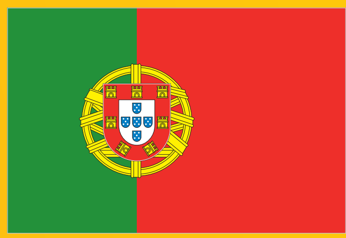


Portugal

30

1 | Highlights

Country profile	
Population[36]	10,637,713
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100)[37]	80

› Source: Eurostat

Beer market[38]	2008	2009	2010
Total production (in hectolitres)	8,210,400	7,833,000	8,312,000
Total exports (in hectolitres)	2,010,000	1,730,000	2,481,000
Total imports (in hectolitres)	36,000	82,000	180,000
Total consumption (in hectolitres)	6,200,000	6,100,000	5,900,000
Consumption of beer per capita (in litres)	61	60	59
Beer producing companies (excluding micro brewing companies)	6	6	6
Breweries (excluding micro-breweries)	7	7	7

› Sources: The Brewers of Europe Beer Statistics 2010 edition and APCV

Economic impact	2010	Compared to 2008
Total jobs due to beer	75,000 jobs	+2.9%
Total value added due to beer	1,1 billion euro	+10%
Total government revenues due to beer	984 million euro	+1.1%

› Source: Ernst & Young calculations

[36] Source: Eurostat, data per december 31st 2010
[37] Source: Eurostat, 2011
[38] Figures from import companies are excluded

2 | Market structure, trends and developments

→ Exports

In 2010, 2.5 million hectolitres of Portuguese beer was exported. The main export markets for this beer is Portuguese speaking countries in Africa (mainly Angola).

→ Imports

Approximately 3% of the beer sold in Portugal is imported. In 2010 180,000 hectolitres of beer was imported.

→ Consumption patterns

The consumption per capita has been decreasing slowly from 61 litres in 2007 to 59 litres in 2010.
The majority of the beer consumed is in the hospitality sector, like restaurants and bars.

	Beer in 2008	Beer in 2009	Beer in 2010
Off-trade sales	37.5%	30%	31%
On-trade sales	62.5%	70%	69%

› Sources: The Brewers of Europe Beer Statistics 2010 edition and APCV

→ Expenditures

In 2010, the breweries spent more on media, marketing, and communications due to higher investments in their beer brands. In 2010, they spent relatively less on the purchase of equipment and machinery and other fixed costs due to the goal of a task force to increase FOCF (free operating cash flow) and other efficiency programmes.

→ Taxation

During recent years a number of changes have been introduced. VAT increased from 17% in 2006 to 20% in 2008. Currently, VAT is 21%. More changes in the VAT rate have been announced. Also, environmental taxes have increased to 35%.

→ Distribution and retail

There is more market penetration of own-brand beer. Sales of private labels increased in 2010 particularly driven by the economic difficulties. Nevertheless, the beer market still shows resistance to private labels compared with other consumer goods segments. The domestic beer market volume decreased especially in the last quarters or 2010, while exports increased. The distribution of 20 cl bottles increased while mini and draught beer decreased.

→ Packaging and bottling

There is a stronger consumer preference for one-way bottles and lower bottle capacity. This has resulted in an increase for brewers in expenditure on glass bottles.

→ Raw materials

Commodity prices have to increase significantly in recent years and consequently the costs of goods sold have risen, putting pressure on the margins of beer companies.

The most important threats the beer sector will face in the upcoming years are:

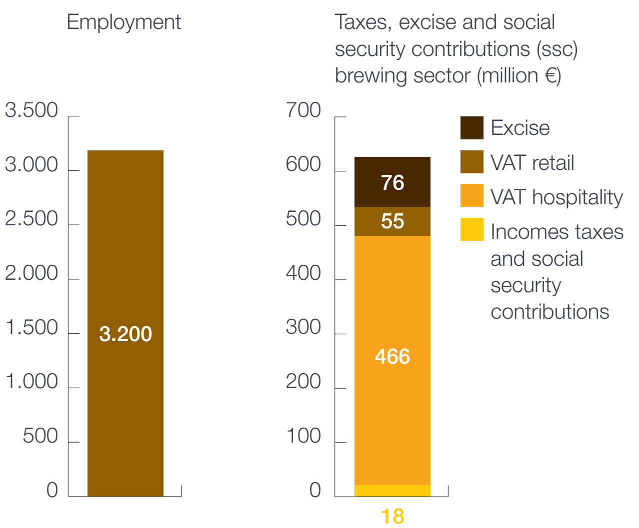
- Lower beer consumption.
- Higher tax rates.
- Market dimension decrease.
- Higher production prices (increase on costs of goods sold, raw materials).
- Private label.

3 | Direct effect of the brewing sector

30

Portuguese breweries employ around 3,200 employees whom together produce 8.3 million hectolitres of beer with a value of 478 million euro.

› Graph 30.1. / Direct effect of the beer sector



› Source: Ernst & Young calculations

As already noted, the production value of Portuguese breweries in 2010 was 478 million euro. A relatively high share (49%) of total turnover stayed within the brewing sector as value-added. Value-added equals total reward for production factors used: labour costs, interest paid and profits made.

4 | Indirect effects of the brewing sector

With 49% of the value of the output produced staying within the Portuguese brewing sector as value-added, the other 51% of 2.3 billion euro in total turnover accrues to a number of suppliers.

This stimulus of 246 million euro has a significant economic impact on sectors outside the brewing sector, most substantially on the agriculture sector. This high impact on the agriculture sector is due to the relatively low turnover per employee in this sector in comparison with other sectors.

Sectors	Stimulus	Stimulus for Portugal		Turnover per employee	Number of employees
	(mln. €)	% spent in own country	(mln. €)	(in €)	
Agriculture	26.6	37.3	9.9	19,202	516
Utilities	11.9	100	11.9	535,140	22
Packaging industry (in hectolitres)	82.6	76.1	62.9	91,767	685
Equipment	23.2	65.6	15.2	91,767	166
Transport	30	89.9	27	137,055	197
Media, marketing	54.8	82.2	45	50,303	895
Services	17.4	100	17.4	50,303	347
Total	246.4	-	189.3	-	2,828
First-round impact as % of total impact					65
Total indirect effect of brewing sector					4,351

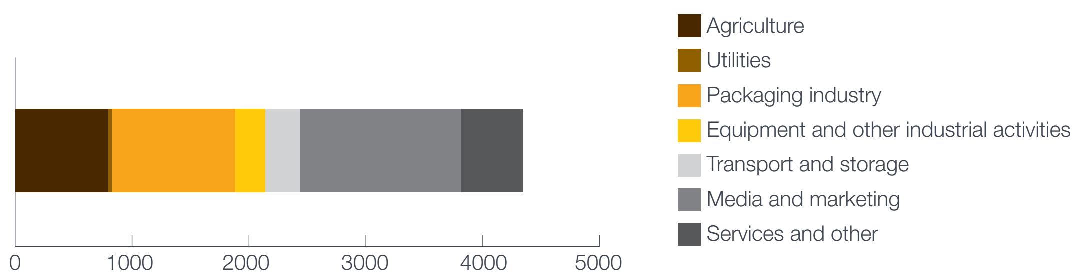
› Source: Ernst & Young calculations

The suppliers that benefit most from brewing are the media and marketing sectors and the packaging industry. The total first-round employment effect of the brewing sector on supplying sectors is estimated to be approximately 2,800 employees in 2010.

As this primary effect can be estimated at about 65% of the total impact, the total impact will be almost 4,400 jobs.

Indirect employment effects are illustrated below:

› Graph 30.2. / Indirect employment



› Source: Ernst & Young calculations

5 | Induced effects of the brewing sector

→ Hospitality sector

The economic impact of the breweries on the hospitality sector is assessed as follows:

- About 69% of all beer consumed in Portugal is sold by the hospitality sector (on-trade), which means 4.1 million hectolitres is sold on-trade.
- The average consumer price of beer in Portuguese pubs and restaurants is estimated at 6.6 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is almost 2.7 billion euro (including VAT).
- Net consumer spending on beer is thus estimated at 2.2 billion euro (using a 21% VAT tariff).
- With an average hospitality turnover of 33,694 (excluding VAT) per person, this results in 65,900 hospitality sector jobs attributable to beer sales.

→ Retail

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

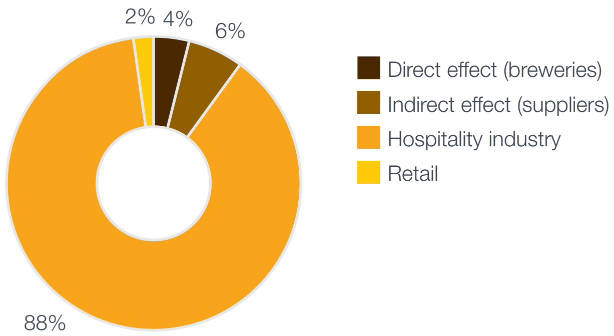
- About 31% of total beer consumption (1.8 million hectolitres) in Portugal is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.7 euro per litre (including VAT), total retail consumer spending on beer is estimated at 315 million euro.
- Total consumer spending excluding VAT is thus 260 million euro.
- With turnover per employee estimated at 165,800 euro (excluding VAT), this means around 1,600 people owe their jobs to retail beer sales.

6 | Total employment due to beer

30

In 2010, approximately 3,200 persons were employed in Portuguese breweries. An additional 4,400 jobs were created in the supplying sector. Some 65,900 jobs were created in the hospitality sector and 1,600 jobs in the wholesale and retail due to sales of beer. Total employment due to beer was therefore around 75,000 jobs.

› *Graph 30.3. / Total employment because of beer: 75,000 jobs*

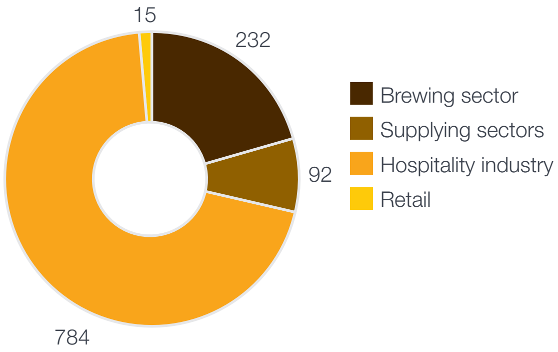


› Source: Ernst & Young calculations

7 | Total value added due to beer

The contribution of the brewing sector to the Portugal economy can also be expressed in terms of value-added. The total value-added generated by the 75,000 jobs due to beer is estimated at 1.1 billion euro.

› Graph 30.4. / Value added due to the production and sale of beer: 1.1 billion



› Source: Ernst & Young calculations

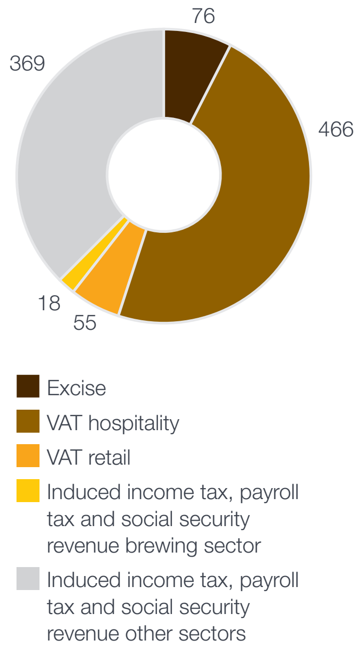
8| Total government revenues due to beer

30

The 2010 revenues from excise, VAT and income-related contributions due to beer production and sales were estimated to be 984 million euro:

- VAT revenue was estimated as 521 million euro, the majority of this being generated in the hospitality sector.
- Total excise revenue from beer was 76 billion euro.
- Income-related revenue due to beer production and sales were approximately 387 million euro, comprising 109 million euro income tax, 117 million euro social security contributions paid by employees and 261 million euro social security taxes and payroll taxes paid by employers.

› Graph 30.5. / Government revenues due to the production and sale of beer: 984 million euro



› Source: Ernst & Young calculation (2011)

31

Romania

1 | Highlights

31

Country profile	
Population[39]	21,462,186
Currency	Romanian Leu (RON)
GDP per capita in PPS (2009, EU27 = 100)[40]	46

Beer market	2008	2009	2010
Total production (in hectolitres)	20,640,000	17,600,000	16,920,000
Total exports (in hectolitres)	19,760,000	173,000	140,000
Total imports (in hectolitres)	500,000	170,000	220,000
Total consumption (in hectolitres)	20,200,000	17,600,000	17,000,000
Consumption of beer per capita (in litres)	93	81	78
Beer producing companies (excluding micro brewing companies)	13	13	13
Breweries (excluding micro-breweries)	21	21	18

› Sources : The Brewers of Europe Beer Statistics 2010 edition and Brewers of Romania Association

Economic impact	2010	Compared to 2008
Total jobs due to beer	76,000 jobs	-21.1%
Total value added due to beer	509 million euro	-34.7%
Total government revenues due to beer	651 million euro	-14.3%

› Source : Ernst & Young calculations

[39] Source : Eurostat, data per december 31st 2010
[40] Source : Eurostat, 2011

2 | Market structure, trends and developments

→ Exports

In 2010 140,000 hectolitres of the beer that was produced in Romania, was exported. This is a decrease in comparison to 2009. The main export markets for Romanian beer are Hungary, Bulgaria, and Italy.

→ Imports

In 2010, approximately 220,000 hectolitres of beer was imported. The main import markets are Germany, Poland, and Hungary.

→ Consumption patterns

Beer consumption in Romania has been decreasing since 2008. The consumption per capita is now 78 litres.
In 2009, it was the first time in ten years that domestic beer consumption has shown a sharp decline, according to the breweries.

	Beer in 2008	Beer in 2009	Beer in 2010
On-trade sales	35%	30%	28%
Off-trade sales	65%	70%	72%

→ Expenditures

In 2010 the breweries spent relatively more on packaging materials and relatively less on brewing materials because of decreasing volume of beer production compared to 2009.

→ Taxation

VAT level increased from 19% to 24% in 2010.

→ Malting barley

A new malt plant was opened in 2010 in Romania.
This plant is located on the best barley-growing land and is supplying Romanian brewers with products made from high quality raw materials. Annual production is 106 000 tons of Pilsen malt.

→ Distribution and retail

The economic downturn has resulted in an increase in fuel prices. This is a particular burden on brewing companies as is the alignment with the European Union. This alignment has increased the pressure on distribution costs.

→ Brewing sector and market structure:

The most important threats the beer sector will face in Romania in forthcoming years are:

- Creating a deposit system for non-returnable packing
- Lower beer consumption.
- Higher risk of increased unfavourable regulations.
- Market trends.
- Higher production costs as a result of higher prices of raw materials.

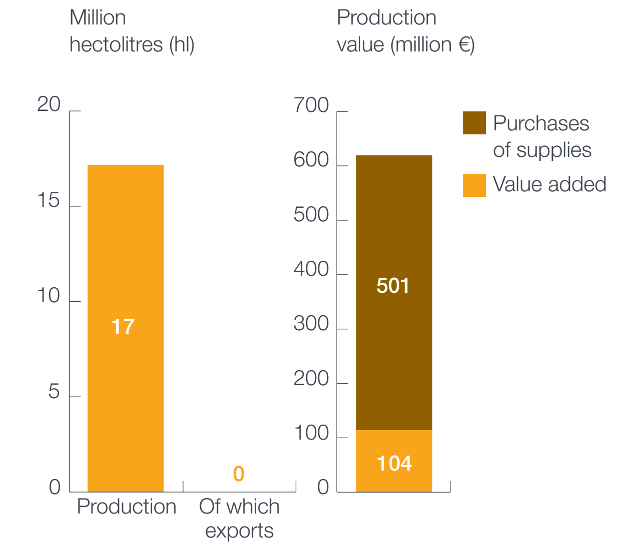
31

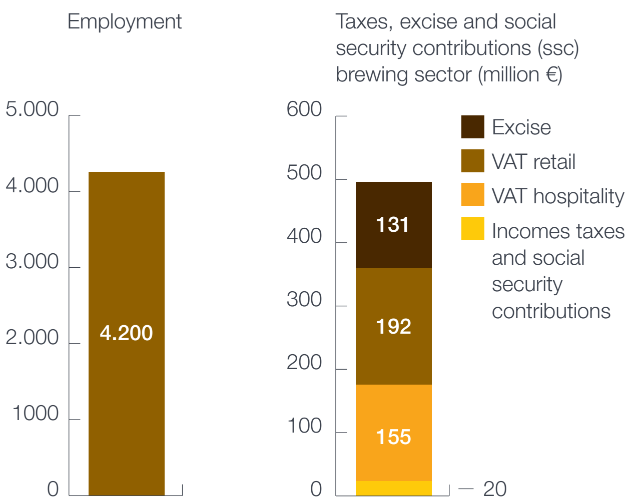
3| Direct effect of the brewing sector

In 2010, Romanian breweries had around 4,200 employees who together produced 16.9 million hectolitres of beer with a value of 605 million euro.[41]

A relatively high share of total turnover of 605 million euro remains within the brewing sector as value-added. Value-added equals total reward for production factors used: labour costs, interest paid and profits made.

› Graph 31.1. / Direct effect of the beer sector





› Source: Ernst & Young calculations

[41] This included only the employees of the members of the Brewers of Romania Association. Eight breweries or beer producing companies are not members of this association.

4 | Indirect effects of the brewing sector

In 2010,17% of production value remained within the Romanian brewing sector as value-added. The other 83% of 605 million euro in total turnover accrued to suppliers of goods and services.

This stimulus of 501 million euro has a significant economic impact on sectors outside the brewing sector, most substantially on the agriculture sector.

Sectors	Stimulus	Stimulus for Romania		Turnover per employee	Number of employees
	(mln. €)	% spen in own country	(mln. €)	(in €)	
Agriculture	106.2	55.7	59.1	6,523	9,066
Utilities	22.5	97.7	22	84,902	259
Packaging industry (in hectolitres)	66.8	53.3	35.6	33,581	1,061
Equipment	116.2	38.9	45.2	33,581	1,347
Transport	39.7	100	39.7	37,066	1,071
Media, marketing	75	89.2	66.9	25,461	2,629
Services	74.3	84.5	62.8	25,461	2,468
Total	500.7	-	331	-	17,901
First-round impact as % of total impact					65
Total indirect effect of brewing sector					27,539

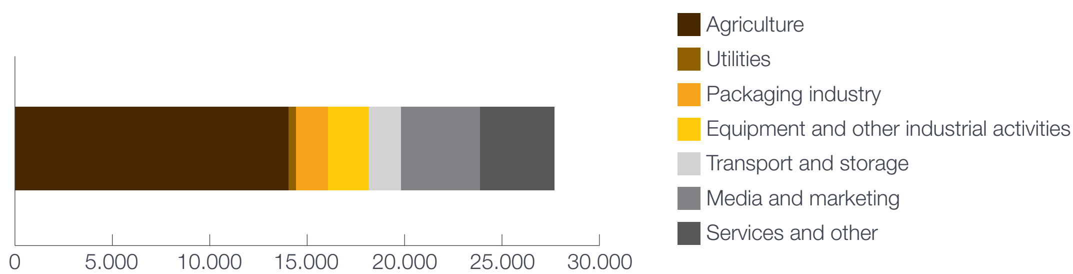
› Source: Ernst & Young calculations

In 2010, the majority of jobs created by the beer industry in the supply chain were in the agricultural sector. The total first-round employment effect of the brewing sector on supplying sectors is estimated to be approximately 17,900 employees.

This primary effect can be estimated at about 65% of the total impact. Thus, the total impact will be about 27,500 jobs.

Indirect employment effects are illustrated below:

› Graph 31.2. / Indirect employment



› Source: Ernst & Young calculations

5| Induced effects of the brewing sector

6| Total employment due to beer

31

→ Hospitality sector

The economic impact of the breweries on the hospitality sector is assessed as follows:

- About 28% of all beer consumed in Romania is sold by the hospitality sector (on-trade), which means 4.8 million hectolitres is sold on-trade.
- The average consumer price of beer in Romanian pubs and restaurants is estimated to be 1.7 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is almost 799.5 million euro (including VAT).
- Net consumer spending on beer is thus estimated at 644.9 million euro (using a 24% VAT rate).
- With an average hospitality turnover of 17,635 (excluding VAT) per person, this results in almost 36,600 hospitality sector jobs attributable to beer sales.

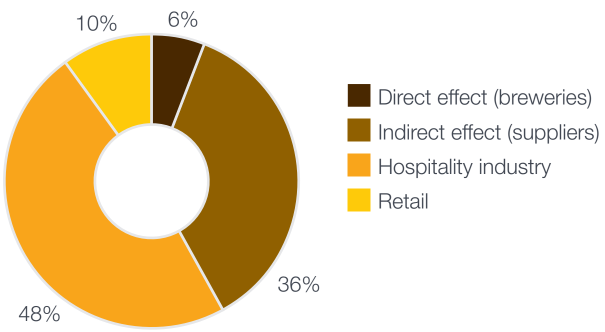
→ Retail

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

- About 72% of total beer consumption (12,2 million hectolitres) in Romania is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 0.8 euro per litre (including VAT), total retail consumer spending on beer is estimated at 991.4 million euro.
- Total consumer spending excluding VAT is thus 799.5 million euro.
- With turnover per employee estimated at 104,122 euro (excluding VAT), this means around 7,700 people owe their jobs to retail beer sales.

In 2010, approximately 4,200 persons were employed in Romanian breweries.[42] In addition, 27,500 jobs were created in the supplying sector. Some 36,600 jobs were created in the hospitality sector and 7,700 jobs in the wholesale and retail due to sales of beer. Therefore, total employment due to beer was 76,000 jobs.

› Graph 31.3. / Total employment because of beer: 76,000 jobs



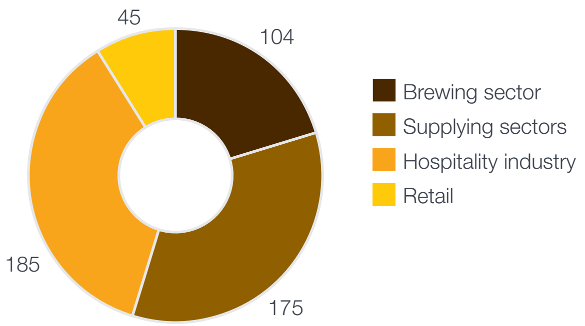
› Source: Ernst & Young calculations

[42] This included only the employees of the members of the Brewers of Romania Association. Eight breweries or beer producing companies are not members of this association.

7| Total value added due to beer

The contribution of the brewing sector to the Romania economy can also be expressed in terms of value-added. The total value-added generated by the 76,000 jobs due to beer is estimated at 509 million euro.

› *Graph 31.4. / Value added due to the production and sale of beer: 509 million euro*



› Source: Ernst & Young calculation (2011)

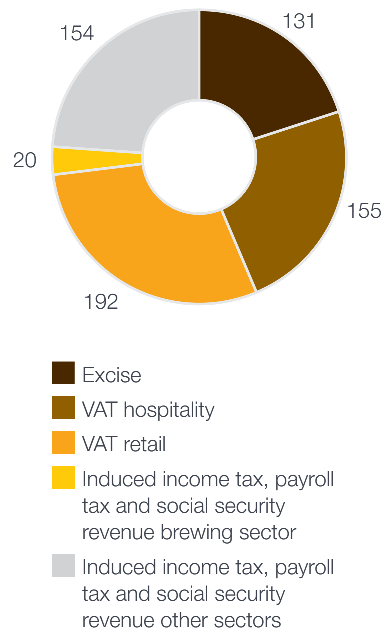
8| Total government revenues due to beer

31

The 2010 revenue from VAT and income-related contributions due to beer production and sales was estimated to be 651 million euro:

- VAT revenue was estimated to be 347 million euro.
- Total excise revenue from beer was 131 million euro.
- Income-related revenue due to beer production and sales was approximately 164 million euro, comprising 36 million euro income tax, 49 million euro social security contributions paid by employees and 111 million euro social security taxes and payroll taxes paid by employers.

› Graph 31.5. / Government revenues due to the production and sale of beer: 651 million euro



› Source: Ernst & Young calculations

32

Slovakia

1 | Highlights

32

Country profile	
Population [1]	5,424,925
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100) [2]	73

› Source: Eurostat

Beer market[34]	2008	2009	2010
Total production (in hectolitres)	3,558,000	3,264000	3,111,700
Total exports (in hectolitres)	30,000	37,000	153,200
Total imports (in hectolitres)	650,000	620,000	650,000
Total consumption (in hectolitres)	4,178,000	4,050,000	3,608,500
Consumption of beer per capita (in litres)	80.8	79.2	78.5
Beer producing companies (including micro brewing companies)	13	5	19
Beer producing companies (excluding micro brewing companies)	5	5	5
Breweries (including micro-breweries)	13	15	19
Breweries (excluding micro-breweries)	6	6	5

› Sources: The Brewers of Europe Beer Statistics 2010 edition and Slovak Brewers and Maltsters Association

Economic impact	2010	Compared to 2008
Total jobs due to beer	16,400 jobs	-21.1%
Total value added due to beer	191 million euro	-18.4%
Total government revenues due to beer	234 million euro	-2.1%

› Source: Ernst & Young calculations

[1] Source: Eurostat, data per december 31st 2010
[2] Source: Eurostat, 2011

2 | Market structure, trends and developments

The beer market in Slovakia is stagnating. In 2010 Slovak brewers produced approximately 3.1 million hectolitres of beer, which is slightly less than in the previous year. Consumption is also decreasing; from 4.4 million hectolitres in 2006 to 3.6 million hectolitres in 2010. Average annual consumption per capita also decreased (from 94 litres in 2002 to 78.5 in 2010).

As in most eastern European countries, foreign companies have entered the Slovak beer market. Most of the large breweries in Slovakia are now owned by multinational brewing concerns. The two largest brewing companies, together holding a market share of 73%, (one company 45% and the other 28%), are part of two of the biggest multinational brewing concerns. These foreign companies made large investments in modernising the Slovak breweries, resulting in high productivity (annual production amounts to more than 1,600 hectolitres per employee).

→ Exports

In 2010 153,000 hectolitres of Slovak beer was exported, the main export markets being Poland, Canada and the USA.

→ Imports

Approximately 18% of the beer sold in Slovakia is imported. In 2010, 650,000 hectolitres of beer was imported, the main import markets being the Czech Republic, Poland and Austria.

→ Consumption patterns

Consumption per capita has decreased from 82.4 litres in 2007 to 78.5 litres in 2010. Of the beer consumed, the major proportion is purchased in the retail sector. The market shares of both on- and off-trade channels are relatively stable.

	Beer in 2008	Beer in 2009	Beer in 2010
Off-trade sales	60%	60%	60%
On-trade sales	40%	40%	40%

› Sources: The Brewers of Europe Beer Statistics 2010 edition

Consumers tend to look for price promotions on brands that are bought regularly, as a result of the financial downturn. In the off-trade, packaging in PET bottles is growing at the expense of glass bottles. Consumers are more focused on convenience. In the on-trade, consumers seek added value and specialties, e.g. tank beer (introduced by key market players) – providing exceptional quality and unique image ("beer direct from the brewery"). Market penetration is dropping among males (females are stable, but from a low base). Consumers are becoming more loyal to the main brands. As a result of the financial crisis, consumers visit pubs less frequently.

→ Expenditures

In 2010, breweries spent more on utilities due to price inflation. They spent relatively less on transportation, equipment and marketing due to better terms negotiated with the transport sector, less purchase of equipment due to the crises and less marketing because of the lower beer volumes sold.

→ Taxation

VAT increased on 1st January 2011.The government has the intention to increase beer excise tax but this did not pass in the Slovak Parliament.

→ Distribution and retail

Logistics providers are experiencing a recovery after the crisis. The brewing sector is encountering cost pressures related to oil price increases. Retailers continue with centralization of their supply chain. Nowadays they have their own distribution and logistics centres.
Brewing sector and market structure

→ Brewing sector and market structure

The total beer market in Slovakia continued to decline in 2011 (-7.4%), which means a slight improvement compared to declines in previous years. Shares of the multinationals were more or less stable with some short-term changes. The beer market is polarizing (consumers are shifting from mainstream to either the economy or premium sectors). Furthermore, sales of other alcoholic beverages (wine and spirits) are increasing at the expense of beer.

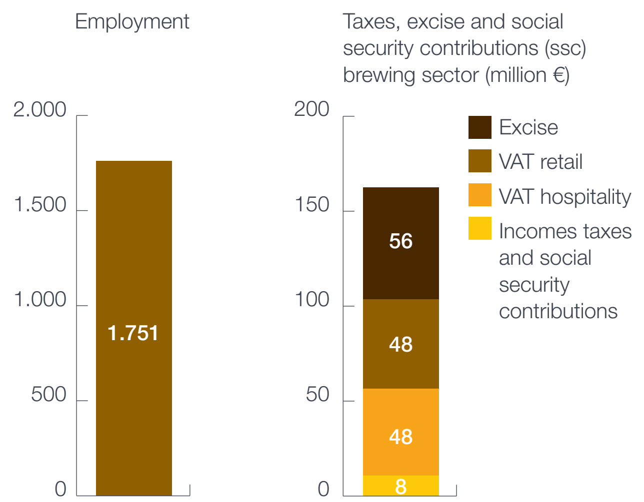
32

The most important threats the beer sector will face in forthcoming years are:

- Higher tax rates
- Decline of the Slovak beer market
- Marketing restrictions

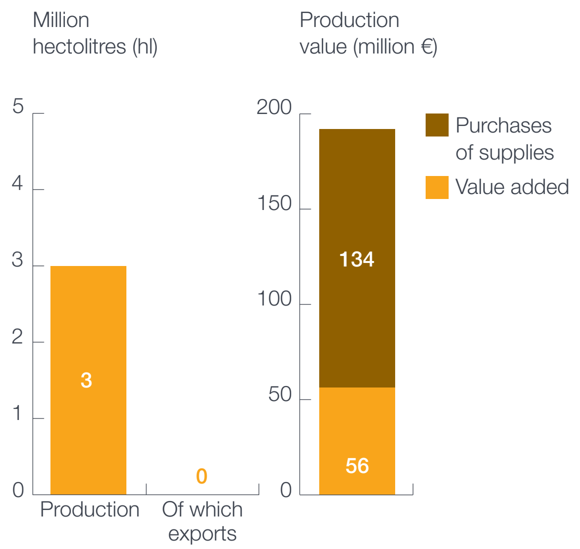
3| Direct effect of the brewing sector

Slovak breweries employ 1,800 employees who together produce 3.1 million hectolitres of beer with a value of 190 million euro.



› Source: Ernst & Young calculations

› *Graph 32.1. / Direct effect of the beer sector*



Another substantial direct effect of the brewing sector concerns taxes and excises paid by brewers and beer consumers.. In 2010, excises reached 56 million euro and total VAT income for the Slovak government was estimated to be 96.8 million euro. Personal direct taxes, social security contributions and payroll taxes paid by employees and employers in the brewing sector totalled another 8 million euro. As already stated, the production value of Slovakian breweries was 190 million euro in 2010. Of this, a relatively high proportion (30%) remained within the brewing sector as value-added. Value-added equals the total reward for production factors used: labour costs, interest paid and profits made.

4 | Indirect effects of the brewing sector

In 2010, 30% of the production value staying within the Slovakian brewing sector as value-added. The other 70% of 190 million euro in total turnover accrued to suppliers of goods and services. This stimulus of 134 million euro has a significant economic impact on sectors outside the brewing sector, most substantially in the agriculture sector. This high impact on the agriculture sector is due to the relatively low turnover per employee in this sector in comparison with other sectors.

Sectors	Stimulus	Stimulus for Slovakia		Turnover per employee	Number of employees
	(mln. €)	% spent in own country	(mln. €)	(in €)	
Agriculture	33	90	29.7	22,493	1,319
Utilities	8.9	100	8.9	196,251	45
Packaging industry	34	61	20.7	94,241	220
Equipment	9.8	61	6	94,241	64
Transport	12	93.7	11.3	50,450	223
Media, marketing	23.3	90.5	21.1	44,633	472
Services	12.8	90.5	11.6	44,633	259
Total	133.7	-	109	-	2,602
First-round impact as % of total impact					65
Total indirect effect of brewing sector					4,003

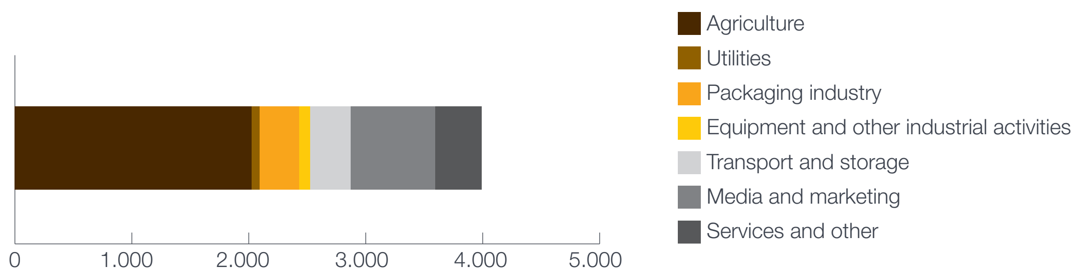
› Source: Ernst & Young calculations

Approximately 33% of the indirect employment effected is generated in the agriculture sector. Other substantial effects are seen in the media and marketing sector. The total first-round employment effect of the brewing sector on supplying sectors is estimated at approximately 2,602 employees.

As this primary effect can be estimated at about 65% of the total impact, the total impact will be about 4,003 jobs.

Indirect employment effects are illustrated below:

› Graph 32.2. / Indirect effect



› Source: Ernst & Young calculations

5| Induced effects of the brewing sector

6| Total employment due to beer

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→ Hospitality sector

The economic impact of the breweries on the hospitality sector is assessed as follows:

- About 40% of all beer consumed in Slovakia is sold by the hospitality sector (on-trade), which means 1.4 million hectolitres is sold on-trade.
- The average consumer price of beer in Slovakian pubs and restaurants is estimated at 2.1 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is almost 303 million euro (including VAT).
- Net consumer spending on beer is thus estimated at 254.7 million euro (using a 19% VAT rate).
- With an average hospitality turnover of 27,284 euro (excluding VAT) per person, this results in 9,300 hospitality sector jobs attributable to beer sales.

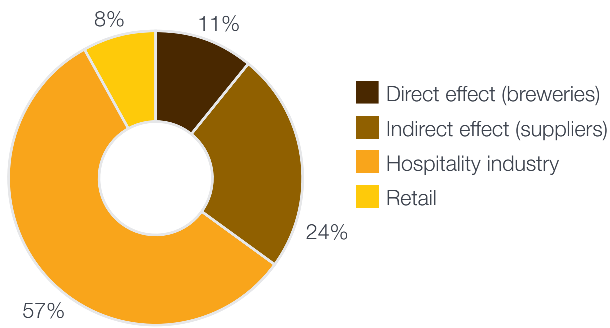
→ Retail

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

- About 60% of total beer consumption (2.2 million hectolitres) in Slovakia is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.4 euro per litre (including VAT), total retail consumer spending on beer is estimated at 303 million euro.
- Total consumer spending excluding VAT is thus 254.7 million euro.
- With turnover per employee estimated at 191,705 euro (excluding VAT), this means around 1,300 people owe their jobs to retail beer sales.

In 2010, approximately 1,800 persons were employed in Slovak breweries. An additional 4,000 jobs were created in the supplying sector. Some 9,300 jobs were created in the hospitality sector and 1,300 jobs in the wholesale and retail due to sales of beer. Therefore, total employment due to beer was more than 16,400 jobs.

› Graph 32.3. / Total employment because of beer: 16,400 jobs

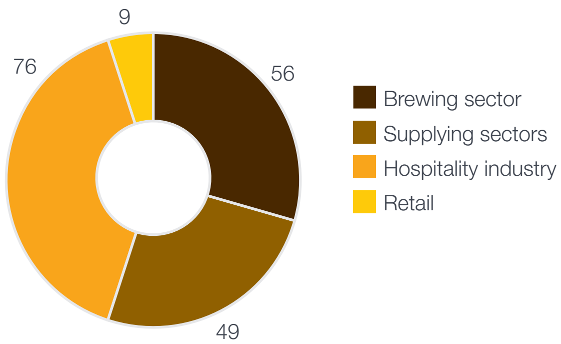


› Source: Ernst & Young calculations

7 | Total value added due to beer

The contribution of the brewing sector to the Slovakian economy can also be expressed in terms of value-added. The total value-added generated by the 16,400 jobs due to beer is estimated at 191 million euro.

› Graph 32.4. / Value added due to the production and sale of beer: 191 million euro



› Source: Ernst & Young calculations

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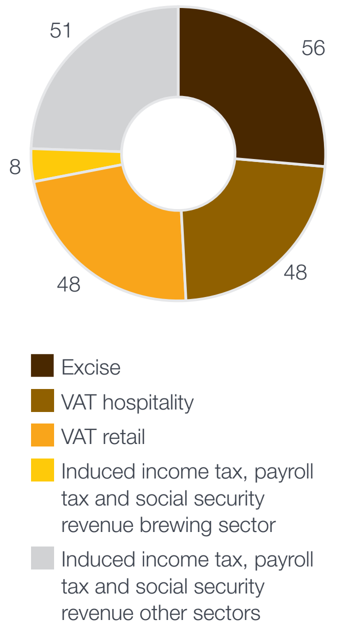
8 | Total government revenues due to beer

The 2010 revenue from excise, VAT and income-related contributions due to beer production and sales was estimated to be 211 million euro:

- VAT revenue was estimated to be 96.8 million euro.
- Total excise revenue from beer was 56 million euro.
- Income-related revenue due to beer production and sales was approximately 59 million euro, comprising11 million euro income tax, 17 million euro social security contributions paid by employees and 33 million euro social security taxes and payroll taxes paid by employers.

› Graph 32.5. / Government revenues due to the production and sale of beer: 211 million euro



› Source: Ernst & Young calculations

33

Slovenia

1 | Highlights

33

Country profile	
Population[3]	2,046,976
Currency	Euro
GDP per capita in PPS (2009, EU27 = 100)[4]	88

Beer market	2008*	2009	2010*
Total production (in hectolitres)	1,760,000	1,443,200	1,826,000
Total exports (in hectolitres)	403,000	486,400	448,200
Total imports (in hectolitres)	248,000	293,300	285,000
Total consumption (in hectolitres)	1,780,000	1,712,000	1,663,000
Consumption of beer per capita (in litres)	92.6	88.6	82
Beer producing companies (including micro brewing companies)	22	22	22
Breweries (including micro-breweries)	22	22	22

❯ Sources: The Brewers of Europe Beer Statistics 2010 edition,
* Canadean Forecasts

Economic impact*	2010	Compared to 2008
Total jobs due to beer	11,700 jobs	-2.2%
Total value added due to beer	228 million euro	-0.9%
Total government revenues due to beer	280 million euro	+8.2%

[3] Source: Eurostat, data per december 31st 2010
[4] Source: Eurostat, 2011

2 | Market structure, trends and developments

Slovenia is one of the smaller central European countries in relative terms, but Slovenia has a historically high level of alcohol consumption. Slovenia's historical connection with the Austro-Hungarian Empire contributes to a tradition of beer brewing and a culture of beer drinking.

The local Slovenian beer market has been dominated for years by two national brands. One of them has been brewed for more than 175 years in Lasko. The other has 140 years of brewing history in Ljubljana. Slovenes did not have their own beer before the founding of these breweries. The two breweries are highly competitive in aiming for Slovenia's top spot.

The context in which the brewing sector operates:

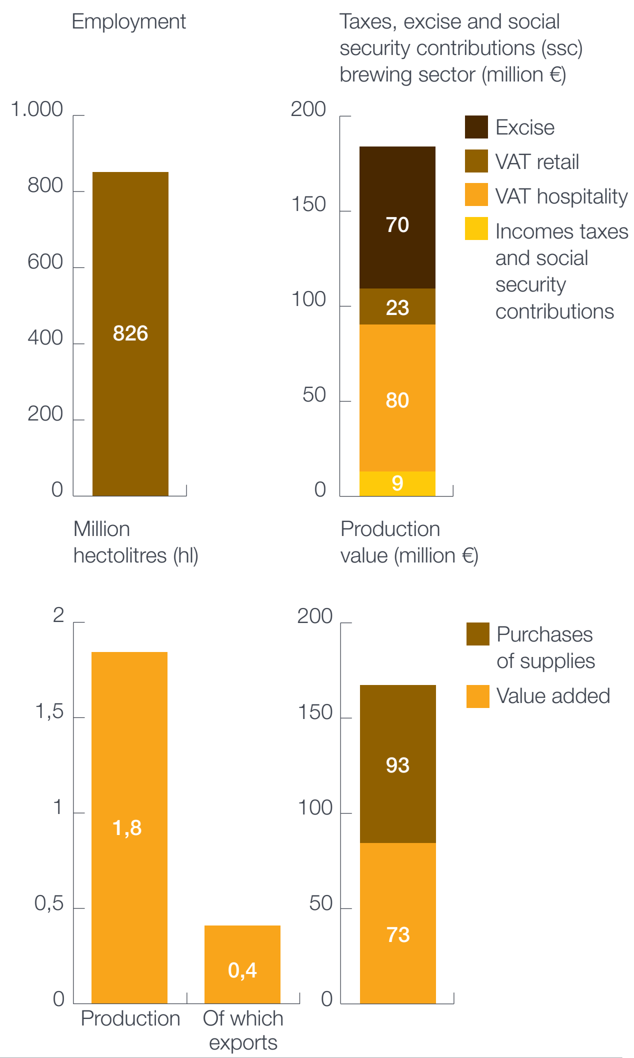
- Slovenia has one of the most restrictive laws on advertising alcohol among European Member States.
- Since 1 August 2007, smoking has been prohibited in all indoor public and work places. This smoking ban has had unfavourable consequences, especially in the catering industry: bars with no exterior seating areas have recorded up to 40 per cent less income.[5]
- In Slovenia no excise is levied on wine and other fermented beverages. The excise on beer is at 9 euro for each 1 vol. % of alcohol strength above the European minimum excise rate.[6]
- Supermarkets and hypermarkets form the most important distribution channel. In Slovenia there is strong competition between three leading retailers. Consumers benefit from this tough competition.

3 | Direct effect of the brewing sector

Slovenian breweries employ 826 employees who together produce 1.8 million hectolitres of beer with a value of 166 million euro.

Another substantial direct effect of the brewing sector concerns taxes and excises paid by beer brewers and consumers.. In 2010 excises reached 70 million euro and total VAT income for the Slovenian government was estimated at 103 million euro. Personal direct taxes, social security contributions and payroll taxes paid by employees and employers in the brewing sector add up to another 9 million euro. As already noted, the production value of Slovenian breweries is 166 million euro. A relatively high share (44%) of total turnover stays within the brewing sector as value-added. Value-added equals total reward for production factors used: labour costs, interest paid and profits made.

Graph 33.1. / Direct effect of the beer sector



Source: Ernst & Young calculations

[5] http://www.slovenia.si/spotlights/200710/2007112110462449
[6] http://www.carina.gov.si/en/informacije/businesses/excise_duties_system/

33

4 | Indirect effects of the brewing sector

With 44% of the value of the output produced staying within the Slovenian brewing sector as value-added in 2010, the other 56% of 166 million euro in total turnover accrued to suppliers of goods and services.

This stimulus of 73 million euro has a significant economic impact on sectors outside the brewing sector, most substantially in the agriculture sector. This high impact on the agriculture sector is due to the relatively low turnover per employee in this sector in comparison with other sectors.

Sectors	Stimulus	Stimulus for Slovenia		Turnover per employee	Number of employees
	(mln. €)	% spent in own country	(mln. €)	(in €)	
Agriculture	16.4	65	10.6	11,795	902
Utilities	3.3	100	3.3	205,029	16
Packaging industry (in hectolitres)	30.5	50	15.2	99,387	153
Equipment	7.1	50	3.6	99,387	36
Transport	5.7	75	4.3	97,167	44
Media, marketing	17	80	13.6	97,467	140
Services	13.6	80	10.8	97,467	111
Total	93.5	-	61.4	-	1,401
First-round impact as % of total impact					65
Total indirect effect of brewing sector					2,156

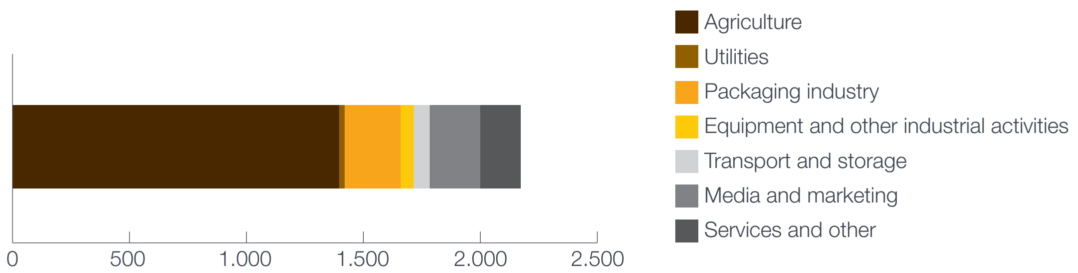
› Source: Ernst & Young calculations

Approximately 65% of the indirect employment effected is generated in the agriculture sector. Other substantial effects are seen in the packaging industry, media and marketing sector and other services. The total first-round employment effect of the brewing sector on supplying sectors is estimated at approximately 1,400 employees.

As this primary effect can be estimated at about 65% of the total impact, the total impact will be about 2,200 jobs.

Indirect employment effects are illustrated below:

› Graph 33.2. / Indirect employment



› Source: Ernst & Young calculations

5 | Induced effects of the brewing sector

→ Hospitality sector

The economic impact of the breweries on the hospitality sector is assessed as follows:

- About 60% of all beer consumed in Slovenia is sold by the hospitality sector (on-trade), which means 997,800 hectolitres is sold on-trade.
- The average consumer price of beer in Slovenian pubs and restaurants is estimated at 4.8 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is almost 480 million euro (including VAT).
- Net consumer spending on beer is thus estimated at 400 million euro (using a 20% VAT rate).
- With an average hospitality turnover of 48,028 euro (excluding VAT) per person, this results in 8,300 hospitality sector jobs attributable to beer sales. In 2008 we calculated 8,800 hospitality jobs.

→ Retail

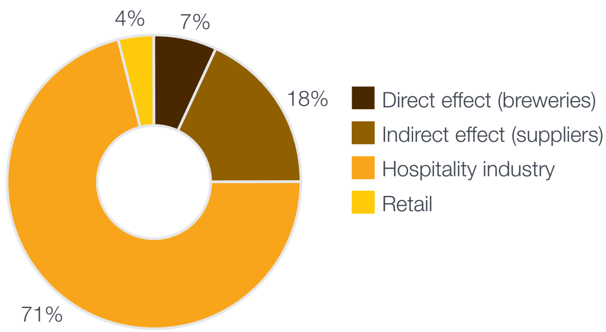
The importance of the brewing sector for retail can be similarly assessed:

- About 40% of total beer consumption (665,200 hectolitres) in Slovenia is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 2.1 euro per litre (including VAT), total retail consumer spending on beer is estimated at 138 million euro. Total consumer spending excluding VAT is thus 116 million euro.
- With turnover per employee estimated at 266,275 euro (excluding VAT), this means around 400 people owe their jobs to retail beer sales.

6 | Total employment due to beer

In 2010, approximately 800 persons were employed in Slovene breweries. An additional 1,600 jobs were created in the supplying sector. Some 8,300 jobs were provided in the hospitality sector and 400 jobs in the wholesale and retail due to sales of beer. The total employment is more than 11,700 jobs. This is 260 fewer jobs than calculated for the year 2008.

› *Graph 33.3. / total employment because of beer: 11,700 jobs*

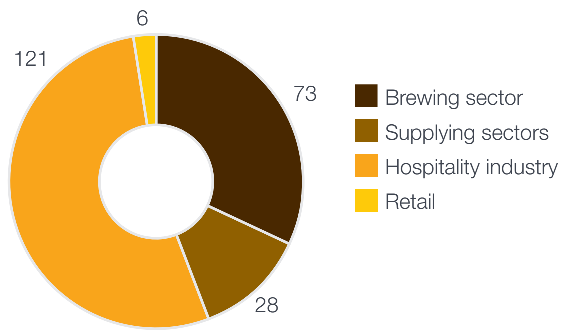


› Source: Ernst & Young calculations

7 | Total value added due to beer

The contribution of the brewing sector to the Slovenian economy can also be expressed in terms of value-added. The total value-added generated by the 11,700 jobs due to beer is estimated to be 228 million euro. This value added almost equals the value added for the year 2008 (2 million euro more).

› Graph 33.4. / Value added due to the production and sale of beer: 228 million euro



› Source: Ernst & Young calculations

8 | Total government revenues due to beer

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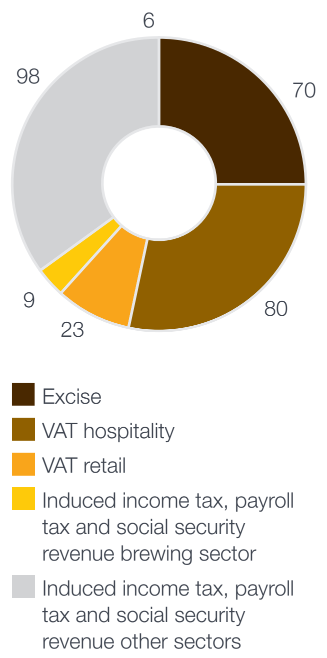
In 2010, total revenues from excise, VAT and income-related contributions due to beer production and sales were estimated to be 280 million euro:

- VAT revenue was estimated to be 103 million euro, the majority of this being generated in the hospitality sector.
- Total excise revenue from beer was 70 million euro.
- Income-related revenue due to beer production and sales was approximately 108 million euro, comprising 29 million euro income tax, 45 million euro social security contributions paid by employees and 34 million euro social security taxes and payroll taxes paid by employers.

In 2010 the government revenues were higher than in 2008 (255 million euro).

› Graph 33.5. / Government revenues due to the production and sale of beer: 280 million euro



› Source: Ernst & Young calculations

34

Spain

34

1 | Highlights

Country profile	
Population[7]	45,989,016
Currency	Euro
GDP per capita in PPS (2010, EU27 = 100)[8]	101

Beer market[9]	2008	2009	2010*
Total production (in hectolitres)	33,402,300	33,825,100	33,375,400
Total exports (in hectolitres)	751,000	681,500	902,600
Total imports (in hectolitres)	3,040,700	2,642,500	2,807,400
Total consumption (in hectolitres)	35,692,000	35,786,100	35,280,200
Consumption of beer per capita (in litres)*	52.1	50.7	48.3
Beer producing companies (including micro brewing companies)	29	35	52
Beer producing companies (excluding micro brewing companies)	6	6	6
Breweries (including micro-breweries)	43	49	66
Breweries (excluding micro-breweries)	20	20	19
Companies that only import beer for sale	31	35	39

› Sources: The Brewers of Europe Beer Statistics 2010 edition, Cerveceros de España and * Ministry of Environment, Rural and Fishery Development

Economic impact	2010	Compared to 2008
Total jobs due to beer	221,128 jobs	-1.7%
Total value added due to beer	5.9 billion euro	0%
Total government revenues due to beer	4.4 billion euro	+7.2%

› Source: Ernst & Young calculations

[7] Source: Eurostat, data per december 31st 2010
[8] Source: Eurostat, 2011
[9] Figures from microbreweries are excluded

2 | Market structure, trends and developments

→ Exports

In 2010, 902,600 hectolitres of beer that was produced in Spain, was exported. The main export markets for Spanish beer are Equatorial Guinea, France, and Italy.

→ Imports

Some 8% of the beer sold in Spain is imported. In 2010, 2.8 million hectolitres of beer was imported. The main import markets are Germany, The Netherlands, and France.

→ Consumption patterns

Due to the economic crisis, beer consumption has decreased dramatically, according to the Ministry of Environment, Rural and Fishery Development figures. For the first time, beer consumption has decreased not only in the on-trade (-5.9%), but also in the off-trade (-1.9%). Beer consumption in Spain has been decreasing since 2007. The consumption per capita was 48.3 litres in 2010.

The majority of beer is consumed in pubs, restaurants and clubs. The hospitality sector however shows decreasing figures due to the economic crisis. In general, beer sales have decreased by 2.1%. Due to the economic situation, there is a change from consumption in on-premise to purchase in of- trade outlets: consumers are going less to bars and restaurants and instead their beer consumption is at home with friends.

	Beer in 2008	Beer in 2009	Beer in 2010
Off-trade consumption	31%	33%	34%
On-trade consumption	69%	67%	66%

→ Taxation

In 2010, the Spanish brewers faced a VAT rate increase from 16 to 18% and the reduced VAT rate (applied to the on-trade) increased from 7 to 8%.

→ Marketing

In 2010, legal measures that prohibit or limit promotion and advertisement activities for beer continued at a regional level.

→ Health and consumer

The Spanish brewing sector is realizing that the health of the consumer is becoming more important for the beer industry.

→ Brewing sector

Distributor brands are becoming more relevant in the beer market.

The most important threats the beer sector will face in the upcoming years are:

- The higher tax rates.
- Lower consumption.
- Higher production costs (prices of raw materials and deposit on packaging).
- Anti-tobacco laws.
- The economic and financial crisis.

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3 | Direct effect of the brewing sector

Spanish breweries employ around 6,800 employees who together produce 33.4 million hectolitres of beer with a value of 3.2 billion euro.[10]

› *Graph 34.1. / Direct effect of the beer sector*

› Source: Ernst & Young calculation

Another substantial direct effect of the brewing sector involves taxes and excises paid by beer brewers and consumers.. In 2010, excise revenue reached 303 million euro and total VAT income for the Spanish Government was estimated to be 1.9 billion euro. Personal direct taxes, social security contributions and payroll taxes paid by employees and employers in the brewing sector totalled another 173 million euro.

As already stated, the production value of Spanish breweries is 3.2 billion euro. A relatively high share (43%) of total turnover stays within the brewing sector as value-added. Value-added equals total reward for production factors used: labour costs, interest paid and profits made.

[10] Based on the figures of 2009. Source: Cerveceros de Espana.

4 | Indirect effect of the brewing sector

With 43% of the value of the output produced staying within the Spanish brewing sector as value-added, the other 57% of 3.2 billion euro in total turnover accrued to suppliers of goods and services.

This stimulus of 1.9 billion euro has a significant economic impact on sectors outside the brewing sector, most substantially on the agriculture sector. This high impact on the agriculture sector is due to the relatively low turnover per employee in this sector in comparison with other sectors.

Sectors	Total Stimulus	Stimulus for Spain		Turnover per employee	Number of employees
	(mln. €)	% spent in own country	(mln. €)	(in €)	
Agriculture	160.63	66.3	106.5	41,250	2,581
Utilities	69.28	100.0	69.3	847,901	82
Packaging industry	300.50	61.8	185.8	203,692	912
Equipment	379.55	70.0	265.7	203,692	1,304
Transport	184.49	100.0	184.5	142,415	1,295
Media, marketing	320.84	98.0	314.4	105,585	2,978
Services	497.85	91.2	453.8	105,585	4,298
Total	1,943.15	-	1,589.9	-	13,451
First-round impact as % of total impact					65
Total indirect effect of brewing sector					20,693

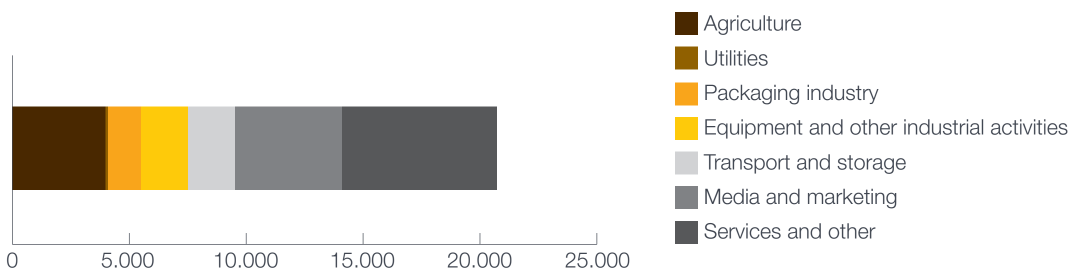
› Source: Ernst & Young calculations

In 2010 of jobs created by the brewing industry, most were in the services sector and media and marketing sector. The total first-round employment effect of the brewing sector on supplying sectors is estimated at approximately 13,450 employees.

As this primary effect can be estimated at about 65% of the total impact, the total impact will be about 20,700 jobs.

Indirect employment effects are illustrated below:

› *Graph 34.2. / Indirect employment*



› Source: Ernst & Young calculations

5| Induced effects of the brewing sector

6| Total employment due to beer

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→ Hospitality sector

The economic impact of the breweries on the hospitality sector is assessed as follows:

- About 66% of all beer consumed in Spain is sold by the hospitality sector (on-trade), which means 23.3 million hectolitres is sold on-trade.
- The average consumer price of beer in Spanish pubs and restaurants is estimated at 4.5 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is almost 10.5 billion euro (including VAT).
- Net consumer spending on beer is thus estimated at 8.9 billion euro (using an 18% VAT rate).
- With an average hospitality turnover of 48,104 (excluding VAT) per person, this results in 185,400 hospitality sector jobs attributable to beer sales.

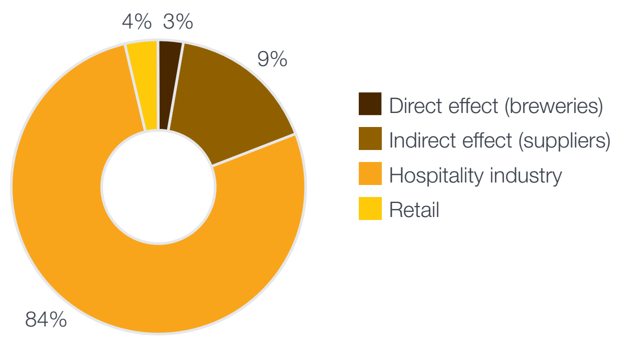
→ Retail

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

- About 34% of total beer consumption (12.0 million hectolitres) in Spain is beer sold by supermarkets and other retail outlets.
- With an average consumer price of 1.8 euro per litre (including VAT), total retail consumer spending on beer is estimated at 2.1 billion euro.
- Total consumer spending excluding VAT is thus 1.8 billion euro.
- With turnover per employee estimated at 219,161 euro (excluding VAT), this means around 8,300 people owe their jobs to retail beer sales.

In 2010, approximately 6,760 persons were employed in Spanish breweries. In addition, 20,700 jobs were created in the supplying sector. Some 185,400 jobs were created in the hospitality sector and almost 8,300 jobs in the wholesale and retail due to sales of beer. Thus, total employment due to beer was 221,128 jobs.

› Graph 34.3. / total employment because of beer: 221,128 jobs

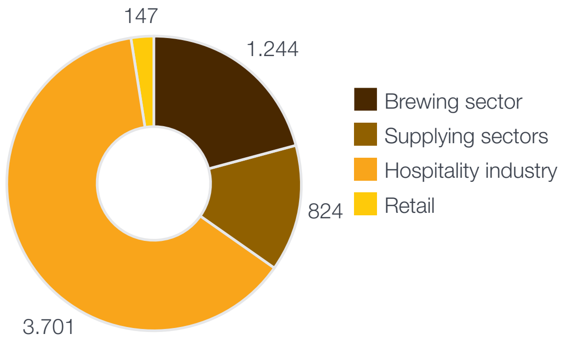


› Source: Ernst & Young calculations

7 | Total value added due to beer

The contribution of the brewing sector to the Spanish economy can also be expressed in terms of value-added. The total value-added generated by the 221,128 jobs due to beer is estimated to be 5.9 billion euro.

› Graph 34.4. / Value added due to the production and sale of beer: 5.9 billion euro



› Source: Ernst & Young calculations

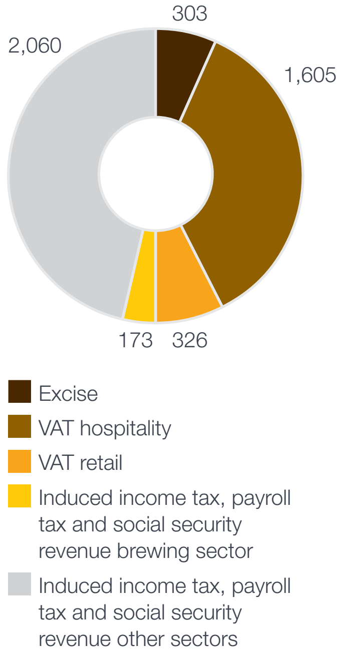
8 | Total government revenues due to beer

34

The 2010 revenue from excise, VAT and income-related contributions due to beer production and sales was estimated to be 4.4 billion euro:

- VAT revenue was estimated to be 1.9 billion euro, the majority being generated in the hospitality sector.
- Total excise revenue from beer was 303 million euro.
- Income-related revenue due to beer production and sales was approximately 2.2 billion euro, comprising 714 million euro income tax, 280 million euro social security contributions paid by employees and 1.2 billion euro social security taxes and payroll taxes paid by employers.

› Graph 34.5. / Government revenues due to the production and sale of beer: 4.4 billion euro



› Source: Ernst & Young calculations

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Sweden

1 | Highlights

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Country profile	
Population[11]	9,340,682
Currency	Swedish Krona (SEK)
GDP per capita in PPS (2009, EU27 = 100)[12]	119

Beer market[13]	2008	2009	2010*
Total production (in hectolitres)	4,200,000	4,455,400	4,349,000
Total exports (in hectolitres)	460,000	513,000	505,000
Total imports (in hectolitres)	1,160,000	1,402,700	1,050,000
Total consumption (in hectolitres)	4,900,000	4,884,000	4,894,000
Consumption of beer per capita (in litres)	51.6	52.3	53
Beer producing companies (including micro brewing companies)	30	n.a.	40
Breweries (including micro-breweries)	40	n.a.	n.a.

› Sources: The Brewers of Europe Beer Statistics 2010 edition, Brewers of Sweden
* Canadean Forecasts

Economic impact	2010	Compared to 2008
Total jobs due to beer	18,400 jobs	+6.8%
Total value added due to beer	755 million euro	+2%
Total government revenues due to beer	1.1 billion euro	+17.6%

› Source: Ernst & Young calculations

[11] Source: Eurostat, data per december 31st 2010
[12] Source: Eurostat, 2011
[13] Figures from beer companies that are not members of the Brewers of Sweden are excluded

2 | Market structure, trends and developments

→ Beer classes in Sweden

In Sweden, beer is divided into 3 different classes (skatteklasse or tax classes) according to their alcoholic strength. There are different government rules for the sale of each of the classes.

Category	Alcohol content (ABV)
Class I (light beer)	<2.3%
Class II (folk beer)	2.3 – 3.5%
Class III (strong beer)	>3.6%

Sweden has one of the highest tax rates for beer in Europe. Value added tax rates on light and folk beer are 10.7%, while the VAT for strong beer amounts to 20%. Excise levels are also fairly high. For a litre of beer (5% alcohol) the excise amounts to over 90 eurocents. On beer up to 2.8% alcohol, no excise is required. Due to the high taxation level, beer prices in Sweden are fairly high compared with neighbouring countries. Because of this, Swedish citizens import privately (or smuggle) beer from neighbouring countries such as Denmark and Estonia where beer is much cheaper.

Class I is regarded legally as non-alcoholic and there are pretty well no restrictions on its sale and it can be obtained in supermarkets and other retail outlets. Class II (known as folköl) can be sold in supermarkets but only to those over 18. Class III is only available in pubs, restaurants, and Systembolagets[14], which is the name for state-owned retail for alcohol sales. In the Sytembolaget shops, alcohol can only be bought by those aged 20 and above. These Systembolagets stock more than 300 types of beer from different countries.

→ Exports

In 2010, 505,000 hectolitres of beer produced in Sweden was exported[15]. The main export markets for Swedish beer are Germany and the United Kingdom.

→ Imports

In 2010, 1.1 million hectolitres of beer was imported. The main import markets are Denmark, the UK, and Germany.

→ Consumption patterns

The consumption of beer in Sweden remained stable until 2008 and since then it has been declining. Beer is mainly consumed at home and obtained in the off-trade sector. Furthermore, there is an ongoing increase in private beer import from Germany due to high taxes on alcohol in Sweden.

	Beer in 2008	Beer in 2009	Beer in 2010
Off-trade sales	80%	81%	81
On-trade sales	20%	19%	19

→ Taxation

The government announced beer tax increases of 13% by 2012

→ Marketing

Since January 2011 there have been stricter online advertisement regulations

→ Distribution and retails

It has been proposed to the Government to allow breweries to sell their products to consumers in limited quantities at the brewery.

The most important threats the beer sector will face in the upcoming years are:

- Increase in beer tax rates.
- Increased cross-border trade.
- Changing drinking habits among young target groups.
- Less beer consumption.

[14] Systembolaget means literally system company and is the name of the state monopoly responsible for retailing alcohol. These shops are the only outlets allowed to sell spirits, wine and full-strength beer (Class III) or any kind of alcoholic beverages. Supermarkets and other shops cannot sell alcoholic beverage stronger than Class II beer.
[15] Forecast, Canadean Global beer trends 2010.

3| Direct effect of the brewing sector

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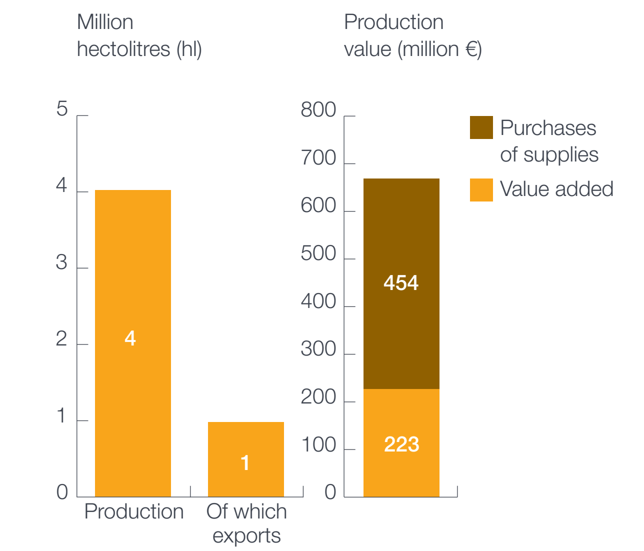
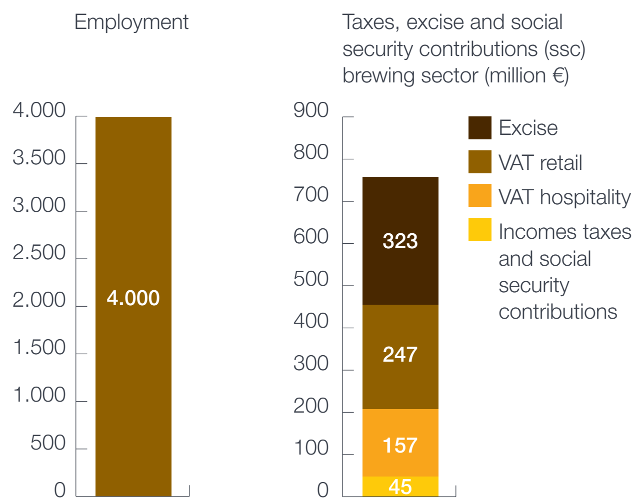
Swedish breweries employ around 4,000 employees who together produce 33.4 million hectolitres of beer with a value of 677 million euro.

› *Graph 35.1. / Direct effect of the beer sector*





› Source: Ernst & Young calculations

Another substantial direct effect of the brewing sector involves taxes and excises paid by beer brewers and consumers. In 2010, excises amounted to 323 million euro and total VAT income for the Swedish Government was estimated to be 403.5 million euro. Personal direct taxes, social security contributions and payroll taxes paid by employees and employers in the brewing sector totalled another 45 million euro.

As already stated, the production value of Swedish breweries was 677 million euro in 2010. A relatively high proportion (32.9%) of total turnover stays within the brewing sector as value-added. Value-added equals total reward for production factors used: labour costs, interest paid and profits made.

[10] Based on the figures of 2009. Source: Cerveceros de Espana.

4 | Indirect effect of the brewing sector

With 32% of the value of the output produced staying within the Swedish brewing sector as value-added, the other 68% of 677 million euro in total turnover accrued to a number of suppliers.

This stimulus of 454.2 million euro has a significant economic impact on sectors outside the brewing sector.

Sectors	Total Stimulus	Stimulus for Sweden		Turnover per employee	Number of employees
	(mln. €)	% spent in own country	(mln. €)	(in €)	
Agriculture	73.6	50	36.8	73,972	497
Utilities	35.4	99	35.1	775,969	45
Packaging industry	109.5	60	65.7	243,032	270
Equipment	60.0	60	36.0	243,032	148
Transport	69.0	95	65.6	189,330	346
Media, marketing	94.9	90	85.4	171,925	497
Services	11.8	90	10.6	171,925	62
Total	454.2	-	335.0	-	1,866
First-round impact as % of total impact					65
Total indirect effect of brewing sector					2,870

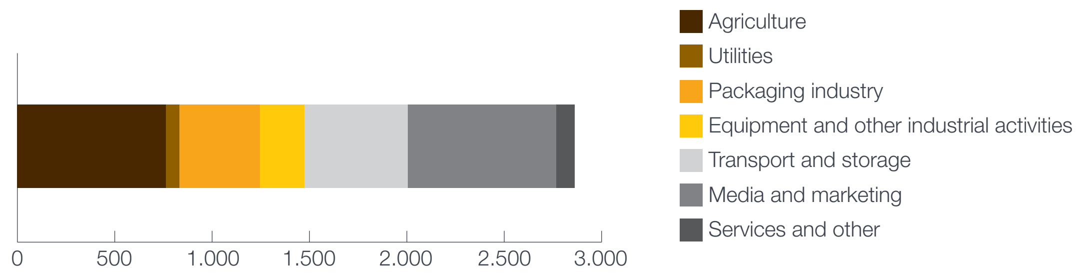
› Source: Ernst & Young calculations

In 2010, of the jobs created in the supply chain by brewing the greatest numbers were in the agricultural sector and media and marketing sector. The total first-round employment effect of the brewing sector on supplying sectors is estimated at approximately 1,900 employees.

As this primary effect can be estimated at about 65% of the total impact, the total impact will be almost 2,900 jobs.

Indirect employment effects are illustrated below:

› Graph 35.2. / Indirect employment



› Source: Ernst & Young calculations

5 | Induced effects of the brewing sector

6 | Total employment due to beer

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→ Hospitality sector

The economic impact of the breweries on the hospitality sector is assessed as follows:

- About 19% of all beer consumed in Sweden is sold by the hospitality sector (on-trade), which means 934,800 million hectolitres is sold on-trade.
- The average consumer price of beer in Swedish pubs and restaurants is estimated at 8.4 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is almost 782.7 million euro (including VAT).
- Net consumer spending on beer is thus estimated at 626.1 million euro (using a 25% VAT rate).
- With an average hospitality turnover of 71,228 (excluding VAT) per person, this results in 8,791 hospitality sector jobs attributable to beer sales.

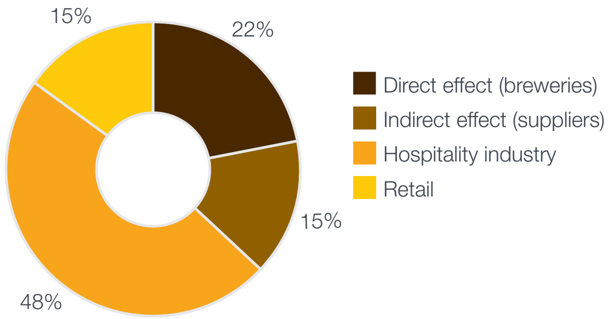
→ Retail

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

- About 81% of total beer consumption (3.9 million hectolitres) in Sweden is beer sold by the off premises.
- With an average consumer price of 3.1 euro per litre (including VAT), total retail consumer spending on beer is estimated at 1.2 billion euro.
- Total consumer spending excluding VAT is thus 987.7 million euro.
- With turnover per employee estimated at 363,681 euro (excluding VAT), this means around 2,716 people owe their jobs to retail beer sales.

In 2010, approximately 4,000 persons were employed in Swedish breweries. An additional 2,900 jobs were created in the supplying sector. Some 8,800 jobs were provided in the hospitality sector and 2,700 jobs in the wholesale and retail due to sales of beer. Thus, total employment due to beer was 18,400 jobs.

› Graph 35.3. / Total employment because of beer: 18,400 jobs

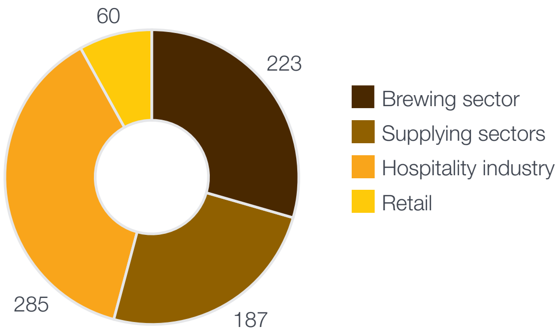


› Source: Ernst & Young calculations

7 | Total value added due to beer

The contribution of the brewing sector to the Sweden economy can also be expressed in terms of value-added. The total value-added generated by the 18,400 jobs due to beer is estimated to be 755 million euro.

› *Graph 35.4. / Value added due to the production and sale of beer: 755 million euro*



› Source: Ernst & Young calculations

8 | Total government revenues due to beer

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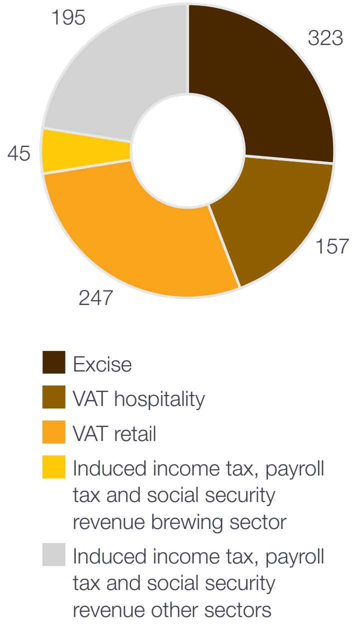
In 2010, total revenue from excise, VAT and income-related contributions due to beer production and sales was estimated to be 966 million euro:

- VAT revenue was estimated to be 403.5 million euro, generated mainly in the off-trade channels.
- Total excise revenue from beer was 323 million euro.
- Income-related revenue due to beer production and sales was approximately 240 billion euro, comprising 113 million euro income tax, 1 million euro social security contributions paid by employees and 126 million euro social security taxes and payroll taxes paid by employers.

› Graph 35.5. / Government revenues due to the production and sale of beer: 966 million euro



› Source: Ernst & Young calculations

36

Switzerland

1 | Highlights

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Country profile	
Population [16]	7,785,806
Currency	Swiss Franc (CHF)
GDP per capita in PPS (2009, EU27 = 100) [17]	144

Beer market	2008	2009	2010
Total production (in hectolitres)	3,625,300	3,554,900	3,538,600
Total exports (in hectolitres)	67,600	52,600	56,900
Total imports (in hectolitres)	863,800	925,500	987,800
Total consumption (in hectolitres)	4,489,100	4,480,400	4,526,400
Consumption of beer per capita (in litres)	58.0	57.2	57.3
Beer producing companies (including micro brewing companies)	270	280	320
Beer producing companies (excluding micro brewing companies)	≈ 35	≈ 35	≈ 35
Breweries (including micro-breweries)	270	280	323
Breweries (excluding micro-breweries)	≈ 38	≈ 38	≈ 38
Companies that only import beer for sale	≈ 5	≈ 5	≈ 5

› Sources: The Brewers of Europe Beer Statistics 2010 edition, and Swiss Breweries' Federation

Economic impact	2010	Compared to 2008
Total jobs due to beer	31,700 jobs	+13.4%
Total value added due to beer	1.4 billion euro	+8.2%
Total government revenues due to beer	639 million euro	+32.2%

› Source: Ernst & Young calculations

[16] Source: Eurostat, data per december 31st 2010
[17] Source: Eurostat, 2011

2 | Market structure, trends and developments

➔ Exports and imports

In 2010, 987,800 hectolitres of beer was import into Switzerland from 81 countries and all continents. The main import markets are Germany, France, and Portugal. Approximately 22% of the beer sold in Switzerland is imported.

In 2010, 56,900 hl of beer that was produced in Switzerland, was exported, destined for 28 countries. The main export markets for Swiss beer are Germany, France, and Italy.

➔ Consumption patterns

During 2010, beer consumption moved from the hospitality into the wholesale and retail sectors. About half the beer consumed in the country reaches the consumer in reusable containers (kegs or bottles), about 24% of beer was sold in disposable bottles and 29% in cans. The consumption per capita is quite stable and was 57.3 litres in 2010.

	Beer in 2008	Beer in 2009	Beer in 2010
Off-trade sales	48%	50%	52%
On-trade sales	52%	50%	48%

➔ Marketing

Since February 2010, advertising for alcoholic beer and wine is no longer prohibited (Radio/TV).

➔ Revision on the Law on Alcohol

A revised law is foreseen to deal with all alcoholic beverages, expanding its scope to categories other than spirits. This will be a new situation for beer and probably wine as from 2013.

Since May 2010, smoking has been banned in restaurants, bars, and pubs larger than 80 m².

The most important threats the beer sector will face in forthcoming years are:

- the new Law on alcohol
- new law on prevention
- (stricter) smoking ban
- lower beer consumption

[18] Source: Swiss Federal Customs Association, provided by the Schweizer Brauerei-Verband (SBV)

3 | Direct effect of the brewing sector

Swiss breweries employ around 2,300 employees who together produce 3.5 million hectolitres of beer with a value of 307 million euro.

› *Graph 36.1. / Direct effect of the beer sector*

› Source: Ernst & Young calculations

Another substantial direct effect of the brewing sector involves taxes and excises paid by brewers and beer consumers. In 2010 excises amounted to 94 million euro.[18] Total VAT income for the Swiss Government was estimated to be 252.9 million euro in 2010. Personal direct taxes, social security contributions and payroll taxes paid by employees and employers in the brewing sector totalled a further 21 million euro. As already stated, the production value of Swiss breweries is 307 million euro. A relatively high share (39%) of total turnover stays within the brewing sector as value-added. Value-added equals total reward for production factors used: labour costs, interest paid and profits made.

4| Indirect effect of the brewing sector

36

With 39% of the value of the output produced staying within the Swiss brewing sector as value-added, the other 61% of 307 million euro in total turnover accrued to suppliers of goods and services. This stimulus of 187 million euro has a significant economic impact on sectors other than the brewing sector.

Sectors	Total Stimulus	Stimulus for Switzerland		Turnover per employee	Number of employees
	(mln. €)	% spent in own country	(mln. €)	(in €)	
Agriculture	24.3	5	1.2	86,726	14
Utilities	6.7	90	6.1	896,058	7
Packaging industry	27.1	65	17.6	285,736	62
Equipment	4.3	70	3.0	285,736	11
Transport	22.5	80	18.0	233,479	77
Media, marketing	64.8	75	48.6	183,616	264
Services	37.4	75	28.1	183,616	153
Total	187.1	-	123.0	-	587
First-round impact as % of total impact					65
Total indirect effect of brewing sector					904

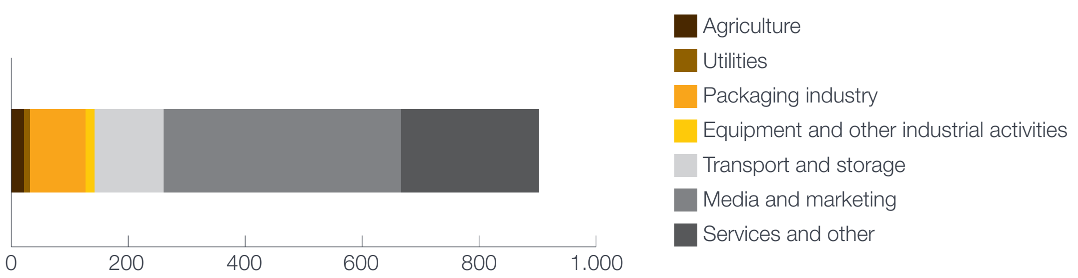
› Source: Ernst & Young calculations

In 2010, of the jobs created in by brewing in the supply chain, the largest number was in the media and marketing sector. The total first-round employment effect of the brewing sector on supplying sectors is estimated at approximately 600 employees.

As this primary effect can be estimated at about 65% of the total impact, the total impact will be about 900 jobs.

Indirect employment effects are illustrated below:

› *Graph 36.2. / Indirect employment*



› Source: Ernst & Young calculations

5| Induced effects of the brewing sector

→ Hospitality sector

The economic impact of the breweries on the hospitality sector is assessed as follows:

- About 48% of all beer consumed in Switzerland is sold by the hospitality sector (on-trade), which means 2.2 million hectolitres is sold on-trade.
- The average consumer price of beer in Swiss pubs and restaurants is estimated at 10.1 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is almost 2.2 billion euro (including VAT).
- Net consumer spending on beer is thus estimated at 1.8 billion euro (using a 7.6% VAT rate).
- With an average hospitality turnover of 67,524 (excluding VAT) per person, this results in 27,200 hospitality sector jobs attributable to beer sales.

→ Retail

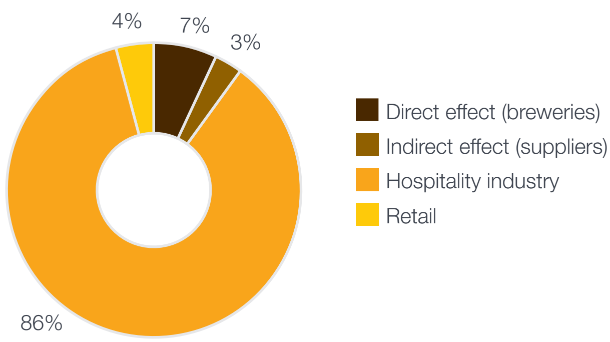
The importance of the brewing sector for retail can be similarly assessed:

- About 52% of total beer consumption (2.4 million hectolitres) in Switzerland is beer sold by the off premises.
- With an average consumer price of 2.9 euro per litre (including VAT), total retail consumer spending on beer is estimated at 681.1 million euro.
- Total consumer spending excluding VAT is thus 567.6 million euro.
- With turnover per employee estimated at 396,207 euro (excluding VAT), this means around 1,400 people owe their jobs to retail beer sales.

6| Total employment due to beer

In 2010, approximately 2,300 persons were employed in Swiss breweries. An additional 900 jobs were created in the supplying sector. Some 27,200 jobs were created in the hospitality sector and 1,400 jobs in the wholesale and retail due to sales of beer. Thus, total employment due to beer is a little over 31,700 jobs.

› Graph 36.3. / Total employment because of beer: 31,700 jobs



› Source: Ernst & Young calculations

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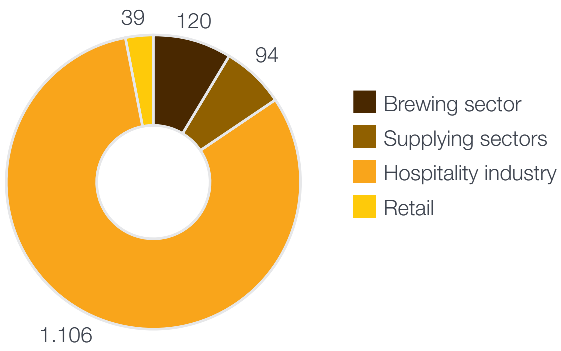
7 | Total value added due to beer

The contribution by the brewing sector to the Swiss economy can also be expressed in terms of value-added. The total value-added generated by the 31,700 jobs due to beer is estimated to be 1.4 billion euro.

› Graph 36.4. / Value added due to the production and sale of beer: 1.4 billion euro



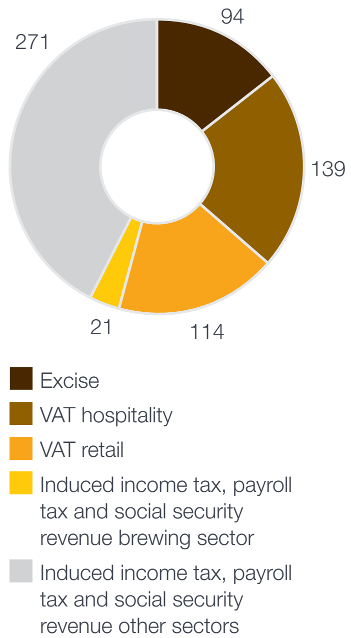
› Source: Ernst & Young calculations

8 | Total government revenues due to beer

In 2010 total revenue from excise, VAT and income-related contributions due to beer production and sales was estimated to be 638.9 million euro:

- VAT revenue was estimated to be 252.9 million euro, generated mainly in the hospitality sector.
- Total excise revenue from beer was 94 million euro.
- Income-related revenue due to beer production and sales was approximately 292 billion euro, comprising 96 million euro income tax, 98 million euro social security contributions paid by employees and 98 million euro social security taxes and payroll taxes paid by employers.

› Graph 36.5. / Government revenues due to the production and sale of beer: 638.9 million euro



› Source: Ernst & Young calculations

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Turkey

1 | Highlights

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Country profile	
Population[19]	75,561,312
Currency	Turkish Lira (YTL)
GDP per capita in PPS (2009, EU27 = 100)[20]	45

Beer market	2008*	2009	2010
Total production (in hectolitres)	9,244,400	10,219,300	10,278,500
Total exports (in hectolitres)	736,100	988,100	1,077,300
Total imports (in hectolitres)	5,800	3,900	13,800
Total consumption (in hectolitres)	8,473,000	9,235,100	9,215,000
Consumption of beer per capita (in litres)	12.9	12.7	12.4
Beer producing companies (including micro brewing companies)	7	7	7
Breweries (including micro-breweries)	11	11	11

› Sources: The Brewers of Europe Beer Statistics 2010 edition, TAPDK, and BMÜD.
* The contribution made by Beer to the European Economy edition 2009.

Economic impact	2010	Compared to 2009**
Total jobs due to beer	53,600 jobs	- 3.8 %
Total value added due to beer	818 million euro	+ 7.0 %
Total government revenues due to beer[21]	1.5 billion euro	+26.0 %

› Source: Ernst & Young calculations
** Unlike the chapter report of other countries, for Turkey the data for the year 2010 has been compared with data of the previous year.

[19] Source: Eurostat, data per december 31st 2010
[20] Source; Eurostat, 2011
[21] Revenues out of VAT, Excises and social contributions, but excluding the 2010 government revenues on corporate taxes (40 million euro) and other taxes paid by the brewing sector (50 million euro). Only for Turkey it was possible to calculate the revenues on this last two tax types.

2 | Market structure, trends and developments

The Turkish brewing sector is dominated by two major companies. These two companies operate a total of 6 breweries in Turkey and together their market share is 99%. Beside these breweries there are 5 smaller companies active in the Turkish market (including microbreweries). The whole brewing sector produces 37 different brands of beer. In 2010, the sector produced approximately 10,278,536 hectolitres of beer; this is 0.6% (59,246 hectolitres) more than in 2009.

Besides the brewing, production and sales of beer, the two big brewing companies also carry out beer-related activities such as the cultivation of agricultural products needed for the production of beer, the transportation of beer, the wholesale of beer, the bottling and packaging of beer, and production and sales of malt. Some brewing companies also have pubs and other on-trade outlets.

→ Exports

In 2010, 1,077,333 hectolitres of the beer that was produced in Turkey was exported. The main export markets for Turkish beer are Germany, Lebanon, Iraq and Azerbaijan. In 2010, the value of the beer exported was 51.6 million euro. In both volume and value, exports increased significant compared to 2009 (respectively by 9% and 16%).

→ Imports

Less than 1% of the beer sold in Turkey is imported. Compared to other countries, Turkish beer import is small. In 2010, approximately, 13,800 hectolitres of beer was imported. This is 3.5 times more than the previous year. The value of the beer imported in 2010 was 1 million euro.

→ Consumption patterns

Approximately 9.2 million hectolitres was consumed in Turkey in 2010. Beer consumption is decreasing. Some plausible explanations for this decrease are considered to be the tax burden, decreasing popularity of beer, changing alcohol consumption patterns in Turkey, economic crisis and alcohol acceptance, and the limited opportunities for promotion and advertising of beer in Turkey.

Of all the beer consumed in Turkey, about 77% is purchased in supermarkets and other retail outlets, referred to as the off-trade channel. The remaining 23% is purchased in the on-trade sector (bars, restaurants, etc.). Focusing on the off-trade channel, brewing companies are experiencing an increase in sales volume and value in supermarkets.

This could be explained by the overall decrease in the number of (smaller) grocery stores and increase in supermarkets, in general, in Turkey.

Compared to all of the EU Member States, beer consumption per capita in Turkey is very low. In 2009, it amounted to 12.7 litres per capita while it was 75.3 litres for the average for EU-27. Besides, the total pure alcohol consumption in Turkey is, compared to other countries, also low, 1.1 litre per person. The total pure alcohol consumption consists of consumption from all kinds of alcoholic drinks, such as beer, spirits and wine. As a general point, due to religious and health reasons the number of alcoholic beverage consumers in the total Turkish population decreased from 44% in 2008 to 39% in 2010.

→ Developments in the beer sector

→ Taxation

In Turkey the excise rate on beer has been increased eight times since 2002. Often the rates increased faster than the rate of inflation. In the last two years, the excise rate on beer has been increased three times. At the end of 2010, the excise rate on beer was almost 85% higher than in the beginning of 2009. The most recent excise tax increases made Turkey one of the highest excise taxed countries with regard to beer in the continent of Europe.

In several occasions in recent years, the rate of increase of excise tax on beer was higher than the increase for the other alcoholic beverages in Turkey. For example, in December 2009, the excise on beer was raised by 35%, whereas, the excise on spirits increased by only 10%.

→ Marketing

In 2009 and 2010, new legal constraints have been introduced on the advertisement and merchandising of alcohol drinks. For example, in 2009, new restrictions have been added to the Alcoholic Drinks Advertising Law. Advertising of alcoholic drinks in newspapers and magazines that target young audiences are forbidden.

→ Smoking ban

In July 2009, a smoking ban was implemented for pubs, beer houses and restaurants. The effects of this ban continued in 2010.

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→ Agricultural products

The brewery sector is generally facing a problem in obtaining sufficient barley of appropriate quality. The Turkish beer sector needs to import high-quality barley despite the fact that Turkey is one of the major barley producing areas in the world.

The most important threats the beer sector will face in the upcoming years are:

- Higher taxes rates.
- Lower beer consumption.
- Legal restrictions on marketing, advertising, sales, and merchandising.
- Higher prices for agricultural products.
- Illicit wine production and sales.

› Graph 37.1. / Direct effect of the beer sector

› Source: Ernst & Young calculations

3 | Direct effect of the brewing sector

Turkish breweries employ around 2,400 employees who together produce in 2010 almost 10.3 million hectolitres of beer with a value of 752 million euro. Both figures are higher than in 2009.

Another substantial direct effect of the brewing sector involves taxes and excises paid by beer brewers and consumers.. In 2010 excises amounted to 824 million euro and total VAT income for the Turkish Government was estimated to be 410 million euro. Personal direct taxes, social security contributions and payroll taxes paid by employees and employers in the brewing sector totalled a further 53 million euro. As already stated, the production value of Turkish breweries was 752 million euro in 2010. A relatively high proportion (49%) of total turnover stayed within the brewing sector as value-added. Value-added equals total reward for production factors used: labour costs, interest paid and profits made.

4| Indirect effect of the brewing sector

With 49% of the value of the output produced staying within the Turkish brewing sector as value-added, the other 51% of 752 million euro in total turnover accrued to a number of suppliers.

This stimulus of 381 million euro has a significant economic impact on sectors outside the brewing sector, most substantially on the agriculture sector. This high impact on the agriculture sector is due to the relatively low turnover per employee in this sector in comparison with other sectors.

Sectors	Total Stimulus	Stimulus for Turkey		Turnover per employee	Number of employees
	(mln. €)	% spent in own country	(mln. €)	(in €)	
Agriculture	72	81	58	10,900	5,311
Utilities	20	100	20	432,400	46
Packaging industry	109	96	104	97,600	1,068
Equipment	20	55	11	97,600	114
Transport	13	100	13	77,700	165
Media, marketing	112	100	112	77,700	1,444
Services	35	100	35	53,000	669
Total	381	-	353	-	8,817
First-round impact as % of total impact					65
Total indirect effect of brewing sector					13,564

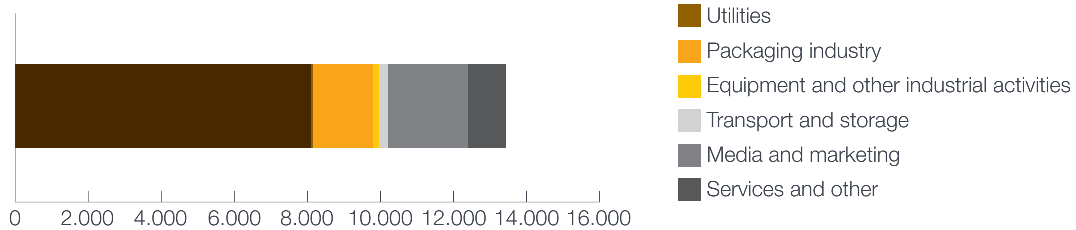
› Source: Ernst & Young calculations

Approximately 40% of the indirect employment effected is generated in the agriculture sector. Other substantial effects are seen in the media and marketing sector and packaging industry. The total first-round employment effect of the brewing sector on supplying sectors is estimated to be approximately 8,800 employees.

As this primary effect can be estimated at about 65% of the total impact, the total impact will be about 13,600 jobs. In 2009 the impact on the employment in the supplying sectors was almost the same.

Indirect employment effects are illustrated below:

› *Graph 37.2. / Indirect employment*



› Source: Ernst & Young calculations

5 | Induced effects of the brewing sector

→ Hospitality sector

The economic impact of the breweries on the hospitality sector is assessed as follows:

- About 23% of all beer consumed in Turkey is sold by the hospitality sector (on-trade), which means 2.1 million hectolitres is sold on-trade.
- The average consumer price of beer in Turkish pubs and restaurants is estimated at 3.93 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is almost 831 million euro (including VAT).
- Net consumer spending on beer is thus estimated at 705 million euro (using an 18% VAT rate).
- With an average hospitality turnover of 24,701 (excluding VAT) per person, this results in 28,500 hospitality sector jobs attributable to beer sales. Compared to 2009 the employment in the hospitality sector fell down with 1,500 jobs.

→ Retail

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

- About 77% of total beer consumption (7.1 million hectolitres) in Turkey is beer sold by supermarkets and other retail stores.
- With an average consumer price of 2.62 euro per litre (including VAT), total retail consumer spending on beer is estimated at 1.9 billion euro.
- Total consumer spending excluding VAT is thus 1.6 billion euro.
- With turnover per employee estimated at 172,454 euro (excluding VAT), this means around 9,100 people owe their jobs to retail beer sales. In 2009 9,800 workers in the retail sector owe their job to beer.

6 | Total employment due to beer

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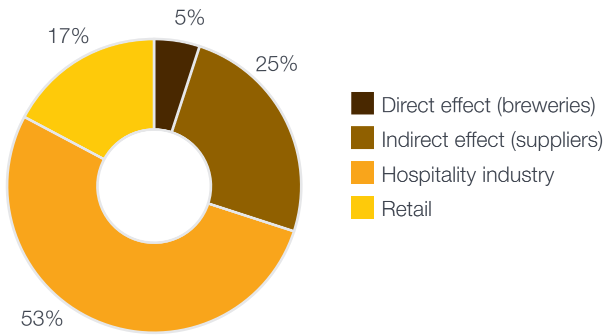
In 2010, approximately 2,400 persons were employed in Turkish breweries. In addition, 13,600 jobs were created in the supplying sector. Some 28,500 jobs were created in the hospitality sector and 9,100 jobs in the wholesale and retail due to sales of beer. Thus, total employment due to beer is 53,600 jobs. This figure is some 1,500 jobs lower than in 2009.

› Graph 37.3. / Total employment because of beer: 53,600 jobs

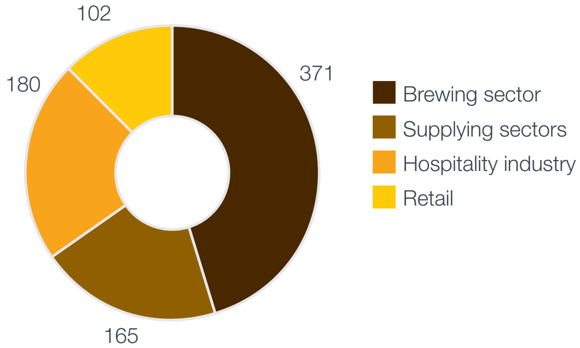


› Source: Ernst & Young calculations

7 | Total value added due to beer

The contribution of the brewing sector to the Turkish economy can also be expressed in terms of value-added. The total value-added generated by the jobs created due to beer is estimated to be 818 million euro. For 2009 we calculated a total value added of 763 million euro.

› Graph 37.4. / Value added due to the production and sale of beer: 818 million euro



› Source: Ernst & Young calculations

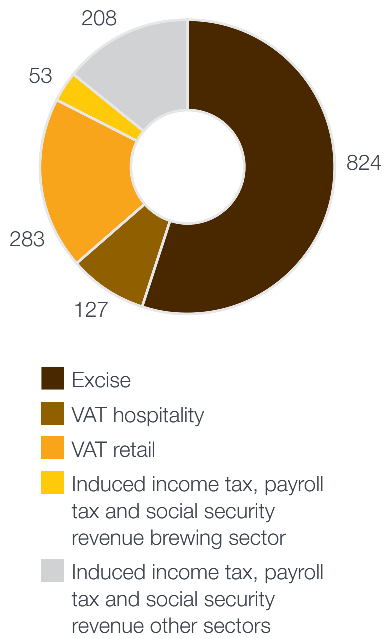
8| Total government revenues due to beer

37

In 2010 total revenue from excise, VAT and income-related contributions due to beer production and sales was estimated to be 1.5 billion euro. In 2010 these government revenues increased by 26% compared to 2009.

- VAT revenue was estimated to be 410 million euro, generated mainly in the retail sector.
- In 2010, excise revenue from beer totalled 824 million euro. In 2009 this excise revenue was much lower at 555 million euro. This can be explained by the big increase in the excise duties levied on beer.
- Income-related revenue due to beer production and sales was approximately 261 million euro, comprising 107 million euro income tax, 60 million euro social security contributions paid by employees and 94 million euro social security taxes and payroll taxes paid by employers.
- For Turkey we could also calculate what the brewing sector paid in 2010 on corporate taxes and other taxes. Corporate taxes totalled 40 million euro in 2010, and other taxes paid by the Turkish breweries to 50 million euro. For the comparison with the other 30 countries, corporate and the other taxes are not incorporated in the figure below.

› Graph 37.5. / Government revenues due to the production and sale of beer: 1.5 billion euro



› Source: Ernst & Young calculations

38

United Kingdom

38

1 | Highlights

Country profile	
Population	62,008,048
Currency	Pound Sterling (GBP)
GDP per capita in PPS (2009, EU27 = 100)	112

Beer market	2008	2009	2010
Total production (in hectolitres)	49,611,000	45,141,000	44,997,000
Total exports (in hectolitres)	4,662,000	5,486,000	6,797,000
Total imports (in hectolitres)	8,923,000	8,519,000	8,609,000
Total consumption (in hectolitres)	51,498,000	46,817,000	45,873,000
Consumption of beer per capita (in litres)	83.5	75.8	73.7
Beer producing companies (including micro brewing companies)	711	733	815
Beer producing companies (excluding micro brewing companies)	39	38	38
Breweries (including micro-breweries)	725	745	824
Breweries (excluding micro-breweries)	53	50	48
Companies that only import beer for sale	≈ 20	≈ 20	n.a.

› Sources: The Brewers of Europe Beer Statistics 2010 edition, the British Beer & Pub Association (BBPA)

Economic impact	2010	Compared to 2008
Total jobs due to beer	327,400 jobs	-17.6%
Total value added due to beer	8.6 billion euro	-17.0%
Total government revenues due to beer	10.6 billion euro	-17.8%

› Source: Ernst & Young calculations

2 | Market structure, trends and developments

→ Exports

In 2010, 6.8 million hectolitres of beer that was produced in United Kingdom, was exported to over 120 different countries. The main export markets are France, Ireland, and the USA.

→ Imports

Some 19% of the beer sold in United Kingdom is imported. In 2010 approximately 8.6 million hectolitres of beer was imported. The main import markets are Ireland, Germany, and France.

→ Consumption patterns

Beer consumption continued to fall. The beer consumption in United Kingdom has been decreasing since 2007. The consumption per capita was 73.7 litres in 2010. The trend continues to be away from consumption in the on-trade to purchase in the off-trade for consumption at home. Consumers are drinking a wider repertoire of drinks, including spirits, cider and wine - at the expense of beer.

	Beer in 2008	Beer in 2009	Beer in 2010
Off-trade sales	48%	50%	49.1%
On-trade sales	52%	50%	50.9%

→ Developments in the beer sector

→ Taxation

Under the duty escalator (which is set to remain in place until 2014/15) annual excise duty increases are by the rate of inflation plus 2%. VAT increased to 20% on 4 January 2011. New excise duty rates for high strength beer (25% greater than the standard rate) and low strength beer duty (50% of the standard rate) were announced in the 2011 Budget.

→ Marketing

The voluntary code on marketing was strengthened to include online advertising and marketing. A pledge was made by most brewers to restrict marketing in the vicinity of schools, etc; There has been an increase in marketing restrictions across the UK particularly in Scotland. In Scotland an Alcohol Bill was passed which has led to significant restrictions on promotions in both the on- and the off-trade. Further restrictions were made to the on-trade retail of alcohol in England and Wales. There is also an increased focus on unit labelling.

→ Health and Consumer

The Public Health Responsibility Deal, which was developed in 2010, was launched in early 2011. Under this, the majority of brewers have committed to a series of voluntary pledges to assist in reducing alcohol-related harm. These include labelling of products, funding of consumer information campaigns and tightening of marketing self-regulation via development of a new sponsorship code including an element of responsible drinking.

→ Minimum pricing

There continues to be pressure from a group of medical professionals for the Government to introduce a minimum unit price for alcohol. The Government has announced its intention to ban below-cost sales, but this has not yet been introduced.

→ Malting barley

There was a disruption in to the supply through global weather conditions.

→ Other raw materials

There are some concerns about the pressure of the exchange rates as well on a possible water scarcity.

3| Direct effect of the brewing sector 38

→ Distribution and retail

Transport costs are affected by rising oil costs

→ Hospitality sector

There has been continued pressure on the ownership model known as the 'beer tie'.

→ Packaging and bottling

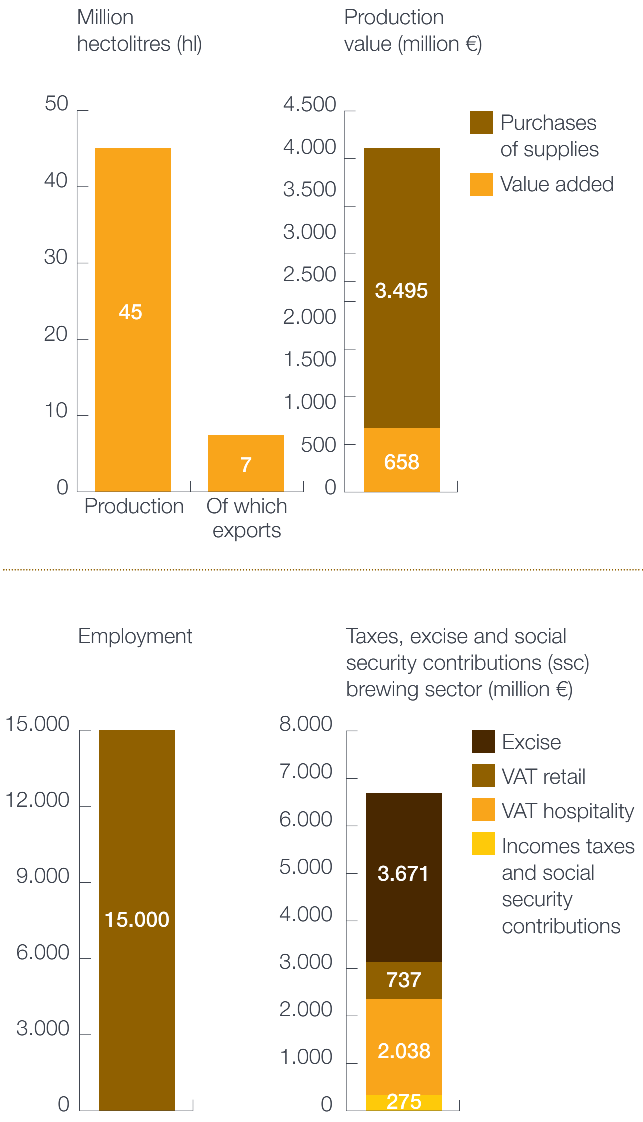
There is a continuing shift from draught to bottles and cans, and environmental pressure to reduce their impact – mainly through light weighting or other innovative packaging solutions. Increased scrap metal prices has resulted in an increase in the theft of bulk containers (kegs and casks) from outside hospitality outlets.

The most important threats the beer sector will face in the upcoming years are:

- higher beer tax rates
- the (bad) image and perception of beer (category image)
- consumer preferences towards other drinks
- anti-alcohol measures
- increasing regulations
- increased raw material costs

United Kingdom breweries employ around 15,000 persons who together produce 44.9 million hectolitres of beer with a value of 4.2 billion euro.

› Graph 38.1. / Direct effect of the beer sector



› Source: Ernst & Young calculations

Another substantial direct effect of the brewing sector involves taxes and excises paid by beer brewers and consumers. In 2010 excises amounted to 3.8 billion euro and total VAT income for the United Kingdom Government was estimated at 2.8 billion euro. Personal direct taxes, social security contributions and payroll taxes paid by employees and employers in the brewing sector totalled a further 276 million euro.

4 | Indirect effect of the brewing sector

With 16% of the value of the output produced staying within brewing sector of the UK as value-added, the other 84% of 4.2 billion euro in total turnover accrued to a number of suppliers.

This stimulus of 3.5 billion euro has a significant economic impact on sectors other than the brewing sector.

Sectors	Total Stimulus	Stimulus for United Kingdom		Turnover per employees	Number of employees
	(mln. €)	% spent in own country	(mln. €)	(in €)	
Agriculture	974.7	78.3	763.5	77,719	9,824
Utilities	126.2	99.2	125.1	809,220	155
Packaging industry	345.6	74.2	256.3	231,074	1,109
Equipment	312.6	73.7	230.3	231,074	997
Transport	359.2	100.0	359.2	211,247	1,700
Media, marketing	401.9	93.3	375.1	124,997	3,001
Services	974.7	92.5	901.6	124,997	7,213
Total	3,494.8	-	3,011.0	-	23,998
First-round impact as % of total impact					65
Total indirect effect of brewing sector					36,920

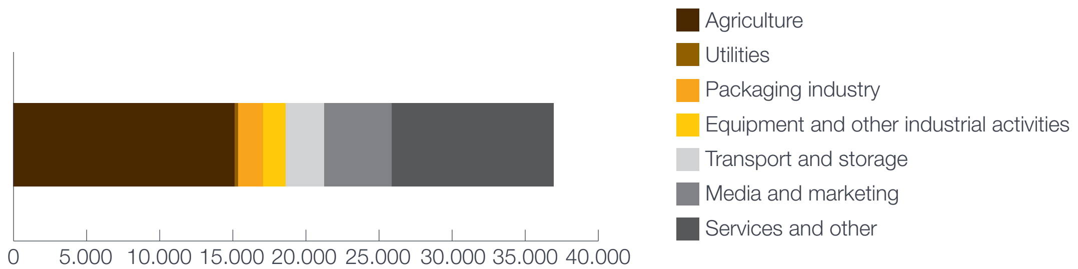
› Source: Ernst & Young calculations

In 2010, of the jobs created by the beer industry in the supply chain, the majority were in the agricultural and services sectors. The total first-round employment effect of the brewing sector on supplying sectors is estimated to be approximately 24,000 employees.

This primary effect can be estimated at about 65% of the total impact. Thus, the total impact is calculated to be about 36,900 jobs.

Indirect employment effects are illustrated below:

› Graph 38.2. / Indirect employment



› Source: Ernst & Young calculations

5 | Induced effects of the brewing sector

➔ Hospitality sector

The economic impact of the breweries on the hospitality sector is assessed as follows:

- About 51% of all beer consumed is sold by the hospitality sector (on-trade), which means 23.4 million hectolitres is sold on-trade.
- The average consumer price of beer in United Kingdom pubs and restaurants is estimated at 5.9 euro a litre (including VAT), so that total consumer spending on beer in the hospitality sector is almost 13.7 billion euro (including VAT).
- Net consumer spending on beer is thus estimated at 11.6 billion euro (using a 17.5% VAT rate).
- With an average hospitality turnover of 44,355 (excluding VAT) per person, this results in 262,600 hospitality sector jobs attributable to beer sales.

➔ Retail

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

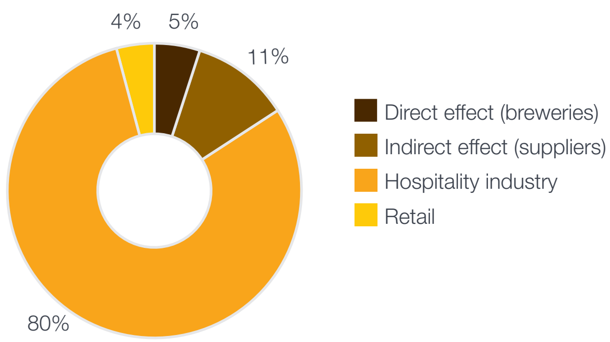
- About 49% of total beer consumption (22.5 million hectolitres) is beer sold by wholesale and retail.
- With an average consumer price of 2.2 euro per litre (including VAT), total retail consumer spending on beer is estimated at 4.95 billion euro.
- Total consumer spending excluding VAT is thus 4.2 billion euro.
- With turnover per employee estimated at 327,040 euro (excluding VAT), this means around 12,900 people owe their jobs to retail beer sales.

6 | Total employment due to beer

38

In 2010, approximately 15,000 persons were employed in UK breweries. In addition, 36,900 jobs were created in the supplying sector. Some 262,600 jobs provided in the hospitality sector and 12,900 jobs in the wholesale and retail due to sales of beer. Therefore, total employment due to beer was 327,400 jobs.

› Graph 38.3. / Total employment because of beer: 327,400 jobs

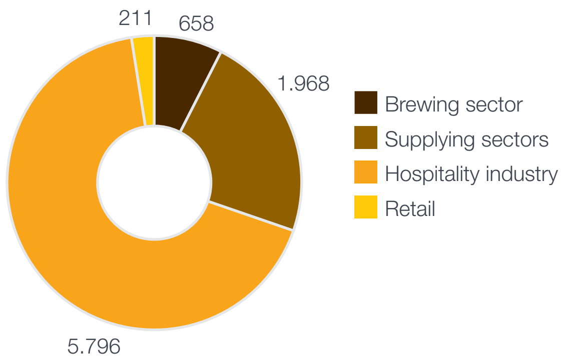


› Source: Ernst & Young calculations

7| Total value added due to beer

The contribution of the brewing sector to the economy can also be expressed in terms of value-added. The total value-added generated by the 327,400 jobs due to beer is estimated to be 8.6 billion euro.

› *Graph 38.4. / Value added due to the production and sale of beer: 8.6 billion euro*



› Source: Ernst & Young calculations

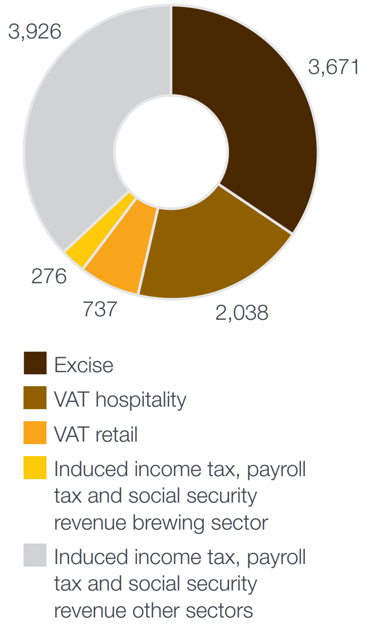
8| Total government revenues due to beer

38

In 2010, total revenue from excise, VAT and income-related contributions due to beer production and sales was estimated to be 10.6 billion euro:

- VAT revenue was estimated to be 2.8 billion euro, generated mainly in the hospitality sector.
- Total excise revenue from beer was 3.7 billion euro.
- Income-related revenue due to beer production and sales was approximately 4.2 billion euro, comprising 2.2 billion euro income tax, 807 million euro social security contributions paid by employees and 1.2 billion euro social security taxes and payroll taxes paid by employers.

Graph 38.5. / Government revenues due to the production and sale of beer: 10.6 billion euro



Source: Ernst & Young calculations

Annexes

Annexes

Annex

I

Methodology and scope

Methodology and scope

This study focuses on the economic impact of the brewing sector in Europe (27 European Union Member States plus Croatia, Norway, Switzerland, and Turkey). Although the brewing sector is international in scope and many brewing companies are organizations operating as multinationals, the analyses were carried out at country level. In this manner, the impact on the individual national economy could be measured.

The base year for the analysis is 2010. If data was not available for this year, data for 2009 or 2008 was used.

Some of the reported outcomes are estimated on the basis of a model constructed by Ernst & Young The Netherlands and Regioplan Policy Research. For this reason these outcomes are not a direct representation and are dependent on decisions made by Regioplan Policy Research. These decisions are elucidated in Annex III.

To represent the economic impact of the brewing sector, three different effects can be distinguished:

- Direct impact.
- Indirect impact.
- Induced impact.

The **direct impact** is defined straightforwardly as the effect generated directly by the brewing sector.

The **indirect impact** represents the impact of breweries on their suppliers. To be able to produce beer, breweries need to purchase a highly diverse range of goods and services. To mention just a selection: barley malt, hops, water and many types of packaging materials such as glass and aluminum. Breweries also hire engineers, marketers, communications agencies and many more services. In this study, seven supply sectors are distinguished: agriculture (raw materials); utilities; packaging and bottling industry; transport and storage; media, marketing and communication; equipment, manufacturing and other industrial activities; and other services.

The sale of beer by retail outlets and hospitality firms is an important source of economic benefits. The economic contribution of firms in the retail and hospitality sectors arising from the sale of beer is labeled in this study as the brewing sector's **induced impact**.

The above-mentioned effects have been measured in three areas (**employment, value-added and government revenues**). It is important to stress that these are not additional effects, but rather three ways in which the same effects can be looked at. Together this results in nine dimensions:

→ Dimensions for measuring the economic impact

	Direct impact	Indirect impact	Induced impact
Employment	Total number of jobs in the brewing sector	Total number of jobs in supply sectors resulting from the production and sale of beer	Total number of jobs in the hospitality and wholesale/retail sector resulting from the sale of beer
Value-added	Value-added by brewing companies	Value-added in supply sectors resulting from the production and sale of beer	Value-added in the hospitality and wholesale/retail sector resulting from the sale of beer
Government Revenues	Excise revenues resulting from the production and sale of beer and income tax and social contributions from employers and employees in the brewing industry	Income tax and social contributions from employers and employees in supply sectors	VAT revenues, income tax and social contributions from employers and employees in the hospitality and wholesale/retail sector resulting from the sale of beer and corporate and other taxes

Annex

II

Data sources

Data sources

II

The results presented in this report derive from multiple data sources. In hierarchical order of importance these sources are:

- Data obtained from a questionnaire completed by the national beer association representing the brewing sector.
- Data collected (directly) from individual beer producers and/or beer companies through a detailed questionnaire.
- Data from Eurostat.
- Data from additional (public) sources, such as The Brewers of Europe, the European Commission, and national statistical institutes.
- Data used in the 2009 beer study edition: The contribution made by Beer to the European economy.

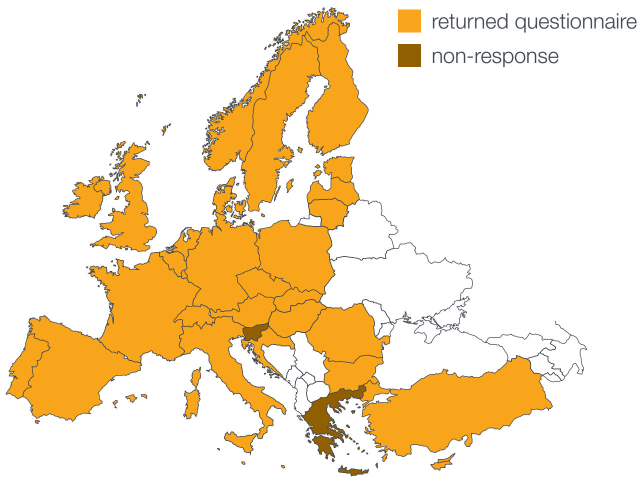
→ National beer associations

The national beer associations or beer federations have been a major source of valuable data and information. The elements of the questionnaire were some key figures of the beer sector, main markets, economic indicators of the distribution channels and, the most important developments and threats in the beer sector.

For 28 countries the national association completed the questionnaire, for two other countries the association didn't respond to our questionnaire. In Slovenia there is no national beer association available to respond on our questionnaire.

To strengthen the calculations we made for this study on the level of each country, Regioplan Policy Research sent the 30 national associations a draft version of their country chapter containing the results of this calculations. Based on the comments we received on draft versions of the country reports, in some instances we had to make recalculations.

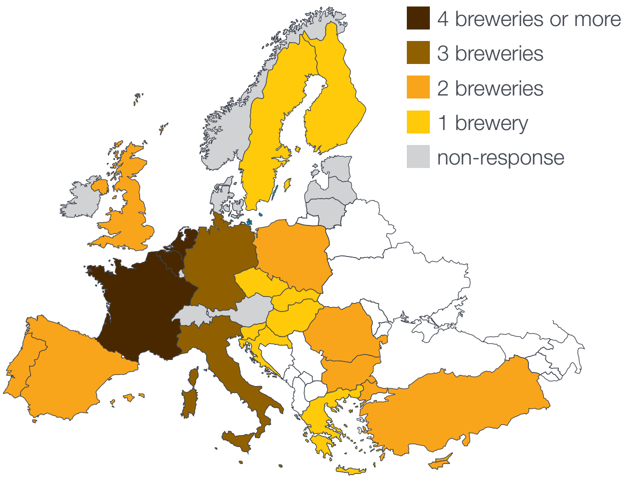
› Graph annex II.1. / Questionnaires returned by national brewing associations



→ Beer producers and beer companies

The beer producers received a detailed questionnaire with elements such as some key figures of the company, the activities of the company, their expenditures, and purchased goods.

› *Graph annex II.2. / Questionnaires returned by beer producers per country*



→ Eurostat

Whereas specific data on the brewing sector was collected through questionnaires completed by national brewing association and beer producers, more general economic data such as economical indicators and business statistics were obtained from Eurostat. Most data was from 2009.

→ The Brewers of Europe

In addition to the information from the questionnaires, statistics provided by The Brewers of Europe have been used. These statistics consisted of general information on the beer industry in European countries, for example: data on production, consumption and direct employment in the brewing sector. The Brewers of Europe provided also alternative sources. Data has also been provided by Euromalt.

→ The European Commission

The European Commission provides data on excise duties and government revenues from alcoholic drinks (i.e. beer, wine and spirit).

→ Beer Study 2009 edition

In some cases where no new data could be obtained at all, data has been used from the 2009 study.

II

Annex

III

Variables and estimates

Variables and estimates

III

Some of the reported outcomes concerning the economic impact of the brewing sector are based on estimates. These estimates derived from a model constructed by Ernst & Young and Regioplan Policy Research.

We illustrate here how these variables have been estimated, focusing on:

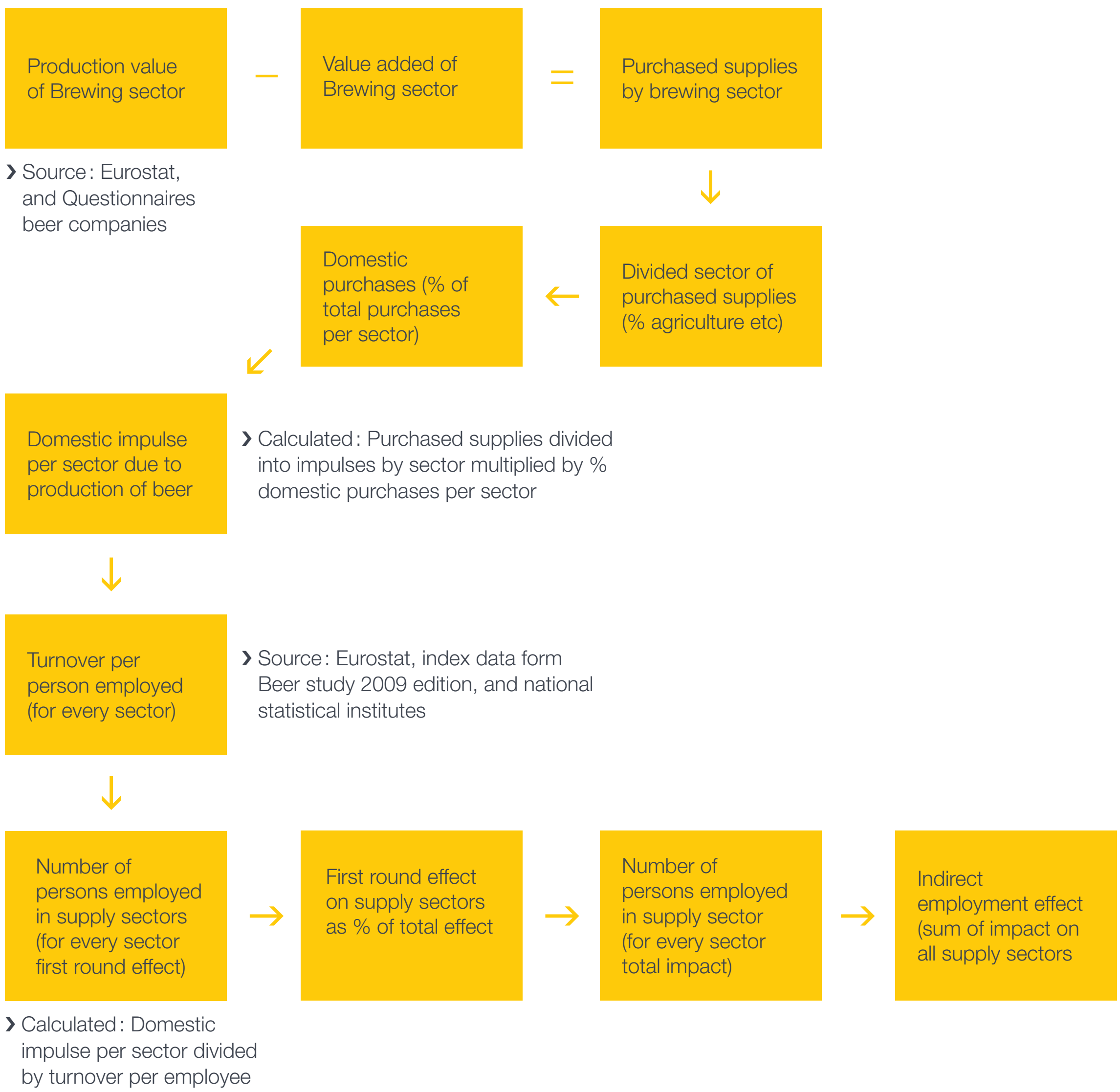
- Employment effects.
- Value-added due to the production and sale of beer.
- Government revenues due to the production and sale of beer.

→ Employment effects

The **direct employment** effect signifies the number of people employed in the brewing sector. The data on direct employment was obtained from the questionnaire for the beer producers.

The **indirect employment** effect concerns the employment generated in the supply sectors due to the production and sale of beer. The starting point of the estimates on indirect employment is the impulse in supply sectors resulting from purchases made by the brewing sector.

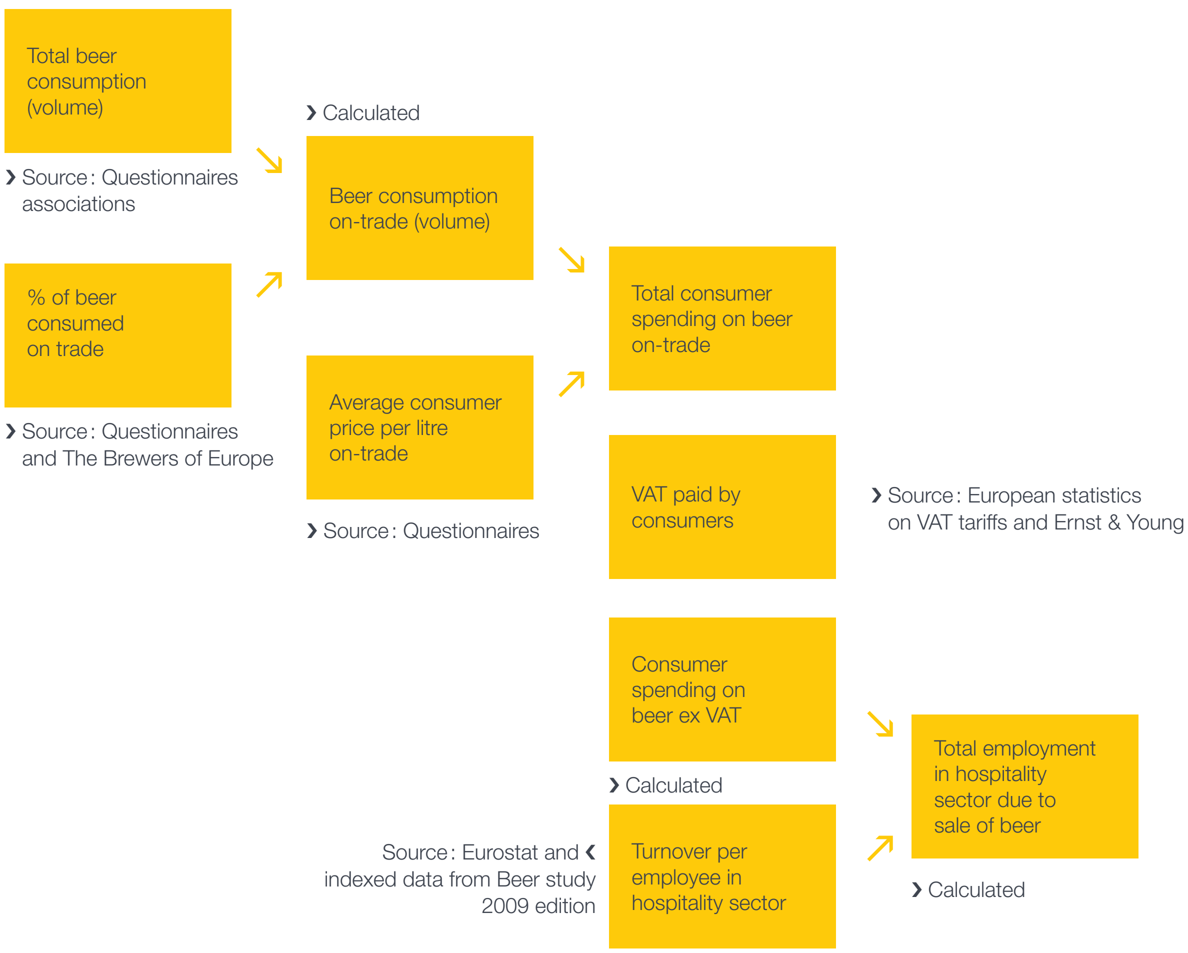
→ Model for measuring employment effect



Data on turnover and value-added per employee per sector was obtained from Eurostat or the Beer study 2009 edition. For sector data NACE-codes (2002 rev.1.1, classification of economic activities by the European Union or equivalents by the national statistical institutes) have been used: agriculture (code A agriculture, forestry and fishing); packaging industry and equipment (D manufacturing); utilities (E electricity, gas, and water supply); wholesale and retail [1] (G wholesale and retail trade; repair of motor vehicles and motorcycles); hospitality (H Hotels and restaurants); transport (I Transport storage, and communication); and other services (O other community, social and personal services activities, K real estate, renting and business activities).

The **induced employment** effect, resulting in employment due to the sale of beer in the hospitality sector and in retail, is estimated as follows:

→ Model for measuring induced employment



Depicted is the way the employment impact on the hospitality sector is estimated. Estimates for retail are made in a similar way. The turnover in the hospitality and retail sector is corrected for the increased beer price in both sectors instead of the general inflation rate for index. This is due to the fact that increase of the real price of beer is much higher than the average inflation rate.

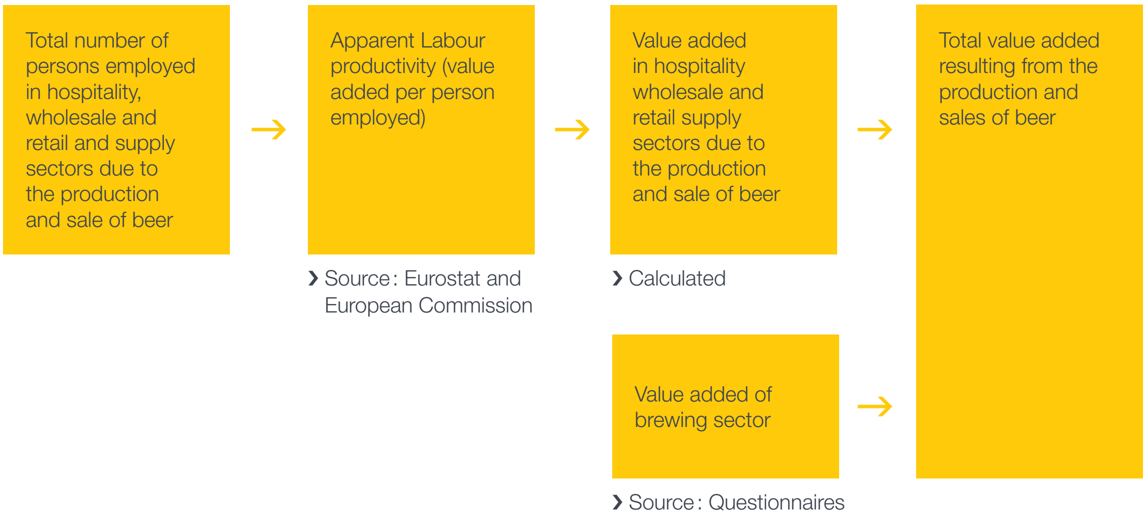
→ Value-added due to the production and sale of beer

The **direct value-added** in the brewing sector is obtained through the questionnaires completed by breweries, and Eurostat. The value-added in other sectors resulting from the production and sale of beer (**indirect and induced value-added**) is estimated on the basis of the employment effects. The value-added in a particular sector is estimated by multiplying the employment effect by the apparent labor productivity (gross value-added per person employed) in the sector.

[1] The percentage of value- added on beer in the wholesale and retail sector differs significantly from other products. For this reason NACE code G5225 (retail sale of alcoholic and other beverages) has been used for the value-added per employee in wholesale and retail.

III

→ Model for measuring value-added



→ Government revenues due to the production and sale of beer

In our calculations we had to limit the government revenues due to the brewing industry to three segments:

- Excise revenues.
- VAT revenues.
- Income-related revenues such as social contributions.

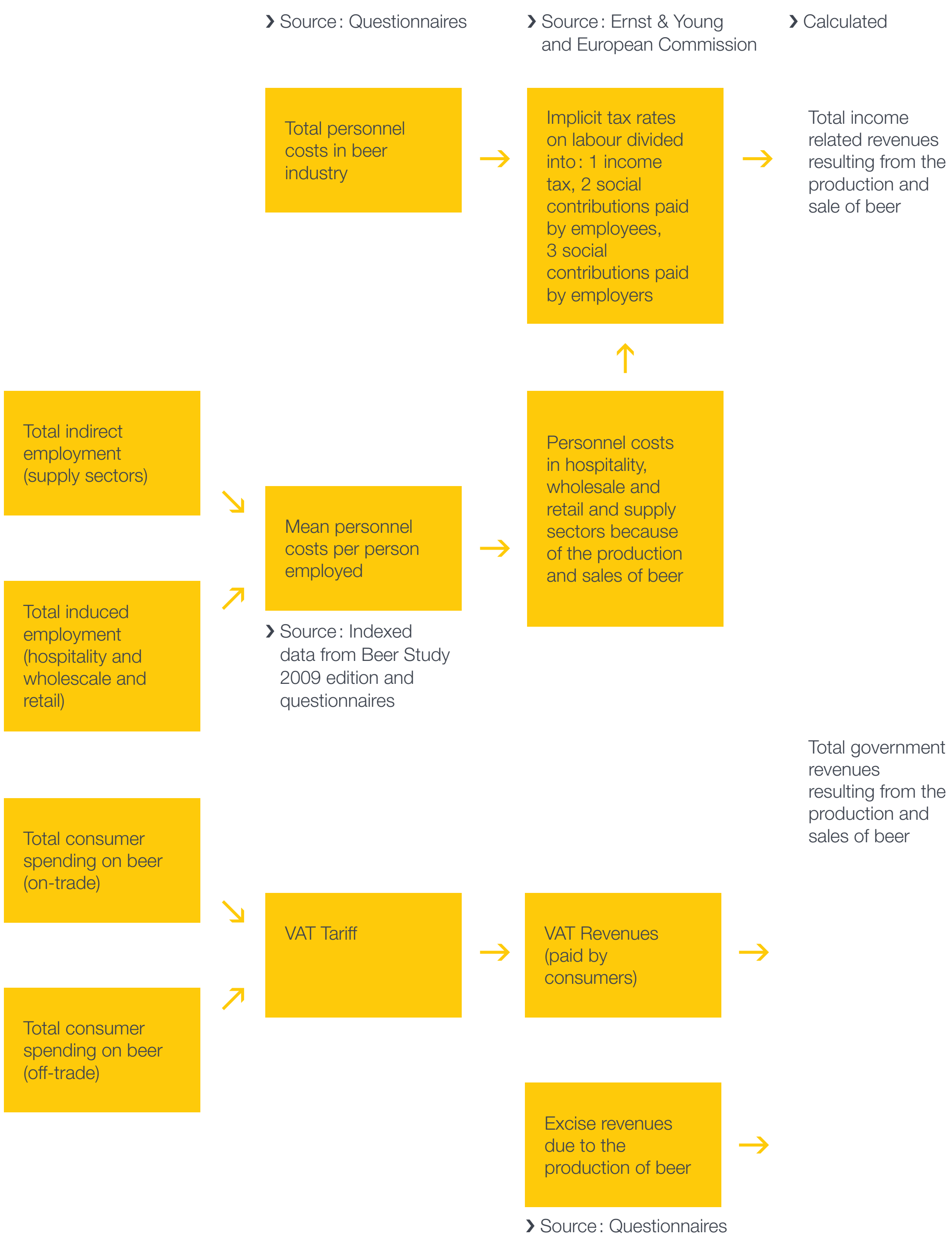
Data on **excise revenues** is obtained from the questionnaires, the European Commission, and statistics from The Brewers of Europe. **VAT revenues** resulting from the sale of beer are calculated by multiplying the total consumer spending on beer (on-trade and off-trade) in a particular country.

Income-related revenues have been estimated by multiplying personnel costs with implicit tax rates. The personnel costs in the brewing industry were obtained from Eurostat and the questionnaires from breweries. Personnel costs in supply sectors, hospitality and wholesale and retail were calculated by multiplying indirect and induced employment by the mean personnel costs per person employed.

Implicit tax rates on labor were obtained from statistics from the European Commission. The implicit tax rate is the percentage of personnel costs which consists of taxes and social contributions. It consists of three parts: mean ratio of 1) income tax, 2) social contributions paid by employees and 3) social contributions paid by employers.
Using implicit tax rates made it possible to report separately on income tax revenues and social contributions.

In was not possible to take **other taxes** paid directly or indirectly by the brewing industry (for example corporate taxes of energy taxes) into account.

→ Model for measuring government revenues



Annex IV

Exchange rates

Exchange rates

IV

Since most data sources used for the study apply to the year 2010, the mean exchange rates of that year were used for the majority of data calculations.

For data that applied to an earlier period, mean exchange rates of 2008 or 2009 were used.

› *Exchange rates used in the report*

Currency	2008	2009	2010	2011
US Dollar	1.471	1.395	1.326	1.363
Bulgarian Lev	1.956	1.956	1.956	1.956
Czech Koruna	24.946	26.435	25.284	24.291
Danish Krone	7.456	7.446	7.447	7.455
Estonian Kroon	15.6466	15.6466	15.6466	15.6466
Latvian Lats	0.703	0.706	0.709	0.704
Lithuanian Litas	3.453	3.453	3.453	3.453
Hungarian Forint	251.501	280.330	275.480	271.500
Polish Zloty	3.512	4.328	3.995	3.923
Romanian Leu	3.683	4.240	4.212	4.247
Swedish Krona	9.615	10.619	9.538	8.799
Pound Sterling	0.796	0.891	0.858	0.846
Croatian Kuna	7.224	7.340	7.289	7.414
Turkish Lira	1.906	2.163	1.997	2.164
Icelandic Krona	143.830	172.670	161.890	158.870
Norwegian Krone	8.224	8.728	8.004	7.821
Swiss Franc	1.587	1.510	1.380	1.296

› Source: Eurostat

Annex V

Indexation

Indexation

V

The turnovers by sector and value-added per employee by sector for the years 2009 and 2010 were not available in the exact definition as used in our 2009 report. So we had to reuse the figures we used in our 2009 calculations (figures for the year 2008).

Before reuse of these figures we indexed them with the inflation rates in the countries for the year 2008 and 2009. Indexing is the value adjustment to general price developments and/or inflation. We used the annual average rate of change in Harmonized Indices of Consumer Prices (HICPs).

› *Inflation rates used in the report*

	2008	2009
Austria	3.2	0.4
Belgium	4.5	0
Bulgaria	12	2.5
Croatia	5.8	2.2
Cyprus	4.4	0.2
Czech Republic	6.3	0.6
Denmark	3.6	1.1
Estonia	10.6	0.2
Finland	3.9	1.6
France	3.2	0.1
Germany	2.8	0.2
Greece	4.2	1.3
Hungary	6	4
Iceland	12.8	16.3
Ireland	3.1	-1.7
Italy	3.5	0.8
Latvia	15.3	3.3
Lithuania	11.1	4.2
Luxembourg	4.1	0
Malta	4.7	1.8
The Netherlands	2.2	1
Norway	3.4	2.3
Poland	4.2	4
Portugal	2.7	-0.9
Romania	7.9	5.6
Slovakia	3.9	0.9
Slovenia	5.5	0.9
Spain	4.1	-0.2
Sweden	3.3	1.9
Switzerland	2.3	-0.7
Turkey	10.4	6.3
United Kingdom	3.6	2.2

› Source : Eurostat

Annex VI

Glossary

Glossary

VI

Alcohol by volume
Indication of alcoholic strength expressed as percentage included in a beverage.

Backward linkage
See indirect employment.

Bottom-up approach
Analysis of the direct, indirect and induced effects, taking a selection of brewing companies as a starting point.

Brewery
A plant or an establishment for the manufacture of beer.

Brewing company
A company which owns one or more breweries.

Brewing sector
All the brewing companies located within a certain geographical area. These companies may also be involved in activities other than brewing beer, such as the production of soft drinks and bottled mineral water.

Corporate tax
Corporate tax or company tax is the tax imposed on the income or capital of companies.

CPI
The index is a measure of the average price which consumers spend on a market-based "basket" of goods and services. Inflation based upon the consumer price index (CPI) is the main inflation indicator in most countries.

Direct employment
Employment, value-added and tax revenues for governments generated directly by the brewing sector.

EU 27
Average for the 27 European Union Member States or the 27 countries of the European Union: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

Excise
Taxation on the production volume, rather than the production value, of a certain good. In the case of beer it is often related to the amount of alcohol released for consumption.

Exports
The annual volume of beer sold and shipped to foreign countries. Both intra-European (within Europe) as well extra-European (to countries outside Europe) flows are included in this figure.

First round employment
The amount of jobs that are directly generated in supply sectors by purchases of the brewing sector. The employment that is generated by purchases of these supply sectors is not included.

Forward linkage
See induced employment.

FTEs
Full time equivalents.

GDP
Gross domestic product.

GDP PPS
Gross domestic product in purchasing power standards.

Government revenues
Amount of money received by the government from outside the government entity. In this study these revenues include corporate tax, excise revenues on beer, VAT on beer sold in the hospitality and retail sector and all labor-income-related revenues from jobs in the brewing sector and jobs in other sectors generated by beer production and sales. These income-related revenues include personal income tax, social security contributions paid by employees and social security contributions and payroll taxes paid by employers.

Hectolitre (hl)
A metric unit of volume or capacity. One hectolitre equals 100 litres.

Implicit tax rate on labor
Ratio of taxes and social security contributions on employed labor income to total compensation of employees. It is the sum of all direct and indirect taxes and employees' and employers' social contributions levied on employed labor income divided by the total compensation of employees working in the economic territory increased by taxes on wage bills and payroll.

Indirect employment
Impact of the brewing sector on supply sectors in terms of employment or value-added. For example: farmers selling hops or barley or the manufacturing industry producing bottles, cans, kegs or brewing equipment.

Induced employment
Employment at companies that distribute or sell beer, mainly in the wholesale, retail and hospitality sectors. For example: bartenders, waitresses and shopkeepers. For this study, the induced employment is confined to the retail and hospitality sectors.

Inflation rate
The rate of inflation based on the consumer price index (CPI).

Imports
The annual volume of beer bought and brought in from foreign countries. Both intra European (within Europe) as well extra European (from countries outside Europe) flows are included in this figure.

Kilogram's alpha acid
KgA

Multiplier
The multiplier in this study is defined as indirect employment divided by direct employment. Multipliers can also be estimated for induced impact and they can be expressed in terms of employment and in terms of value-added.

On-trade
Beer sales through (licensed) pubs, clubs, bars, restaurants et cetera also called as the hospitality sector.

Off-trade
Beer sales through wholesale and retail (shops, supermarkets and other outlets).

Personal income tax
A tax levied on the personal income of people. In this study taxes on income from labor generated by beer production and sales are included in the figures.

Personnel cost
The total remuneration payable by an employer to an employee in return for work done by the latter during the reference period. Besides salary, personnel costs also include taxes and employees' social security contributions retained as well as the employer's social contributions.

PET bottle
A bottle made of polyester (polyethylene terephthalate).

Plato degree
A unit measuring sugar content of beer. For tax purposes it is assumed that one °P is equivalent to 0.4% alcohol. Plato degree expresses the weight of any substance in solution as a percentage of the weight of that solution, based upon sucrose dissolved in pure water. A density that measures one °P means that 1% of the weight of the measured liquid is dissolved sugar.

VI

Production value
The amount actually produced by the company, based on sales, including changes in stocks and the resale of goods and services. The production value is defined as turnover, plus or minus the changes in stocks of finished products, work in progress and goods and services purchased for resale, minus the purchases of goods and services for resale, plus capitalized production, plus other operating income (excluding subsidies). Income and expenditure classified as financial or extraordinary in company accounts is excluded from production value.

Purchases of goods
The value of all goods and services purchased during the accounting period for resale or consumption in the production process, excluding capital goods. It refers to externally-bought products and services.

Social security
Financial contributions paid by employees and their employers giving access to the social security contributions (SSC) system and entitlement to certain benefits in situations of unemployment, sickness, disability or old age.

Stamp Tax
Stamp duty applies to a wide range of documents, including contracts, agreements, notes payable, capital contributions, letters of credits, letters of guarantee, financial statements and payrolls.

TAPDK
Turkish Regulatory Committee for Tobacco, Tobacco products and Alcoholic Beverages Market.

Tax parity
Ratio between excises levied on beer and other alcoholic drinks such as spirits and wine (per litre of pure alcohol). Equality of prices of goods. The tendency to tax some drinks more than others.

Tonne
One tonne equals 1000 kilogram’s.

Top-down approach
Analysis of the direct, indirect and induced effects, taking existing statistics as a starting point.

Value-added
Difference between the production value and the value of purchased inputs (goods and services). In economic terminology value-added is also defined as the reward for all production factors (mainly labor, capital, entrepreneurship).

VAT
A value added tax (VAT) is a form of consumption tax. From the perspective of the buyer, it is a tax on the purchase price. From that of the seller, it is a tax only on the "value added" to a product, material or service.

Annex VII

Country abbreviations

VII

List of countries and abbreviations used in this report

Abbreviation	Country name
AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	The Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia
TR	Turkey
UK	United Kingdom
USA	United States of America
EU27	European Union Member States or average for EU Member States

Annex

VIII

Acknowledgements

Acknowledgements

VIII

The study on the economic impact of the brewing sector in Europe has been commissioned by The Brewers of Europe for the fourth time. Conducting a study at such a large scale has only been possible with the help of the national brewers' associations for the brewing sector in the 31 countries encompassed by the study Also a great number of individual brewing companies helped us with delivering in time additional information. We would like to thank both national associations and brewing companies for their commitment to this study.

From the client, the project was professionally managed by The Brewers of Europe secretariat and the members of the Fiscal group in charge of the study coordination, in particular Jan Lichota and Dr. David Long. We would like to thank them and the other concerned members of the Fiscal Issue Management Team for their feedback and for sharing their knowledge on the brewing sector with us. During the project Sona Krajcovicova, who had her internship at The Brewers of Europe in the first half of 2011, offered us valuable practical support. This was for us very useful and has certainly led to the quantitatively important level of response to our questionnaires among associations.

An important contribution was provided by Euromalt, of whom we thank its President, Nicholas King, the Secretary General, Teresa Babuscio, and the association's members.

The study has been conducted by a dedicated team of economic researchers from Regioplan Policy Research (see title page of this report). They did a great job. Walter de Wit of Ernst & Young was our project advisor on tax matters.

Amsterdam, July 2011

Bram Berkhout
Project manager
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Annex IX

Contact information

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→ About Ernst & Young

Ernst & Young is a global leader in assurance, tax, transaction and advisory services, aiming to have a positive impact on businesses and markets, as well as on society as a whole. With its global network and 135,000 employees the foundation is laid for the success of its clients. To this end the right multi-disciplinary team is assembled for each business, drawing on a global talent pool, helping to achieve the potential of each of its clients. Ernst & Young works closely with its clients, gaining a clear understanding of their organisation and striving to identify issues before they become problems. Ernst & Young ensures its clients gain fast access to the people they need, wherever in the world they need them. And with a global focus on 14 Global Industry Sectors, clients benefit from a market-leading global response to their specific needs.

For more information: www.ey.com.

→ About Regioplan Policy Research

Since 1983 Regioplan Policy Research has been active in the Netherlands as a policy research agency specialising in social and economic research in a wide field of expertise. Regioplan offers a number of services, such as research studies, monitoring and evaluation, policy advice, product development and secondment for most knowledge areas within policy research. In addition to assignments for Dutch organisations, Regioplan Policy Research is also very active in the international market for policy research. One of Regioplan's large international clients is the European Commission and its various Directorates General. Regioplan was a subsidiary of Ernst & Young until 1 July 2008.

For more information and for new requests for proposals please consult our international webpage at http://www.regioplan.nl/pagina/english

→ About The Brewers of Europe

The Brewers of Europe, founded in 1958 and based in Brussels, is the voice of the European brewing sector towards the European Union institutions and international organisations. Currently it has 27 members, comprising 24 national brewing associations from most EU Member States, plus Norway, Switzerland and Turkey.

For more see:
www.brewersofeurope.org

For more information about this study, please contact us. See below for contact details.

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