



The Contribution made by Beer to the European Economy

EU Report - December 2013

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Bram Berkhout
Lianne Bertling
Yannick Bleeker
Walter de Wit (EY)
Geerten Kruis
Robin Stokkel
Ri-janne Theuws

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A report commissioned by The Brewers of Europe and conducted by
Regioplan Policy Research and EY



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Introduction

Introduction

Purpose of the study

This study was commissioned by The Brewers of Europe and aimed to quantify the economic impact of the brewing sector in the 28 Member States of the European Union (EU).

We have also quantified the economic impact for the brewing sector in three other European countries: Norway, Switzerland and Turkey. The results regarding these three countries are not included in the data presented in the EU report as this describes the aggregated economic impact of the brewing sector in the EU only.

The full report contains also national chapters for all EU countries plus the three non-EU countries mentioned above.

The current study is the fifth edition of the economic impact research undertaken by Regioplan and EY. The first report was published in January 2006 (covering 2005), the second in September 2009 (covering 2008), the third in March 2011 (covering 2009) and the fourth in September 2011 (covering 2010).

Economic impact

Three different impacts were considered in order to provide a comprehensive picture of the economic impact of the brewing sector:

- direct impacts;
- indirect impacts; and
- induced impacts.

For more information thereon, please consult Annexes I to III of this report which talks to the methodology of the report.

Time-series coverage of the analysis

In calculating the economic impact of the brewing sector, the report provides an objective basis for evaluating the economic significance of the sector, during the period from 2008 to 2012.

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Foreword

Foreword by the President of The Brewers of Europe



It gives me great pleasure to present this important study. The Brewers of Europe, uniting national 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 brewers, we are playing our role. Brewing is a highly skilled profession and the apprenticeship culture along the beer value chain means that we are an important source of 'first jobs'. Our sector's interdependence vis-à-vis other sectors like hospitality means that we help to support a flexible labour market, providing work for young and first time labour market entrants and those returning to the job market.

It is always worth recalling that for every 1 job in a brewery, we create 1 in agriculture, 1 in packaging and logistics, 1 in marketing and other services, 1 in retail and 11 in bars, restaurants and cafés.

The study quantifies the economic impact made by brewing and provides insights into the contribution delivered by beer throughout the value chain, from suppliers of agricultural raw materials, utilities and packaging, to brewing companies and those who transport, market, retail and serve our products.

Our message is that, following a period of decline, EU beer production and consumption volumes have levelled out and we are beginning to see the results of our sector's efforts to adapt to change. However, this is no time to rest on our laurels. Our sector has shown the potential to grow and adapt to new market realities and, with the kind of support that the European Economic and Social Committee (EESC) called for in its recent report 'Incentivising the growth potential of the European beer industry', we can do much more and continue to support the delivery of the Europe 2020 Growth Strategy.

Europe's brewers are encouraged to see a few shoots of recovery after a very tough last few years and that the fruits of our efforts to adapt to 21st century challenges, including market and structural trends, are becoming visible. Following the decreases of previous years, this is reflected in the increase from 2010 to 2012 in beer production by 2 percent and consumption by 1 percent, whilst a 4 percent growth in extra-EU exports has been witnessed against the continuing tough economic backdrop.

Demetrio Carceller
President of The Brewers of Europe

With the numbers of breweries in Europe having increased to almost 4500, together we deliver total annual sales of around €111 billion, €51.5 billion in value-added and contribute €53 billion in tax to EU governments each year. Perhaps most impressively, beer is also responsible for 2 million European jobs.

'2 million' is one of the most important numbers in this report. While the brewing sector and beer are a key part of the EU economy, they are also a key part of Europe's social and cultural landscape. Over recent years, a major concern for brewers, who are often the main employers in their communities, has been whether they can retain employees and whether they will be able to provide new jobs for young people.

This is a big responsibility. We strongly welcome the current European political focus on youth unemployment, as seen at the June 2013 Council of the EU summit and at the meeting of Heads of States of Europe at the 'High Level Conference on Youth Employment' in November 2013. We are also very pleased to see initiatives with real potential developing at the EU level, such as the 'European Alliance for Apprenticeships' and the 'Youth Guarantee'.



Executive Summary

Executive Summary

In 2013, Regioplan Policy Research and EY joined forces for the fifth time to carry out a study focusing on the economic impact of the production and sale of beer in Europe. The study covers the brewing sector in 31 European countries. Consolidated data in this report however relate to the 28 Member States of the European Union (EU).

Key Developments

- The brewing sector is of major importance to the EU economy. In 2012, it was responsible for 2 million jobs. Most of the employment was generated in the hospitality sector (1.4 million jobs). However, there were also significant numbers employed by breweries (125,400 jobs), the retail sector (118,900 jobs) and the supply sectors (315,800 jobs), of which the bulk was attributable to agriculture.
- The production and sale of beer generated 53 billion Euro in revenue for EU governments. This is more than the total value added created in the supply chain for beer (51.5 billion Euro).
- The number of breweries in the EU is still growing, now reaching around 4500, and includes global leaders, regional players and 1,000's of small and medium sized companies and microbreweries.
- There were signs that, following a period of decline, production and consumption volumes had levelled out and were likely to begin to recover. However, as consumer prices were still under pressure, the value of the beer market lagged behind inflation.
- Over the last two years, government revenues generated by the production and sale of beer increased by 4 percent. In some Member States, increased excise duty and VAT rates were accompanied by a decline in employment.
- The EU brewing sector had a trade surplus amounting to 3 billion Euro in 2012.
- There was a further shift from consuming beer in bars, pubs and restaurants to drinking at home. This had a negative effect on the economic impact of the sector since beer sold in the off-trade sector generates less employment and VAT revenue per litre than beer sold in the on-trade sector.

A sector with impact

The EU is home to around 4500 breweries and enjoys a rich mix of beer cultures and a tradition that dates back thousands of years. The EU is also home to the headquarters of the world's largest brewing companies, which rank among the top consumer goods companies globally. In 2012, 390 million hectolitres of beer were produced in the EU, making the region the second largest beer producer in the world. The consumption of beer amounted to 357 million hectolitres, yielding a turnover of 111 billion Euro in hospitality and retail outlets.

Overall, this means that the brewing sector is of major importance to the EU economy. It had a considerable effect on employment (2 million jobs), value-added (51.5 billion Euro) and government revenues (53 billion Euro).

Economic impact of beer in the European Union (2008-2012)

	2008	2010	2012	Δ 2008-2012	Δ 2010-2012
Total employment (million jobs)	2.30	2.05	1.97	-14.4%	-4.1%
Value added (billion Euro)	55.17	50.24	51.45	-6.7%	+2.4%
Government revenues (billion Euro)	54.16	50.92	52.97	-2.2%	+4.0%

Source: Regioplan calculations 2013.

Approximately 125,400 workers were employed directly within the breweries in 2012. However, the brewing sector was also very important for the hospitality sector (1.4 million jobs), the retail sector (118,900 jobs) and the supply sectors (315,800 jobs). The supply sectors for the brewing sector include, inter alia, the EU can industry, where nearly half of the production was destined for the brewing sector, and the agricultural sector where 131,500 jobs were generated through purchases by brewing companies.

Fragile market recovery

Following a period of decline, it seems the sector is making a recovery – albeit a slow and cautious one. Over 2011 and 2012, the production and consumption of beer actually increased by 2 percent and 1 percent respectively, emerging from the downturn of the previous period (2009-2010). EU breweries also jointly increased beer exports outside their national borders with 2012 finishing 4 percent up compared to 2010, encompassing both inter-EU and extra-EU exports. Therefore, the EU brewing sector had a trade surplus amounting to 3 billion Euro in 2012.

It should be emphasised however, that the value of the total beer market developed negligibly. In fact, the value of the beer market increased by only 3 percent over the last two years. It is a notably lower increase than mean inflation within the EU, which amounted to almost 6 percent over the same period. This implies that in the whole supply chain, prices were still under pressure. It also suggests that the off-trade segment was gaining market share over 2011 and 2012, at the expense of the on-trade segment in which beer is usually priced higher.

Government revenues up, employment down

The performance of EU brewing companies is reflected in their economic impact. Specifically, the sector's value added saw a slight rise of 2.4 percent in 2012, compared with 2010. Government revenues from beer rose by 4.0 percent. Both figures dropped dramatically between 2008 and 2010.

Employment related to beer however continued to decline, falling by approximately 4 percent over the period 2010-2012 while total employment in the EU actually stabilised. Nonetheless, the decline is smaller than between 2008 and 2010 when beer-related employment dropped by 11 percent. The fall in beer-related employment was mainly seen in the hospitality sector. Bars, pubs and restaurants were suffering as consumers tended to drink beer more often at home as a result of the continuing economic downturn. In this respect, it is important to note that particularly younger people benefit from the employment generated by the on-trade sales of beer.

At national level, there are some indications that there is a connection between declining employment and the increased government revenues. In the Netherlands, a study¹ has shown that an increase of excise duties resulted in a loss of jobs. For other Member States, increases in excise duties also led to a drop in consumption. In Hungary and Portugal, this fall in consumption meant that excise duty revenues decreased even though the rate had gone up. Of course, this affected the employment in the brewing sector negatively in those countries, ultimately leading to additional costs for their governments in terms of social welfare.

Working to maintain impact

The sector's recovery, and thereby its continuing impact on the EU economy, can mainly be attributed to the brewing sector itself. Over the last few years, brewing companies significantly invested in developing new products and improving the beer experience in the hospitality sector. They also seized export opportunities and further optimised production processes. The sector also saw a huge rise in the number of microbreweries, contributing variety to the already diverse EU beer market.

The current 4,460 small and large breweries in the 28 EU Member States all aim to further increase their economic impact. This will benefit employees in a variety of sectors, from agriculture to packaging and the hospitality sector. It will also boost tax revenues in all the EU countries. However, to achieve this goal, a healthy and inspiring investment climate is desirable.

¹ Regioplan (2013) Nog een rondje van de burens: Verdiepend onderzoek gevolgen accijnsverhoging bier

01

A sector with
global presence

01

A sector with global presence

No less than 390 million hectolitres of beer were produced by breweries in the EU in 2012, an increase of 2 percent compared with 2010. That volume makes the EU the second largest beer producer in the world. Moreover, beer from within the EU is extremely popular outside the Union. This gave the EU brewing sector a trade surplus of 3.0 billion Euro in 2012.

The EU brewing sector is exceptional in its diversity. In addition to being the home to the world's largest brewing companies, there are also numerous small brewers with strong, regional characteristics. Over the last two years, there was a rapid increase in the number of breweries, with the EU counting a total of approximately 4,460 in 2012.

1.1 Home to the world's largest brewing companies

The EU is the second largest beer producer in the world. A volume of some 390 million hectolitres of beer was brewed in 2012, ahead of the United States of America (230 million hectolitres), Brazil (134 million hectolitres) and Russia (97 million hectolitres). China, with a volume of 443 hectolitres, is the largest beer producer in the world.¹ Compared to 2010, the EU production of beer increased by 2 percent in 2012.

The European Union is the second largest beer producer in the world, ahead of countries such as the United States of America, Brazil and Russia.

The craftsmanship of brewing

The EU has a rich mix of beer cultures, which is integral to the strong traditions in each Member State. However, the basics of brewing beer have been shared across national and cultural boundaries for thousands of years. While the methods remain traditional, most brewers today encompass modern technology within their production processes.

Fast-selling across the globe

The EU's beer brands are extremely popular and fast-selling across the globe. Increasing volumes of beer brewed within the EU is exported abroad, and subsidiaries and licensees of large EU brewing companies also produce beer in locations outside the Union.

The strength of diversity

The EU's beer sector is characterised by its huge diversity. It is not only home to the world's largest brewing companies, but also to numerous small and mid-sized, independent breweries. This diverse landscape means there is a huge variety in the range of beer brands and styles. While beer production only gradually recovered over the last two years, the number of brewing companies actually rose rapidly, with the EU counting approximately 4,460 brewing companies in 2012. In fact, it is quite likely that the total is even higher as not all Member States have been able to provide complete statistics in this area. It is estimated that small-scale breweries account for the majority of the total number.

The EU is now home to around 4500 breweries, with breweries to be found in every EU country

Small local breweries mean there is a hugely varied range of beers available

¹ Kirin Beer University (2013) Global Beer Production by Country in 2012.

01

Lindemans puts local area on the map

The Lindemans brewery was established in 1822 in Vlezenbeek, a village close to Brussels. What started as a small Lambic brewery set up to keep the farm going over the winter months, has grown over 200 years into a fully professional company selling its beers worldwide. Yet the family brewery is true to its roots: the original Lambic beer is still brewed using the traditional method of spontaneous fermentation.

The 25 enthusiastic members of the brewery's team produce annually 85,000 litres of beer. The very specific method of brewing, i.e. spontaneous fermentation, means they are reliant on the local micro flora, as Dirk Lindemans, one of the brewery's directors explains: "The Pajottenland and the Senne valley create a unique composition for spontaneous fermentation that give the Lambic beer its distinctive taste. Some of our suppliers have been with us for over 30 years and that obviously creates a bond. We are very loyal to our suppliers."

"Some of our suppliers have been with us for over 30 years and that obviously creates a bond."

The brewery's commitment to the region can also be seen in its active role promoting other regional products and the area's rich history. The brewery also provides financial support to local organisations such as the youth movement and sports clubs.

Lindemans Brewery not only puts the area on the local map, it also puts Belgium on the World map.

Although Lindemans Brewery cherishes its local character, its mission is to go beyond the region's borders. According to Lindemans, the brewery not only puts the area on the local map, it also puts Belgium on the World map.

"As a small brewery, we had difficulties keeping our head above water, so we started looking further afield towards the end of the 1970s. France was our first export market, and later on we started exporting to the USA. By applying the experience we gained in these countries, we were able to gradually tap into other markets."

Lindemans Brewery currently exports approximately 55 percent of its beers, with the fruity Lambic beers proving to be very popular abroad. Although the US and France are still the largest importers, the brewery exports to 35 other countries, including markets such as China, Japan and Brazil.

Germany: largest number of breweries

There are over 1,300 breweries in Germany

With a number of 1,339, Germany has the most breweries within the EU. Other EU Member States with over 100 breweries are the United Kingdom (1,113), France (503), Italy (425), the Czech Republic (213), Austria (171), Belgium (165), the Netherlands (165), Denmark (150), Poland (132) and Spain (132).

01

1.2 Positive trade balance

The brewing sector is of great economic importance to the EU trade balance. In 2012, extra-EU beer exports amounted to 3.2 billion Euro, while the value of beer imports from third countries into the EU was 234 million Euro. This positive result of 3.0 billion Euro for 2012 made an important contribution to the EU's trade balance which overall (all sectors combined) ended with a deficit of 105.3 billion Euro in 2012.

The European Union brewing sector had a trade surplus amounting to 3.0 billion Euro in 2012

Active market within the EU

The majority of exports takes place within the Single Market

In total, EU brewers shipped 74 million hectolitres of beer in 2012, the equivalent of some 19 percent of total EU beer production. This is an increase compared to 2010 (71 million hectolitres) and 2008 (70 million hectolitres). The majority of these shipments took place between EU Member States, involving some 45 million hectolitres of beer.

Approximately 19 percent of total European Union beer production is exported outside national borders

Open and global market

The import and export data clearly indicate the open and global nature of the EU beer sector. This is confirmed by Eurostat data.

Approximately 60 percent of the total exports are within the Single Market; the remaining 40 percent was exported to third countries. This is a striking statistic when one considers that in most Member States consumers prefer to drink a local beer. It also shows that beer produced within the EU is much appreciated worldwide. The United States of America was the most important export market in 2012, but significant volumes were also shipped to Canada, Africa, the Far East, Russia and Australia.

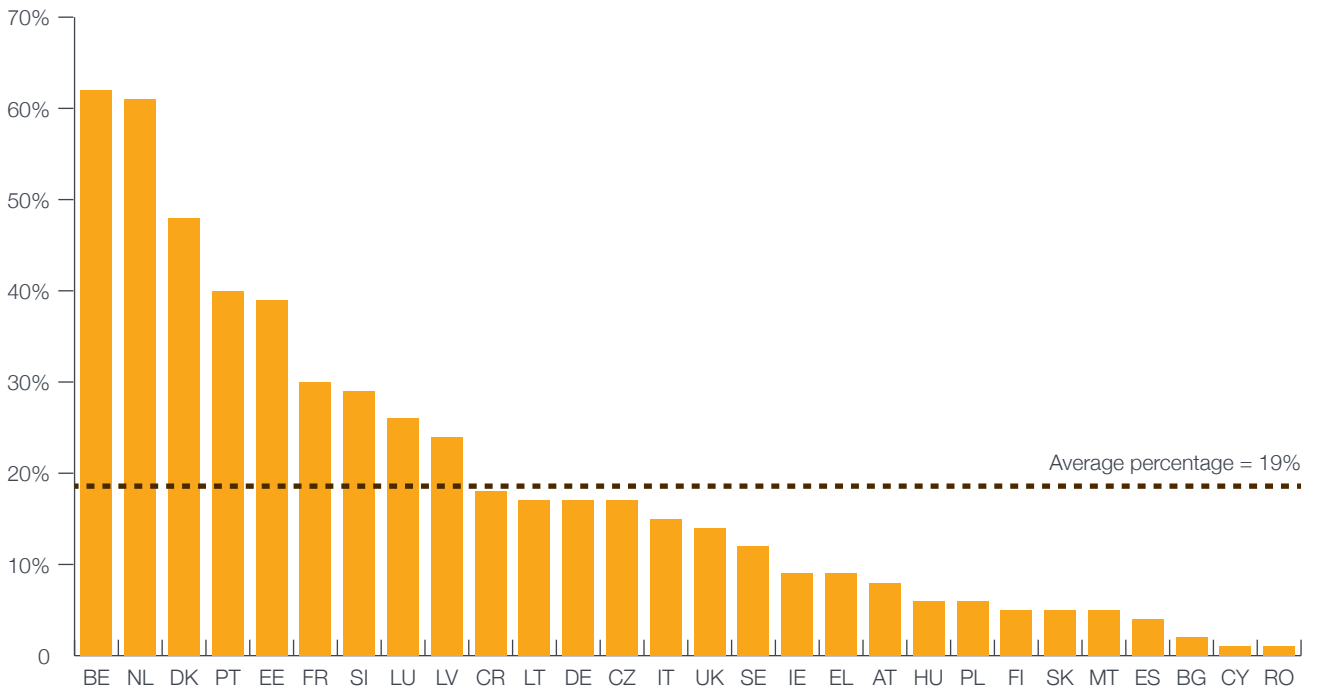
Beer produced in the European Union is appreciated worldwide

01

Member States exporting (intra-EU/extra-EU) large volumes of beer

Beer exports were particularly important from Belgium, Netherlands, and Denmark in 2012. The percentage of the total national beer production exported from these Member States was relatively high, ranging from 48 to 62 percent, and can also be accounted for by the presence of large multinational brewing companies. In absolute terms, Germany (15.7 million hectolitres), the Netherlands (14.7 million hectolitres) and Belgium (11.7 million hectolitres) were the largest EU beer exporters.

Figure 1.1
Exports (intra-EU/extra-EU) in 2012 as a percentage of total production per EU Member State



Source: Regioplan calculations (2013)

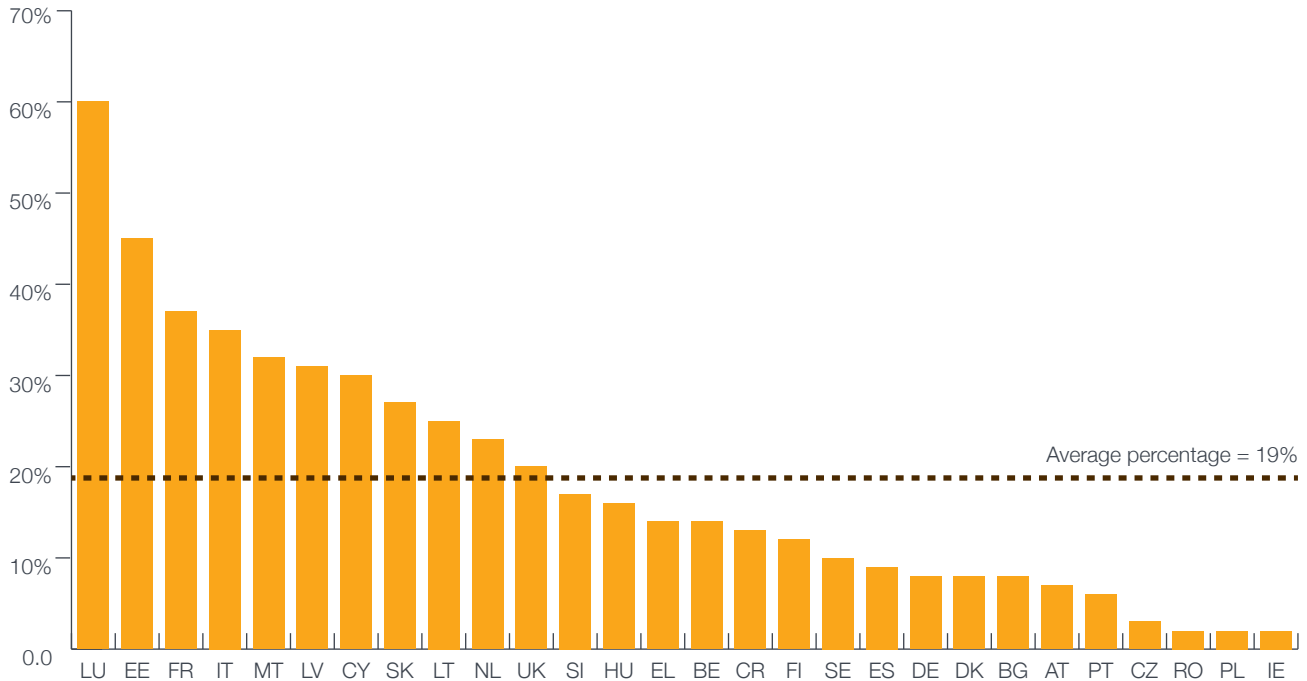
01

Within the EU, Luxembourg, Estonia, France, Italy and Malta imported the most beer

Slight increase in beer imports (intra-EU/extra-EU)

In 2012, a total of 357 million hectolitres of beer was consumed within the EU. Approximately 47 million hectolitres thereof were imported. This is an increase compared with 2010 (43 million hectolitres). Luxembourg, Estonia, France, Italy, and Malta were the largest importers, with 32 to 60 percent of total beer consumption comprising imported beer. In Luxembourg, Estonia and Malta, this percentage can be explained by the small size of the country, but for Italy and France, the explanation lies within the structure of the local brewing sector. In both countries subsidiaries of larger international brewing companies are established, delivering international brands to the local market. In absolute terms, the United Kingdom (8.8 million hectolitres), France (7.4 million hectolitres), Germany (7.3 million hectolitres) and Italy (6.2 million hectolitres) were the most important importers.

Figure 1.2 Imports (intra-EU/extra-EU) in 2012 as a percentage of total consumption per EU Member State



Source: Regioplan calculations (2013)

1.3 Investments by EU brewing companies

In addition to the rise in exports to other continents, there was also an increase in the number of breweries set up or enlarged outside the EU by EU brewing companies. Increasing investments were made in, amongst others, China and various African countries.

The European Union brewing sector is investing in new and upcoming beer markets in third countries

These developments signify that the EU brewing companies are not only important for the EU economy, but also contribute to the development of emerging economies, including developing countries. On a worldwide basis, EU brewing company operations generate a high level of local employment.



02

A sector with impact

02

A sector with impact

In 2012, almost two million EU citizens were employed directly or indirectly because of beer. This was actually 83,900 jobs less than in 2010 – primarily the effect of consumers more often drinking their beer at home than in bars, pubs and restaurants, since beer sales through the retail trade are less labour intensive than sales through the hospitality sector. The drop in employment, which also creates additional costs for governments in terms of social welfare spending, was especially significant in Western EU Member States. Some of the Eastern Member States saw a rise in beer-related employment.

Value-added as well as government revenues increased by 2 percent and 4 percent respectively compared to 2010. In terms of value-added, the production and consumption of beer generated nearly 51.5 billion Euro for the EU economy. Similarly, governments earned some 53 billion Euro from beer. Consequently, government revenues were actually higher than the total value created in the total supply chain.

Between 2011 and 2012, the value of the beer market increased by 3 percent. This increase was however much lower than the average rate of inflation within the EU Member States, which amounted to almost 6 percent over the same period.

Over the past two years, the brewing sector succeeded in maintaining its economic impact – an achievement that was mainly attributed to the sector itself. It significantly invested in product and process innovation, and EU brewing companies further increased their exports to third countries.

2.1 Economic impact in and beyond the brewing companies

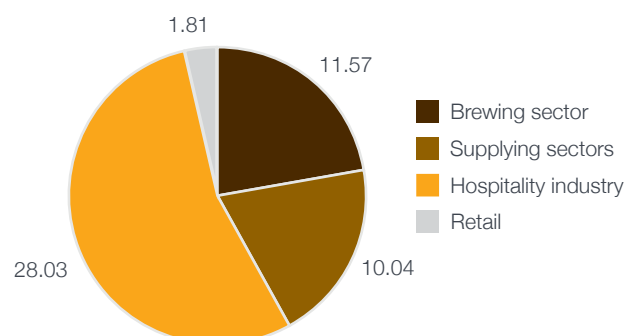
The brewing sector not only provides work in the brewing companies, but also in the supply, retail and hospitality sectors

The production and consumption of beer has a great economic significance in the 28 EU Member States. It creates value-added revenues and, more importantly, it creates jobs – not just those in the 4,460 small and large brewing companies based in the EU, but also in the supply, retail and hospitality sectors. The governments in each Member State also enjoy sizeable benefits. Each beer consumed generates tax and excise duty revenues, and the employment created brings in payroll tax and social security contributions.

Total value-added for 2012

In 2012, the value-added generated by the production and consumption of beer totalled almost 51.5 billion Euro. In the production and consumption of beer, brewing companies create value-added for themselves, their suppliers and for the retail and hospitality sectors. Added value pays employees' wages, and rewards lenders and entrepreneurs for their investments. For EU governments, it is the source of VAT revenue.

Figure 2.1
Value-added related to the production and consumption of beer in the EU Member States in 2012 (51.5 billion Euro)



Source: Calculations Regioplan (2013)

02

In 2012, the total value-added revenue from beer in the EU was actually more than the gross domestic product (GDP) of countries such as Luxembourg (44 billion Euro in 2012) and Bulgaria (40 billion Euro in 2012).¹ The GDP of the EU in 2010 was some 12,967² billion Euro. In other words, the brewing sector's contribution to the EU economy was approximately 0.40 percent of total EU GDP. This is a drop compared with 2010, when its contribution accounted for 0.42 percent.

Some 2 million EU citizens have work directly or indirectly related to beer

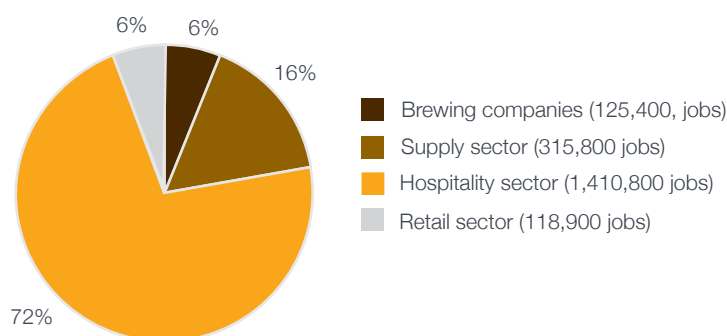
1 job in the brewing sector creates 16 jobs in the wider supply chain

The total employment effect of the brewing sector was comparable to the total employment of Finland

Total employment in 2012

The production and consumption of beer created a substantial number of jobs for the EU Member States' economies. The work of some 2 million EU citizens was directly or indirectly related to beer in 2012, as can be seen in the figure below.

Figure 2.2
Total employment in the EU Member States related to beer (2 million jobs) in 2012



Source: Calculations Regioplan (2013)

Of the 217.5 million jobs³ in the EU, approximately 1 percent could be attributed to the production and consumption of beer. The total employment effect of the brewing sector was comparable to the total employment of, for instance, Finland (2.4 million jobs) or Slovakia (2.3 million jobs).⁴ Some 21 percent of all beer-related jobs were in Germany, and levels were also high in the United Kingdom, Spain, Poland and Italy. It is significant that 22 percent of the jobs created were in brewing companies themselves or at their suppliers. Much of this employment is regionally concentrated.

1 Source: Eurostat, Annual national accounts, 2011

2 Source: EY data calculation, based on Eurostat:

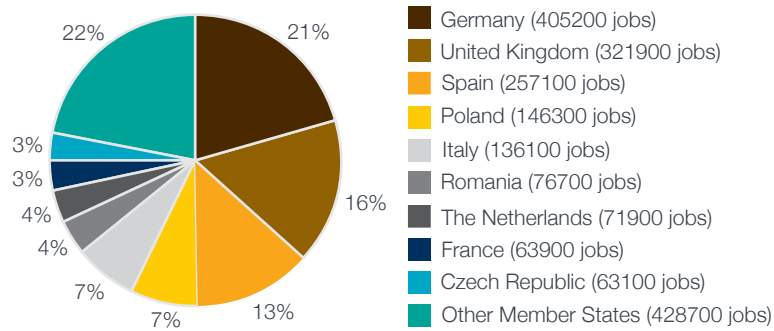
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nama_gdp_k&lang=en, July 2011

3 Source EU figures: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsi_emp_a&lang=en

4 Source EU figures: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsi_emp_a&lang=en

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Figure 2.3
Total employment related to beer in the EU (2 million jobs) per Member State in 2012



Source: Calculations Regioplan (2013)

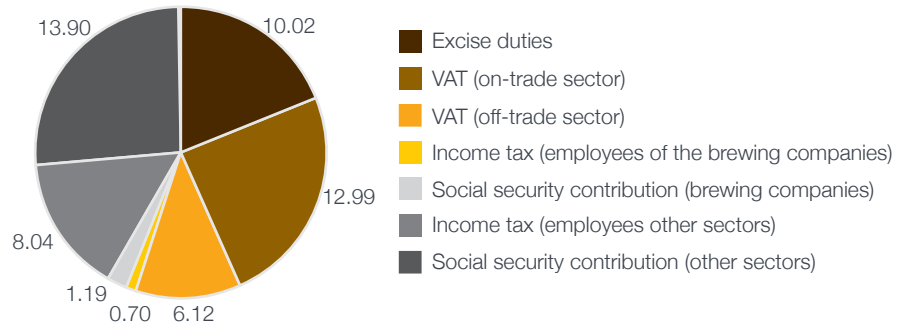
Government revenues for 2012

Nearly 53 billion Euro was generated by taxes and social security contributions in 2012

Not only entrepreneurs and employees benefitted from the production and consumption of beer, Member States' governments also did so considerably. Some 53 billion Euro was generated by taxes and social security contributions in 2012. This means that government revenue from beer was higher than the value-added created in the whole value chain of beer (51.5 billion Euro) in 2012.

In the European Union, government revenue related to the production and consumption of beer exceeded the total value-added created in the value chain

Figure 2.4
Government revenues related to the production and consumption of beer in EU Member States (53 billion Euro) in 2012



Source: Calculations Regioplan (2013)

Our calculations do not include all the possible tax revenue generated for governments by brewing companies, suppliers, retail and hospitality businesses. For instance, it was not possible to include revenue related to corporate tax. Consequently, the revenue for the Member States' governments was even higher than calculated above.

02

More than just economic impact

In addition to its substantial economic contribution, the brewing sector also had a significant social impact. Figures for 2011 show that EU brewing companies jointly spent nearly 1 billion Euro on supporting a broad range of activities.

European Union brewing companies spent nearly 1 billion Euro on supporting a broad range of events and activities

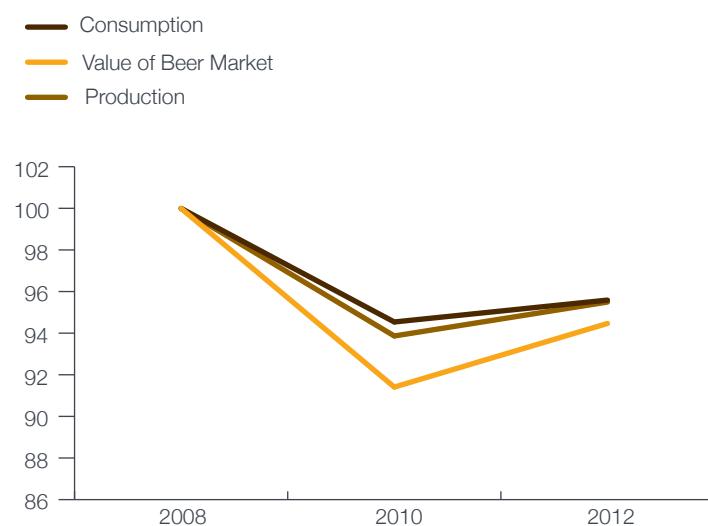
These activities ranged from major and grass root sport events, to culture and arts, charity, conservation and the environment, to shows and exhibitions and city and community events.¹ The majority of these activities take place at a local or regional level in the community of which the brewing company or brewery itself is a part. Their contributions to local projects are particularly significant, especially when local governments are cutting costs. From a local and regional perspective, it is very positive that the brewers' support did not stop in 2011, but is still continuing.

2.2 Impact under pressure

Beer production and consumption within the EU rose slightly by 2 percent and 1 percent respectively in 2012 compared with 2010. The falling trend in the period 2008-2010 was therefore halted.

On the other hand, the value of the total beer market developed less favourably. After a sharp decrease of 8 percent over the period 2008-2010, the value of the beer market increased by only 3 percent over the period 2010-2012. This increase was much lower than the mean inflation within the EU, which amounted to approximately 6 percent over this period. To some extent, this trend can be explained by the fact that beer consumers tend to drink more at home and less in the on-trade. This led to a decrease in the value of the beer market as consumer prices are usually lower in the off-trade than in the on-trade sector (see Chapter 4). Furthermore, the retail sector suffered from high pricing pressure and increasingly offered discounts on beer, lowering the overall average price of beer.

Figure 2.5
Developments in the EU brewing sector 2008-2012 (index: 2008=100)



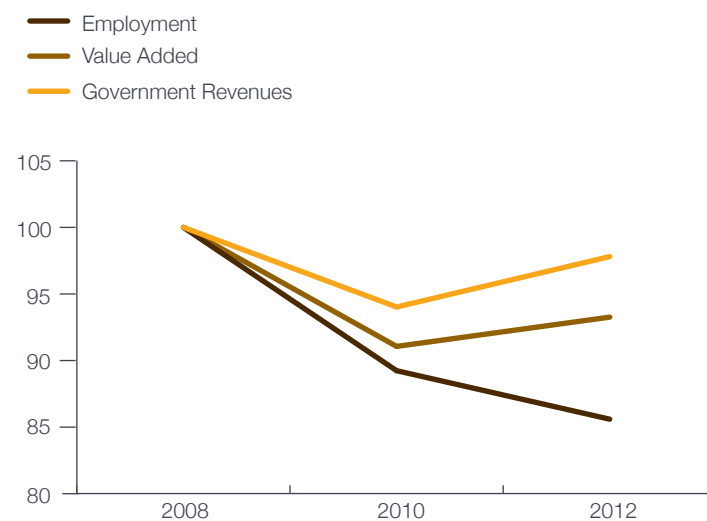
Source: Regioplan calculations (2013)

¹ Supporting Local Communities: Assessing the Contribution of Europe's Brewers

02

As a result of the developments described above, employment decreased markedly over the past two years. However, government revenues increased over the same period. It can therefore be concluded that although there were some signs of recovery within the EU beer market, it was primarily government revenues that benefitted, while the impact of the sector in terms of employment and value-added fell.

Figure 2.6
Developments in the impact of the EU brewing sector 2008-2012 (index: 2008=100)



Source: Regioplan calculations (2013)

Slight increase in value-added

With the production and consumption of beer slightly recovering, the brewing sector was able to maintain its positive economic impact on the EU economy. For instance, the total value-added created directly and indirectly by the sector rose by 2 percent (+1.21 billion Euro) between 2010 and 2012. Between 2008 and 2010, value-added fell by 9 percent (-4.93 billion Euro).

Employment still suffering

The total effect of the brewing sector on employment in 2012 fell compared to 2010. There were 83,900 fewer jobs related to the production and consumption of beer, a drop of 4 percent. However, this was a substantially smaller fall in employment than seen between 2008 and 2010 when employment fell by 11 percent, some 247,800 jobs.

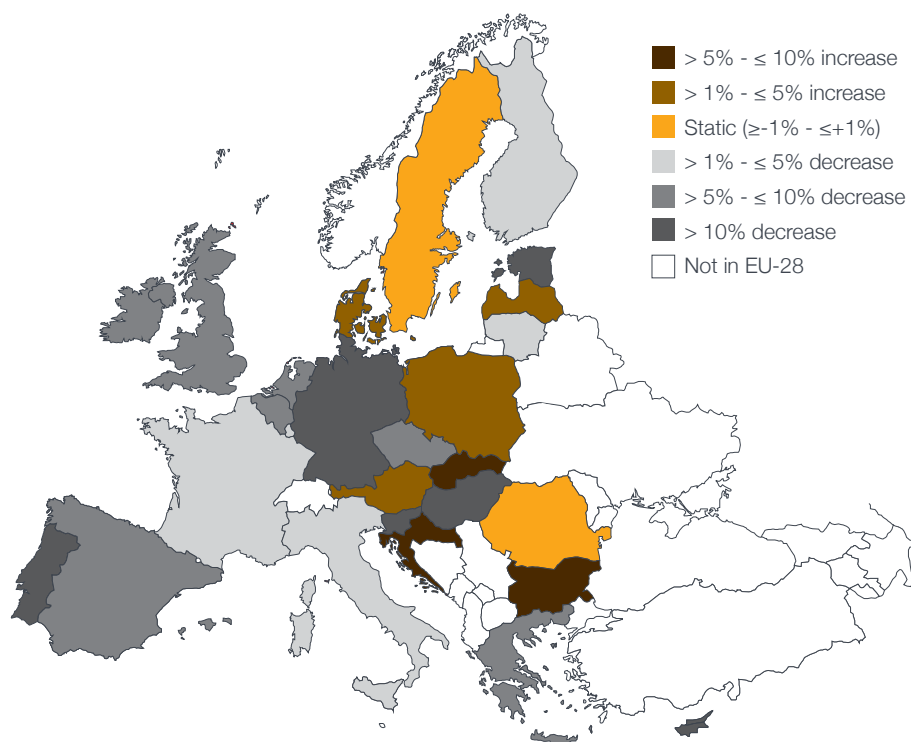
There were 4 percent fewer jobs related to the production and consumption of beer in 2012 compared to 2010

The effect on employment was not spread evenly across the Member States. Member States in Western and Northern Europe experienced the largest drops in employment, while Eastern Member States saw employment levels stabilise or even rise. This geographic difference in developments is related to the growth, stabilisation or fall of production and consumption.

The largest losses were in Germany (-55,900 jobs), the United Kingdom (-17,100 jobs) and Spain (-17,500 jobs). The majority of those losses were in the hospitality sector. In Poland, employment rose by about 3,700 jobs. The Polish supply sectors and, in particular, agriculture benefitted substantially from increased production in the Polish brewing sector.

02

Figure 2.6
Changes in levels of employment related to the production and consumption of beer in 2012 (compared to 2010)



Source: Calculations Regioplan (2013)

An analysis of the developments per sector shows that the hospitality sector suffered in particular. Almost 85,400 jobs were lost in bars and restaurants, a fall of 6 percent. This is mainly the result of the rising trend in consumers drinking at home (see Chapter 4). The number of jobs in the brewing companies themselves only fell by 3 percent. The number of jobs in the retail sector actually rose by 9 percent.

There was a substantial rise in employment in the retail sector

02

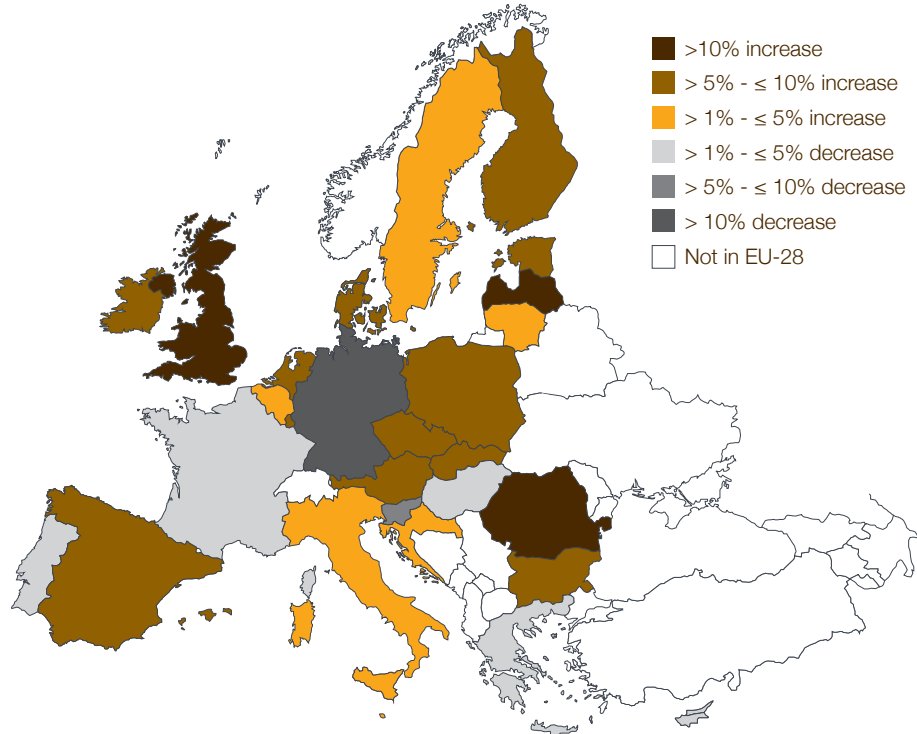
Government revenues increase further

As already indicated, the production and consumption of beer in 2012 generated 53 billion Euro for the EU Member State governments. This revenue from taxes and social security contributions increased by 4 percent compared with 2010. This is a stark contrast to the 6 percent fall in government revenue experienced between 2008 and 2010. This rise was mainly the result of the sharp increases in VAT and excise duty revenues; both 9 percent between 2010 and 2012. These rises were in turn the result of an increase in both the excise duty and VAT rates levied in many of the Member States. By contrast, revenue from income tax and social security contributions actually dropped.

Government revenue from beer increased in most European Union Member States

As can be seen in the figure below, total government revenue from beer rose in the majority of the EU Member States. According to Figure 2.7, eight Member States, including Germany, proved to be the exception to this trend, with government revenues in these Member States falling by 2 percent or more. Chapter 5 provides more information on the changes in government revenue from beer.

Figure 2.7
Changes in levels of government revenue from beer per EU Member State in 2012 (compared to 2010)



Source: Calculations Regioplan (2013)

Higher government costs in supporting unemployed

When interpreting the increase in government revenues, it should be noted that the model does not take into account government costs related to providing support to the unemployed, previously having a job related to beer consumption and production. If this effect were taken into account, the change in government revenues would be influenced negatively, as at least a part of the job losses resulted in unemployment.

02

2.3 Sector efforts to maintain its impact

Three quarters of the national associations and brewing companies considered that in the past two years the beer market in their Member State had fallen per capita. Moreover, they saw an increase in consumption in the home. These trends were already making an impact between 2008 and 2010. However, the brewing sector succeeded in turning the impact of a downward economic trend around.

The brewing sector succeeded in turning the impact of a downward economic trend around

Fostering product innovation

The EU brewing sector's ability to sustain a positive impact on the EU economy should be evaluated against the background of a wide range of initiatives being introduced as a means of pushing economic recovery.

Although the EU brewing sector has long been characterised by the extensive range of beers it offers the consumer, this extended significantly over the past two years in the majority (22) of Member States.

The prime reason for product innovation is to meet increased consumer demand for novel products. It should be noted in this context that the marked rise in the number of microbreweries in many Member States was an important factor in renewing an interest in the beer category as a whole and re-awakening an interest in the diversity of beer styles and their place in gastronomy. The wider brewing sector responded positively to this stimulus by developing new beer brands.

The demand for specialist beers is being met by the increase in the number of microbreweries

It is also apparent that consumer tastes tended to polarize; on the one hand tending towards lower-strength beers and beer mixes such as Radlers (beer and lemonade) and fruit beers, while on the other hand there is a tendency towards the premium beer category. The brewer is well-placed to create new products to meet these diverse demands by using the full range of raw material specifications, process parameters and technological advances in both brewing and packaging.

It can be concluded that, over the past few years, the brewing sector responded positively to meet consumer demands for a diverse range of products and packages.

02

Coping with a swiftly changing environment

The current beer market is extremely dynamic. While valuing the handcraft and traditional nature of beer, customers are also demanding quick and responsive action towards new trends, such as the increasing interest in new beer styles and the renewed curiosity in beer brewed locally. CampdenBRI plays a pivotal role in the development of the beer sector by providing technical, analytical, regulatory, and educational support to brewing companies.

Caroline Walker, Director of Brewing at CampdenBRI, describes CampdenBRI as a non-profit organization that supports its members in reacting to current trends on the beer market. Their work mainly involves analytical research, for instance technical support; improving production processes; and practical training, such as basic malting or brewing.

According to Walker, the beer market is currently facing a lot of different obstacles. For instance, CampdenBRI is increasingly receiving requests for support in sustainability issues. “Brewers are focusing more on the sustainability of their production processes,” says Walker. “And they come to us for practical advice on how to improve the efficiency of their water and energy management.”

“CampdenBRI is increasingly receiving requests for support in sustainability issues”

A second clearly visible trend is the higher demand for beer specialties, often characterised by a lower alcoholic content and a sweeter taste. Driven by this trend, the beer sector is being driven to act innovatively and therefore put a lot of effort into product development. This urge to innovate requires considerable research into the flavours of raw materials. CampdenBRI assists brewing companies in their hunt for the perfect balance and ensures the suitability of ingredients. Walker: “We’re seeing a lot of new raw ingredients entering beer recipes. We have a lot of in-house expertise and can help brewers overcome challenges, such as how to stop new beers from going hazy, by advising on the ideal pasteurization time.”

Today’s dynamic beer market is placing high demands on brewing companies, making them more environmentally conscious. And it means brewing companies are constantly working on developing speciality beers that will better suit the high demands of beer consumers.

Optimising processes

The sector’s ability to retain impact can also be attributed to the brewing companies’ efforts in optimising processes. This enabled them to either lower or maintain the cost price of beer while the costs of raw materials actually increased. Some larger beer producing companies that are active in several Member States also aimed to optimise processes by centralising functions and outsourcing activities. Some brewing companies also opted to close their less efficient or profitable brewing plants.

The brewing sector’s focus on sustainability appears to be paying off

Notably, the brewing sector’s focus on sustainability appears to be paying off. A number of brewing companies stated that their environmental efforts resulted in significant savings in energy, packaging and water. This in turn led to lower production costs.

02

Stimulating exports to other continents

Exports increased by 4 percent over the past two years

The success of EU brewers abroad also played an essential role in retaining the economic impact of beer. Over the past two years, total exports increased by 4 percent. For many brewing companies, this has more than compensated for the stagnating conditions in the home market.



03

The impact on suppliers

03

The impact on suppliers

The brewing sector continued to be of considerable economic importance to its supply sectors in 2012. Brewing companies spent 23 billion Euro on goods and services in 2012, generating approximately 315,800 jobs as a result. This is a slight decrease (-1.1 percent) compared to 2010 (320,200 employees).

The employment effect of purchases by brewing companies did not decrease in all supply sectors. The number of agricultural jobs generated by the production of beer increased by 4 percent (5,400 jobs), whilst the number of beer-related jobs in the packaging industry increased by 10 percent (2,900 jobs). Eastern EU farmers particularly benefitted from the rise in agricultural employment. By contrast, the media and marketing sector suffered considerably, with beer-related employment dropping by 17 percent (13,400 jobs).

The economic importance of breweries on their local economies was substantial. Nearly 50 percent of goods and services were provided by suppliers in the local areas in 2012.

3.1 Brewery purchasing

Brewing sector expenditure is highly significant to EU suppliers in a wide variety of industries. A diversity of businesses contributes to the beer production process, ranging from the supply of agricultural products such as cereals and hops, to the provision of packaging materials. Brewing companies also spend a considerable amount on services, such as marketing and transport. Overall, the brewing sector is responsible for much of the turnover of both large and small companies across the EU.

The brewing sector spent 23.0 billion Euro on goods and services in 2012

Nearly a quarter of breweries' purchases concerned packaging

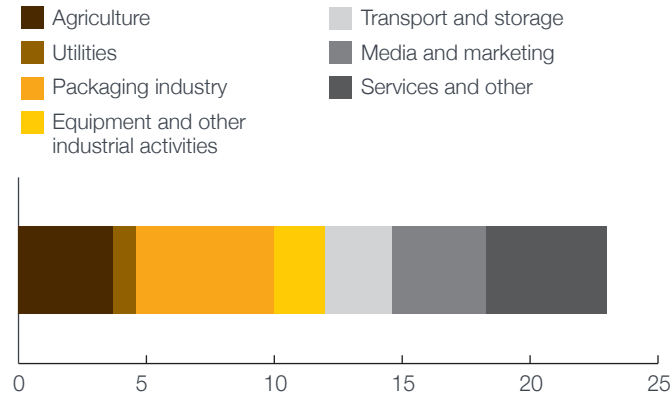
In 2012, the brewing sector spent a total of 23.0 billion Euro on goods and services. This is a rise of 5.4 percent compared to 2010, when expenditure totalled 21.8 billion Euro. This increase is almost in line with overall EU inflation in 2011 and 2012, (average at 6 percent)¹. Brewing companies also indicated that there was a rise in the price of raw materials, resulting in an increase in production costs.

The packaging industry benefited the most from the expenditure by an average of 23 percent (5.4 billion Euro) of the total purchases by brewing companies. The agricultural sector accounted for a further 16 percent (3.7 billion Euro), media and marketing for 16 percent (3.7 billion Euro) and the transport sector for 11 percent (2.6 billion Euro). The 'services and other' category represented 20 percent (4.7 billion Euro) of the total expenditure.

¹ Eurostat (2013)

03

Figure 3.1 EU purchases of goods and services by brewing sector in 2012 (23 billion Euro)



Source: Calculations Regioplan (2013)

Not all of the purchases made by brewing companies were in the countries in which they are based as some goods and services were imported. However, imported purchases were not taken into account, as there was not sufficient information available on the country of origin (i.e. whether they are from within or outside the EU). If the imported goods and services had been taken into account, the economic impact of the brewing sector would actually have been greater than shown in this study.

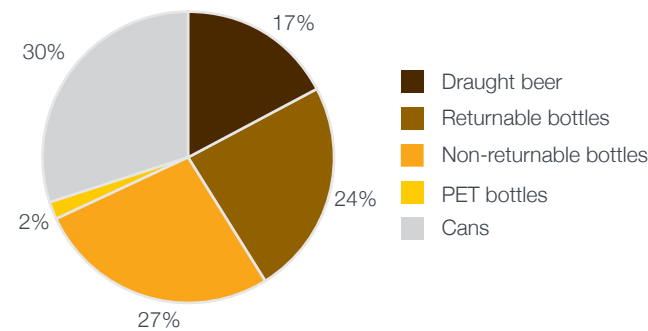
The packaging industry

24 percent of beer sold in the EU was in returnable bottles; 27 percent in non-returnable bottles

Over half of the beer sold in the EU came in glass bottles. Cans formed the second major packaging format (30 percent) followed by draught beer stored in kegs, casks and bulk tanks (17 percent). Brewing companies reported a number of developments over the past few years, including an increase in the use of plastic bottles instead of glass. There were also a number of innovative developments resulting in packaging more tailored to the needs of the consumer. Consequently, there was an increase in the diversity of beer packaging.

Over half of the beer sold in the European Union came in glass bottles

Figure 3.2 Market share of packaging types for beer in 2012



Source: Questionnaire national brewers' associations, Regioplan (2013)

03

The regional impact of a brewery

A large number of the purchases made by breweries are local, which means they make an important contribution to the economy of the region in which they are located. A good example of this is the brewery in Poznan, Poland. This large brewery has a special relationship with its packaging supplier TFP, located just a stone's throw away from Poznan.

TFP is located close to the brewery and has been supplying it with high quality printed trays and boxes for the past 15 years. "Our relationship with the brewery dates back to 1998 and it helped TFP to grow stronger each year," says Jakub Mlynarczyk of TFP. The brewery is now one of the three largest customers of TFP.

The business relationship between TFP and the brewery demands time and attention from both sides. "In addition to our daily contact to manage supply activities, we have regular meetings to discuss possible improvements to our products," explains Mlynarczyk. This means that besides employment and turnover, the brewery's high demands also lead to business innovation. Moreover, as other customers of TFP also benefit from these improvements, the general economic development of the region is stimulated.

"The high demands of the brewery also help us to improve our products for other regional customers"

When the brewery, for instance, asked for improvements on the construction of carton, TFP reacted by redesigning their production technology. These improvements not only led to lower costs, but also contributed towards increasing sustainability. What's more, the new technology is often used in the production processes for other customers. "The high demands of the brewery not only benefit our own activities in terms of costs and sustainability, but also enable us to improve our products for other regional customers," concludes Mlynarczyk.

Glass

The EU glass manufacturing industry is the largest in the world

The EU glass manufacturing industry is an innovative and diverse one that owes a great deal to the brewing sector. It is partly through the production of beer bottles that the EU glass manufacturing industry has become the largest in the world. In 2012, the brewing sector bought 29 percent of all the glass bottles produced in the EU, an increase of 1.5 percent compared to 2011. This may be a consequence of more EU citizens drinking beer at home rather than in a bar, pub or restaurant, where the beer is more likely to be served on draught.

The glass manufacturing industry provides employment to some 46,000 workers. Based on data provided by the EU Container Glass Federation (FEVE), it was estimated that a total of 13,340 jobs were directly related to the brewing sector in 2012. Germany, France and Italy were the biggest glass producers in the EU, with Germany taking the lead.

The use of recycled glass has led to a significant decrease in CO2 emissions

03

The use of recycled glass has increased by 10 percent over the past five years

Important steps were taken in the past few years concerning the environmental aspect of glass manufacturing. The use of recycled glass has increased, resulting in a significant decrease in both energy use and production of CO2 emissions in the EU. Notable ecological improvements can therefore be seen regarding the sale of products in recycled glass, including beer.

Figure 3.3 Total European¹ sales of glass bottles

	2011		2012	
	In 1000 Tonnes	In Million Units	In 1000 Tonnes	In Million Units
TOTAL	20,153	72,725	19,882	71,368
Out of which glass bottles for beers (including cider)	4,359	20,015	4,438	20,499
% Share	22%	27,5%	22%	29%

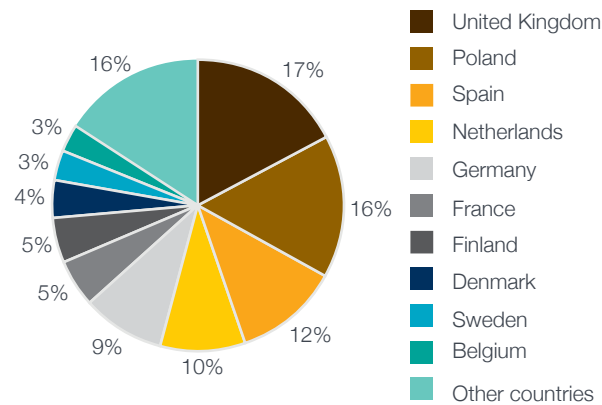
Source: European Container Glass Federation (FEVE) 2013

Cans

In 2012, nearly half of all cans produced in the EU was destined for the brewing sector. Compared to 2011, can production for beer increased by more than 3.5 percent, with a total of 24.4 billion cans being produced in 2012. The British canning industry benefitted in particular, closely followed by Poland and Spain.

Beer can production increased by more than 3.5 percent

Figure 3.4 Total EU can production for the brewing industry in 2012 (totalling 24.4 billion cans)



Source: Beverage Can Makers Europe (BCME) (2013).

¹ The data in Table 3.3 include the EU Member States plus Turkey and Switzerland.

03

The agricultural sector

The main ingredients of beer are water, cereals, hops and yeast, making beer a major source of revenue for many EU farmers. Cereals are generally malted before being used to produce beer.

Barley

Barley production in the EU in 2012 totalled some 54.5 million tonnes¹, with France (11.3 million tonnes) and Germany (10.4 million tonnes) being the main barley producers. This is approximately the same weight as produced in 2010. A bad harvest in 2011 caused a slump in barley production to just 51.7 million tonnes, the year before.

In 2012, nearly a quarter of the total EU barley production was used for malting. The main producers of malting barley were the United Kingdom, Denmark, Germany, France and the Czech Republic.

Figure 3.5 Key players of malting barley in the EU (2012)

	Total barley production (tonnes)	Of which malting barley (%)	Malting barley production (tonnes)
France	11,305,000	37%	4,182,850
United Kingdom	5,531,000	39%	2,157,090
Germany	10,421,000	13%	1,354,730
Denmark	4,085,000	30%	1,225,500
Czech Republic	1,658,000	42%	696,360
EU 28	54,460,000	23%	12,664,360

Source: Euromalt (2013)

¹ Source Euromalt (2013)

03

Malt

The EU has the largest malt production capacity in the world

The EU malt industry is a world leader thanks to a favourable climate and a strong domestic demand from the brewing and distilling industry. At 9.61 million tonnes, the EU has the largest malt production capacity in the world, with 94 percent of malt production being used for beer, and 4 percent for whisky. There were 187 maltings in the EU in 2012, 55 of which in Germany, 32 in the Czech Republic and 28 in the United Kingdom.

Figure 3.6 Number of maltings in the EU

Number of maltings in the EU (2012)	
Germany	55
Czech Republic	32
United Kingdom	28
France	15
Slovakia	7
Belgium/Luxembourg	6
Spain	5
Poland	5
Netherlands	4
Romania	4
Other	26
Total (EU)	187

Source: *Euromalt (2013)*

The EU is also the leading worldwide malt exporter, with 2.1 million tonnes of extra-EU exports over the past year. This represents a positive trade balance of 900 million Euro.

03

Beer as a 'local beverage'

The Finnish Federation of the Brewing and Soft Drinks Industry underlines the importance of locally produced malt for the brewing sector. During the event 'Opportunities in malting barley production', Elina Ussa (Managing director of the Finnish Federation of the Brewing and Soft Drinks Industry) spoke to farmers, maltings and brewing companies. She stressed that the various organisations needed to collaborate to safeguard the flow of locally produced, high-quality malt from the barley field to the bottle.

According to Ussa, it is of pivotal importance that Finland continues to produce the kinds of malting barley that are in demand. "Increased dialogue and cooperation between farmers, maltings and breweries are vital," Ussa said.

"Barley is crucial for the brewing process."

The main cereal used for malting

Barley has been malted for over 7,000 years. It is the main cereal used for malting as it produces high levels of important enzymes which are crucial for the brewing process. Barley malts are also easy to process and have the intense and pleasant flavour preferred by beer consumers.

About one in every ten hectares of cultivated agricultural land in Finland is designated for malting barley. "Beer is produced from pure, natural ingredients which are produced in Finland. You could well call it a 'local' beverage," says Ussa.

"About one in every ten hectares of cultivated agricultural land in Finland is used for malting barley."

A multi-year barley sourcing partnership

A good example of the collaboration between farmers and malt houses is the long-term cooperation agreement on the procurement of malting barley between Viking Malt and Raisio Plc. According to the terms of agreement, Raisio provides Finnish malting barley to all Viking Malt production plants in the Baltic Sea region, where they are the largest users of malting barley.

Raisio is strongly committed to the development of the Finnish grain chain and its farmers. The barley sourcing partnership between Viking Malt and Raisio stimulates the Finnish malting barley cultivation and ensures that the needs of the malting industry and brewing companies are met.

Hops

The EU also accounted for more than half of the worldwide hop production in 2011, a total of some 51,800 tonnes. A substantial share of this was for the brewing sector. The German Hop Growers Association¹ estimates that EU brewing companies and their breweries bought some 23,000 tonnes of a total value of 150 million Euro. As a growing volume of beer was produced in countries such as China, Brazil and Russia, the export of hops became increasingly important to the EU hop sector as well.

The export of hops became increasingly important

¹ Verband Deutscher Hopfenpflanzerverband e.V

03

There is an increasing preference for less bitter tasting beer

Germany was the main hop producer in the EU accounting for some 18,595 hectares of arable land in 2012. However, the EU hop production fell overall since 2000, dropping 19 percent from an acreage of 33,451 hectares in 2000 to 27,226 hectares in 2012. One of the main reasons was the change in the amount of hops needed in brewing beer, due to changes in consumer preferences. In addition, the adverse weather conditions of the past few years also had a negative effect on hop harvests.

Figure 3.7 Hops acreage in the EU (ha.)

	Germany	Czech Republic	Poland	Slovenia	EU- 28
2000	18,594 (55%)	6,108 (18%)	2,250 (7%)	1,623 (5%)	33,451
2005	17,161 (57%)	5,670 (19%)	2,289 (8%)	1,511 (5%)	29,977
2012	17,124 (63%)	4,366 (16%)	1,400 (5%)	1,160 (4%)	27,226

Source: Barth Report (2013)

Mühlviertler hops organisation

The Mühlviertler hops organisation in Neufelden, Austria, was established in 1996. With a total production of 260 tonnes of hops for 50 brewing companies (and 60 home brewers) in 2012, the production of hops is of significant economic value to the region. Mr Bayer, manager at Hopfenbaugenossenschaft Mühlviertler Hopfen explains: "Our company generates employment and ensures income for 40 of the 42 hop farmers in our region. This amounts to more than 80 percent of the total income for these hops farmers."

Austrian brewers prefer to use regional raw materials and are willing to pay a higher price for hops produced in their own region. However, Mühlviertler also exports hops to the United States of America and several Member States of the EU, including France, Finland, Spain, Belgium and Hungary. In addition to the economic value, Mr Bayer indicates that hops are very important for tourism.

With a major trend in brewing being the increased use of local hops, the hops sector is experiencing an increase in production and an increase in acreage of about 20 percent. The Austrian hops industry is still booming business for the Genossenschaft – and the region.

3.2 Generating work in the brewery supply industry

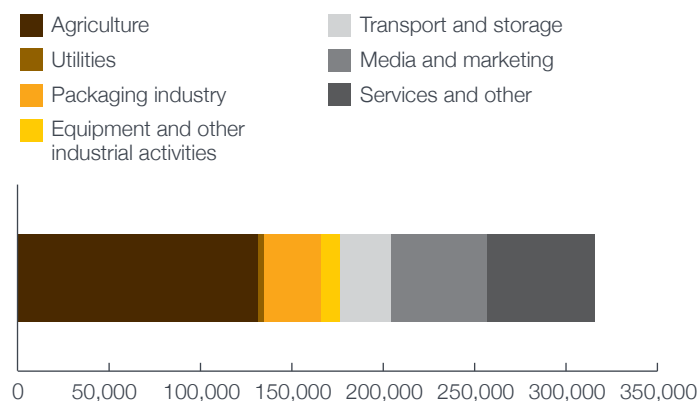
A rise in beer production in Eastern EU has led to an increase in employment

The brewing sector contributes significantly to the generation of work in its supply sectors in the EU. In 2012, nearly 315,800 employees across the EU had a job as a result of spending by the brewing sector. This is a slight decrease (-1.1 percent) compared to 2010 (320,200 employees). Although there was a drop in production in Western EU, and therefore a fall in employment, the rise in beer production in Eastern EU led to an increase in the number of jobs available. This did not fully compensate for the losses in the Western EU Member States.

Approximately 42 percent of indirect employment (131,500 jobs) was traced back to the agricultural sector. Other sectors that benefitted significantly from the brewing sector are the media and marketing sector (17 percent, 52,800 jobs), the packaging industry (10 percent, 31,400 jobs) and the transport sector (9 percent, 27,700 jobs).

03

Figure 3.8 Indirect employment related to beer in the EU (315,800 jobs) in 2012



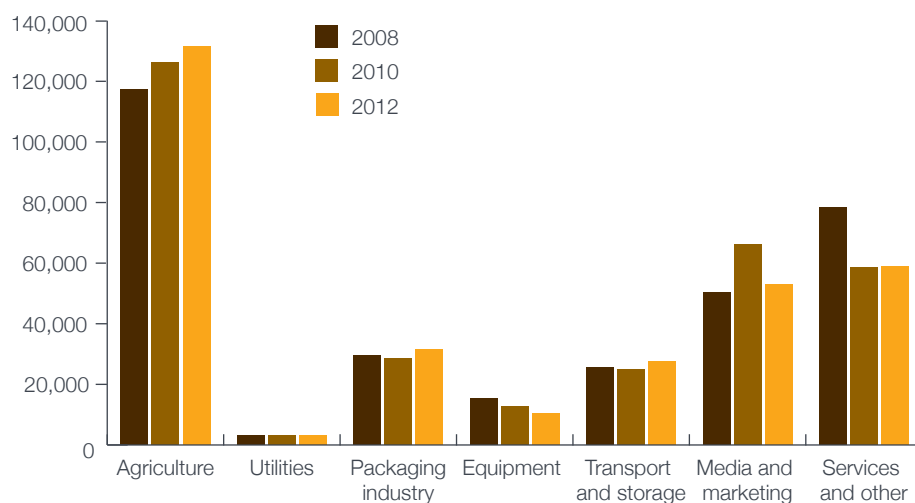
Source: Calculations Regioplan (2013)

As can be seen in figure 3.9, the most substantial increase in indirect employment was in the agricultural sector. The number of jobs generated in this sector by the production of beer increased by 5,400 jobs (4 percent), with Eastern EU farmers benefitting particularly.

Employment in the packaging industry also increased by 2,900 jobs (10 percent) as a result of consumers tending to drink more at home and less in bars, pubs and restaurants. The packaging costs for beer sold in supermarkets are considerably higher than the packaging costs of draught beer per unit volume.

The employment effect in the media and marketing sector however fell by 17 percent (a loss of 13,400 jobs). This is a result of brewing companies choosing to purchase these types of services outside their home countries.

Figure 3.9 Indirect employment in the supply sectors due to beer in the EU (development 2008-2012)



Source: Regioplan calculations (2013)

03

3.3 Benefitting local companies

Breweries are not only important for the national economy as a whole, but also for the local economy. It was estimated that no less than 36 percent of brewers' domestic spending was on goods and services from suppliers in the local area. This amounts to a value of 8.25 billion Euro. Brewers often have a long working partnership with local companies (see case studies in sections 1.1 and 3.1), such as local transport firms, packaging companies and marketing bureaus. Expenditure by brewing companies in each of these industries amounted to approximately 1.7 billion Euro in 2012.

Figure 3.9 Local area expenditure by breweries in 2012

Local area expenditure by breweries (billion Euro)	
Agriculture	1.17
Utilities	0.59
Packaging	1.69
Equipment	0.88
Transport	1.72
Media and marketing	1.66
Services and other	0.55
Total	8.25

Source: Regioplan calculations (2013)

In addition to the benefits for existing local companies, the presence of a brewery plant may also lead to new businesses in the area. For instance, Beverage Can Makers Europe (BCME) indicated that can producers often opt to open new production plants close to breweries, partly as this greatly reduces transport costs.

Brewing companies are important for local economies and communities

The employment generated by brewing companies is of course of particular importance, when their production plants are located in economically weak areas. Approximately 21 percent of the EU breweries are located in a region with a higher rate of unemployment than the EU average. It is important to note that changes in companies' expenditure and their effect on employment are more weighted in such areas. Figure 3.10 shows some examples of economically weak areas that benefit from the presence of a brewing plant. For instance, the Campania region in Italy suffered from 19.3 percent unemployment, but benefits from the work generated by the 23 breweries that are located there.

Figure 3.10 Breweries in some economically weaker regions within the EU in 2012

	Unemployment rate	Number of breweries
Východné Slovensko (Slovakia)	19.0%	7
Campania (Italy)	19.3%	23
Puglia (Italy)	15.7%	21
Lorraine (France)	12.2%	14
Comunidad Valenciana (Spain)	27.7%	15
Severoiztochen (Bulgaria)	18.2%	2

Source: Regioplan calculations (2013)

04

The impact on the hospitality sector

04

The impact on the hospitality sector

A volume of nearly 357 million hectolitres of beer was consumed in the EU in 2012. One-third of this was sold through the hospitality sector. This on-trade consumption is vital to the Member States' economies as it creates more employment than when beer is consumed at home via the retail sector.

Employment in the hospitality sector is especially important as it offers job opportunities to less-skilled and younger people, just entering the labour market. For Member States' governments, on-trade sales are important since they yield higher VAT revenues than beer sales in the retail sector.

However, the economic downturn and the increased excise duties have further enhanced the trend to drink beer at home. This is a negative development, with the employment effect of the brewing sector falling by 6 percent over the last two years, previously dropping by 12 percent in the period 2008-2010. However, the brewing companies and hospitality sector are investing to reverse this trend. Businesses in the United Kingdom and Denmark consider that they have been supported by their respective Government, through the recent lowering of the excise duty rate on beer.

4.1 Popularity of EU beer

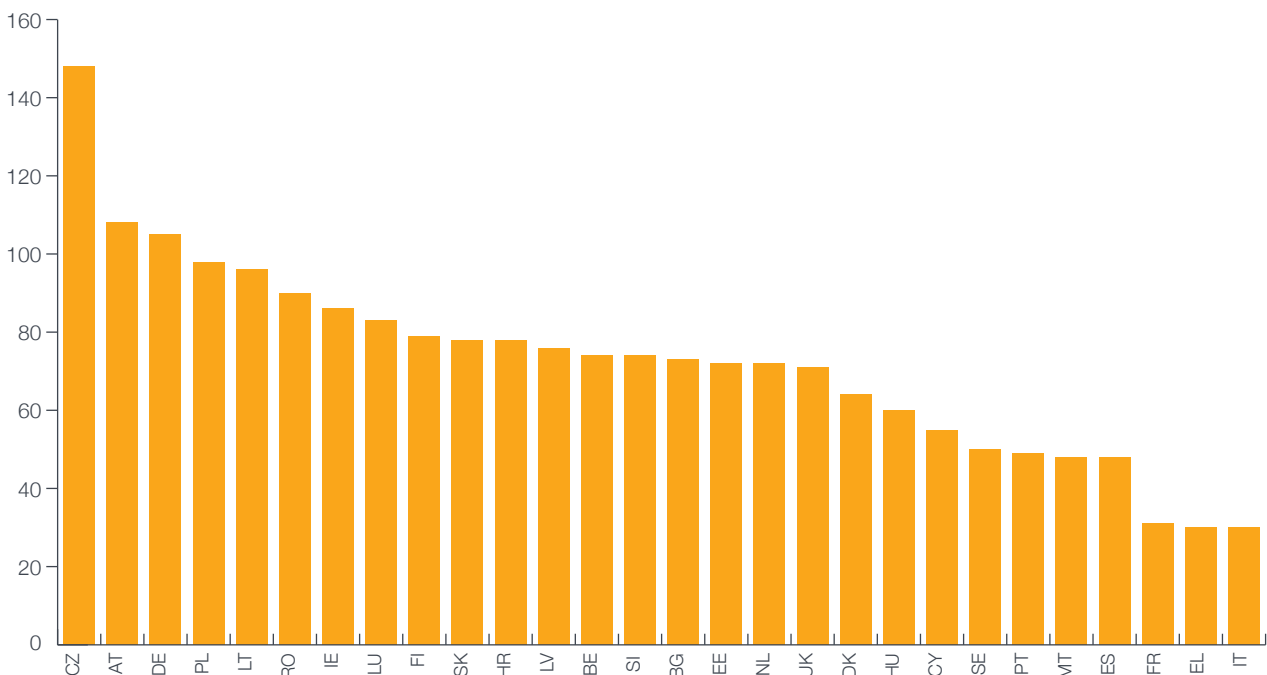
In 2012, 357 million hectolitres of beer were consumed within the EU, an increase of 1 percent compared to 2010.

Average beer consumption varies per Member State

The average EU citizen drinks 70 litres of beer a year, with most beer being consumed in Eastern and Central EU, and the least in Southern EU. Annual consumption varied from an average of 30 litres per capita in Italy to 148 litres per capita in the Czech Republic in 2012.

The average EU citizen consumed 70 litres of beer a year

Figure 4.1 Average beer consumption per capita in litres per EU Member State in 2012



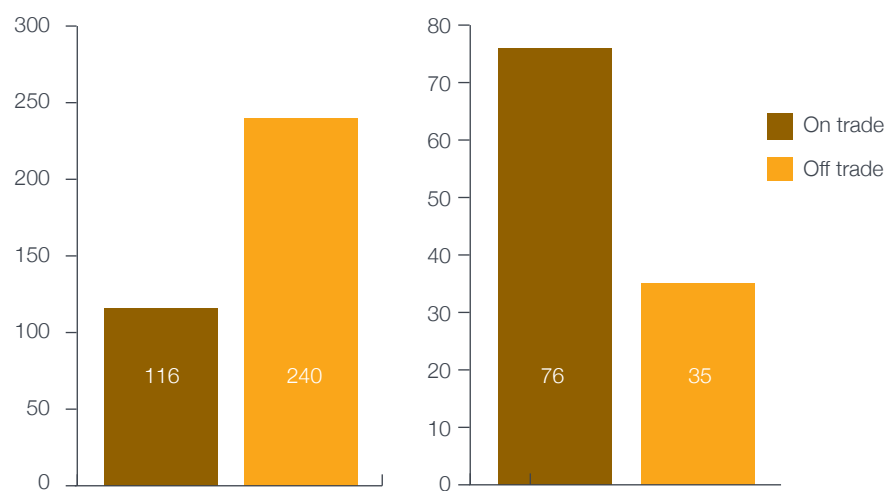
Source: National brewers' associations, complemented by Regioplan calculations (2013)

04

Retail beer sales accounted for 67 percent, while 33 percent was sold through the hospitality sector

67 percent of all beer consumed was sold through retail and 33 percent through the hospitality sector in 2012. Beer sales accounted for a total revenue of 111 billion Euro, with, most notably, revenue in the hospitality sector being higher than in the retail sector. This is due to consumer prices being higher in the former sector, as a result of higher costs incurred on sales through the on-trade channel.

Figure 4.2 Beer consumption in the EU in millions of hectolitres (left) and billions of Euro (right) in 2012



Source: Regioplan calculations (2013)

04

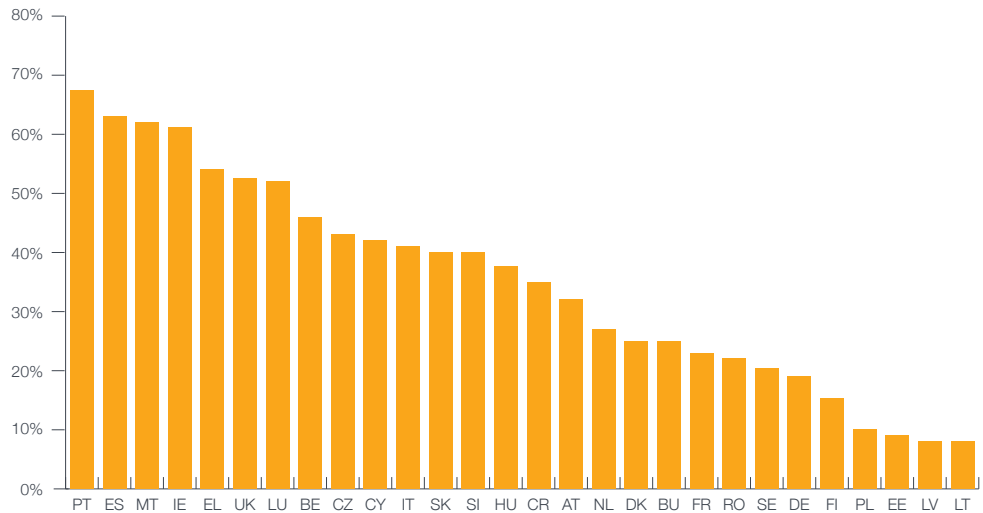
4.2 Beer in the hospitality sector

Almost one-third of the beer consumed in 2012 was sold through the hospitality sector

Nearly 357 million hectolitres of beer were consumed in the 28 EU Member States in 2012. Almost 33 percent, the equivalent of 116 million hectolitres, of this beer was sold through bars, pubs and restaurants. Figure 4.3 clearly shows that there are considerable differences between the EU Member States regarding the extent to which beer is consumed outside the home. In 2012, over 60 percent of the total beer consumption in Greece, Ireland, Malta, Portugal and Spain was consumed in bars, pubs and restaurants. In Member States such as Germany, Finland, Poland, Estonia, Latvia and Lithuania, however, relatively more beer, in fact over 80 percent of the total consumption, was consumed at home.

Over 60 percent of the total beer consumption in Greece, Ireland, Malta, Portugal and Spain was consumed in bars, pubs and restaurants

Figure 4.3 Beer consumption in the on-trade sector, as a percentage of total beer consumption per EU Member State in 2012



Source: Questionnaire among associations, Regioplan (2013)

Total beer consumption in the EU on-trade sector accounted for a revenue of more than 76 billion Euro (including VAT). This equalled approximately 7 percent of total revenue of the hospitality sector in the EU¹.

¹ This percentage was calculated using total on-trade revenue for 2010 as quoted in the EY report 'The Hospitality Sector in Europe', September 2013

04

4.3 The economic importance of hospitality sector beer sales

1 job in the brewing sector generated 11 jobs in the hospitality sector

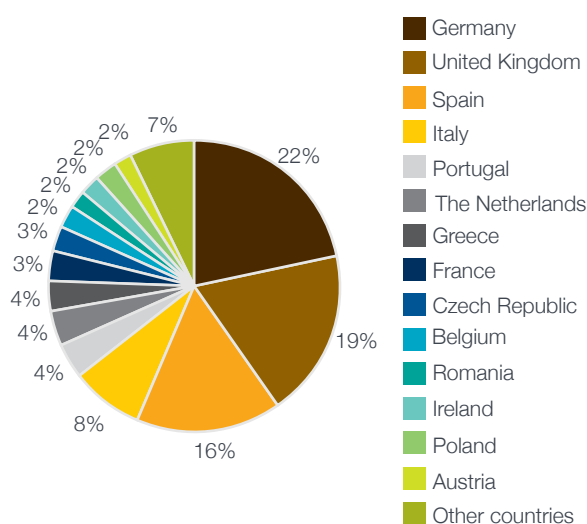
The scale of beer sales in the hospitality sector is significant to the economy. Approximately 1.4 million jobs in the hospitality sector were directly related to beer sales in 2012. In a 2010 study¹, it was estimated that direct employment in the hospitality sector totalled 10.2 million jobs. Assuming the same degree of employment for 2012, 14 percent of employment in the hospitality sector was related to beer. It is worth bearing in mind that bars, pubs and restaurants offer a relatively large number of opportunities for lower-skilled personnel; opportunities that do not generally exist in other industries. Furthermore, many younger workers are employed within the hospitality sector, granting them their first valuable experience on the labour market.

In 2012, 1.4 million jobs in the hospitality sector were directly related to beer sales

From a macroeconomic perspective, there is more benefit to be gained from beer being consumed in a bar, pub or restaurant than being bought in a supermarket and consumed at home. Beer sales through the hospitality sector are more labour intensive than retail sales, and consumers are willing to pay more for their beer in a bar, pub or restaurant than in a supermarket. In other words, beer sales in the on-trade sector create more employment and generate more value added. The total economic impact of beer sales is therefore higher in Member States where a high percentage of beer is consumed in bars, pubs and restaurants than in those where beer is mainly sold through the off-trade sector.

Figure 4.4 shows how the 1.4 million jobs in the EU hospitality sector attributed to beer were distributed across the 28 EU Member States. According to figure 4.4, in Germany, the United Kingdom and Spain, beer clearly created the most jobs in the hospitality sector.

Figure 4.4 Employment attributed to beer in the EU hospitality sector per Member State in 2012



Source: Calculations Regioplan (2013)

¹ EY (2013) The Hospitality Sector in Europe - An assessment of the economic contribution of the hospitality sector across 31 countries

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Beer sold in the on-trade sector results in more VAT revenue per litre than beer sold in the off-trade sector

VAT revenue from beer sales in the hospitality sector totalled 13.0 billion Euro in 2012 versus 6.1 billion in the retail sector, although the on-trade only represents 1/3 of the volume consumed.

The sale of beer in the hospitality sector is not only important in terms of creating employment, but also in terms of government revenue. With the average price of beer being somewhat higher in the on-trade sector than in the off-trade sector, beer consumed in the hospitality sector results in more VAT revenue per litre sold. The VAT revenue from the sale of beer in the hospitality sector totalled 13.0 billion Euro in 2012 for the 28 EU Member States. In comparison, although the sale of beer in the retail sector was much higher, it only generated 6.1 billion in VAT revenue during 2012. The total VAT revenue in the hospitality sector in 2010 amounted to 69.9 billion Euro.¹ If VAT revenue remained the same for 2012, then 19 percent² of VAT revenue of the hospitality sector would have been generated directly by beer.

4.4 More beer being consumed at home

A major trend over the last decade is that consumers are more often drinking beer at home than in bars, pubs and restaurants. This can be attributed partly to the rise in the average age of EU citizens and to the assumption that older people tend to go out less than younger people. However, the trend augmented since 2008 due to the economic decline. The continuing depression and related austerity measures led to a fall in consumers' disposable income in the majority of the EU Member States. This might have been caused by, for instance, unemployment or anxiety about the future.

Whatever the underlying reason may be, the trend towards more home consumption had a negative effect on beer consumption in the hospitality sector, and led to an accelerated shift from on-trade to off-trade sales. The fact that the average consumer price of beer in a bar, pub or restaurant is higher than in the retail sector is also relevant; beer drinkers can save considerably by drinking at home. In the EU as a whole, the percentage of beer enjoyed in a bar, pub or restaurant slumped from 38 percent in 2008 to 35 percent in 2010, to fall further to 33 percent in 2012.

The reduction in purchasing power had a negative effect on on-trade beer consumption

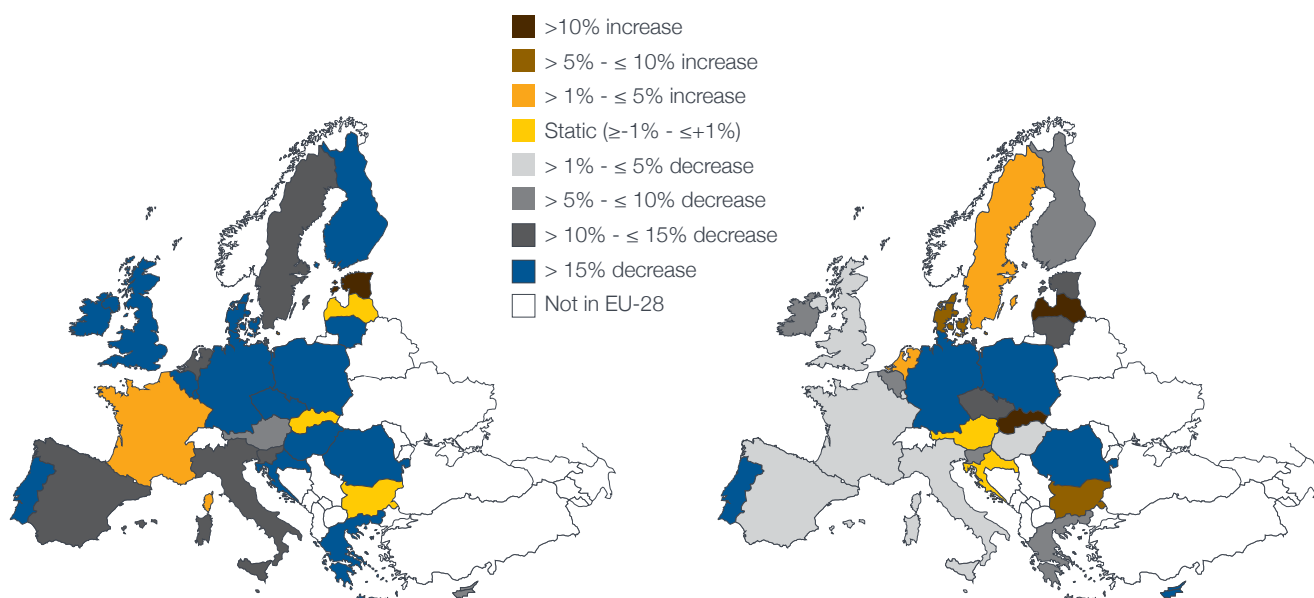
In 19 EU Member States, the volume of beer consumed in the hospitality sector declined by more than 1 percent since 2010. On-trade consumption increased by more than 1 percent in only six EU Member States, namely Denmark, Sweden, Latvia, Slovakia, the Netherlands and Bulgaria, since 2010.

¹ EY (2013) The Hospitality Sector in Europe - An assessment of the economic contribution of the hospitality sector across 31 countries

² This is calculated as follows: $13.0 / 69.9 = 19\%$

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Figure 4.5 Developments in the on-trade consumption of beer (volumes) per EU Member state in 2012 compared to 2008 (left) and 2010 (right)

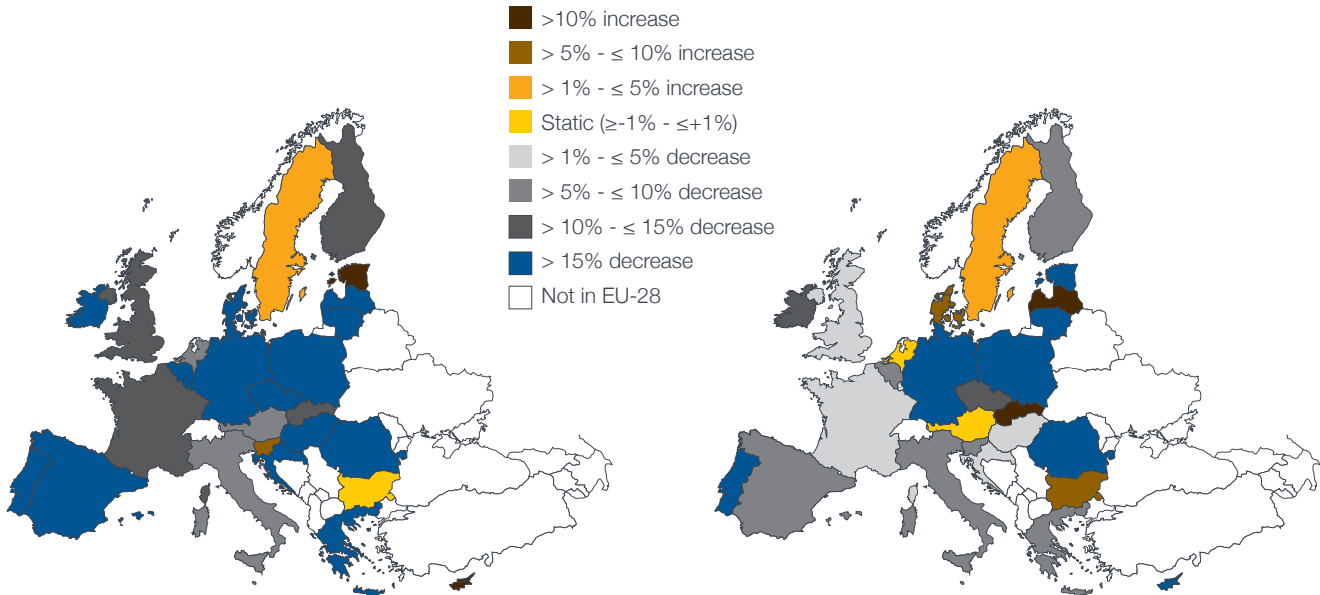


Source: Regioplan calculations (2013)

The shift to off-trade consumption had a detrimental effect on the sector's contribution to the EU economy. The number of jobs directly related to beer sales in the hospitality sector fell by 85,400 between 2010 and 2012, bringing the total number of jobs down from just under 1.5 million to 1.4 million. This drop of some 6 percent is less severe than in previous years; between 2008 and 2010 employment directly related to beer sales in the hospitality sector dropped by 12 percent. Figure 4.6 illustrates how employment in the hospitality sector developed between 2010 and 2012 as a result of the changes in beer consumption. When comparing the data on beer consumption (figure 4.5) and employment (figure 4.6) in the hospitality sector, it is clear that those Member States that suffered a substantial fall in hospitality sales (for instance Germany, Poland and Spain) also suffered the biggest employment losses in the hospitality sector. In Member States where on-trade consumption increased between 2010 and 2012, employment also rose during the concerned period.

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Figure 4.6 Development in employment directly related to beer sales in the hospitality sector per EU Member State in 2012 compared to 2008 (left) and 2010 (right)



Source: Regioplan calculations (2013)

Despite the fall in beer sales in the hospitality sector, there was an increase of around 6 percent in VAT revenues generated by beer sales in this sector compared to 2010. This rise from 12.2 billion to 13.0 billion Euro is mainly the result of the increase of VAT rates in many Member States. In addition, there was also a rise in VAT revenue in those Member States which increased the excise duty rates on beer. As VAT is also levied on the excise duties paid by the consumer, Member States in which both excise duty and VAT rates increased, experienced a multiple rise in VAT revenue.

It is important to note that although government revenues increased as a result of the raising of the VAT rates, EU governments were confronted with the rising costs of unemployment as well. These costs include increased spending on social welfare and lower revenues from personal income taxes and social security contributions. However, as mentioned previously, the model used does not take into account the extra governmental spending on social welfare for people who lost their beer-related jobs.

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4.5 Investing in more beer sales for the hospitality sector

Both the brewing and hospitality sectors are well aware that the trend of drinking at home needs to be reversed. A number of initiatives have been launched to encourage beer drinkers back into the bars, pubs and restaurants.

Specially trained personnel create a better beer experience for the consumer

Consumers can now choose from a wider range of beers on tap

Brewers, for instance, are investing in optimal beer experiences in the hospitality sector; initiatives whereby personnel are specially trained to improve the quality of the product's presentation and to increase the focus on service. There is also a trend towards offering more varieties of beer on draught, providing consumers with a wider choice to suit their particular taste. Whereas in the past consumers were often limited to one particular brand of beer in a bar, pub or restaurant, now there is much more variety. This wider choice means there is more contact with the consumer as they seek advice on which beer to choose. The extended range of available beers usually includes special beers from both the larger and smaller, often local breweries.

The sector can also benefit from an extended and improved range of non-alcoholic beers

In terms of increasing beer revenue, the hospitality sector can also benefit from an extended and improved range of low- and non-alcoholic beers. This enables consumers to drink beer at times when they prefer to restrict their alcohol consumption. The wider range of available special and non-alcoholic beers also provides restaurants with the opportunity to offer a beer list with their meals.

Effects of the massive increase in excise duties in France

According to Les Brasseurs de France, beer prices rose by 14 percent in the course of 2013 after excise duty rates on beer were increased by 160 percent on 1 January. This led to a fall in demand for beer by 15 percent in the hospitality sector. The fall in off-trade sales was "limited" to 4 percent in the first half of 2013.

Clearly, the brewing and hospitality sectors need to invest considerably to promote the sale of beer and subsequently to increase its economic impact. Brewing companies and the hospitality sector in both Denmark and the United Kingdom are currently benefitting from government legislation. Although excise duty rates are still relatively high compared to the other EU Member States, excise duty rates on beer were decreased by the government in both countries. Moreover, despite a rise in the standard VAT rates, beer sales in the hospitality sector in Spain are subject to a reduced VAT rate. The Spanish Government rejected plans to further increase excise duties.

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Beer contributes largely to Spanish hospitality sector

The hospitality sector is of great importance to the Spanish economy. In 2010, the hospitality sector directly employed 1.28 million people¹. Bars, pubs and restaurants account for almost 90 percent (over 200,000) of the hospitality enterprises. In total, Spanish bars, pubs and restaurants employ around one million people, almost 80 percent of the total direct employment in the Spanish hospitality sector. It is important to note that it is particularly the lesser-educated and young people that benefit from the employment generated in the hospitality sector.

The large number of bars, pubs and restaurants in Spain reflects the country's bar culture as well as the significance of its tourism sector. Emilio Gallego, Secretary General of the Spanish national trade association representing the hospitality sector, Federación Española de Hostelería, agrees that the Spanish culture and the large tourism sector explain why Spain is one of the few Member States within the EU where more beer is consumed in the hospitality sector than at home. Because of the high amount of bars and pubs in Spain, it is easy to find a place to drink a beer, and drinking beer is part of the Spanish culture; it is the Mediterranean way of life. Gallego also suggested that the Mediterranean climate has a positive influence, with beer being consumed in the summer months because of its low alcohol content.

“Spain's broader bar culture and large tourism sector may explain why more beer is consumed in Spain in the hospitality sector than at home.”

Mr Gallego also notes the link between food and beer in Spain: “It is important to drink beer with food. It is, for example, a common practice to drink a beer when eating tapas.”

There is political consensus in Spain on the importance of beer in the hospitality sector. Beer and wine are important for the kind of tourism Spain offers. This political consensus is reflected in the fact that alcoholic beverages in Spain are subject to a reduced VAT rate in the hospitality sector. Within the EU, Spain is one of the only Member States to do so. To secure the consumption of beer in the hospitality sector, and therefore its employment, Mr Gallego stresses the importance of retaining the fiscal stability for the hospitality and the brewing sector.

¹ EY (2013) The Hospitality Sector in Europe - An assessment of the economic contribution of the hospitality sector across 31 countries

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Government revenues

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Government revenues

Government revenues increased by 4 percent between 2010 and 2012. This increase was mainly the result of a 9 percent rise in VAT revenue, due to several increases of the VAT rates in various EU Member States. Between 2010 and 2012, excise revenues increased by 9 percent as well, while beer-related income and payroll taxes fell by 1 percent.

Despite the higher total tax revenues related to beer, governments in EU Member States are facing additional costs where higher taxation led to a fall in beer sales and subsequent job losses and unemployment. Although our study does not take into account these costs for governments, it is realistic to assume that at least a part of the higher tax revenues will be offset by the additional costs related to increased unemployment.

In terms of maximising government revenues from beer, it is highly likely that further increasing the tax burden will not be an optimum strategy. This train of thought is now understood in Denmark and the United Kingdom, where the governments recently decreased the excise duty rate on beer to stimulate employment.

5.1 More government revenue from beer

Total government revenue from the production and consumption of beer in the 28 EU Member States increased by 4 percent in 2012 compared to 2010.

Income and payroll taxes

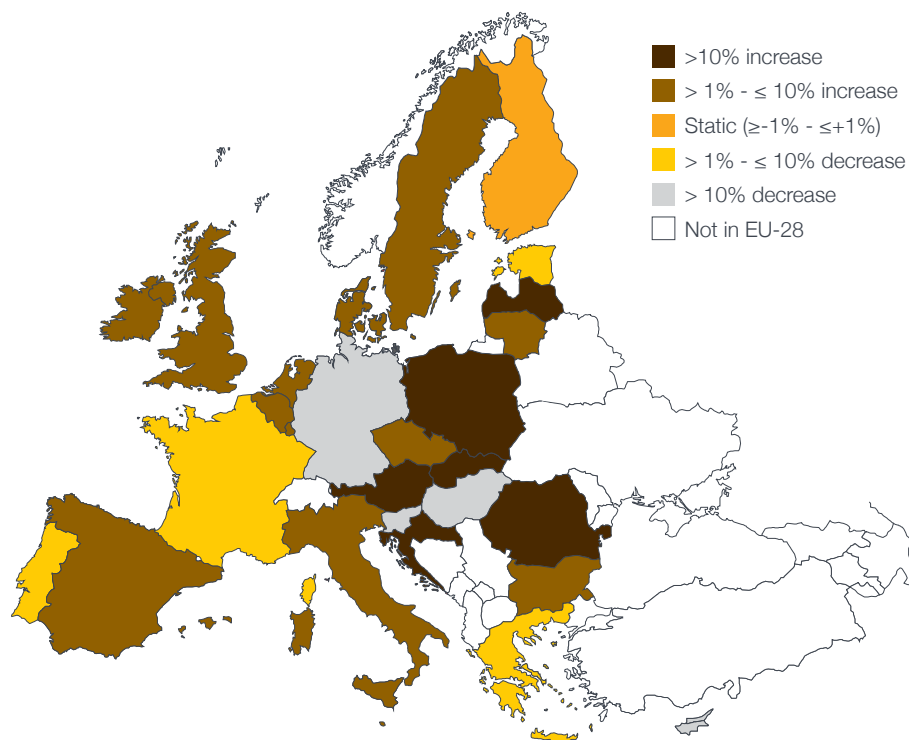
In 2012, 45 percent of all tax revenues due to the production and consumption of beer within the EU came from income, payroll taxes and social security contributions. These taxes and contributions are paid by employers and employees in the brewing sector and the supply sectors, as well as in the retail and hospitality sectors. They were estimated at 23.8 billion Euro for 2012; a slight fall (-1 percent) from 2010, when revenue was 24.2 billion.

Some Member States saw a dramatic fall in revenue from income and payroll taxes

According to Figure 5.1, income and payroll taxes increased by more than 1 percent in 19 Member States, while 8 Member States saw a dramatic fall in revenue (more than 1 percent). These changes are not always caused by changes in employment rates (as shown in figure 2.6, in Chapter 2). Other factors that influence governmental revenues from personal income related taxes and contributions are changes in the applicable rates of direct taxes, social security contributions and payroll taxes and changes in the mean costs of personnel in all sectors.

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Figure 5.1 Development of revenue from income and payroll taxes and social contributions related to beer per EU Member State in 2012 compared to 2010



Source: Regioplan/EY calculations (2013)

VAT revenues

Since 2010, the beer-related VAT revenues of the EU Member States increased from 17.9 to 19.2 billion Euro (+7%)

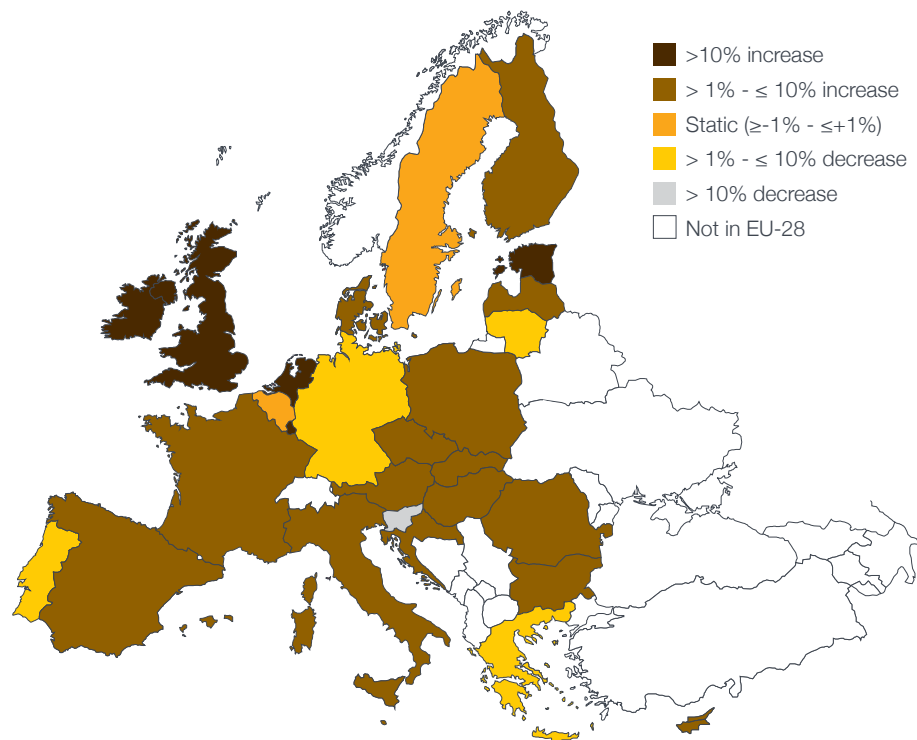
The second most important category of tax revenue due to beer is Value Added Tax (VAT). VAT is levied on the turnover of beer sales in retail and hospitality outlets. Revenue for 2012 within the EU totalled 19.1 billion Euro. Some 68 percent (13.0 billion Euro) was generated by beer consumption in bars, pubs and restaurants, while beer sales in retail outlets accounted for the remaining 32 percent (6.1 billion Euro). This is an increase of 9 percent overall, compared to 2010 when these revenues within the EU totalled 17.6 billion. Interestingly, the proportion of total VAT revenue generated by retail sales rose. The increase can most likely be attributed to the fact that more consumers drank beer at home rather than in a bar, pub or restaurant.

The proportion of total VAT revenue generated by retail sales increased

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Compared to 2010, 21 EU Member States experienced a rise in VAT revenues of more than 1%. In Germany, Greece, Lithuania, Portugal and Slovakia on the other hand, the level actually dropped by more than 1 percent. This was mainly due to a substantial decrease in on-trade consumer spending on beer, resulting in less value-added through the hospitality sector. Although revenues from value-added increased in most Member States, this does not necessarily mean more consumption in the hospitality sector. As shown in the previous chapter, on-trade consumption declined in most of the EU Member States between 2010 and 2012, resulting in lower employment rates.

Figure 5.2 Development of VAT revenues related to beer per EU Member State in 2012 compared to 2010



Source: Regioplan/EY calculations (2013)

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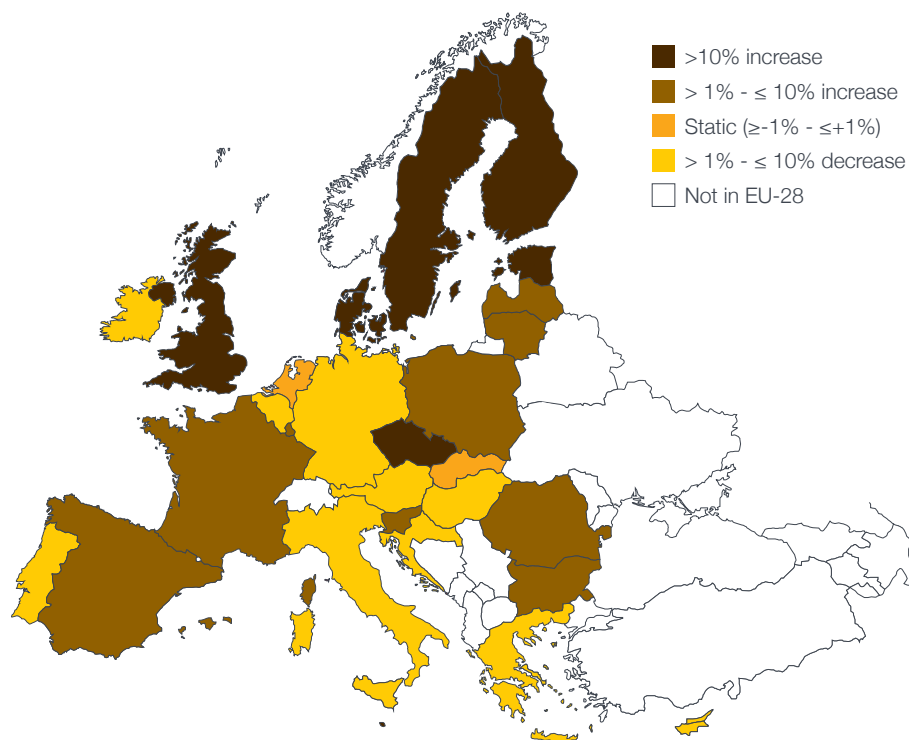
Excise duty revenues

Excise revenue accounted for 19% of total government revenues due to the production and sale of beer in 2012

Excise duties are an important source of revenue for national governments. In 2012, excise duty revenue accounted for 19 percent of the total government revenues due to the production and sale of beer¹. In fact, it was estimated to be approximately 10.0 billion Euro in 2012. This was an increase of 9.2 percent compared to 2010, when it amounted to 9.2 billion Euro for the 27 EU Member States².

As indicated in Figure 5.3, excise duty revenue rose by more than 1 percent in 16 Member States. By contrast, it dropped more than 1 percent in 10 other EU Member States. The drop in excise duty revenue in those countries was far less significant than the rise in excise revenue in the 16 Member States.

Figure 5.3 Development of excise revenues per EU Member State in 2012 compared to 2010



Source: Regioplan/EY calculations (2013)

1 Excise revenues amounted to 10.0 billion euros while the total government revenues due to the production and sales of beer is 53.0 billion euros (calculations Regioplan)

2 Source: European Commission, Excise duty tables, July 2013

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5.2 Unfavourable tax climate

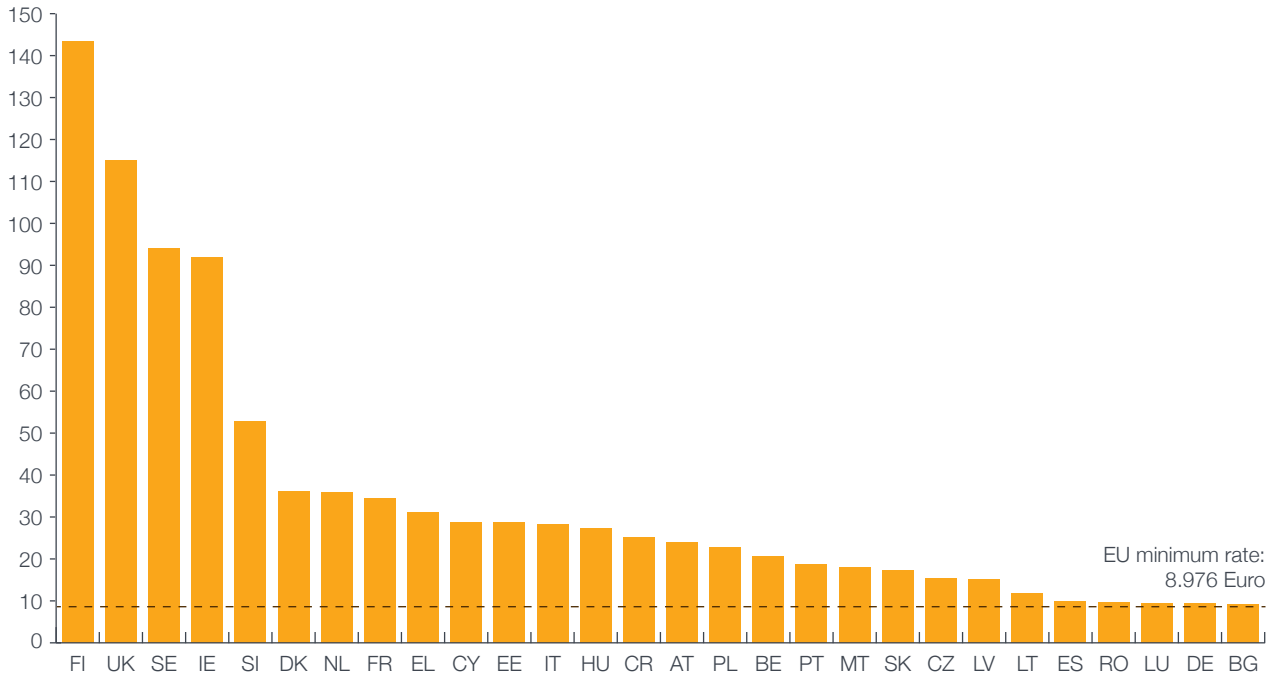
There has long been an unfavourable tax climate for beer

The increase in government revenue from beer between 2010 and 2012 was not a result of the rise in the production and consumption of beer in the EU. The recovery of the beer market was too limited to account for the entire increase in government revenues. The explanation is more likely to be the increased tax burden on beer, particularly the rise in excise duty and VAT rates in many Member States. It is a development that tallies more with the consistently unfavourable tax climate for beer.

Substantial differences in excise duties

The imposition of excise duties on beer has long been one of the largest hurdles faced by the brewing sector. Although there is an EU minimum rate, each Member State is free to set excise duties at the level it chooses. The result is substantial differences between Member States' excise duty rates on beer. Figure 5.4 illustrates these differences on 1 October 2013.

Figure 5.4 Excise duty rates per hectolitre of beer in Euro (12 degrees Plato, 4.8 percent alcohol) on 1 October 2013 in the EU Member States



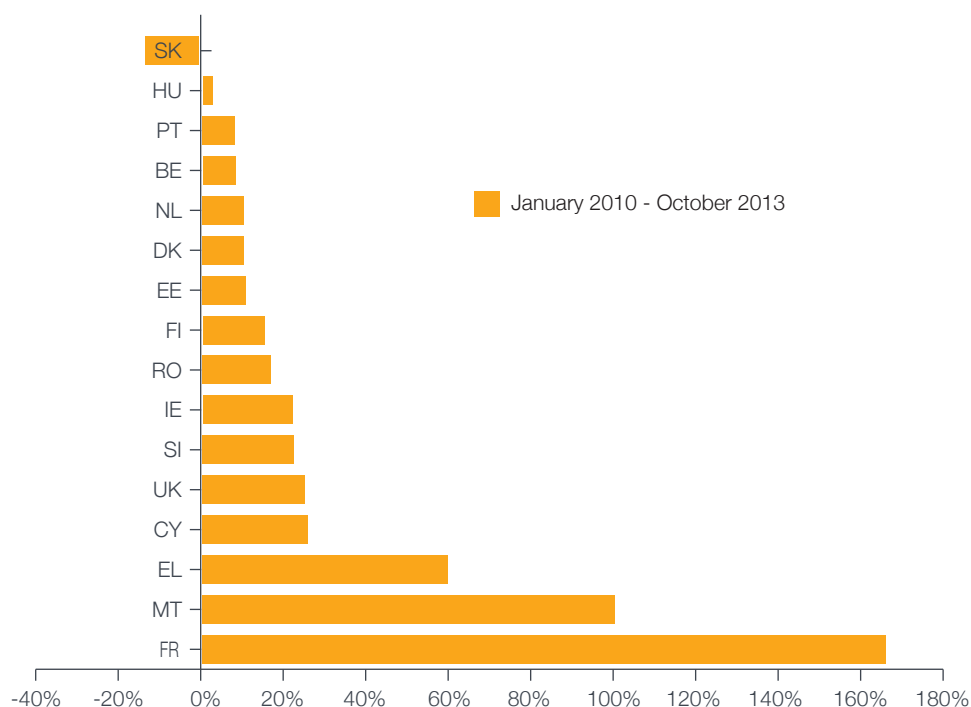
Source: European Commission and The Brewers of Europe (situation in October 2013)

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Rising excise duties

Since 2010, fourteen EU Member States increased the level of excise duties on beer – there was a similar development between 2008 and 2010. The changes are given as a percentage in Figure 5.5 for the period January 2010 to October 2013. The degree to which duties were raised varies considerably with Malta doubling its excise duty rates and France levying an increase of 160 percent. By contrast, the excise duty rate was actually lowered in Slovakia.

Figure 5.5 Development (%) of excise duty rates per hectolitre of beer in local currency 2010-2013 (12 degrees Plato, 4.8 percent alcohol) in EU Member States (where there was a rate change)



Source: European Commission and The Brewers of Europe

The sharp increase of 160 percent set in France as of 1 January 2013 is the most notable. The United Kingdom and Denmark however decreased excise rates in 2013, to stimulate employment. Without this decrease, the difference between 2010 and 2013 would have been significantly larger for both Member States.

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Cross border shopping in the Netherlands

Large differences between excise duties in neighbouring countries stimulate cross border shopping. Border residents regularly travel abroad to purchase cheaper beer and the brewing companies in high tax countries are reporting a rise in cross border shopping. The Netherlands, Denmark and Finland are noticing the biggest increases. Interestingly, however, it appears that high tax countries are tending to raise excise duties even further, making the differences even more evident.

For example, in the Netherlands, the brewing sector was confronted with substantial increases in excise duty rates: 30 percent in 2009, 10 percent in 2013 and a further increase of 5.75 percent is anticipated for 2014. Our research^(*) for the Dutch brewers' association showed that the increase in excise duties for 2013 led to a fall in domestic sales and a strong increase in the beer purchases made by Dutch consumers in both Germany and Belgium. Based on beer sales data for the first quarter of 2013, Regioplan calculated that excise duty revenue will be lower than expected (an increase of only 27 million Euro against the Dutch Government is expected 39 million Euro).

The cross border effect of an increase of excise duties was acknowledged by the Dutch Government. Instead of a planned additional increase of 10 percent of the beer excise duties in 2014, the proposed rise is now set at 5.75 percent. It is doubtful whether this mitigation is enough to stop cross border shopping in Germany and Belgium.

(*) Regioplan (2013) Nog een rondje van de burens: Verdiepend onderzoek gevolgen accijnsverhoging bier.

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The duty escalator in the United Kingdom

In 2008, the United Kingdom introduced an alcohol duty escalator. This meant that beer duty, as well as other alcoholic beverage duties, increased automatically by 2 percent above inflation every year. As a result, excise duties on beer increased by 42 percent since 2008. The escalator was due to stay in place until 2014 - 2015, but was scrapped for beer on 20 March 2013 and actually replaced by a cut in the duty on beer. It however remains in place for all other alcoholic beverages. Beer consumers in the United Kingdom now pay a penny less on the price of a pint of beer.

"I think what convinced me was the economic argument," explains Osborne. "And the fact that it was having an impact on jobs and on pub closures, and that's not what we want our tax system to be doing. These are difficult economic times and there's not enough money to do all the things we'd like to do. So you have to make choices and I thought this was a very straightforward way of helping a very important industry that employs a lot of people."

The fact that it was having a negative impact on jobs and on pub closures convinced George Osborne to put an end to the beer duty escalator

The brewing sector reacted enthusiastically to Osborne's initiative. Brigid Simmonds, CEO of the British Beer and Pub Association, was happy to welcome "the end of a hugely damaging policy." Moreover Michael Turner, Chairman of Fuller's brewery, called it "excellent news for British manufacturing, British farming, British pubs and British jobs."

"Abolishing the duty escalator is a very straightforward way of helping a very important industry that employs a lot of people"

Before Osborne abolished the beer duty escalator, the United Kingdom was losing 26 pubs a week. With beer making up seven of every ten drinks sold in pubs, the hospitality sector was penalised every time the tax on beer increased. The British beer sector and consumers are hugely grateful to George Osborne for the new-found support for Britain's brewers and pubs. The duty cut was a symbolic change in the way the Government was treating the industry.

The Chancellor's decision will lead to an additional 10,000 jobs in the sector by 2015-2016, with over 6,000 jobs already in the first year

The British Beer and Pub Association commissioned Oxford Economics to assess the changes that already occurred during 2013. An important result is the estimated boost to beer sales of approximately 280 million pints of beer per year. Subsequently, this boost is expected to lead to an increase of 10,000 jobs in the British beer sector by 2015-2016, with over 6,000 jobs already in the first year. Moreover, the Chancellor's decision led to renewed confidence in the British brewing sector, which will feed through to investment decisions for next year and beyond.

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The challenge of rising excise duties is exacerbated in the current climate with VAT rates also being raised in several Member States to counter budget deficits. As VAT is a percentage charged over excise duties, this has a multiplier effect.

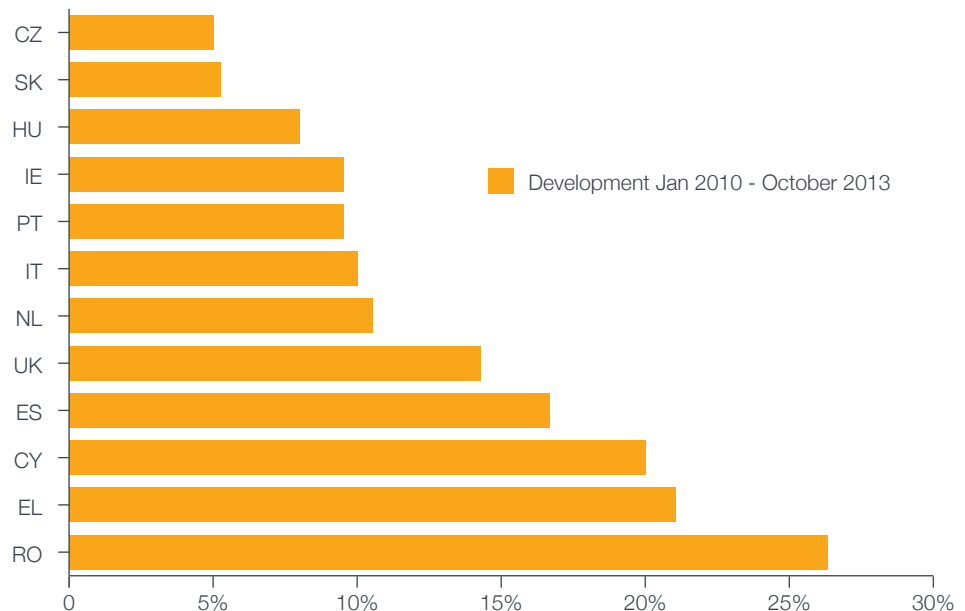
Increase in standard VAT rates

As a result of the ongoing crisis, many EU Member States are suffering from budget deficits. Several EU Member States responded to these deficits by increasing standard VAT rates. As a relatively low alcoholic beverage, beer is subject to the standard VAT rate. Increases thereof have a direct impact on beer pricing in both the retail and the hospitality sector.

Beer is subject to the standard VAT rate, so increases have a direct impact on pricing

Twelve EU Member States increased their standard VAT rates between 2010 and October 2013. Figure 5.7 shows these changes as a percentage. In 2010, Greece raised its standard VAT rate from 19 to 23 percent and Romania from 19 to 24 percent. In 2011, Ireland raised its standard VAT rate from 21 to 23 percent, Italy from 20 to 21 percent, Hungary from 25 to 27 percent, Portugal from 21 to 23 percent, Slovakia from 19 to 20 percent and United Kingdom from 18 to 20 percent. The year after, in 2012, the Czech Republic raised its standard VAT rate from 20 to 21 percent, Cyprus from 15 to 18 percent, the Netherlands from 19 to 21 percent, Spain from 18 to 21 percent and Finland from 23 to 24 percent.

Figure 5.7 Development (%) standard VAT rates in EU Member States between 2010 and 2013 (where there was a rate change)



Source: Regioplan/EY calculations (2013)

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Reduced VAT rates for higher demand

The future of EU VAT is a much debated subject. Discussions cover the introduction of a single VAT rate, and a substantial decrease in the number of products and services covered by the reduced VAT rates. In October 2012, the European Commission published its Consultation Paper on the existing legislation on reduced VAT rates¹. The purpose of this document was to invite stakeholders to share their opinion on the matter. The Commission would then be able to evaluate whether the scope of the VAT reduced rates should be abolished or extended.

Lower prices in the hospitality sector lead to higher customer turnover

EU brewers benefit from a prospering hospitality sector – even when beer itself is not subject to a reduced VAT rate

According to Article 98 of the VAT Directive² in conjunction with points 12 and 12a of Annex iii, EU Member States may apply a reduced VAT rate to services in the hospitality sector, i.e. accommodation provided by hotels and restaurant services. These reduced rates are important for the brewing sector as they enable lower prices in the hospitality sector. This in turn leads to higher turnover. Needless to say, EU brewers benefit from a prospering hospitality sector – even when beer itself is not subject to a reduced VAT rate. Spain is an exception within the EU; it charges a reduced rate on both services and the sale of alcoholic beverages.

Some EU Member States have already implemented a reduced VAT rate on services in the hospitality sector in their national VAT legislation. The Member States that do apply a reduced rate on restaurant services are: Belgium (12 percent), Spain (10 percent), Hungary (10 percent), Ireland (9 percent), Cyprus (8 percent), Italy (10 percent), Luxembourg (3 percent), the Netherlands (6 percent), Poland (8 percent), Finland (14 percent), France (7 percent) and Sweden (12 percent)³.

In Member States that apply a reduced VAT rate, the hospitality sector has performed better and enjoyed faster growth than the overall economy

The hospitality sector generally performed below average compared to the overall economy during the economic crisis (2008-2010)⁴. However, in the majority of Member States that apply a reduced VAT rate on services provided by the hospitality sector, performance of the on-trade was largely better than the overall economy – and it enjoyed faster growth.

One of the benefits of applying a reduced VAT rate in the hospitality sector, is that it leads to job creation. The hospitality sector involves labour-intensive services, so the greater number of consumers, the more employees that are required (see Chapter 4). The implementation of a reduced VAT rate in a labour-intensive sector is seen as an effective instrument to tackle unemployment.

1 *Review of existing legislation on VAT reduced rates* (TAXUD/C1), European Commission, DG TAXUD, 8 October 2012

2 Common system of value added tax (VAT)

3 Source: EU Commission, DG TAXUD, VAT rates applied in the Member States of the European Union, situation as of 1 July 2013, taxud.c.1(2013)2823545 – EN, 15 July 2013

4 The Brewers of Europe, *VAT reduced rates: impact on the hospitality sector, Response to the European Commission consultation: Review of existing legislation on VAT reduced rates* (TAXUD/C1), 4 January 2013

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A reduced VAT rate in a labour-intensive sector is an effective instrument to tackle unemployment

In its Consultation Paper, the European Commission also details the downsides of reduced VAT rates. It describes cross border distortion of activity and how reduced rates may form an obstacle to the proper functioning of the internal market. The Copenhagen Economics¹ report shows that these concerns are actually not relevant in terms of reduced rates in the hospitality sector.

Cross border distortions are barely perceived in the hospitality sector

Cross border distortions will not, or will barely, be perceived in the hospitality sector, as it involves local services that are consumed immediately. As VAT is payable in the Member State where the on-trade establishment is located, there is little risk that a reduced rate will influence the functioning of the internal market.

¹ Source: Copenhagen Economics, VAT in the public sector and exemptions in the public interest, 2013, 10 January 2013.

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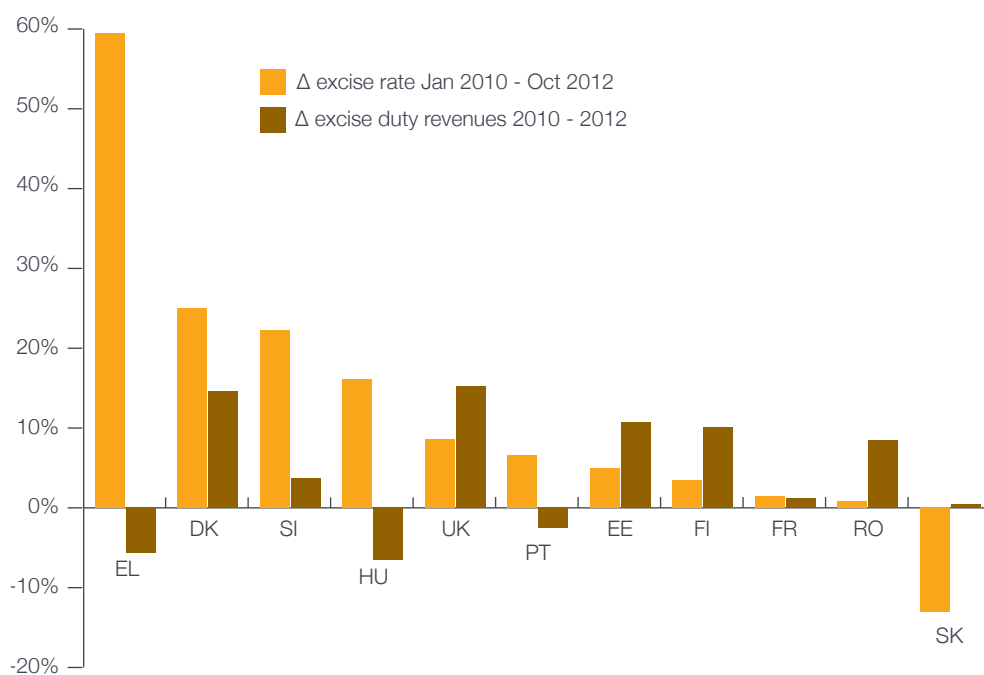
5.3 Optimum tax strategy

Excise revenues grew less than the percentage increase in the excise rate – in some EU Member States it even dropped

Clearly, an increase in excise duty and VAT rates has not optimised government revenue from beer. Although government revenues may have risen between 2010 and 2012, our analysis indicates that in most Member States, excise duty revenues grew less compared to the percentage increase in the excise duty rate. In some Member States, revenues even dropped. This can be explained by the fact that excise duty and VAT rates are passed on in the price of beer to the consumer, leading to higher beer prices and ultimately lower sales. This undoubtedly also explains why the governments in Denmark and the United Kingdom decided to lower excise duties.

Figure 5.8 shows the relationship between excise duty rate changes and the development of excise duty revenues per EU Member State. Statistics for Malta have been omitted. The Maltese government tried to raise excise revenues by increasing the excise duty rate on beer by 100 percent. This turned out to be unsuccessful. Since beer sales decreased, excise duty revenues did not increase at all in proportion to the duty increase.

Figure 5.8 Relationship between excise duty rate changes and the development in excise duty revenues per EU Member State between 2010 and 2012



Source: Regioplan/EY calculations (2013)

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We also analysed the relationship between changes in VAT rates and the development in VAT revenues. However, the results of this analysis were diffuse. This is due to VAT revenues being affected by far more than just the rate of VAT. For example, changes in consumer prices and shifts in consumer preferences have a marked effect on VAT revenues as well. Since VAT is also levied on excise duties, changes in excise duty rates also influence VAT revenues. It is therefore not possible to isolate the direct effect of VAT changes on government revenue, obtained from beer-related VAT revenues.

Ultimately, higher beer prices in the hospitality sector result in a fall in demand for beer in the hospitality sector.

A combination of factors explains why government revenues were not as high as expected. Firstly, higher excise duty and VAT rates are more likely to be passed on to the customer through higher prices in the hospitality sector than through higher prices in the retail sector.¹ As demand for beer is also more price elastic in the hospitality sector, an increase in the tax burden will lead to a greater fall in on-trade consumption compared to the off-trade consumption.² Ultimately, higher beer prices in the hospitality sector result in a fall in demand for beer in the hospitality sector.

A drop in beer sales in the hospitality sector inevitably results in less employment – which also means less income tax revenue

Furthermore, a drop in beer sales in the hospitality sector inevitably results in less employment. In terms of government revenue, this means lower levels of income tax and social security contributions and higher unemployment compensations (see also chapter 4). All in all, government tax revenues are higher when beer is consumed in the on-trade; higher prices and lower employment in the hospitality sector will cause tax revenue to fall.

¹ An explanation for this is that off-trade excise duty rises can be absorbed more easily because there are many more different product streams than in the hospitality sector

² Source: EU Commission, DG TAXUD, VAT rates applied in the Member States of the European Union, situation as of 1 July 2013, taxud.c.1(2013)2823545 – EN, 15 July 2013

05

Low beer excise duties improve growth conditions

During the spring of 2013, the Danish Parliament adopted a comprehensive growth plan to improve the business environment in Denmark. An important goal of this *VækstPlan DK* is to create growth and employment in the retail sector by reducing excise duties on some of the goods that are most sensitive for cross border shopping, such as beer and soft drinks. High excise duties on beer and soft drinks mean numerous Danes travel to the German border to buy these drinks subject to a lower excise duty. In order to put an end to this border trade, Danish political parties, from the right to left wing, agreed to reduce the beer excise duty rate by 15 percent as of 1 July 2013. At the same time, they have abolished the indexation of beer excise duties until 2020.

Mads Rørvig, Chairman of the fiscal affairs committee at the Danish Parliament, explained the decision: "A very large share of beer consumed in Denmark is bought outside Denmark. The aim of the excise duty reductions on beer and soft drinks was to change this pattern and to pull the border trade back to Denmark, stimulating domestic growth and employment. Besides damaging the Danish society, the extensive cross border shopping also has a negative impact on the environment."

"The aim of the excise duty reductions was to stimulate growth and employment within our own country"

MP Nadeem Farooq from the government coalition welcomed the preliminary results of the Growth Plan: "Since the plan came into force, the domestic sales of beer and soft drinks increased considerably. In the first two months, domestic beer sales increased by 5 percent, while sales of soft drinks increased by 11 percent."

Just before the excise duty reductions were announced, Jan Bentzen, Professor at the Department of Economics at the University of Aarhus, estimated that if the excise duties on beer and soft drinks were cut by half, it would cost the State 77 million DKK. In return, an excise duty reduction would create around 1,300 jobs. The economic benefits of these extra jobs would be much larger than the reduction in the State revenues. According to Bentzen, the reason for the relatively low costs for the State budget is that the high excise duties on beer and soft drinks generate cross border shopping with other goods as well.

"An excise duty reduction of 50 percent on both beer and soft drinks would create 1,300 Danish jobs"

Bentzen explains: "When Danes go to the border for cheaper beer and soft drinks, they purchase other goods too. Just before the adoption of the Growth Plan, I calculated that an excise reduction of 50 percent on both beer and soft drinks would create 1,300 Danish jobs, while such a reduction is virtually without costs. The estimates do not include second round effects of a tax relief, but by creating extra activity it will provide more income taxes. Furthermore, the creation of jobs will save spending on public assistance, as the government will pay less unemployment benefits."



Annexes

I Methodology & scope

This study focuses on the economic impact of the brewing sector in the 28 Member States of the EU plus Norway, Switzerland, and Turkey. Although the brewing sector is international in scope and many brewing companies are multinational organizations, the analyses were carried out at country level. Consequently the impact on each national economy could be measured as well.

The basis of the analysis is the year **2012**. If data were not available for this year, those from 2011 were used.

Some of the reported outcomes are estimates based on a **model** constructed by Regioplan Policy Research. For this reason these outcomes are not a direct representation and are dependent on decisions made by Regioplan. 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; and
- induced impact

The **direct impact** is defined 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, such as cereals, hops and water, and many types of packaging materials such as glass and aluminium. They also hire engineers, marketers, communications agencies and many more services. In this study, seven supply sectors are defined as: 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 establishments is the most important source of economic benefits. The economic contribution of both sectors arising from the sale of beer is labelled 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 perceived. Together, these effects and areas result 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 retail sectors 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 sectors resulting from the sale of beer
Government Revenues	Excise duty revenues resulting from the sale of beer as well as income tax and social contributions from employers and employees in the brewing sector	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 sectors resulting from the sale of beer



Calculations

Calculations have been based on original data provided by companies and national associations in response to questionnaires issued by Regioplan. However, where data points are quoted, rounded figures have sometimes been used for ease of presentation. Consequently, there is not always precise correlation between total sums and corresponding data sources and the data as quoted and derived percentages. Nevertheless, this is not a material issue.

II Data sources

The results presented in this report are derived from multiple data sources. In hierarchical order of importance these sources are:

- data obtained from a questionnaire completed by the national brewers' associations representing the brewing sector at national level;
- data collected directly from individual brewing companies through a detailed questionnaire;
- data from Eurostat;
- data from additional public and / or confidential sources, such as The Brewers of Europe, the European Commission and national statistical institutes;
- data from trade organisations representing the brewing sector's supply sectors;
- data used in the 2013 hospitality report: *The Hospitality Sector in Europe*; and
- data used in the 2011 beer report: *The Contribution made by Beer to the European economy*.

National brewers' associations

The national brewers' associations or federations were a major source of valuable data and information. The questionnaire to these organisations covered key data of the brewing sector within their local market, economic indicators of the distribution channels and the most important developments and threats in the beer sector. We received information on all of the 31 national beer markets.

In order to verify our results, Regioplan Policy Research sent all 31 associations a draft version of the respective country chapter. We used their comments and suggestions to improve our calculations and analysis of the data.

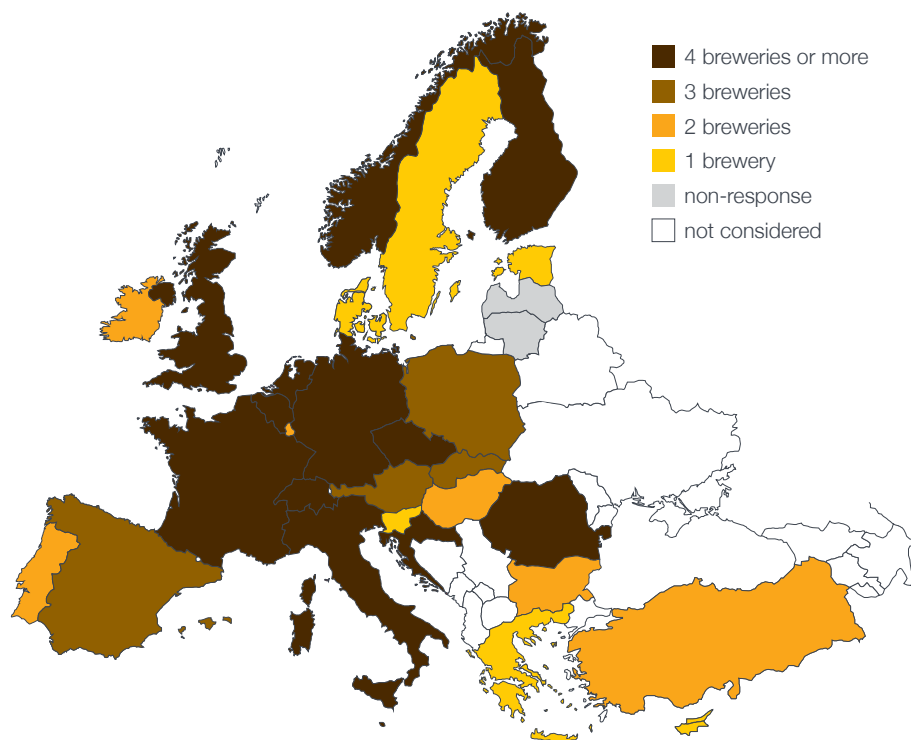
Brewing companies

The brewers received a detailed questionnaire on the companies' key data, their activities, expenditures and purchases. The figure below provides an overview of the responses to the questionnaire. Please note that for smaller countries, a response of two or three brewing companies represents a proportionally larger share of the beer production in the respective country.

Both the Estonian and Latvian brewers' associations are not members of The Brewers of Europe.



Figure annex II.2: Questionnaires returned by brewing companies per country



Eurostat

With specific data on the brewing sector collected through questionnaires completed by national brewers' associations and brewing companies, more general economic data such as macroeconomic indicators and most statistics on exports and imports were obtained from Eurostat.

Although Croatia was not a member of the EU before 1 July 2013, trade with Croatia was considered intra-EU for the entire period.

The European Commission

Excise duty rates and government revenues from alcoholic beverages (i.e. beer, wine and spirits) as published by the European Commission have been used for the analysis.

The Brewers of Europe

In addition to the information from the questionnaires, we used statistics provided by The Brewers of Europe. These statistics covered general information on the brewing sector in European countries, including production, consumption and direct employment.

Trade organisations for supply sectors

Euomalt (malt), Verband Deutscher Hopfenpflanzerverband e.V. (hops), FEVE (glass) and BCME (cans) provided statistics on the impact of the European brewing sector for their sectors.

Beer Study 2011 edition

Data from the 2011 study were used to indicate trends over the period 2008-2012.

III Modeling decisions

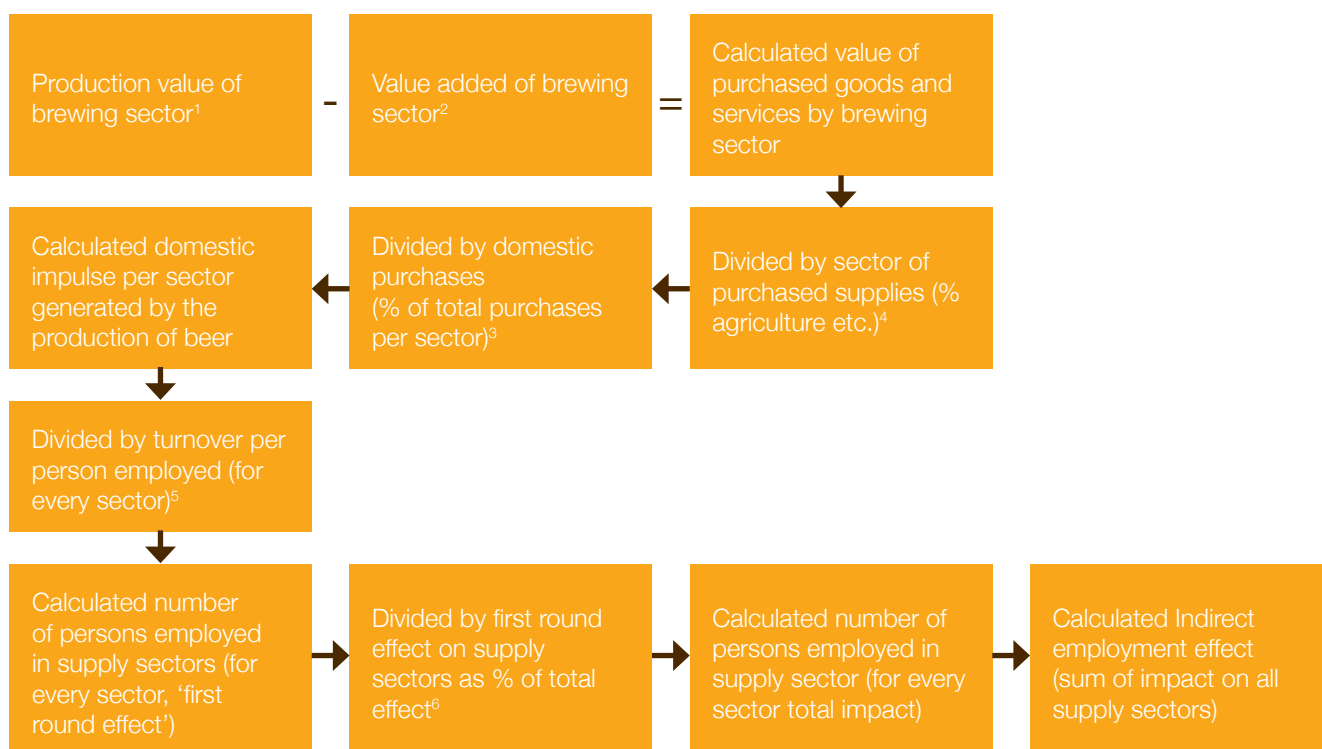
Some of the reported outcomes concerning the economic impact of the brewing sector are based on estimates, derived from a model constructed by Regioplan Policy Research. We illustrate here how the variables and estimates were calculated, focusing on:

- Indirect and induced employment effects;
- Value-added due to the production and sale of beer; and
- Government revenues due to the production and sale of beer

Measuring the indirect and induced employment effects

The indirect employment effect is the employment generated in the supply sectors due to the production and sale of beer. See figure annex III.1 (below) for an explanation on how we calculated the indirect employment effect of the brewing sector.

Figure annex III.1. Model for measuring indirect employment effect



1 Source: Eurostat and Questionnaires among brewing companies

2 Source: Eurostat and Questionnaires among brewing companies

3 Source: Questionnaires among brewing companies

4 Source: Questionnaires among brewing companies

5 Source: Eurostat, indexed data from Beer study 2009 edition and national statistical institutes

6 Source: Based on macroeconomic input output tables, we estimate that the first round indirect employment effect is approximately 65 percent of the total indirect employment effect

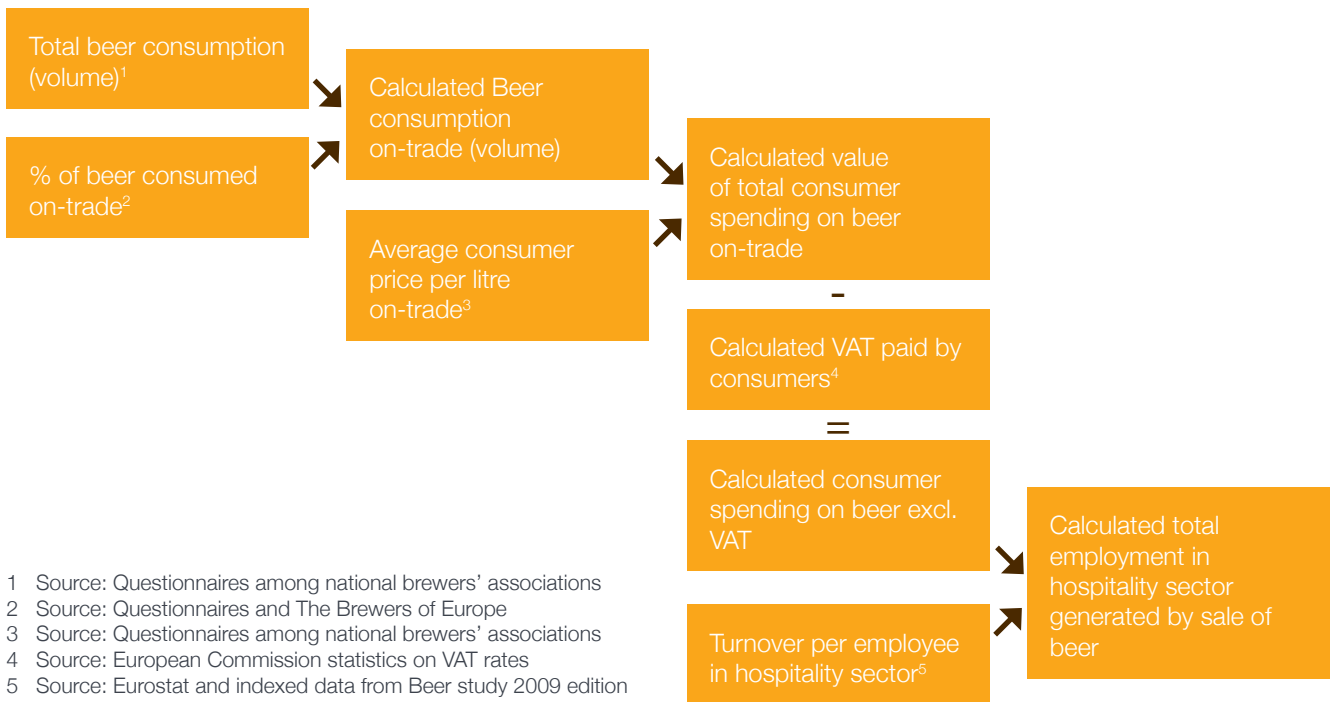


Data on turnover and value-added per employee per sector were obtained from Eurostat. Since economic data on sectors from Eurostat is not in all cases very reliable (and tend to vary from year to year) we had to do some additional analysis to be able to make a trend analysis over the respective years. For sector data NACE-codes (2002 rev.1.1, classification of economic activities by the EU or equivalents by the national statistical institutes) were used. These codes are:

- Agriculture (code A agriculture, forestry and fishing);
- Packaging industry and equipment (D manufacturing);
- Utilities (E electricity, gas, and water supply);
- Wholesale and retail¹ (G wholesale and retail trade; repair of motor vehicles and motorcycles);
- Hospitality (H Hotels and restaurants)²;
- 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 model for calculating induced employment, employment due to the sale of beer in the retail and hospitality sectors is as follows:

Figure annex III.2 Model for measuring induced employment effect



1 Source: Questionnaires among national brewers' associations
 2 Source: Questionnaires and The Brewers of Europe
 3 Source: Questionnaires among national brewers' associations
 4 Source: European Commission statistics on VAT rates
 5 Source: Eurostat and indexed data from Beer study 2009 edition

Estimates for the employment impact in the retail sector were calculated in a similar way to the hospitality sector. As stated previously, the reliability of Eurostat figures on the productivity (turnover per employee) in certain sectors varies from year to year. To be able to make a trend analysis over the period 2008-2012, we did some extra analysis on these Eurostat figures and compared these figures with the development of the beer price in the respective country.

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
 2 Official Eurostat denomination: bars and pubs are enclosed in this category

Measuring the total value added generated by the production and sale of beer

The direct value-added in the brewing sector was obtained through the questionnaires completed by brewing companies and through Eurostat.

The value-added in other sectors resulting from the production and sale of beer (indirect and induced value-added) were estimated using the employment effects. It was estimated by multiplying the employment effect by the apparent labour productivity (gross value-added per person employed) in the sector.

Figure annex III.3. Model for measuring the direct, indirect and induced value-added



Measuring the total government revenues due to the production and sale of beer

When it comes to government revenues generated by the brewing industry, our study sheds light on the following three segments:

- excise revenues;
- VAT revenues; and
- income-related revenues such as social contributions

Data on **excise revenues** were acquired from the European Commission.

VAT revenues resulting from the sale of beer were calculated by multiplying the total on-trade and off-trade consumer spending on beer with the VAT tariff in a particular country.

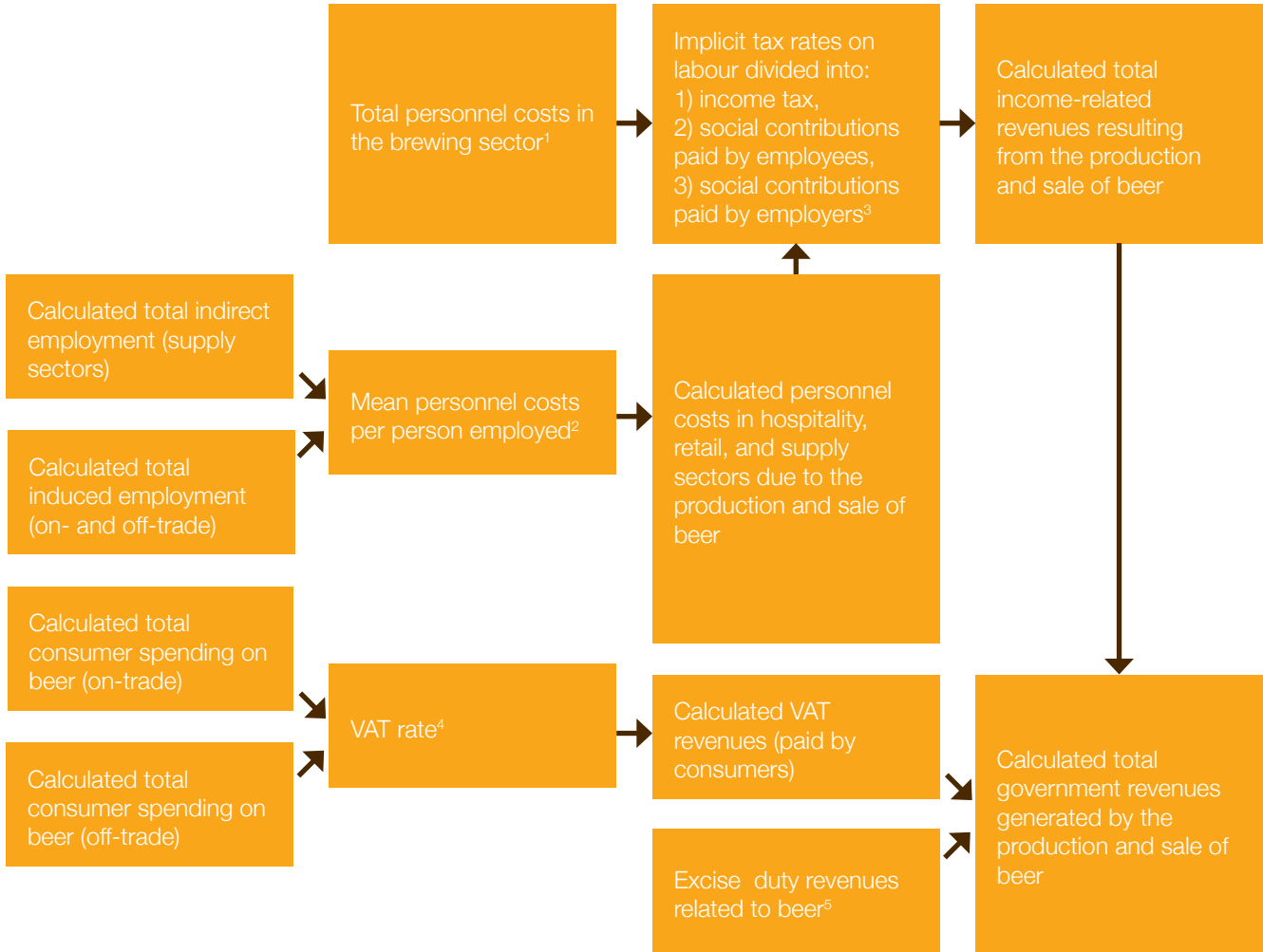
Income-related revenues were estimated by multiplying personnel costs with implicit tax rates. The personnel costs in the brewing sector were obtained from Eurostat and from the questionnaires from brewing companies. Personnel costs in the supply, hospitality and wholesale and retail sectors were calculated by multiplying indirect and induced employment by the mean personnel costs per person employed.

Implicit tax rates on labour were obtained from the European Commission statistics. It is the percentage of personnel costs that consists of taxes and social contributions. It encompasses the mean ratio of three major taxes and contribution: 1) income tax, 2) social contributions paid by employees and 3) social contributions paid by employers. The implicit tax rates made it possible to report separately on income tax revenues and social contributions.



It was not possible to take **other taxes** paid directly or indirectly by the brewing sector (for example corporate taxes or energy taxes) into account.

Figure annex III.4. Model for measuring direct, indirect and induced government revenues



1 Source: Questionnaires among brewing companies
 2 Source: Indexed data from Beer study 2009 edition and questionnaires
 3 Source: EY and European Commission
 4 Source: European Commission
 5 Source: European Commission

IV Exchange rates

Exchange

The average yearly exchange rate was used to convert the local currency to Euro, depending on the concerned year.

Table annex IV.1. Exchange rates used in the report

Currency	2008	2009	2010	2011	2012
British Pound Sterling	0.796	0.891	0.858	0.846	0.811
Bulgarian Lev	1.956	1.956	1.956	1.956	1.956
Croatian Kuna	7.224	7.340	7.289	7.414	7.522
Czech Koruna	24.946	26.435	25.284	24.291	25.149
Danish Krone	7.456	7.446	7.447	7.455	7.444
Estonian Kroon	15.647	15.647	15.647	15.647	15.647
Hungarian Forint	251.510	280.330	275.480	271.500	289.250
Latvian Lats	0.703	0.706	0.709	0.704	0.697
Lithuanian Litas	3.453	3.453	3.453	3.453	3.453
Norwegian Krone	8.224	8.728	8.004	7.821	7.475
Polish Zloty	3.512	4.328	3.995	3.923	4.185
Romanian Leu	3.683	4.240	4.212	4.247	4.459
Swedish Krona	9.615	10.619	9.538	8.799	8.704
Swiss Franc	1.587	1.510	1.380	1.296	1.205
Turkish Lira	1.906	2.163	1.997	2.164	2.314

Source: Eurostat

V Glossary

Alcohol by volume

Indication of alcoholic strength expressed as percentage in the final product

Brewing sector

All the brewing companies located within a certain geographical area.

Brewery

A plant or an establishment for beer production.

Brewing company

A company which produces and / or sells beer, operating one or more breweries. 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 of companies.

Direct employment

Employment generated directly by the brewing sector.

European Union (EU)

The 28 Member States European Union, as at 1 July 2013: Austria, Belgium, Bulgaria, Croatia, 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.

Europe

The 28 Member States of the European Union plus Norway, Switzerland, and Turkey.

Excise duty

Indirect taxes on the consumption or the use of certain products. They are mainly specific taxes, in other words, expressed as a monetary amount per quantity of the product.¹ The most commonly applied excise duties are those on alcoholic beverages, manufactured tobacco products and energy products.

Export – Extra-EU

Extra-EU exports of goods are goods which leave the territory of the European Union for a third country after being placed under the customs procedure for exports (for definitive export) or outward processing (goods for working, further processing) or repair or following inward processing.²

Export – Intra-EU

Intra-EU exports of goods are goods which leave a Member State of the EU for another Member State for definitive export, outward processing or repair or following inward processing.³

GDP

Gross domestic product (GDP) is a basic measure of a country's overall economic health. As an aggregate measure of production, GDP is equal to the sum of the gross value added of all residential units (i.e. industries) engaged in production, plus any taxes, and minus any subsidies, on products not included in the value of their outputs⁴.

GDP in PPS

Gross domestic product in purchasing power standards (GDP in PPS) is the gross domestic product (GDP) converted into purchasing power standards (PPS), an artificial currency unit. The GDP in PPS represents pure volume, after subtracting for price-level differences between countries.

1 General Overview, Excise duties on alcohol, tobacco and energy, Taxation and Customs Union, European Commission

2 Glossary: Export, Eurostat, European Commission

3 Glossary: Export, Eurostat, European Commission

4 Glossary: Gross domestic product (GDP), Eurostat, European Commission



Government revenues

The income a government receives. For the purpose of this study, it includes excise duty revenues on beer, VAT on beer sold in the on-trade and off-trade sector and all 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 employers and payroll taxes.

Hectolitre (hl)

A hectolitre is a metric unit of volume or capacity where one hectolitre equals 100 litres.

Indirect employment

Impact of the brewing sector on supply sectors (e.g. farmers, packaging industry) in terms of employment.

Induced employment

Employment at companies that distribute or sell beer, mainly in the wholesale, retail and hospitality sectors. For the purpose of this study, the induced employment is confined to the retail and hospitality sectors.

Inflation rate

In this report, the inflation rate refers to the rate of inflation based on the consumer price index (CPI), measuring changes in the average price level of a market-based "basket" of goods and services bought by consumers.

Import – Extra-EU

Extra-EU imports of goods are goods which enter the territory of the European Union from a third country and are placed under the customs procedure for free circulation within the EU (as a general rule goods intended for consumption), inward processing or processing under customs control (goods for working, processing or repair) immediately or after bonded warehousing.¹

Import – Intra-EU

Intra-EU imports of goods are goods which enter a Member State of the EU from another Member State for definitive import (as a general rule goods intended for consumption), inward processing or processing under customs control (goods for working, processing or repair) immediately or after bonded warehousing.²

Microbrewery

A brewery with yearly production up to 1,000 hectolitres.

Off-trade sector

Beer sales through wholesale and retail (shops, supermarkets and other outlets).

On-trade sector

Beer sales through (licensed) pubs, clubs, bars, restaurants, etc., also called the hospitality sector.

Personal income tax

A tax levied on the personal income of citizens.

Personnel cost

Total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees, as well as home-workers) in return for work done by the latter during the reference period. Personnel costs are made up of wages, salaries and employers' social security costs. They include taxes and employees' social security contributions retained by the employer, as well as the employer's compulsory and voluntary social contributions.³

PET bottle

A bottle made of polyester (polyethylene terephthalate).

1 Glossary: Import, Eurostat, European Commission

2 Glossary: Import, Eurostat, European Commission; Glossary: Export, Eurostat, European Commission

3 Glossary: Personnel Cost -SBS, Eurostat, European Commission

**Plato degree**

A unit expressing the weight of sugar (in grams) present in 100 gram of beer solution. It measures the fermentable material in the wort, prior to fermentation.

Production value

The actual production of a company, calculated as follows: 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 capitalised production; plus other operating income (excluding subsidies). Income and expenditure classified as financial or extraordinary in company accounts are excluded from production value.

Purchases

The value of all externally sourced goods and services purchased during the accounting period for resale or consumption in the production process, excluding capital goods.

Social security contribution (SSC)

Financial contributions paid by employees and their employers giving access to the social security system and entitlement to certain benefits in situations of unemployment, sickness, disability or old age.

Tonne

One tonne equals 1000 kilograms.

Value added

Value-added is the difference between the market value and the purchasing value of the goods and services needed for production. It describes the enhancement of production on the value of a good. In the production and consumption of beer, breweries create value-added for themselves, their suppliers and for the retail and hospitality sector. Added value pays employees' wages, and rewards lenders and entrepreneurs for their investments.

VAT

Value added tax (VAT) is a general, broadly based consumption tax assessed on the value added to goods and services. VAT is charged as a percentage of price, meaning that the actual tax burden is visible at each stage in the production and distribution chain¹.

¹ Glossary: Value added tax (VAT), Eurostat, European Commission.

VI Country abbreviations

Table annex VII.1. 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	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
EU	Member States of the European Union

VII Acknowledgements

This is the fifth study on the economic impact of the brewing sector in Europe commissioned by The Brewers of Europe. A study of this scale could only be possible with the assistance of the national brewers' associations in the 31 countries under consideration. Many individual brewing companies were also involved by providing additional information. We would like to thank all these national associations and brewing companies for their commitment to this study.

On the client's behalf, the project was professionally managed by The Brewers of Europe Secretariat, in particular Miss Marlies Van de Walle, Economic Affairs Manager. She provided valuable support and boosted the responses to our questionnaires among the associations and individual brewing companies in the 31 European countries.

On a more strategic level, our project was supported by members of the Beer Study project team, the Beer & Economy IMT of The Brewers of Europe. We would like to thank them for their feedback and for sharing their knowledge on the brewing sector with us.

Important contributions were also made by four trade associations representing the supply sectors to the brewing sector, namely Euromalt (malt), Verband Deutscher Hopfenpflanzerverband e.V. (hops), FEVE (glass) and BCME (cans), by providing valuable statistics.

The study was conducted by a dedicated team of economic researchers from Regioplan Policy Research (see title page of this report). They have done a great job. Mr. Walter de Wit, partner of Ernst & Young Belastingadviseurs LLP in the Netherlands, was our project advisor on tax matters.

Amsterdam, November 2013

Bram Berkhout
Project manager
Regioplan Policy Research
bram.berkhout@regioplan.nl

VIII Contact information

About Regioplan Policy Research

Regioplan Policy Research has been active in the Netherlands since 1983 as a policy research agency specialising in social and economic research. Our expertise covers a broad range of subjects, and we offer 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. One of Regioplan's large international clients is the European Commission and its various Directorates General. Regioplan was a subsidiary of EY until 1 July 2008.

For more information and for new requests for proposals please consult our English pages on www.regioplan.nl

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About The Brewers of Europe

The Brewers of Europe, founded in 1958 and based in Brussels, is the voice of the European brewing sector to the EU institutions and international organisations. Current members are the national brewers' associations from 26 EU Member States, plus Norway, Switzerland and Turkey.

For more information see: www.brewersofeurope.org



For more information about this study, please contact us.

The Brewers of Europe

23-25 Rue Caroly
B - 1050 Brussels
Belgium

Phone: (32) 2 - 551 18 10
Fax: (32) 2 - 660 94 02
Web: www.brewersofeurope.org

Secretary-General: Pierre-Olivier Bergeron
Email: info@brewersofeurope.org

Regioplan Policy Research

Nieuwezijds Voorburgwal 35
1012 RD Amsterdam
The Netherlands

Phone: (31) 20 - 5315 315
Fax: (31) 20 - 6265 199
Web: www.regioplan.nl

Project manager / manager Economics department: Bram Berkhout
Email: bram.berkhout@regioplan.nl

Ernst & Young Belastingadviseurs LLP

1083 HP Amsterdam
The Netherlands

Phone: (31) 88 - 407 1390
Fax: (31) 88 - 407 0975
Web: www.ey.com

Partner | Indirect Tax - Customs & International Trade: Walter de Wit
Email: walter.de.wit@nl.ey.com

The Brewers of Europe

Rue Caroly 23 - 25
1050 Brussels - Belgium

T + 32 (0)2 551 18 10
F + 32 (0)2 660 94 02

www.brewersofeurope.org
info@brewersofeurope.org

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