

**Study analysing possible changes in the minimum  
rates and structures of excise duties on alcoholic  
beverages**

**Final Report to  
EC DG Taxation and Customs Union**

**Prepared by  
London Economics**



**May 2010**

---

# Contents

Page

<b>Glossary</b>	<b>v</b>
<b>1 Introduction</b>	<b>9</b>
1.1 Definitions and references used in the study	9
1.2 Data sources used	11
1.3 Structure of the report	12
<b>2 The European alcohol market</b>	<b>13</b>
<b>3 The current tax regime</b>	<b>25</b>
3.1 Alcohol duties in different Member States	26
3.2 The structure of alcoholic beverages	30
3.3 Duty receipts	32
3.4 The alcohol content	35
3.5 The burden of duties on products	36
<b>4 Problems with the effective functioning of the internal market</b>	<b>45</b>
4.1 Lack of transparency of the system	45
4.2 Lack of harmonisation in duty rates	46
4.3 Lack of harmonisation in classification	48
4.4 Large differences between neighbouring Member States	51
4.5 Cross-border trade	54
4.6 Influence on consumer behaviour	57
4.7 Duties being used as a trading barrier	62
<b>5 Problems with classification of beverages</b>	<b>68</b>
5.1 Problems of the system	68
5.2 Approaches used to categorise products	74
5.3 Solutions	76

---

<b>Contents</b>	<i>Page</i>
<b>6 Analysis of policy options</b>	<b>78</b>
6.1 Proposed options	78
6.2 The model	79
6.3 Modelling of options	83
6.4 Results	86
6.5 Evaluation approach	117
6.6 Assessment of options	119
6.7 Summary and outcomes	125
<b>7 Conclusions</b>	<b>128</b>
7.1 Identified problems	128
7.2 Options for further consideration	131
<b>Annex 1 The data collection process</b>	<b>141</b>
<b>Annex 2 Data validation</b>	<b>148</b>
<b>Annex 3 EARs: problems in the classification</b>	<b>162</b>
<b>Annex 4 Information provided by TARs</b>	<b>171</b>
<b>Annex 5 Country reporting: AT</b>	<b>179</b>
<b>Annex 6 Country reporting: BE</b>	<b>183</b>
<b>Annex 7 Country reporting: BG</b>	<b>187</b>
<b>Annex 8 Country reporting: CY</b>	<b>191</b>
<b>Annex 9 Country reporting: CZ</b>	<b>195</b>
<b>Annex 10 Country reporting: DE</b>	<b>199</b>

---

---

<b>Contents</b>	<i>Page</i>
<b>Annex 11 Country reporting: DK</b>	<b>203</b>
<b>Annex 12 Country reporting: EE</b>	<b>207</b>
<b>Annex 13 Country reporting: EL</b>	<b>211</b>
<b>Annex 14 Country reporting: ES</b>	<b>215</b>
<b>Annex 15 Country reporting: FI</b>	<b>219</b>
<b>Annex 16 Country reporting: FR</b>	<b>223</b>
<b>Annex 17 Country reporting: HU</b>	<b>227</b>
<b>Annex 18 Country reporting: IE</b>	<b>231</b>
<b>Annex 19 Country reporting: IT</b>	<b>235</b>
<b>Annex 20 Country reporting: LT</b>	<b>239</b>
<b>Annex 21 Country reporting: LV</b>	<b>243</b>
<b>Annex 22 Country reporting: MT</b>	<b>247</b>
<b>Annex 23 Country reporting: NL</b>	<b>251</b>
<b>Annex 24 Country reporting: PL</b>	<b>255</b>
<b>Annex 25 Country reporting: PT</b>	<b>259</b>
<b>Annex 26 Country reporting: RO</b>	<b>263</b>

---

## Contents

*Page*

<b>Annex 27</b>	<b>Country reporting: SE</b>	<b>267</b>
<b>Annex 28</b>	<b>Country reporting: SI</b>	<b>271</b>
<b>Annex 29</b>	<b>Country reporting: SK</b>	<b>275</b>
<b>Annex 30</b>	<b>Country reporting: UK</b>	<b>279</b>

## Glossary

### *Terminology abbreviations*

Abv: alcohol by volume.

Alcopops: designer drinks (also known as pre-mixed drinks, or ready-to-drink).

BEER: Beer category as defined in Directive 92/83/EEC for taxation purposes.

CN 2203: Combined Nomenclature for alcohol taxation purposes. Corresponds to "Beer made from malt".

CN 2204: Combined Nomenclature for alcohol taxation purposes. Corresponds to "Wine of fresh grapes, including fortified wines; grape must other than that of heading No 2009". Includes 2204 10 Sparkling wine; 2204 21 Other wine; grape must with fermentation prevented or arrested by the addition of alcohol; 2204 29 Other; 2204 30 Other grape must.

CN 2205: Combined Nomenclature for alcohol taxation purposes. Corresponds to "Vermouth and other wine of fresh grapes flavoured with plants or aromatic substances". Includes 2205 90 Other.

CN 2206: Combined Nomenclature for alcohol taxation purposes. Corresponds to "Other fermented beverages (for example, cider, perry, mead); mixtures of fermented beverages and mixtures of fermented beverages and non-alcoholic beverages, not elsewhere specified or included".

CN 2207: Combined Nomenclature for alcohol taxation purposes. Corresponds to "Undenatured ethyl alcohol of an alcoholic strength by volume of 80% vol or higher; ethyl alcohol and other spirits, denatured, of any strength". Includes 2207 10 Undenatured ethyl alcohol of an alcoholic strength by volume of 80% vol or higher; 2207 20 Ethyl alcohol and other spirits, denatured, of any strength".

CN 2208: Combined Nomenclature for alcohol taxation purposes. Corresponds to "Undenatured ethyl alcohol of an alcoholic strength by volume of less than 80% vol; spirits, liqueurs and other spirituous beverages; compound alcoholic preparations of a kind used for the manufacture of beverages. Includes 2208 10 Compound alcoholic preparations of a kind used for the manufacture of beverages; 2208 20 Spirits obtained by distilling grape wine or grape marc; 2208 30

Whiskies; 2208 40 Rum and taffia; 2208 50 Gin and Geneva; 2208 90 Other (Arrack, vodka, etc)".

CN: Combined Nomenclature: classification system prescribed by the European Union for international trade statistics. The CN is an 8-digit classification consisting of a further specification of the 6-digit HS.

EC categories: definition of the five categories described in Directive 92/83/EEC for taxation purposes: BEER; OTHER FERMENTED BEVERAGES; WINE; INTERMEDIATE PRODUCTS; and ETHYL ALCOHOL.

ETHYL ALCOHOL: Ethyl alcohol category as defined in Directive 92/83/EEC for taxation purposes.

EARs: Excise administration responses to London Economics' questionnaire.

ECDs: EC Directives (92/83/EEC and 92/84/EEC) on alcohol and alcoholic beverages.

EDTs: Excise Duty Tables: Duties (EC publication).

ETRs: Excise Duty Tables: Tax receipts (EC publication).

FAO: Fortified wine, aperitifs, and other wines.

HS: Harmonized System: international system for classifying traded goods.

INTERMEDIATE PRODUCTS: Intermediate products category as defined in Directive 92/83/EEC for taxation purposes.

IWSR: International Wine and Spirit Record.

Off-trade market: refers to sales for consumption off or away from the premises (i.e. supermarkets, retail stores, ...).

On-trade market: refers to sales for consumption on the premises (i.e. bars, restaurants, hotels, ...).

OTHER FERMENTED BEVERAGES: Fermented beverages other than wine and beer category as defined in Directive 92/83/EEC for taxation purposes.

Plato: hydrometer scale to measure density of beer in terms of percentage of extract by weight (1 degree Plato is equivalent to 0.4% alcohol).

RTDs: Ready-to-drink (also known as pre-mixed drinks, designer drinks or alcopops).

TARs: Trade associations responses to London Economics' questionnaire

TIEs: Taxes in Europe (EC database).

WINE: Wine category as defined in Directive 92/83/EEC for taxation purposes.

***Member State abbreviations***

BE	Belgium	LU	Luxembourg
BG	Bulgaria	HU	Hungary
CZ	Czech Republic	MT	Malta
DK	Denmark	NL	Netherlands
DE	Germany	AT	Austria
EE	Estonia	PL	Poland
EL	Greece	PT	Portugal
ES	Spain	RO	Romania
FR	France	SI	Slovenia
IE	Ireland	SK	Slovakia
IT	Italy	FI	Finland
CY	Cyprus	SE	Sweden
LV	Latvia	UK	United Kingdom
LT	Lithuania		





# 1 Introduction

In 2004, the Commission produced a report which recommended that the minimum rates of duty laid down in 1992 should be revalorised to take account of the inflation that has occurred since then (COM(2004) 223 final). The report also noted problems in the classification and categorisation of alcoholic products for excise purposes such that, in some cases, the same product was classified under different categories (and hence subject to different taxation) in different Member States.

The overarching objective of the present study is to examine whether the current structures of alcohol taxation and the minimum rates laid down for the various categories are adequately supporting the effective functioning of the internal market, or whether distortions are caused and adaptations would be appropriate.

The study has two main specific aims, namely to provide an:

- Assessment of the current burdens of taxation and economic relationships between the different types of alcoholic beverages in different Member States;
- Assessment of the economic impact on the particular beverages and on the different Member States of potential changes to the alcohol directives compared to the current *status quo*.

## 1.1 Definitions and references used in the study

The present report uses specific terminology and definitions for key terms throughout the study. This is especially relevant when referring to the names by which the beverages are commonly known in the market, when referring to the precise beverage categories which are subject to different duty arrangements (as specified in the EC Directives), or when using other technical definitions or classifications proposed in this same context.

In fact, one of the findings of this report is that alcohol products are commonly referred to in different ways without being clear on the meaning and delimitation of the terminology used. As will be seen, this can have important consequences, especially because of differences in the way products may be categorised in the market and the way these products are classified for taxation purposes.

To avoid such terminology problems, we propose a definition for each of the key terms used in the study. Such definitions are used consistently throughout the report.

## *Definitions of beverages*

The use of the different definitions is crucial to determine the classification and grouping of the beverages. We have identified at least four different definitions systems used in the alcohol sector.

**Goods nomenclature:** This is the classification normally used for trading purposes. In the EU, goods are classified according to the combined nomenclature (CN) which is based on the Harmonized System (HS). The HS is a classification system used by customs officials around the world to determine the duties, taxes and regulations that apply to products entering their country. The HS is developed and maintained by the World Customs Organization (WCO). Interestingly the HS has been set up as a “closed system” so that it classifies all traded goods (whether or not existing at the time the HS was established).<sup>1</sup>

In the present report, beverages are referred to with their CN heading in the cases where they are defined according to the combined nomenclatures. Hence, beer products classified under “CN 2203: Beer made from malt” are referred to as “CN 2203”.

**EC classification for taxation purposes:** Directive 92/83/EEC categorises the various alcoholic beverages into groups, which we specifically denominate EC categories, and which comprise the following headings: “beer”; “fermented beverages other than wine and beer”; “wine”; “intermediate products”; and “ethyl alcohol”. Throughout the report, we refer to these categories in capital letters: BEER; OTHER FERMENTED BEVERAGES; WINE; INTERMEDIATE PRODUCTS; and ETHYL ALCOHOL.

It is important to note that EC categories and CN headings are not equivalent, as there is no one-to-one relationship between the two classification systems.

**IWSR classification:** In some cases, definitions of beverages provided by market analysts are also used. Data from the International Wine and Spirit Record (IWSR) are provided by different groups and sub-groups of beverages according to a string of characteristics for each beverage. Using IWSR descriptors we have classified beverages into the following groups: “Beer”, “Cider”, “Spirits”, “Wine”, “RTDs” and “Fortified wine, aperitifs, and other wines” (or FAO).

**Generic names:** Names are often used by the public or by the industry to refer to different types of beverages. Throughout the report we use the

---

<sup>1</sup> Explanatory Notes to the CN are considered to be an important aid for interpreting the scope of the various tariff headings but do not have legally binding force. In the EU, the Explanatory Notes were established by Council Regulation (EEC) No 2658/87 on the tariff and statistical nomenclature and on the Common Customs Tariff. The latest version is available from the EU Official Journal C 133 of 30 May 2008.

popular names (beer, wine, ...) when beverages are referred to in a generic way without referring to any particular classification (CN, EC categories or IWSR).

### *Reference to data sources*

The study uses a number of alternative sources of information (consultation with excise administrations, trade associations, etc...). When referring to the different sources a three-letter abbreviation is used<sup>2</sup>.

### *Glossary*

In order to assist the reader, a glossary containing a description of the abbreviations used in the report is provided on page v.

## **1.2 Data sources used**

We have used multiple sources of data to address different parts of the analysis undertaken in the study. Data sources used are the following:

- IWSR: International Wine and Spirit Record;
- EARs: Excise Administration Responses;
- TARs: Trade associations responses;
- ECDs: EC Directives on alcohol and alcoholic beverages;
- EDTs: Excise Duty Tables: Duties;
- ETRs: Excise Duty Tables: Tax receipts;
- TIEs: Taxes in Europe;
- FISCALIS (2005);
- COM(2004) 223 final; and
- Other publications from the trade.

A description of each data source is provided in Annex 1. In all cases, data from different sources have been cross-checked and validated. In a few

---

<sup>2</sup> IWSR: International Wine and Spirit Record; EARs: Excise Administration Responses; TARs: Trade associations responses; ECDs: EC Directives on alcohol and alcoholic beverages; EDTs: Excise Duty Tables: Duties; ETRs: Excise Duty Tables: Tax receipts; TIEs: Taxes in Europe (see the Glossary for a detailed description).

instances, inconsistencies were found and data were corrected in the most appropriate way as is described in Annex 2.

### **1.3 Structure of the report**

The structure of the report is the following. In Section 2 we describe the European alcohol market. The current situation of the tax regime in the EU27 is analysed in Section 3. The list of problems with the current system in relation to the internal market; and the classification of beverages are described in Section 4 and Section 5. Section 6 simulates the impact of different policy options for change suggested by the Commission, and Section 7 concludes. A description of all the analyses supporting our research is provided in the Annexes.

## 2 The European alcohol market

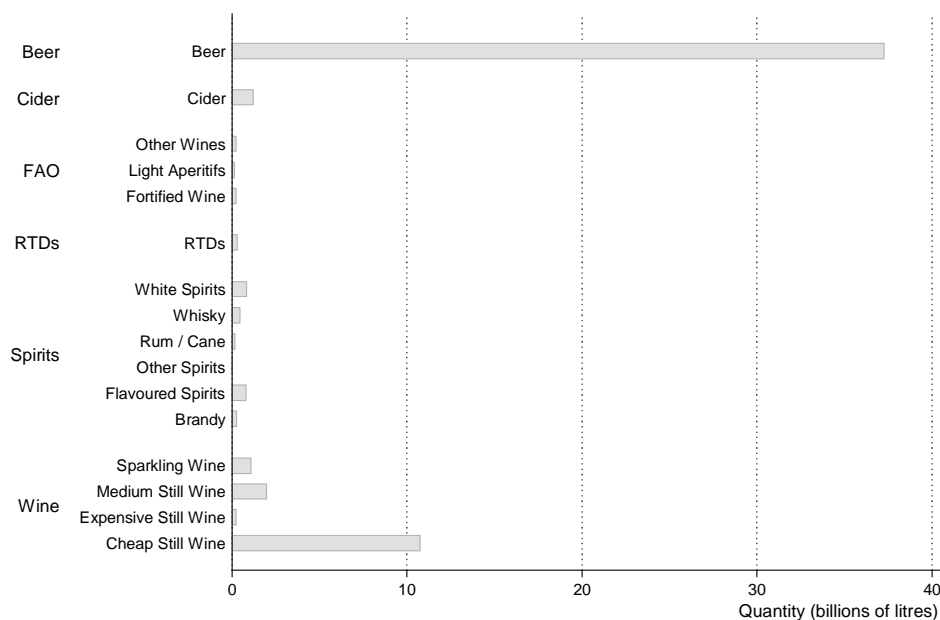
We present below a summary of the market for alcoholic drinks sold in the EU. Data are shown by the different types of beverages provided by different market categories (as defined by IWSR) to illustrate the following:

- Consumption volumes;
- Consumption shares;
- Market trends;
- Price differences;
- Price dispersion;
- Differences in the on- and off-trade markets; and
- Differences in profitability.

### *Consumption volumes*

The volume of alcoholic drinks consumed in the EU was 56 billion litres in 2007. Beer was by far the most consumed alcoholic drink in the EU, with about 37 billion litres consumed in 2007 (66% of the total volume). For comparison, the second most consumed product, wine, accounted for 25% (14.1 billion litres).

**Figure 1: Volume by beverage groups (billions of litres, 2007).**

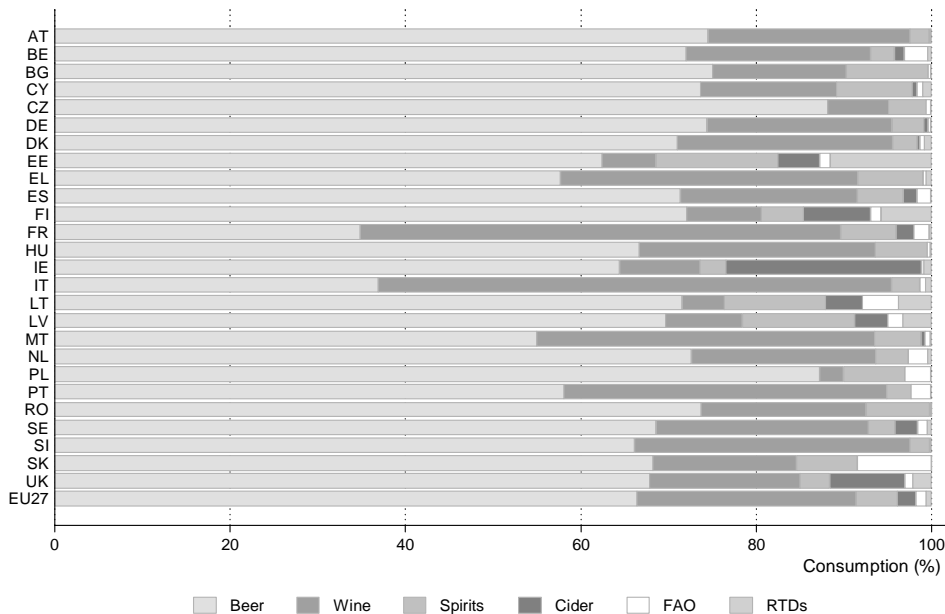


Source: LE analysis of data from this study.

### Consumption shares

Beer is also the most highly consumed alcoholic beverage in the different Member States. It accounts for more than half of the volume of alcoholic products sold except in IT and FR, where Wine takes more than half of the market. In FI, EE, LT and LV the consumption share of spirits is higher compared with other Member States. Also, FI, IE and UK have relatively high consumption shares of Cider compared to other Member States (Figure 2).

**Figure 2: Volume share by beverage groups (2007).**



Source: LE analysis of data from this study.

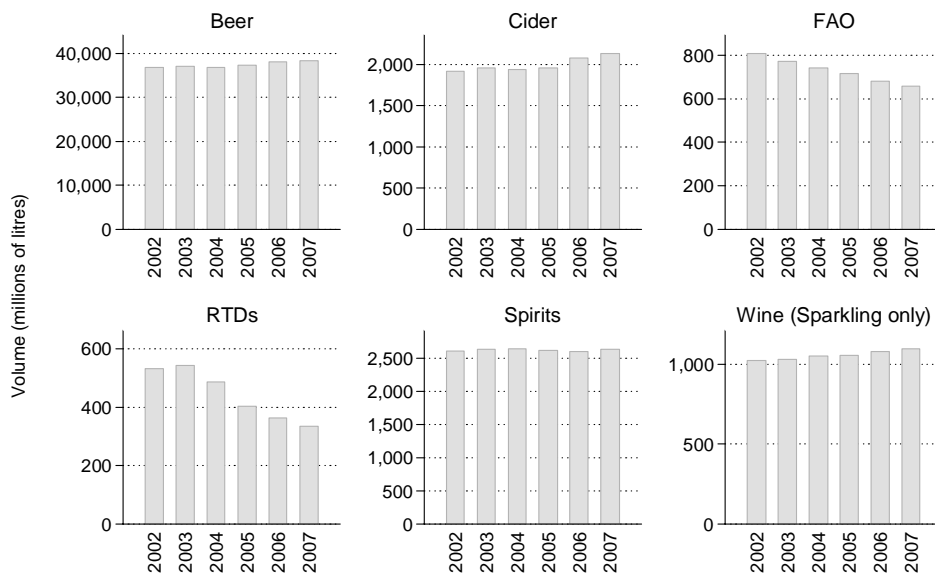
### Market trends

In total, consumption of alcoholic beverages has increased by 3% between 2002 and 2007. These figures exclude Still Wine, for which we do not have the corresponding historical information.

Within product categories, the most striking consumption trend in the past five years has been the reduction in consumption of RTDs and FAOs<sup>3</sup> (Figure 3). However, these products account for a very small proportion of the market, so the falls (37% and 19%, respectively; 350 million litres in total) have been more than offset by increases in consumption of beer alone (4%; 1,550 million litres). Consumption of Cider, Sparkling Wine and Beer have slightly increased, whilst consumption of Spirits has remained roughly constant.

<sup>3</sup> The fall in consumption of RTDs, and possibly also FAOs, seems likely to reflect a combination of factors: waning popularity, founded on the fashionable (rather than traditional) nature of the drinks, following a nascent boom, with the trend appearing proportionately bigger because of a smaller customer base.



**Figure 3: Consumption volumes by categories. EU27 2002-2007**

Graphs by categories

Source: IWSR.

### Price differences

There are some big variations in price across Member States, for each beverage type. There is also substantial price variation within Member States.

Figure 4 to Figure 6 show price differences across Member States in the off-trade market estimated for 2009<sup>4</sup>. For better like-for-like comparison of alcohol prices, we also show prices adjusted for countries' purchasing power parity<sup>5</sup>. The PPP-adjusted prices offer a useful comparison because they correct for differences in general price levels across EU27 Member States<sup>6</sup>.

<sup>4</sup> Off-trade market refers to sales for consumption off or away from the premises (i.e. supermarkets, retail stores, ...), whereas the on-trade market refers to sales for consumption on the premises (i.e. bars, restaurants, hotels, ...).

<sup>5</sup> Purchasing Power Parity (PPP) is a theoretical exchange rate, based on the relative price of the same basket of goods in two different countries. If the PPP-adjusted price for a particular good is higher in one country than another, this implies the product is more expensive in that country than in the other, relative to the other products.

<sup>6</sup> We use Eurostat comparative price level index (PLI) data to convert euro prices to PPP-adjusted prices. The PLI is the ratio between the Purchasing Power Parity (PPP) exchange rate and market exchange rate for each Member State, indexed on the basis of the EU27 average.

The range of prices across the EU is quite substantial, whether prices are PPP-adjusted or not. For major drinks groups (Beer, Spirits and Wine), the PPP-adjusted price in the most expensive country for each product group is about three times the price in the cheapest country for the same group. For other groups, the relative dispersion of PPP-adjusted prices appears to be somewhat greater.

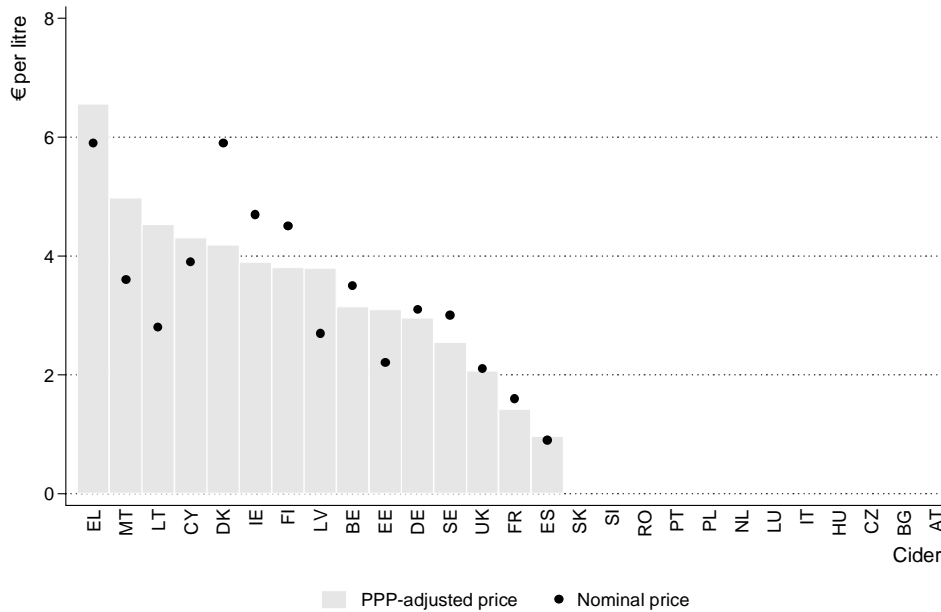
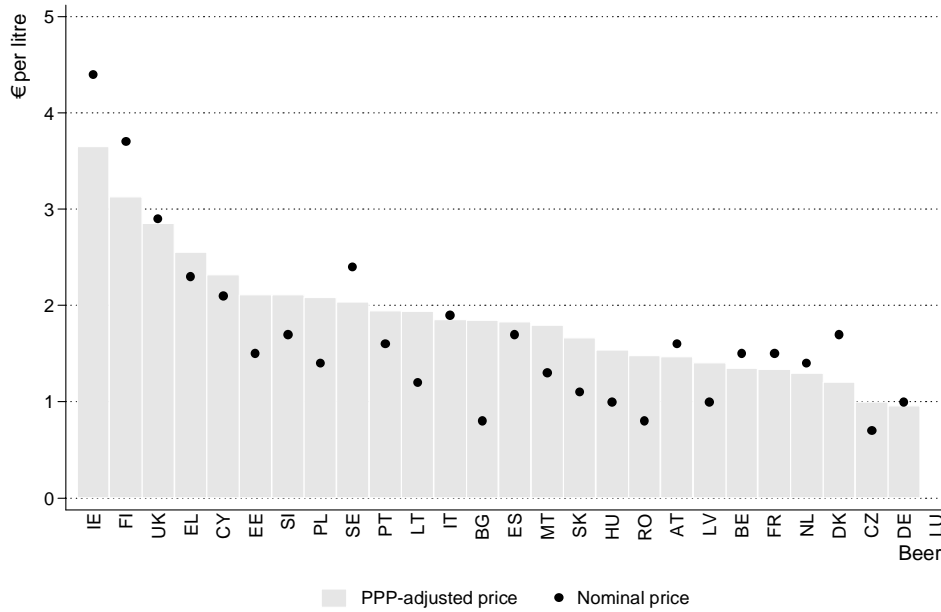
Average nominal prices, for all product groups except Cider and RTDs, vary more widely than PPP-adjusted prices.

For Beer, the PPP-adjusted price in IE is more than three-and-a-half times the corresponding price in DE, whilst nominal (actual retail) prices vary from just below €1/l to over €4/l. The pattern for Cider is even more extreme, with PPP-adjusted prices being about six times greater in EL than in ES. The nominal price varies from €1/l to €6/l.

For FAO, PPP-adjusted prices are about 11 times higher in MT than in SK, whilst nominal prices range from about €1/l to €13/l. For RTDs, PPP-adjusted prices are approximately four times higher in RO than in EE, but the nominal prices do not vary as greatly, ranging from just under €3/l to just under €10/l. The PPP-adjusted prices for Spirits show that the most expensive Member States (MT and SE) have prices about three times that of the cheapest (IT and DE), with the range of nominal prices going from about €9/l to about €36/l.

For Wine, the average PPP-adjusted price is about three times as high in LV as in PT and IT. The average nominal price goes from just over €2/l to about €11.5/l.

Figure 4: Prices differences, EU off-trade Beer and Cider<sup>7</sup> (2009)

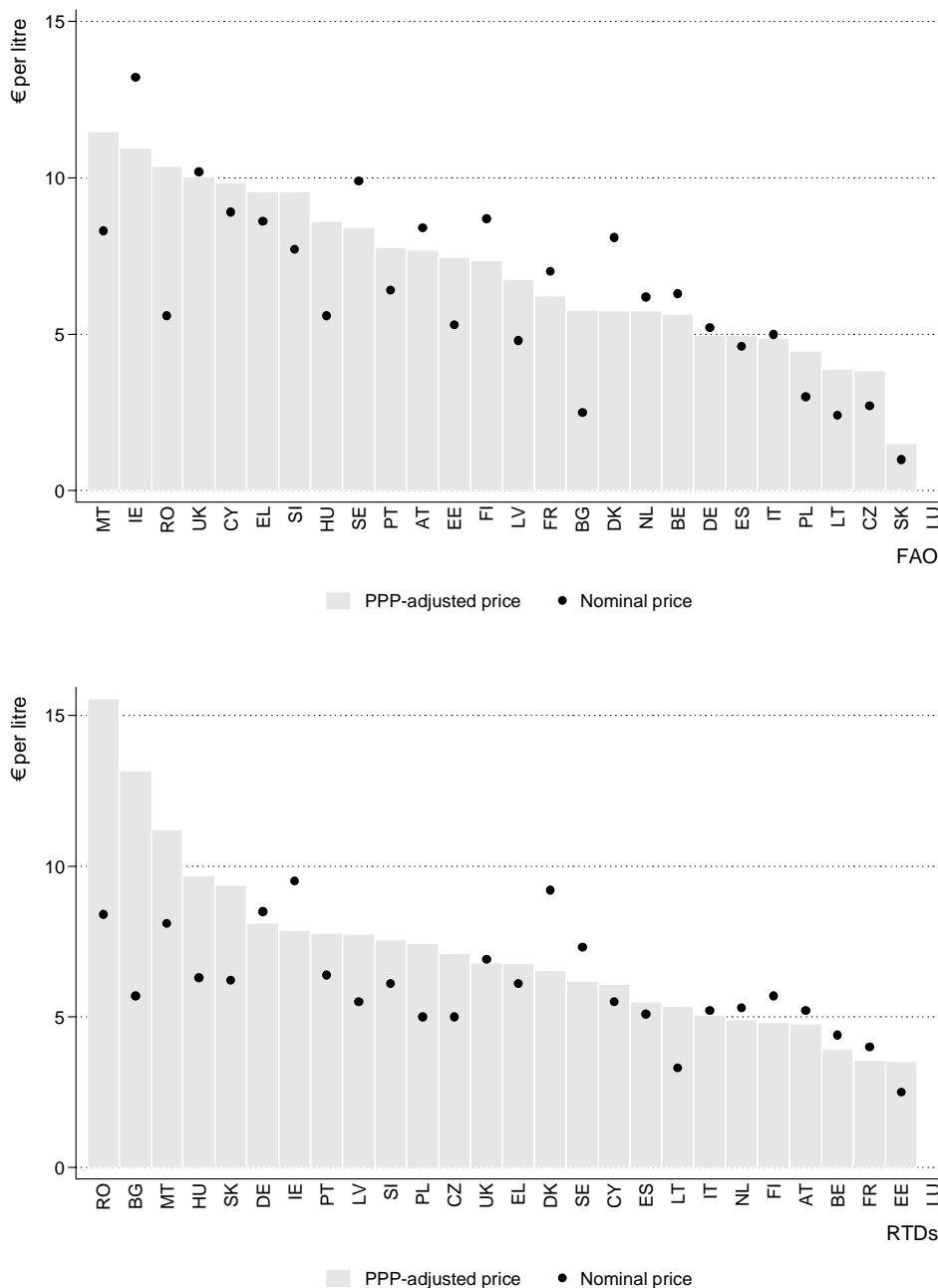


Note: Off-trade prices and as PPP.

Source: LE analysis of data from this study. Price data not available for LU. Additionally, data not available for Cider for SK, SI, RO, PT, PL, NL, IT, HU, CZ, RO and AT.

<sup>7</sup> Our data collection exercise has shown that the market for cider (consumption and production) is negligible in some Member States for which we have no data, so price analyses, even if available, would not be informative.

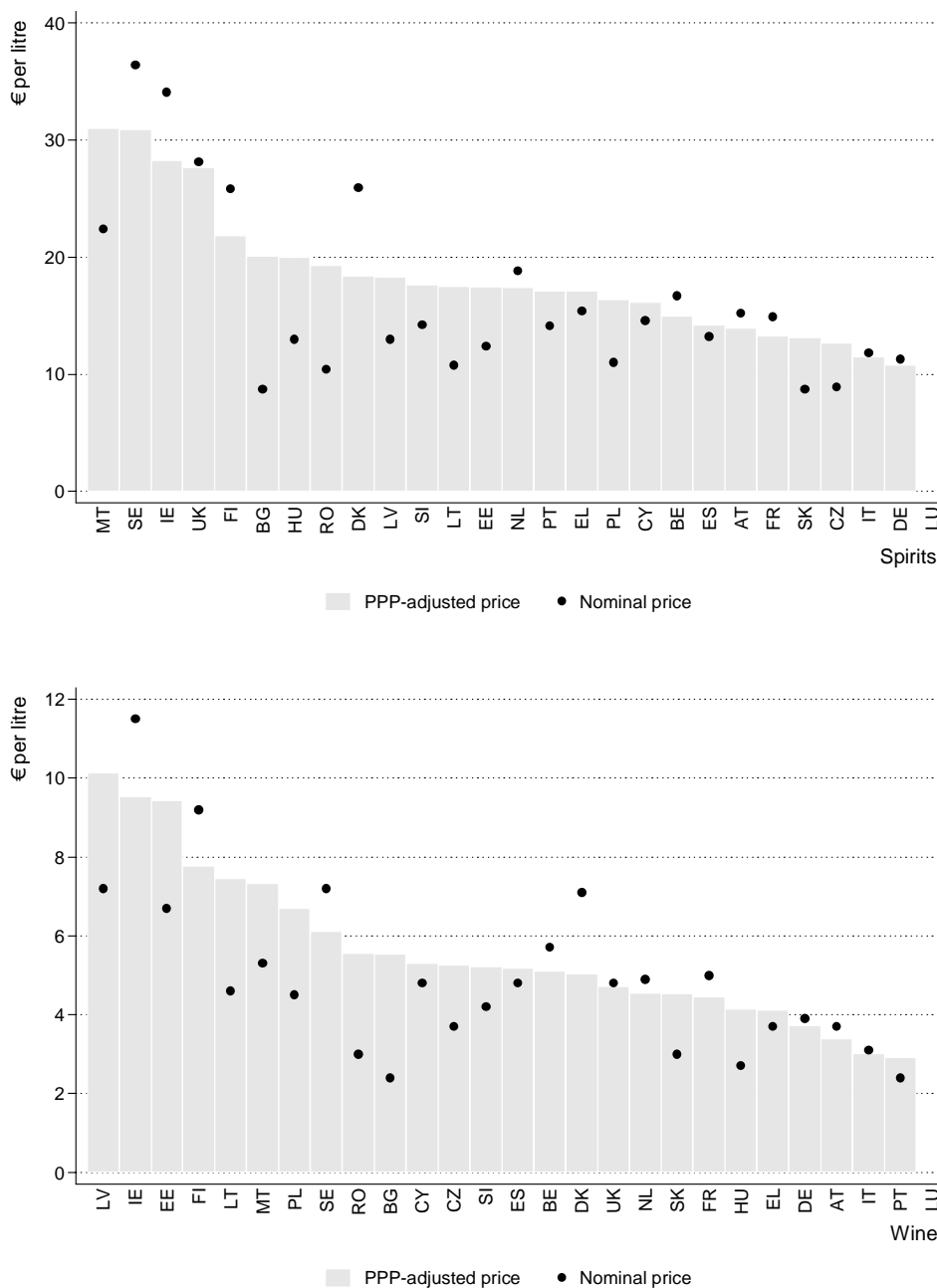
Figure 5: Prices differences, EU off-trade FAO and RTDs (2009)



Note: Off-trade prices and as PPP.

Source: LE analysis of data from this study. Price data not available for LU.

Figure 6: Prices differences, EU off-trade Spirits and Wine (2009)



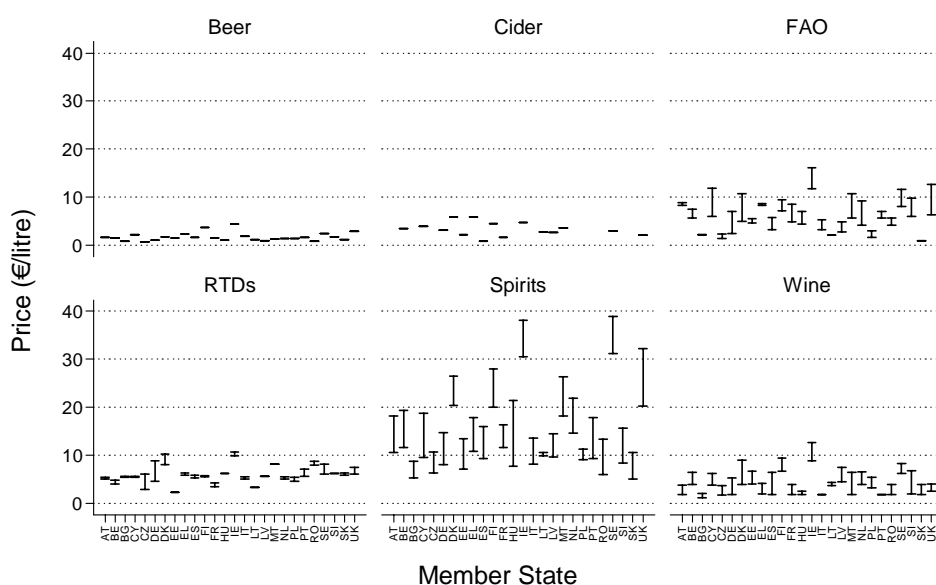
Note: Off-trade prices and as PPP.

Source: LE analysis of data from this study. Price data not available for LU.

### Price dispersion

Figure 7 shows the different price ranges of alcoholic beverages in the off-trade market of each Member State. A price range for the 25<sup>th</sup> and 75<sup>th</sup> price percentiles has been calculated for Spirits, FAOs and RTDs. The ranges presented for Wine are based on percentiles of prices collected for several bands<sup>8</sup>, and may not be entirely representative of the dispersion in the market. Only one average price is available for Beer and Cider, so only dispersion across Member States can be analysed.

**Figure 7: Distribution of prices, EU off-trade by type of alcoholic beverage**



Graphs by catiwsr1

Note: brackets show price dispersion by alcohol product and Member State and represent the 25<sup>th</sup> and 75<sup>th</sup> price percentiles (in €/litre).

Source: LE analysis of data from this study. Price data not available for LU.

### Differences in the on- and off-trade markets

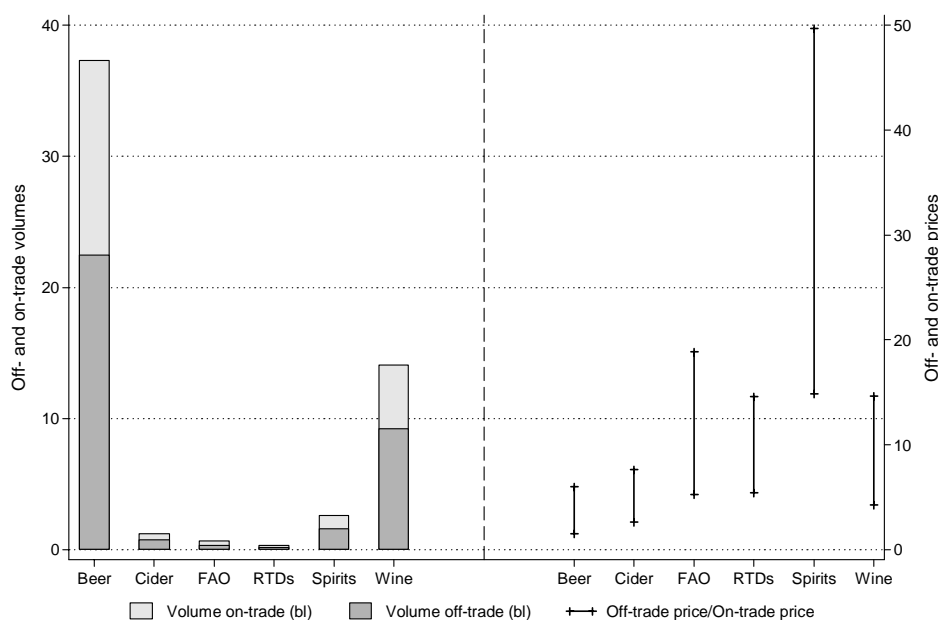
Beverages can be consumed on- and off-trade premises and, not surprisingly, the prices in the on-trade are higher than in the off-trade (Figure 8). On-trade prices are usually higher because the purchase of alcoholic products is

<sup>8</sup> IWSR data collects prices for still wine in different price groups (under 1\$; 1-2.5; 2.5-5, ... over \$20). A price has been constructed by using a mid-point estimate in Euros.

generally associated with benefiting from premises providing an atmosphere, services or entertainment, in addition to the physical drink itself.

Figure 8 shows the volume consumed and the price charged in the on-trade and off-trade markets, by type of product. The chart illustrates the volume consumed with shaded bars, and prices with vertical lines joining high and low prices. The higher price is the on-trade price and the lower price is the off-trade price, for each product type.

**Figure 8: On- and off-trade. Volumes (left) and prices (right) EU27, 2007**



Note: Volumes in billion litres, prices in €/litre.

Source: LE analysis of data from this study.

### *Differences in profitability*

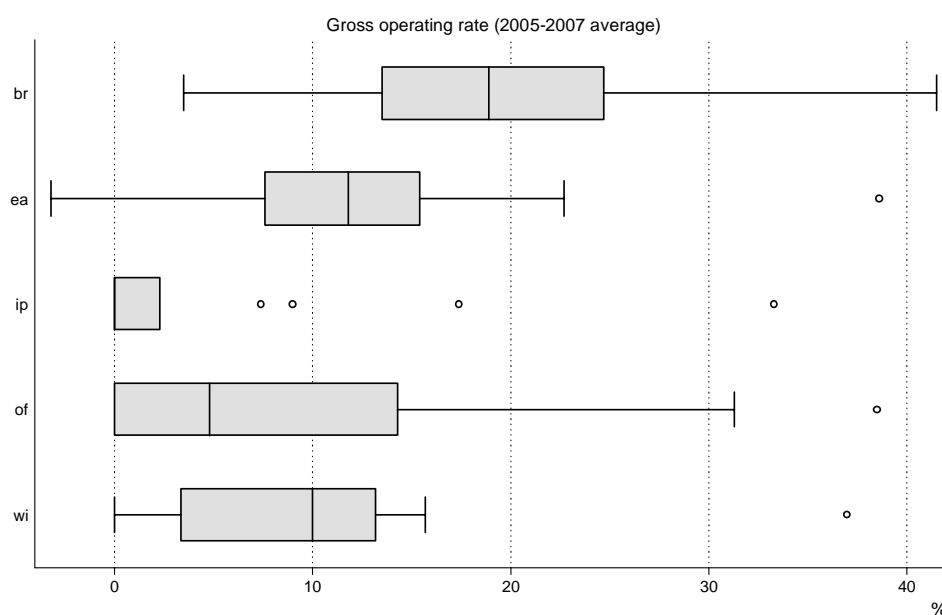
We use gross operating rate (defined by Eurostat as gross operating surplus over turnover, in percentage terms) as a measure of profitability across sub-sectors. Data from Eurostat's Statistical Business Survey (SBS) have been used to match as closely as possible the five main alcohol sub-sectors<sup>9</sup> (a complete

<sup>9</sup> The classification used by Eurostat assigns the main economic activity of the companies in the database sufficiently well to approximately represent the beverage sectors of the EC categories (see Table 21 in Annex 2). For the most part, we believe that the classification systems match closely enough to provide a good basis for comparison. We would caution, however, that overlap is possible (if companies produce a variety beverages across several EC categories) and that the delineation we have selected

description of the data sources and validation method is provided in Annex 1 and Annex 2).

Gross operating rates are very different in each beverage sub-sector across Member States. Figure 9 shows the median values (vertical lines within the shaded boxes) and dispersion of such rates for each sub-sector (inter-quartile ranges, or IQR, which represent 25% of observations on each side of the median). The median of gross operating rates are generally higher for BEER (close to 20%), ETHYL ALCOHOL (12%) and WINE (10%). Nevertheless, there is significant dispersion within each of the beverages, including some outlier observations, shown as dots, which lie in the extremes of the distribution<sup>10</sup>.

**Figure 9: Profitability (%) Member States (by alcohol sub-sectors, 2007)**



Note: br denotes BEER; of: OTHER FERMENTED BEVERAGES; wi: WINE; ip: INTERMEDIATE PRODUCTS; and ea: ETHYL ALCOHOL.

Source: Eurostat SBS.

may not be a perfect representation. For instance, the production of INTERMEDIATE PRODUCTS may be conducted (as a relatively minor operation) by companies that specialise in the production of beverages classified under WINE, OTHER FERMENTED or ETHYL ALCOHOL, so the range of profitability could potentially extend to the range of all those categories combined. The level of detail required to explore this further is not publicly available.

<sup>10</sup> These are outliers of observations beyond the finer lines, which represent the ranges including observations within 1.5 times the IQR.





### 3 The current tax regime

The Community framework concerning excise duty on alcohol and alcoholic beverages is laid down in two Directives.

- Directive 92/83/EEC was designed to harmonise the structures of alcohol taxation (specifying amongst other things the categories of product that are subject to excise duty arrangements).
- Directive 92/84 lays down minimum rates for the categories of product. Member States have a degree of flexibility in setting the levels of taxation as long as these minimum rates are complied with.

The definitions used to specify the structures for classifying products are to a large extent reliant on how a product would have been classified, at the time the Directive was adopted, under the customs nomenclatures 2203, 2204, 2205, 2206, 2207, and 2208. The structures for classifying products under Directive 92/83/EEC are categorised, in broad terms, as follows:

- BEER - All products classified to 2203 and beer mixed with non-alcoholic beverages classified to 2206;
- WINE - All products classified to 2204 and 2205 not exceeding 15% abv provided that the alcohol is entirely fermented; or not exceeding 18% provided that the alcohol is entirely fermented and no enrichment has been used;
- OTHER FERMENTED BEVERAGES (fermented beverages other than wine and beer) - Those products, not falling as beer and wine, which are classified to 2204, 2205 and 2206 and do not exceed 10% abv; or not exceeding 15% abv provided that the alcohol is entirely fermented;
- INTERMEDIATE PRODUCTS - All products between 1.2% and 22% abv classified to 2204, 2205 and 2206 which do not fall under the beer, wine and fermented beverage categories. Member States also have discretion to treat products that would fall under the fermented beverages category as Intermediate Product so long as the product exceeds 5.5% abv and the alcohol is not entirely of fermented origin;
- ETHYL ALCOHOL - (a) All products classified to 2207 and 2208, even when they form part of a product that is classified under another heading. (b) Any product classified to 2204, 2205 and 2206 that exceeds 22% abv.

The mapping of CN codes to alcohol structures is shown in Table 1, including additional requirements related to production and alcohol content.

Table 1: Structures of alcohol taxation. Definitions for different categories										
CN code	Classification of product categories as per Directive 92/83/EEC									
	BEER		WINE		FERM. BEV.		INTERMED. PRODUCT		ETHYL ALCOHOL	
2203 Beer made from malt	X									
2204 Wine of fresh grapes, including fortified wines			X	X	X	X	X	X		X
2205 Vermouth and other wine of fresh grapes flavoured			X	X	X	X	X	X		X
2206 Other fermented beverages		X			X	X	X	X		X
2207 Udenatured ethyl alcohol of an alcoholic strength exceeding 80% abv, denatured alcohol of any strength									X	
2208 Udenatured ethyl alcohol less than 80% abv; Spirits, liqueurs and other spirituous beverages.									X	
ABV (%)	>0.5	>0.5	>1.2 <15	>15 <18	>1.2 <10	>10 <15	>1.2 <22	>5.5	>1.2	>22
Alcohol entirely of fermented origin (Y yes; N No)			Y	Y		Y		N		
Production with no enrichment				X						

Note: There are also provisions for sparkling wines, sparkling fermented beverages and sparkling intermediate products.

Source: Directive 92-83-EEC.

### 3.1 Alcohol duties in different Member States

Directive 92/84 only provides indication on the minimum rates, and Member States can freely set their duties as long as they are above the minimum rates specified in the Directive.

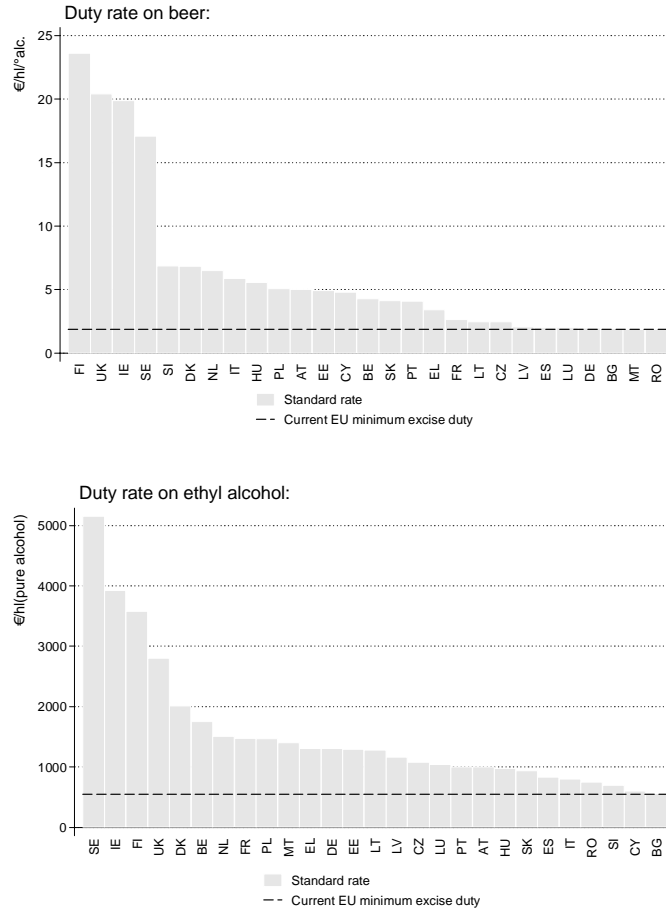
As a result, the standard duty rates in the different Member States show a huge disparity<sup>11</sup>.

<sup>11</sup> At the time of finalising the report, information on Member States new excise duty rates have become available. There have been substantial increases in the rates in CZ (30%, for BEER only), EE (10%), EL (20%), LV (13%, for WINE and OTHER FERMENTED; 7%, for low-strength INTERMEDIATE PRODUCTS). There has been a reduction in rates in IE (20%), and some small changes in some other Member States (combination of rate changes and exchange rate effects, but less than 5% change in euro rates). Finally, there have been decreases in duty rates expressed in euros due to exchange rate depreciations (but with no change in duty rates in each national currency) in PL (20%), SE (5%) and UK (13%). There have also been some changes in VAT rates in the CZ (1 percentage point increase), IE (0.5 percentage point decrease), LT (2 percentage point increase) and UK (2.5 percentage point increase).

- BEER duties range from €1.87 to €23.6 per % abv per hl of product (Figure 10);
- ETHYL ALCOHOL duties range from €562 to €5,155 per hl of pure alcohol (Figure 10);
- STILL WINE duties range from €0 to €328 per hl of product (Figure 11);
- INTERMEDIATE PRODUCTS duties range from €45 to €515 per hl of product (Figure 11); and
- OTHER FERMENTED BEVERAGES duties range from €0 to €273 per hl of product (Figure 11).

It is noticeable that the duty rates in FI, UK, IE and SE are systematically the highest (top four) within each EC category. Compared with these countries, the duty rates in the remaining Member States are substantially closer to each other and to the minimum rate.

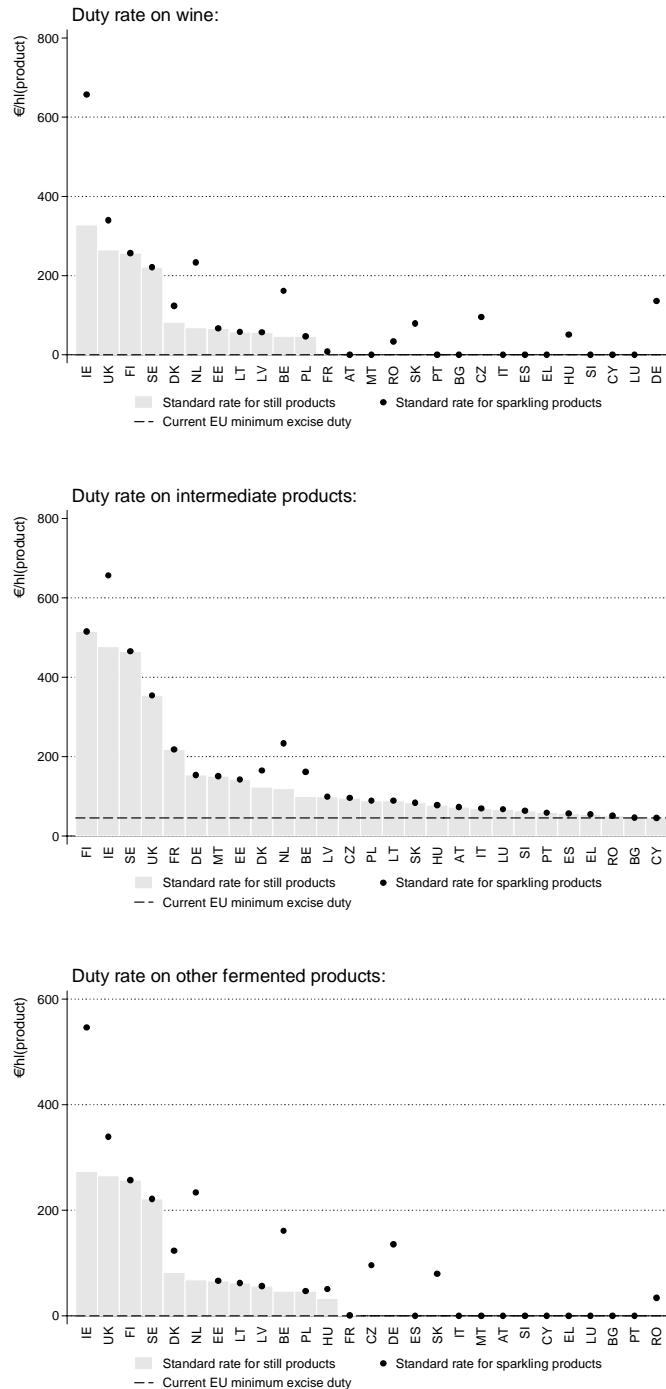
**Figure 10: Alcohol duties BEER and ETHYL ALCOHOL**



Note: BEER rates for ES, NL and PT calculated for 5% abv product (prescribed duty rates are in € per hl in these Member States). Minimum rates: BEER €1.87/hl degree of alcohol; OTHER FERMENTED BEVERAGES €0. ETHYL ALCOHOL €550/hl of pure alcohol. Additional provisions excluded (see Figure 13).

Source: EC duty tables.

**Figure 11: Alcohol duties WINE, INTERMEDIATE and OTHER FERMENTED PRODUCTS**

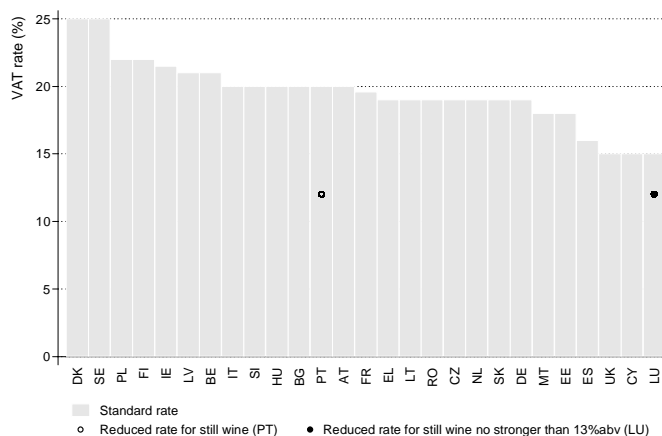


Note: EU minimum rates. WINE €0; INTERMEDIATE PRODUCTS €45/hl of product. Additional provisions excluded (see Figure 13).  
 Source: EC duty tables.

### VAT rates

Compared to duties, VAT rates in the different Member States show less disparity (from 15% to 25%, Figure 12). VAT rates are identical across all alcoholic beverages within the same Member State, except in LU and PT, where there are reduced rates for STILL WINE.<sup>12</sup>

Figure 12: VAT rates



Source: EC duty tables.

## 3.2 The structure of alcoholic beverages

The classification rules used by Member States to allocate the different beverages into EC categories has been the most difficult information to obtain, as information on the classification rules are not readily accessible and there are no centralised or unified records. Using EARs compared and complemented with alternative sources (ECD, EDT, TIE, IWSR, and FISCALIS) we have summarised the classification rules being used in different Member States.

All Member States classify the products according to the five EC categories (BEER, OTHER FERMENTED BEVERAGES, WINE, INTERMEDIATE

<sup>12</sup> Article 97 of Directive 2006/112/EC (the "VAT Directive") lays down that the standard rate of VAT should not be less than 15%. Normally, the same VAT rate would be charged on all alcoholic beverages, however, the specific reduced rates in Luxembourg and Portugal are exceptions that have been implemented in accordance with Article 118 of the VAT Directive.

PRODUCTS and ETHYL ALCOHOL), but there are a significant number of exceptions. This refers, for example, to alternative duty rates and for beverages under certain conditions: for example, a few Member States have reduced rates for beverages produced in overseas territories; in addition, several Member States have separate or additional provisions for designer drinks (Figure 13).

**Figure 13: The structure of the alcoholic beverages in different Member States (different sources)\***

**Standard classification. EC categories in all MS (Directive 92/83/EEC):**

br:	2203 products, including those mixed with non-alcoholic 2206 beverages.
wist:	2204 and 2205 products <=15% (alcohol entirely fermented); or <= 18% (alcohol entirely fermented and no enrichment used).
wisp:	2204 10, 2204 21 10, 2204 29 10 and 2205 products between 1.2% and 15% of alcohol entirely from fermented origin. Products should be contained in bottles with 'mushroom stoppers' (or with an excess pressure due to carbon dioxide in solution).
ofst:	products, not falling as beer and wine, classified to 2204, 2205 and 2206 and <=10%; or <=15% (alcohol is entirely fermented).
ofsp:	2206 00 91, 2204 10, 2204 21 10, 2204 29 10 and 2205 products between 1.2% and 13%; or between 13% and 15% (alcohol entirely from fermented origin). Products should be contained in bottles with 'mushroom stoppers' (or with an excess pressure due to carbon dioxide in solution).
ip:	2204, 2205 and 2206 products which do not fall under the beer, wine and fermented beverage categories and between 1.2% and 22%. <sup>13</sup>
ea:	2207 and 2208 products > 1.2% or 2204, 2205 and 2206 products >22%.

**Exceptions for the following country/cases:**

br:	LV: "Duty rate not less than €5.64/hl".
of:	FR: "Reduced rate for Cider and Perry, hydromel and slightly fermented grape juice". (Art. 13(3) Council Directive 92/83) IE: "Reduced rate for Cider and Perry". (Art. 13(3) Council Directive 92/83)
ip:	UK: "Reduced rate for Cider and Perry". (Art. 13(3) Council Directive 92/83) EL: "Reduced rate Vin doux naturel". (Art. 18(4) Council Directive 92/83) FR: "Reduced rate Vin doux naturel". (Art. 18(4) Council Directive 92/83)
ea:	PT: "Reduced rate for Vinho de Madeira". (Art. 7(3) of Council Directive 92/84/EC) EL: "Reduced rate Ouzo". (Art.23(2) Council Directive 92/83) FR: "Additional duty on strong drinks (>25%abv)". (Art. 1(2) Council Directive 2008/118/EC) FR: "Reduced rate Rum from overseas departments (up to max quota of 108000 hlpa)". Council Decision 2007/659/EC PT: "Reduced rate for Rum and Liqueurs produced and introduced into consumption in Madeira and Azores". (Council Decision 2009/831/EC)

**Additional provisions for designer drinks in the following country/cases (Art. 1(2) Council Directive 2008/118/EC)**

DK:	Additional rate for pre-mixed drinks
DE:	Additional rate for pre-mixed drinks classified as ETHYL ALCOHOL
FR:	Additional rate for pre-mixed drinks
LU:	Additional rate for pre-mixed drinks

Note: All information obtained from EDTs and TIEs. br denotes BEER; of: OTHER FERMENTED BEVERAGES; wi: WINE; ip: INTERMEDIATE PRODUCTS; and ea: ETHYL ALCOHOL. Suffix st and sp stands for still and sparkling, respectively. \* In some cases Member States provided details on the classification of specific products, and information on the additional provisions for designer drinks (Art. 1(2) Council Directive 2008/118/EC). Although not included in the table, the information is used for the analysis in the report.

Source: EARs, ECDs, EDTs, TIEs, IWSR, and FISCALIS.

<sup>13</sup> Member States also have discretion to treat products that would fall under the fermented beverages category as INTERMEDIATE PRODUCTS so long as the product exceeds 5.5% abv and the alcohol is not entirely of fermented origin.



### 3.3 Duty receipts

The total duty receipts in the EU27 amounted to €30.6 billion in 2007. ETHYL ALCOHOL accounted for 46% of revenues, BEER for 33% and WINE for 19%.

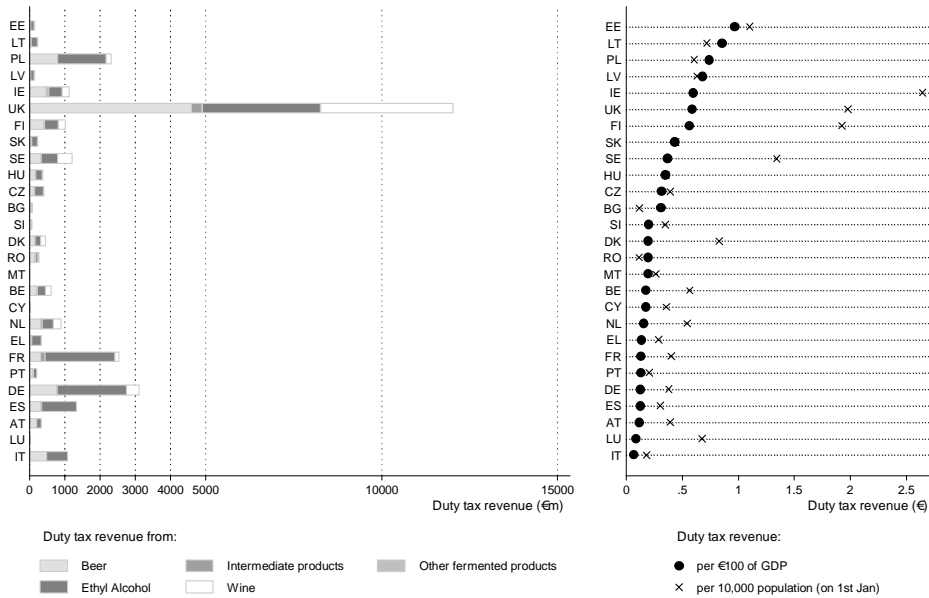
The differences in beverage receipts by Member State mainly reflect the countries' relative size and consumption patterns (Figure 14). Hence:

- BEER duty receipts were higher in UK (€4,600 million) and much lower in the remaining Member States.
- WINE duty receipts were also higher in the UK (€3,800 million), followed by SE (€423 million) and DE (€371 million). In ten Member States receipts from WINE are nil because duty rates for both still and sparkling are zero.
- ETHYL ALCOHOL receipts were €3,350 million in UK, about €2,000 in FR and DE, and €1,390 in PL.

A revision of the duty revenues in relative terms shows a very different picture. We use duty receipts per person (to control for the size of the population) and receipts divided by GDP (to control for the size of the economy). Both measures allow comparisons across different sized economies.

Receipts as a proportion of GDP are the highest in EE, followed by LT and PL. By this measure, UK is only the sixth-largest revenue collector.

**Figure 14: Duty receipts (2007).**  
By EC categories (left) and in relative terms (right).

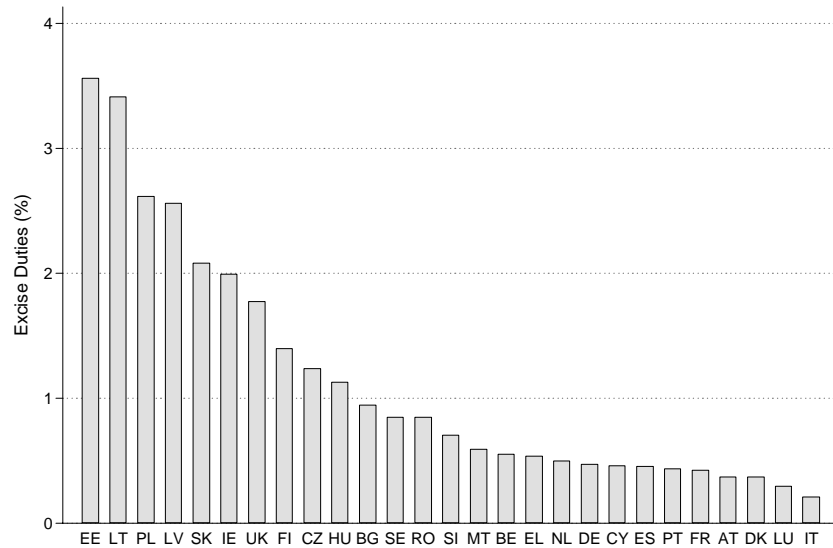


Note: IT, MT: ETHYL ALCOHOL includes INTERMEDIATE PRODUCTS; PL: WINE includes INTERMEDIATE PRODUCTS; RO: WINE includes OTHER FERMENTED BEVERAGES; UK: INTERMEDIATE PRODUCTS includes Cider & Perry.

Source: EARS, EDTs, Eurostat, LE own elaboration.

To see the importance of duties in Member States' finances, excise duties as a percentage of total tax revenues (excluding social security) are presented in Figure 15. Duty revenues range from around 0.2% to 3.5% of total tax revenues and are generally higher in eastern and lower in southern Member States.

**Figure 15: Excise Duty as a percentage of total tax revenues (excluding Social Security)**



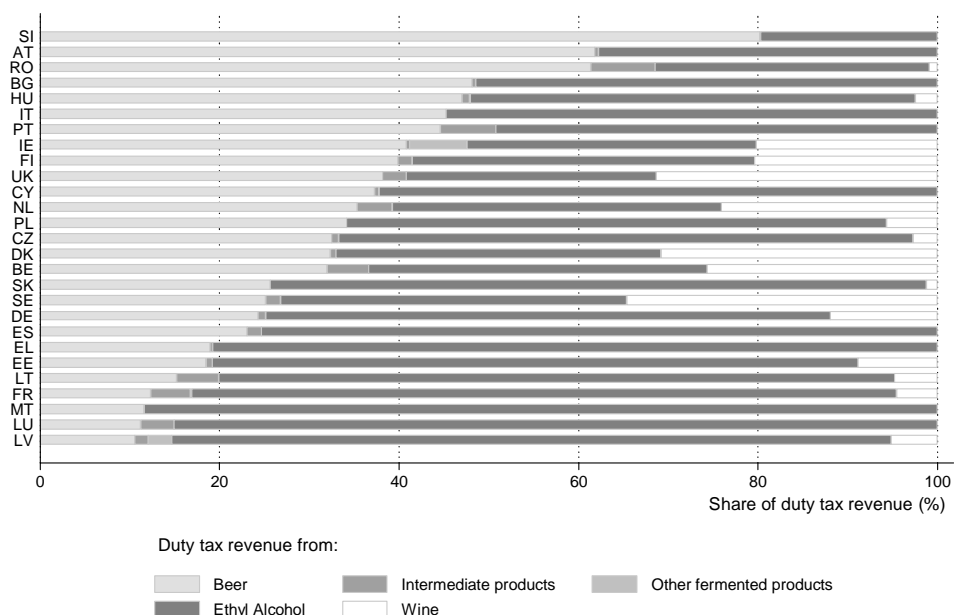
Note: IT, MT: ETHYL ALCOHOL includes INTERMEDIATE PRODUCTS; PL: WINE includes INTERMEDIATE PRODUCTS; RO: WINE includes OTHER FERMENTED BEVERAGES; UK: INTERMEDIATE PRODUCTS includes Cider & Perry.

Source: EARs, EDTs, Eurostat, LE own elaboration.

The contribution of the each alcoholic beverage to total duty revenues varies significantly across Member States. This is a reflection of the different rates applied in each Member State and the drinking patterns of its inhabitants.

- In general, BEER and ETHYL ALCOHOL account for the largest share in total receipts. It ranges between 11% (LV) to 80% (SI) for BEER; and 20% (SI) to 88% (MT) for ETHYL ALCOHOL.
- The share of INTERMEDIATE PRODUCTS and OTHER FERMENTED BEVERAGES is small in all Member States. Their joint share is always under 7% (the highest rate observed in RO) of the total.
- The share of WINE is also small and generally under 10% of total receipts (except in FI, IE, NL, SE and UK). Moreover, receipts are equal to zero for WINE in 10 Member States as a result of a zero rate on both still and sparkling wines.

Figure 16: Duty receipts, by EC categories (2007)



Note: IT, MT: ETHYL ALCOHOL includes INTERMEDIATE PRODUCTS; PL: WINE includes INTERMEDIATE PRODUCTS; RO: WINE includes OTHER FERMENTED BEVERAGES; UK: INTERMEDIATE PRODUCTS includes Cider & Perry.

Source: EARs, ETRs, LE own elaboration.

### 3.4 The alcohol content

The alcohol strength is important for determining the classification of the different beverages in the current system and the duty for the categories of BEER and ETHYL ALCOHOL<sup>14</sup>.

Alcohol strength (abv %) for beverages in the IWSR data was gathered for different groups and subgroups<sup>15</sup> using information from industry experts and publicly available sources. The alcohol content is very different for the main groups of beverages (Table 22 in Annex 1). Not surprisingly, spirituous beverages show the highest alcohol strength but also a wide dispersion across the different products, ranging from 16% (Punch Liqueurs) to 50% (Vodka). Products in FAO are typically between 10% (Flavoured Wine) and 20% (Port).

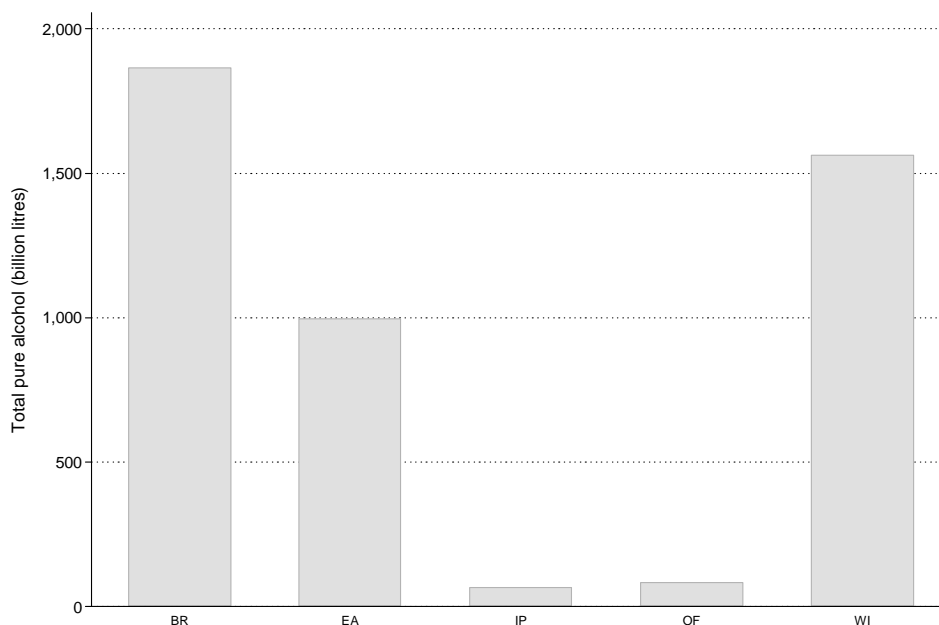
<sup>14</sup> As will be seen in Section 6, it also plays a crucial role in the simulation of the different policy options requested by the Commission for this study.

<sup>15</sup> Groups were chosen to achieve consistency of alcoholic strength of the different product lines within each group.

Still and Sparkling Wines' strengths are 11% and 12%, respectively. The typical strength for the remaining beverages is 5% (Beer and Cider) or slightly higher (RTDs).

Using the alcohol strength and the consumed quantities, we calculate the amount of pure alcohol consumed for different beverages. A total of 4.6 billion litres of pure alcohol was consumed in the EU in 2007 (or 9.4 litres per capita), as shown in Figure 17. Most of alcohol is consumed through beer (1.9 billion litres), wine (1.6 billion litres) and spirits (997 million litres). The remaining beverages contribute a much smaller amount to the total alcohol consumption.

**Figure 17: Consumption of pure alcohol, by type of beverage EU 2007**



Note: Consumption of pure alcohol calculated using estimated abv per category and amounts consumed. BR denotes BEER; OF: OTHER FERMENTED BEVERAGES; WI: WINE; IP: INTERMEDIATE PRODUCTS; and EA: ETHYL ALCOHOL.

Source: LE analysis of data from this study.

### 3.5 The burden of duties on products

The tax burden on products is illustrated by comparing the pre-tax price, the duty and VAT paid (in averages) in the off-trade market, for each of the EC categories and Member States. To calculate the different taxes, we linked each

beverage group in the IWSR data to an EC category and calculated the duty and VAT rates using the appropriate rates as reported by Member States in the duty tables.

The allocation process uses the string of characteristics for each beverage in the database and the classification rules identified in Figure 13. The process used is described in Figure 18.

### Figure 18: Allocation of IWSR beverage groups into EC categories

#### Standard EC classification:

br:	Beer
of:	Cider
wist:	Still Wine
wisp:	Sparkling Wine (Champagne, Other Sparkling)
ip:	Fortified Wine / Light Aperitifs (Other Fortified, Port / Port Style, Sherry / Sherry Style, Vermouth, Wine Aperitifs)
ea:	Brandy / Flavoured Spirits / Rum / Cane / Whisky / White Spirits (Cognac / Armagnac, Other Brandy, Aniseed, Bitters / Spirit Aperitifs, Fruit Eaux de Vie, Liqueurs, Cane, Rum, Canadian Whisky, Irish Whiskey, Other Whisky, Scotch Whisky, US Whiskey, Gin / Genever, Other White Spirits, Tequila, Vodka)

#### Exceptions and additional provisions as in Figure 13

Brand names and characteristics of each product line were used to allocate different beverages into each of the categories and subcategories.

Note: “\*\*” denotes information gathered from EARs. All other information obtained from EDTs and TIEs. br denotes BEER; of: OTHER FERMENTED BEVERAGES; wi: WINE; ip: INTERMEDIATE PRODUCTS; and ea: ETHYL ALCOHOL. Suffix st and sp stands for still and sparkling, respectively.

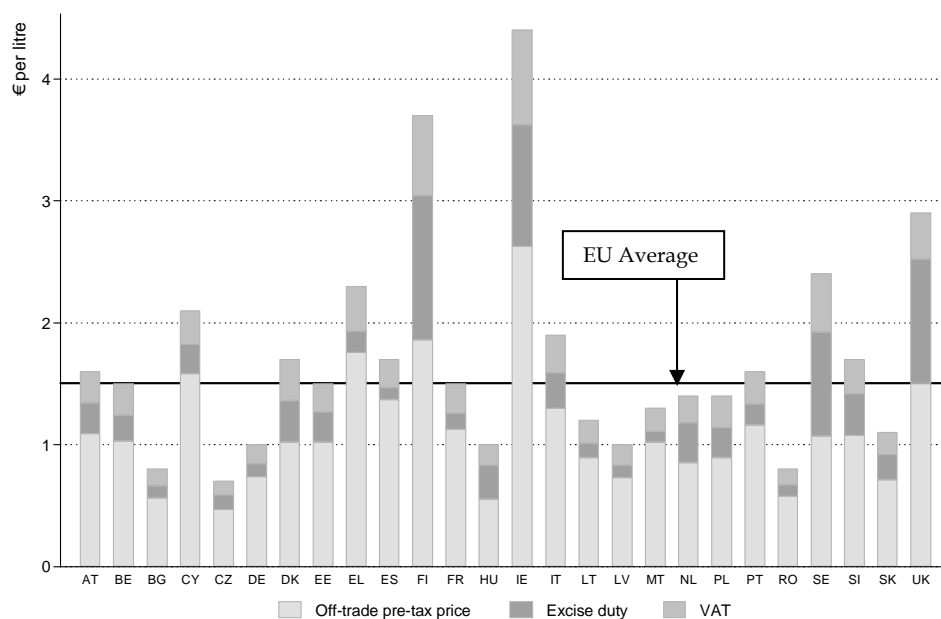
Source: IWSR and Figure 13.

We analyse the burden of duty (and VAT) for each of the EC categories. The reported duty is constructed as an average of the different duties in each EC category. For reference, we display the EU average off-trade price as a horizontal line.

**BEER**

There is considerable variation in the price of BEER and the extent of the tax burden across Member State. In four Member States (FI, IE, SE, UK) the burden is more than one third of the final price.

**Figure 19: Duty burden by Member State: BEER**



Note: duty calculated as an average of duties of different products in each EC category.  
 Source: IWSR and LE calculations. Price data not available for LU.

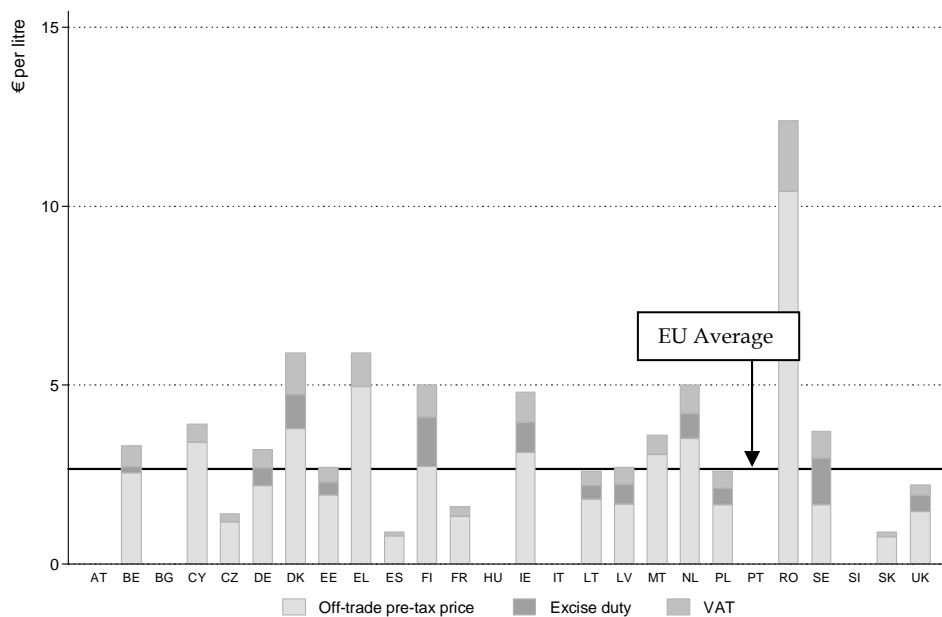
## OTHER FERMENTED BEVERAGES

The category for OTHER FERMENTED BEVERAGES includes cider and perry but also fruit wines and other wines. The basket of products included depends on the consumption patterns of these products in each Member State, and is not necessarily uniform across Member States.

In some Member States, cider and perry are more popular, whilst in others fruit wines or other wines, such as sake, constitute the majority of the market. Furthermore, price differences between Member States may also reflect differences in the relative popularity between branded (generally more expensive) and traditional (generally cheaper) cider and perries. In many Member States the consumption of some or all such products is negligible.

It is noticeable the high tax burden in DK, FI, IE, NL and SE, which is in contrast with the very small burden in ES.

**Figure 20: Duty burden by Member State: OTHER FERMENTED**



Note: duty calculated as an average of duties of different products in each EC category. RO shows a high price compared with the rest of Member States because the price data relates solely to sake, whereas data for most of the Member States contain prices other beverages, most notably cider.

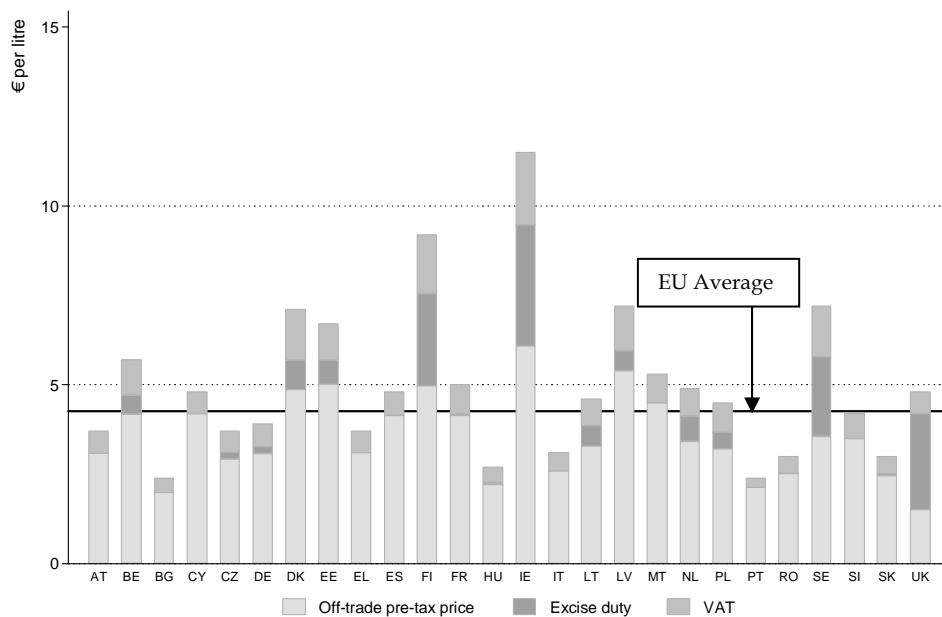
Source: IWSR and LE calculations. Price data not available for LU.



## WINE

There is a huge variation in the prices of WINE across the EU, and this is a consequence of different pre-tax prices and taxation regimes. Pre-tax prices vary noticeably across the EU: from under €2 per litre in SK, to over €5 per litre in IE. The different tax regimes increase such differences even more. In IE post-tax prices exceed €10 per litre (Figure 21).

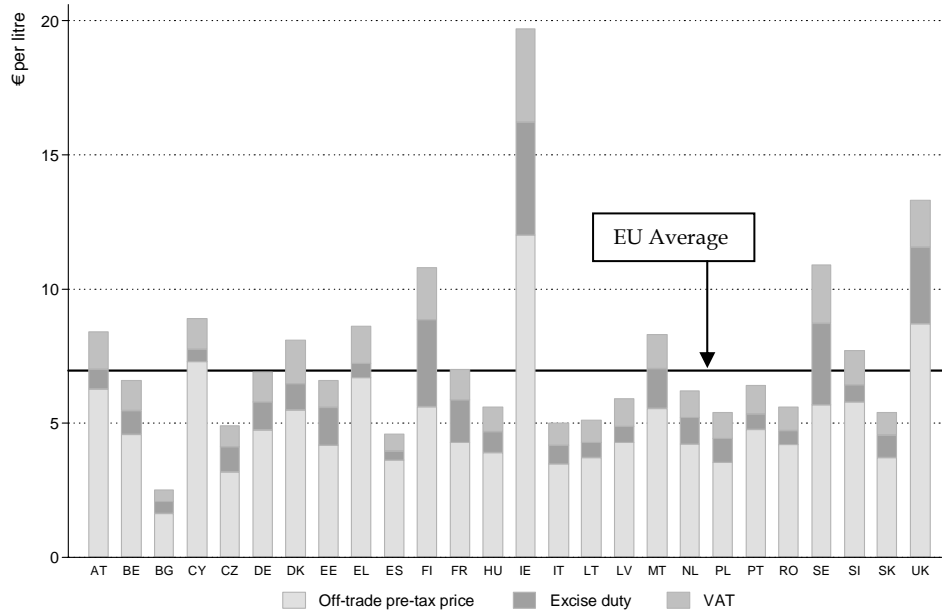
**Figure 21: Duty burden price by Member State: WINE**



Note: duty calculated as an average of duties of different products in each EC category.  
 Source: IWSR and LE calculations. Price data not available for LU.

## INTERMEDIATE PRODUCTS

The high duties in IE, UK, FI and SE have a significant impact on the price post-tax of INTERMEDIATE PRODUCTS, especially when compared to the remaining countries (Figure 22). For the remaining Member States, the tax burden is smaller.

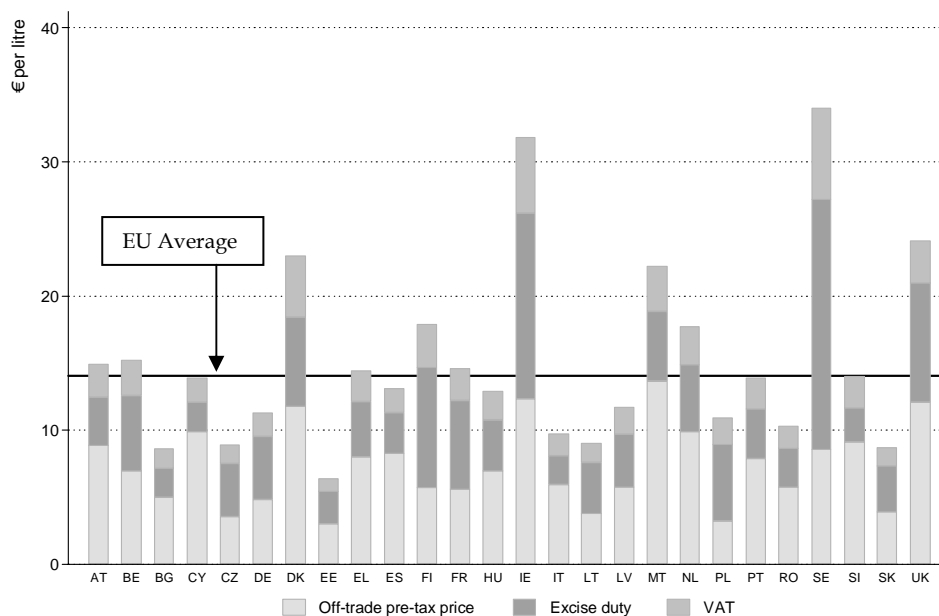
**Figure 22: Duty burden by Member State: INTERMEDIATE PRODUCTS**

Note: duty calculated as an average of duties of different products in each EC category.  
 Source: IWSR and LE calculations. *Price data not available for LU.*

### ETHYL ALCOHOL

There is not as much variation in ETHYL ALCOHOL duties charged in most Member States and, as a result, there are fewer differences in the dispersion of pre- and post-tax prices. The main exceptions to this are DK, IE, SE and UK, where noticeable differences between the pre- and post-tax price are a result of the higher duties of those countries (Figure 23). In fact, largely as a result of the taxing regime, post-tax prices are noticeably higher than in the remaining Member States (post-tax prices in those countries are around three times as much as the prices in IT, for example).

Figure 23: Duty burden by Member State: ETHYL ALCOHOL



Note: duty calculated as an average of duties of different products in each EC category.  
 Source: IWSR and LE calculations. Price data not available for LU.

### Taxes and profitability

We now investigate the relationship between tax burden and operating profit. For each beverage, we have calculated the average duty and VAT as a percentage of the average off-trade retail price. We then estimate the economic operating profit using the gross operating rate<sup>16</sup>, measured as a percentage of the average off-trade retail price. The operating costs are estimated as a residual of the retail price and the sum of duties, VAT and operating profit<sup>17</sup>. It is not possible to provide the corresponding generalised analysis for the on-trade market, because the factors that influence profit in the on-trade market can be both diverse and independent of the alcoholic beverage.

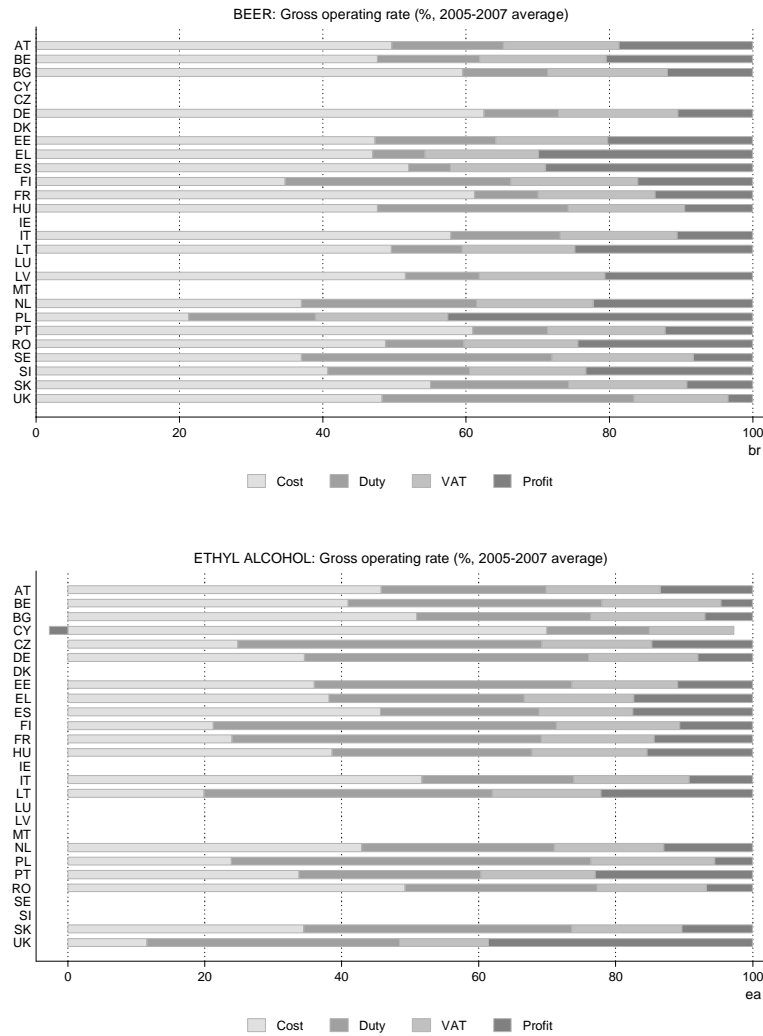
Figure 24 and Figure 25 show the decomposition of price into cost, taxes and operating profit for different beverages. It is interesting to note the relatively

<sup>16</sup> Gross operating rate is defined as gross operating surplus over turnover, in percentage terms. Data have been collected from Eurostat Statistical Business Survey, for the five main alcohol sub-sectors (a complete description of the data is provided in 0).

<sup>17</sup> I.e. costs = retail off-price - (duty + VAT + profit).

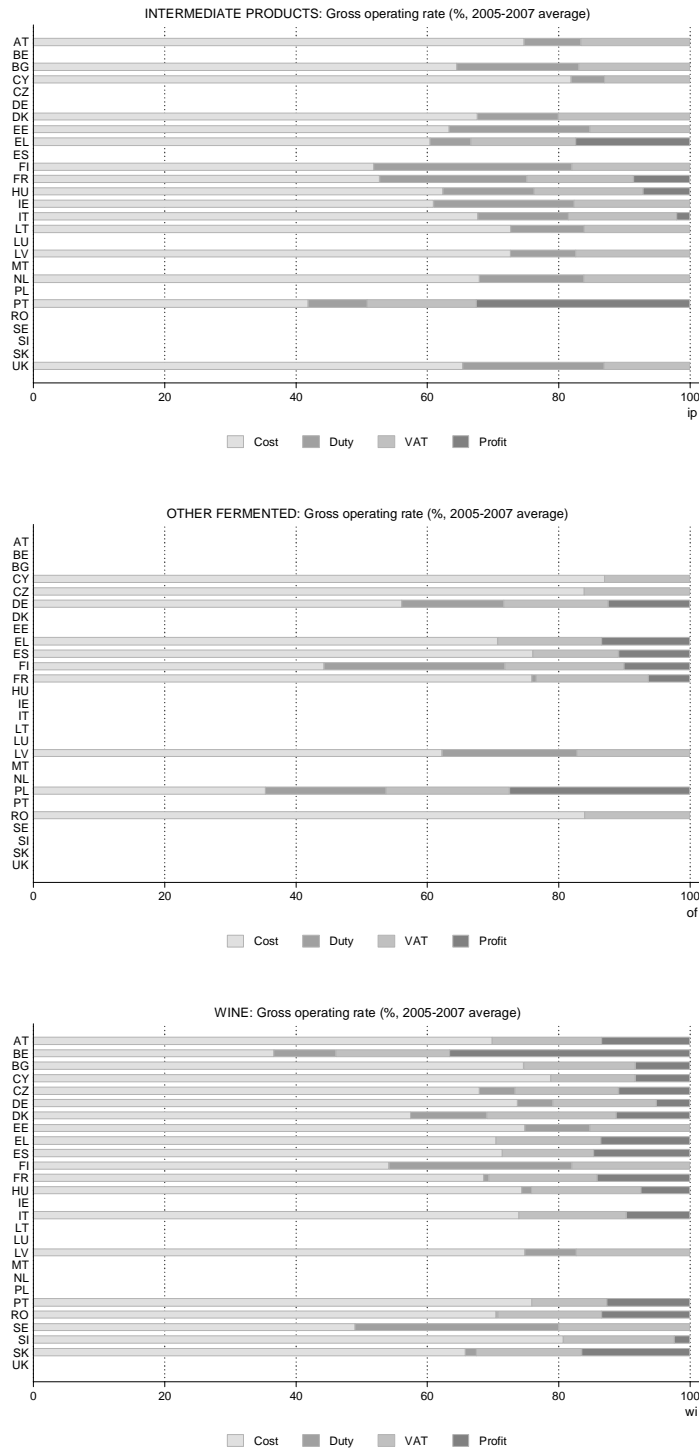
higher costs of producing WINE compared to BEER and ETHYL ALCOHOL, and also the relatively higher profit (as a percentage) of these beverages compared to WINE.

**Figure 24: Taxes and profit (%) BEER and ETHYL ALCOHOL (2007)**



Source: LE analysis of data from this study and Eurostat SBS.

**Figure 25: Taxes and profit (%) INT. PROD., OTH. FERM., WINE (2007)**



Source: LE analysis of data from this study and Eurostat SBS.

## 4 Problems with the effective functioning of the internal market

Directive 92/84/EEC allows different levels of taxation to be applied to the different alcohol categories. Member States may put different emphasis on the levels of taxation between categories, which is permissible at present as long as it does not result in the protection of domestic products.

Directive 92/83/EEC attempts to ensure that common definitions of product are in force throughout the EU. While for the majority of beverages on the market there are no significant classification problems, there are no clear guidelines for the classification of certain beverages and Member States use different procedures. As a result, one same product can fall into different categories across Member States.

This section investigates whether the current structures of alcohol taxation and the minimum rates laid down for the various categories are adequately supporting the effective functioning of the internal market. We leave for the next section the description in detail of a number of problems with the existing classification system, and in particular with the classification of products using additions of alcohol or cleaned-up alcohol.

The current tax regime has a potential number of problems for the proper functioning of the internal market. We have identified these as the following:

- Lack of transparency of the system;
- Lack of harmonisation in duty rates;
- Lack of harmonisation in classification;
- Large differences between neighbouring Member States ;
- Cross-border trade (legitimate shopping and smuggling);
- Influence on consumer behaviour; and
- Duties being used as a trading barrier

We analyse each of these problems below, in turn.

### 4.1 Lack of transparency of the system

The classification procedures used by Member States for allocating beverages into the different categories is not clear and can be heterogeneous. Duties are

sometime levied in different units across Member States which make comparisons difficult. One clear example is the use of abv or Plato to measure strengths of beer, but some Member States (ES, NL, PT) go further by levying duties per volume of beer (with a series of duty rates corresponding to different bands of alcoholic strengths), rather than by degree of alcohol as used in defining the minimum rate.

Information on the classification systems used by different Member States is not readily available. It is also difficult to understand the criteria used for each beverage type as there is not clear description of the criteria used for delimitation of the categories.

## 4.2 Lack of harmonisation in duty rates

### *Across Member States*

As seen in previous sections, there is a very wide disparity in the duty rates applied by Member States and there are especially significant differences with Member States applying high rates.

Since some Member States have very high duty rates, at present, the minimum rates have very little effect in reducing such disparity.

We find that the current duty rates increase disparity in retail (post-tax) prices compared with pre-tax prices across all EC categories.

We show this in Table 2, where we compare two measures of dispersion (standard deviation and range) on pre-tax and post-tax prices. The table presents the mean, standard deviation<sup>18</sup> (SD), range (difference between the maximum and the minimum) and the number of beverages (N) in each product category for prices before and after tax.

A higher standard deviation or higher range, post-tax compared with pre-tax implies greater price dispersion.

For each product category, we see that post-tax prices have a higher dispersion than pre-tax prices, which implies that prices are more dispersed directly as a result of taxation.

For example, the standard deviation of ETHYL ALCOHOL prices rises from €25.5/l pre-tax to €31.0/l post-tax and the range increases from €490/l to

---

<sup>18</sup> Standard deviation is a typical measure of variability or dispersion of data. It shows how much variation there is around the average or mean of a set of data. A low standard deviation (relative to the mean) indicates that the data points tend to be very close to the mean, whereas a standard deviation close in value to, or higher than, the mean indicates that the data are spread out over a large range of values.

€587/l. As previously mentioned, increases like this are seen across all product categories.

<b>Table 2: Price dispersion pre- and post-tax (€/l)</b>										
	<b>BEER</b>		<b>ETHYL ALCOHOL</b>		<b>INTERM. PROD.</b>		<b>OTHER FERM.</b>		<b>WINE</b>	
	<b>Pre-tax</b>	<b>Post-tax</b>	<b>Pre-tax</b>	<b>Post-tax</b>	<b>Pre-tax</b>	<b>Post-tax</b>	<b>Pre-tax</b>	<b>Post-tax</b>	<b>Pre-tax</b>	<b>Post-tax</b>
<b>Mean</b>	1.1	1.7	18.4	29.0	7.1	10.3	5.4	8.3	12.4	15.8
<b>SD</b>	0.5	0.9	25.5	31.0	3.5	4.8	15.1	18.4	18.2	22.0
<b>Range</b>	2.2	3.7	489.8	586.4	23.5	30.0	144.2	176.5	272.3	324.5
<b>N</b>	27	27	8136	8136	774	774	91	91	3238	3238

Source: LE analysis of data from this study.

### *Across beverage categories*

To measure the disparity across beverages we have expressed the duties per litre per degree of alcohol (this simply calculates the duties in the different Member States and divides them by a typical measure of alcohol content<sup>19</sup>).

The disparity is evident, and the most noticeable finding is that a given unit of alcohol has a much reduced rate when it is categorised under OTHER FERMENTED or WINE (Table 3). This implies that the consumer is relatively better off (in a purely pecuniary sense) from purchasing WINE or OTHER FERMENTED products than they would be if duties were identical in unitary terms, and, also, if beverages were being compared on the basis of pre-tax prices.

<sup>19</sup> The alcohol content used for each product is listed in Table 5 on page 52.



**Table 3: Comparative taxation (2009): duty per degree of alcohol  
(cents of € per litre per degree of alcohol)**

MS	BEER	ETHYL ALCOHOL	INTERM. PROD. STILL	OTHER FERM. SPARK.	OTHER FERM. STILL	WINE SPARK.	WINE STILL
AT	5	10	4.56	0	0	0	0
BE	4.28	17.52	6.2	2.97	4.71	14.01	4.1
BG	1.92	5.62	2.88	0	0	0	0
CY	4.78	5.98	2.81	0	0	0	0
CZ	2.45	10.81	5.97	19.09	0	8.3	0
DE	1.97	13.03	9.56	10.2	0	11.83	0
DK	6.82	20.11	7.71	18.66	8.23	10.72	7.16
EE	4.92	12.91	8.88	5.76	6.65	5.78	5.78
EL	3.4	13.08	3.38	0	0	0	0
ES	1.99	8.3	3.47	0	0	0	0
FI	23.6	35.8	32.19	25	25.7	22.35	22.35
FR	2.64	18.54	13.58	0.24	0.34	0.74	0.3
HU	5.58	9.77	4.86	10.1	3.31	4.39	0
IE	19.87	39.25	29.75	16.65	32.81	57.06	28.53
IT	5.87	8	4.28	0	0	0	0
LT	2.46	12.79	5.5	3.36	6.26	4.99	4.99
LV	2.04	11.63	6.17	11.28	5.64	4.91	4.91
MT	1.88	14	9.38	0	0	0	0
NL	6.53	15.04	7.45	8.86	6.85	20.32	5.96
PL	5.07	14.67	5.53	9.34	4.67	4.06	4.06
PT	3.46	10.01	3.64	0	0	0	0
RO	1.87	7.5	3.19	6.81	0	2.96	0
SE	17.07	51.55	29.02	23.03	22.19	19.29	19.29
SI	6.86	6.95	3.91	0	0	0	0
SK	4.12	9.39	5.19	11.28	0	6.93	0
UK	20.39	28.03	22.08	7.88	26.5	29.51	23.04

NOTE: We have chosen Cider to represent OTHER FERMENTED (SPARKLING) in this part of the analysis.

Source: LE analysis of data from this study. Price data not available for LU.

### 4.3 Lack of harmonisation in classification

#### *Classifying identical products to different categories*

There is significant room for different interpretation of the classification rules laid down in the directives (Directive 92/83/EEC and Directive 92/84). This means that some beverages can fit into more than one category of the 5-product system.

This has two implications that might lead to distortions in the market as a result of substantially different duties being levied on the same product. One implication is that the same product might be classified into different duty

categories by different Member States. The other implication is that producers may have an incentive to (slightly) modify the composition of a beverage in order to attract favourable fiscal treatment against another product, which is ostensibly the same to the consumer.<sup>20</sup>

The effect, on the duty levied, of altering the classification is shown in Table 4 for two beverages. We analyse Cream Liqueurs and RTDs, as these are beverages that have been reported as being subject to different classifications (FISCALIS, 2005).

Our starting point is that the products are classified as ETHYL ALCOHOL and are sold at a given retail price concordant with this classification. For most beverages, this is the current circumstance. However, the possibility exists for Cream Liqueurs to be classified as INTERMEDIATE PRODUCTS, and for RTDs to be classified as OTHER FERMENTED products instead.

For each alteration, we use two measures to describe the change in duty charged. The first is the absolute change in duty charged, and the second is the proportion of the initial retail price that would be exposed to the supply chain (that is, no longer collected as duty) if the classification changed away from ETHYL ALCOHOL.

If the duty levied on a beverage is reduced, the benefit is shared between the consumer (if the price falls) and the producer (if the price falls by less than the fall in duty). Various market factors, such as the availability and price of substitute products and the elasticity of demand, will determine how the benefit is distributed.

Conversely, if the duty levied rises, the cost may be shared between the consumer and the producer, dependent on the same market factors. Under certain conditions, producers may pass on more than the increase in duty into the retail price, which would mean that consumers bore more than the cost of the duty increase.

For both examples, a change away from being classified as ETHYL ALCOHOL to be classified as the alternative results in a lower duty charge.

For RTDs, in all Member States, altering the classification from ETHYL ALCOHOL to OTHER FERMENTED results in a lower duty being levied. The change in duty charges on RTDs in many Member States would be quite

---

<sup>20</sup> Most changes relate to the alcoholic base of the drink, whether it is derived from fermentation or distillation. However, in FR, the additional tax for RTDs of any base is defined by the sugar content in the final product, which led manufacturers to reduce their products' sugar content, in order to avoid being subject to the additional levy (<http://www.houblon.net/spip.php?article1904> and <http://www.lsa-conso.fr/le-pret-a-boire-a-base-de-vin-est-arrive,38090>). This conclusion is corroborated by an illustrative current off-trade price of €5.64 per litre, which is below the duty applicable to RTDs [http://www.ooshop.com/ContentNavigation.aspx?NOEUD\\_IDFO=47096](http://www.ooshop.com/ContentNavigation.aspx?NOEUD_IDFO=47096). (All links accessed 22 April 2010.)

large, frequently in the order of 10% relative to the initial price (under classification as ETHYL ALCOHOL). The reduction is as high as 43% of the price when classified as ETHYL ALCOHOL in DE, which is due to the additional tax that spirituous RTDs attract there.

For Cream Liqueurs, in all Member States, altering the classification from ETHYL ALCOHOL to INTERMEDIATE PRODUCTS will result in lower duty charges. The reduction in duty as a proportion of the retail price (under classification as ETHYL ALCOHOL) would be on average 6%, but this includes proportions of greater than 10% in BE, EL, PL, SE and SK.

<b>Table 4: Change in duty from altering product classification</b>				
Beverage	Cream Liqueurs		RTDs	
Alteration	Change classification from EA to IP		Change classification from EA to OF	
Member State	Change in duty (€/l)	Proportion of original price (%)	Change in duty (€/l)	Proportion of original price (%)
AT	-0.97	5%	-0.55	11%
BE	-1.99	12%	-0.96	22%
BG	-0.50	2%	-0.31	5%
CY	-0.57	3%	-0.33	6%
CZ	-0.88	8%	-0.59	11%
DE	-0.69	5%	-3.77	43%
DK	-2.18	9%	-0.97	11%
EE	-0.77	4%	-0.42	17%
EL	-1.68	10%	-0.72	12%
ES	-0.86	5%	-0.46	9%
FI	-0.94	3%	-0.72	12%
FR	-0.33	2%	-0.77	19%
HU	-0.88	5%	-0.21	3%
IE	-1.91	7%	-1.07	10%
IT	-0.67	4%	-0.44	8%
LT	-1.29	6%	-0.54	16%
LV	-0.99	5%	-0.08	1%
MT	-0.88	4%	-2.20	27%
NL	-1.36	9%	-0.48	9%
PL	-1.61	15%	-0.34	7%
PT	-1.12	6%	-0.55	9%
RO	-0.76	3%	-0.41	5%
SE	-4.12	14%	-1.68	23%
SI	-0.56	3%	-0.38	6%
SK	-0.77	11%	-0.52	8%
UK	-1.23	5%	-0.42	6%

Source: LE analysis of data from this study. Price data not available for LU.

### *Significant number of exceptions*

Member States use the 5-product system specified in the Directives, but there are a significant number of exceptions where alternative duties exist under certain conditions. In some cases there are exceptions for beverages produced in overseas territories, for Cider and Perry, and for flavoured beverages or beverages mixed with non-alcoholic drinks.

In addition, the directive also allows for reduced rates for small-producing units. Although reduced rates account for a small proportion of the market, it has been alleged that, depending on how implemented, this can create significant distortions for mid-size producers. One medium producer who was aware of this study contacted us and explained how a brewer of his size was in a disadvantageous position with respect to its main competitors because he was too small to benefit from economies of large scale production, but on the other hand was not able to benefit from reduced duty exceptions for small producing units<sup>21</sup> (the producer mentioned that the duty can, in some cases, be higher than the production costs). Moreover, the growth of small brewers in the last year means that there is a larger amount of beer in the market that is taxed at reduced duty rates, which makes it more difficult for him to compete on equal terms.

## **4.4 Large differences between neighbouring Member States**

As seen previously, there exist substantial differences in duties between Member States. For the functioning of the internal market, these could be somewhat less important if small differences were encountered between countries with extensive trade relationships (i.e. neighbouring Member States) whereas larger differences were only encountered between Member States with fewer trade links (e.g. Member States distant geographically).

If differences are observed in retail prices across Member States this does not necessarily mean that the distortions are caused by duties alone. Tax rates is only one aspect of the price differentials but there are other factors related to the quality or attributes of the different beverages in different Member States that can also explain such differences. In fact, exchange rates, affordability (which could be a result of different tastes or purchasing power of its citizens), production costs (costs of transportation or distribution of the beverages, or the competitive structure of the distribution chain if competitive forces are driving prices down in some Member States compared to others), or enforcement of the tax regime (i.e. smuggling) are all country-specific intrinsic factors which help explain price differences between Member States.

---

<sup>21</sup> Although reduced rates are outside the scope of this study, we found the evidence provided by this producer interesting in showing this market distortion.

To abstract from these factors we investigated post-tax price differences (caused by duties) of products of similar characteristics across all Member States<sup>22</sup>.

For each EC category, a homogeneous product has been created as one with a pre-tax price equal to the weighted average of all pre-tax prices in the EU27, and with an alcohol content calculated as an average of the abv in the corresponding category. This EU27 homogeneous product is shown in Table 5, and is used to calculate the different duty burdens across the EU internal market.

<b>Table 5: Characteristics of EU27-homogenised product</b>		
	<b>Pre-tax price (€/l)</b>	<b>Abv.</b>
BEER	1.0	5
ETHYL ALCOHOL	6.3	34
INTERMEDIATE PRODUCTS (STILL)	4.6	16
OTHER FERMENTED (SPARKLING)	1.8	5
OTHER FERMENTED (STILL)	1.5	10
WINE SPARKLING	7.5	11.5
WINE STILL	2.7	11.5

NOTE: We have chosen Cider to represent OTHER FERMENTED (SPARKLING) in this part of the analysis. We do not have any sparkling intermediate products in our dataset.

Source: LE calculations.

For this homogeneous product we have calculated the duty in each Member State and we have then compared the post-duty price (price exclusive of VAT but inclusive of duties) across neighbouring countries. The results are expressed as a percentage difference.

The results show that a few Member States (UK, FI, SE and, to a lesser extent, DK) appear as having higher prices than their neighbours across several products. The largest discrepancy in post-duty prices of a similar product is observed between UK and FR, with close to 100% price difference for WINE STILL (prices in UK are the double of those in FR), and about 80% price difference for BEER (Table 6). Slightly lower, but also significant, is the price difference for WINE SPARKLING (40%) and ETHYL ALCOHOL (25%). There is a large price difference between UK and FR for OTHER

<sup>22</sup> This naturally assumes identical tastes, purchasing power and production and distribution costs across Member States, which is a simplification. Nonetheless, the exercise is useful to see how much of the distortion is caused by the duty alone, when all these other factors have been excluded.

FERMENTED STILL (170%), but these mainly relate to fruit wines which do not have much market size.

Large differences can also be observed between FI and EE (more than 60% for BEER, ETHYL ALCOHOL, INTERMEDIATE PRODUCTS, and more than 45% for OTHER FERMENTED and WINE STILL) and in SE and DK (BEER, INTERMEDIATE PRODUCTS and WINE STILL are about 40% or more expensive in SE than in DK, and more than 80% for ETHYL ALCOHOL). Furthermore, prices are more than 30% higher in IE than in the UK (for WINE SPARKLING) and 30% higher in FR than in ES or IT for INTERMEDIATE PRODUCT and ETHYL ALCOHOL.

There are also some significant differences involving new Member States, particularly between EL and BG (ETHYL ALCOHOL), several Member States and AT (OTHER FERMENTED SPARKLING), and PL and several Member States (OTHER FERMENTED STILL).

**Table 6: Price differences (ex. VAT, %) between Member States for comparable products**

BEER	ETHYL ALCOHOL	INTERM. PROD. STILL	OTHER FERM. SPARK	OTHER FERM. STILL	WINE SPARK.	WINE STILL
UK-FR: 78.4	SE-DK: 81.4	FI-EE: 62	CZ-AT: 53	UK-FR: 170.4	UK-FR: 43.6	UK-FR: 95.6
FI-EE: 75	FI-EE: 72.8	SE-DK: 58.5	FI-EE: 46.1	FI-EE: 88	IE-UK: 29.1	FI-EE: 56.6
SE-DK: 38.2	FR-IT: 39.7	FR-ES: 31.4	SK-AT: 31.3	SE-DK: 60.1	FI-EE: 23.3	SE-DK: 39.6
DK-DE: 22.1	FR-ES: 38.2	FR-IT: 28.1	DE-AT: 28.3	DK-DE: 54.9	BE-FR: 20.1	DK-DE: 30.5
NL-DE: 20.8	EL-BG: 30.9	FR-BE: 21.1	HU-SI: 28.1	NL-DE: 45.7	DE-AT: 18.1	NL-DE: 25.4
FI-SE: 17.6	SE-FI: 29	UK-FR: 20.1	HU-AT: 28.1	BE-DE: 31.4	DE-FR: 16.8	BE-DE: 17.4
HU-RO: 16.9	UK-FR: 25.6	IE-UK: 15.1	DE-FR: 27.5	PL-DE: 31.1	CZ-AT: 12.7	PL-SK: 17.3
IT-FR: 14.3	IE-UK: 24.1	DE-AT: 15	CZ-PL: 21.5	PL-CZ: 31.1	SE-DK: 11.3	PL-CZ: 17.3
PL-DE: 14.1	DK-DE: 22.4	DE-PL: 11.8	UK-FR: 21.1	PL-SK: 31.1	DE-PL: 11.2	PL-DE: 17.3
AT-DE: 13.8	PL-SK: 18.9	FR-DE: 10.5	LV-LT: 20.1	BE-FR: 28.4	NL-DE: 11	BE-FR: 16
EE-LV: 13.1	FR-DE: 17.5	DE-CZ: 10.4	IE-UK: 20	HU-AT: 22.1	SK-AT: 10.6	IE-UK: 11.8
PL-CZ: 11.7	BE-DE: 14.2		CZ-DE: 19.2	HU-SK: 22.1		
PL-LT: 11.6	PL-CZ: 13.1		RO-BG: 18.9	HU-RO: 22.1		
AT-CZ: 11.4	AT-SI: 12		DE-BE: 18.5	HU-SI: 22.1		
BE-DE: 10.5	HU-SI: 11.1		DK-DE: 18.3	IE-UK: 15.2		
	DE-AT: 10.6		CZ-SK: 16.5	NL-BE: 10.9		
			PL-LT: 15.2			
			NL-BE: 15.1			
			LV-EE: 13.2			

Note: Shaded cells indicate price differences of 25% or more. Table excludes price differences less than 10%. "UK-FR: 78.4" denotes prices in the UK are 78.4% greater than in France. We have chosen Cider to represent OTHER FERMENTED (SPARKLING) in this part of the analysis. We do not have any sparkling intermediate products in our dataset.

Source: LE own elaboration. Price data not available for LU.

## 4.5 Cross-border trade

Examination of cross-border trade (legitimate shopping and smuggling) within the EU provides additional evidence on the functioning of the internal market. Large volumes of cross-border shopping and/or smuggling would be expected where there are: a) price differentials across Member States, and b) constraints on the market forces that could erode out such differences.

Estimates of the amount of alcohol purchases avoiding taxes (smuggling and legitimate cross-border trade) are difficult to obtain and can be subject to criticism, as it is difficult to report on something that is by nature not observed. Where these exist, most of the reported figures refer to the most popular alcohol types: beer, wine and spirits.

We present the data such that exist, but with the caution that such patterns of cross-border trade may exist elsewhere, without being observed or recorded.<sup>23</sup>

However, we feel that the analysis presented here captures the most pertinent aspects of cross-border trade within the EU, which are most relevant to an analysis of the functioning of the internal market. Whilst the gaps in our knowledge are unlikely to substantially affect our analysis in the context of the entire EU, it is possible that certain smaller Member States experience similar problems, albeit on a smaller scale, of illicit trade or tax circumvention that is not as well documented.<sup>24</sup>

In Table 7 we present our estimates on cross-border trade based on information received from EARs and TARs and other data found in publications researched by London Economics<sup>25</sup>. The results are the following:

- For BEER, the largest volumes of smuggling and cross-border shopping are found in UK (in absolute terms), and SE and DK (in relation to taxed consumption). This closely matches the largest duty

---

<sup>23</sup> For instance, we have not been able to obtain estimates of the volume of illicit trade into the EU from external sources, though anecdotal evidence suggests this is a concern in some, particular recently acceded, Member States (<http://news.bbc.co.uk/1/hi/world/europe/4085669.stm>). The presence of duty rates within the EU may create incentives to smuggle much as disparity in rates within the EU can do. Similarly, we have not been able to obtain estimates on the volume of illicit production within the EU, which again, may be a problem in recently acceded Member States ([http://www.innovations-report.com/html/reports/studies/crisis\\_illicit\\_alcohol\\_central\\_eastern\\_europe\\_122716.html](http://www.innovations-report.com/html/reports/studies/crisis_illicit_alcohol_central_eastern_europe_122716.html)).

<sup>24</sup> Further evidence is presented in RAND (2006) "An Ex Ante Assessment of the Economic Impacts of EU Alcohol Policies" (p8), which quotes WHO and ICAP estimates of unrecorded consumption (domestically produced or cross-border trade) as being between a quarter and almost three-quarters of total alcohol consumed in EE, HU, LV, LT, PL and SK, amongst others.

<sup>25</sup> Since smuggling and cross-border figures are usually underestimated, our estimates use the largest value when figures have been provided by different sources (see Annex 2).

differences identified in Table 6. We have found no evidence of cross-border circumvention of taxes for beverage products in Member States where the duty-rate was set to the EU minimum rate, MT and RO.

- Circumvention of taxes for ETHYL ALCOHOL is particularly prevalent in SE, DK (relative to the size of the corresponding taxed volumes) and in absolute terms in UK, according to the data available. To a lesser extent, it is also important in FI and AT. It does not appear to be substantial in EL or FR, despite there being significant differences in the duties with their respective neighbours (as found in Table 6), although this could be due to lack of information on cross-border trade.
- Smuggling of WINE is particularly large in SE, FI and DK, and this is also consistent with the findings in Table 6. Unfortunately, no information is available on the extent of circumvention regarding WINE in the other countries with relatively higher duty rates, such as UK (Table 19). No circumvention of taxes are found for WINE in Member States where the duty-rate was set to the EU minimum rate (AT, MT, RO, SK, PT, BG, CZ, IT, ES, EL, HU, SI, CY, LU, DE).
- There are very few Member States that estimate the extent of smuggling of products that are not beer, wine or spirits. From the information available, the smuggling of cider is substantial in FI, as is that of INTERMEDIATE PRODUCTS in AT (Table 6).

It is interesting to note one particular case where cross-border shopping has been observed as a recent event. Circumvention in IE (from UK) was traditionally negligible compared with total legitimate consumption. However, the favourable exchange rate for the euro in 2008 meant an estimated cross-border shopping of 3% of the market, in volume.



**Table 7: Cross-border trade: untaxed volume and lost tax revenue  
(in parenthesis)\***

MS	BEER	ETHYL ALCOHOL	WINE	OTHER FERM.	INTERM. PRODUCTS	All Alcohol
AT	2% (2%)	14% (33%)			12% (9%)	
DK	25% (26%)	25 % (30%)	7% (7%)			
FI	10%	22% (0%)	2%	9% (0%)	3% (0%)	
IE						3% (0%)
IT		0% (1%)				
LV		2% (1%)				
SE	33% (0%)	46% (0%)	21% (0%)			
UK	4% (0%)	8% (18%)				

Note: This list is not exhaustive, but is based on the information we received. Other cross-border activity occurs in the EU, but there we were unable to obtain quantitative estimates for its extent.

\* Untaxed volume as a percentage of volume sold and, in parentheses, lost tax revenue as a percentage of tax revenue.

Source: *This study (see Annex 2).*

We summarise the analysis of price differences between neighbouring countries and cross-border trade in Table 8, by sorting countries in decreasing order according to the price differences found in Table 6 and matching these with the information on cross-border trade in Table 7. The results suggest that there is some relationship, so countries with higher price differentials (UK, FI, SE, DK) are also the ones with higher recorded figures of cross-border trade. These are also the countries with higher duty rates.

**Table 8: Countries with significant discrepancies with neighbouring countries and cross-border trade\***

BEER		ETHYL ALCOHOL		INTERM. PROD. STILL		OTHER FERM. SPARK		OTHER FERM. STILL		WINE SPARK.		WINE STILL	
UK	4% (0%)	SE	46% (0%)	FI	3% (0%)	CZ		UK		UK		UK	
FI	10%	FI	22% (0%)	SE		FI	9% (0%)	FI	9% (0%)	IE	3% (0%)+	FI	2%
SE	33% (0%)	FR		FR		SK		SE		FI	2%	SE	21% (0%)
DK	25% (26%)	EL		UK		DE		DK		BE		DK	7% (7%)
NL		UK	8% (18%)	IE	3% (0%)+	HU		NL		DE		NL	
HU		IE	3% (0%)+	DE		CZ		BE		CZ		BE	
IT		DK	25% (30%)			UK		PL		SE	21% (0%)	PL	
PL		PL				LV		BE		NL		BE	
AT	2% (2%)	BE				RO		HU		SK		IE	3% (0%)+
BE		AT	14% (33%)			DK		IE	3% (0%)+				

Note: \* Untaxed volume as a percentage of volume sold and, in parentheses, lost tax revenue as a percentage of tax revenue. + Refers to all alcohol products. We have chosen Cider to represent OTHER FERMENTED (SPARKLING) in the ranking for this part of the analysis.

Source: LE own elaboration.

## 4.6 Influence on consumer behaviour

An interesting issue to consider is whether excise duties are being used to protect other products indirectly and, in particular, to discriminate between imported and domestic products.

To test this, we analyse the differences between pre- and post-tax prices of product pairs to see the extent to which such differences are liable to influence consumer behaviour. The testing methodology follows the reasoning used in ECJ judgment C-167/05<sup>26</sup>.

<sup>26</sup> In *European Commission v. Sweden* (C-167/05), the European Commission challenged Swedish excise tax rules on the grounds that they afford indirect protection to beer, which is mainly produced in Sweden, as compared to wine, which is mainly imported from other EU member states, in violation of EC Treaty article 90, paragraph 2. The ECJ noted that despite the differences in the tax burden between beer and wine, the fact that this caused only limited differences in the price relationships pre- and post-tax between the two products means that it was not liable to influence consumer behaviour, as the "comparison of the relationship between the selling prices of a litre of strong beer and a litre of wine in competition with strong beer thus makes it clear that the difference in price between those two products is virtually the same before taxation as after taxation. In those circumstances, even though the difference between the respective selling prices of beer and competing wines is narrower than that found by the Court in *Commission v Belgium*, it must be pointed out that the difference in selling price found in the present case is nevertheless such that the difference in the tax treatment of those two products is not liable to influence consumer behaviour in the sector concerned." (a summary of the jurisprudence in this area can be found at <http://www.law.qmul.ac.uk/people/academic/docs/Commission%20v%20Sweden%20WTD.pdf>).

We therefore analyse the pre- and post-tax price ratios of the following product pairs: {WINE, BEER}, {ETHYL ALCOHOL, WINE}, and {ETHYL ALCOHOL, BEER}. The difference between the pre- and post-tax price ratios provides an indication of the distortion created by taxes and their influence on consumer behaviour. We then compare such differences with a measure of domestic relative production of one product over the other<sup>27</sup>.

In Table 9 we show the pre- and post-tax price ratios (R1 and R2 respectively) of WINE in relation to BEER. The column labelled "% Change R<sub>1</sub>, R<sub>2</sub>" illustrates the percentage change in pre-tax and post-tax price ratios. For example, in AT the pre-tax prices of WINE and BEER are respectively €3.1 and €1.1, which means a relationship of BEER to WINE of 1 : 2.8. Post-tax prices of €3.7 and €1.6 bring this relationship to 1 : 2.3. This means that the price of WINE relative to BEER is 17.9% lower after tax (hence, a negative sign indicates that post-tax price of WINE in relation to BEER is lower, whereas a positive sign indicates that post-tax price of WINE is higher). In general, the percentage change between the ratios is negative for all Member States and in the range of -3.4% to -27%, which means that the tax burden makes the price of WINE relatively cheaper compared to BEER. UK, LV and IE are exceptions to this general observation as tax increases the relative price of WINE.

In the last columns of Table 9, we show the production share of BEER and WINE products in relation to the overall production of BEER and WINE. We observe that there is no apparent relationship between percentage change in price ratios and production share of WINE.

Among the WINE producing Member States, the negative percentage change in price ratios is observed for IT (-20%), followed by CY (-11.5%), FR (-10.8%) and ES (-3.4%), but similar percentages are observed among BEER-producing Member States (NL -18.6%; DK -14.3%; EE -10.0%).

However, it is important to note that for three BEER-producing Member States (UK, IE, LV) the ratio is positive which suggests that, at least if using the logic applied in ECJ 167/05, a favourable tax treatment of BEER in these countries might be imputed.

This highlights that judging the price distortion created by excise duties is not straightforward. A level unitary tax implies higher duty per litre on products

---

<sup>27</sup> Production figures were provided by DG Taxation and Customs Union, and were collected from 'World Drink Trends 2002'. Data are based on 'most recently available' and in a lot of cases this refers to 1990's. Nevertheless, while there may have been changes since then, the overall weights of the different sectors are unlikely to have dramatically changed. When collecting the data blank fields have been treated as 'insignificant' production. Data for LT were imputed using figures from Baltic states (as no significant spirits production is mentioned in Baltic states we assume they are mainly beer producers). The figures for BE and LU are combined and suggest that wine is fairly insignificant compared to beer. This probably reflects the greater size of BE and since we believe that wine production is significant in LU we treat this state as wine producing mainly.

of higher alcoholic strength, which, nevertheless, may have lower pre-tax prices for a variety of reasons, including production costs and consumer preferences. In such instances, the unitary duty would have the effect of making the higher-strength drink less competitive against the lower-strength one.

**Table 9: Pre- and post-tax price ratios and domestic production share (WINE-BEER)**

MS	Pre-tax			Post-tax			% Change	Prod. %	Prod. %
	WI	BR	R1	WI	BR	R2	R1,R2	WI	BR
DK	4.9	1	4.9	7.1	1.7	4.2	-14.3	0	100
EE	5.0	1	5.0	6.7	1.5	4.5	-10.0	0	100
FI	5.0	1.9	2.6	9.2	3.7	2.5	-3.8	0	100
IE	6.1	2.6	2.3	11.5	4.4	2.6	13	0	100
LT	3.3	0.9	3.7	4.6	1.2	3.8	2.7	0	100
LV	5.4	0.7	7.7	7.2	1	7.2	-6.5	0	100
NL	3.4	0.8	4.3	4.9	1.4	3.5	-18.6	0	100
SE	3.5	1.1	3.2	7.2	2.4	3	-6.3	0	100
UK	1.5	1.5	1	4.8	2.9	1.7	70	0	100
BE	4.2	1	4.2	5.7	1.5	3.8	-9.5	1	99
CZ	2.9	0.5	5.8	3.7	0.7	5.3	-8.6	2.2	97.8
DE	3.1	0.7	4.4	3.9	1	3.9	-11.4	9.8	90.2
SK	2.5	0.7	3.6	3.0	1.1	2.7	-25.0	10	90
PL	3.2	0.9	3.6	4.5	1.4	3.2	-11.1	10.2	89.8
MT	4.5	1	4.5	5.3	1.3	4.1	-8.9	21	79
SI	3.5	1.1	3.2	4.2	1.7	2.5	-21.9	24.5	75.5
AT	3.1	1.1	2.8	3.7	1.6	2.3	-17.9	24.7	75.3
HU	2.2	0.6	3.7	2.7	1	2.7	-27	32.3	67.7
RO	2.5	0.6	4.2	3	0.8	3.7	-11.9	36.9	63.1
BG	2	0.6	3.3	2.4	0.8	3	-9.1	42.5	57.5
EL	3.1	1.8	1.7	3.7	2.3	1.6	-5.9	46.6	53.4
PT	2.1	1.2	1.7	2.4	1.6	1.5	-11.8	53.6	46.4
ES	4.1	1.4	2.9	4.8	1.7	2.8	-3.4	58.8	41.2
FR	4.1	1.1	3.7	5	1.5	3.3	-10.8	75.4	24.6
IT	2.6	1.3	2	3.1	1.9	1.6	-20	82.7	17.3
CY	4.2	1.6	2.6	4.8	2.1	2.3	-11.5	100	0

Note: Member States sorted by decreasing share of BEER production, so that BEER-producing countries are at the top of the table.

Source: LE own elaboration. Price data not available for LU.

Similarly, Table 10 illustrates pre-tax and post-tax prices of ETHYL ALCOHOL and BEER. The column labelled “% Change R<sub>1</sub>, R<sub>2</sub>” shows the percentage change in price ratios of ETHYL ALCOHOL in relation to BEER<sup>28</sup>. In general, the percentage change between the price ratios is positive for all

<sup>28</sup> For example, in Poland the pre-tax prices of ETHYL ALCOHOL and BEER are respectively €3.2 and €0.9, which means a relationship of BEER to ETHYL ALCOHOL of 1 : 3.6. Post-tax prices of €10.9 and €1.4 bring this relationship to 1 : 7.8. This means that the price of ETHYL ALCOHOL relative to BEER is 116.7% higher after tax.

Member States and in the range of 1.6% to 116.7%. This implies that the tax regime makes the price of ETHYL ALCOHOL more expensive compared to BEER. The exception is SI, where the tax burden reduces the percentage change between price ratios.

In Table 10, the last columns represent the production share of BEER and ETHYL ALCOHOL as a percentage of total BEER and ETHYL ALCOHOL. There is no apparent relationship between the change in ratios and domestic relative production. Among the ETHYL ALCOHOL producing Member States, we observe a positive percentage change in price ratios in HU (10.3%), UK (2.5%), IT (13.3%) and FR (90.2%). Among the BEER-producing Member States a positive percentage change in price ratios is observed in AT (16.3%), BG (30.1%), EE (43.3%) and LT (78.6%). However, it is important to note that for one of the BEER-producing Member States (SI) the percentage change in the price ratio is negative, which implies that the tax regime makes ETHYL ALCOHOL cheaper in comparison with BEER (and in order of -1.2%).

**Table 10: Pre- and post-tax price ratios and domestic production share (ETHYL ALCOHOL-BEER)**

MS	Pre-tax			Post-tax			% Change	Prod. %	Prod. %
	EA	BR	R1	EA	BR	R2	R1,R2	EA	BR
AT	8.8	1.1	8	14.9	1.6	9.3	16.3	0	100
BG	5	0.6	8.3	8.6	0.8	10.8	30.1	0	100
EE	3	1	3	6.4	1.5	4.3	43.3	0	100
LT	3.8	0.9	4.2	9.0	1.2	7.5	78.6	0	100
LV	5.8	0.7	8.3	11.7	1	11.7	41	0	100
MT	13.7	1	13.7	22.2	1.3	17.1	24.8	0	100
SE	8.6	1.1	7.8	34	2.4	14.2	82.1	0	100
SI	9.1	1.1	8.3	14	1.7	8.2	-1.2	0	100
BE	6.9	1	6.9	15.2	1.5	10.1	46.4	0.8	99.2
RO	5.8	0.6	9.7	10.3	0.8	12.9	33	0.8	99.2
IE	12.3	2.6	4.7	31.8	4.4	7.2	53.2	0.9	99.1
PT	7.9	1.2	6.6	13.9	1.6	8.7	31.8	1.1	98.9
NL	9.9	0.8	12.4	17.7	1.4	12.6	1.6	1.3	98.7
DE	4.8	0.7	6.9	11.3	1	11.3	63.8	1.6	98.4
DK	11.8	1	11.8	23	1.7	13.5	14.4	1.7	98.3
PL	3.2	0.9	3.6	10.9	1.4	7.8	116.7	2.6	97.4
ES	8.3	1.4	5.9	13.1	1.7	7.7	30.5	3.1	96.9
FI	5.7	1.9	3.0	17.9	3.7	4.8	60.0	3.4	96.6
SK	3.9	0.7	5.6	8.7	1.1	7.9	41.1	3.7	96.3
CZ	3.5	0.5	7	8.9	0.7	12.7	81.4	4.8	95.2
EL	8	1.8	4.4	14.4	2.3	6.3	43.2	4.8	95.2
FR	5.6	1.1	5.1	14.6	1.5	9.7	90.2	6.9	93.1
IT	5.9	1.3	4.5	9.7	1.9	5.1	13.3	7.6	92.4
UK	12.1	1.5	8.1	24.1	2.9	8.3	2.5	8.2	91.8
HU	7	0.6	11.7	12.9	1	12.9	10.3	12.3	87.7
CY	9.9	1.6	6.2	13.9	2.1	6.6	6.5	.	.

Note: Member States sorted by decreasing share of BEER production, so that BEER-producing countries are at the top of the table. "." denotes negligible production by Member State.

Source: LE own elaboration. Price data not available for LU.

Finally, Table 11 illustrates the relationship between ETHYL ALCOHOL and WINE. Again, the column labelled “% Change R<sub>1</sub>, R<sub>2</sub>” illustrates the percentage change in price ratios<sup>29</sup>. Overall, the percentage change between price ratios is positive for all Member States and in the range of 20.8% to 140.0%. The exception is UK, where the percentage change is negative.

The total production share of ETHYL ALCOHOL and WINE is shown in the last column of Table 11. Among the main ETHYL ALCOHOL producing Member States the percentage change in price ratios is positive (NL 24.1%; IE 40.0%; FI 72.7%; DK 33.3%) but the percentage is similarly positive in WINE-producing Member States (AT 42.9%; BG 44.0%; CY 20.8%; MT 40.0%). However, it is interesting to note that in one ETHYL ALCOHOL-producing

<sup>29</sup> For example, in Belgium the pre-tax price of ETHYL ALCOHOL is €6.9 and pre-tax price of WINE is also €6.9, which implies the relationship between these beverages of 1 : 1. The post-tax prices of ETHYL ALCOHOL and WINE are €15.2 and €1.5, respectively. Thus, the ratio changes to 10.1. This means that the post-tax price of ETHYL ALCOHOL relative to WINE is 46.4% higher.

Member State (UK) WINE is relatively more expensive after taxation (and in the order of 38.3%).

**Table 11: Pre- and post-tax price ratios and domestic production share (ETHYL ALCOHOL-WINE)**

MS	Pre-tax			Post-tax			%	Prod. %	Prod. %
	EA	WI	R1	EA	WI	R2	Change		
AT	8.8	3.1	2.8	14.9	3.7	4	42.9	0	100
BG	5	2	2.5	8.6	2.4	3.6	44	0	100
CY	9.9	4.2	2.4	13.9	4.8	2.9	20.8	0	100
MT	13.7	4.5	3	22.2	5.3	4.2	40	0	100
SI	9.1	3.5	2.6	14	4.2	3.3	26.9	0	100
PT	7.9	2.1	3.8	13.9	2.4	5.8	52.6	0.9	99.1
RO	5.8	2.5	2.3	10.3	3	3.4	47.8	1.3	98.7
IT	5.9	2.6	2.3	9.7	3.1	3.1	34.8	1.7	98.3
ES	8.3	4.1	2	13.1	4.8	2.7	35	2.2	97.8
FR	5.6	4.1	1.4	14.6	5	2.9	107.1	2.4	97.6
EL	8	3.1	2.6	14.4	3.7	3.9	50	5.4	94.6
DE	4.8	3.1	1.5	11.3	3.9	2.9	93.3	12.6	87.4
PL	3.2	3.2	1.0	10.9	4.5	2.4	140.0	18.7	81.3
HU	7	2.2	3.2	12.9	2.7	4.8	50	22.8	77.2
SK	3.9	2.5	1.6	8.7	3.0	2.9	81.3	25.4	74.6
BE	6.9	4.2	1.6	15.2	5.7	2.7	68.8	44.4	55.6
CZ	3.5	2.9	1.2	8.9	3.7	2.4	100.0	69.1	30.9
DK	11.8	4.9	2.4	23	7.1	3.2	33.3	100	0
FI	5.7	5.0	1.1	17.9	9.2	1.9	72.7	100	0
IE	12.3	6.1	2.0	31.8	11.5	2.8	40.0	100	0
NL	9.9	3.4	2.9	17.7	4.9	3.6	24.1	100	0
UK	12.1	1.5	8.1	24.1	4.8	5	-38.3	100	0
EE	3	5.0	0.6	6.4	6.7	1	66.7	.	.
LT	3.8	3.3	1.2	9.0	4.6	2.0	66.7	.	.
LV	5.8	5.4	1.1	11.7	7.2	1.6	45.5	.	.
SE	8.6	3.5	2.5	34	7.2	4.7	88		

Note: Member States sorted by decreasing share of WINE production, so that WINE-producing countries are at the top of the table. "." denotes negligible production by Member State.

Source: LE own elaboration. Price data not available for LU.

## 4.7 Duties being used as a trading barrier

We finally consider whether duties are a barrier to trade and, in particular, whether these are being used to restrict imports from Member States of certain alcoholic substitute products which could potentially compete with a domestic product.

To test whether this is the case we investigate whether Member States are systematically charging higher duties on the potential substitutes of a domestically-produced product. Our analysis uses a homogeneous EU27 product (see Table 5), for which we calculate the duty burden as a percentage

of the retail price for each alcohol category. We then fit a regression line on the different duty burdens of products pairs across all EU Member States. The regression line represents the average EU *relative* duty burden between pairs of alcoholic beverages. This is the relationship between duties observable across Member States for pairs of products. Proximity to this relationship will indicate a Member State setting taxes similarly than the EU average.

If countries are not systematically discriminating against one type of beverage, one would expect a positive slope, indicating that countries with high duties on one product (e.g. wine) also charge high duties on its substitutes (e.g. beer or spirits). In this context, Member States deviating from the EU relative line indicate a different duty burden for one of the beverages, compared to the burden being given in the EU on average. The direction of these deviations and their systematic presence provides an indication of the protection or not of domestic production.

In each chart, the very high rates in four Member States (FI, IE, SE, UK) have a lot of influence on the angle of the regression line. However, there does not seem strong visual evidence to suggest the line would be downward sloping excluding these countries. Furthermore, excluding the four in assessing this is less useful, since the greatest incentive for trade (as highlighted by the analysis on cross-border trade) exists mainly between those four Member States with high duties and their neighbours, rather than between the rest of the EU Member States.

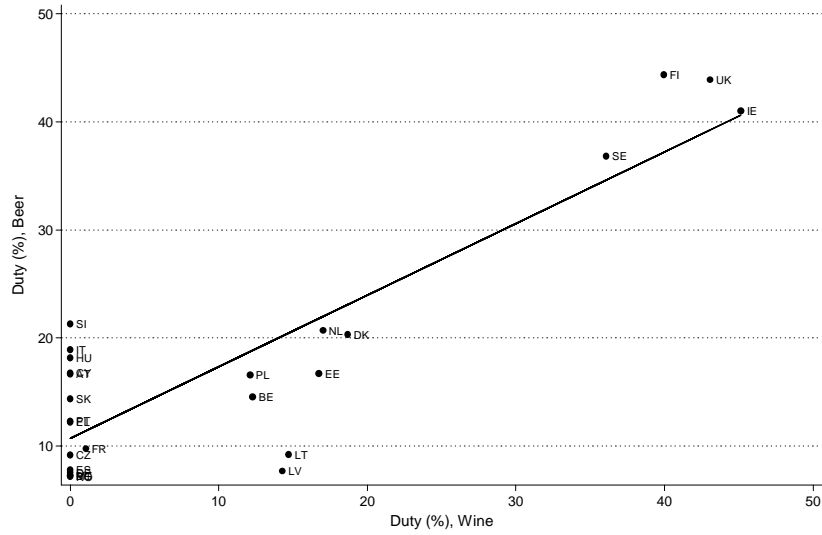
The relative EU duty burden line is shown in Figure 26 for WINE and BEER. We observe a positive slope, so that Member States with a high duty burden in WINE also show a high duty burden for BEER (SE, FI, IE, UK). We also observe that some countries have a higher duty burden for BEER (SI, IT, HU, CY, AT) compared to the EU average ratio of BEER to WINE duties (indicated by the regression line). Moreover, countries with zero duty on WINE generally also have low duties on BEER.

The relative EU duty burden line is shown in Figure 27 for the WINE and ETHYL ALCOHOL pair. We observe a positive slope, so again Member States with a high duty burden in WINE also have a high duty burden for ETHYL ALCOHOL. Countries like FR, MT, DE, EL charge a relatively higher duty rate on ETHYL ALCOHOL (compared with the EU average ratio of WINE to ETHYL ALCOHOL).

A similar relationship can be found for BEER and ETHYL ALCOHOL (Figure 28). Again, we observe the same four Member States charging high duty rates for both BEER and ETHYL ALCOHOL, and a positive slope for the EU line of relative duty burden.

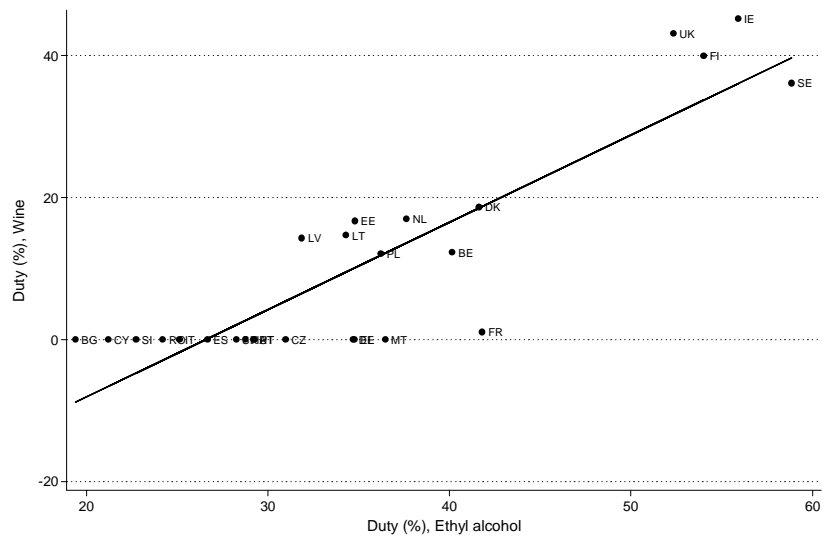


**Figure 26: Differences WINE and BEER taxation.**



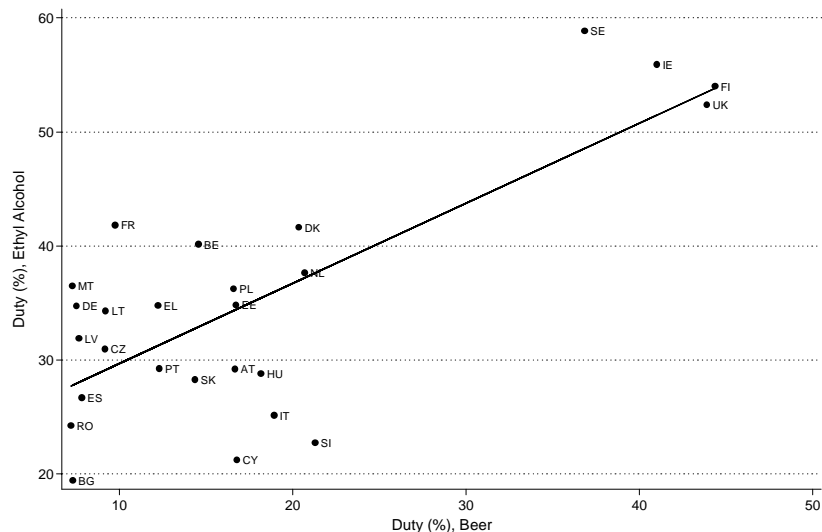
Source: LE own estimates and data from this report. Price data not available for LU.

**Figure 27: Differences ETHYL ALCOHOL and WINE taxation.**



Source: LE own estimates and data from this report. Price data not available for LU.

Figure 28: Differences BEER and ETHYL ALCOHOL taxation.



Source: LE own estimates and data from this report. Price data not available for LU.

One may ask whether there is any common factor explaining the differences from the average EU relative duty burden. For each Member State, we now investigate the relationship between the observed duty rate for pairs and the EU relative average duty (distance to the regression line), compared to a measure of domestic relative production of the pair.

In Table 12 we show the residuals of the regression. This is the difference between current duty burden and the predicted duty burden (using the EU duty burden regression line for each pair of alcoholic beverages). Hence, column (2) shows the difference between the current duty burden for BEER and the one calculated using the EU average BEER-WINE relationship. For example, in LV the duty burden for BEER is 12.5 percentage points lower than the rate that would resemble the EU relationship for BEER and WINE<sup>30</sup>. Column (3) shows a measure of domestic relative production of the product pair (production share of BEER relation to the overall production of BEER and WINE).

In general, the evidence is very mixed for different beverage pairs: some Member States charge more and others less than the EU average ratio. Although some countries are charging relatively more for beverages not produced domestically, the opposite is also true in some cases.

<sup>30</sup> In Latvia the tax burden for BEER is 7.7% of the price (not shown in the table). The predicted tax burden using the EU regression line is 20.2%. This gives a residual (or difference) of 12.5.

The relationship between the residuals and production shares for each product pair has been analysed using simple correlation. The coefficient of correlation (or degree of dependence) between residuals and production shares is shown in the last row of the table for the different product pairs and is below 0.5, which we consider small<sup>31</sup>.

Only in the pair WI-EA there seems to be some weak relationship between the estimated residuals and production share, in the sense that countries with a higher production share of wine seem to be charging lower duties for WINE than for ETHYL ALCOHOL. This is exemplified in the cases of FR, MT, EL (high production share, low residual), although some other traditional wine-producing countries (PT, ES, IT) show the opposite by appearing close to the regression line (high production share, small residual).

Therefore, in summary, we do not find support for the hypothesis of duties being used systematically as a trading barrier across EU Member States<sup>32</sup>.

---

<sup>31</sup> Values for the correlation coefficient range between -1 and +1, with a correlation coefficient of +1 indicating that the two variables have a perfect, upward-sloping (+) linear relationship. A correlation coefficient of 0 demonstrates that the variables have no relationship, and are independent.

<sup>32</sup> Although indicative, the analysis is based on the calculations of a single and representative homogeneous beverage for each beverage category. Protection of domestic production through duties could be exercised by applying, within the same category, different duty rates to products with certain characteristics. At the present time duties can differ, within category, according to the alcohol content of the beverage, and this practice could be used to protect domestic products at the expenses of others produced in other Member States (with higher alcohol content, for example). We state this possibility as a conjecture, but have not been able to test it exhaustively, as it would require analysis of each different type of drink and duty in the 27 Member States.

**Table 12: Residuals EU average relationship, and production share (alcohol product pairs)**

BR-WI			WI-EA			EA-BR		
MS (1)	Residual (2)	Prod BR % (3)	MS (4)	Residual (5)	Prod WI % (6)	MS (7)	Residual (8)	Prod EA % (9)
LV	-12.5	100	FR	-17.7	97.6	SI	-14.9	0
LT	-11.3	100	MT	-12.2	100	CY	-13.2	
EE	-5.1	100	EL	-10.1	94.6	IT	-10.8	7.6
BE	-4.3	99	DE	-10	87.4	BG	-8.4	0
RO	-3.5	63.1	CZ	-5.4	30.9	HU	-6.7	12.3
MT	-3.5	79	BE	-4.4	55.6	AT	-5.2	0
BG	-3.4	57.5	SE	-3.6		SK	-4.5	3.7
DE	-3.2	90.2	PT	-3.3	99.1	RO	-3.5	0.8
ES	-2.9	41.2	AT	-3.2	100	PT	-2.1	1.1
DK	-2.8	100	HU	-2.7	77.2	ES	-1.5	3.1
PL	-2.1	89.8	SK	-2.1	74.6	UK	-1.2	8.2
FR	-1.7	24.6	ES	-0.1	97.8	FI	0.2	3.4
CZ	-1.6	97.8	DK	0.2	0	EE	0.4	0
NL	-1.3	100	PL	0.2	81.3	NL	0.5	1.3
IE	0.4	100	IT	1.8	98.3	CZ	1.9	4.8
EL	1.5	53.4	RO	2.9	98.7	PL	1.9	2.6
PT	1.6	46.4	NL	3.4	0	EL	3.5	4.8
SE	2.2	100	SI	4.7	100	LV	3.8	0
SK	3.6	90	LT	5.2		IE	4.4	0.9
UK	4.7	100	FI	6.2	0	DK	4.7	1.7
AT	5.9	75.3	CY	6.6	100	LT	5.2	0
CY	6	0	EE	6.6		DE	6.7	1.6
FI	7.2	100	LV	7.8		BE	7.3	0.8
HU	7.4	67.7	BG	8.8	100	MT	8.7	0
SI	10.6	75.5	UK	11.4	0	FR	12.3	6.9
Corr.	-0.34		Corr.	-0.41		Corr.	-0.17	

Source: LE own estimates and data from this report. Price data not available for LU.

## 5 Problems with classification of beverages

While for the majority of beverages on the market there are no significant problems in the meaning and delimitation of the different categories defined by the Directive 92/83/EEC, the classification is not clear for certain types of beverage, and Member States use different procedures. As a result, some beverages are being classified differently depending on the methodology used in different Member States.

The main problems relate to the classification of products using: a) additions of alcohol, b) cleaned-up alcohol, and c) new methods of alcohol fortification.

In relation to these three types of products, in this section we describe the current problems, the current approaches and the solutions proposed by different Member States. The analysis is based on the responses to our consultation of excise administrations and trade associations.

### 5.1 Problems of the system

There are two main problems with the existing classification system:

- The lack of certainty over the tax treatment in cases where amounts of ethyl alcohol have been added to a fermented beverage; and
- The tax treatment of products that have been either subject to a cleaning-up process (ultra filtration, reverse osmosis, etc), or that are produced using cleaned-up alcohol.

#### *Addition of alcohol*

Previous studies have investigated the classification system for beverages containing additions of alcohol (see FISCALIS). In such studies it is noted that the Harmonised System Explanatory Notes (HSEN) allow fermented beverages with addition of distilled alcohol to be included in heading CN 2206, but there is a lack of clear and comprehensive rules on how to classify such products. As a result, there is evidence that when classifying certain products Member States have interpreted CN 2206 and CN 2208<sup>33</sup> very differently which has meant that in some cases the same product can be

---

<sup>33</sup> CN 2208 corresponds to “Undenatured ethyl alcohol of an alcoholic strength by volume of less than 80% vol; spirits, liqueurs and other spirituous beverages; compound alcoholic preparations of a kind used for the manufacture of beverages. Includes 2208 10 Compound alcoholic preparations of a kind used for the manufacture of beverages; 2208 20 Spirits obtained by distilling grape wine or grape marc; 2208 30 Whiskies; 2208 40 Rum and taffia; 2208 50 Gin and Geneva; 2208 90 Other (Arrack, vodka, etc).”

classified as OTHER FERMENTED BEVERAGES, INTERMEDIATE PRODUCTS, or ETHYL ALCOHOL in different Member States.

This has been confirmed by the responses to our survey of excise administrations. Authorities from ten countries<sup>34</sup> reported problems with categorising products under CN 2203, 2204 and 2205 or 2206 when these products contain additions of alcohol. However, the extent of the difficulties encountered varies between Member States and authorities recognise that the problem does not necessarily arise for every product.

Below we report the type of problems identified under each of the CN headings.

- CN 2203 which corresponds to “Beer made from malt”.
- CN2204/2005. CN 2204 corresponds to “Wine of fresh grapes, including fortified wines; grape must other than that of heading No 2009”<sup>35</sup>. CN 2205 corresponds to “Vermouth and other wine of fresh grapes flavoured with plants or aromatic substances”<sup>36</sup>.
- CN 2206 which corresponds to “Other fermented beverages and mixtures not elsewhere specified or included”<sup>37</sup>.

#### **CN 2203: “Beer made from malt”**

The type of problems of additions to products classified as CN 2203 is documented in the response by the UK excise authorities. Although it is recognised that the problems in this area are not as extensive as those regarding the distinction between products of 2206 or 2208, it has been reported that there are “occasionally individual cases where beers are produced that contain some element of added alcohol. This is becoming more of an issue as novelty flavoured beers are becoming more of a feature of the UK market and the spirituous alcohol that is added is often used to carry a particular flavouring”.

At present, the problem of additions to CN 2203 seems to be quite insignificant: most Member States did not provide an answer to this question (EL specifically reports that flavoured beer or beer products with addition of

---

<sup>34</sup> AT, DE, CZ, EE, FR, HU, IE, LT, SK, UK.

<sup>35</sup> Includes 2204 10 Sparkling wine; 2204 21 Other wine; grape must with fermentation prevented or arrested by the addition of alcohol; 2204 29 Other; 2204 30 Other grape must.

<sup>36</sup> Includes 2205 90 Other.

<sup>37</sup> The exact definition reads as “Other fermented beverages (for example, cider, perry, mead); mixtures of fermented beverages and mixtures of fermented beverages and non-alcoholic beverages, not elsewhere specified or included”.

alcohol are not produced in that country). However, the additions of flavours or spirits is reported in the following Member States: AT (fruit flavours); HU (tequila flavouring, apricot brandy), DE (spirits, wine, fruitwine), FR various aromas of 3302, as well as colas, lemonades or various beverages of 2208 (cognac, armagnac, picon...), and UK (ethyl alcohol).

At issue is whether additions of alcoholic flavourings should be treated not only as flavouring, but as fortification of beer as well. And LV believes that the question is "how much of alcoholic flavourings could be added to the beer to treat it still as flavoured beer of heading 2203" (similar concerns are reflected in the response for FR).

The trade association for beer, BoE, are of the view that the inclusion of additives and flavours does not alter the classification of the product as a beer: "flavours may be "carried" in an alcohol base. However, the impact of this on the alcoholic content of the finished product is trace". Moreover "from a fiscal point of view, the classification of products due to the addition of additives or flavours does not appear to be in doubt, since they all fall within the beer category. Therefore they are taxed according to their alcohol content, measured by volume or degree Plato". In any case, BoE report "with a high degree of confidence that the volume of fortified beer produced for EU consumption is extremely low".

#### **CN 2204/2205 "Wine of fresh grapes (including fortified wines)" and "Vermouth and other wine of fresh grapes flavoured"**

In FR the problem is summarised as the following: "depending on the level of added alcohol, the drink can move from a fermented drink classification to an intermediary drink or alcohol". In the responses of HU, LV, AT there is also recognition of a classification problem of whether products should fall into INTERMEDIATE PRODUCTS or ETHYL ALCOHOL.

A small number of Member States reported no current problems (DK, IE, EL<sup>38</sup>) or that the additions of other alcoholic substances to 2204 and 2205 is not currently considered relevant in their market (DE, PT).

Responses from the trade associations refer to the regulatory framework for wine production in the EU27. According to CEEV, this framework provides exhaustive and precise rules on winemaking oenological practices and treatments and states that any practice not included within regulatory framework is prohibited. The application of oenological practices and treatments aims at quality enhancement and is only allowed as a correction to the natural composition of ingredients. CEEV also reports that wine

---

<sup>38</sup> In EL, products of CN codes 2204, 2205 have no problems in their taxation treatment because when ethyl alcohol is allowed only for the production of particular special kinds of wine (under particular terms and conditions), the product is treated generally as an INTERMEDIATE PRODUCT (in case the alcoholic strength exceeds the limit of 22%, it is treated as ETHYL ALCOHOL).

production in the United Kingdom is under the regulation of the strict Code of Practice. According to this code of practice, application of natural flavours, sweetening and colouring is allowed in the production of certain categories of wines and in a similar way to those substances that are added in production of wines of CN2204 and CN2205.

**CN 2206 “Other fermented beverages and mixtures not elsewhere specified or included”.**

A number of responses have indicated that there is a lack of certainty as to how products that are derived from adding alcohol to 2206 products should be treated. This is compounded by the fact that different Member States use varying methods to establish the classification which could result in a distortion of trade. As a result this has been identified as a problem in AT, DE, FR, HU, IE, LT, SK and UK.

In fact, there are fears that the system is vulnerable to changes in the product formulation which are being made just to change the beverage's fiscal treatment. The DE authorities report that the categorisation of products containing mixtures is problematic in their country, despite measuring the composition of contents in each case. As an example, the DE authorities explain how a product made from beer, cola, and cherry liquor that was originally assigned to 2208 (taxed as a liquor and an 'alcopop') was reformulated to beer, cola and cherry wine and re-classified as CN 2206, because cherry wine is treated as an intermediate product.

There is also uncertainty amongst manufacturers on the different ways the same product could be classified in different Member States. For example, in UK some manufacturers produce beverages that are sold as fortified products or liqueur wines<sup>39</sup>. Such products often contain high amounts of added alcohol but are otherwise similar in many respects to sherry. Tests in UK using analysis of the amount of added alcohol and other characteristics (such as the volume provided by the fermented liquor and the marketing and labelling) currently classify these beverages as OTHER FERMENTED BEVERAGES. Because of lack of clear and comprehensive rules, the same product could be classified as ETHYL ALCOHOL in other Member States if classification were determined solely on the amount of added alcohol.

In DK there are no current problems reported, and PT and EL report that the presence of such products is insignificant.

It is to be noted that during the period in which this study has been undertaken, the ECJ has ruled in the case of Siebrand (C-150/08) which illustrates the type of problems reported by Member States, as it concerned

---

<sup>39</sup> As such products are based on imported dehydrated grape must, the UK authorities understand that these cannot be allocated to 2204 (or if aromatised to 2205), because they cannot be considered from 'fresh grape'.



certain liqueur products to which alcohol had been added. The ECJ ruled that the products with which the case was concerned should be classified to CN 2208. Moreover, it also lays down an indication of the type of tests that should be applied when determining classification.

The ECJ resolution could have an impact on the extent and nature of the perceived problems (most notably with the addition of alcohol to 2206 products) as the implications of this case are considered and work their way into the policies of the Member States.

### *Cleaned-up alcohol*

Some operators are increasingly making use of “cleaned-up” alcohol as the alcoholic base to make beverages (such as “alcopops”). It was made clear for this project that the Commission understands *cleaned-up* alcohol as

*fermented alcohol which has been subjected to industrial processes that strip out the components that give the liquor its fermented character; [as a result] what is left is largely alcohol and water which can be used as a base to make drinks.*

Although at present the market share of products using cleaned-up alcohol is very small<sup>40</sup>, a number of problems were raised by the national authorities who responded to the survey. It is also worth noticing that two Member States stated that they have no problems with cleaned-up products: DK (for products with cleaned-up alcohol of any origin) and IE (alcohol from 2203 and 2204/2205 origin).

The main problem with cleaned-up alcohol is the different interpretation by Member States of the existing nomenclature legislation in regard to how such products can be classified. The Commission's understanding is that a significant majority of Member States have historically classified such products to 2208, but a minority – especially the English-speaking Member States – have in the past held the view that CN 2208 is reserved for products that contain alcohol obtained by distillation.

There is also currently no legal definition of what should be understood by the term cleaned-up alcohol and this creates uncertainty on how to treat such products. In particular, there are doubts on how to classify products containing cleaned-up alcohol (for example of a 2206 origin in IE; or 2203, 2204/2205 and 2206 in LT). This may be because of the difficulty in determining whether 2203 products are altered to the extent that they no longer have the characteristics of beer (as in DE); or because of problems in verifying the addition of cleaned-up alcohol to fermented products, as

---

<sup>40</sup> For the countries that could provide information (AT, DK, ES, IE) the shares are 1% or less. Data was not available for remaining countries.

cleaned-up alcohol is undetectable from fermented alcohol using laboratory tests (FR)<sup>41</sup>.

As a consequence, some Member States (UK, LT) expressed concerns over unfair competition between cleaned-up alcohol and distilled alcohol. Since the characteristics of cleaned-up alcohol are not distinguishable from distilled alcohol, products based on cleaned-up alcohol may have a tax advantage if they are treated as fermented products for tax purposes.

Trade associations reported that the use of cleaned-up alcohol is extremely low in production of beer, cider and fruit wine, or wine. No information was provided by the European Spirits Organisation (CEPS) on the use of cleaned-up alcohol in production. The rest of trade associations did not provide information on the use of cleaned-up alcohol either. However, evidence from administrations and technical experts consulted during this study show that the use of cleaned-up is a fact, even if only for a certain segment of the market.

### *Substitutes to fortification*

The Commission understands that in some cases manufacturers are using processes such as ultra-filtration, reverse osmosis etc. to increase the alcoholic strength of fermented beverages (instead of the traditional fortification with alcohol)<sup>42</sup>. The survey investigated the extent to which these substitutes are being used to increase the alcoholic strength of the products in each Member State.

The presence of products using alternatives to fortification is very small. Only four countries (AT, DK, EL, ES) could provide information and each of these indicated that the shares in their countries are negligible (less than 1%, or zero).

The findings are corroborated by the answers of the trade associations. According to BoE, the production of fortified beer in the EU27 is very low. Similarly, AICV reported that no fortified alcohol is used in the EU27. CEPS answered they do not have data on the application of fortified alcohol in spirits production. According to CEEV, there is no problem within the wine sector in terms of fortified wine production as the international and EU legal framework is in use, which precisely determines what can be used in fortified wine (2204, 2205) production (regulation 1234/2007).

---

<sup>41</sup> Cleaned-up alcohol from a fermented base is of a similar nature as ethyl alcohol (in terms of flavour, odour and colour), and does not contain the substances that identify alcohol from distillation (glycerol or organic acids).

<sup>42</sup> This issue should not be confused with the general question of 'cleaning-up' alcohol. Although similar processes can be used, in these cases the purpose is to increase the abv of the beverage by concentrating the alcohol.

## 5.2 Approaches used to categorise products

### *Additions*

In determining the appropriate classification of products, all Member States are obliged to follow the rules laid down in the General Rules for the Interpretation of the Nomenclature (GRI)<sup>43</sup>. The GRI makes it clear that products which are mixtures of components that are proper to different headings of the nomenclature should be classified according to their "essential character"<sup>44</sup>. However, it is evident from the different practices that have evolved in the Member States that there have been different views as to the tests that should be employed to establish what exactly is meant by the *character* of the products.

Three main approaches are used to categorise products with added alcohol: analysis of contents, classification based on non-prescriptive tests and a mixed approach.

**Analysis of contents:** the responses from excise administration survey indicate the analyses used for 2203, and 2204/2205 and 2206.<sup>45</sup>

- In a few Member States, the test applied is based on total alcohol volume. In UK, CN 2203 products are categorised as BEER if the addition of alcohol does not increase the alcoholic strength by 0.1% or more. FR and EL (CN 2203) also use a rule limiting the increase in the alcoholic strength of the drink. In the case of EL, the increase in the alcoholic strength has to be "very little" for a product to be considered as BEER. In FR (2203) the approach is based on whether a small/insignificant amount of alcohol is added such that it can be considered aromatisation rather than fortification.
- For 2204/2205 and 2206, a number of Member States use a test based on the relative proportions of spirituous or fermented alcohol. Hence, if a certain percentage of the alcohol content in the beverage is from non-fermented origin, they will consider this as significant evidence to classify the product as 2208 and therefore treated as ETHYL ALCOHOL.<sup>46</sup>

---

<sup>43</sup> Section 1 of Annex 1 of Council Regulation 2658/87.

<sup>44</sup> This approach is, for instance, underscored by the HSEN to CN 2206 which allows fortified products to remain within the heading so long as they retain the character of the products falling under the heading.

<sup>45</sup> DE also uses an analysis of the composition of contents for CN 2204, 2205, and 2206, but no information on the precise rules are mentioned in the response.

<sup>46</sup> Interestingly, the percentage used as a threshold is different across Member States: a 50% is used in the

**Non-prescriptive tests:** In a few cases, Member States use analyses based on the character of the beverage (without mentioning any prescriptive test). In EE all CN 2203 with added alcohol are no longer classified as BEER (products are categorised under OTHER FERMENTED BEVERAGES or ETHYL ALCOHOL depending on whether they retain the character of a fermented beverage); in HU, CN 2203 are categorised as BEER if products retain their characteristics (otherwise they are classified as 2206 or 2208, depending on the level of alcohol).

**Mixed approach:** In UK a mixed approach based on three tests is used to determine the fermented characteristics of mixed alcoholic beverages for CN 2204, 2205 and 2206. The test examines the contribution to the overall volume and the contribution to the alcohol content. In cases where the tests are not conclusive, classification is decided on whether other characteristics of the product are those of a spirit or fermented beverage (for example, how it is labelled, presented or how it tastes).

### *Cleaned-up alcohol*

The survey responses and also previous discussions the Commission has had with Member States on this question provide information about Member States' approaches for the categorisation of cleaned-up products of origin CN 2203, 2204/2205 and 2206.

Our understanding is that previous meetings held under the auspices of both the Customs Nomenclature and Excise Committee have shown that a large majority of Member States appear to treat cleaned-up alcohol as ETHYL ALCOHOL, irrespective of the origin of the product. However, this is not the case in all Member States (for instance, the responses to the questionnaire show that cleaned-up alcohol derived from fermented beverage has at least in UK and IE been treated as fermented product). The Commission has reported to us that these differences in classification can cause problems not only for administrations, but also for operators when trading across Member States. These differences in opinion are not only restricted to Europe: the issue of classification of cleaned-up alcohol is currently being discussed by the Harmonised System Committee of the World Customs Organisation in recognition of the problems that it has caused. At the time of this report, a final outcome from those discussions is still awaited.

---

CZ, HU (2206); LT (2204 and 2205) and IE (2206); whereas in LT (2206) and EE (2204 and 2205) percentages of 70% and 80% are used, respectively. In FR the classification is based on the proportion of glycerol found in the beverage: products CN 2206 with a proportion of glycerol above 1% are considered as fermented (it is understood this means that at least 15% to 20% of the alcohol is from a fermented origin). In FI, beverages can be categorised as INTERMEDIATE PRODUCTS if at least 17% of the alcohol content of the product is produced by fermentation and the total alcohol content of the product is less than 22% (if more than 83% of the alcohol content originates from added alcohol then this is seen as indicative that the product should be classified as ETHYL ALCOHOL).

---

Furthermore, in the survey responses, certain Member States noted the importance of taking into account whether the processes of cleaning-up the alcohol changes the characteristics of the product. For example, in DE, altered CN 2203 products (to the extent that they no longer have the organoleptic characteristics of beer) are categorised as ETHYL ALCOHOL for tax purposes<sup>47</sup>.

### *Substitutes to fortification*

Very few responses were provided but they all indicate that the products are currently taxed according to the alcohol content of the finished product, applied on the basis of the category of the original nomenclature heading (so long as the nomenclature heading is not altered by the process undertaken). This gives rise to the concern that an unfair tax advantage may be obtained when products using these methods are classified as OTHER FERMENTED BEVERAGES compared to products using traditional fortification methods which would have led to tax treatment as INTERMEDIATE PRODUCTS.

## 5.3 Solutions

### *Additions*

Although the problems are widely recognised across the EU, when responding to our survey very few Member States offered specific recommendations or solutions to the problems. Nevertheless, those who responded provided a range of solutions and we have grouped the suggestion under two headings: CN 2203; and CN 2204/2205 and 2206 products.

#### **CN 2203: "Beer made from malt"**

In the case of CN 2203, the suggestions received agree on the following.

- **Solution 1:** Introduce rules related to the increase in strength of the product. This was suggested by UK, FR, EL, LT.

**CN 2204/2205 and 2206 products: "Wine of fresh grapes (including fortified wines)", "Vermouth and other wine of fresh grapes flavoured" and "Other fermented beverages and mixtures not elsewhere specified or included".**

For the rest of products the following solutions were suggested:

---

<sup>47</sup> The DE authorities commented that the issue is not relevant for products of origin 2204/5 and 2206.

- **Solution 1:** Introduce absolute rules related to the proportionate contributions to the alcohol content of the final beverage. This could be applied for products based on ferments of 2204, 2205 & 2206 or alternatively just 2206.
- **Solution 2:** As an alternative to Solution 1, introduce a system which combines the results of separate tests on alcoholic content, the volume of liquid contributed by ethyl alcohol and characteristics of the product. This was suggested by UK (for 2204/2205 and 2206) and is the system currently being used.
- **Solution 3:** Place no restrictions on the amount of alcohol that can be added. Noted, though not advocated, by UK as an alternative approach for CN 2204/2205 and 2206<sup>48</sup>.

### *Cleaned-up alcohol*

The national authorities suggested treating cleaned-up alcohol similar to alcohol from distillation, using the possible approaches outlined below. What is interesting to note is that none of the replies proposed treating cleaned-up as a fermented beverage.

- **Solution 1:** Categorise such products as ETHYL ALCOHOL in every case. The AT authorities suggested the cleaned-up products should be categorised under CN 2208. UK also suggested this solution because the essential characteristics of fermented alcohol will have been removed and the resulting product has more similarities with the characteristics of a distilled product.
- **Solution 2:** Agree common classifications. LT respondents suggested agreeing final common decisions on classifications for “cleaned-up beer”, “cleaned-up fermented beverages” and “semi-cleaned fermented beverages” and products thereof, and establishing the criterion for the control of the product.
- **Solution 3:** Clarifying the relevant chapter(s) of the CN codes to ensure that cleaned-up products are treated as 2207/2208 was suggested by EL.

---

<sup>48</sup> The UK authorities believed that this could be problematic in that it may encourage operators to add token amounts of fermented product to spirits and classify them as fermented beverages.

## 6 Analysis of policy options

In this section we analyse the impact of different policy options proposing changes in the directives to address some of the problems identified. We first describe the proposed different policy options and the modelling approach used.

The analysis of the policy options summarises what we believe to be the most pertinent changes resulting from adopting them. These are the off-trade price, since this is the tradable price across borders, and the total revenue from duty receipts, since this is the tax benefit to the Exchequer. Both changes are compared with the current situation (that is, with no changes to the directives).

Finally, an assessment is undertaken on the effectiveness of the different options in addressing the identified problems. The likely impacts on other outcomes (such as the on-trade market, tax revenues, profitability and competitiveness), and sensitivity of the results to changes in the parameters used is also presented as part of the final assessment.

### 6.1 Proposed options

The Commission suggested a large variety of policy options, which fall into two types of policy changes: a change in the level of the minimum excise duties (D), and a change in the structure (S) of the classification of alcoholic beverages. The list of options is described below.

#### *Option 1: Change in minimum excise duty rates (D)*

The first option relates to a change in minimum duties in the different categories. The following options are analysed:

D1: Introduction of a minimum rate for WINE and OTHER FERMENTED BEVERAGES;

D2: Revalorisation of minimum rates for beverages.

#### *Option 2: Changes in the structure (S)*

The second option changes the structures of the categories in the following way:

- 
- S1: Remove option for SPARKLING products to be charged different duty rates to STILL products<sup>49</sup>;
  - S2: Reclassify all products currently categorised as ETHYL ALCOHOL and below 22% abv to be categorised as (STILL) INTERMEDIATE PRODUCTS (attracting the same duty rates, minimum rate, all on the basis of the volume of the product);
  - S3: Create new optional category, into which all RTDs (regardless of alcohol base) could be classified, which is subject to the same minimum rate as ETHYL ALCOHOL;
  - S4: Create new product category for all products currently categorised as ETHYL ALCOHOL and below 22% abv, and all products with added alcohol, with duties and the minimum rate set on the basis of alcoholic strength, and with the minimum rate calculated as the unitary equivalent of the existing minimum rate for INTERMEDIATE PRODUCTS;
  - S5: Unitary taxation on all products with minimum rates calculated for three categories based on alcoholic strength (1.2-15% abv, 15-22% abv, >22% abv), without regard to the type of beverage;
  - S6: Abolish reduced rates for low-strength alcoholic beverages.

## 6.2 The model

We have developed our own tax model for the purpose of assessing the economic impact of proposed changes.

The model analyses the effects of changes in duties and in the different classifications systems. These constitute the main inputs of the model. Main outputs are prices and quantities affected by the tax change, and the outcomes are related to the tax revenues. Hence, a change in the minimum duties in the alcohol category  $i$  will impact prices,  $p_i$ , through a change in the national taxes  $\tau_i$ , but only if the new minimum duties are set above the national level of taxation.

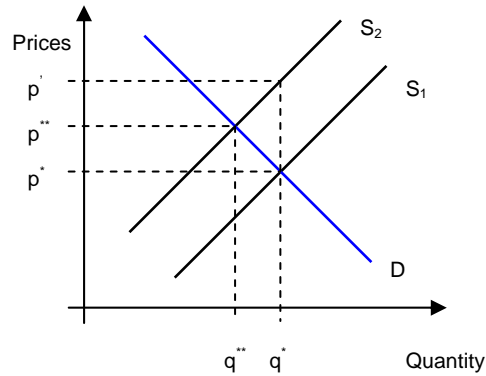
The impact of the tax on price is not straightforward and will depend on a number of factors. An increase in duty will shift the supply curve from  $S_1$  to  $S_2$  and the price will move from the pre-tax equilibrium price  $p^*$  to  $p'$  (**Figure 29**). However at the new price  $p'$  there is a mismatch between the supply ( $S_2$ ) and demand ( $D$ ) curves. The market clears when the price is equal to the new equilibrium price,  $p^{**}$ , with sales equal to  $q^{**}$ .

---

<sup>49</sup> This was suggested in COM(2004) 223 final.



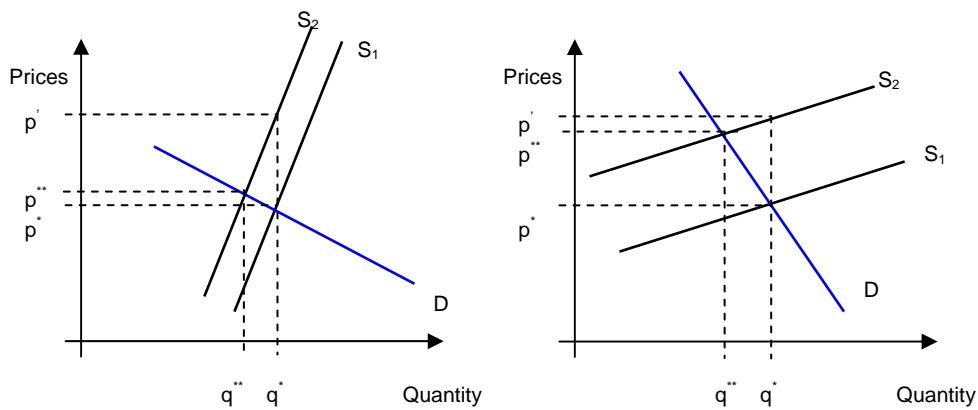
**Figure 29: Impact of tax: incidence on prices and quantities**



Source: LE own elaboration

It is interesting to note that the impact of taxes on the new equilibrium price depends on the shape of the demand and supply curves and that generally price does not rise as much as tax (Figure 30). Therefore, to calculate the incidence of the tax on the new equilibrium price in sector  $i$ , one can use different assumptions for the price elasticities of demand and supply.

**Figure 30: The shape of the demand and supply curves affect the impact of the tax on the new equilibrium price**



Source: LE own elaboration

The change in prices of sector  $i$ , in general will result in a reduction in the demand of sector  $i$  (from  $q_i^*$  to  $q_i^{**}$ ). The extent of such impact can be calculated using the own-price elasticity for sector  $i$  ( $\epsilon_{ii}$ )<sup>50</sup>.

### *Simulating a change in duties*

A change in duties will have two immediate impacts: it will change the new price of equilibrium, and it will change the quantity demanded in the market. To simplify the exercise we model these changes as arising from two effects: a) the duty pass-on, or the extent to which an increase in duty affects the equilibrium price and b) the elasticity of demand, or the responsiveness of consumption to the change in prices.<sup>51</sup>

As already noted, the different players in the market may be able to pass-on differently any tax increases to consumers. In particular, in some cases retailers may absorb some or all of the change in taxation thus leading to small or no increases in the price of alcohol (RAND, 2009) whereas in other cases the duty may be passed on leading to large increases in the retail price (as in **Figure 30**, left and right panels, respectively). It has also been argued that increases in costs at origin are not passed on linearly but as a multiplier effect, as intermediaries keep their margins as a share of cost. Further increases could be observed due to rounding of prices so that a 1 unit increase in duty would be translated into 4.4 units in the on-trade and 1.4 units in the off-trade beer market (PwC, 2006). Our model uses pass-on rates for both on- and off-trade markets of 1, which have been estimated from the responses provided by the trade associations (Table 31).

After the increase in duty has affected prices, we calculate the new consumed quantities or volumes (consumers' response). Our model uses the following five different own-price elasticities of demand for each of the beverage categories: BEER: -0.4; OTHER FERMENTED BEVERAGES: -0.4; WINE: -0.7; INTERMEDIATE PRODUCTS: -0.7; and ETHYL ALCOHOL: -0.8. These have been estimated from the references provided by the trade associations, in particular the RAND (2009) report (see Table 32).

There are no studies on cross-price elasticities estimates for the different beverages in different Member States. Moreover, there is no agreement on the type of cross-relationship of prices for different products.

---

<sup>50</sup> In some cases, a change in the price in sector  $i$  will have an impact in the demand in another sector  $j$  ( $j \neq i$ ). This can be measured with the cross-price elasticity between  $i$  and  $j$  ( $\epsilon_{ij}$ ).

<sup>51</sup> The impact on both on- and off-trade markets is simulated although for practical purposes only the effects on off-trade prices are shown in the results.

A summary of estimates of cross-price elasticities in alcoholic products from the literature is presented in Custom Associates Ltd (2001)<sup>52</sup>. This report concluded that the cross-price elasticity of demand for alcoholic products was inelastic (meaning that consumption of a given alcoholic product is not substantially affected by the change in relative prices of another alcoholic product). As cautions to relying on estimates of cross-price elasticities of demand for analysis, they highlighted the wide range of the estimates and the importance of extraneous factors, such as changes in consumer tastes and preferences.

The estimates from the literature ranged from positive to negative, which implies disagreement as to whether beer, wine and spirits are complements (negative cross-price elasticities) or substitutes (positive cross-price elasticities), though the report concludes that the balance of evidence suggests that the drinks are substitutes. Changing preferences imply that cross-price elasticities of demand will not necessarily be constant over time, so estimates may not be valid out of context.

<b>Table 13: Range of existing estimates of cross-price elasticities of demand for alcoholic beverages</b>				
		Cross-price elasticity of demand of product with respect to change in price stated in row heading		
		Beer	Wine	Spirits
Change in price of:	Beer	-	-0.73 to 0.35	-0.62 to 0.62
	Wine	-1.57 to 0.84	-	-0.90 to 2.063
	Spirits	-0.92 to 0.59	-0.95 to 0.94	-

Note: Positive numbers suggest products are substitutes.

Source: *Custom Associates Ltd (2001)*

The model excludes cross-price effects, which does not have any implications on the analysis of prices, but could influence the estimates of changes in volume consumed, and hence duty receipts.

The reason we exclude cross-price effects from our analysis is that the data required to confidently measure such effects is lacking. The estimates from Custom Associates (2001) are relatively old, considering that cross-price elasticities measure the propensity of consumers to switch, and that tastes

<sup>52</sup> Customs Associates Ltd (2001) *Study on the competition between alcoholic drinks*. Chapter 1 of the report (introduction and overview) is available at:

[http://ec.europa.eu/taxation\\_customs/resources/documents/study\\_comp\\_between\\_alcoholdrinks\\_en.pdf](http://ec.europa.eu/taxation_customs/resources/documents/study_comp_between_alcoholdrinks_en.pdf) (downloaded 31 March 2010)

and loyalties change over time. Furthermore, whereas those estimates are broad in scope (for instance, the effect on consumption of wine of a price increase in beer), we would require a much more detailed analysis of substitution effects to capture the effect of a duty increase on wine. For instance, if all wine duties increase by the same absolute amount, this implies a greater proportional increase in the price of cheaper wines. Therefore, in the absence of any other changes, there could be substitution, not only away from wine to beer and spirits, but also from cheaper to more expensive wines (since the relative price of expensive wines has fallen). Lastly, the cross-price elasticities reported cover a wide range of possible values, to such an extent that it is not even clear whether beer, wine and spirits are complements or substitutes.

Whether cross-price effects have a positive or negative effect on our estimated change in duty receipts (resulting from applying the policy options) depends on the net effect of increased duty receipts from extra consumption of substitute products together with the reduction in duty receipts arising from substitution away from the product whose (relative) price has risen.

Nevertheless, the cross-price effect seems likely to be of secondary importance to the own-price effect, so we would not expect the exclusion of cross-price elasticities from our analysis to substantially affect the implications of any of the policy options. Similarly, we would not expect to see a substantial change in the effect on any product affected by a policy option as a result of changing the scope of the suggested policy option from applying across all product categories, to only applying to a selection of product categories.

### 6.3 Modelling of options

The different options listed in section 6.1 are modelled using a set of parameters and assumptions, relating to the list of product categories, the rules by which products are categorised into these categories, the minimum rates associated with the categories, and actual duty rates (specific to each Member State) applicable to products in these categories. We describe them below in turn.

#### *Option 1: Change in minimum excise duty rates (D)*

The modelled options are the following:

**D1** introduces a new minimum rate for WINE and OTHER FERMENTED BEVERAGES. The new minimum rate has been calculated in two different ways:

- **D1a:** New minimum rate equivalent to the lowest non-zero rate of a major wine-producing Member State. We use the current rate of France, hence, the minimum rate is €3.55/hl by volume of product, for STILL WINE, SPARKLING WINE and OTHER FERMENTED BEVERAGES.
- **D1b:** The new minimum rate has been calculated to be the volume equivalent to the (unitary) minimum rate for BEER. Hence, the minimum rate is €20.8/hl by volume of product for both WINE and OTHER FERMENTED BEVERAGES. The option affects only OTHER FERMENTED BEVERAGES above 8.5% and will have no effect on beverages below 8.5%, as these will continue to benefit from reduced rates. The new minimum rate has been calculated using the minimum rate for BEER (€1.87/abv) and a typical strength of 11.1%, which is the average strength of the beverages affected by this policy option ( $1.87 * 11.1 = 20.8$ ).

**D2** revalorisation of all minimum rates (including new minimum rates defined in D1b) on all EC categories:

- **D2a:** Minimum rate increased by 7% (which is the increase in prices since January 2007, the accession date for Bulgaria and Romania).
- **D2b:** Minimum rate increased by 44% (which is the increase in prices since January 1992).

### **Option 2: Changes in the structure (S)**

The second option changes the structures of the categories in the following way:

- S1** The option to treat SPARKLING products differently is removed and they are taxed according to the same duty rates as STILL products in each Member State;
- S2** Products currently categorised as ETHYL ALCOHOL with strength below 22% abv are recategorised as (STILL) INTERMEDIATE PRODUCTS, attracting the INTERMEDIATE PRODUCTS minimum rate and being taxed at the same rates and in the same way as other (STILL) INTERMEDIATE PRODUCTS in each Member State;
- S3** We reclassify all RTDs into a new category, retaining the duty they currently attract in each Member State, but with the additional constraint that the rate must be at least the minimum rate applicable to ETHYL ALCOHOL, under different revalorisation options:

- **S3a:** No revalorisation;
- **S3b:** Minimum rates increased by 7%;
- **S3c:** Minimum rates increased by 44%.

**S4** We create a new category, labelled DD, which includes all ETHYL ALCOHOL under 22%, all INTERMEDIATE PRODUCTS and all RTDs. The duties and the minimum rate set for DD are calculated on the basis of alcoholic strength, and with the minimum rate calculated as €2.82/abv, which is the unitary equivalent of the existing minimum rate for INTERMEDIATE PRODUCTS ( $45/15.97=2.82$ , where 15.97% abv is the average strength of INTERMEDIATE PRODUCTS consumption in our data set). We present the effect of two options for calculating the actual duty rates applicable to DD:

- **S4a:** Considers unitary taxation on DD; the duty rate set by the Member States for DD has been calculated as the one that would be (approximately) revenue neutral for the products being included in DD<sup>53</sup>;
- **S4b:** Sets duties on a volume basis, stratified by bands of about four degrees of alcohol, (i.e., 1.2-2.8%, 2.8-6%, 6-10%, 10-14%, 14-18%, 18-22). The duty rates of the new bands are calculated using the midpoint of the band and the rates calculated in S4a.

**S5** Unitary taxation on all products with minimum rates calculated for three categories based purely on bands of alcoholic strength, without regard to the type of beverage. Minimum rates are calculated as follows: Low (< 15%) uses the minimum rate for BEER (€1.87/abv); Medium (15-22%) uses the unitary equivalent of the minimum rate for INTERMEDIATE PRODUCTS (€2.82/abv); and High (> 22%) uses minimum rate for ETHYL ALCOHOL (€5.50/abv). Again, the duty rate set by the Member States for these new categories has been calculated as the one that would be revenue neutral for the products being included in the new category. The following options are considered:

- **S5a** No revalorisation;
- **S5b** New minimum rate increased by 7%;
- **S5c** New minimum rate increased by 44%.

---

<sup>53</sup> This is, the duty rate is calculated such that it equals the revenue generated by the products under DD divided by the volume of pure alcohol contained in such products. The duty rate is calculated assuming unchanged sold quantities. Nevertheless, the new duty has an impact on prices and we include in the model the subsequent effect on quantities sold and duty revenue collected.

- S6** Abolish reduced rates for low-strength alcoholic beverages. Low-strength products with reduced rates are taxed at the standard rate (this option retains Member States' specially designated reduced rates other than for low-strength products).

## 6.4 Results

The following paragraphs describe the results for each of the considered options. For each policy option, we summarise the impact on each product category, using charts that show the levels of off-trade prices pre- and post-intervention and the change in total duty revenues.

In the upper part of each chart, we plot the prices and label them with the percentage change and an arrow indicating whether such prices increased or decreased. Since we are using negative own-price elasticities, the increase in prices already provides an indication that demand will be reduced<sup>54</sup>.

In the bottom panel of each chart, the change in total duty revenues collected (on- and off-trade) is presented in absolute terms using a bar, labelled with its proportion as a percentage of the total duty revenue in status quo.

Only Member States affected by the policy option are shown in the figures. The results presented are the average effect, calculated after evaluating all the duties on individual products in each Member State, levied according to different alcohol content and product characteristics.

### 6.4.1 Changes in duties

#### ***D1a: minimum rate for WINE and OTHER FERMENTED BEVERAGES (== wine-producing Member State)***

Minimum rate = €3.55/hl(product)

Relates to 28% [36%] of EU consumption by volume of product [pure alcohol]

Increasing the minimum rate for WINE and OTHER FERMENTED BEVERAGES to the current rate in France has a small impact (increase of 2% or less) on the off-trade prices of WINE in AT, CY, CZ, DE, EL, ES, HU, IT, MT, PT, RO, SI, and SK, and a 2.6% in BG. As a result of this policy option Member States where the current duty of WINE is zero experience a significant increase in the duty revenues and this is especially visible in MT, PT, and SI, where it accounts for more than 4% of the total revenues, or 10% in

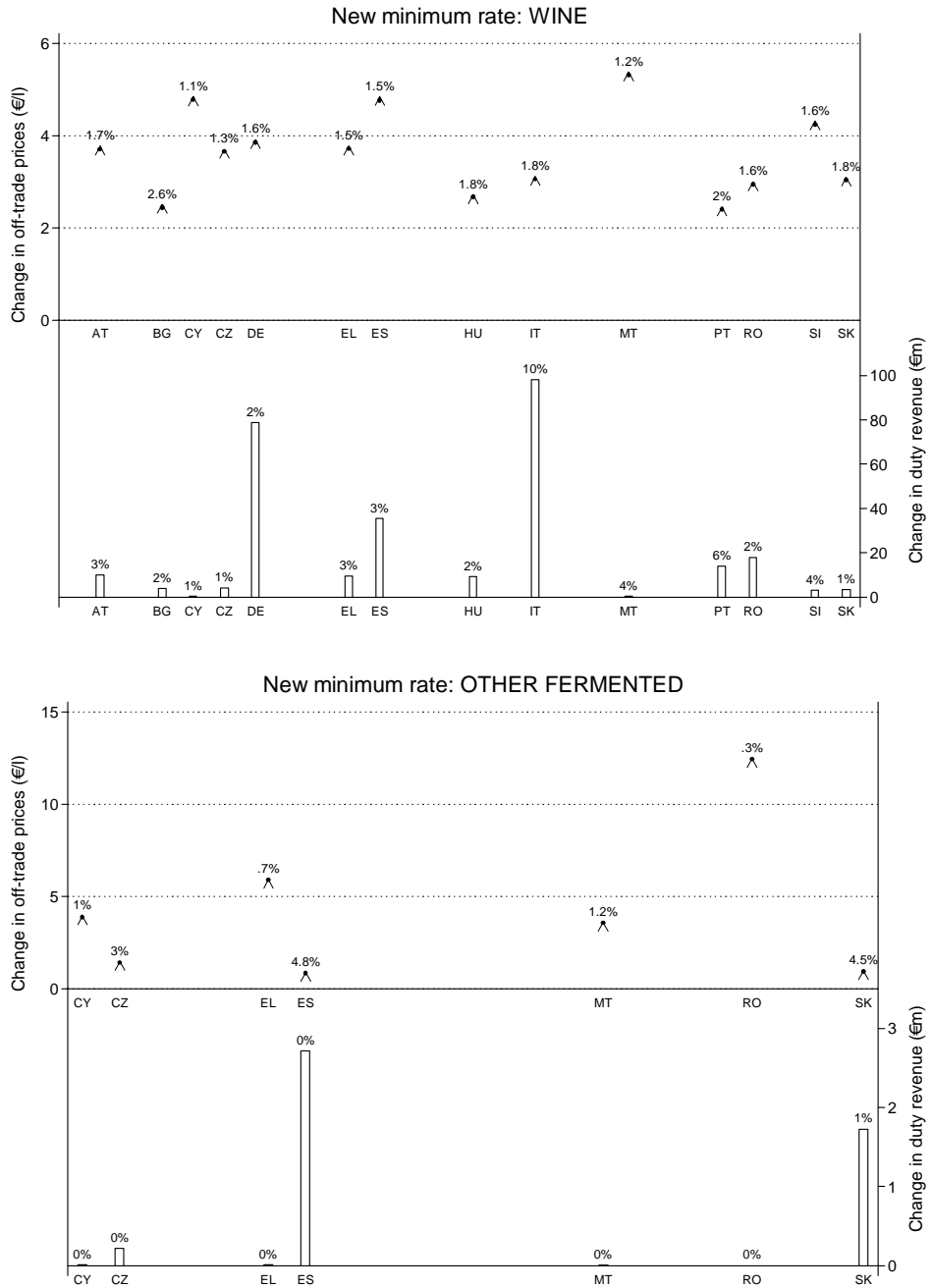
---

<sup>54</sup> Elasticities less than 1 (in absolute terms) will imply that the reduction in quantity is less than the increase observed in prices.

the case of IT. The impact of this policy on OTHER FERMENTED beverages is more limited: only ES and SK show a significant price increase (above 4%) as a result of the policy and in the remaining countries the impact is negligible.



**Figure 31: Impacts of applying policy option D1a**



Source: LE own estimates and data from this report. Price data not available for LU.

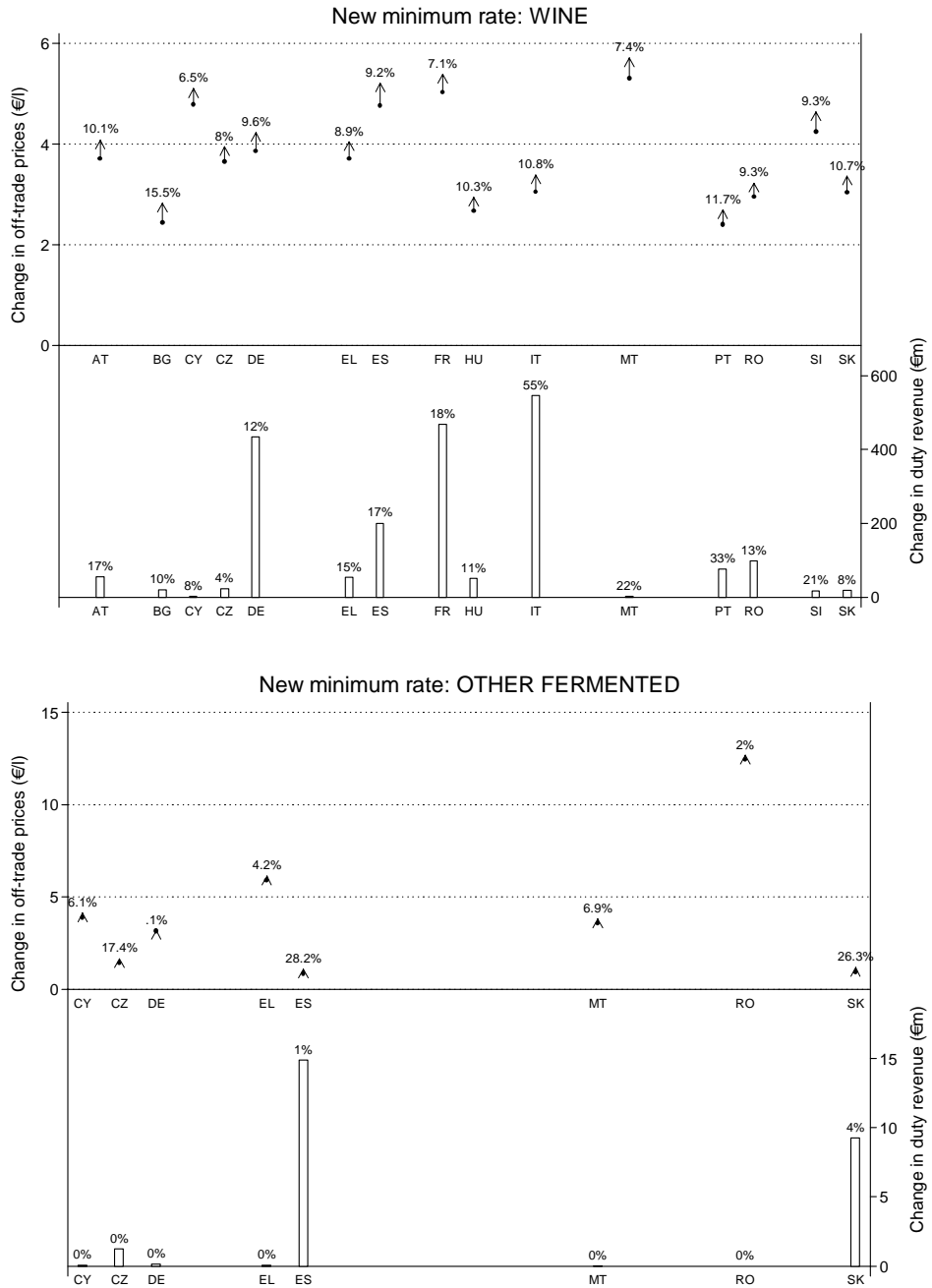
***D1b: minimum rate for WINE and OTHER FERMENTED BEVERAGES  
(== BEER)***

Minimum rate = €20.76/hl(product)

Relates to 28% [36%] of EU consumption by volume of product [pure alcohol]

Option D1b simulates the impact of imposing a minimum rate for WINE and OTHER FERMENTED BEVERAGES equivalent to the rate for BEER and this has a noticeable impact in AT, BG, DE, HU, IT, PT and SK with increases in prices of 10% or above. Again, Member States where the current duty of WINE is very low or zero experience a significant increase in duty revenues as a result of this option, especially IT, PT, SI, FR, ES, EL, RO and DE. The impact affects fewer countries for OTHER FERMENTED: only CZ, ES and SK show a price increase above 10% as a result of the policy, though price changes in these Member States are quite dramatic. The increase in duty revenue is small, but not negligible, in SK (4%).

**Figure 32: Impacts of applying policy option D1b**



Source: LE own estimates and data from this report. Price data not available for LU.

***D2a 7% revalorisation of all minimum rates***

Relates to 100% [100%] of EU consumption by volume of product [pure alcohol]

Option D2a revalorises all minimum rates by 7%, and this includes the minimum rates calculated as part of policy option D1b. We would not expect the effects summarised for each product category to change substantially if revalorisation was applied only to that product category (with minimum rates for other products remaining the same as in the status quo). As previously mentioned, drawing on previous studies, cross-price elasticities of demand appear to be inelastic for alcoholic beverages, so there will be relatively little effect on quantities of other alcoholic products consumed from a change in the price of a given product.

The impact of this policy option is the following:

For BEER products it affects only BG, DE, MT, and RO, and the impact on off-trade prices is less than 1%.

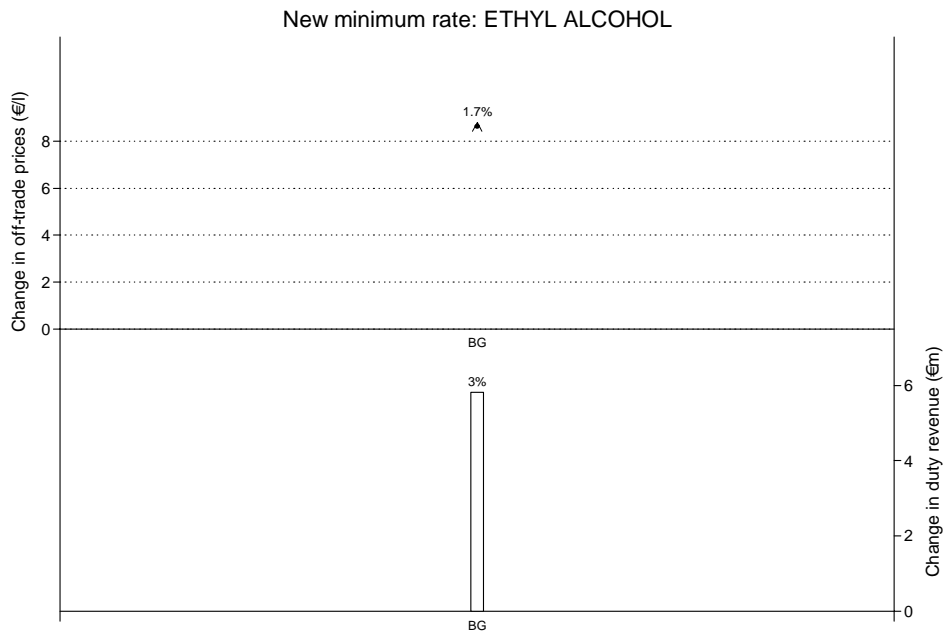
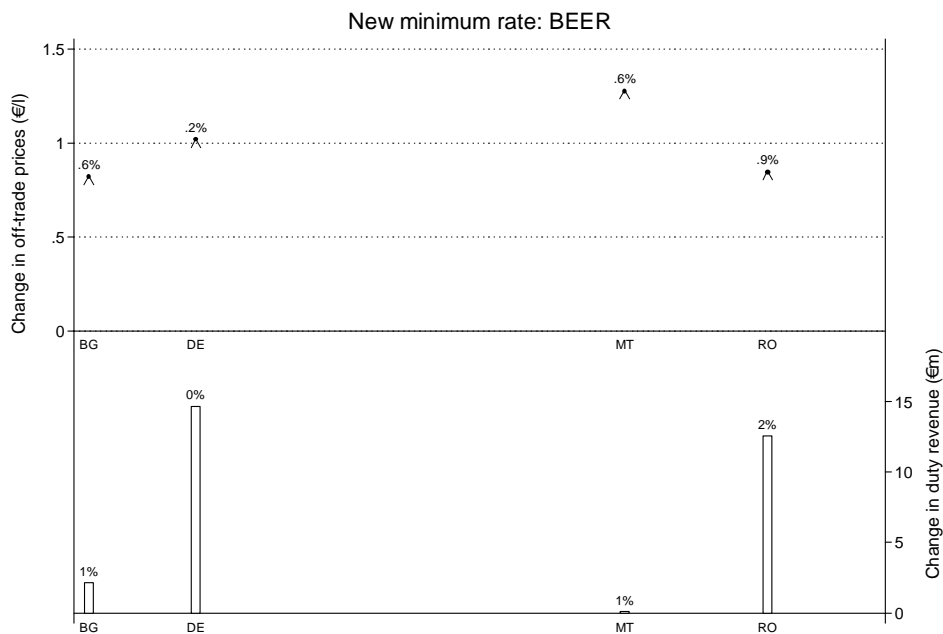
For ETHYL ALCOHOL it affects only the country with the lowest duty rate, BG, and it results of an impact of 1.7% increase in the off-trade prices.

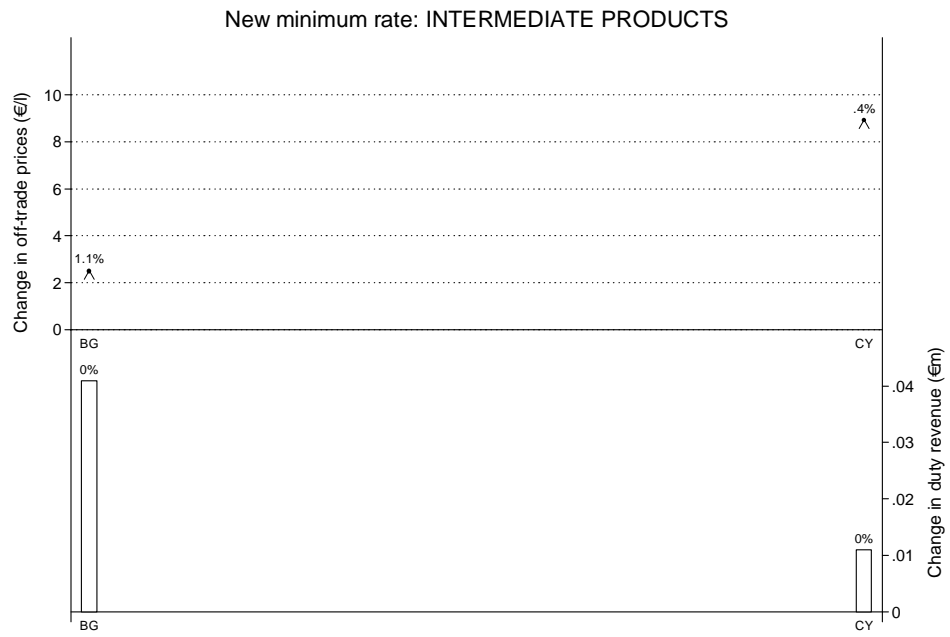
For INTERMEDIATE PRODUCTS it affects the two countries with the lowest rates, BG and CY, but the impact is roughly 1% increase or less in the prices in the off-trade.

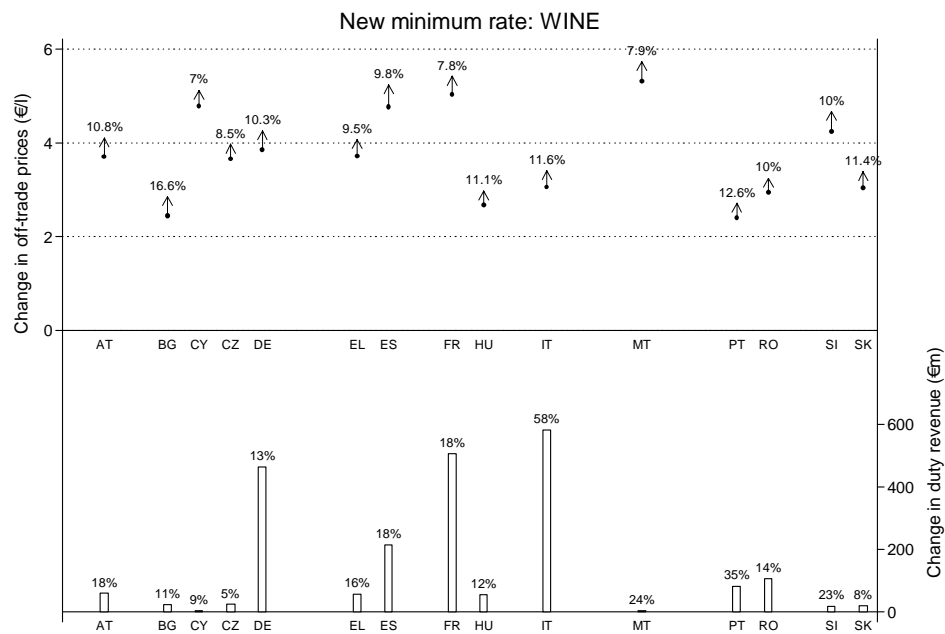
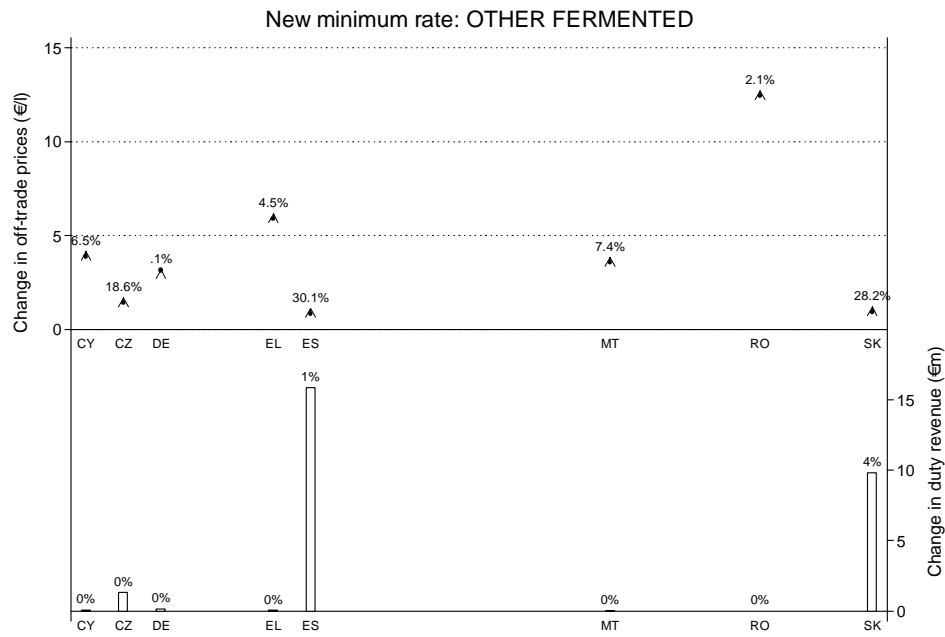
For OTHER FERMENTED BEVERAGES the impact is similar to what had been found for D1b although in this case the increase in price is slightly higher (in ES and SK increases are around 30% and in CZ around 20%).

For WINE the impact on prices is significant, showing increases of 10% or more in the same Member States as D1b (AT, BG, DE, HU, IT, PT, and SK) plus EL, ES, RO and SI. Revenues increase in a number of Member States as a result of the policy.

**Figure 33: Impacts of applying policy option D2a**







Source: LE own estimates and data from this report. Price data not available for LU.

**D2b 44% revalorisation of all minimum rates**

Relates to 100% [100%] of EU consumption by volume of product [pure alcohol]

Option D2b revalorises all minimum rates a 44%, and this includes the minimum rates calculated as part of policy option D1b. The impact of this policy option is the following:

For BEER products, it affects five Member States (BG, DE, LV, MT, and RO), with increases in prices around 4%, and four Member States with increases below 2% (CZ, ES, FR, and LT).

ETHYL ALCOHOL prices get increased by 16% in BG, 7% in CY and by less than 4% in RO and SI.

INTERMEDIATE PRODUCTS prices increase substantially in BG (around 10%) as a result of the policy option. In the remaining Member States the effect on prices is less than 3%.

The picture for OTHER FERMENTED BEVERAGES resembles the findings of D1b and D2b, although in this case the increase in price is noticeably higher in ES and SK (around 40%) and in CZ around (25%).

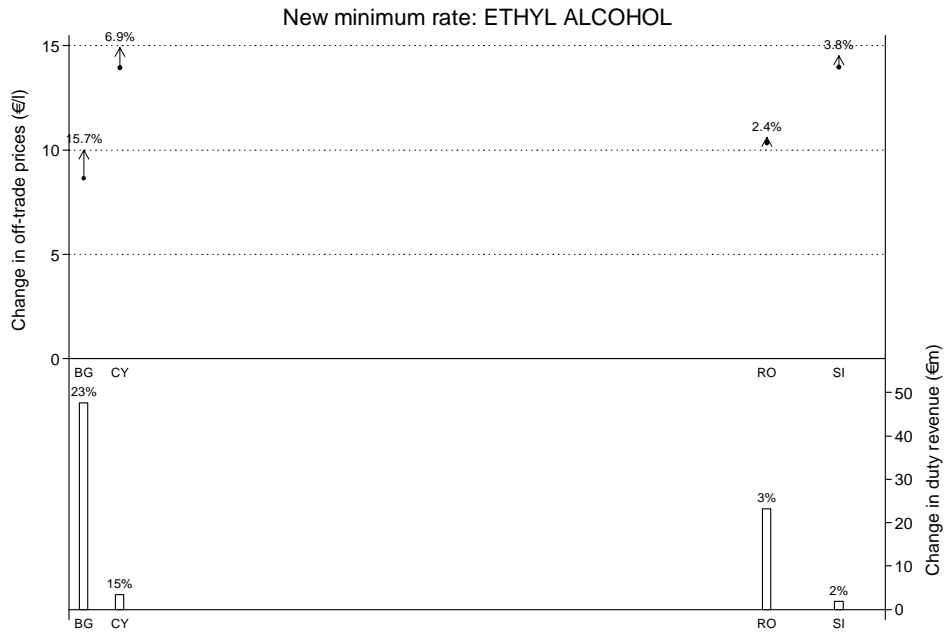
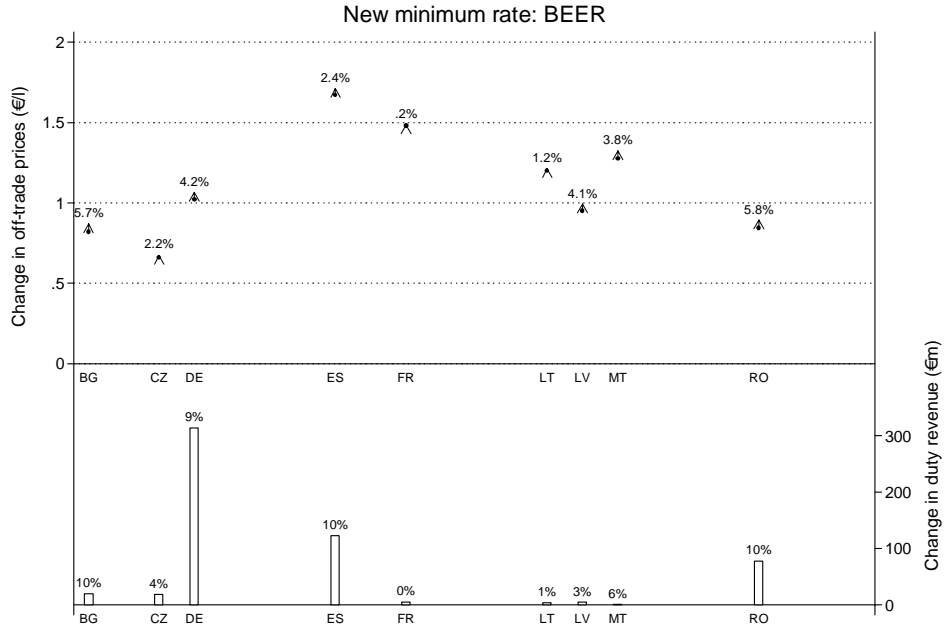
WINE is affected in the same Member States as D2a under this policy option. Nevertheless, the impact on price is significant in the cases of BG (23%) and important in AT, DE, ES, HU, IT, PT, RO, SI and SK with price increases of 14-17%. The impact in the rest of Member States is moderately higher what had been found in D2a.

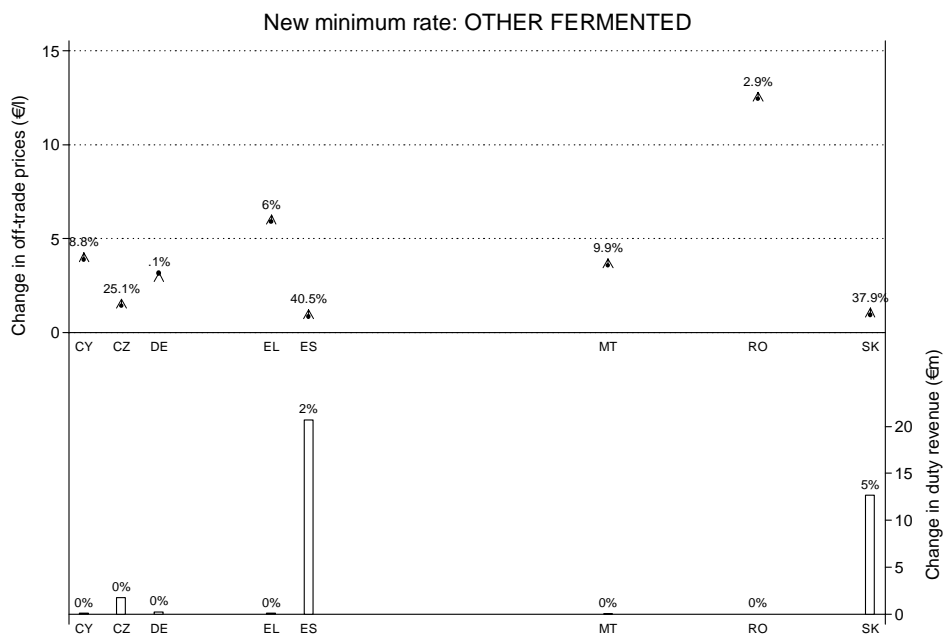
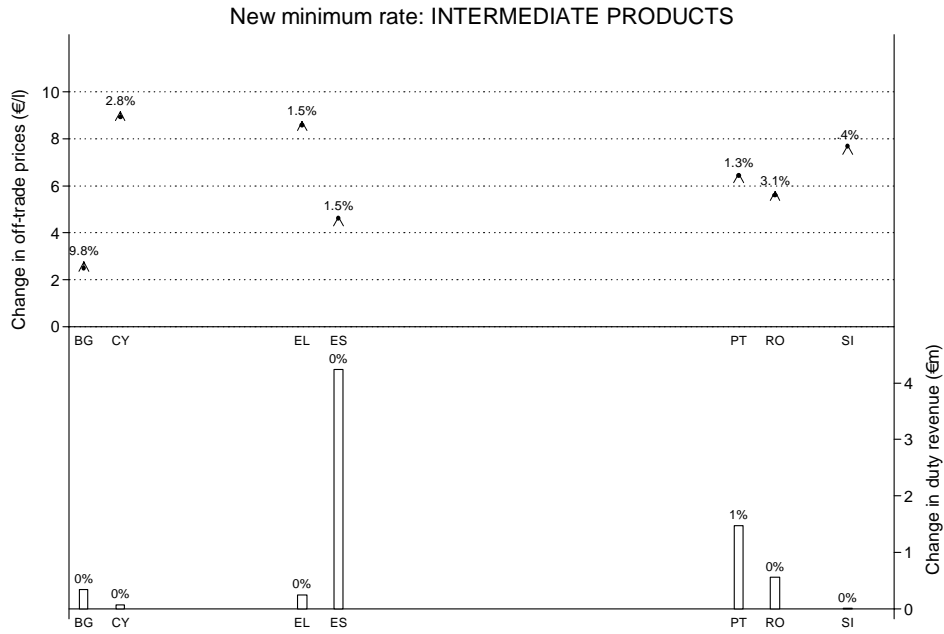
As explained for policy option D2a, we would not expect the effects summarised for each product category to change substantially if revalorisation was applied only to that product category (with minimum rates for other products remaining the same as in the status quo), though there could be some increase in the consumption of other products (probably in the order of 5%) for the largest price increases (greater than 20%).

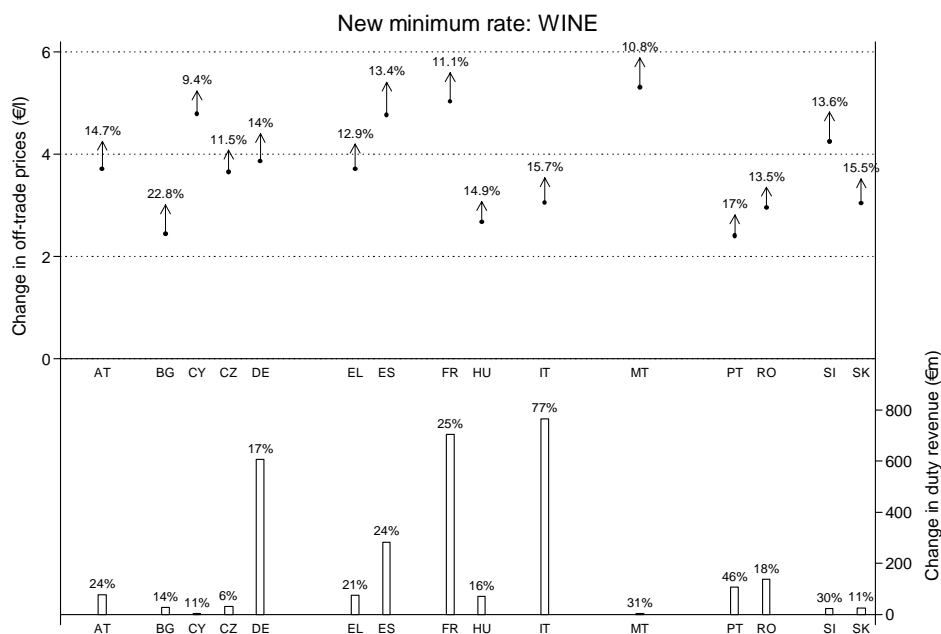
There is only mild evidence supporting substitution of alcoholic products. If we assume a cross-price elasticity of demand for, say WINE with respect to BEER, of 0.2, that implies that a 10% rise in the price of BEER will increase the volume consumed of WINE by 2%. Therefore a 40% cross-price increase would increase volume by 8%.



**Figure 34: Impacts of applying policy option D2b**







Source: LE own estimates and data from this report. Price data not available for LU.

## 6.4.2 Changes in the structure (S)

### S1 SPARKLING == STILL

Relates to 4% [4%] of EU consumption by volume of product [pure alcohol]

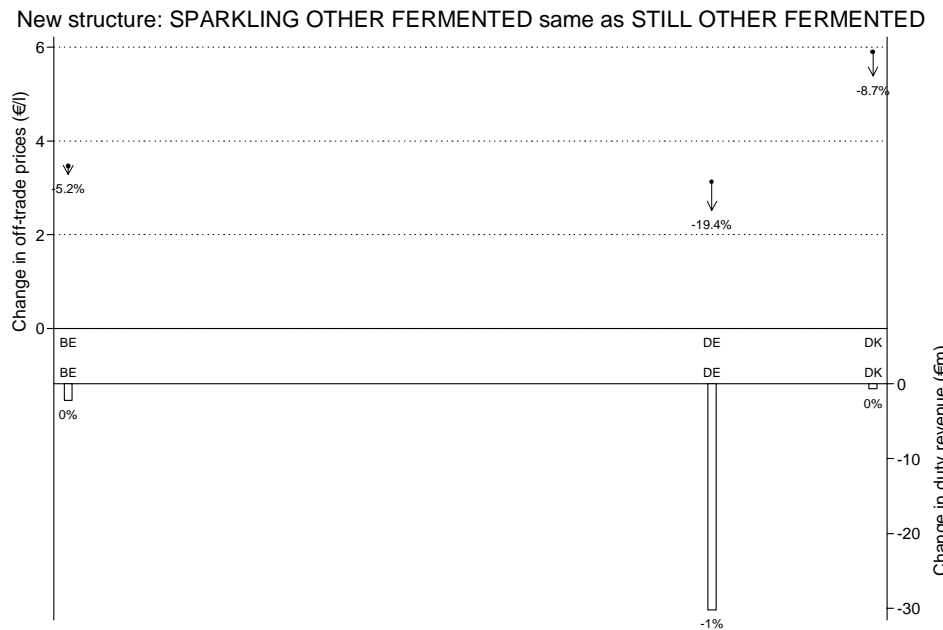
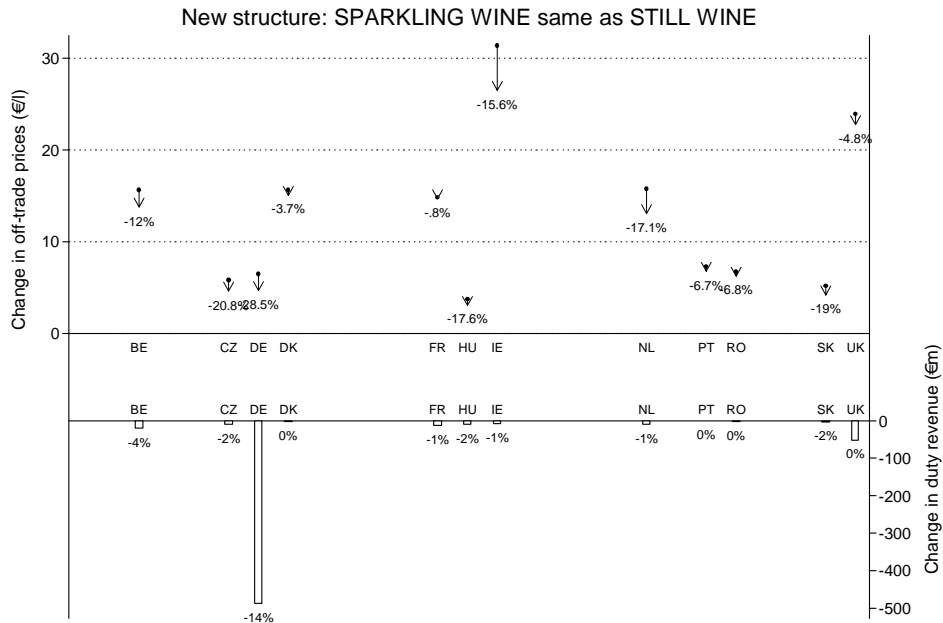
This option obliges that SPARKLING products are taxed at the same rates as STILL products and this involves the following beverages:

The prices for many SPARKLING WINE products decrease as a result of the policy option. This is because they are taxed higher under the current arrangements. There are large reductions in prices in several Member States (almost 30% in DE, and between 15% and 20% in CZ, SK, HU, NL, IE, BE).

OTHER FERMENTED BEVERAGES prices would get decreased significantly in DE (-19%) as a result of this option, and to a lesser extent in DK (-9%) and BE (-5%). These are countries where there are noticeable differences in the duties for sparkling and still fermented beverages. Not all Member States levy higher duties on sparkling products than still ones, and two (IE and UK) only levy higher duties on higher strength products.

The effect of this option on INTERMEDIATE PRODUCTS would be negligible in any Member State (figure excluded).

**Figure 35: Impacts of applying policy option S1**



Source: LE own estimates and data from this report. Price data not available for LU.

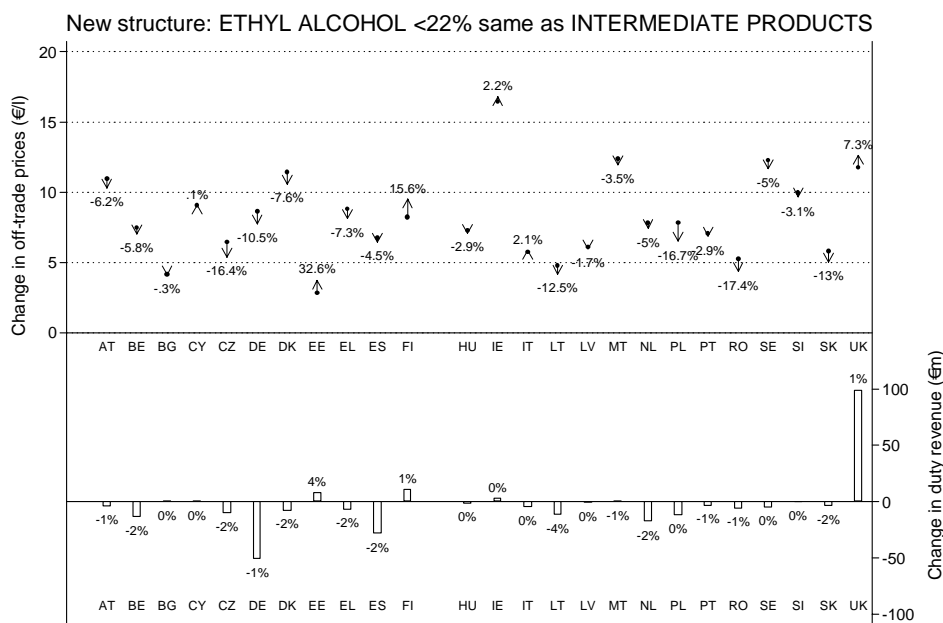
**S2 ETHYL ALCOHOL <22% == (STILL) INTERMEDIATE PRODUCTS**

Relates to 1% [1%] of EU consumption by volume of product [pure alcohol]

Re-categorise all products currently categorised as ETHYL ALCOHOL and below 22% abv to be categorised as (STILL) INTERMEDIATE PRODUCTS (attracting the same duty rates, minimum rate, all on the basis of the volume of the product)

The overall impact of this option is small, as it can be seen on the changes in duty revenues. The impact on prices is very different across Member States, and this is a reflection of the current structures and rates<sup>55</sup>. It is worth noticing that some Member States experience price changes in the order of 20% (increase or decrease) for these products as a result of the policy option.

**Figure 36: Impacts of applying policy option S2**



Source: LE own estimates and data from this report. Price data not available for LU.

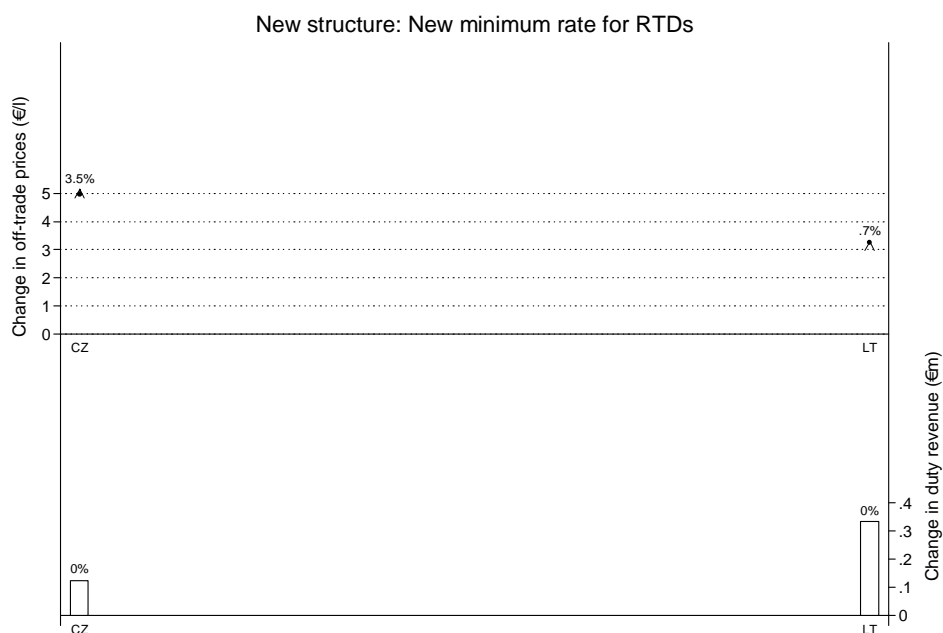
<sup>55</sup> For example, in UK and IE the prices increase as a result of the policy option and this is because the beverages with very low strength (e.g. RTDs) have a lower duty rate taxed as ETHYL ALCOHOL compared to INTERMEDIATE PRODUCTS.

### ***S3a Apply minimum rates for ETHYL ALCOHOL to RTDs (no revalorisation of minimum rates)***

Relates to 0.6% [0.4%] of EU consumption by volume of product [pure alcohol]

Under this option, all RTD products are grouped together in one category, with the constraint that the duty must be at least equal to the minimum rate applicable to ETHYL ALCOHOL. The impact on prices is negligible in all Member States, with only prices in CZ changing by more than 1%.

**Figure 37: Impacts of applying policy option S3a**



Source: LE own estimates and data from this report. Price data not available for LU.

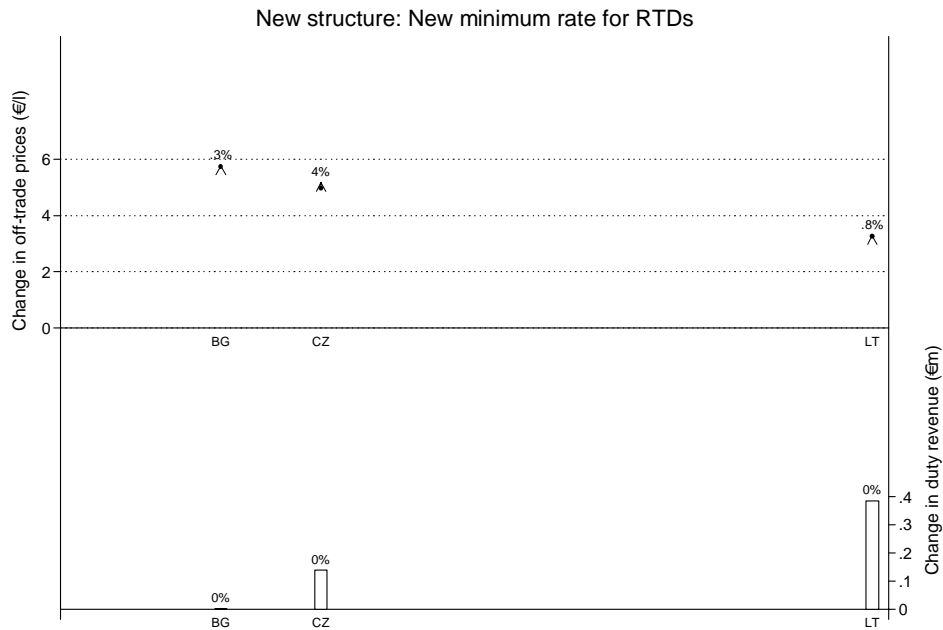
### ***S3b Apply minimum rates for ETHYL ALCOHOL to RTDs (7% revalorisation of minimum rates)***

Relates to 0.6% [0.4%] of EU consumption by volume of product [pure alcohol]

Under this option, all RTD products are grouped together in one category, with the constraint that the duty must be at least equal to the minimum rate applicable to ETHYL ALCOHOL (revalorised by 7%). The impact on prices is

negligible in all Member States, with only prices in CZ changing by more than 1%.

**Figure 38: Impacts of applying policy option S3b**



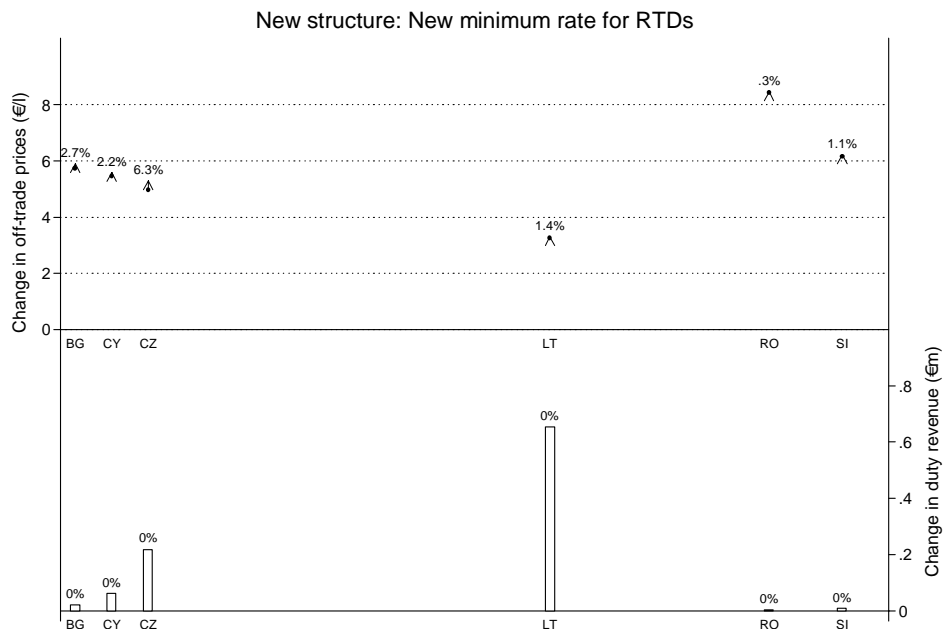
Source: LE own estimates and data from this report. Price data not available for LU.

### ***S3c Apply minimum rates for ETHYL ALCOHOL to RTDs (44% revalorisation of minimum rates)***

Relates to 0.6% [0.4%] of EU consumption by volume of product [pure alcohol]

Under this option, all RTD products are grouped together in one category, with the constraint that the duty must be at least equal to the minimum rate applicable to ETHYL ALCOHOL (revalorised by 44%). The impact on prices is small in all Member States, though the 44% revalorisation results in more price changes of greater than 1% (CZ, BG, CY, LT, SI) than without, but only one (CZ) of over 5%.

Figure 39: Impacts of applying policy option S3c



Source: LE own estimates and data from this report. Price data not available for LU.

#### ***S4a ETHYL ALCOHOL <22% abv and ALL PRODUCTS with added alcohol == INTERMEDIATE PRODUCTS + unitary taxation***

Minimum rate = €2.82/hl/degree of alcohol

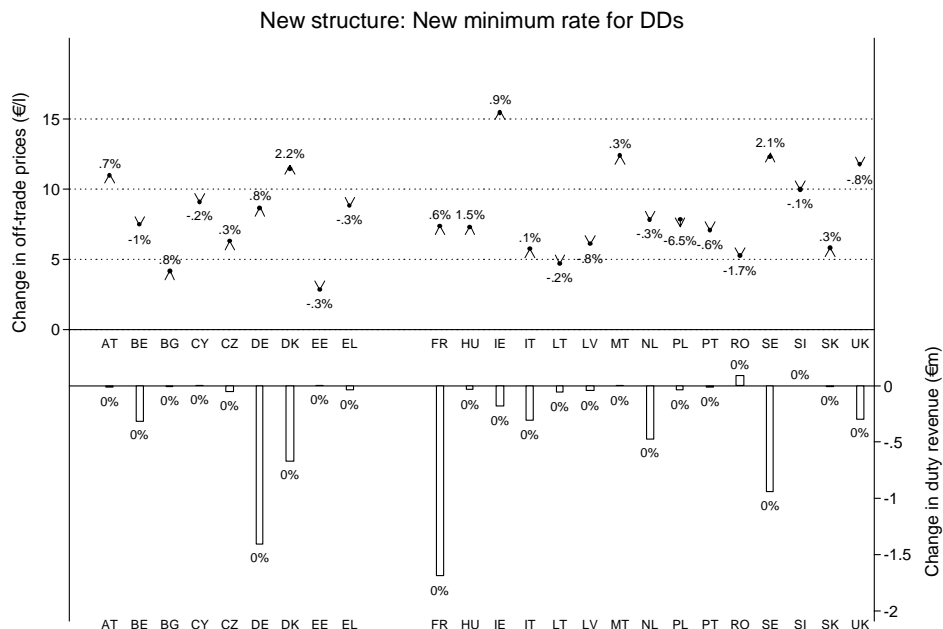
Relates to 2% [3%] of EU consumption by volume of product [pure alcohol]

We create a new category, labelled DD, which includes all ETHYL ALCOHOL under 22%, all INTERMEDIATE PRODUCTS and all RTDs. The duties and the minimum rate set for DD are calculated on a unitary basis, and with the minimum rate calculated as €2.82/abv, which is the unitary equivalent of the existing minimum rate for INTERMEDIATE PRODUCTS ( $45/15.97=2.82$ , where 15.97% abv is the average strength of INTERMEDIATE PRODUCTS consumption in our data set).

This option has a very different impact on off-trade prices across Member States: in some prices increase while in others prices decrease. In any case, the magnitude of the impact is small (no more than about 2%) in all Member States except PL, where prices would fall 6.5% as a result of this option.



Figure 40: Impacts of applying policy option S4a



Source: LE own estimates and data from this report. Price data not available for LU.

### **S4b ETHYL ALCOHOL <22% abv and ALL PRODUCTS with added alcohol == INTERMEDIATE PRODUCTS + taxation in bands**

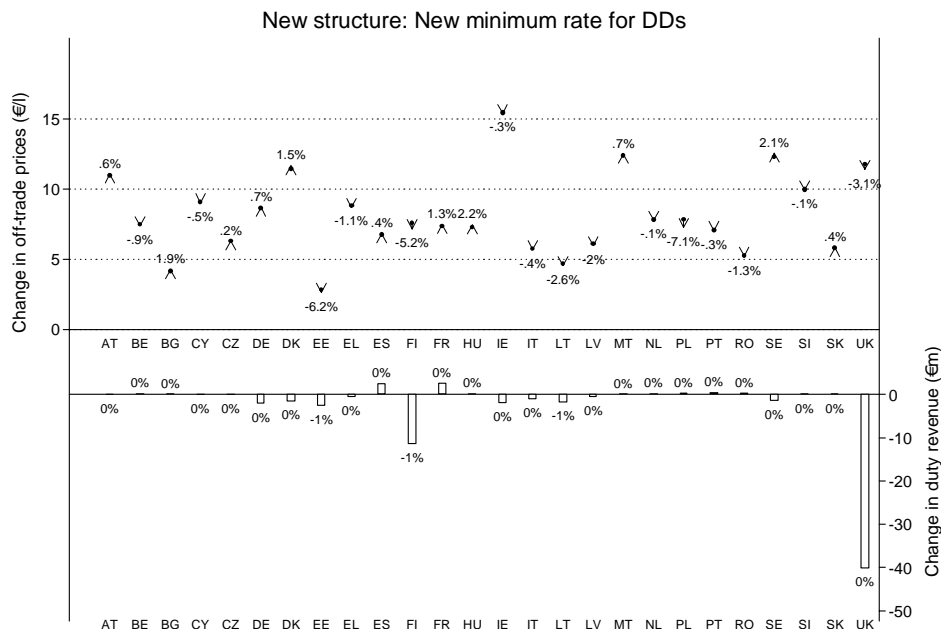
Minimum rate = €2.82/hl/degree of alcohol

Relates to 2% [3%] of EU consumption by volume of product [pure alcohol]

Policy option S4b is a variation of S4a, with the difference being that the actual duty rates are now only approximately unitary. Duty is charged by volume of product, but duty rates are stratified according to the alcoholic strength of the beverage in bands of approximately four degrees of alcohol. The rate for each strength band is determined by multiplying the unitary rate from S4a by the midpoint strength of the band's range.

As in the previous simulation, this option has a very different impact across Member States showing increases and decreases in the off-trade prices. The magnitude of the impact is small as a result of this option (changes in price of no more than about 3%) in all Member States except in EE and FI, where prices would fall 6%, and PL where they would fall 7%.

Figure 41: Impacts of applying policy option S4b



Source: LE own estimates and data from this report. Price data not available for LU.

### ***S5a ALL PRODUCTS into three categories according to alcoholic strength + unitary taxation (no revalorisation of minimum rates)***

Minimum rate for low-strength products = €1.87/hl/degree of alcohol

Minimum rate for mid-strength products = €2.82/hl/degree of alcohol

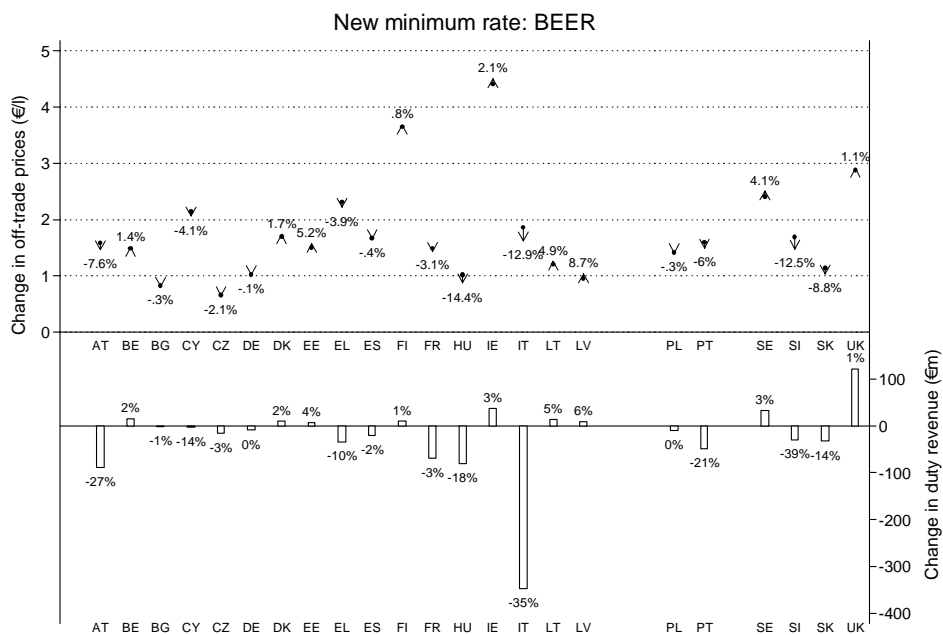
Minimum rate for high-strength products = €5.50/hl/degree of alcohol

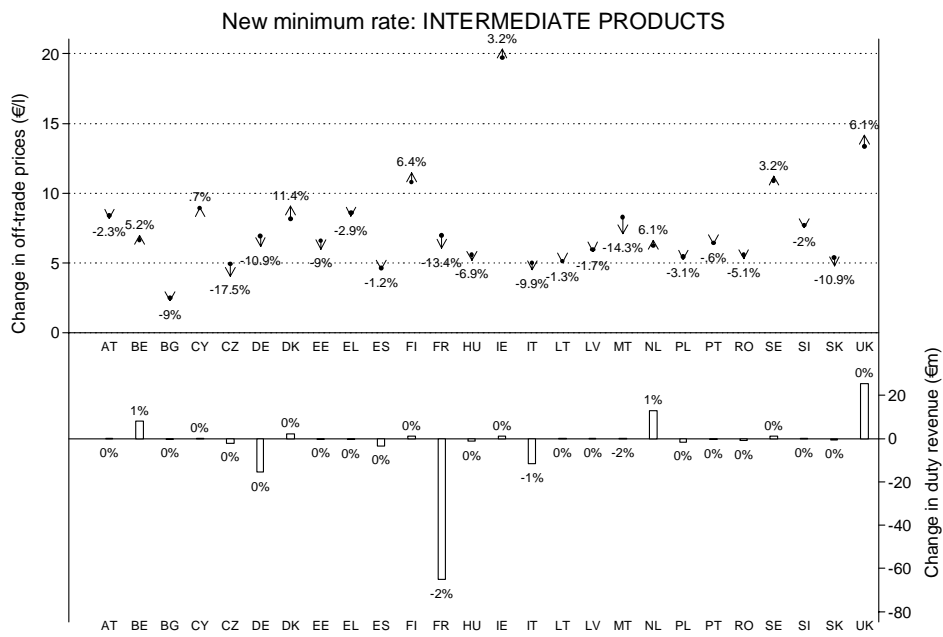
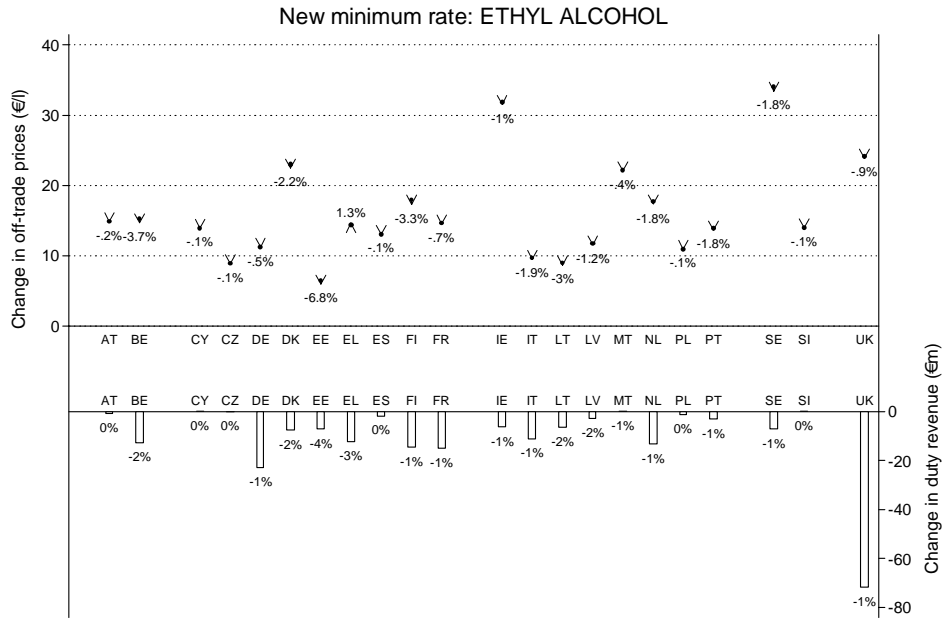
Relates to 100% [100%] of EU consumption by volume of product [pure alcohol]

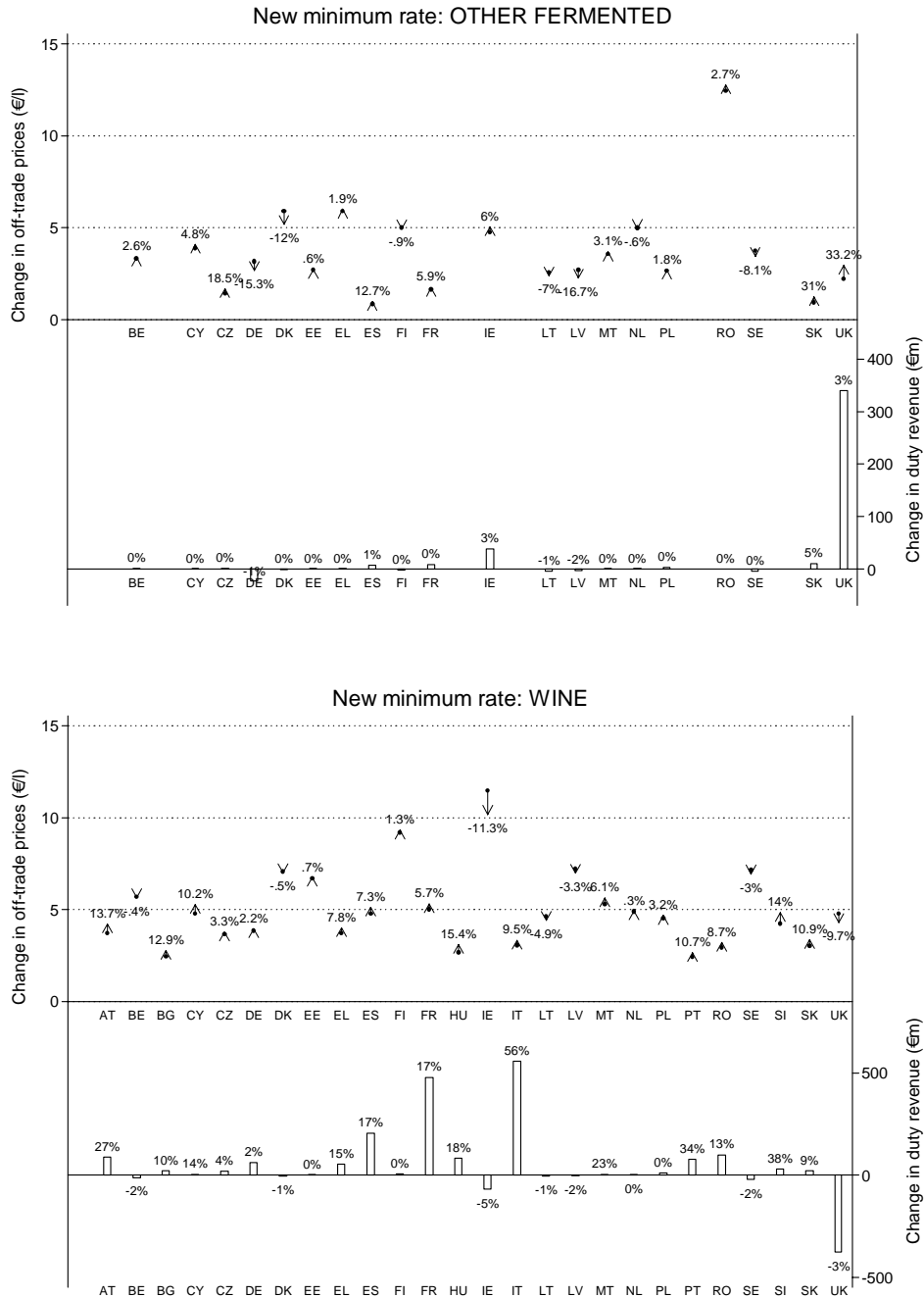
This policy option has a disparity of impacts on the price of BEER, INTERMEDIATE PRODUCTS, OTHER FERMENTED and WINE. In general, the average off-trade price of ETHYL ALCOHOL beverages gets reduced and this is because products with alcohol content below 22% will be taxed at a lower rate. Prices of BEER decrease in Member States where duties on WINE are low. This is a result of duties being calculated to keep revenue neutrality within this group: WINE gets a higher duty under the new option which under means that the burden on BEER can be reduced maintaining the tax revenues of the group unchanged.

An interesting result of this analysis is that the dispersion in prices will not be significantly reduced as a result of this policy option, and this is true regardless of whether unitary taxation is made compulsory or offered as an option for Member States. The only exception to this is WINE (where price dispersion could be slightly reduced as a result of this option) and INTERMEDIATE PRODUCTS (where price dispersion could be slightly increased as a result of this option).

**Figure 42: Impacts of applying policy option S5a**







Source: LE own estimates and data from this report. Price data not available for LU.

**S5b ALL PRODUCTS into three categories according to alcoholic strength + unitary taxation (7% revalorisation of minimum rates)**

Minimum rate for low-strength products = €2.00/hl/degree of alcohol

Minimum rate for mid-strength products = €3.01/hl/degree of alcohol

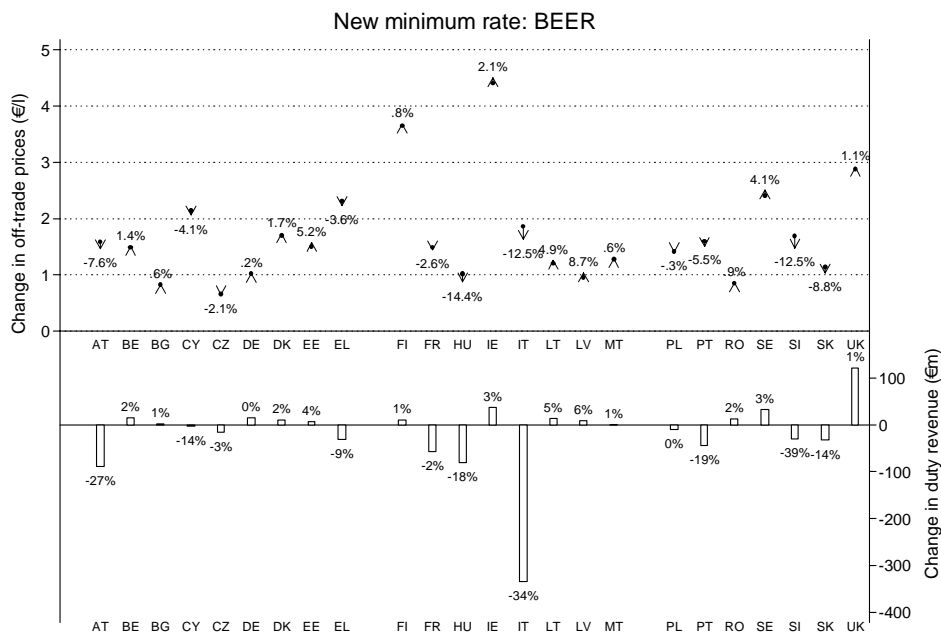
Minimum rate for high-strength products = €5.89/hl/degree of alcohol

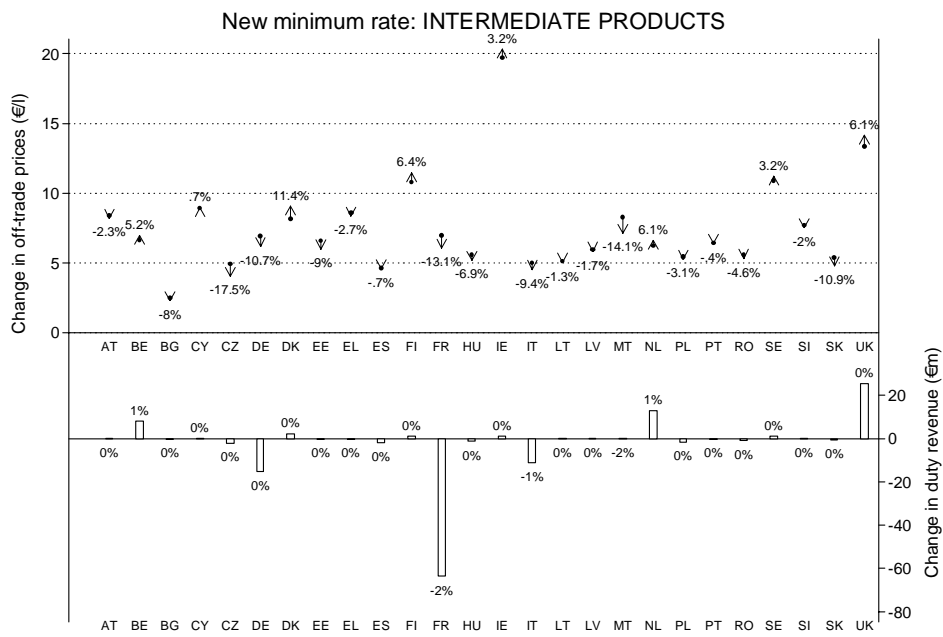
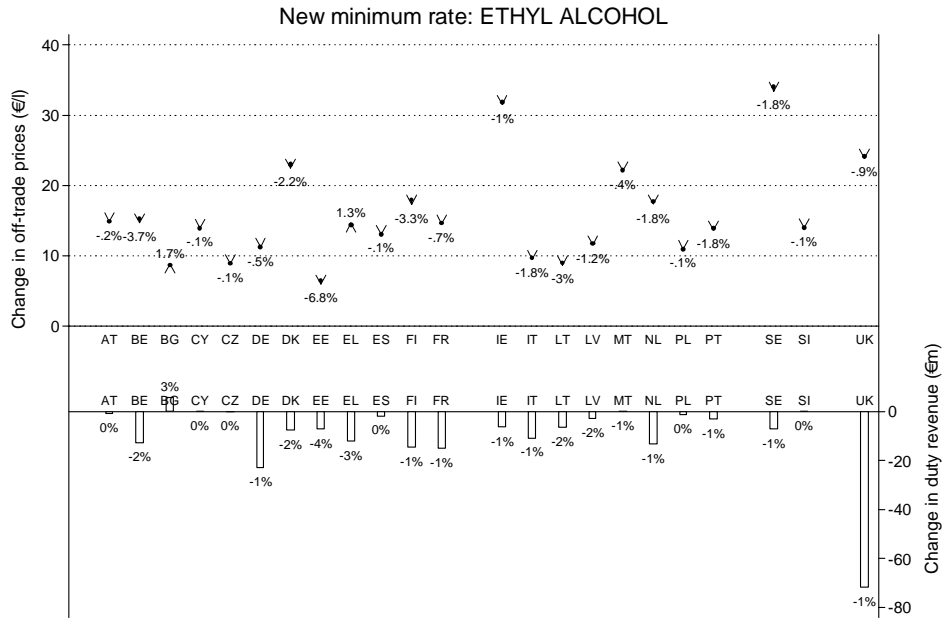
Relates to 100% [100%] of EU consumption by volume of product [pure alcohol]

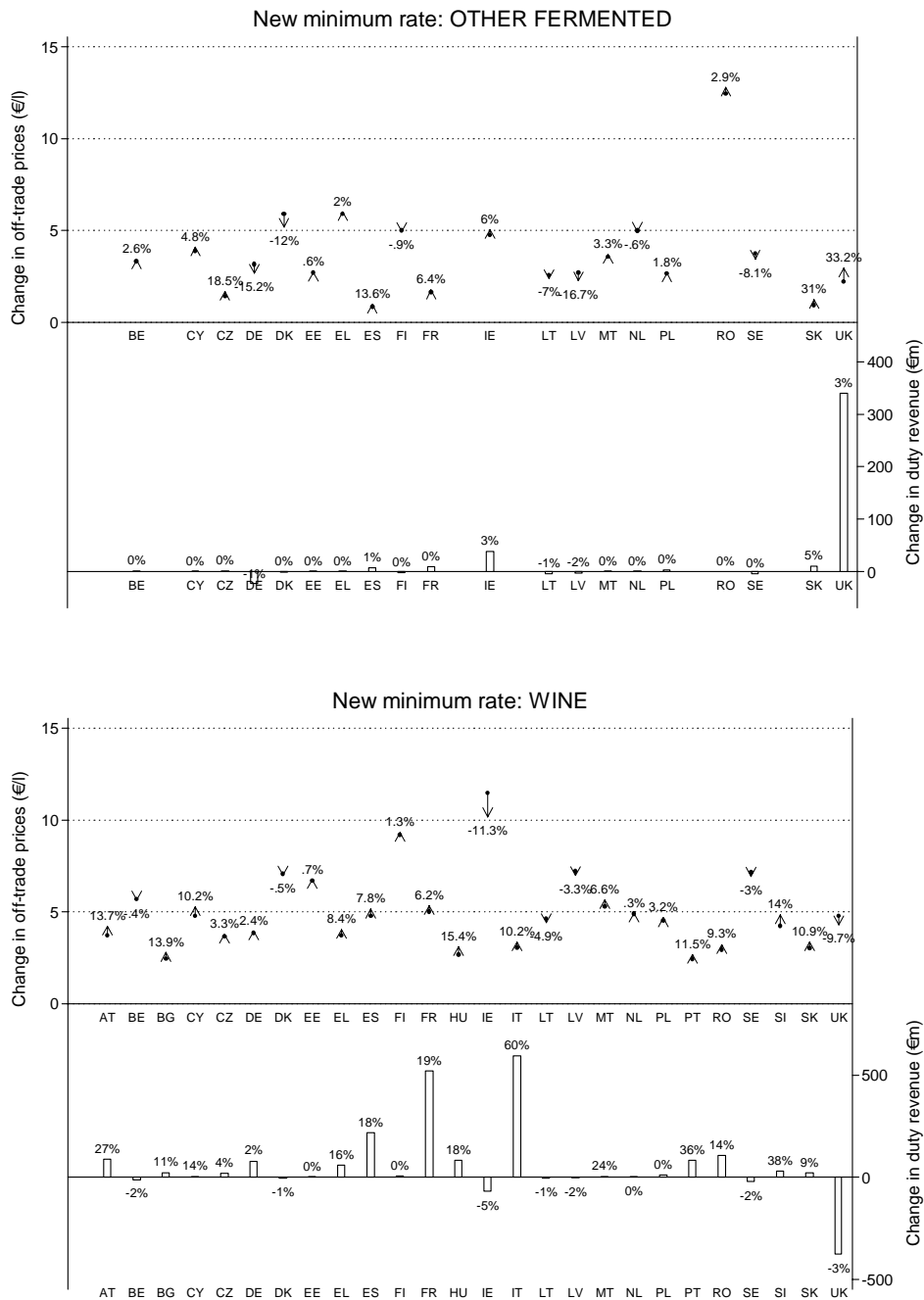
There is not much difference between this policy option and S5a. There is great disparity of the impacts on the price of BEER, INTERMEDIATE PRODUCTS, OTHER FERMENTED and WINE. The average off-trade price of ETHYL ALCOHOL beverages gets reduced (products with alcohol content below 22% will be taxed at a lower rate).

The effect on prices dispersion is similar to the one observed for S5a, so dispersion will not be significantly reduced as a result of this policy option regardless of whether unitary taxation is made compulsory or not.

**Figure 43: Impacts of applying policy option S5b**







Source: LE own estimates and data from this report. Price data not available for LU.

**S5c ALL PRODUCTS into three categories according to alcoholic strength + unitary taxation (44% revalorisation of minimum rates)**

Minimum rate for low-strength products = €2.69/hl/degree of alcohol

Minimum rate for mid-strength products = €4.06/hl/degree of alcohol



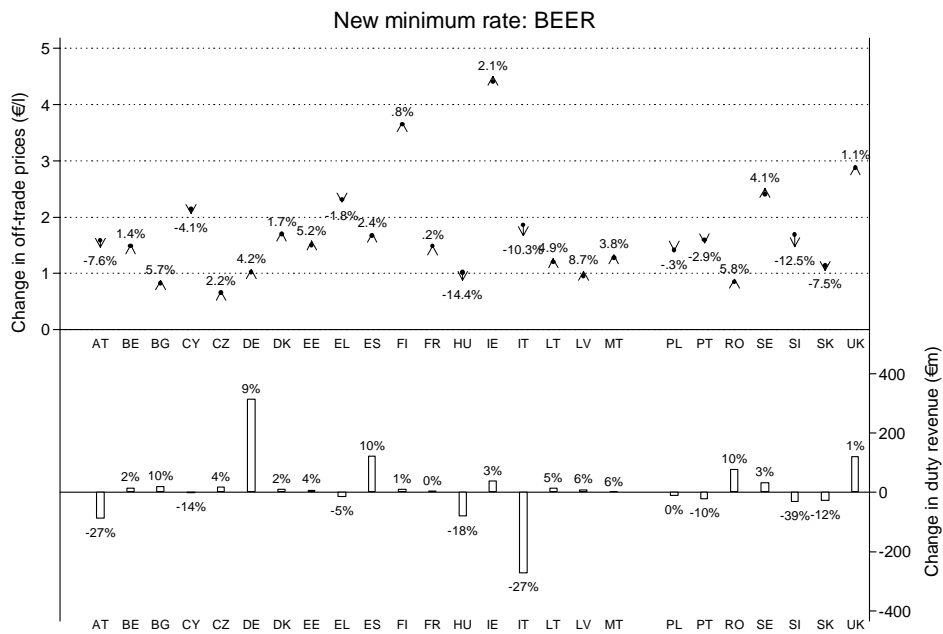
Minimum rate for high-strength products = €7.92/hl/degree of alcohol

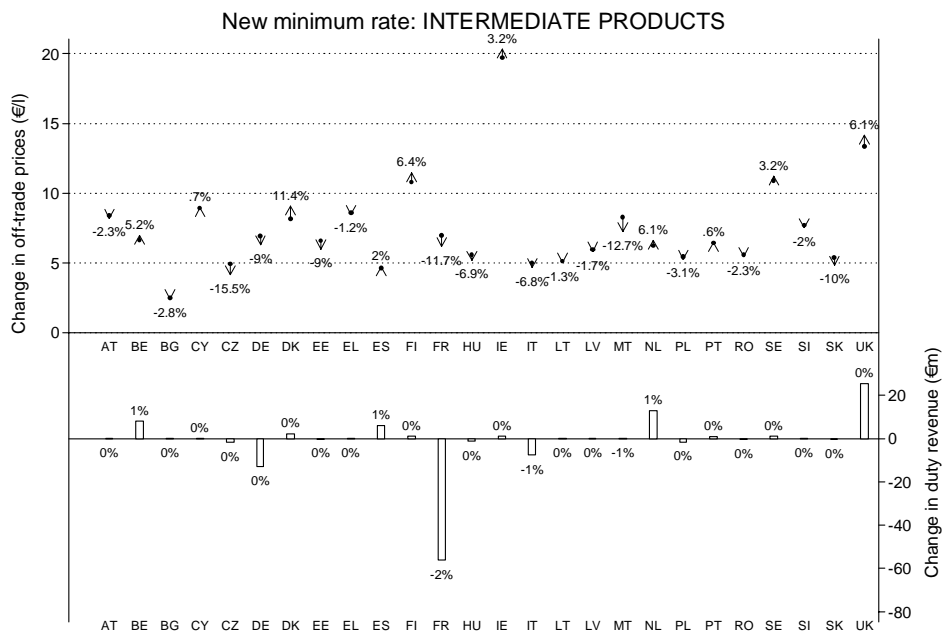
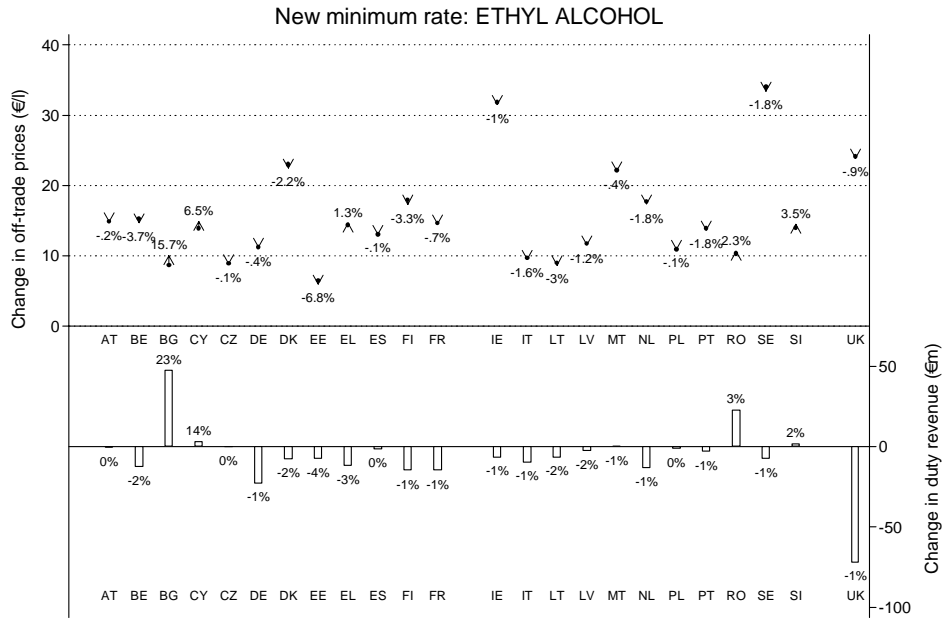
Relates to 100% [100%] of EU consumption by volume of product [pure alcohol]

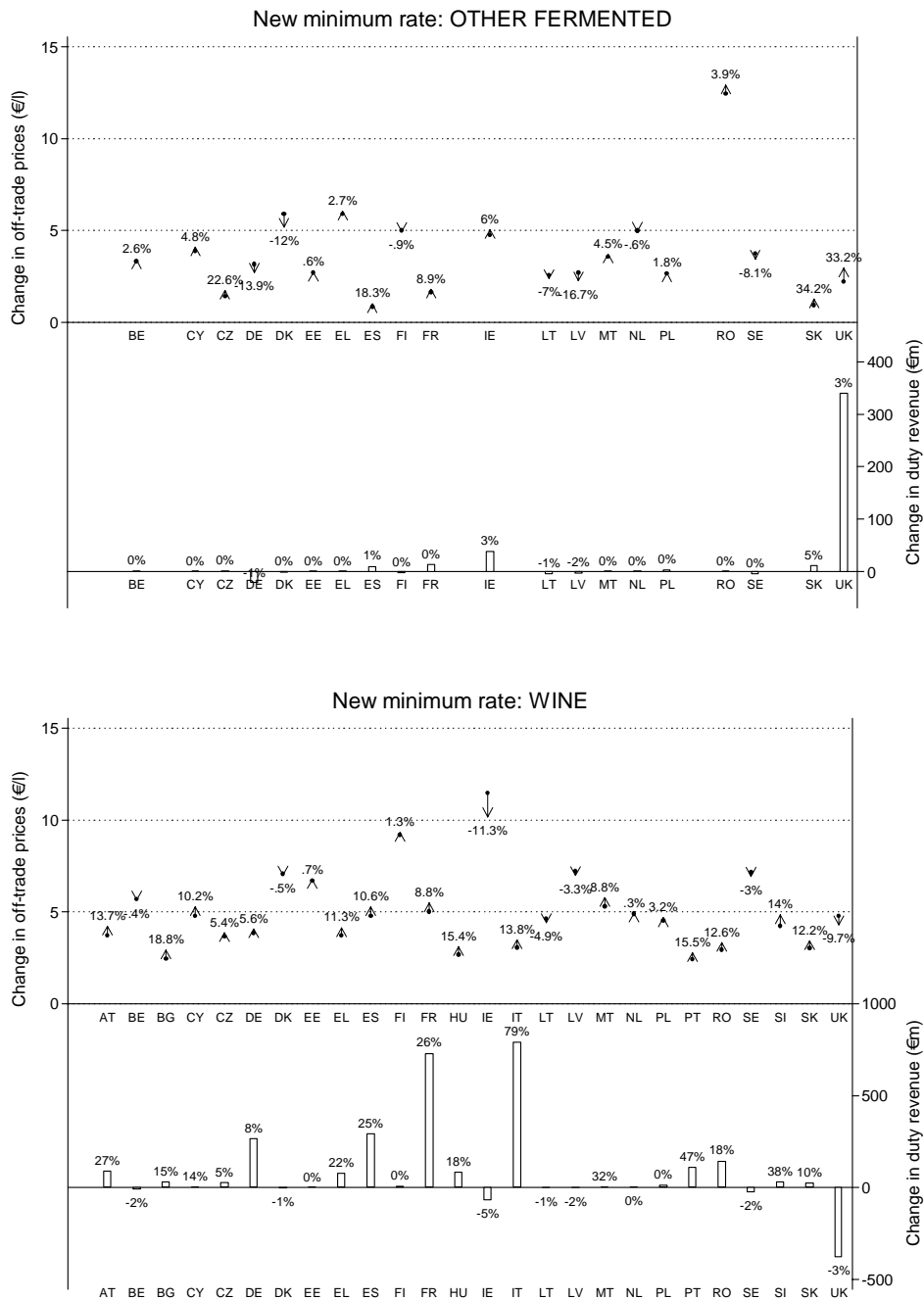
This policy option has a disparity of impacts on the price of BEER, INTERMEDIATE PRODUCTS, OTHER FERMENTED and WINE.

Again, there seems to be no substantial effect on price dispersion as a result of this option. The impact of the change in duty structure on products in most Member States is not affected by revalorising the minimum rates. Dispersion will not be significantly reduced as a result of this policy option regardless of whether unitary taxation is made compulsory or not.

**Figure 44: Impacts of applying policy option S5c**







Source: LE own estimates and data from this report. Price data not available for LU.

**S6 Abolish reduced rates for low-strength alcoholic beverages**

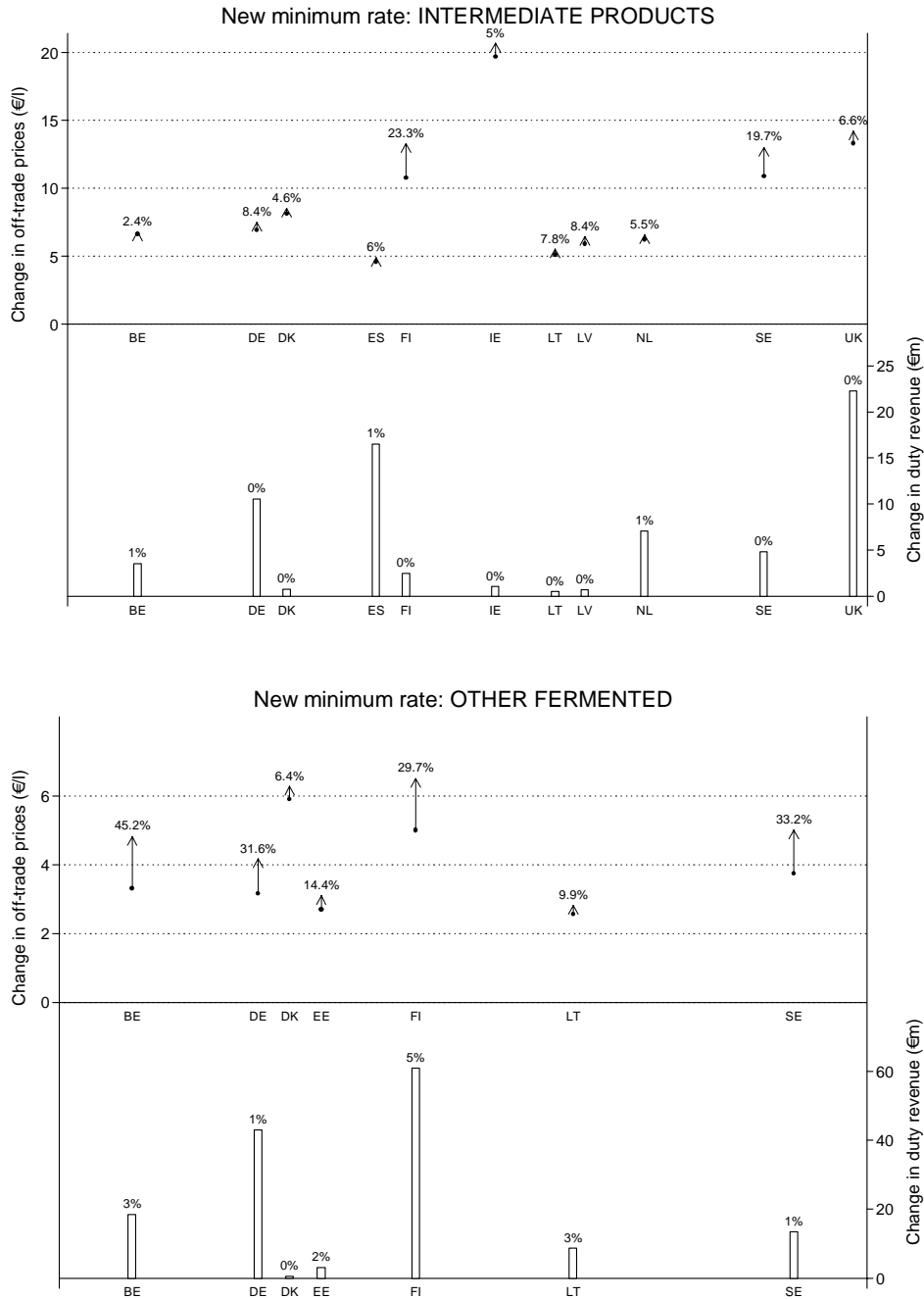
Relates to 0.6% [0.8%] of EU consumption by volume of product [pure alcohol]

This option abolishes reduced rates for low-strength products such that they are taxed at the normal rate (this option retains Member States' specially designated reduced rates other than for low-strength products). This option will only have impact on INTERMEDIATE PRODUCTS and OTHER FERMENTED BEVERAGES. We do not have estimates for BEER not exceeding strength of 2.8% abv, or WINE not exceeding strength of 8.5% abv, as our underlying dataset does not contain any such observations. There is no effect on products classified as ETHYL ALCOHOL with strength not exceeding 10% abv because there are no Member States that make use of the reduced rate allowance on those products, with the exception of FI (only for products of strength 1.2-2.8%, for which we have no observations in our dataset).

INTERMEDIATE PRODUCTS will be most affected in FI and SE by this policy option, with increases in prices of around 10% (this reflects the reduced rates for still and sparkling INTERMEDIATE PRODUCTS under 15% abv). For a group of countries (DE, DK, ES, LT, LV, NL and UK) the impact on off-trade prices will be in the range of 5% to 10%, except in BE that the simulated impact is below 3%.

OTHER FERMENTED BEVERAGES prices will experience a significant increase in BE, DE, FI, and SE with increases in off-trade prices above 30% (this reflects the differences in fiscal treatment between standard products and beverages under 8.5% abv). For a DK, EE, and LT the increase will be 6.5%, 14.4% and 9.4%, respectively.

**Figure 45: Impacts of applying policy option S6**



Source: LE own estimates and data from this report. Price data not available for LU.

## 6.5 Evaluation approach

The policy options analysed will have different type of effects. In the next paragraphs we provide an evaluation of the effectiveness of the policy options in:

- Reducing the disparity in duty rates (and prices) for the alcoholic beverages; and
- Bringing clarity to the classification of beverages.

Descriptions are provided for different policy options and each beverage type.

### **D1a: minimum rate for WINE and OTHER FERMENTED BEVERAGES (=wine-producing Member State)**

WINE: small impact on off-trade prices. It brings closer to the EU average prices in AT, CY, CZ, DE, EL, ES, HU, IT, MT, PT, RO, SI, and SK, (increase of 2% or less) and BG (2.6% increase). Since these changes are very small in comparison with the high duty rates charged in some Member States (IE, FI, SE, UK), this does not bring about a reduction in price disparities across the EU.

OTHER FERMENTED: significant price increase (above 4%) in ES and SK and negligible impact in the remaining countries. Policy option does not reduce price disparities between neighbouring countries.

### **D2b: minimum rate for WINE and OTHER FERMENTED BEVERAGES (=BEER). 44% revalorisation of all minimum rates**

BEER: increases in prices of around 4% or more in BG, DE, LV, MT, and RO, below 2% in CZ, ES, FR, and LT. Prices converge towards EU average but differences remain between IE, FI, SE and UK and neighbouring countries.

ETHYL ALCOHOL: prices increase in Member States with low duties (prices increase by 16% in BG, 7% in CY and by less than 4% in RO and SI). Differences between Member States are not significantly reduced.

INTERMEDIATE PRODUCTS: prices increase substantially in BG (around 10%) as a result of the policy option. In the remaining Member States the effect on prices is less than 3%. No significant effect in the reduction of price disparities is found.

OTHER FERMENTED BEVERAGES: price increases in ES and SK (around 40%) and in CZ around (25%). No significant reduction in price disparities.

WINE: significant impact in prices in BG (23%), and important in AT, DE, ES, HU, IT, PT, RO, SI, and SK (price increases of 14% or more), and CY, FR, MT (around 10%). As a result, low prices move closer to the EU average, but high WINE duties are so high in some Member States (particularly IE, FI, SE, UK) that the magnitude of the price changes is relatively inconsequential. Looking at neighbouring countries, the large price differences between some (DK and DE; UK and FR) would be reduced, but the change is small in comparison with the difference in price (and also duty). For the remaining Member States the main differences identified with neighbouring countries remain.

D2b, which entails a 44% revalorisation of all minimum rates, does not significantly reduce differences in prices between Member States. It is easy to see that other options (D1b and D2a), which imply no or a lower revalorisation, will yield a similarly small impact.

### **S1 SPARKLING == STILL**

INTERMEDIATE PRODUCTS: negligible effect on prices (and hence duty revenues) in all Member States.

OTHER FERMENTED BEVERAGES: significant price decrease in DE (19%) and important in DK (9%) and BE (5%), but small proportion of market means little overall impact on (no more than 1% decrease in) duty revenue. Minor impact on price disparity.

WINE: large reductions in SPARKLING WINE prices in several Member States (almost 30% in DE, and between 15% and 20% in CZ, SK, HU, NL, IE, BE. Some reduction in price disparity.

### **S2 ETHYL ALCOHOL <22% == (STILL) INTERMEDIATE PRODUCTS**

ETHYL ALCOHOL: very different impact on prices (including some individual changes of around 20%) across Member States. Overall, no significant reduction in price disparities or differences between neighbouring Member States with significant cross-border trade.

### **S3c Apply minimum rates for ETHYL ALCOHOL to RTDs (+ 44% revalorisation of minimum rates)**

RTDs: impact negligible in almost all Member States (results in price change of over 5% only in CZ).

---

**S4a ETHYL ALCOHOL <22% abv and ALL PRODUCTS with added alcohol == INTERMEDIATE PRODUCTS + unitary taxation**

DD: increases and decreases in off-trade prices for different Member States. The magnitude of the impact is small (no more than about 2%) in all Member States except PL (6.5%). No significant reduction in price disparities.

**S4b ETHYL ALCOHOL <22% abv and ALL PRODUCTS with added alcohol == INTERMEDIATE PRODUCTS + taxation in bands**

DD: very different impact across Member States, but the magnitude of the impact is small as a result of this option (changes in price of no more than about 3%) in all Member States except in EE and FI, where prices would fall 6%, and PL where they would fall 7%. The option does not contribute to reducing price disparities. It does not reduce price differences between FI and EE as they both experience a price reduction.

**S5c ALL PRODUCTS into three categories according to alcoholic strength + unitary taxation (44<sup>0</sup>% revalorisation of minimum rates)**

BEER, INTERMEDIATE PRODUCTS, OTHER FERMENTED, ETHYL ALCOHOL, and WINE: no substantial effect on price dispersion as a result of this option. The impact of the change in duty structure on products in most Member States is not affected by revalorising the minimum rates.

**S6 Abolish reduced rates for low-strength alcoholic beverages**

INTERMEDIATE PRODUCTS: increases in prices of around 10% in FI and SE. Increase on off-trade prices in the range of 3% to 10% (BE, DE, DK, ES, LT, LV, NL and UK). Disparities increase between FI and EE, and SE and DK, and decrease (although slightly) between FR and ES as a result of an increase in prices in ES.

OTHER FERMENTED BEVERAGES: significant increase (above 30%) in prices in BE, DE, FI, and SE. For DK, EE, and LT, price increase of between 6.5% and 14.4%. As a result, price disparities increase between neighbouring Member States with significant cross-border trade.

BEER and ETHYL ALCOHOL: our dataset does not contain products in these categories, which would attract reduced rates in any Member States on the basis of being low-strength products.

## 6.6 Assessment of options

Some options have been excluded from our assessment analysis. This is because we believe that they are not significantly different from others. For



example, options D1a, D1b, D2a and D2b are all options which variously affect the minimum rates applicable to each beverage category, of which D2b makes the largest increases. Hence, we will describe D1a, D1b, and D2a as *nested* in D2b, as D2b results in at least the same effects as its subordinate options.

We present two summary analyses for comparing the policy options. The first identifies what policy concerns are addressed or arise from applying the policy option. The second goes into more detail by investigating the effect on price disparity and clarity of categorisation for selected beverages.

We present a summary of the effects of the policy options in **Table 14**, distinguishing between the different concerns that the policy options might affect. Some options have been designed to simply update the minimum rates (and hence reduce disparity in prices across Member States), while other options aim to reduce the uncertainty in the classification of drinks and different tax treatment across Member States.

Table 14: Effects of policy options overall								
Policy concerns	Policy option							
	D2b	S1	S2	S3c	S4a	S4b	S5c	S6
Minimum rates more relevant to current duty rates across EU	✓			✓			✓	
Small impact on (almost all) MS duty receipts		(✓)	✓	✓	✓	✓		✓
Reduce incentive for illicit and cross-border trade		✓						
Similar drinks treated in the same way		✓	✓		✓	✓	✓	
Common rules for all operators across the EU			✓	✓	✓	✓		✓
(Minor) simplification & transparency of categorisation		(✓)	(✓)	(✓)	✓	✓	✓	✓
Transparency of duty rates across categories					✓		✓	
Movement toward non-discriminatory tax system		✓	✓	✓	✓	✓	✓	✓
Affordability substantially lower in some/all sectors	✓							✓
Competitiveness substantially worsened in some/all sectors	✓							✓
Potential for negative impact on employment	✓							✓

Note: Options:

D2b: min rate for WINE and OTHER FERMENTED + 44% revalorisation all min rates

S1: SPARKLING == STILL

S2: ETHYL ALCOHOL <22% == (STILL) INTERMEDIATE PRODUCTS

S3c: Apply minimum rates for ETHYL ALCOHOL to RTDs (44% revalorisation of minimum rates)

S4a: ETHYL ALCOHOL <22% abv and ALL PRODUCTS with added alcohol == INTERMEDIATE PRODUCTS + unitary taxation

S4b: ETHYL ALCOHOL <22% abv and ALL PRODUCTS with added alcohol == INTERMEDIATE PRODUCTS + taxation in bands

S5c: ALL PRODUCTS into three categories according to alcoholic strength + unitary taxation (44% revalorisation of minimum rates)

S6: Abolish reduced rates for low-strength alcoholic beverages

The different policy options and their effects on (a) reducing disparity in duty rates and (b) bringing clarity to the classification of selected beverages are summarised in **Table 15**. The impact has been calculated for a shortlist of representative drinks (Beer, RTDs, Cream Liqueurs, Fortified Wine, Light Aperitifs, Whisky, White Spirits, Cider, Sparkling Wine, and Medium-priced Still Wine).

The policy options do not always affect every type of alcoholic beverage, and the effects where they do exist may not be uniformly spread. Some options target the entire universe of drinks (D2b or S5c), whilst others are directed at specific drinks or groups of drinks (e.g. RTDs or sparkling drinks).

**Table 15** highlights the products that are affected by each policy option and qualitatively assesses the effects on each product. Shaded cells in the table denote product unaffected by the different options (as already mentioned, D2b affects all products, whereas S3c affects RTDs only). In each cell the first character denotes the effect of the policy option in reducing price disparity and the second provides an assessment of whether the policy option increases the clarity in the classification (the set of values used for this judgement is "0" for no change, "+" increase, "-" decrease).

Table 15: Effects of policy options on selected beverages

	Beer	RTDs	Cream Liqueurs	Fortified Wine	Light Aperitifs	Whisky	White Spirits	Cider	Sparkling Wine	Medium Still Wine
D2b	00	00	00	00	00	00	00	00	00	00
S1								00	+0	
S2		0+	0+							
S3c		0+								
S4a		0+	0+	-+	-+					
S4b		++	0+	-0	-0					
S5c	0+	++	0+	0+	0+	0+	0+	-+	++	0+
S6				-+				-+		

Note: In each cell first digit denotes effects of reduction in price disparity, second digit denotes increase in classification clarity. "0" no change, "+" increase, "-" decrease.

Options:

D2b: min rate for WINE and OTHER FERMENTED + 44% revalorisation all min rates

S1: SPARKLING == STILL

S2: ETHYL ALCOHOL <22% == (STILL) INTERMEDIATE PRODUCTS

S3c: Apply minimum rates for ETHYL ALCOHOL to RTDs (44% revalorisation of minimum rates)

S4a: ETHYL ALCOHOL <22% abv and ALL PRODUCTS with added alcohol == INTERMEDIATE PRODUCTS + unitary taxation

S4b: ETHYL ALCOHOL <22% abv and ALL PRODUCTS with added alcohol == INTERMEDIATE PRODUCTS + taxation in bands

S5c: ALL PRODUCTS into three categories according to alcoholic strength + unitary taxation (44% revalorisation of minimum rates)

S6: Abolish reduced rates for low-strength alcoholic beverages

The two tables illustrate some of the trade-offs that may need to be weighed in choosing between policy options. Policy options, such as D2b and S6, which affect small sections of the market, create relatively small changes in bias compared with the status quo, but have the (short-term) advantage of being easy to understand and to prescribe. Policy options, such as S4a and S5c, bring a degree of uniformity to actual duty rates by expressing them in unitary terms, and thus transparency to comparison of duties across products.<sup>56</sup> However, they may be considered too far removed from the status quo to be politically viable.

<sup>56</sup> S4a is slightly more transparent than S4b, because the duty rates defined by volume rather than in a unitary fashion. Since the products affected are distinguished by deviating from production by natural

In general, the different policy options have only a minor effect in reducing the disparity in duties across the Member States. One particularly noteworthy conclusion is that the 44% revalorisation of the minimum rates (including the introduction of non-zero minimum rates for WINE and OTHER FERMENTED) results in only a small price effect compared with the prevailing price differences, in particular between Member States with low duty rates and the four Member States with highest rates.

By definition, some of the policy options do not have a large effect on duty revenues, but it is important to note that Member States may not necessarily wish to achieve revenue neutrality in the face of any policy changes, and, indeed, may find it preferable from a policy perspective to set their duty rates in a different profile to those we have assumed for the purposes of our modelling exercise. It should also be noted that it appears very unlikely that a change in policy will be able to make duty rates converge across Member States and simultaneously maintain revenue neutrality.

Other policy options, such as S3 and S4, which ensure that certain beverages are classified in the same fashion across all Member States make a small difference, but will not have a great effect if there is disparity in the actual rates charged under either the old or new categorisation.

Illicit trade and cross-border shopping predominantly involve the major product categories (beer, wine and spirits), so policy options that might reduce incentives must address price differences between Member States in those products. Since, on the whole, the policy options suggested do not systematically achieve this, it seems unlikely that the policy options suggested will make a substantial difference to such cross-border activity. One exception to this could be S1, which would reduce the incentive to purchase sparkling products (mainly wine) in Member States with lower rates.

Nevertheless, looking forward, policy options which link the minimum rates to inflation may serve to limit future increases in price disparity, if some Member States decide for policy reasons to increase their duty rates in the future.

Almost all the structural policy options (those prefixed with 'S') would achieve greater transparency and uniformity in the classification system, and bring more transparency to the comparison of rates on different products. However, the degree to which the policy options move toward a non-discriminatory tax system is varied, and none go quite as far as suggesting a single unitary rate for all alcoholic products within a Member State (even S5 allows three different categories for different strength drinks).

---

fermentation, comparison with ETHYL ALCOHOL duty rates may be desirable, and a mixture of volume and unitary rates is more complicated to compare.

---

There may be good reason for failing to go as far as full uniformity, which would increase the relative duty on lower-strength drinks (versus higher-strength drinks) when compared with the status quo.<sup>57</sup> Although the cross-price effects may be small, this nevertheless represents an incentive toward purchasing and consuming higher strength alcohol, which may present health and social pitfalls.

## 6.7 Summary and outcomes

Our analysis of the policy options suggests that there are some which warrant further reflection, bearing in mind the limitations presented by political realities and considerations of the wider social impact of any changes.

We highlight the benefits of the following policy options: D2b, S4a, S6 and S1. We bear in mind that the effects could be less than in our analysis, if Member States seek exceptions for particular products, such as local specialities, which had previously not needed special treatment due to other flexibilities in the duty rate and classification system.

As a result of D2b the following impacts are expected:

Off-trade: prices will increase

- BEER 4% or more in BG, DE, MT, and RO, below 2% in CZ, ES, FR, and LT.
- ETHYL ALCOHOL 16% in BG, 7% in CY and by less than 4% in RO and SI.
- INTERMEDIATE PRODUCTS substantially BG (10%) and less than 3% in remaining Member States.
- OTHER FERMENTED BEVERAGES: ES and SK (18%) and in CZ around (11%).
- WINE: significant in BG (24%), in AT, DE, ES, HU, IT, PT, RO, SI, and SK (14% or more), and CY, FR, MT, (10%).

Cross-border shopping: the increases observed in off-trade markets as a result of the policy will not reduce significantly the price differences across the EU. In particular, there will be no significant reduction in

---

<sup>57</sup> We can speculate that the value of a ubiquitous minimum rate would fall between the low value of BEER (€1.87 per % abv per hl of product) and ETHYL ALCOHOL (equivalent to €5.50 per % abv per hl of product). Using average strengths as an example, for WINE and OTHER FERMENTED (11.1% abv), this would equate to a minimum rate of between €20.76 and €61.05 per hl of product (compared with €0 currently); for INTERMEDIATE PRODUCTS (15.97% abv), this would equate to a minimum rate of between €29.86 and €87.83 per hl (compared with €45 currently).

the differences between neighbouring Member States with significant cross-border trade at an EU level. There may be some reduction in such activity in Member States which border the countries that currently charge low rates, but, conversely, there is the potential risk that it could encourage cross-border activity from sites external to the EU.

**On-trade:** the increase in prices will be significantly less than the one observed for the off-trade. This is because duties represent a smaller share of the final price in the on-trade market.

**Shift in demand:** there will be no major changes in prices of BEER, ETHYL ALCOHOL, and INTERMEDIATE PRODUCTS as a result of this option and this will have reduced impact on demand. As there will be significant increases in the prices of WINE and OTHER FERMENTED BEVERAGES, consumption will decrease for these drinks.

**Profitability:** as a result of a reduction in consumption revenue will be lost and it is very likely that this will affect profits in the wine and other fermented sectors.

**Tax treatment:** the significant increase in the duties of WINE and OTHER FERMENTED BEVERAGES will reduce the differences in tax burden between beverages, and in particular in relation to the ones having a zero minimum rate.

**Competitive position:** the significant increase in the prices of WINE and OTHER FERMENTED BEVERAGES will change the relative price between these beverages and BEER, ETHYL ALCOHOL, and INTERMEDIATE PRODUCTS. To the extent that consumers are willing to substitute between these products this may shift the demand from the products that became relatively more expensive (WINE and OTHER FERMENTED BEVERAGES) to the ones that have become relatively cheaper (BEER, ETHYL ALCOHOL, and INTERMEDIATE PRODUCTS). The extent of this cross-product substitution is uncertain but given the different cross-elasticities provided in the literature and uncertainty around their robustness we expect such effects to be small.

As a result of S4a the following impacts are expected:

**Clarity:** improves clarity in classification criteria for RTDs and Cream Liqueurs, although the recent Siebrand judgement has also provided some guidelines for distinction that reduce the potential for overlapping of classification categories.

Prices: no significant differences in prices before and after the policy for RTDs and Cream Liqueurs.

Tax treatment: For products currently taxed as OTHER FERMENTED or as INTERMEDIATE PRODUCTS, unitary taxation implies that drinks "closer" to spirituous beverages (in terms of alcohol content or other characteristics) will also have more similar duty rates. For products already taxed as ETHYL ALCOHOL, the unitary equivalent to the duty rate on INTERMEDIATE PRODUCTS is lower than the current duty charged.

As a result of S6 the following impacts are expected:

Clarity: simplifies the current taxation structures.

Tax treatment: eliminates the possibility of using duty rates to favour certain products with low alcoholic strength which may be produced domestically. This could encourage production and consumption of higher strength products, with possible negative effects on health in society.

Prices: this option increases the duty rates and prices currently used by some countries (DE, FI, SE, UK).

Revenues: increases duty revenues collected.

As a result of S1 the following impacts are expected:

Clarity: not extra clarity to the classification criteria as there are no significant problems at the moment in differentiating sparkling from still beverages, although there may be reasons why the distinction is not valid, such as whether the products are drunk on similar occasions or whether the distinction (based on pressure and packaging) is arbitrary, both issues raised in COM(2004) 223 final.  
Prices: no significant differences in prices before and after the policy.

Tax treatment: eliminates different tax treatments of similar beverages.  
Reduces the possibility of tax discrimination on imports.



---

## 7 Conclusions

In 2004, the Commission produced a report which recommended that the minimum rates of duty laid down in 1992 should be revalorised to take account of the inflation that has occurred since then (COM(2004) 223 final). The report also noted problems in the classification and categorisation of alcoholic products for excise purposes such that, in some cases, the same product was classified under different categories (and hence subject to different taxation) in different Member States.

The overarching objective of the present study was to examine whether the current structures of alcohol taxation and the minimum rates laid down for the various categories are adequately supporting the effective functioning of the internal market, or whether distortions are caused and adaptations would be appropriate.

Alcoholic beverages are important to Governments and consumers in the EU.

Excise duties on alcoholic beverages constitute an important source of tax revenue in the EU27. Duties are an important contribution to Member States' finances and revenues range from 0.2% to 3.5% of total tax revenues (excluding Social Security). Total duty receipts in the EU27 amounted to €30.6 billion in 2007 (ETHYL ALCOHOL: 46% of revenues, BEER: 33% and WINE: 19%).

Consumption of alcoholic drinks is important in the EU: the total consumption stood at 56 billion litres in 2007, approximately 113 litres per person. Beer was by far the most consumed alcoholic drink, counting for 66% of the total volume. The second most consumed product, wine, accounted for 25% (14.1 billion litres).

### 7.1 Identified problems

The current situation causes a number of concerns for the proper functioning of the internal market. We have identified the following problems.

#### **Lack of transparency of the classification system**

The classification procedures used by Member States for allocating beverages into the different categories are very heterogeneous. Member States use the 5-product system specified in the Directives, but there are a significant number of exceptions where alternative duties exist under certain conditions. Duties are sometime levied in different units across Member States which make comparisons difficult (abv or Plato can be used to measure strengths of beer,

and, in some Member States, duties can be levied by volume of beer – with duty rates banded by strength – rather than directly by degree of alcohol).

Information on the classification systems used by different Member States is not readily available. It is also difficult to understand the criteria used to classify each type of beverage, as there is not clear description of the criteria used for delimitation of the categories.

### **Lack of harmonisation in duty rates**

There is a very wide dispersion of before-duty (pre-tax) prices of the alcohol beverages consumed within the EU and the current duties accentuate such differences further. In particular, for all beverages there is a wide disparity between the high rates charged by four Member States (FI, SE, IE, UK) and the rates charged by the rest of EU Member States. At present, because of their low level relative to the high rates charged by the four, the minimum duty rates contribute little to reducing such disparities.

There is also disparity in the duties being charged across beverages. The most noticeable difference is that, in general, a unit of alcohol has a much reduced rate when it is categorised under OTHER FERMENTED or WINE, rather than under BEER, ETHYL ALCOHOL or INTERMEDIATE PRODUCTS.

In addition, the directive also allows for reduced rates for small-producing units. Whilst a generous tax treatment helps raise the competitiveness of the small producers' final product, the artificial binary separation of producers by size necessarily creates scope for mid-size producers to be at a competitive disadvantage to both small and large producers. It is beyond the scope of this study to assess the presence of any such effect.

### **Minimum duty rates out of date**

The minimum rates set in 1992 are clearly out-of-date. Prices increased by 44% from 1992 to 2010 and minimum rates have remained constant. This means that the minimum rates are lower in real terms than they were in 1992.

### **Large differences between neighbouring Member States**

There exist large differences in post-duty prices of similar products between neighbouring countries. The largest differences are observed between UK and FR; FI and EE; and SE and DK. There are also some significant differences involving new Member States, particularly between EL and BG (ETHYL ALCOHOL), several Member States and AT (OTHER FERMENTED SPARKLING), and PL and several Member States (OTHER FERMENTED STILL).

**Cross-border trade (legitimate shopping and smuggling)**

As a result of large differences in market prices between neighbouring Member States, the volume of smuggling and cross-border shopping between these countries is significant.

**Duties change relative prices of alcoholic beverages**

An interesting issue to consider is whether the differences between pre- and post-tax prices of product pairs are likely to change the relative prices of alcoholic beverages (and hence potentially influence consumer behaviour). The results of our analysis illustrate that taxation changes the relationship between products, so that consumers see significant differences when comparing the relative prices of pre- and post-tax products.

**Duties not being used as a trading barrier**

Nevertheless, we have not found any relationship between the presence of such differences and wine- or beer-producing countries, and we cannot conclude that this practice is being used to discriminate between imported and domestic products. One limitation of our analysis is that we used an average or representative product to compare between product pairs for grouped beverages of BEER, ETHYL ALCOHOL, and WINE categories. We believe it could still be possible to discriminate against imported products making use of the different range of reduced rates and exceptions (for example, by setting up the duty rates such that they are directed to tax a type of imported products which certain characteristics or alcohol content). Although this is something we did not investigate, it means that Member States could make use of this possibility (even in the future) to hinder free movement of goods in the EU.

**Classification problems**

At present, there is lack of clarity among Member States over the treatment of beverages in cases where amounts of ethyl alcohol have been added to a fermented beverage. Member States apply different *ad hoc* rules which are not specified within the current classification framework. The lack of a common framework or agreement on how to treat such beverages across the EU results in uncertainty for operators.

There is the lack of certainty over treatment of products that have been either subject to a cleaning-up process (ultra filtration, reverse osmosis, etc), or that are produced using cleaned-up alcohol. Although such products still have a small market share at present, the different treatment of such products between Member States means that there is heterogeneity in the treatment of such products. Again, this results in uncertainty for operators.

### **Lack of clear definition**

There is lack of a clear definition and delimitation of the terminology used in the sector. It has been found that stakeholders generally use CN and EC categories interchangeably. For example, in many cases ETHYL ALCOHOL is simply referred as CN 2208<sup>58</sup>. This may be the case in many instances but it may not be always true.

### **Lack of data availability**

Currently, there are scarce data on several interesting aspects of the alcohol market.

This mainly relates to data on the use of sweeteners and dyes, and the prevalence of cleaned-up alcohol and added alcohol in the production of alcoholic beverages.

Whilst these currently affect a relatively small proportion of the overall alcohol market, such factors present some of the more contentious problems with regard to transparency of categorisation and uniformity in application of duty rates. Furthermore, advances in technology and potential changes in consumer preferences make the need to standardise excise duty procedures quite important in the near future.

## **7.2 Options for further consideration**

Our analysis suggests there are reasons to believe that the existing arrangements for classification and minimum rates cause distortions that affect the single market. However, the scope over which these distortions currently hold sway is limited, with other factors playing a much more prominent role. Nevertheless, the development of new production techniques means that the distortions caused by ambiguities in classification could potentially become more widespread in the future. It would be possible to adapt the existing arrangements to better serve the single market, some suggestions for which we provide below.

We focus our thoughts on two objectives:

- clarifying the classification rules; and
- reducing disparity in Member States' duty rates.

For each of these, we consider each product category in turn.

---

<sup>58</sup> Combined Nomenclature for alcohol taxation purposes category corresponding to "Undenatured ethyl alcohol of an alcoholic strength by volume of less than 80% vol; spirits, liqueurs and other spirituous beverages; compound alcoholic preparations of a kind used for the manufacture of beverages".

---

### *Clarifying the classification rules*

We believe that new rules could be introduced to complement the definitions being used for classifying the products. The new rules should be based on specific and measurable criteria. Attributes such as the alcohol content seem particularly appealing and are being used in our recommendations.

### **CLEANED-UP AND ADDED ALCOHOL**

Data suitable for use in this part of the analysis on the degree of penetration of cleaned-up alcohol proved impossible to obtain. Nevertheless, the majority of cleaned-up alcohol currently in the market would appear to be within RTDs (with other potential products notably being within Cream Liqueurs). Thus, the analysis of the impact of S3 (a new category for RTDs with a minimum rate equal to that of ETHYL ALCOHOL) will be close to the upper bound of the impact of a policy to re-categorise products with cleaned-up alcohol in the same way.

We are of the view that the use of such an additional category is unlikely to be high if the choice to use it were optional. We note that almost all RTDs are already classified as ETHYL ALCOHOL across the EU. Furthermore, some Member States' authorities reported that they would automatically classify a beverage into ETHYL ALCOHOL if it contained cleaned-up alcohol (perhaps subject to an additional test that the nature of the product had changed).

A new category may be of most use to those Member States (DK, FR, LU) which currently apply a uniform additional duty on RTDs irrespective of the current EC categories to which the product is classified. It is a more open question whether Member States who differentiate in their 'special taxes' between RTDs of different bases, or who currently charge duty rates that happen to fall below the minimum rate for ETHYL ALCOHOL, would make use of the proposed new category if it were optional.

We were also unable to obtain detailed data on the additions made to the drinks in our dataset, so we cannot directly analyse the effect of restricting the policy option to only affect beverages with, say, 70%, of their alcohol content coming from added alcohol. Policy option S4a does not make any consideration of the proportion of alcohol which is added to a beverage. However, the option relates to a group of drinks approximately equivalent to all drinks with added alcohol. Therefore, it yields the upper limit of the effect that a more selective policy option might obtain.

A change in policy addressing all added alcohol is the most straightforward and clear-cut approach. Nevertheless, it might not be necessarily desirable for all products containing added alcohol to be included, since the reasons for adding alcohol and the nature of the products differ. For instance, fruit wines can be quite similar to wine of fresh grapes, but grapes ferment naturally to a

higher strength than other fruits, and different fruits also ferment to different strengths. In this sense, fruit wines containing added alcohol (used to achieve the same strength as wine from fresh grapes) may not warrant a different tax treatment (FISCALIS, 2005). We are aware that the scope for different treatment mainly lies in CN 2206, which would affect an even smaller proportion of the market than the 2% market share (by volume) of all products with added alcohol.

In areas where there may be uncertainty on the categories to be used for classification purposes (in particular Cream Liqueurs and RTDs) it means that some beverages can fit into more than one category of the 5-product system. This has important implications as the duty levied on the same product may be different between Member States. As a result, producers may have an incentive to change the composition of the beverages (even if only so slightly) just to get benefit from a lower duty.

It is to be noted that during the period in which this study has been undertaken, the ECJ has ruled in the case of Siebrand (C-150/08) which illustrates the type of problems reported by Member States, as it concerned certain liqueur products to which alcohol had been added. The ECJ ruled that the products with which the case was concerned should be classified to CN 2208. Moreover, it also lays down an indication of the type of tests that should be applied when determining classification.

## BEER

Although it has been reported that there are occasionally individual cases where beers contain some element of added alcohol and this is becoming more of an issue as novelty flavoured beers are introduced in the market, at the present time there are no major problems in the classification of products from this category.

Nevertheless, if the essential character of the product is to be the defining factor, a clear indication of the upper limit of alcohol content allowed for this category would be helpful in foreclosing on any future classification ambiguities. Another consideration might be to limit the amount of added alcohol or cleaned-up alcohol allowed in a product for it to qualify as BEER. However, bearing in mind the difficulties of identifying and testing such criteria, this may not improve transparency in the system.

We suggest considering:

**Provide an upper bound on the maximum alcohol content of BEER beverages (for example, 12% abv).**

## ETHYL ALCOHOL

ETHYL ALCOHOL is a category constituted of very different types of beverages. Although they generally share a common attribute of “distilled alcohol content”, at the moment there is no lower band on the contents of alcohol of the beverages under this category. As a result it is possible to classify RTDs (which are typically low-strength products) in this category.

We have estimated in our policy options analysis that in most Member States, there would be only a small reduction in duty revenue as a result of re-categorising low-strength ETHYL ALCOHOL as INTERMEDIATE PRODUCTS.

Some considerations should be made in relation to this. Firstly, although the strengths of the drinks are different, the manner in which they are consumed may not be.

Essentially, if, say, RTDs are closer substitutes with spirits than with any other beverage (such as, for example, beer or cider), then it is appropriate to levy a duty similar to spirits, and vice versa. A similar consideration could be made for other low-strength drinks, particularly Cream Liqueurs.

However, there may be reasons to think that RTDs are not close substitutes for any other drink and so charge a different duty rate, for health or societal reasons. Indeed, the current practice in some Member States of a supplementary additional duty being levied on RTDs does exactly this.

Consequently, it can be seen that there are arguments for and against setting a lower bound to the ETHYL ALCOHOL category but, in our opinion, low-strength drinks should be treated differently to high-strength ones.

We suggest considering:

**Define ETHYL ALCOHOL beverages as any alcohol beverage with alcohol content above 22%.**

## WINE

At present the minimum rate for WINE is zero. In practice this means a huge disparity between the duties used in different Member States. It also creates a disadvantage between beverage categories as, on a given unit of alcohol, the tax burden is very different across beverages. A minimum rate for WINE would remove some of the competitive advantage that its absence has given wine producers over beer producers in certain Member States.

One first possibility would be to introduce a rate that is equivalent to the rate being charged per unit of alcohol for another beverage (e.g. BEER). We have also analysed the option of introducing a minimum rate equivalent of the rate being charged in a wine-producing country (we took FR as an example).

The results of using a BEER-equivalent minimum rate show a significant increase in the prices such that the disparity across countries is reduced. The impact on WINE prices of using the FR-equivalent rate is very small and does not help reduce the disparity across countries. Finally, the effect of using revalorising the (BEER-equivalent) minimum rate, to account for 1992 inflation, is small.

However, if the BEER-equivalent rate was to be used, wine producers would be at a disadvantage compared with the status quo. This suggests that there may be some effect on employment in the sector.

We suggest considering:

**Introduce a minimum rate for WINE products. The rate could be taken to be equivalent (in alcohol terms) to the rate being used for BEER products.**

## OTHER FERMENTED

Following from Directive 92/83/EEC, OTHER FERMENTED BEVERAGES are defined as those products, not falling as BEER and WINE, classified to CN 2204, CN 2205 and CN 2206 and with alcohol content that is between 1.2% and 10% abv or between 10%-15% abv provided that the alcohol is entirely fermented.

At present, Directive 92/83/EEC also allows Member States to treat as INTERMEDIATE PRODUCTS fermented beverages with more than 5.5% abv if the alcohol is not entirely of fermented origin. Therefore, the fermented origin is a criterion used to differentiate the classification of products between 5.5% and 15% abv between categories of OTHER FERMENTED or INTERMEDIATE PRODUCTS.

However, due to the availability of new production techniques, the fermented origin criterion may no longer be a solid criterion for differentiating between these two categories. As seen, the use of new technologies allows for the possibility of obtaining stronger drinks whilst still using bases of a fermented origin, such as by adding cleaned-up alcohol or using reverse osmosis fortification.

Therefore, we suggest that the definition should be reconsidered to help delimit the two categories. One way would be to restrict the classification of OTHER FERMENTED only to drinks in which alcohol is obtained solely from



the fermentation process (avoiding the use of cleaned-up alcohol) and with alcohol concentration which results naturally from the fermentation process (avoiding fortification using reverse osmosis techniques). Hence, drinks using cleaned-up alcohol, reverse osmosis or fortification would always fall outside of the OTHER FERMENTED beverage category.

Based on the information we received, we do not expect this to pose particular problems for the sector, with respect to cider and fruit wines, which are traditionally thought of as OTHER FERMENTED beverages. Overall, the sector is small in relation to the whole alcohol market, so there would be little effect on total duty receipts.

Specifically in the sector, the use of cleaned-up alcohol is forbidden in the production of cider and perry across much of the EU (due to an AICV agreement) and chaptalisation is the most common form of increasing alcoholic strength in such beverages. For fruit wines, we are aware of the use of distilled alcohol in the production of fruit wine in FI, and more widely, though alcohol may be cleaned up for purposes of stability, it is not used as an alternative to distilled alcohol in the production process.

Finally, as in the case of wine, the minimum rate for OTHER FERMENTED beverages is zero and this means a huge disparity between the duties used in different Member States. The results of our analysis indicate that increasing the minimum rates will have a modest impact in reducing the disparity of duty rates, and it will mainly increase the prices in ES, SK and CZ to bring them closer to the EU average.

We suggest considering:

**Modify the definition for OTHER FERMENTED BEVERAGES to include:**

**All products (between 1.2% and 15% abv) classified to CN 2204, CN 2205 and CN 2206 not falling as BEER or WINE, provided that**

- All alcohol has been obtained from the fermentation process only

AND

- With alcohol concentration that has resulted naturally from the fermentation process.

**Introduce a minimum rate for OTHER FERMENTED products. The rate could be taken to be equivalent (in alcohol terms) to the rate being used for BEER products.**

## INTERMEDIATE PRODUCTS

We consider INTERMEDIATE PRODUCTS is a category that has room to incorporate beverages for which there are discrepancies across Member States on the classification systems.

Following from Directive 92/83/EEC, INTERMEDIATE PRODUCTS are defined as all products (between 1.2% and 22% abv) classified to CN 2204, CN 2205 and CN 2206, which do not fall under BEER, WINE and OTHER FERMENTED BEVERAGE categories. Using the new definitions of BEER, WINE and OTHER FERMENTED BEVERAGE and the lower bound for the ETHYL ALCOHOL category suggested in these conclusions would make the classification clearer. Under this new definition, RTDs, fortified wines, liqueurs, etc., (all under 22%) would fall in the INTERMEDIATE PRODUCTS category. This may not be desirable for all Member States, for traditional or political reasons. Although this will provide clarity, previous concerns about lack of clarity may have been lessened by the ruling in the Siebrand case.

Since this category would contain beverages of very different alcohol strengths, ranging from 1.2% to 22%, duties would be better levied per unit of alcohol.

We have analysed the policy option of doing this, using the unitary equivalent of the current minimum rate for INTERMEDIATE products and setting actual rates to be approximately revenue neutral. We found that prices will barely fall in most Member States (under 2%), with the exception in PL (where prices would fall 7%).

This policy option would help clarify the classification system with only small changes to market prices and duty revenues. Thus, there seem unlikely to be major effects on affordability for consumers, or substitution away from existing consumption patterns. By retaining revenue neutrality, duties on other products would not need to be changed in response to this policy option.

We have also considered the option of taxation under bands of three degrees of alcohol but would recommend against it as it is possible that this would result in operators changing the strengths of their beverages to benefit from lower duties only.

We suggest considering:

**Provide a definition for INTERMEDIATE PRODUCTS along the following lines:**

**INTERMEDIATE PRODUCTS - All products (between 1.2% and 22% abv) classified to chapter 22 of the nomenclature which do not fall under BEER, WINE and OTHER FERMENTED**

**BEVERAGES categories;****Taxation of INTERMEDIATE PRODUCTS based on units of alcohol.*****Reduce disparity in duty rates***

We believe increasing the minimum rates is the obvious tool.

Minimum rates have been losing value in real terms from when they were originally set in 1992. Our analysis has shown that updating the minimum duty rates will have minimal impact on the prices of most products and on most duty revenues collected by Member States.

For all products we suggest considering:

**Update minimum rates for all products to account for the inflation that has taken place since 1992.**

The current framework allows different rates for sparkling and still products. This leads to a reduction in duty disparity across some borders (where one country levies a higher rate on sparkling products and its neighbour does not, even though they levy similar rates on corresponding still products) and would help reduce the range of rules and options under which drinks are being taxed.

The consideration is supported by a previous Commission paper (COM(2004) 223 final), which gave reasons why the distinction is not valid, such as whether the products are drunk on similar occasions or whether the distinction (based on pressure and packaging) is arbitrary.

We suggest considering:

**Remove different tax treatment for still and sparkling products.**

Under the current framework reduced duty rates for low-strength products are possible. We would recommend abolishing such differences as it will simplify the tax system and make it more transparent to operators.

The products affected fall in OTHER FERMENTED (below 8.5% abv) and INTERMEDIATE PRODUCTS (below 15% abv), primarily being ciders and perries, and low-strength punches and creams. We do not have estimates for BEER (below 2.8% abv), WINE (below 8.5% abv), or ETHYL ALCOHOL

(below 10% abv) as our underlying dataset does not contain any such observations, though it should be noted that all Member States charge their standard rates on ETHYL ALCOHOL products exceeding 2.8% abv.

Whilst total duty revenues are not substantially affected, there are some substantial price rises in the Member States with high standard rates, which suggests that producers of affected products would lose some competitiveness against producers of other products and suggests a substantial decrease in affordability for consumers of those products.

This policy option may encourage movement away from lower-strength drinks, which may then have health implications, though the extent of this may be small given that cross-price demand appears in general to be inelastic. It is important to note that the policy option would not affect small producers, but it may have an effect on some other producers' competitiveness. Another point to note is that this policy option is more suitable in combination with a shift to levying duties on a unitary basis. In the absence of this, the use of reduced rates for low-strength beverages does act as an optional banding system which approximates unitary rates. If a non-zero minimum rate were to be introduced for WINE and OTHER FERMENTED, it may be desirable to specify a rule for the reduced rate, such as that for INTERMEDIATE PRODUCTS, which sets the minimum rate on low-strength drinks to be no less than 60% of the prevailing standard rate.

We suggest considering:

**Remove different tax treatment for reduced-strength products.**

It is not clear that the disparity in prices across the EU will be reduced significantly by only increasing the minimum rates. This is because this measure will only affect a small number of countries and it will not reduce significantly the disparity between, collectively, the four Member States charging the highest duties, and the others.

In order to reduce the price differences we believe that, in addition to minimum duty rates, there could be a maximum rate. Both rates would act as a ceiling and floor in setting the duties by Member States, and could be defined to be a certain percentage from the EU average duty rate for each product. If a maximum rate is set in absolute nominal terms, this will need to be revalorised on, perhaps, an annual basis to avoid eroding the real maximum duty rate over time.

Over time, this measure would help to achieve a real EU-convergence in the duty rates and in prices.

It is questionable, though, of the extent to which a binding ceiling could be set for the maximum rate. Existing duty rates have been arrived at for a series of reasons, including Exchequer revenue-raising and for health and societal reasons. Member States may be unwilling to lose their flexibility to set higher rates or undertake a reduction in the standard rates to fall within any proposed maximum.

We suggest considering:

**As well as a minimum rate, introduce a maximum duty rate.**

## Annex 1 The data collection process

We have used multiple sources of data to address different parts of the analysis undertaken in the study. Data sources used are the following:

- IWSR;
- EARs: Excise Administration Responses;
- TARs: Trade associations responses;
- ECDs: EC Directives on alcohol and alcoholic beverages;
- EDTs: Excise Duty Tables: Duties;
- ETRs: Excise Duty Tables: Tax receipts;
- TIEs: Taxes in Europe;
- FISCALIS (2005);
- COM(2004) 223 final; and
- Other publications from the trade.

A description of each data source is provided below.

### A1.1 IWSR data

London Economics acquired data from the International Wine and Spirit Record (IWSR) and this constitutes the main source of data used in our analysis.

IWSR data is collected from visits to experts of local wine and spirit professionals in different countries throughout the world<sup>59</sup>. IWSR is a well-known source of data, which is viewed as a respected source by many stakeholders in the alcohol beverages industry (the methodology followed by the IWSR is reported in Figure 46).

The main characteristics of the IWSR database are the following:

- it contains volume data referring to national consumption;

---

<sup>59</sup> Data is provided aggregated for the markets of Luxembourg and Belgium. For the purposes of our analysis volumes sold were allocated using relative population shares in 2007.

- it contains price data collected from the off-trade market;
- information is provided by different product lines, where each product line is defined according to different characteristics of the beverage and its brand<sup>60</sup>.

**Figure 46: IWSR methodology (description as provided by IWSR)**

*IWSR unique methodology draws on the expertise of 1,000 local wine and spirit professionals in over 100 countries, which we visit every year.*

*Annual market visits by our own team of researchers are the only reliable way to obtain accurate data by allowing us to:*

- *supplement and segment official statistics*
- *cross-check producers' shipment claims*
- *assess the impact of smuggling, parallel and leakage from duty free*
- *reconcile conflicts between official, published data and market reality*
- *produce reports where no statistics exist*
- *get input from local, independent operators*
- *understand the critical factors and underlying trends in each market*

*Our visits also provide the only comparable global retail price check for wine and spirit brands. Our use of in-house researchers guarantees consistency across all markets.*

*Source: IWSR.*

The quality of the data is good in general and is used as the main source for the analysis. In all cases, the validity of data has been compared with alternative information sources to check for consistency. Nevertheless, information on beer and cider are not always reported (although it depends by country). In these cases, we use the figures provided by the trade associations, as described below.

Data on the on-trade markets is not available in the IWSR dataset. According to different sources consulted, such data is very difficult to obtain<sup>61</sup>. To be

<sup>60</sup> For example one line reads "Spirits / White Spirits / Vodka / Flavoured High Strength Vodka / Vodka 40% / International / Premium / Imported / Smirnoff Vodka; RTDs / RTDs / Other RTDs / Other Pre Mixed Drinks / Undefined / German / Standard / Imported / Caprice". Another example is "Wine / Sparkling Wine / Champagne / Undefined / Undefined / French / Premium / Imported / Bollinger".

<sup>61</sup> For example, IWSR recognise that because of differences in the type of on-trade premises, differences in prices (e.g. vodka at €8, €12, or €20) and the amounts of alcohol being served in cocktails (which differs

able to provide some idea of the tax burden on the on-trade market, we have asked IWSR industry experts to provide an estimate of the multiple relating on- and off-trade prices for different alcoholic beverages in the different Member States. A figure of the market share for on- and off-trade consumption is also estimated in this way.

## **A1.2 Excise Administration Responses (EARs)**

All EU27 excise administrations have been contacted using a standardised questionnaire. The questionnaire asked for prices and consumption data (quantities) for different types/categories of products described according to the classification given in Directive 92/83/EEC, and for categories of alcoholic strength.

The detailed questionnaire was included in the Interim Report. The questionnaire was approved by the Commission and was sent to the excise administrations on 21 and 22 April 2009. We received completed questionnaires from all but five of the Member States (CY, IT, LU, NL, RO).

## **A1.3 Trade associations responses (TARs)**

A separate survey of European trade associations was also undertaken.

The information received contains different detail and quality for the each of the TARs. A summary overview of the responses is provided in Table 16 and details of the responses are provided in Annex 3.

---

between Member States) it is impossible to obtain robust data on prices in the on-trade markets which are homogeneous across the EU 27.

---



<b>Table 16: Summary of Trade Association Responses</b>	
<b>Body</b>	<b>Information provided</b>
BoE (Beer)	Extensive info on prices Free text responses to questionnaire for each question. Additional publications (listed below).
AICV (Cider)	Completed questionnaires from DE (VdFW), ES (AESI), FI (SSF for cider, FABIA for fruit wine), UK (NACM) Summary sheet from AICV, including production in million litres
CEPS (Spirits)	Data on prices Data on additives Free text responses to questionnaire for each question, with some data on prices and quantities provided by CEPS members (ES, FI FR, NL, PL, SE, UK)
CEEV (Wine)	Free text responses to questionnaire, covering all the questions References to sources of price data UK (WSTA) only: questionnaire completed for British Wine only (not classified in the system separately) Extensive information on prices, volume, additions
PBD (Beer)	DE only Free text responses to questionnaire for selected questions (1, 6, 7, 8). Additional publication (listed below).
ABFI (All Alcohol)	IE only Free text responses to questionnaire for each question Data on prices
EFWSID (Wine, Spirits)	Includes identical submission from FBVS Letter, containing explanation of their position on present and future classification under Directive 92/83/EC No direct response to questionnaire
FFVA (FAO)	FR only Data on prices INTERMEDIATE PRODUCTS No direct response to questionnaire

## A1.4 Data available from the Commission

Alternative data, publicly available at the Commission's web site, were investigated for the purposes of complementing and cross-checking the data sources<sup>62</sup>. The data sets are described in turn.

### *EC Directives (ECDs)*

The excise duty Community framework on alcohol and alcoholic beverages is laid down in two Directives: Directive 92/83/EEC, which specifies the definitions of alcohol that are subject to excise duty arrangements and Directive 92/84, which lays down minimum rates for the categories of product.

<sup>62</sup> We are grateful to the Commission officials for the help and assistance provided gathering such data.

### ***Excise Duty Tables: Duties (EDTs)***

Data on duty rates for different Member States and different categories are available from the European Excise Duty Tables (EDTs)<sup>63</sup>. Data refer to both standard and reduced rates. In some Member States there are different duty rates according to different alcoholic strength, and different product sub-categories (e.g., a separate duty rate for cider). There are also special reduced rates for small-producing units.

### ***Excise Duty Tables: Tax receipts (ETRs)***

Data on tax receipts for different Member States and different categories are available in the European Excise Duty Tables: Tax receipts – Alcoholic beverages (ETRs)<sup>64</sup>. The revenues are split according to the five EC categories of the directive: BEER, OTHER FERMENTED BEVERAGES, WINE (still and sparkling), INTERMEDIATE PRODUCTS and ETHYL ALCOHOL.

The publication also contains exchange rates used for conversion of revenue data in national currencies.

### ***Taxes in Europe (TIEs)***

Taxes in Europe (TIE) is a database from DG Taxation and Customs Union<sup>65</sup> with details of the current duties in each Member States. Information is collated by the Commission from the information provided by the respective national authorities.

The database contains reports for each Member State with information on the duty rate, its applicability and exceptions or deductions, and tax revenues. There is no consistency in the way Member States provide the information: in some cases information is contained in a single report, in other instances there are different reports for different categories.

## **A1.5 Alternative sources**

### ***FISCALIS (2005)***

We used information from FISCALIS (2005) “Project Group on reporting on the classification of alcoholic beverages”. The report was extremely useful to gather some of the classifications in Member States as it analyses current

---

<sup>63</sup> REF 1.028 rev.1, January 2009.

<sup>64</sup> REF 1.027, July 2008.

<sup>65</sup> [http://ec.europa.eu/taxation\\_customs/taxinv](http://ec.europa.eu/taxation_customs/taxinv).

Member States practices regarding the definitions of various categories of alcoholic beverages, especially in relation to mixtures of different types of alcoholic beverages and new designer drinks (“Alcopops” or “ready to drink”).

### ***COM(2004) 223 final***

The “Report from the Commission to the Council, the European Parliament and the European Economic and Social Committee on the rates of excise duty applied on alcohol and alcoholic beverages” (COM(2004) 223 final) was also used. This report examines the status of Community legislation in the field of excise duties on alcohol and alcoholic beverages and focuses on the proper functioning of the internal market, the competition between the different categories of alcoholic drinks, and the real value of the rates of duty.

### ***Other***

Publications from the industry and the trade were consulted where appropriate. The following were provided by the trade associations contacted in the consultation exercise.

### **The Brewers of Europe [referred to in this report as BoE] (Beer)**

- Alcohol Price and Consumer Behaviour Main results – presentation of Ipsos survey;
- Analysis of the impact of excise taxation on the brewing sector PricewaterhouseCoopers, October 2009;
- Bringing the northern countries to the single market, The Brewers of Europe, November 2004;
- Comparable Cost analysis for the European alcoholic beverage sector, PricewaterhouseCoopers, October 2009;
- Contribution made by beer to the European economy, Ernst & Young Netherlands, 2009;
- Impact of duties increase in Spain, PricewaterhouseCoopers Spain, 2000;
- Increasing the excise duty on beer; Penny wise, Pound foolish, Ernst and Young Netherlands, August 2008;
- Modelling the UK Beer Market, Oxford Economic Forecasting, December 2004;

- 
- OEF Review of Rand Europe's "The affordability of alcoholic beverages in the European Union";
  - Smuggling av alcohol till Sverige 2002–2007, Spendrups, September 2007;
  - Swedish Alcohol policy - an effective policy?, Swedish Retail Institute (HUI), August 2009;
  - The right tax; the importance of a reduced rate, Ernst and Young Netherlands, July 2008;
  - The sale of alcohol in Denmark - recent developments and dependencies on prices/taxes, L. la Cour; A. Milhøj, in Applied Economics, 1466-4283, Volume 41, Issue 9, 2008, Pages 1089 – 1103;
  - Vi kan leve længere og sundere, Forebyggelseskommissionen, Denmark, April 2009 (with a one-page summary in English).

#### **PBD (Beer)**

- Finanzen und Steuern Brauwirtschaft 2008, Statistisches Bundesamt.

## **A1.6 Summary of data sources**

In summary the sources used in the analysis are the following:

- IWSR data;
- EARs: Excise Administration Responses;
- TARs: Trade associations responses;
- ECDs: EC Directives on alcohol and alcoholic beverages;
- EDTs: Excise Duty Tables: Duties;
- ETRs: Excise Duty Tables: Tax receipts;
- TIEs: Taxes in Europe;
- FISCALIS (2005);
- COM(2004) 223 final; and
- Other publications from the trade.

## Annex 2 Data validation

In all cases, data from different sources have been cross-checked and validated. In a few instances, inconsistencies were found and data were corrected in the most appropriate way as is described in the next paragraphs. Before making changes, differences found were always consulted and verified with the providing source.

### A2.1 Market data

#### *Prices*

Data on prices has been gathered from different sources, as described below:

- **Beer:** Price data on beer were sourced from information sent to us by the BoE<sup>66</sup>, which lists the on-trade and off-trade prices for beer in each Member State.
- **Ciders and fruit wines:** price data on cider and fruit wines for several Member States were received via AICV (data on cider prices in Ireland was provided by ABFI). Cider prices were provided for on-trade and off-trade for BE, DE, ES, FI, IE and UK<sup>67</sup>, usually for several styles of cider in each Member State. For Member States where information was unavailable (CY, DK, EE, EL, FR, LT, LV, MT, SE), we gathered supermarket prices available on the internet. For these, we used the price of a single bottle of standard branded cider in each Member State as our price point.
- **Wine, intermediate products and spirits:** IWSR data contains a wide range of product-line subcategories with different prices (in some cases recorded at the brand level).

To account for differences in prices, and following the terms of reference, for each category of alcoholic beverages we calculated three different prices to account for categories of “cheap”, “medium”, and “expensive” prices. The three different prices were constructed as weighted averages, taking account of the distribution of prices of each category<sup>68</sup>.

---

<sup>66</sup> “Contribution made by beer to the European economy”, Ernst & Young Netherlands, 2009.

<sup>67</sup> Cider has a small share of the alcoholic beverage market in the EU and its sales are negligible in some Member States.

<sup>68</sup> For each category, a “cheap”, “medium”, and “expensive” price was calculated as the volume weighted average of three price groups. The three groups were constructed using the 33 and 66-price-percentiles

In general, we have found that the prices provided by excise administrations are not dissimilar to the price ranges recorded in the IWSR data. Information from trade associations was also similar to the one provided by IWSR. Although the comparison exercise is not exhaustive because of a lack of responses from the EARs, the fact that there are no noticeable differences is good evidence of robustness of IWSR data.

Finally, to keep consistency between the price data (collected for 2007) and duty rates recorded for 2009, we calculated current February 2009 prices using price inflation rates for the alcoholic beverages subcategories (beer, wine and spirits), available from Eurostat<sup>69</sup>.

### *Quantities*

A similar exercise has been undertaken on volumes for consumption by comparing IWSR data and data from excise administrations. The result of the comparison is good for the majority of countries for which data is available. However, a few discrepancies were found for some Member States. In some cases, data were checked with the main source and it was found that the difference was due to the data provided by EARs (in most cases due to errors in the units or figures being provided). In conclusion, IWSR data showed similar figures or were of superior quality in the cases where we checked for discrepancies with original sources. We take this as an acceptable proof of robustness of these data.

Data on beer and cider quantities were obtained from TARs. No major differences were found with the data provided by IWSR.

### *On- and off-trade estimates*

As already mentioned, because of differences between Member States in the amounts of alcohol being served in premises (restaurants, clubs, etc...) it is very difficult to obtain homogenised data on prices in the on-trade market.

Data on prices were obtained by applying a mark-up on the off-trade prices. The mark-up used was estimated by IWSR experts for different Member States and alcoholic beverages. The different estimates provided by IWSR were compared across Member States, and data were checked for consistency and no major differences were found. In the few cases where information was missing, we imputed a value using a similar alcohol category (from a comparable Member State).

---

of each beverage subcategory.

<sup>69</sup> To inflate prices of cider and RTDs we used the alcohol average price index.

Data for on-trade beer prices were sourced from “Contribution made by beer to the European economy”, Ernst & Young Netherlands, 2009, as provided by BoE.

## A2.2 The tax regime

The current duty regime is described according to three main variables: the beverage category, the duty rates, and the alcohol content.

### *The duty rates*

We cross-checked all the information from EDTs with country reports in the TIEs database. We found that information in the EDTs was incomplete or unclear for a few cases and data were complemented and/or corrected using information from TIEs.

### *Beverage category*

There are major differences in the way each Member State classifies beverages into each of the EC categories, and there are also differences in the way this process is reported by the different Member States. We summarised the EC classification rules of the Member States by comparing several pieces of information. We used the following approach.

- EDTs were used as the basis of the analysis as it contains descriptions of the categories (and duties) of the beverages. EDTs also contain information for some exceptions in the classification system, although this is not consistently reported for all the countries and beverages.
- EARs were useful to identify the exceptions to the standard classification and additional provisions for each of the five EC categories (as part of the questionnaire, information was requested on CN codes used in each of the five categories, and estimates of products' alcohol content). EARs qualitative responses were also used for gathering information on beverages which classification is more contentious (i.e. those using alternative methods to fortification, those using cleaned-up alcohol and designer drinks).
- Finally, we used previous reports (FISCALIS and COM(2004) 223 final) as a secondary source of information to cross-check and validate the information provided by EARs.

### *The alcohol content*

The alcohol content is an important variable in determining the amount of duty to be paid for categories BEER and ETHYL ALCOHOL. The alcoholic

---

strength also plays a role in classifying the different beverages into EC categories.

A figure for alcohol content was estimated for different groups and subgroups of beverages in the IWSR database (groups were chosen to achieve consistency of alcoholic strength of the different product lines within each group).

Our estimates have been based on information from publicly available sources on alcoholic strength and for a selection of beverages or brands representative for each of the principal groups. The estimates were consistent with the information provided by IWSR researchers on the alcoholic strength of typical categories and subcategories of beverages in different Member States.

### *Tax revenues for different beverages*

Data on tax revenues for different beverages from EARs were cross-checked against ETRs data. We used ETRs data in cases where there was a clear reporting error in EARs and for cases with missing data<sup>70</sup>.

## **A2.3 Classification problems and current approaches**

We sought information on the current classification problems using two different questionnaires sent to the excise administrations and the trade associations.

For a range of products (products with addition of alcohol, products with cleaned-up alcohol, products that use alternatives to fortification and designer drinks) we asked excise administration to provide information related to their presence in the market, the current problems of classification of such products, the approaches used to categorise them, and their proposed solutions.

We sought to corroborate the findings by asking the trade associations for the same information on problems and solutions for products using additions of alcohol, cleaned-up alcohol, and products using alternatives to fortification.

---

<sup>70</sup> We replaced missing values with 0 in cases with a zero duty rate.



## A2.4 Other market data

### *Impact of duty increases: pass-on*

We have some information on the estimated extent of pass-on of duty increases, by beverage type and Member State, from the responses received from TARs. However, this is not comprehensive of all countries and beverage types<sup>71</sup>. A report by RAND (2009) notes that there is a difference between the effect on off-trade and on-trade prices such that it is possible that, while on-trade retailers pass on any tax increases to consumers, the off-trade, "particularly large retailers such as supermarket chains, may be more able to absorb some or all of the change in taxation thus leading to small or no increases in the price of alcohol"<sup>72</sup>. In any case, it is recognised that this is an area of study where there is limited evidence and which has not been sufficiently researched. Where data is not available, we provide our own estimates.

### *Price sensitivity*

We did receive some specific information from some of the TARs on the sensitivity of demand to changes in the prices of alcoholic beverages (own-price elasticities)<sup>73</sup>. Estimates of these parameters have been compared with the following alternative sources of information.

- In the RAND (2009) report, there is a summary of three recent large-scale meta-analyses that estimated the price elasticities of beer, wine and spirits. Two of the meta-analyses were global in scope, whereas the other focused on the UK. The two sets of global estimates are our best starting point for estimates for individual Member States.
- Although not directly related to elasticity parameter estimates, other studies provided additional information on the consumer's response to price changes:
- BoE response pointed out that hard drinkers are the least price sensitive, and that differing income levels affect consumers' price sensitivity.

---

<sup>71</sup> Data were received for the following beverages and Member States: beer (DE, DK, ES, IE, NL, FI, UK), cider (DE, FI, IE, UK), wine (DE, DK, IE, FI) and ethyl alcohol (DK, IE, FI).

<sup>72</sup> Rand Europe (2009) "The affordability of alcoholic beverages in the European Union" commissioned by DG Sanco.

<sup>73</sup> For beer (DE, DK, ES, IE, NL, UK), cider (DE, IE, UK), wine (DK, IE) and ethyl alcohol (DK, IE, NL).

- Gruenwald et al. (2006) found that raising alcohol prices leads to consumers choosing cheaper drinks, but that raising low-quality prices leads to lower alcohol sales.
- Leppanen et al. (2001) found that income elasticity was similar across Europe, but price elasticity varied according to whether this was a southern wine-producing country, a Scandinavian with alcohol monopoly, or other countries.
- Selvanthanan & Selvanthanan (2005) found different patterns among elasticities across products within countries. They found that the price elasticity of demand for beer was similar to that for wine/spirits in France and Sweden, but that it was less elastic than that for wine/spirits in Australia, Canada, Finland, Norway, the United States, Japan, New Zealand and the United Kingdom.

### *Smuggling and cross-border shopping*

The estimates we received on the quantity of product and value in lost tax revenue from smuggling and cross-border shopping came from both EARs and TARs. As most estimates were derived directly from official sources, estimates from different sources were broadly of a similar magnitude.

**Table 17: Smuggling and cross-border shopping.  
Total, and % of BEER**

MS	Untaxed volume sold million litres, (%)			Lost tax revenue, €m (%)			Source
	Total	Smuggled	Cross-border shopping	Total	Smuggled	Cross-border shopping	
AT	22 (2%)	12 (1%)	10 (1%)	3.94 (2%)	2.64 (1%)	1.3 (1%)	EARs
BG		0 (0%)					EARs
DK	105, 120 (22%, 25%)	10 (2%)	95, <b>80</b> (20%, <b>17%</b> )	38.5 (26%)	3.6 (2%)	34.9 (24%)	EARs, BNMS; <b>NAM</b>
EL		0.08 (0%)			0.03 (0%)		EARs
ES	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	EARs
FI	20.7, 47 (4%, 10%)	0 (0%)	20.7, <b>21.8</b> (4%, <b>5%</b> )				EARs, BNMS; <b>NAM</b>
HU		0.005 (0%)					EARs
IE	0 (0%)				0.03 (0%)	0 (0%)	BNMS, EARs
IT				0.43 (0%)			EARs
PL	0.001 (0%)	0.001 (0%)	0 (0%)				EARs
SE	122, 161, <b>132</b> (25%, 33%, 27%)	65, <b>63</b> , <b>66</b> (13%, <b>13%</b> , <b>13%</b> )	57, <b>68</b> , <b>56</b> (12%, <b>14%</b> , <b>11%</b> )				EARs; BNMS; <b>SAP</b> , <b>Spendrups</b> , <b>NAM</b>
SK		0 (0%)			0 (0%)		EARs
UK	205.2 (4%)						BNMS

Source: EARs, responses from ABFI, AICV, BoE. Spendrups stands for "Smuggling av alkohol till Sverige" 2002–2007, Spendrups, September 2007. BNMS stands for "Bringing the northern countries to the single market", The Brewers of Europe, November 2004. SAP STANDS FOR "Swedish Alcohol policy – an effective policy?", Swedish Retail Institute (HUI), August 2009. NAM stands for Alko (NAM): Information on the Nordic alcohol market 2008, Alko Inc.

**Table 18: Smuggling and cross-border shopping.  
Total, and % of ETHYL ALCOHOL**

MS	Untaxed volume sold million litres, (%)			Lost tax revenue, €m (%)			Source
	Total	Smuggled	Cross-border shopping	Total	Smuggled	Cross-border shopping	
AT	4 (14%)	3 (11%)	1 (4%)	40 (33%)	30 (25%)	10 (8%)	EARs
DK	6 (25%)	1 (4%)	5, <u>5</u> (21%, <u>21%</u> )	48.28 (30%)	8.05 (5%)	40.23 (25%)	EARs, <b>NAM</b>
EL		0.002 (0%)			0.02 (0%)		EARs
FI			16, <u>9</u> (22%, <u>13%</u> )				EARs, <b>NAM</b>
HU		0.06 (0%)					EARs
IE					0.12 (0%)	0 (0%)	EARs
IT				3.6 (1%)	3.6 (1%)	0 (0%)	EARs
LV	0.61 (2%)	0.01 (0%)	0.6 (2%)	1.5 (1%)	0.05 (0%)	1.5 (1%)	EARs
PL	0.28 (0%)	0.28 (0%)	0 (0%)				EARs
SE	11.9, <u>11.7</u> (46%, <u>45%</u> )	6.2, <u>1.8</u> , <u>6.6</u> (24%, <u>7%</u> , <u>25%</u> )	5.7, <u>9.9</u> , <u>18</u> (22%, <u>38%</u> , <u>69%</u> )				EARs; <u>SAP</u> , <u>Spendrups</u> , <b>NAM</b>
SK		0.04 (0%)					EARs
UK	35 (8%)	20 (5%)	15 (4%)	594 (18%)	371 (11%)	223 (7%)	EARs

Source: EARs, responses from ABFI, AICV, BoE. Spendrups stands for "Smuggling av alkohol till Sverige" 2002–2007, Spendrups, September 2007. BNMS stands for "Bringing the northern countries to the single market", The Brewers of Europe, November 2004. SAP STANDS FOR "Swedish Alcohol policy - an effective policy?", Swedish Retail Institute (HUI), August 2009. NAM stands for Alko (NAM): Information on the Nordic alcohol market 2008, Alko Inc.

**Table 19: Smuggling and cross-border shopping.  
Total, and % of WINE**

MS	Untaxed volume sold million litres, (%)			Lost tax revenue, €m (%)			Source
	Total	Smuggled	Cross-border shopping	Total	Smuggled	Cross-border shopping	
AT	0 (0%)	0 (0%)	0 (0%)				EARs
DK	11 (7%)	1 (1%)	10, 10 (6%, 6%)	9 (7%)	0.8 (1%)	8.2 (6%)	EARs, <u>NAM</u>
ES	0 (0%)	0 (0%)	0 (0%)				EARs
FI	12.8 (20%)	0 (0%)	12.8, 8 (20%, 13%)				EARs, <u>NAM</u>
HU		0.01 (0%)					EARs
IE					0.16 (0%)		EARs
IT				[0.5 in VAT]			EARs
PL	0.01 (0%)						EARs
SE	37, 23 (21%, 13%)	5, 2, 5 (3%, 1%, 3%)	32, 21, 32 (18%, 12%, 18%)				EARs; <u>SAP</u> ; <u>Spendrups</u> ; <u>NAM</u>
SK		0 (0%)			0 (0%)		EARs

Note: Denmark figures include OTHER FERMENTED BEVERAGES and INTERMEDIATE PRODUCTS.  
Source: EARs, responses from ABFI, AICV, BoE. Spendrups stands for "Smuggling av alkohol till Sverige" 2002-2007, Spendrups, September 2007. BNMS stands for "Bringing the northern countries to the single market", The Brewers of Europe, November 2004. SAP STANDS FOR "Swedish Alcohol policy - an effective policy?", Swedish Retail Institute (HUI), August 2009. NAM stands for Alko (NAM): Information on the Nordic alcohol market 2008, Alko Inc.

**Table 20: Smuggling and cross-border shopping.  
Total, and % of CIDER, INTERMEDIATE PRODUCTS, all products**

	MS	Untaxed volume sold million litres, (%)			Lost tax revenue, €m (%)			Source
		Total	Smuggled	Cross-border shopping	Total	Smuggled	Cross-border shopping	
Cider	AT				0 (0%)	0 (0%)	0 (0%)	EARs
	ES	0 (0%)						AICV
	FI	5.5 (9%)						AICV
	ES	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	EARs
	HU		[0.00005 in VAT]					EARs
	PL	0 (0%)						EARs
	UK	0 (0%)						AICV
Intermediate products	AT	0.24 (12%)	0.12 (6%)	0.12 (6%)	0.12 (9%)	0.08 (6%)	0.04 (3%)	EARs
	DK							EARs
	FI	2.1 (3%)	0 (0%)	2.1 (3%)				EARs
	HU		0.0002 (0%)					EARs
All products	IE			21.21 (3%)				ABFI
	LT		0.038362 (0%)					EARs
	PT	0.538402 (0%)	0.538402 (0%)	0 (0%)				EARs

Source: EARs, responses from ABFI, AICV, BoE. Spendrups stands for "Smuggling av alkohol till Sverige" 2002–2007, Spendrups, September 2007. BNMS stands for "Bringing the northern countries to the single market", The Brewers of Europe, November 2004. SAP STANDS FOR "Swedish Alcohol policy – an effective policy?", Swedish Retail Institute (HUI), August 2009. NAM stands for Alko (NAM): Information on the Nordic alcohol market 2008, Alko Inc.

## Profitability

Eurostat Statistical Business Survey contains consistent information across the EU, at a sector level and for different firm-specific variables. We use gross operating rate (defined as gross operating surplus over turnover, in percentage terms) as a measure of profitability across beverage sectors. Data are collected by country and detailed on NACE Rev 1.1 class level (4 digits). We allocate the sectors to the main alcohol categories using the following correspondence (alcoholic beverage to NACE code):

<b>Table 21: Correspondence used: alcoholic beverage to NACE code</b>	
<b>Beverage</b>	<b>NACE code (Rev. 1.1)</b>
ETHYL ALCOHOL	<p><b>15.91      Manufacture of distilled potable alcoholic beverages</b></p> <p>This class includes:</p> <ul style="list-style-type: none"> <li>- manufacture of distilled, potable, alcoholic beverages: whisky, brandy, gin, liqueurs, etc.</li> </ul> <p><i>This class excludes:</i></p> <ul style="list-style-type: none"> <li>- <i>manufacture of non-distilled alcoholic beverages, see 15.92, 15.93, 15.94</i></li> </ul>
WINE	<p><b>15.93      Manufacture of wines</b></p> <p>This class includes:</p> <ul style="list-style-type: none"> <li>- manufacture of wine: <ul style="list-style-type: none"> <li>• table wine</li> <li>• QWPSR wine (quality wine produced in specified regions)</li> </ul> </li> <li>- manufacture of sparkling wine</li> <li>- manufacture of wine from concentrated grape must</li> </ul> <p>This class also includes:</p> <ul style="list-style-type: none"> <li>- manufacture of low or non-alcoholic wine</li> </ul> <p><i>This class excludes:</i></p> <ul style="list-style-type: none"> <li>- <i>production of wine from self-produced grapes, see 01.13</i></li> <li>- <i>bottling and packaging without transformation of the wine, see 51.34, 74.82</i></li> </ul>
OTHER FERMENTED BEVERAGES	<p><b>15.94      Manufacture of cider and other fruit wines</b></p> <p>This class includes:</p> <ul style="list-style-type: none"> <li>- manufacture of cider, perry, mead, other fruit wines and mixed beverages containing alcohol</li> </ul>
INTERMEDIATE PRODUCTS	<p><b>15.95      Manufacture of other non-distilled fermented beverages</b></p> <p>This class includes:</p> <ul style="list-style-type: none"> <li>- manufacture of vermouth and the like</li> </ul>
BEER	<p><b>15.96      Manufacture of beer</b></p> <p>This class also includes:</p> <ul style="list-style-type: none"> <li>- manufacture of low or non-alcoholic beer</li> </ul>

Source: METADATA DOWNLOAD: *Statistical Classification of Economic Activities in the European Community, Rev. 1.1 (2002) (NACE Rev. 1.1)*.

## Alcohol content

**Table 22: Alcohol content by beverage type**

<b>Beer</b> [5]
<b>Cider</b> [5]
<b>RTDs</b> [5.5]
<b>FAO</b>
Fortified Wine / Other Fortified [15]
Fortified Wine / Port / Port Style [20]
Fortified Wine / Sherry / Sherry Style [15]
Light Aperitifs / Fruit Based Aperitifs / Guignolet [18]
Light Aperitifs / Fruit Based Aperitifs / Other Fruit Based Aperitifs [15]
Light Aperitifs / Vermouth / [15]
Light Aperitifs / Wine Aperitifs / Americano [15]
Light Aperitifs / Wine Aperitifs / Other Wine Aperitifs [17]
Other Wines / Other Wine / Flavoured Wine [10]
Other Wines / Rice Based Wines / Sake [15]
<b>Sparkling Wine</b>
Sparkling Wine / Champagne / [11.5]
Sparkling Wine / Other Sparkling / [1.5]
<b>Still Wine</b>
Wine [11.5]
<b>Spirits</b>
Flavoured Spirits / Bitters / Spirit Aperitifs / Bitters [40]
Flavoured Spirits / Bitters / Spirit Aperitifs / Spirit Aperitifs [35]
Brandy / Cognac, Armagnac, Other [40]
Flavoured Spirits / Aniseed [40]
Other Spirits [40]
Rum / Cane [40]
Whisky (Canadian) [40]
Whisky (Irish) [40]
Whisky (Other) [40]
Whisky (Scotch) [40]
Whisky (US) [40]
White Spirits / Gin / Genever [37.5]
White Spirits / Aquavit [42]
White Spirits / Korn / Schnapps [32]
White Spirits / Other Other White Spirits [32]
White Spirits / Tequila [40]
White Spirits / Vodka / Flavoured High Strength Vodka (40%) [40]
White Spirits / Vodka / Traditional Vodka (40%) [40]
White Spirits / Vodka / Traditional Vodka (50%) [50]
Flavoured Spirits / Fruit Eaux de Vie / Calvados, Other [40]
Flavoured Spirits / Liqueurs / Advocaat / Egg Liqueurs [17]
Flavoured Spirits / Liqueurs / Amaretti [28]
Flavoured Spirits / Liqueurs / Cassis [20]
Flavoured Spirits / Liqueurs / Cocktail / Punch Liqueurs [16]
Flavoured Spirits / Liqueurs / Coffee Liqueurs [26]
Flavoured Spirits / Liqueurs / Cream Liqueurs [17]
Flavoured Spirits / Liqueurs / Licorette [40]
Flavoured Spirits / Liqueurs / Liqueur Ranges [30]
Flavoured Spirits / Liqueurs / Low Strength Flavoured Genever [20]
Flavoured Spirits / Liqueurs / Low Strength Flavoured Korn [20]
Flavoured Spirits / Liqueurs / Low Strength Flavoured Vodka [20]
Flavoured Spirits / Liqueurs / Low Strength Lemon Brandy [20]
Flavoured Spirits / Liqueurs / Maraschino [32]
Flavoured Spirits / Liqueurs / New Style Lemon Liqueurs [32]
Flavoured Spirits / Liqueurs / Other Liqueurs [20]
Flavoured Spirits / Liqueurs / Ponche / Cremas [9]
Flavoured Spirits / Liqueurs / Traditional H. S. Liqueurs [40]

Note: LE own estimates.

## A2.5 Summary

The summary of the data used in the analysis is provided in Table 23, together with its main sources, the sources used for validation, and our own judgement on the quality of the data being used.



In summary, all data on prices (off-trade) and quantities (for total market) are provided by BoE, AICV or IWSR, which we believe to be of an acceptable quality.

Because of disparities between Member States, prices in the on-trade market have been estimated using country experts' estimates on the on-/off-trade mark-up. We judge the quality of such estimates as acceptable or medium.

Data on duty rates and tax revenues are of a high quality since they have been compared and complemented with official sources.

Not all Member States excise authorities have provided a response on the problems they face with the current classification system (addition and cleaning-up alcohol). Nevertheless, we understand that the responses received are a good representation of the principal issues currently faced by Member States in their classification systems<sup>74</sup>. This is supported by the fact that common themes were found in the FISCALIS report.

The EARs provide incomplete information on the processes being used in the Member States for the EC classification of beverages. This may be a reflection of the difficulties Member States face in the categorisation of beverages, but the result is that the different rules are not transparent and/or easy to obtain. We have constructed a summary of the process in different Member States by comparing and cross-checking the findings with all available alternative sources (ECD, EDT, TIE, IWSR, EARs, and FISCALIS).

A significant effort was made in gathering information on the impact of tax increases and in particular on the pass-on impact and price elasticities. Nevertheless, country-specific estimates are not always available and the range of estimates in different studies is quite broad. Given the available information we propose, later in the report, what we consider to be the best estimates. We believe these estimates are of a medium quality.

The estimated extent of smuggling and cross-border was determined from estimates supplied to us by EARs and TARs, most of which was derived from official estimates, and is considered to be of a high quality.

---

<sup>74</sup> This implicitly assumes that a "no-response" is an indication that the Member State does not perceive any problems or that these are not viewed as sufficiently important as to be reported.

<b>Table 23: Main variables and data sources used in the analysis</b>		
<b>Data used in analysis</b>	<b>Main data source</b>	<b>Reliability of data</b>
Market data		
Prices (off-) and total volumes:		
Beer	TARs	HIGH
Cider	TARs	HIGH
RTDs	IWSR	HIGH
Wine	IWSR	HIGH
FAO	IWSR	HIGH
Spirits	IWSR	HIGH
On-trade price/volume estimates	IWSR(e), EARs, TARs	MEDIUM
The tax regime		
Tax revenues	EARs, ETRs	HIGH
Duty rates	TIEs, EDTs	HIGH
Beverage structures	EDTs, TIEs, IWSR, EARs, FISCALIS	MEDIUM
Alcohol content	LE(e), IWSR(e), EARs	HIGH
Problems and approaches	EARs, TARs, FISCALIS	HIGH
Other market data		
Impact parameters	TARs, Literature review	MEDIUM
Smuggling	EARs, TARs	MEDIUM
Profitability	Eurostat SBS	HIGH
Alcohol content	LE own estimates	MEDIUM

Note: IWSR: International Wine and Spirit Record; LE(e): London Economics' estimates, EARs: Excise administrations responses to questionnaire, EDTs: Excise Duty Tables, TIEs: Taxes in Europe. IWSR(e): IWSR country-experts estimates; TARs: Trade associations responses; ECDs: EC Directive; ETRs: Excise Duty Tables: Tax receipts.

## Annex 3 EARs: problems in the classification

### A3.1 Products with additions

#### 2203 - Beer Products

##### Alcoholic flavourings classified to CN heading 3302

AT: *flavours of fruits*

HU: *tequila flavouring*

IE: *None*

SK: *na*

##### Other

DE: *Spirituosen, Weine, Obstwein*

FR: *Various aromas of 3302, as well as colas, lemonades or various beverages of 2208 (cognac, armagnac, picon...) can be added to beer. The note on harmonised system SH 2203 specify that "sugar, colorings, carbon dioxide or any other substances" can be added to beer. As long as the alcoholic drink added to the beer is very low (lower than 1 or 2%), the addition is considered as an aromatisation.*

HU: *apricot brandy*

SK: *na*

UK: *Ethyl Alcohol*

##### Problems:

CZ: *6.- 8. the beverages with the additions of alcohol are classified in the Czech Republic on a case by case basis according to the assesment of each alcohol product; nevertheless the laboratory testing is based on the majority (or 50 %- 50 %) rule, in: terms, 50 % of the added alcohol changes the main characteristics of the product. The beverages are then classified under either 2203, 2204, 2205, 2206 or 2208. In some cases,; methods such as isotopic analysis is carried out in order to establish the ratio of ethanol and glycerol.*

DK: *No current problems*

EE: *Estonian Tax and Customs Board do not have accurate information about products made by mixing beer and distilled alcohol in Estonia. In Estonia mixtures of beer and alcohol obtained by distillation will be classified under CN code 2206 when they retain the character of fermented beverage and in the other case under CN code 2208, not depending on proportion. Mixture of beer and alcohol obtained by fermentation is classified under 2206. In point of taxation the product obtained by mixing of beer and alcohol is not beer anymore.*

EL: *In our country, flavoured beer products are not produced and there is no case of addition of alcohol to beer products. Flavoured beer coming from addition of flavourings dissolved in ethyl alcohol can be treated for tax purposes as beer provided that the increase of alcoholic strength of beer, coming from the addition, is very little (about 0,2-0,3 % vol. maximum), taking into consideration the fact that for the flavouring very small quantities of flavourings are used.*

HU: *we have to determine, if the product has the characteristics of a beer made of malt, or the addition of alcohol changes its characteristics, in that case we classify the product depending on the extent of alcohol under heading 2206 or 2208*

IE: *Not applicable*

LT: *possible problem – an addition of alcoholic flavourings could be treated not only as flavouring, but as fortification of beer as well. Question is: how much of alcoholic flavourings could be added to the beer to treat it still as flavoured beer of Heading 2203?*

SK: *Slovak Republic has no information and experience with data from tables 5 -9*

UK: *Problems in this area are not as extensive as those regarding the distinction between products of 2206 or 2208. However, there are occasionally individual cases where beers are produced that contain some element of added alcohol. This is becoming more of an issue as novelty flavoured beers are becoming more of a feature of the UK market and the spirituous alcohol that is added is often used to carry a particular flavouring. Our understanding is that when spirits*

are mixed with beer the products can no longer be treated as beer either for nomenclature classification purposes (2203) or under Article 3 of Council Directive 92/83 as there is no provision for products that are the result of the fortification of beer to be treated as beer. However, if taken to its extreme this could lead to unreasonable results where the amount of spirits that are added are negligible and contribute little or nothing to the overall alcoholic strength of the beer. Consequently, our legal understanding is that where the added spirit is only of a token nature we can ignore its presence and treat the product as a beer for duty purposes. The problem that arises is how to determine the precise level at which the addition of spirits should alter the duty treatment of the product. In the UK we would currently allow for products to still be treated as beer where the addition of spirits has not led to any perceptible increase in the product's alcohol strength. In: words, the addition of spirits must not increase the strength of the beer by 0.1 per cent *abv* or more.

#### Solutions:

CZ: We are not able to provide you with any official data or estimates. However, we are aware that nearly all the information is available through the Datamonitor or Euromonitor.

EL: Regarding the addition of ethyl alcohol to beer, this is not a traditional production practice, so the final product shouldn't be treated for tax purposes as beer, but after setting limits in the increase of the alcoholic strength, it should be treated as an intermediate product or ethyl alcohol, according to the alcoholic strength of the product. It is obvious that for these cases some regulations should come into force. Such cases haven't been dealt in practice by our administration.

FR: Is the fixation of a limited quantity of alcohol added to be considered?

HU: adopt a classification regulation

IE: Not applicable

LT: in our opinion an addition of alcoholic flavourings should increase an alcoholic strengths of a final product no more than by 0,5 % by vol. On the other hand, problem of analyses arises.

SK: Slovak Republic has no information and experience with data from tables 5 -9

UK: The UK would be supportive of quantitative restrictions on the amount of ethyl alcohol that can be added to beer without changing the classification from beer to spirit. It would be sensible to base these restrictions on alcohol that is used to flavour, or as a carrier for flavour, as long as it does not significantly raise the alcoholic strength of the product. The UK are also supportive of the idea of introducing a maximum strength for beer. Although the UK have not encountered beers that have exceeded 22% *abv* it would seem sensible to ensure that if any were able to be produced, that they would be dealt with in exactly the same way as any: alcoholic product exceeding 22% and be classed as ethyl alcohol for duty purposes.

## 2204 and 2205 - Fermented products

#### Problems:

AT: classification

DE: On table 6: additions of: alcoholic substances to wine of categories 2204 and 2205, and to drinks of category 2206 is not currently considered relevant in the market. Beer-based drinks (2203) and beer-mix drinks (2206) with added: alcoholic substances have a low market share in our estimate. In practice the categorisation of mixed products is problematic. The composition of contents needs to be measured in each case. As an example, a product made from beer, cola, and cherry liquor was assigned to cat. 2208 because of the liquor content, and thus taxed as a liquor and an 'alco-pop'; to improve the tax position, the product was reformulated to beer, cola and cherry wine. This product was put in cat. 2206. Because of the new component (cherry wine) the product as taxes as an 'intermediate' product (between wine and spirits). Changing the composition can alter the categorisation and the tax treatment.

DK: No current problems

EE: Estonia has changed its approach to fermented products made with addition of distilled alcohol after accession to EU. Before we classified such products under 2208. Now we treat such product according to the Commission Regulation (EC) No 2802/95 of 4 December 1995 concerning the classification of certain goods in the combined nomenclature. In the preparation/working papers of the regulation is fixed, that alcoholic beverage, which contain fermented alcohol at least 20 % should be classified under code of fermented drink (2206). Ruled by the decision of European Court of Justice on case C-130/02 the same principle should be applied as it comes from the regulation No 2802/95 to another alcoholic beverage with mixed alcohol. Problem is that the explanation section of HS and CN codes does not contain the rule on acceptable proportion of fermented alcohol to classify it under fermented beverage. Only one principle is given by which product must remain "essential character" of fermented beverage to be classified under fermented drinks. And again, term "essential character" is not defined.

EL: Remarks: According to the relevant EU legislation in the field of wine (Regulation (EC) 1493/99, as replaced by the Regulation 479/08) the addition of ethyl alcohol is allowed only for the production of particular special kinds of

wine – famous traditional products- under particular terms and conditions provided in the relevant legislation (minimum alcoholic strength of the product, limits to the following increase of the alcoholic strength, etc.). In these cases, the finally produced product, according to the relevant provisions of the Council Directive 92/83/EEC, is treated generally for tax purposes as an intermediate product. In case the alcoholic strength exceeds the limit of 22% vol., it is treated as ethyl alcohol. Regarding the products falling within CN code 2205 (flavoured wines, flavoured drinks based on wine, etc.), there is the same treatment as mentioned above. In our country there is considerable production of wines with addition of alcohol (such as Samos, Limnos, Mavrodafni, etc.) and a small production of flavoured wines. From the above-mentioned, it is evident that the particular products (of CN codes 2204, 2205), according to the provisions of the Directive 92/83/EEC have no problems in their taxation treatment.

FR: The problem is identical to the one with beer. Depending on the level of added alcohol, the drink can move from a fermented drink classification to an intermediary drink or alcohol.

HU: controversy in classification

IE: None

LT: classification (2204, 2205 or 2208 Heading) and taxation problems (as intermediate products or as spirituous beverages)

PT: Do not have problems because the Portuguese market is insignificant

UK: The problems in this area are not as great as those regarding the distinction between 2206 and 2208. However, in the UK we are aware of one difficulty that we need to remain mindful of in developing any potential solution to the problems in product definitions: Some UK manufacturers produce beverages that are similar in many respects to sherry. The products are sold as fortified or liqueur wines and can quite often contain a high amount of added alcohol. Many of these manufacturers base their products upon grape must imported from the EU. The grape must is concentrated/dehydrated for transportation purposes. We understand that for this reason the products cannot be allocated to 2204 (or if aromatised to 2205), because they cannot be considered a fortified wine of 'fresh grape'. Consequently these products fall subject to the tests to determine whether a beverage should be allocated to 2206 or 2208. The fear of some manufacturers is that because particular products do contain significant amounts of added alcohol, if classification is determined solely upon a straightforward proportionate restriction on the amount of alcohol that can be added their products could fall to be treated as spirits. In the UK this has not yet created a problem simply because of the way UK classification tests operate (see below). Because more of the bulk volume is provided by fermented liquor and characteristics such as the labelling hold the product out as a fortified wine, the UK's tests '1' and '3' suggest that the beverage should be classified to 2206 even though the result of test '2' shows the use of more spirituous alcohol rather than alcohol obtained from fermented beverage. Consequently, as the majority of the classification tests suggest that the product should be classified as a fermented beverage it will be dutied as such.

#### Approach:

AT: CN 2204, 2205, 2208

HU: According to Hungarian Wine Act only spirits obtained by distilling grape wine can be added, if other kind of spirits have been used we classify it under heading 2206 or 2208 dependig on the extent of the added alcohol

IE: Not Applicable

LT: in Lithuania products, having not less than 50 % of alcohol of fermented origin are classified under Heading 2204 or 2205, otherwise they are treated as spirituous beverages of Heading 2208 and taxed as ethyl alcohol (highest rate of taxation).

UK: As stated above if distilled alcohol is added to 2204 or 2205 products they fall under 2206 or 2208 and the tests are applied as described below.

#### Solutions: «pae9»

AT: intermediate products, spirits

EE: We don't have reasonable solution to the problem and we consider drinks case by case.

HU: adopt a new regulation

IE: Not Applicable

PT: Possible solution could be to see the addition of alcohol. If the addition of alcohol is more than 50% the product would be classified as a spirit, whereas if the addition of alcohol is less than 50% then the product would be classified as an intermediate product. That is to say, if any beverage has addition of alcohol (spirit or pure alcohol, not wine) it would be classified as an intermediate product in the case that the alcoholic volume of the beverage is obtained with the addition of less than 50% of alcohol.

UK: See below

## 2206 - Fermented products

### Problems:

AT: classification

DK: No current problems

EE: According to the commission regulation no 2802/95 (the preparation/working papers) the mixture may be classified into heading 2208, if proportion of fermented alcohol in mixture is less than 20 %. In the case when this mixture retain essential character of fermented beverages we classify this still into heading 2206.

EL: At first, these products are not produced in our country. According to the provisions of the Directive 92/83/EEC, since the final product (after the addition of ethyl alcohol) has an alcoholic strength exceeding the limits mentioned in the relevant provisions (10% vol. for: still fermented beverages and 13% vol. for: sparkling fermented beverages) but not exceeding 22% vol., it is treated for tax purposes as an intermediate product. However, since the alcoholic strength of the final product exceeds 22% vol., it is treated for tax purposes as ethyl alcohol (Directive 92/83/EEC, art. 20). Our country has adopted the optional provision of par. 2 of art. 17 of the Directive 92/83/EEC, which applies to the case the final product has an alcoholic strength not exceeding the mentioned limits (10% vol. for: other still fermented beverages and 13% for: other sparkling fermented beverages)

FR: The problem is identical. The drink needs to keep its fermented characteristic. Practically, the proportion glycerol/alcohol is examined. If this proportion is above 1%, meaning at least 15 to 20% of the alcohol comes from fermentation, it is considered that the drink keeps its fermented characteristic.

HU: controversy in classification

IE: Difficulty in determination of CN and Excise Classification

LT: classification (2206 or 2208 Heading) and taxation problems (as intermediate products or as spirituous beverages).

PT: Do not have problems because the Portuguese market is insignificant

SK: designer drinks as mixture of alcoholic beverages - problems with classification come when mixture was made of fermented beverage with distilled ethyl alcohol - explanations to CN codes 2203 to 2206 allow additives only if the product will not change its character of fermented beverage, if it changes its character as fermented beverage then it should fall within CN 2208.

UK: There is currently no legal certainty as to how products that are derived from adding alcohol to 2206 products should be treated. This is compounded by the fact that different Member States use varying methods to establish the classification which could in the extreme result in distortion of trade.

### Approach:

AT: CN 2206, 2208

EL: Remarks: In our country there is very little production of the particular products, which are produced having as an alcoholic base ethyl alcohol or alcoholic drinks falling within CN code 2208, which, therefore, are being treated for tax purposes as ethyl alcohol (Council Directive 92/83/EEC, art. 20). Moreover, imported products usually have about the same characteristics as the nationally produced, so there are no problems in their taxation treatment.

HU: We take the GIR 2/b into consideration, if the content of alcohol has more than 50% non-fermented origin we classify it under heading 2208

IE: Where the fermented portion of the beverage contains at least 50 per cent of the liquid volume, it is normally classified as CN 2206. The Excise classification could be either <<Fermented Beverage other than Wine or Beer>> or <<Intermediate Product>>.

LT: in our country products, having not less than 30 % of alcohol of fermented origin are classified under Heading 2206, otherwise they are treated as spirituous beverages and taxed as ethyl alcohol (highest rate of taxation).

SK: designer drinks as mixture of alcoholic beverage and nonalcoholic beverage belong to CN 2206. If the alcoholic beverage is mixed up with sparkling nonalcoholic beverage (i.e. Sprite) it would fall within CN 2206 00 39. If the alcoholic beverage is mixed up with still nonalcoholic beverage (i.e. juice, with no more of 2 litres in content) it would fall within CN 2203 0059 and with more than 2 litres in content it would fall within CN 2206 0089.

UK: In the UK how a product would be classified under the nomenclature is pivotal to determining the excise liability of products. The UK uses the following tests to determine nomenclature classification of the mixed alcoholic beverages that are the crux of this question. Duty treatment will generally follow the results of these tests:

- Whether the spirituous or fermented liquor contributes more to the overall volume of the liquor.
- Whether the spirituous or fermented liquor contributes more to the alcohol content of the liquor
- Whether other characteristics of the product (for example, how it is labelled, presented or how it tastes) are those of a spirituous or fermented beverage.

If both of the tests looking at the relative contributions to the product show that it is made up of more spirituous rather than fermented liquor, the product would be classified as a spirit (2208) and will be dutied as such. If similarly, both of these tests show that a product is comprised primarily of the fermented element, then the fortified product will retain its duty status as a fermented beverage or Intermediate Product (2206).

However, if the two tests on the composition of the liquor show different results, then the third test on the other characteristics of the product will determine how it is to be treated. For instance, if the majority of the volume of a beverage was sourced from its fermented component, but the majority of the alcohol within the beverage was sourced from distilled liquor, then the status of the drink is likely to be decided by whether it is presented/marketed or tastes like a spirituous beverage.

The tests are not applicable where the finished product would fall under the Combined Nomenclature headings 2204 or 2205.

**Solutions:**

AT: intermediate products, spirits

HU: adopt a new regulation

IE: Refer to recent Judgement of ECJ Case-150/08

PT: Possible solution could be to see the addition of alcohol. If the addition of alcohol is more than 50% the product would be classified as a spirit, whereas if the addition of alcohol is less than 50% then the product would be classified as an intermediate product. That is to say, if any beverage has addition of alcohol (spirit or pure alcohol, not wine) it would be classified as an intermediate product in the case that the alcoholic volume of the beverage is obtained with the addition of less than 50% of alcohol.

UK: The UK would propose that any solution should involve proportionate restrictions that can be assured during the production process. The UK believe that the approach as adopted (as shown above) is the most appropriate way to proceed. It is accepted that there would still be difficulties in checking and controlling products that are not domestically produced but Member States who use proportionate restrictions already face this difficulty. Such an approach would provide legal certainty. One suggested alternative would be to have no restrictions on the amount of added alcohol but this could be problematic as it could mean that it would be permissible to add a token amount of fermented product to spirits and have the product dutied as a fermented product producing a perverse result.

## A3.2 Processes used as substitutes for fortification

### Beer

**Share:**

AT: 0

DK: Less than 1 %

ES: Negligible

HU: No information

IE: None

PT: NA

SK: na

UK: No data available

**Classification:**

AT: CN 2203

DK: As beer unless  $abv > 22\%$

EL: In our country there is no use of alternative methods and techniques (e.g. reverse osmosis) for the increase of the alcoholic strength (fortification). As far as wine is concerned, according to the current EU legislation, these practises are not allowed. Generally, taking into consideration the fact that these methods and techniques are methods of separation and enrichment such as distillation – which they differ from only as regards the physical principle they are based on – and lead to the same result, that is the increase of the alcoholic strength, the produced from these methods product should be treated in the same way as the relevant product produced by distillation of the base product (alcoholic liquids coming from alcoholic fermentation). So, there is a need for modification of the particular Chapter (2207 or 2208) of CN codes in order to update them. These cases have not been dealt by our administration.

FI: *The questions on pages 16-17 (substitutes for fortification, cleaned-up alcohol) are very difficult to answer. According to my colleagues in the Customs (who handle the practical side of alcohol taxation), we do not have any big classification problems, although some single classification issues may arise every now and then. Indicators of fermentation can be distinguished from finished products so products can be classified as fermented or not. However, it is impossible to discern from a finished product how it exactly has been produced. Therefore, we do not have any statistics or even educated guesses on the market share of products, which have been produced using a certain production method at some point in the production process. However, the Customs rarely has any problems with these issues, which would indicate that the market share of these products is small.*

SK: *na*

UK: *Follows the category of the original product*

## **Intermediate Product**

### **Share:**

AT: 1

DK: *Less than 1 %*

ES: *Negligible*

SK: *na*

UK: *No data available*

### **Classification:**

AT: CN 2205,2206

DK: *Same unless abv > 22 %*

FR: *We can talk of fortification with addition of alcohol level only in the case of drinks in the style of "vermouth". This addition is done via 2 processes:- by inverted osmose or cryoextraction in the case of [ OMITED ], - by re-fermentation with added sugar in the case of "generic" low type products*

IE: 2206 or 2208

SK: *na*

UK: *Follows the category of the original product*

## **Fermented Beverages**

### **Share:**

AT: 0

DK: *Less than 1 %*

ES: *Negligible*

SK: *na*

UK: *No data available*

### **Classification:**

AT: CN 2206

DK: *Same unless abv > 22 %*

IE: 2206

SK: *na*

UK: *Follows the category of the original product*

## **Wine**

### **Share:**



AT: 0  
 DK: Less than 1 %  
 ES: Negligible  
 IE: None  
 SK: na  
 UK: No data available

**Classification:**

AT: CN 2204,2205  
 DK: Same unless abv >22 %  
 SK: na  
 UK: Follows the category of the original product

## A3.3 “Cleaned-up” alcohol

### *Cleaned-up alcohol - 2203 origin*

**Problems:**

AT: *competition with distilled alcohol*

CZ: *Also, in relation to the questions concerning RTDs and „cleaned-up“ alcohol, a great deal of the information that you are seeking is contained in the report that was prepared for the seminar which took place in Malta in 2005 and in reports of subsequent meetings held in Brussels on the subject. However, we are endeavouring to obtain more information and I hope to be able to send this to you in the near future.*

DE: *On table 9: additions of 'cleaned-up' products to wine of categories 2204 and 2205, and to drinks of category 2206 is not currently considered relevant in the market. In the case of beer-based cleaned-up products, categorisation is on the basis of the characteristics of the alcohol. Is the product altered to an extent that it no longer shows beer characteristics (clear, colourless liquid with the smell of ethyl alcohol, ie 'malt beer base'), it does not fall under the beer tax (see decision Federal Court of Justice decision of 28.3.2006 – VII R 50/04). Instead, the product falls under the liquor tax (cat. 2208), which makes using malt beer base unattractive. The decision which tax should be applied to cleaned-up products depends on the extent to which the base product has been altered. If beer is discoloured through filtration, but keeps its taste, it falls under the beer tax. How much a product is modified can affect the categorisation and how it is taxed.*

DK: *No current problems*

EL: *In our country there is no production and no use of the so-called “cleaned-up alcohol”. In any case, the taxation treatment of this product (cleaned-up alcohol) is the same as the alcohol coming from fermentation and distillation. As concerns the taxation treatment of the product coming from the addition of “cleaned-up alcohol” into different alcoholic products included in the Directive 92/83/EEC: a) At first the addition of the particular product (cleaned-up alcohol) into wines is not allowed, according to the current EU wine legislation b) As concerns the addition into: products (beer,; fermented beverages, intermediate products, except wines falling into this category), the above-mentioned are in force (table 6). These cases haven't been dealt by our administration.*

HU: *no information*

IE: *None*

LT: *classification of products, containing or made of „cleaned-up“ beer (2203, 2206 or 2208 Heading) and taxation (as beer or as ethyl alcohol).*

PT: *No position at present. Analysis the subject regarding a study that it was developed by the Laboratories of some Member states.*

SK: *na*

UK: *There is no current legal definition of 'cleaned-up' alcohol. This type of alcohol is capable of being used to produce drinks which have the characteristics of distilled alcohol products but, because of the way that they are produced they can be treated as fermented products. In some cases, depending on the strength of the product, this can lead to a tax advantage.*

**Approach:**

AT: CN 2208

DK: No current problems

LT: „ „Cleaned-up“ beer (so called „Malt base“) and products thereof Lithuania classifies in Heading 2208. Another problem – so called „semi-cleaned“ beer. It has smell and appearance of beer. Products made of „semi-cleaned“ beer we treat as other fermented beverages (Heading 2206) and tax as a beer.

SK: na

UK: At present, applying UK law means that cleaned-up alcohol which has been derived from fermented beverage is treated as fermented product and dutied accordingly. This is because of the way the law is structured as it only provides for alcohol to be classed as spirits or ethyl alcohol has not been derived from distillation and is below 22% abv.

**Solutions:**

AT: CN 2208

FI: In Finland we classify products into intermediate products/ethyl alcohol according to the so-called ECJ Apfel Royal -case (Commission Regulation 2802/95). As long as the alcohol produced by fermentation constitutes more than 17 % of the alcohol content of the product (and the total alcohol content of the product is less than 22 %), the product is classified as an intermediate product. If more than 83 % of the alcohol content originates from added ethyl alcohol, the product is classified as ethyl alcohol.

LT: 1) final common decision on classification of „cleaned beer“ (so called „Malt base“) and products thereof; 2) establishing of the criterion for the control of „cleaned beer“.

SK: na

UK: To provide legal clarity the UK would be supportive of alcohol that has been cleaned-up being treated as ethyl alcohol as , although it has not been subject to distillation, the essential characteristics of a fermented alcohol will have been removed and the resulting product has more similarities with the characteristics of a distilled product.

## **Cleaned-up alcohol – 2204 and 2205 origin**

**Problems:**

AT: competition with distilled alcohol

DK: No current problems

EL: Regardless of their origin, that is the alcoholic liquid/drink used as base for the production of beer (CN code 2203), wine (CN code 2204, 2205), other fermented beverages except wine and beer (CN code 2206) under an alternative technique (reverse osmosis, molecular sieves, etc.), cleaned-up alcohol is treated in our country such as ethyl alcohol coming from fermentation and distillation (Directive 92/83/EEC, article 20). Modification in the relevant Chapter (2207 or 2208) of CN code is necessary.

These cases haven't been dealt by our administration.

FR: When fermented bases are purified by filtration on various membranes, silice gel, actives charcoals, or osmose, products loose their flavours, odour and colour. Certain substances, such as glycerol (a marking of fermentation) or organic acids mainly present in in the case of fruits bases (wine or other), are also eliminated. This constitutes a problem for the verification of the addition of alcohol to the fermented product.

Fermented bases obtained by purification more or less “pushed” with fermented malt, generally with 14% in volume, have been used a lot for the making of premix type products before the application of a new regulation in the field.

Sugar or fermented fruits bases are used for the making of very aromatic drinks (Ex: Suze).

The wine bases undergo a very strong treatment with actives charcoals for discolouration, disodorisation, disaromatisation. To 9 to 11% in volume. They developed after 2005 because the viti-vinicoles products cocktails are since that date excluded from de premix tax.

IE: None

LT: classification of alcoholic beverages containing „cleaned-up“ products (2204, 2205 or 2208 Heading) and their taxation (as intermediate products or as spirituous beverages). Another problem – classification of „semi-cleaned“ wine bases in which some fermentation products still remain.

SK: na

UK: See above

**Approach:**

AT: CN 2208

DK: No current problems

LT: „Cleaned-up“ wine (so called wine bases) and products thereof Lithuania classifies in Heading 2208, as these products in our opinion do not have a characteristics of wine.

SK: na

**Solutions:**

AT: CN 2208

FR: These alcoholics bases (malted, wine, sugar or fruit juice fermented...), which are not themselves drinks as they do not have any specific flavour, are easily recognised and could be classified on 2208 90 (hydro alcoholic solutions of less than 80%). However, these bases are not recognised easily once mixed in a “manufactured” drink of premix type, Suze, Manzana or Picon.

All these products used to be obtained thanks to drinks of 2208 or 2207. The only interest to the change in the making process is a reduced taxation. Therefore, it would be convenient to consider that all products non easily recognisable as being obtained from beer, wine, cider, “fruit wines” or hydromel are assimilated to an alcohol. This could also be linked to the addition of intense aromas masking the fermented bases.

It is worth noting that aromatised wines of vermouth type of which the making is very old and done from wine and alcohol should be excluded from this “assimilation to an alcohol”.

LT: 1) final common decision on classification of „cleaned-up fermented beverages“, „semi-cleaned fermented beverages“ and products thereof; 2) establishing of the criterion for the control of these products.

SK: na

## Cleaned-up alcohol – 2206 origin

**Problems:**

AT: competition with distilled alcohol

DK: No current problems

IE: CN and Excise Classification of beverages containing <<cleaned-up>> products.

LT: classification of beverages containing „cleaned-up“ products (2206 or 2208 Heading) and their taxation (as intermediate products or as spirituous beverages). Another problem – „semi-cleaned“ fermented beverages in which some fermentation products still remain.

SK: na

UK: See above

**Approach:**

AT: CN 2208

DK: No current problems

IE: A cleaned-up fermented beverage would normally be classified as CN 2206. The Excise classification could be either <<Fermented Beverage other than Wine or Beer>> or <<Intermediate Product>> .

LT: „Cleaned-up“ fermented beverages and products thereof Lithuania classifies in Heading 2208.

SK: na

**Solutions:**

AT: CN2208

IE: The recent Judgement of ECJ Case - 150/08 should be considered when deliberating on a solution

LT: 1) final common decision on classification of „cleaned-up fermented beverages“, „semi-cleaned fermented beverages“ and products thereof; 2) establishing of the criterion for the control of these products.

SK: na

## Annex 4 Information provided by TARs

The information provided by the trade associations is summarised in the following tables.

### Prices and volumes

Table 24: TARs Responses on product prices and volumes			
Body		Info	
Beer	BoE	EU27	On-/off-trade prices and volumes for beer for each MS (Contribution made by beer to the European economy, 2009 Ernst & Young)
Beer	PBD	DE	Volume (overall) of beer sold, yearly 2004-2008 (Statistisches Bundesamt)
Cider / Fruit wine	AICV	DE	On-/off-trade prices and volumes for cider and fruit wines (for which on-trade negligible) (unknown source)
		ES	On-/off-trade prices and overall volumes by type of cider (still/sparkling) (unknown source)
		FI	On-/off-trade prices for three price levels of cider (estimates) and overall volume (unknown source)
		FI	Off-trade prices and volumes for fruit wine (on-trade negligible) (unknown source)
		UK	On-/off-trade prices and volumes for two price levels of cider (Nielsen data; HMRC releases)
Wine	CEEV	EU27	"CEEV does not directly or indirectly (through specialized research companies) collate information on retail/horeca (off-trade/on-trade) prices, wholesale prices or consumption. [Provide references to EC publications and OIV] Recommend extreme prudence when interpreting the available data as ... prices vary hugely depending on [a number of factors and] the sources and data collection techniques are unlikely to be really comparable across markets."
		UK	Off-trade prices and (estimated) volumes by type of British Wine (unknown source)
Wine/ Spirits	EFWSID	No data provided	
FAO	FFVA	FR	Off-trade prices by type of aperitif (IRI and Nielsen)
Spirits	CEPS	ES	Value and volume of spirits sector 2008 (industry estimation)
		FI	No price info, volume 2008 by product (across all alcohol) (Valvira - National Supervisory Authority for Welfare and Health; Alko sales statistics)
		FR	Volume of Cognac 2008 (industry estimation)
		NL	Volumes (overall, on-/off-trade) 2008 by type of spirit (Commissie Gedistilleerd; unknown source)
		PL	Prices and volume 2007 by type of spirit (Polski Przemysle Spirytusowy)
		SE	On/off-trade prices and volume, 2008 by type of spirit (Sweden Euromonitor)
		UK	On-/off-trade prices and volume March 2009 by type of spirit (WD Share Report)
All Alcohol	ABFI	IE	On-/off-trade prices June 2009 and overall volume share 2008 for Beer, Cider, Spirits, Wine (Central Statistics Office; Drinks Industry Group of Ireland)

### Cross-border shopping

Table 25: Smuggling and cross-border shopping as percentage of consumption			
Product	Extent	Source	Data source
Beer	DK: 23-29% (bought in DE) FI: 10% (6.6% from EE and other Baltic States; 3.5% from on-board ship) IE: negligible (due to position beyond UK) SE: 33% (of normal strength beer [ $>3.5\%$ ] smuggled and bought from DK, DE & Baltic States) UK: 4%	BoE	Bringing the northern high tax Member States into the single market, 2004 (BoE)
	FI: 19.2x106 litres	CEPS	TNS Gallup poll of 17,519 people, 2009
	SE: 27% (14% bought, 13% smuggled; 1% home-made)	BoE	Swedish Alcohol Policy – An Effective Policy?
	SE: 65.8 x106 litres (2006)	BoE	Smuggling av alcohol till Sverige 2002–2007, (Spendrups)
Cider	DE: none	AICV	VdFW own consideration
	ES: none	AICV	AESI own consideration
	FI: private import mainly from EE	AICV	FABIA Elintarviketeollisuus own consideration
	FI: 5-6x106 litres (mostly bought in EE)	AICV	Not specified
	FI: 5.2x106 litres	CEPS	TNS Gallup poll of 17,519 people, 2009
	UK: negligible	AICV	HMRC, BBPA, WSTA, G&VA, SWA studies
Wine	FI: 5.9x106 litres	CEPS	TNS Gallup poll of 17,519 people, 2009
	SE: 17% (12% bought; 1% smuggled; 3% home-made)	BoE	Swedish Alcohol Policy – An Effective Policy?
	SE: 5.0 x106 litres (2006)	BoE	Smuggling av alcohol till Sverige 2002–2007, (Spendrups)
Ethyl Alcohol	FI: 16.2x106 litres (7.7 long drink; 1.6 intermediate; 6.9 spirits)	CEPS	TNS Gallup poll of 17,519 people, 2009
	SE: 47% (38% bought; 7% smuggled; 2% home-made)	BoE	Swedish Alcohol Policy – An Effective Policy?
	SE: 6.6 x106 litres (2006)	BoE	Smuggling av alcohol till Sverige 2002–2007, (Spendrups)
General	IE: 3% (bought in Northern Ireland [UK])	ABFI	ABFI data 2008-09

### Products with additions

Table 26: Responses TAR on products with additions	
Body	Info
BoE (Beer)	EU27 From excise and customs perspective the inclusion of additives and flavours does not alter the classification of the product as a beer. Flavours may be “carried” in an alcohol base. However, the impact of this on the alcoholic content of the finished product is trace. From a fiscal point of view, the classification of products due to the addition of additives or flavours does not appear to be in doubt, since they all fall within the beer category. Therefore they are taxed according to their alcohol content, measured by volume or degree Plato.
AICV	DE, FI, UK Data on use provided in questionnaire table 3

(Cider and fruit wines)	DE	For cider, "sweeteners are allowed but not commonly used". For fruit wines, artificial sweeteners "are not allowed", colours and flavours are added "to create stable colours [and] produce fruit flavour".
	ES	Forbidden by national cider legislation
	FI	For fruit wine, "to homogenise the product".
	FI	Additives used to alter the basic product (energy content, appearance, taste), only in the case of E150 to homogenise the product.
	UK	'Sweeteners' - intense sweeteners rather than sugars which are also used. Intense sweeteners are used to supplement the use of sugars or to replace them, eg: in the making of ciders and perries suitable for diabetics, 'low carbohydrate' ciders and perries or in the making of 'value' products. 'Dyes' - artificial intense colourants permitted as food ingredients by EU regulation. These are, for example, the 'azo' dyes rather than colourants made or extracted from natural materials, such as caramel (E150a - E150d), cochineal (E120) and carotenes (E160) and which may also be used. As may be seen, the dose rates and number of 'dyes' used in UK cider or perry are very limited and, for UK duty purposes, UK law (ALDA 1979 & HMRC Notice 162) lists the limited range of colourants of any type that may be used. Usage is solely to adjust natural variation from batch to batch. When any colourant is used, the resulting cider or perry must always be 'in the colour range - straw / gold / golden brown'. 'Flavourings' - highly processed additions which are often of synthetic origin and intended to bring, reinforce or highlight a particular type of taste. For UK duty purposes, UK law forbids the use in cider and perry of substances 'communicating (colour or) flavour other than such as are allowed to be necessary' (ALDA 1979). HMRC Notice 162 specifies that cider & perry in the UK may only have natural apple or pear esters returned to it in proportion to restore their former level. Data
CEPS (Spirits)	EU27	CEPS provided a list of suggested food categories and list of additives allowed for each product. CEPS members refer to the relevant legislation on additions, though no data on use were provided.
CEEV (Wine)	EU27	"[T]he international and EU regulatory framework for wine products provides exhaustive and precise rules on winemaking oenological practices and treatments for wine products. ... Any practice not included in this list is prohibited. ... the use of oenological practices and treatments is allowed only to facilitate the expression of the basic product qualities ... intended to be mainly corrections to the natural composition aimed at a final product of better quality. ... Commission regulation 122/94 defines also the flavourings that can be used in the elaboration of aromatized wines and other wine-based products."
	UK	British Wines are produced to a strictly enforced Code of Practice which is in the public domain. This permits the addition of natural flavours, herbs and spices, sweetening and colouring to certain categories of British Wine in a similar way to those materials that are added to wines of CN 2204 and 2205.
PBD (Beer)	No answer provided	
ABFI (All Alcohol)	IE	"ABFI [does] not hold any information on this issue"
EFWSID (Wine, Spirits)	No answer provided	
FFVA (FAO)	No answer provided	

### Products fortified with alcohol

Table 27: Responses TAR on products fortified with alcohol		
Body	Info	
BoE (Beer)	EU27	Report "with a high degree of confidence that the volume of fortified beer produced for EU consumption is extremely low"
PBD (Beer)	No answer provided	
AICV (Cider and fruit wine)	EU27	"Throughout Europe now, and following argument by AICV, cider and perry is not made by fortification. This has been achieved by education and agreement in EU Member States. AICV and its members monitor developments and promote this agreement in all global markets."
	DE	"No fortified fruit wines [...] or honey wine are produced"
	FI	Provide data. For fruit wine, there are no problems, "since the Finnish authorities operate according to the 'Apfel Royale' regulation 2802/95. No 'cleaned-up' alcohol is used by the Finnish fruit wine industry."
CEPS (Spirits)	EU27	"Most of the products that CEPS represents do not encounter classification problems." CEPS members did not report data on these questions.
CEEV	EU27	"[T]he international and EU legal framework provides precise rules on fortification for the

(Wine)		traditional fortified wines (2204, 2205)“ For example, Regulation 1234/2007 specifies what can be added to produce liqueur wine, and aromatized wines are defined as in category a) of Regulation 1601/91. ... “There are no problems regarding the excise classification of the fortified wine products.”
	UK	Filled in questionnaire including data on amount of alcohol added by type of British Wine. State that “No problems arise from the fortification of these traditional British Wine beverages.”
EFWSID (Wine, Spirits)		No answer provided
FFVA (FAO)		No answer provided
ABFI (All Alcohol)	IE	“It is our understanding that no problems with the fortification of products with added alcohol exist in Ireland. ... if a beverage contains a mix of fermented and distilled alcohol, it is taxed at the intermediate rate ... from a customs point of view, the beverage is classified in line with the source of the majority of alcohol contained within it.”

### Alternatives to fortification

Table 28: Responses TAR on alternatives to fortification		
Body	Info	
BoE (Beer)	EU27	Unaware of any processes used as an alternative to fortification to produce beer.
AICV (Cider)	ES	No fortification (sic) used
	DE	“For cider production apple juice for fermentation may not be diluted. Glucose or sugar is added to the apple juice, but only up to a density of 1.055 of the fermentation batch.”
		For fruit wine, chaptalisation is used to achieve the “desired alcohol strength (up to 12% vol). This is due to the low sugar content in fruit and the dilution of the fruit juices before fermentation in order to bring down the high natural acidity of the juices.”
	FI	For fruit wine, chaptalisation may be used “when the chosen fruit is low in natural sugars or strongly flavoured or very high in acidity”.
	FI	For cider, no answer provided.
	UK	If an increase in strength is felt desirable, NACM members (and, it is believed, other UK cider makers) use the permitted practice of 'chaptalisation' (further fermentation of added sugar) to bring this about. Fortification by the addition of (distilled) alcohol is specifically forbidden if the resulting product is to retain its definition as cider or perry for excise purposes.
CEPS (Spirits)	EU27	CEPS members did not report data on these questions.
CEEV (Wine)	EU27	No answer provided
	UK	None
PBD (Beer)		No answer provided
ABFI (All Alcohol)	IE	“ABFI not hold any information on this issue”
EFWSID (Wine, Spirits)		No answer provided
FFVA (FAO)		No answer provided

### Cleaned-up alcohol

Table 29: Responses TAR on products using cleaned-up alcohol		
Body	Info	
BoE (Beer)	EU27	“On the basis of information received [from members] the use of cleaned-up alcohol to produce beers is extremely low”
PBD (Beer)		No answer provided
AICV	ES	Cleaned-up alcohol is not used

(Cider and fruit wine)	DE FI FI UK	“No cleaned-up alcohol is used” in the production of ciders, fruit wines and honey wines For fruit wines, “cleaned-up alcohol is not used”. Only distilled alcohol is used, so “no problems have been identified”. For cider, no answer provided Cleaned-up alcohol not used by NACM members, and not aware of use by any other UK cider maker. NACM consider that cleaning up would not help in making ciders and perries, which are characterised by their strong and individual natures.
CEPS (Spirits)	EU27	CEPS members did not report data on these questions.
CEEV (Wine)	EU27 UK	“On the basis of information received, cleaning up alcohol is not used to produce wines and wine based products. ... [Furthermore,] due to the relevant differences of production cost between fermented wine alcohol and distilled alcohol ... it would make little sense to use cleaned-up wine fermented alcohol in the manufacturing of other beverages.” Cleaned-up alcohol is not used in the production of British Wines but some of the processes used to 'clean up' alcohol are. 'Off' notes, derived when the yeast produces higher than normal amounts of sulphides are removed by the use of de-odourising filter sheets containing carbon or by the addition of small amounts of carbon to the wine before fining and filtration. It is essential to retain the use of this process for British Wines without its being classified as being 'cleaned - up' since the objective is to retain a better quality of fermentation character, not to remove fermentation character.
EFWSID (Wine, Spirits)		No answer provided
FFVA (FAO)		No answer provided
ABFI (All Alcohol)	IE	“ABFI not hold any information on this issue”

### Profitability

**Table 30: Responses TAR on profitability**

Body	Info
BoE (Beer)	EU27 Data are sensitive from a competition perspective, and so can provide nothing in answer to the question Additional studies provided
AICV (Cider and fruit wines)	DE No answer provided ES AESI provided its Envasados EVA estimates of data aggregated from AESI members and the internet FI Such information is not available to FABIA FI SFF cannot disclose company business secrets UK NACM regrets that, owing to the difficulty of ensuring anonymity for any of its members and the requirements on disclosure, it is not able to offer a response to this question for UK Cider & Perry.
CEPS (Spirits)	EU27 CEPS members did not report data on these questions.
CEEV (Wine)	EU27 Can vary abruptly, due to agricultural nature of the product. Cost of sales much higher for wine (€2.70 per litre of pure alcohol) than for distillate from sugar beet (€0.65) UK No answer provided
PBD (Beer)	DE Costs of producing beer vary according to the size of the brewery, with costs before filling being €28-30/hl for a large brewery and >=€60/hl for a small one
ABFI (All Alcohol)	IE “ABFI not hold any information on this issue”
EFWSID (Wine, Spirits)	No answer provided
FFVA (FAO)	No answer provided



## Impact of duties

The RAND report states (p9; 20):

*“In the EU there is ongoing debate as to the extent to which tax increases are or would be passed on to consumers. It is possible that, while on-trade retailers pass on any tax increases to consumers, the off-trade, particularly large retailers such as supermarket chains, may be more able to absorb some or all of the change in taxation thus leading to small or no increases in the price of alcohol. However, the way in which changes in alcohol taxation lead to changes in price in the EU has not yet been sufficiently researched and deserves careful attention. In addition, as mentioned above, there is ongoing debate, and extremely limited evidence, about the extent to which tax increases are passed on to consumers in the form of price increases. While on-trade retailers are typically understood to pass on any tax increases to consumers as higher alcohol prices (in some cases increasing prices by more than the increase in taxation), the off-trade, particularly large retailers such as supermarket chains, may be more able to absorb some or all of the change in taxation thus leading to a small or no increase in the price of alcohol. As a result, the level at which a tax increase would be effective is not a straightforward calculation, and needs to take into account both the extent to which the tax increase would lead to price increases, but also the differential way in which this may affect on- and off-trade retailers.”<sup>75</sup>*

**Table 31: Extent of pass on/through**

Product	Multiplier	Source	Data source
Beer	DE: 1+VAT DK:1.30 (=10/7.7) ES: 4.4 (on-), 1.4 (off-) ES: 4.09 (on-), 1.52 (off-) IE: 1+VAT+seller margin NL: 1 FI: 1.2 UK: 3.5 (on-), 0 (off-trade)	PBD BoE BoE BoE ABFI BoE AICV BoE	Own judgment Vi kan leve laengeere og sundere, 2009 (Fbk) Impact of duties increase in Spain, 2000 (PwC) Estudio del sector cervicero, 2006 (PwC) ABFI considered view The right tax, 2008 (E&Y) SFF own judgment Modelling the UK Beer Market, 2004 (OEF)
Cider	DE: na  IE: 1+VAT+seller margin FI: 1.2 UK: 2.8 (on-), 1.8 (off-)	AICV  ABFI AICV AICV	“No duty on fruit wines, ciders or honey wine. Fortified [versions] are not produced, but production is possible.” ABFI considered view SFF own judgment NACM members, 2007 (includes VAT)
Wine	DE: na  DK:1.09 (=50/46) IE: 1+VAT+seller margin FI: 1.2	AICV  BoE ABFI AICV	“No duty on fruit wines, ciders or honey wine. Fortified [versions] are not produced, but production is possible.” Vi kan leve laengeere og sundere, 2009 (Fbk) ABFI considered view SFF own judgment
Ethyl Alcohol	DK:1.19 (=5/4.2) IE: 1+VAT+seller margin FI: 1.2	BoE ABFI AICV	Vi kan leve laengeere og sundere, 2009 (Fbk) ABFI considered view SFF own judgment
Other	UK: 0.9-1	CEEV	WSTA own judgment
General	EU27: debatably <sup>76</sup> 1 (on-), 0 (off-trade)	RAND	The affordability of alcoholic beverages in the European Union, 2009 (RAND)

<sup>75</sup> Rand Europe (2009) “The affordability of alcoholic beverages in the European Union” commissioned by DG Sanco, [http://ec.europa.eu/health/ph\\_determinants/life\\_style/alcohol/documents/alcohol\\_rand\\_en.pdf](http://ec.europa.eu/health/ph_determinants/life_style/alcohol/documents/alcohol_rand_en.pdf).

<sup>76</sup> DG Sanco / Rand Europe (2009) “The affordability of alcoholic beverages in the European Union” [http://ec.europa.eu/health/ph\\_determinants/life\\_style/alcohol/documents/alcohol\\_rand\\_en.pdf](http://ec.europa.eu/health/ph_determinants/life_style/alcohol/documents/alcohol_rand_en.pdf).

*Price sensitivity*

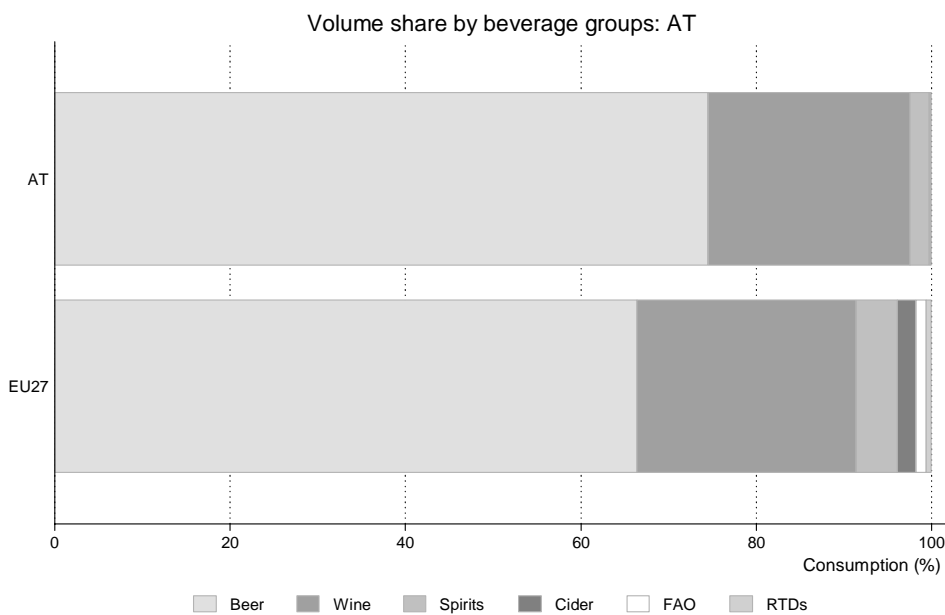
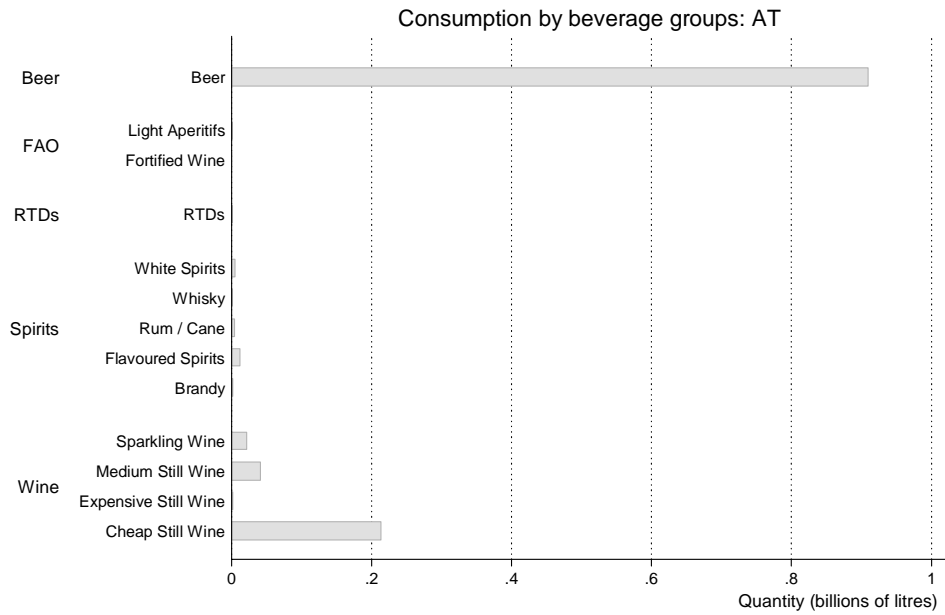
Table 32: Own price elasticity of demand			
Product	Extent	Source	Data source
Beer	DE: -3 (on- and off-trade) DK: -0.2 ES: -0.54 ES: 0 (inelastic) IE: -1.31 (on- and off-trade) NL: -0.3 (on- and off-trade) UK: -1.5 (on-) -1.1 (off-trade)	PBD BoE BoE BoE ABFI BoE BoE	Own consideration Vi kan leve laengeere og sundere, 2009 (Fbk) Impact of duties increase in Spain, 2000 (PwC) Estudio del sector cervecero, 2006 (PwC) Commissioned research (DKM 2009) Increasing the excise duty on beer, 2008 (E&Y) Modelling the UK Beer Market, 2004 (OEF)
	UK: -1 to 0 (nearer 0 vs spirits) Global: -0.46 Global: -0.36	RAND RAND RAND	Meier et al (2008) Wagenaar et al (2008) Gallet (2007)
Cider	DE: -2 (other fermented beverages) IE: -0.71 (on- and off-trade) UK: -2 (on-), -1.5 (off-trade)	AICV ABFI AICV	Own experience (examples cited) Commissioned research (DKM 2009) NACM planning model 2007
Wine	DK: -0.25 IE: -1.92 (on- and off-trade)	BoE ABFI	Vi kan leve laengeere og sundere, 2009 (Fbk) Commissioned research (DKM 2009)
	UK: -1 to 0 (nearer 0 vs spirits)  Global: -0.69 Global: -0.70	RAND  RAND RAND	Meier et al (2008) <input type="checkbox"/> Wagenaar et al (2008) Gallet (2007)
Ethyl Alcohol	DK: -0.3 IE: -1.63 (on- and off-trade) NL: -1.5 (on- and off-trade)	BoE ABFI CEPS	Vi kan leve laengeere og sundere, 2009 (Fbk) Commissioned research (DKM 2009) Alcohol en accijns, 2007 (EIM)
	UK: -1 to 0 (nearer -1 vs rest) Global: -0.8 Global: -0.68	RAND RAND RAND	Meier et al (2008) Wagenaar et al (2008) Gallet (2007)
General	Income level influences the impact of a tax and high taxation is not particularly efficient, since hard drinkers are the least price sensitive.	BoE	Own consideration
General	Raising alcohol prices leads to consumers choosing cheaper drinks (through brands or venues), but that raising low-quality prices leads to lower alcohol sales (RAND quotes 4.2% lower, but does not describe the stimulus).	RAND	Gruenwald et al (2006)
General	Elasticities vary by country, as exemplified by the findings in the table for England and Wales. They found the following: Beer price elasticity vs Wine/Spirits same price elastic FR, SE less price elastic AU, CA, FI, NO, US, JP, NZ, UK	RAND	Selvanthanan & Selvanthanan (2005)
General	Income elasticity similar across Europe, but price elasticity varied according to whether country was wine-producing southern, Scandinavian with alcohol monopoly, or other.	RAND	Leppanen et al (2001)

## Other comments

Table 33: Other comments		
Body	Info	
BoE (Beer)	EU27	<p>The Brewers of Europe would like to take the opportunity of answering to the questionnaire to make additional comments, which might be taken into account by London Economics and the European Commission in the analysis of scenarios and items contained in the directives.</p> <p><b>Article 25, Directive 92/83 EEC - Beer unfit for human consumption</b>            Art. 25 of the EU Structures Directive contains the possibility for Member States to refund excise duty on alcoholic drinks withdrawn from the market because their condition or age renders them unfit for human consumption.</p> <p>The Brewers of Europe believes that Article 25 should be made a mandatory provision (by changing "may" to "shall") and should be extended to include other circumstances in which alcoholic beverages are returned (or destroyed), e.g. beer returned due to incorrect packaging. Excise is intended to be a tax on consumption of alcoholic products. Since these products have not been consumed that should not be subjected to taxation.</p>
AICV (Cider)	ES FI UK	<p>No answer provided</p> <p>No answer provided</p> <p>Cider and perry are 6% of UK alcohol consumption</p>
CEPS (Spirits)	EU27	<p>As we said above, most of the products that CEPS represents do not encounter classification problems. However, our operators need legal certainty when putting their products in the internal market. Whatever the options considered by the Commission be, CEPS would request to be consulted on any changes that may have a financial impact on the trade and/or the composition of member's products.</p> <p>It is obviously important to take the ECJ Siebrand ruling (C-150/08, 7 May 2009) into consideration when assessing the market regarding these products. CEPS has launched an internal consultation in order to evaluate if this ruling has triggered changes on the classification in Member States and brought clarification.</p>
CEEV (Wine)	EU27	<p>"[A]nalysis of the opportunity of possible options for the adaptations in the excise duties system should respect the essential political orientation [in Council to the European Commission Conclusions of 26 November 2006], namely to assess the opportunity of eventual limited adaptations without any fundamental changes in the current EU legal framework on excise duties on alcohol beverages.</p> <p>"Whatever the technical solution could be, reviewing the excise structure in order to address the classification of so-called new products, which represent a marginal proportion of the alcoholic beverages traded in the EU, is not justified and may lead to discrimination and uncertainty between the different well established categories of alcoholic beverages."</p> <p>"[A] positive duty on wine would not contribute at all to solving the EU internal market problems, which are, if any, caused by the excessive tax levels on wines consumed in a [few] members states."</p>
PBD (Beer)	DE	Very important to retain reduced excise duty rates for the survival of small and independent breweries. Possibly need to extend the capacity allowed under such rules.
ABFI (All Alcohol)	No answer provided	
EFWSID (Wine, Spirits)	No answer provided	
FFVA (FAO)	No answer provided	

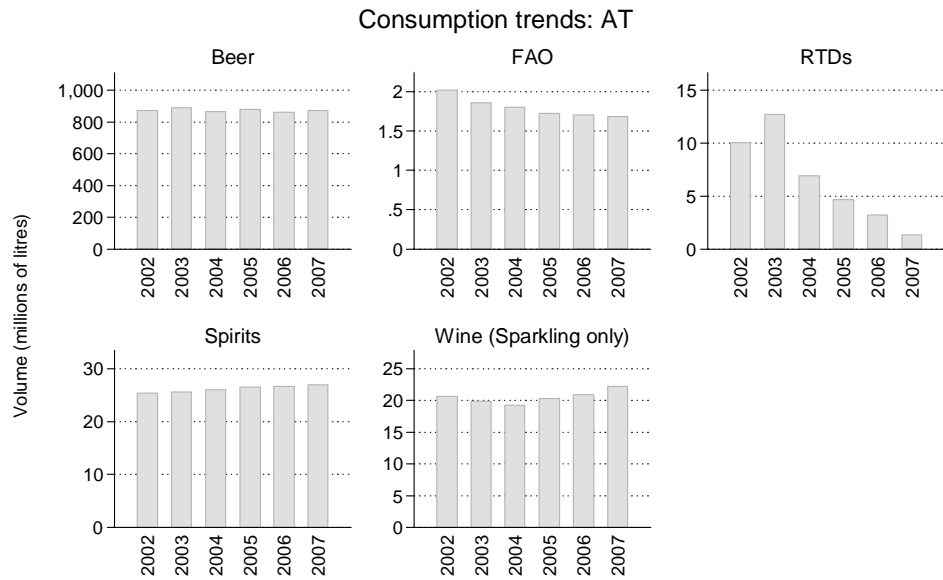
## Annex 5 Country reporting: AT

**Figure 1: Alcohol market (1)**

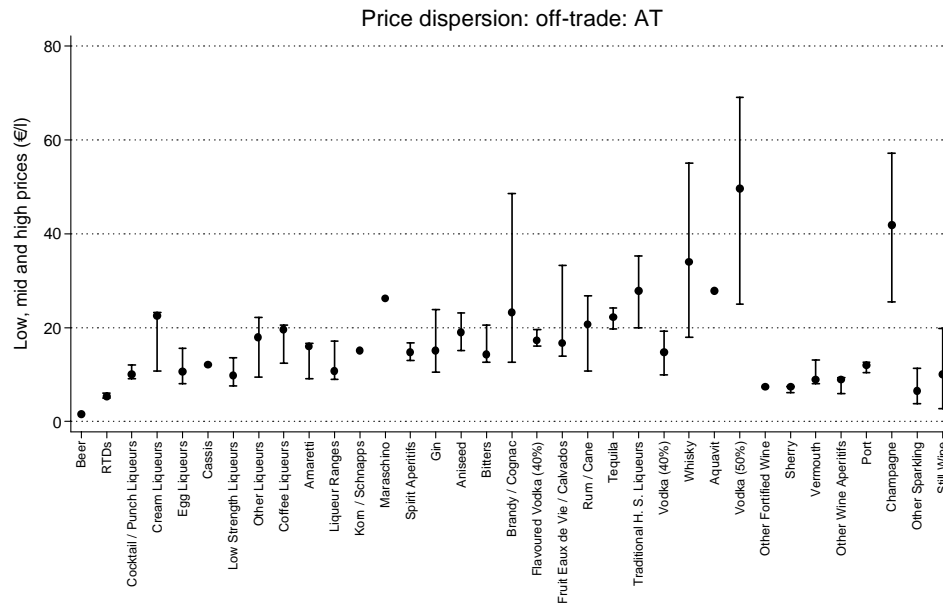


Source: LE analysis of data from this report.

Figure 2: Alcohol market (2)

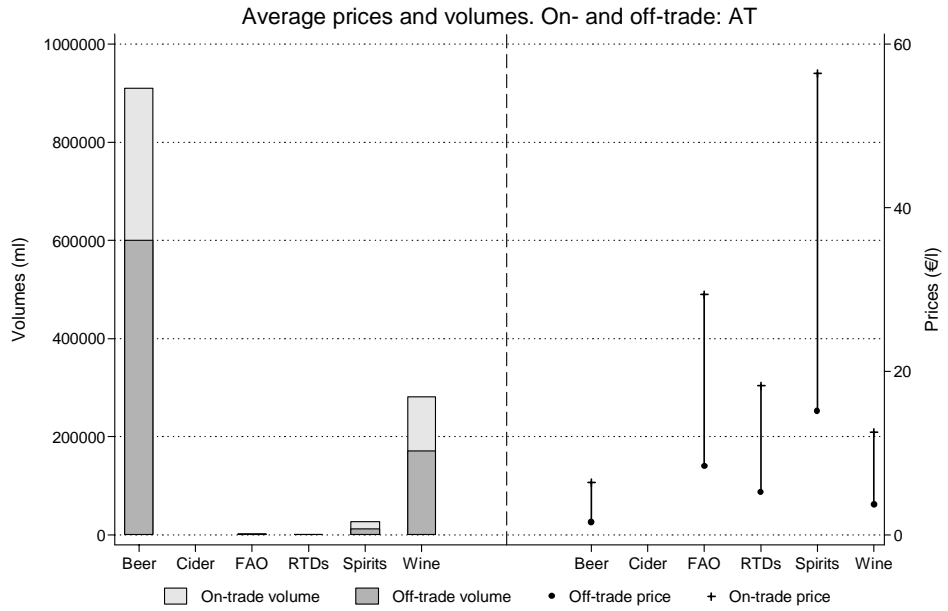


Graphs by categories

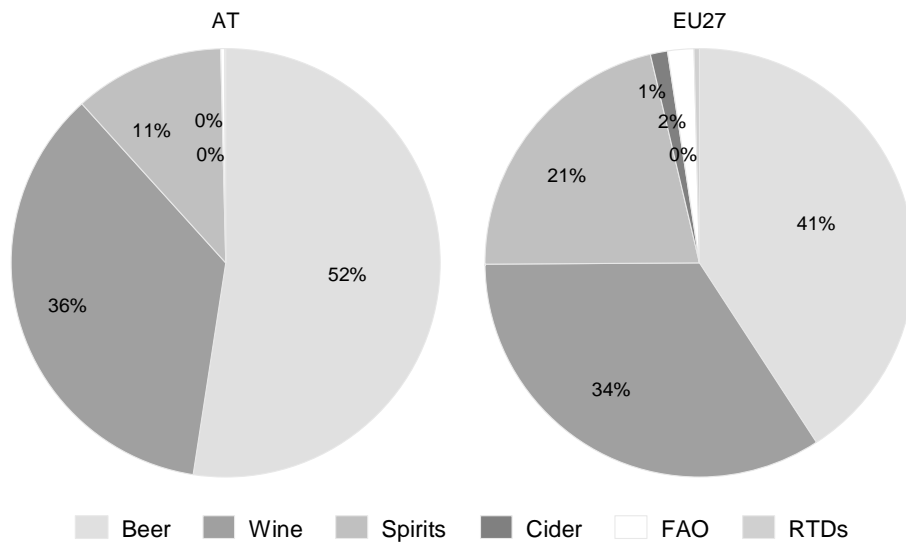


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



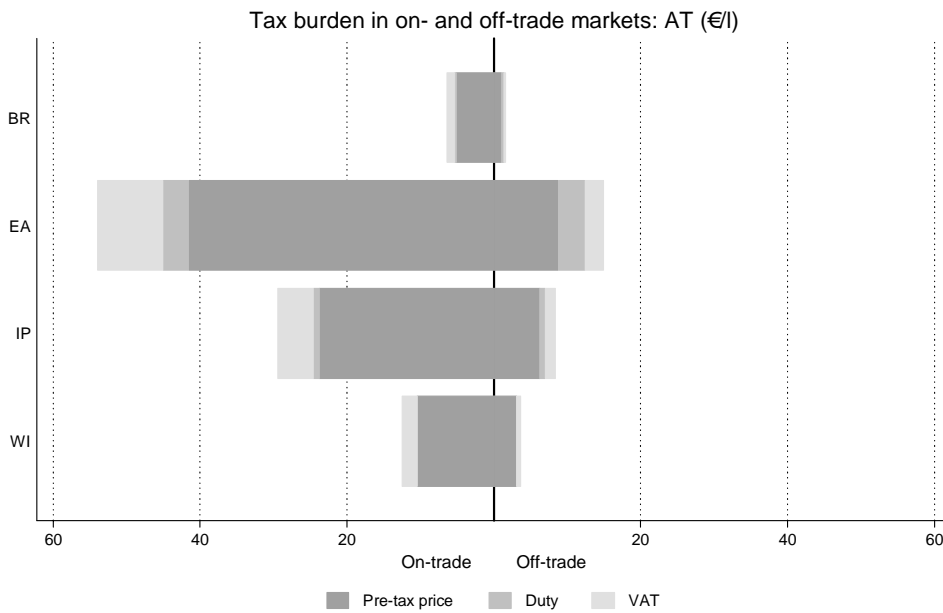
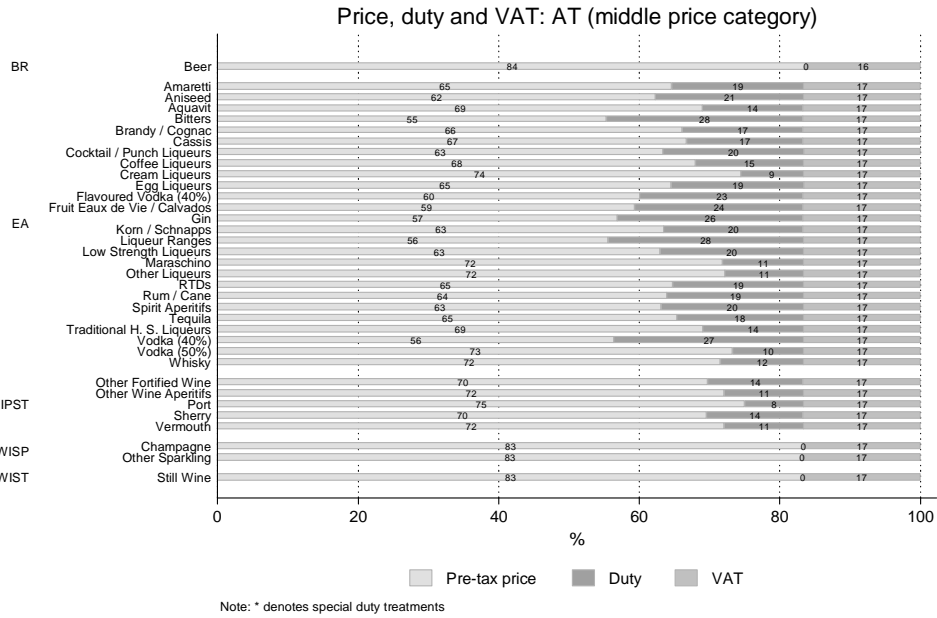
Consumption of pure alcohol by type of beverage: AT



Graphs by Member State

Source: LE analysis of data from this report.

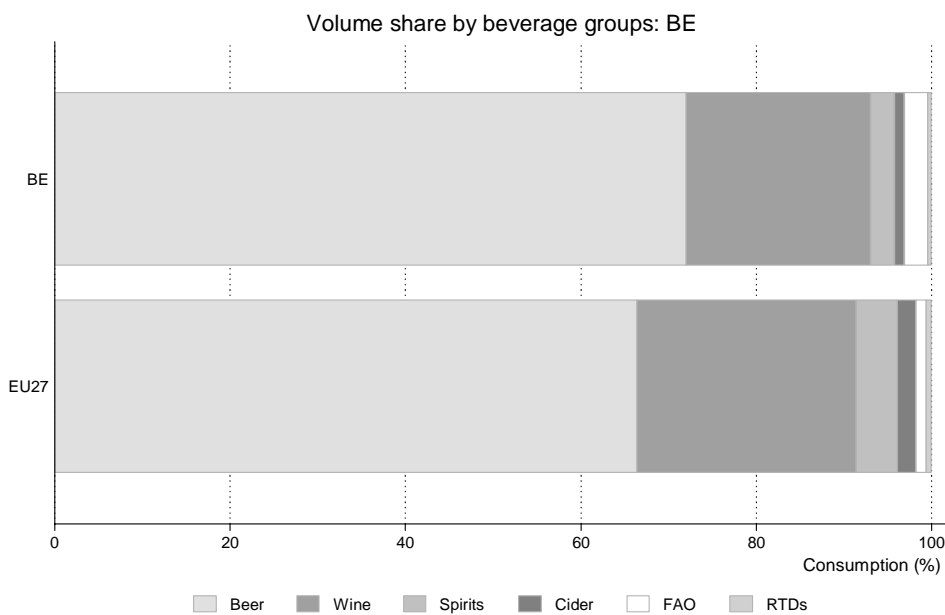
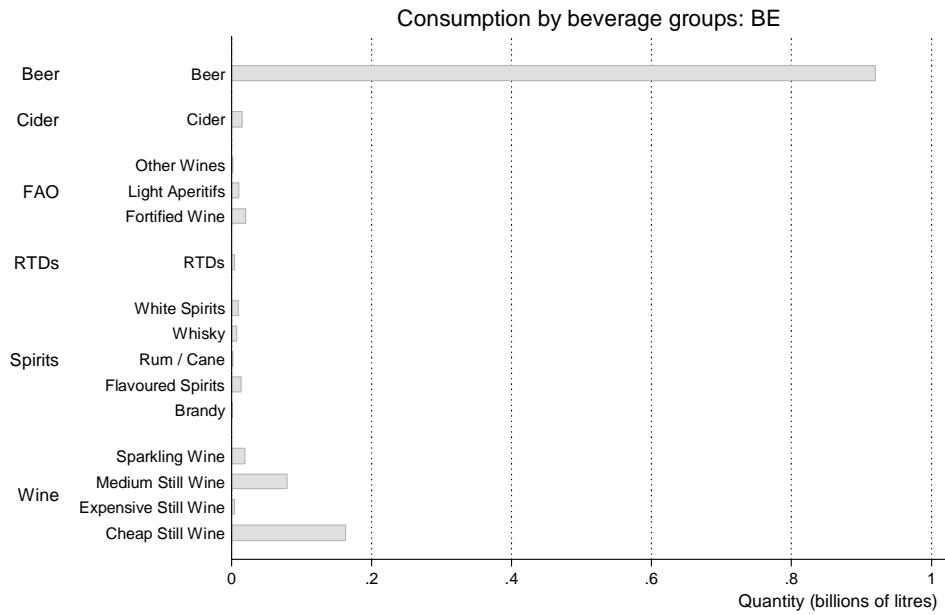
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

## Annex 6 Country reporting: BE

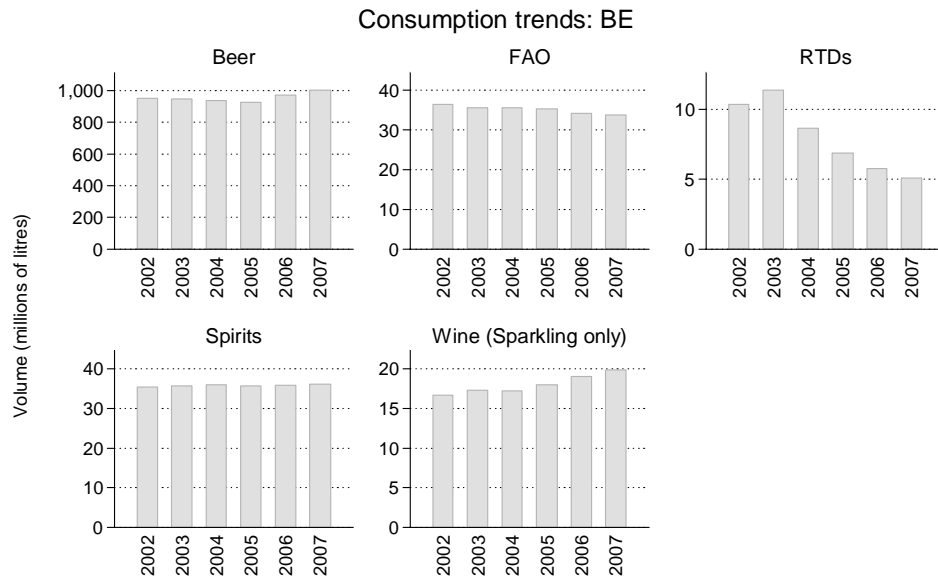
**Figure 1: Alcohol market (1)**



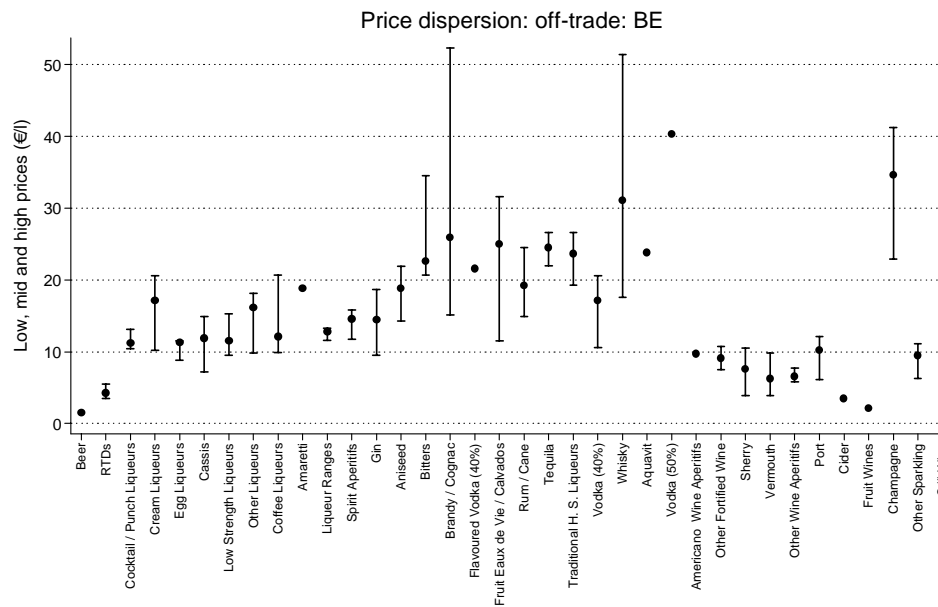
Source: LE analysis of data from this report.



Figure 2: Alcohol market (2)

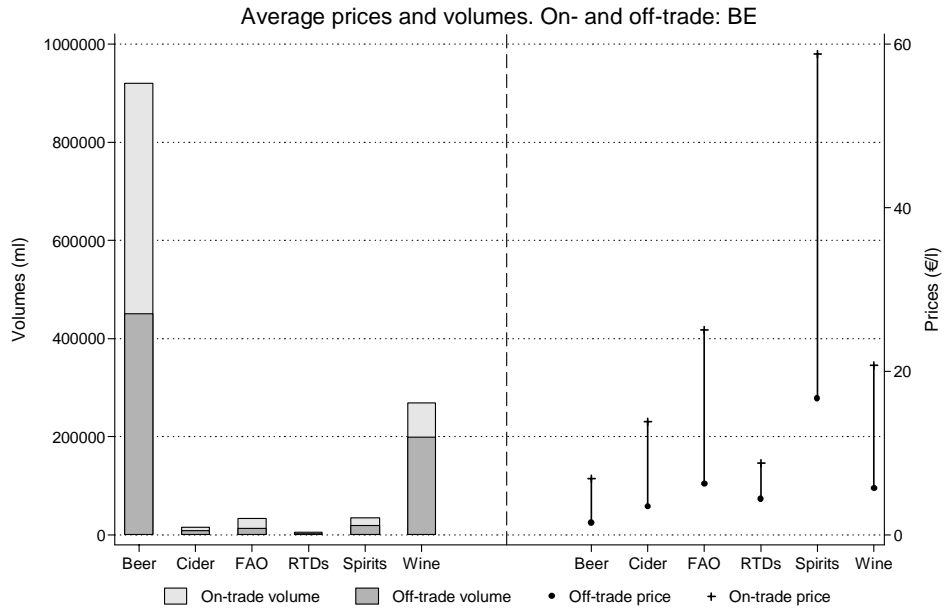


Graphs by categories

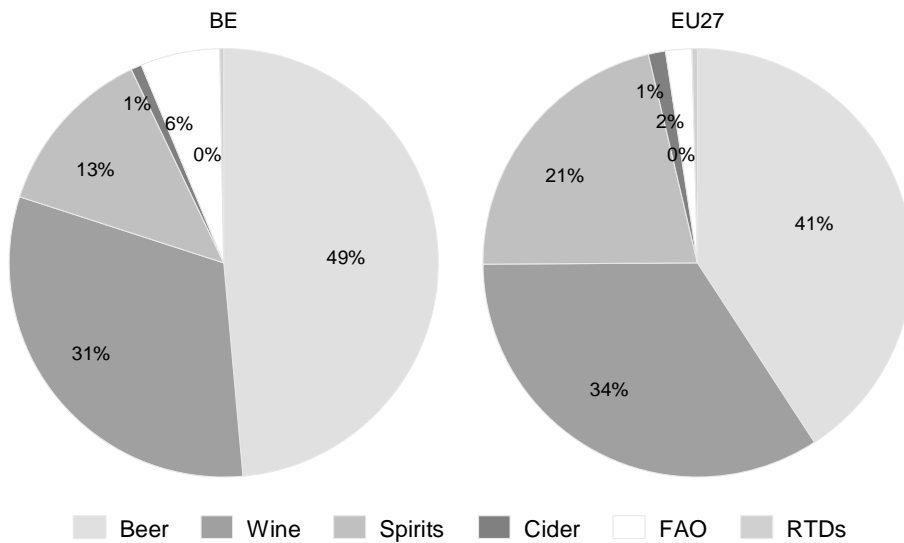


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



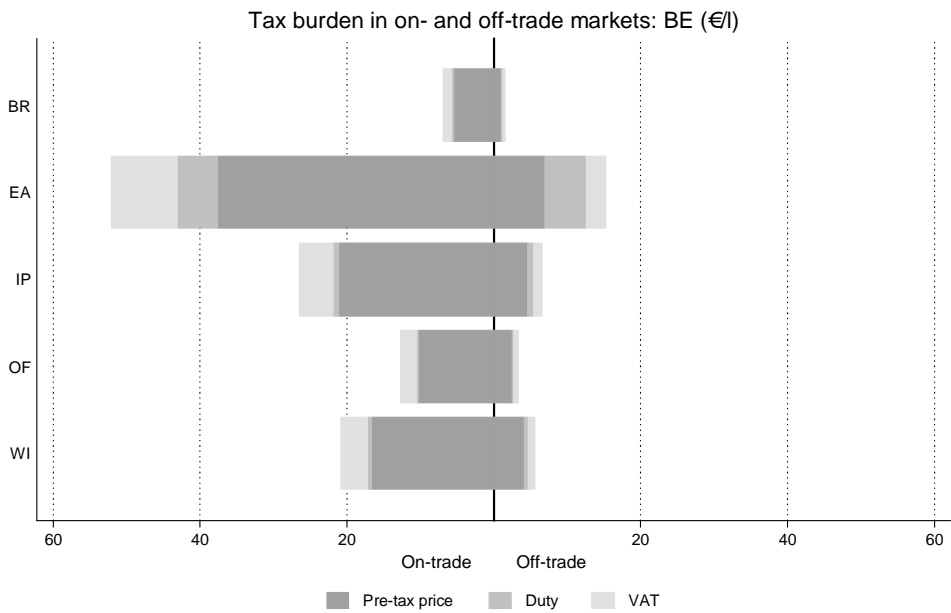
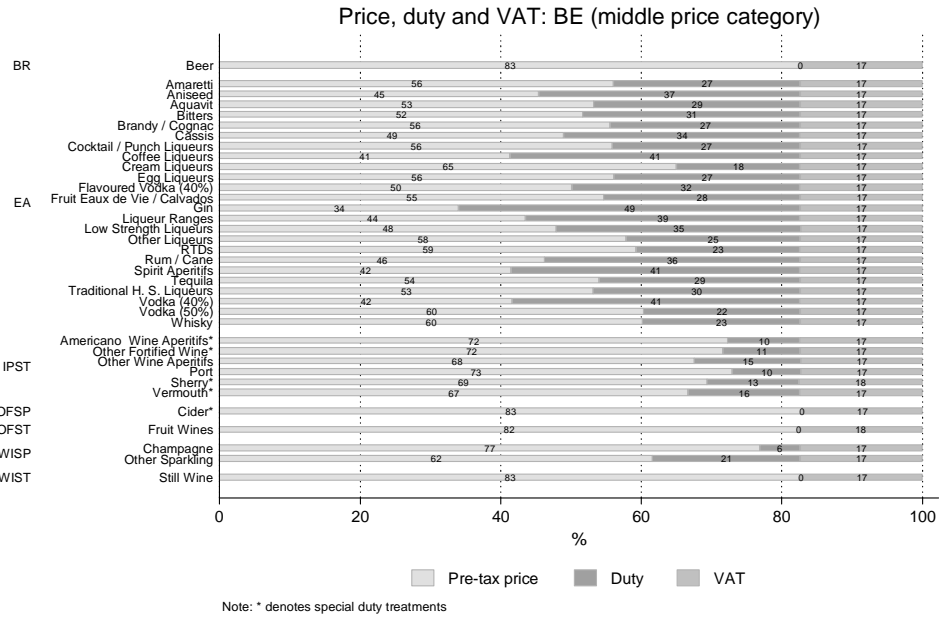
Consumption of pure alcohol by type of beverage: BE



Graphs by Member State

Source: LE analysis of data from this report.

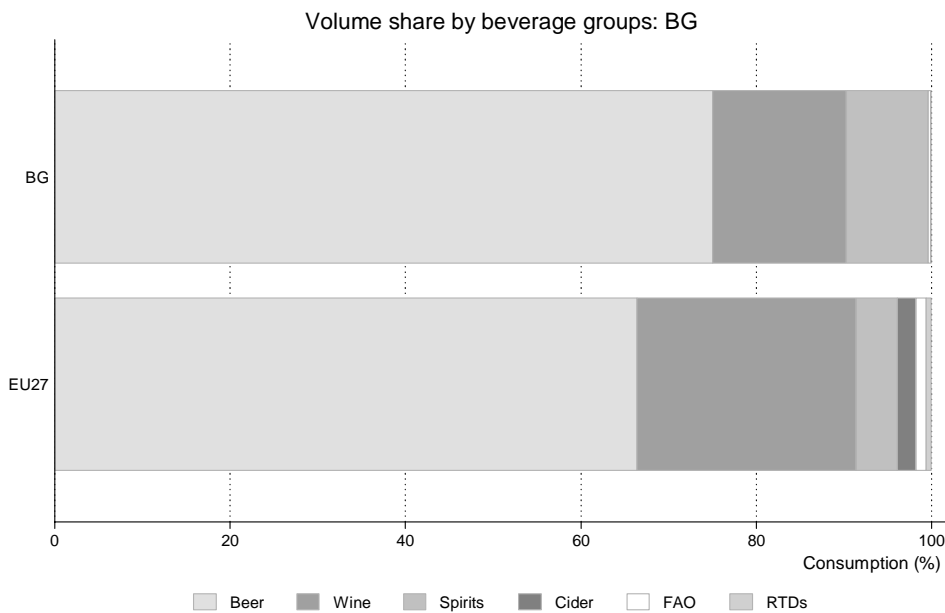
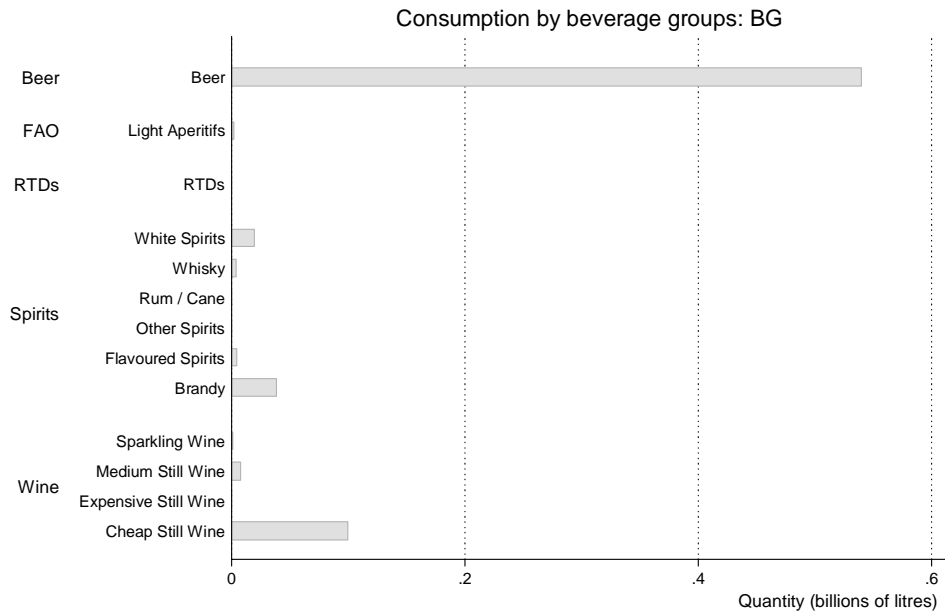
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

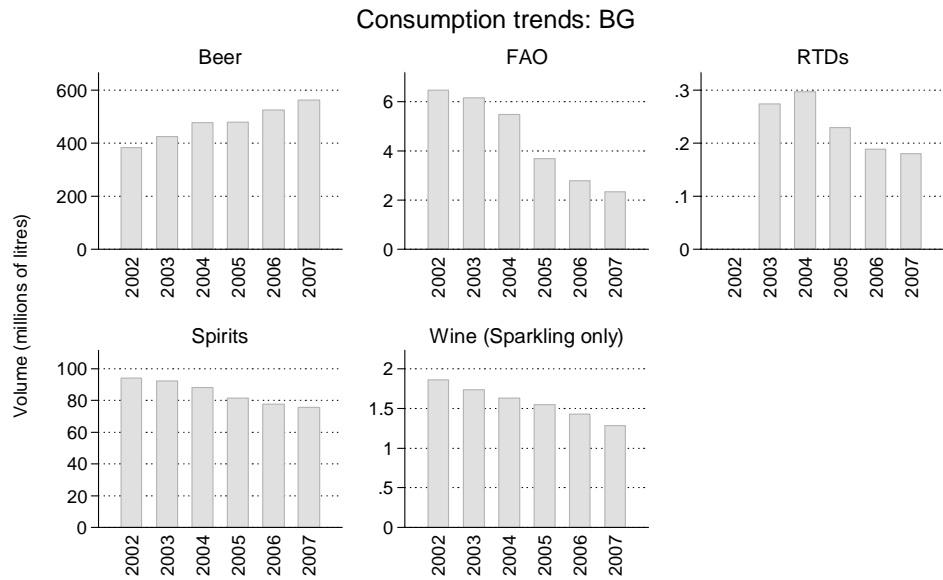
## Annex 7 Country reporting: BG

**Figure 1: Alcohol market (1)**

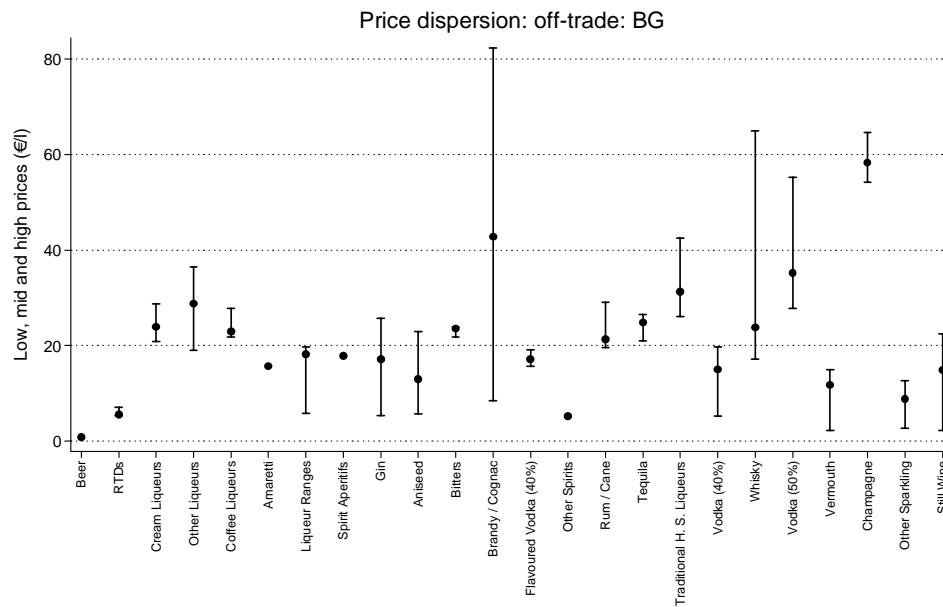


Source: LE analysis of data from this report.

Figure 2: Alcohol market (2)

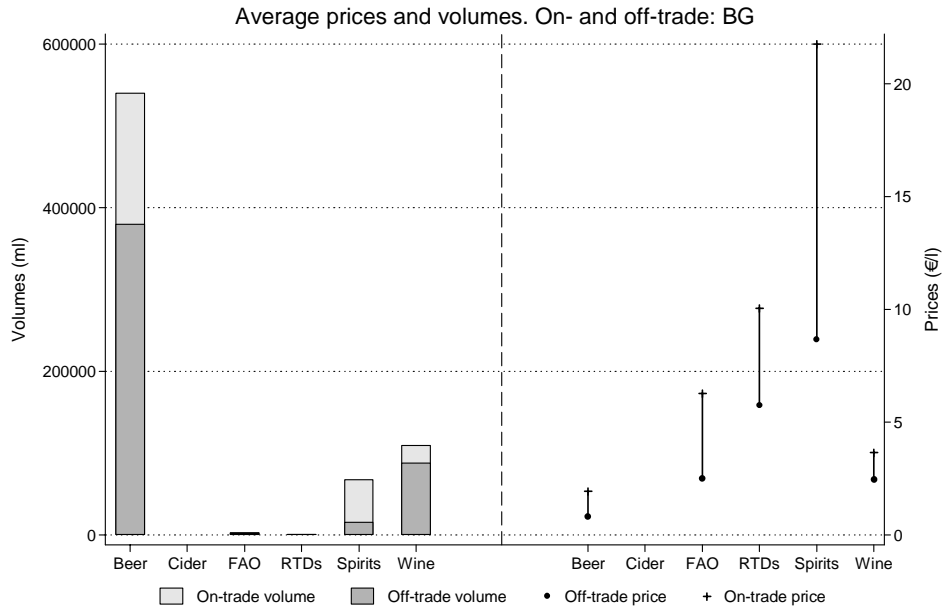


Graphs by categories

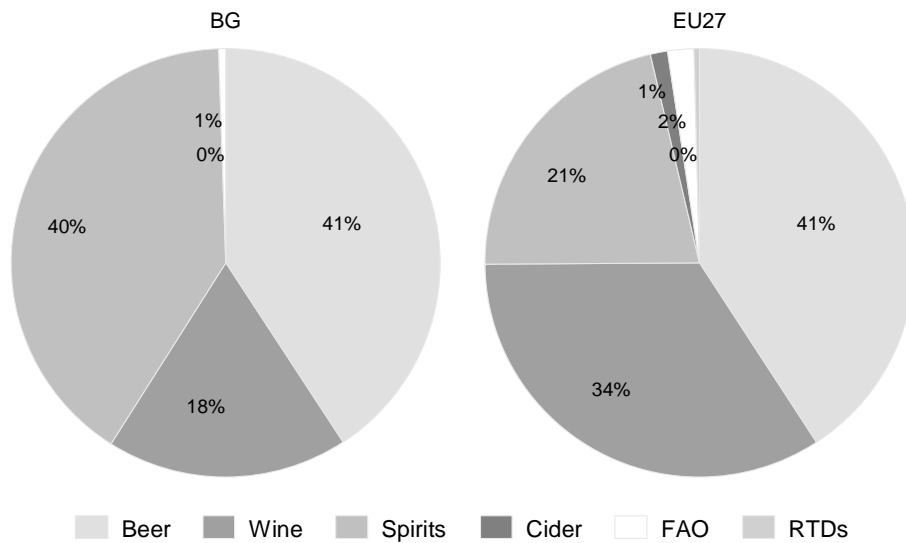


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



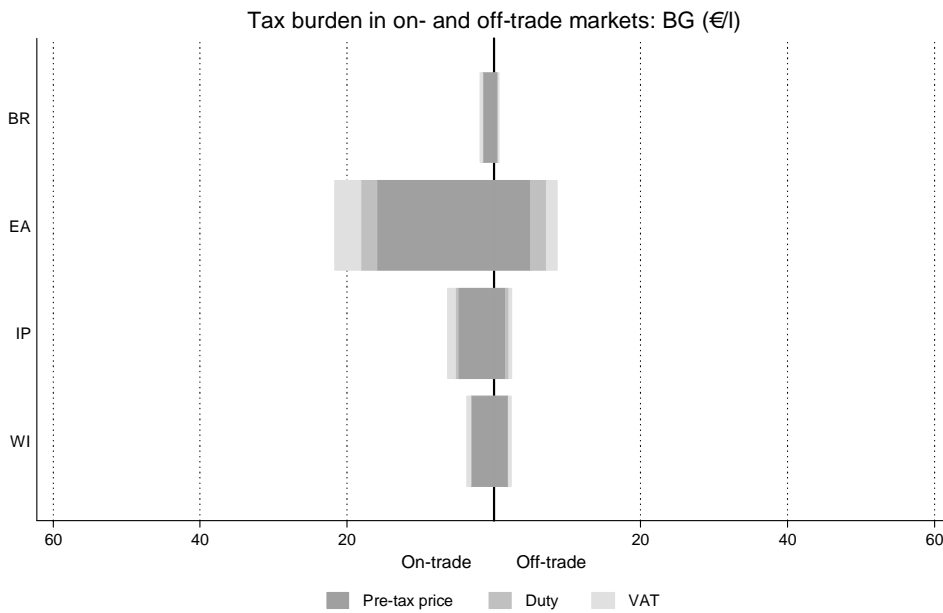
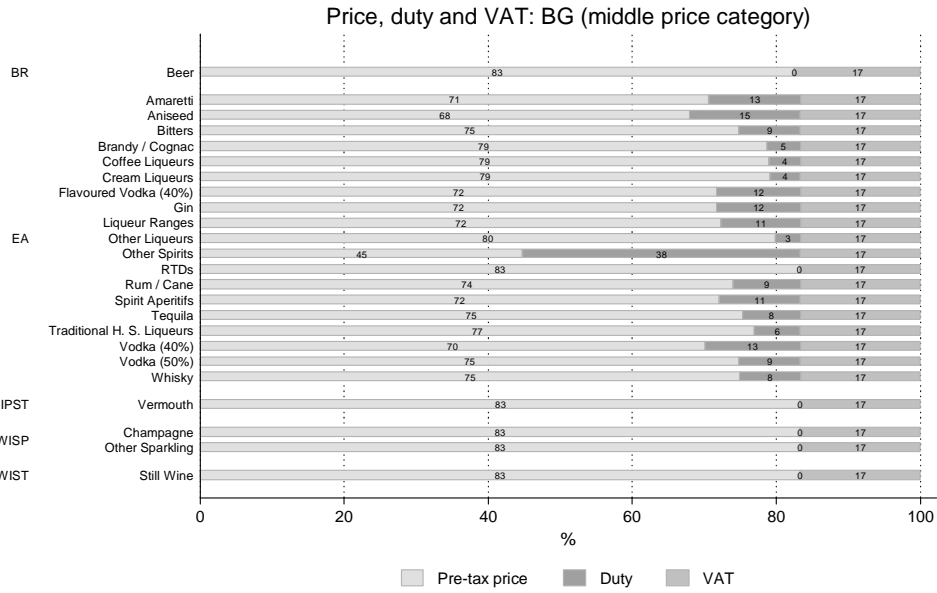
Consumption of pure alcohol by type of beverage: BG



Graphs by Member State

Source: LE analysis of data from this report.

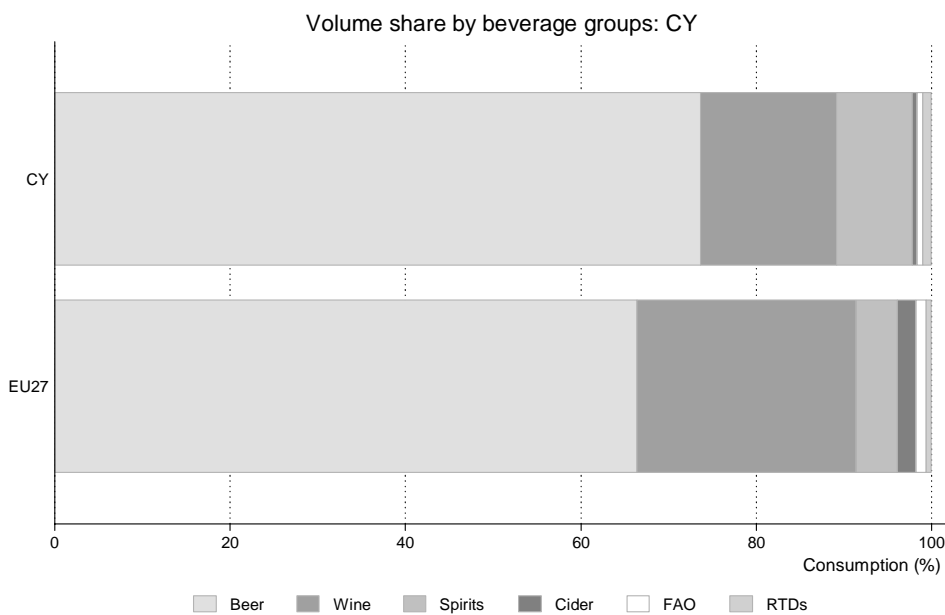
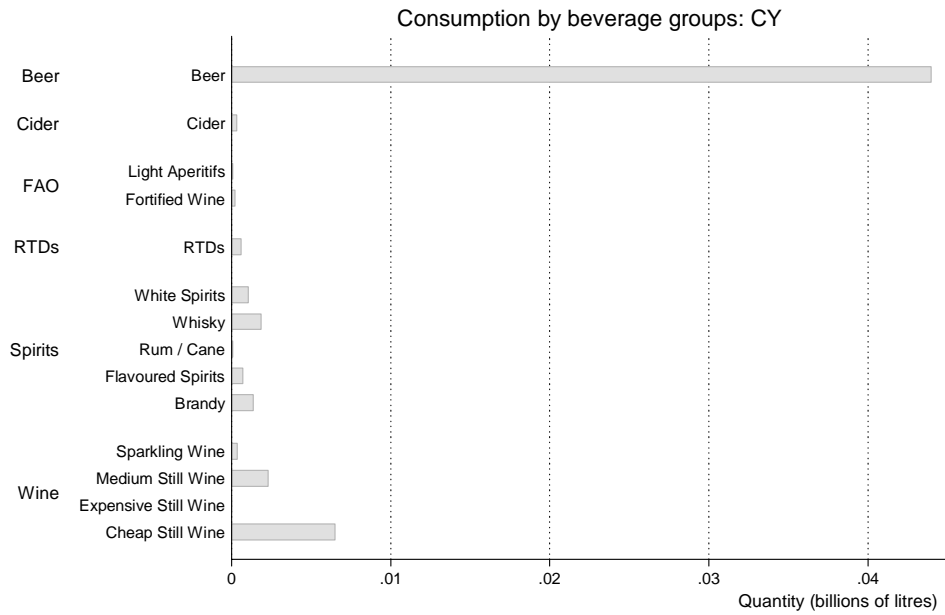
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

## Annex 8 Country reporting: CY

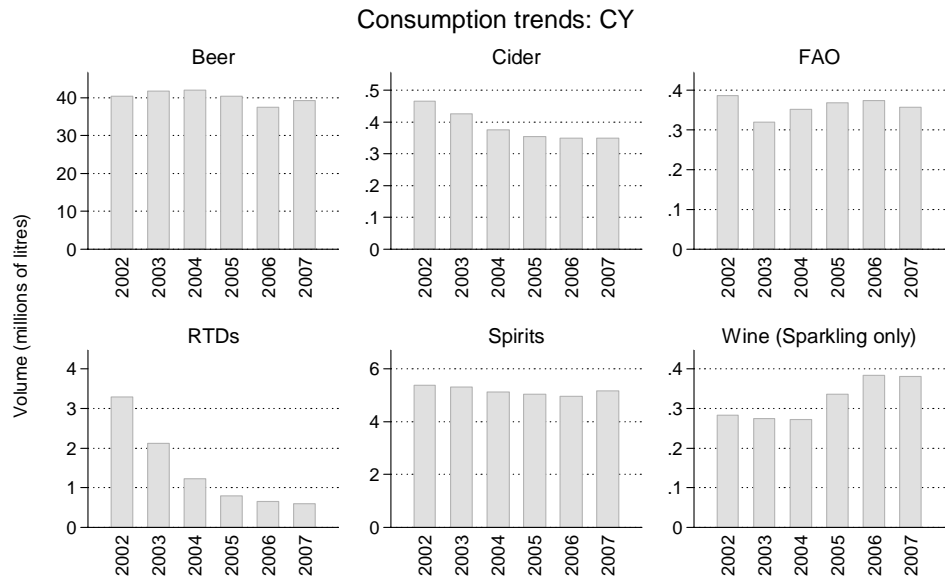
**Figure 1: Alcohol market (1)**



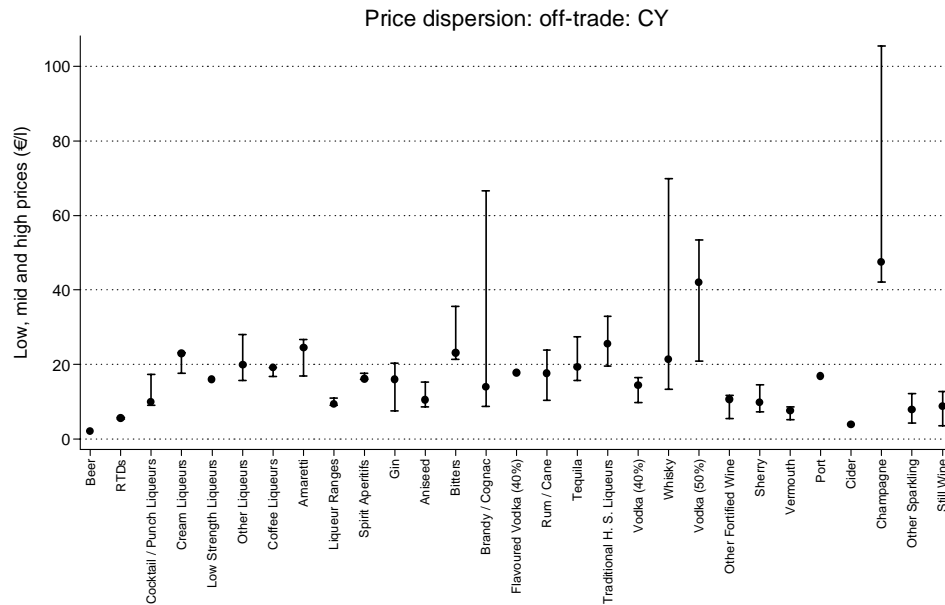
Source: LE analysis of data from this report.



Figure 2: Alcohol market (2)

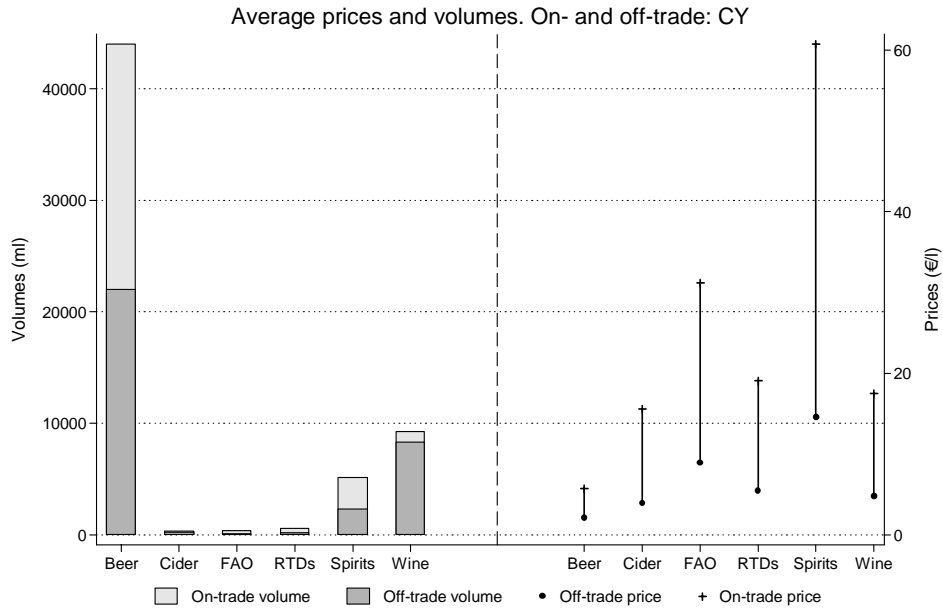


Graphs by categories

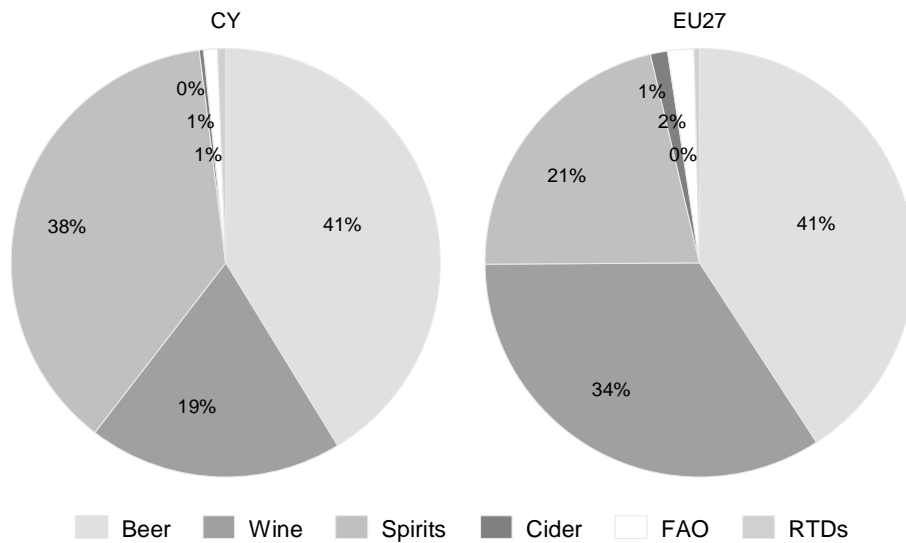


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



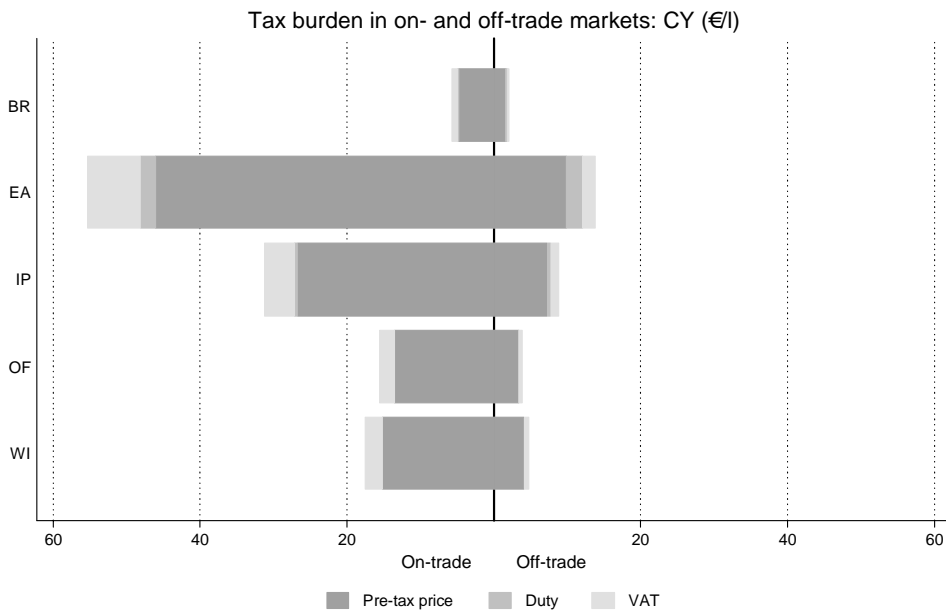
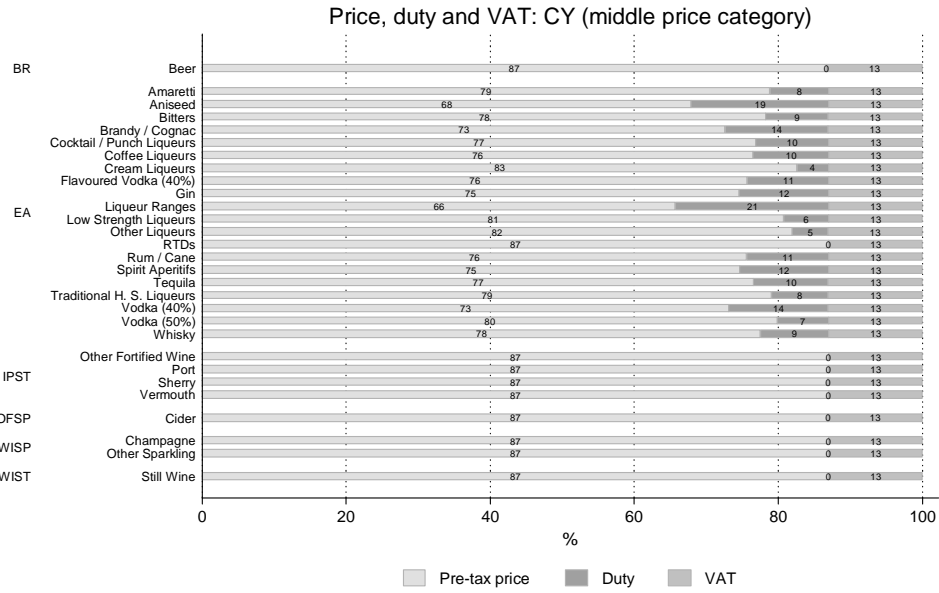
Consumption of pure alcohol by type of beverage: CY



Graphs by Member State

Source: LE analysis of data from this report.

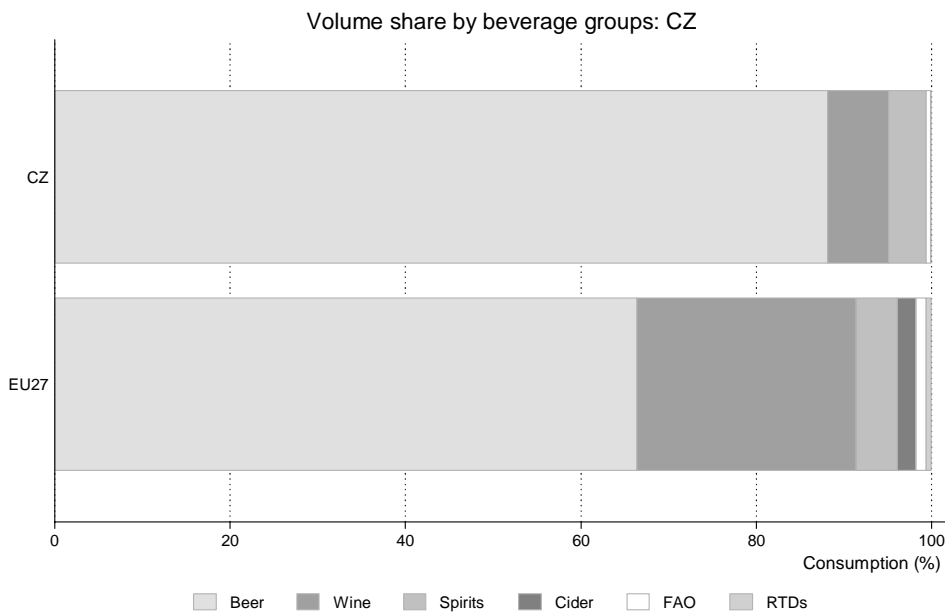
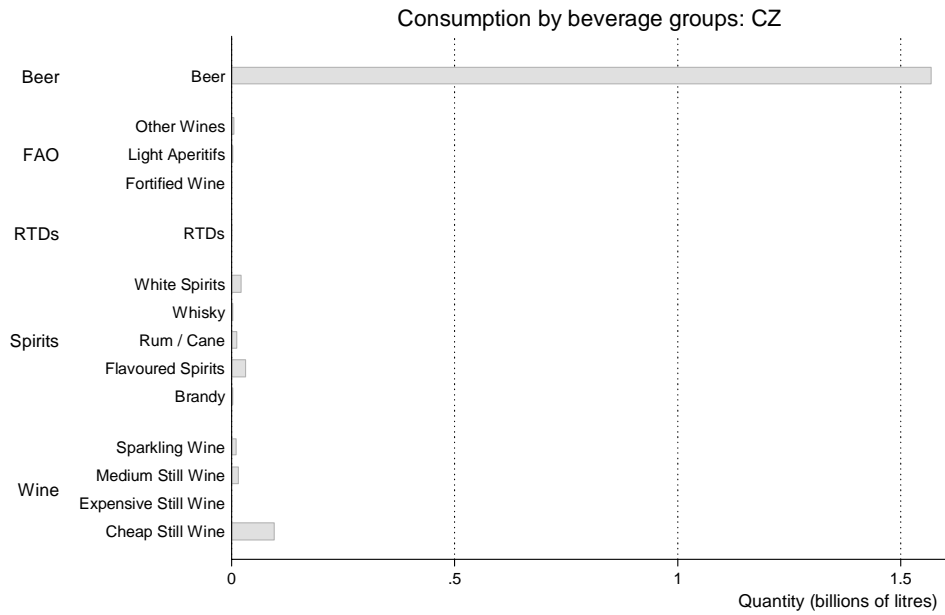
**Figure 4: Alcohol tax regime**



Source: LE analysis of data from this report.

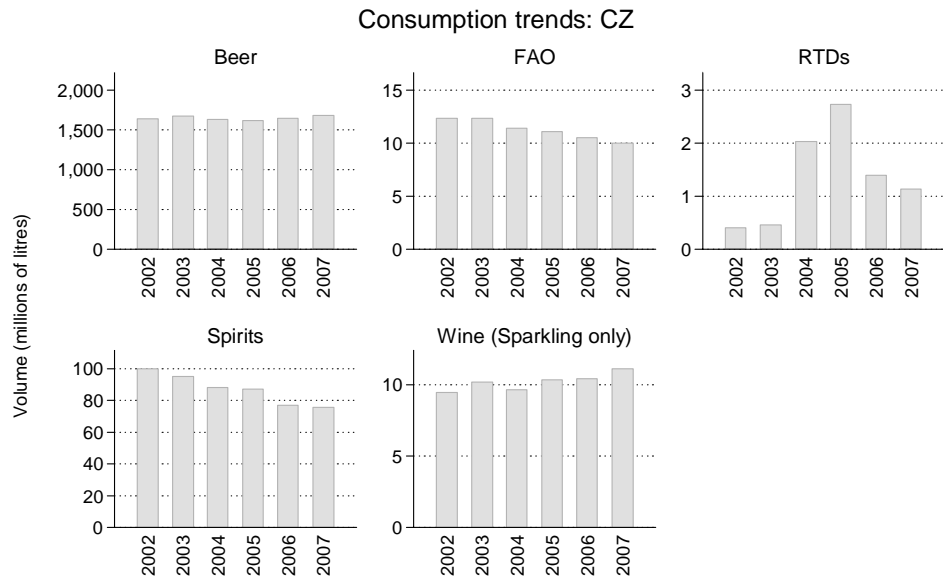
## Annex 9 Country reporting: CZ

**Figure 1: Alcohol market (1)**

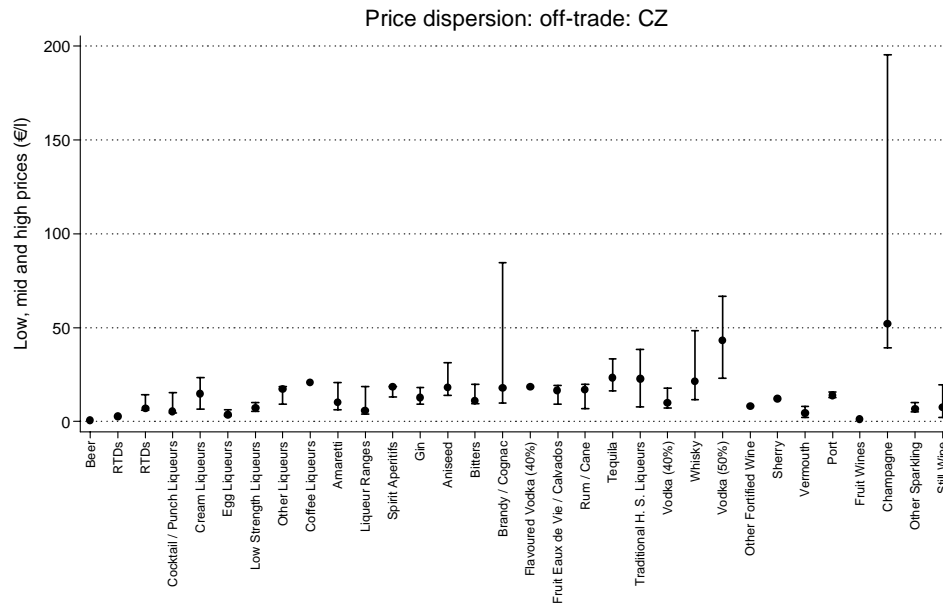


Source: LE analysis of data from this report.

Figure 2: Alcohol market (2)

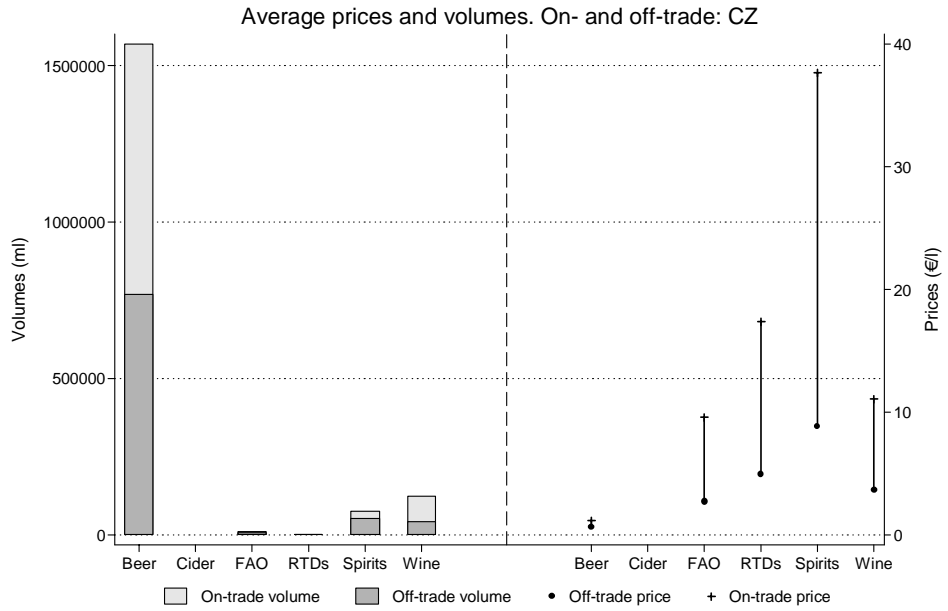


Graphs by categories

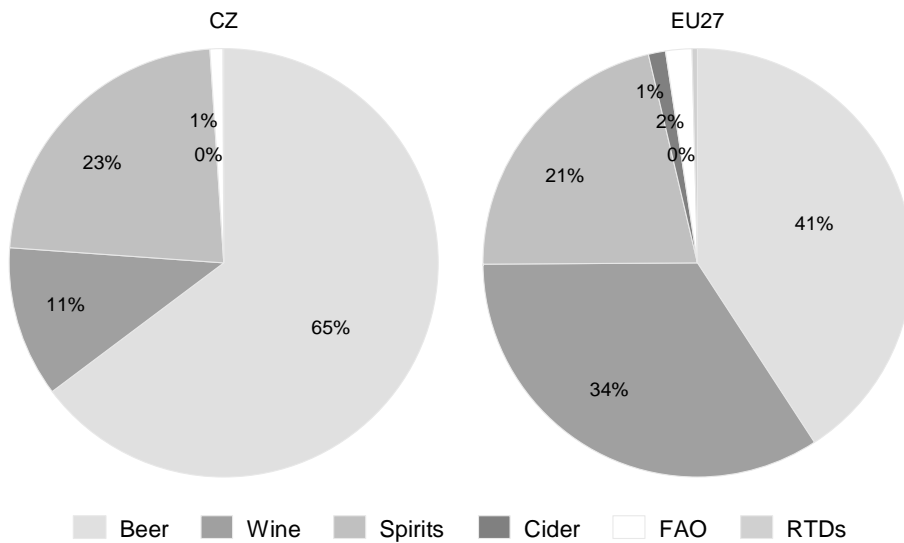


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



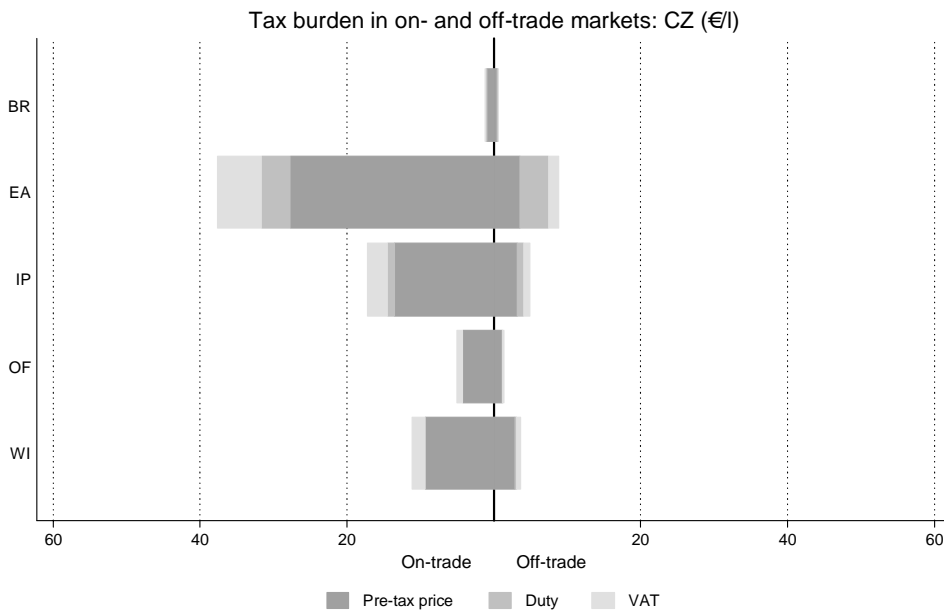
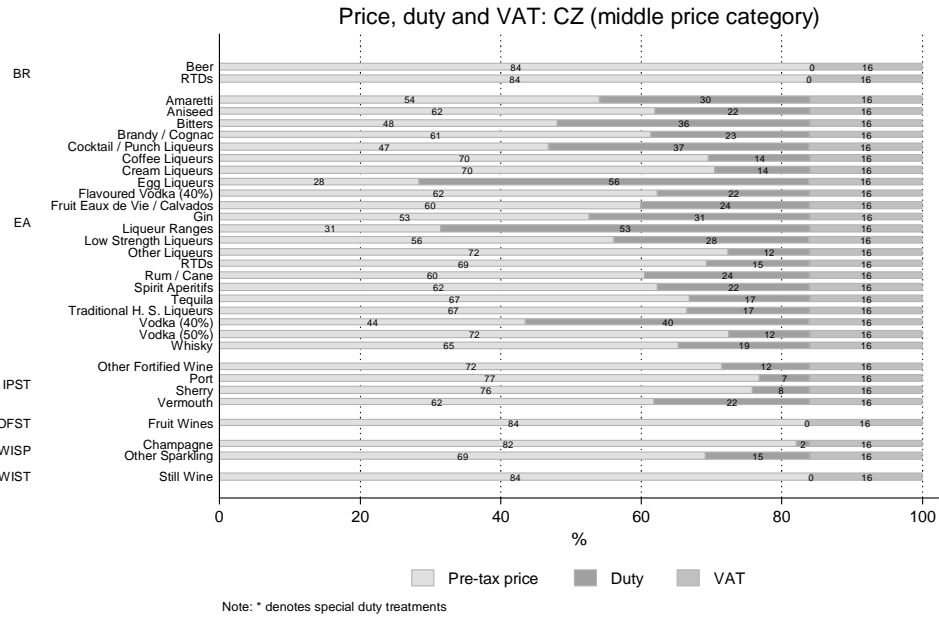
Consumption of pure alcohol by type of beverage: CZ



Graphs by Member State

Source: LE analysis of data from this report.

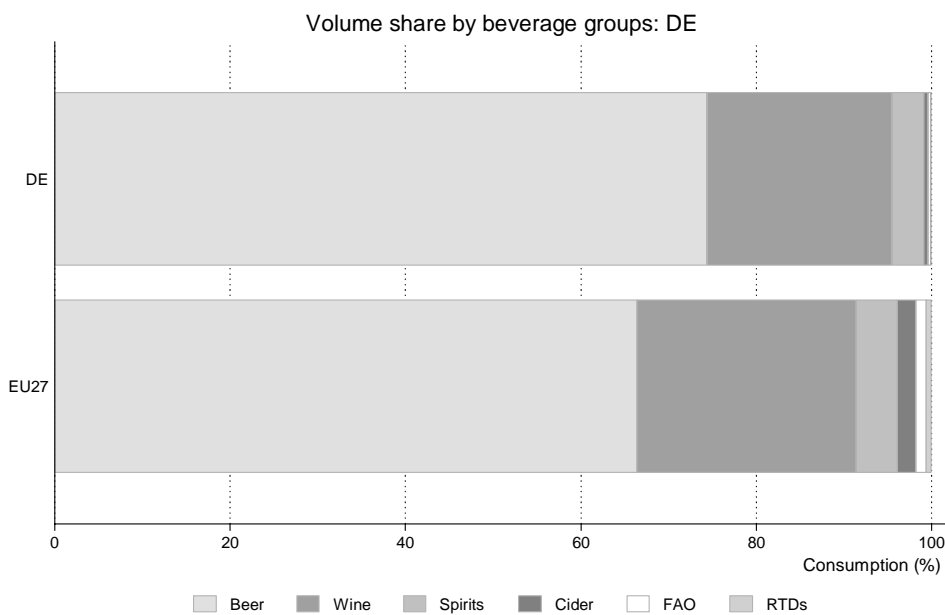
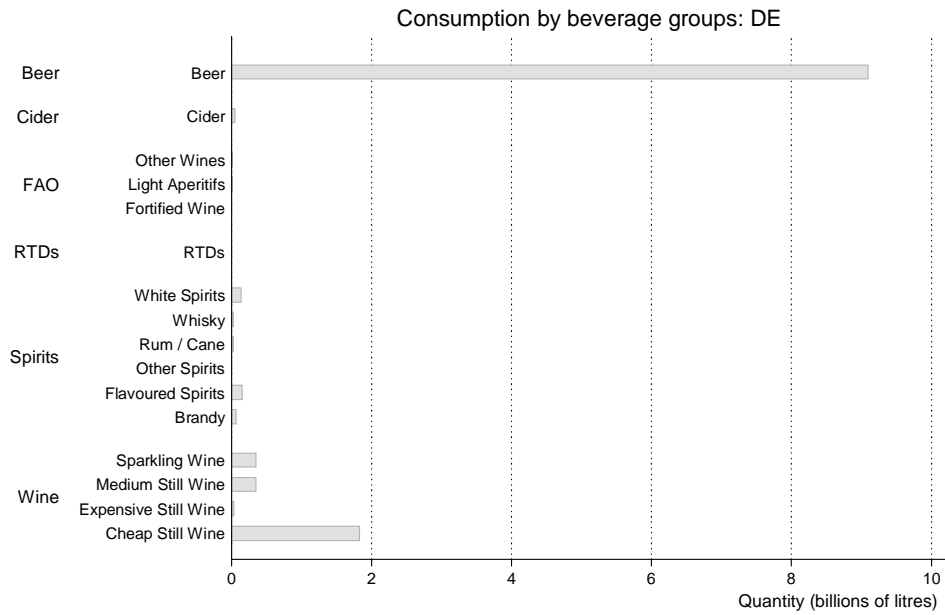
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

## Annex 10 Country reporting: DE

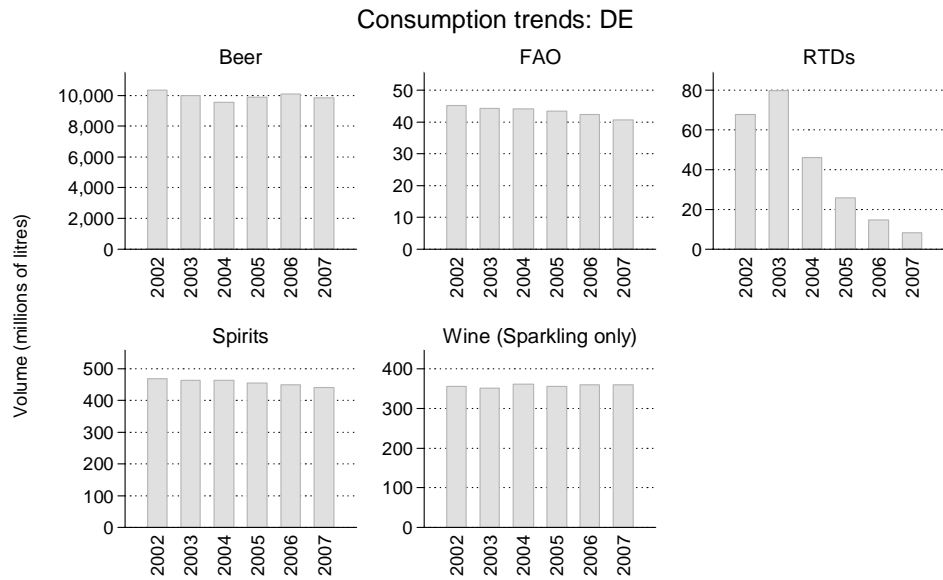
**Figure 1: Alcohol market (1)**



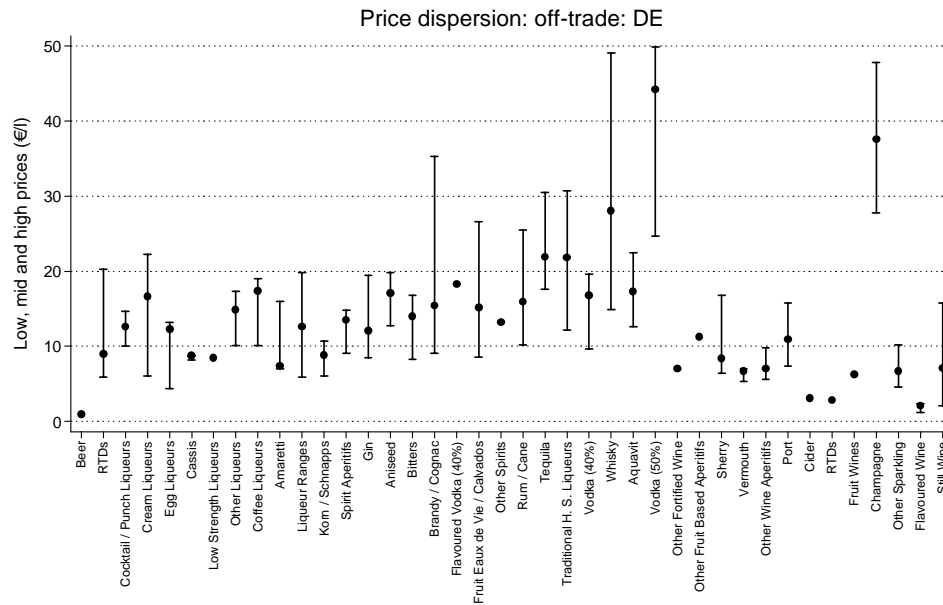
Source: LE analysis of data from this report.



Figure 2: Alcohol market (2)

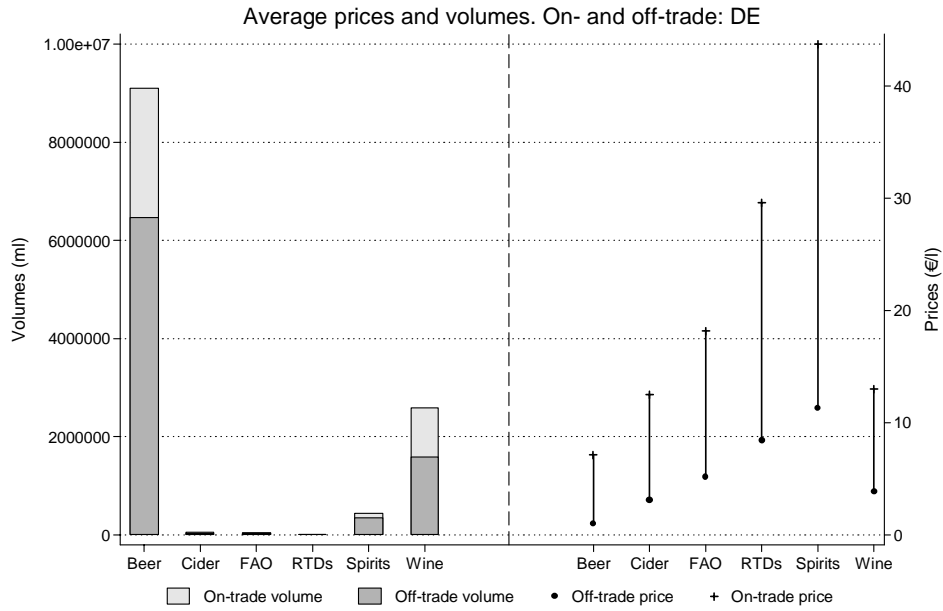


Graphs by categories

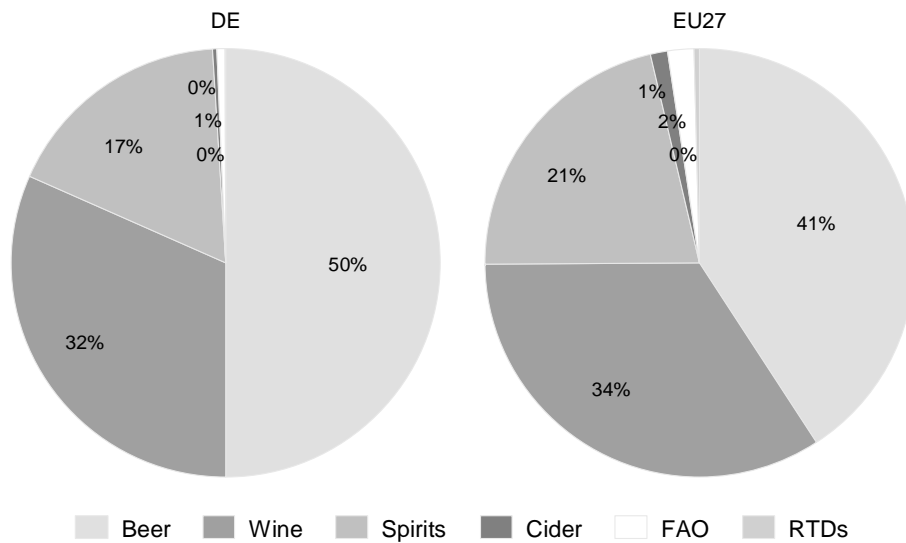


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



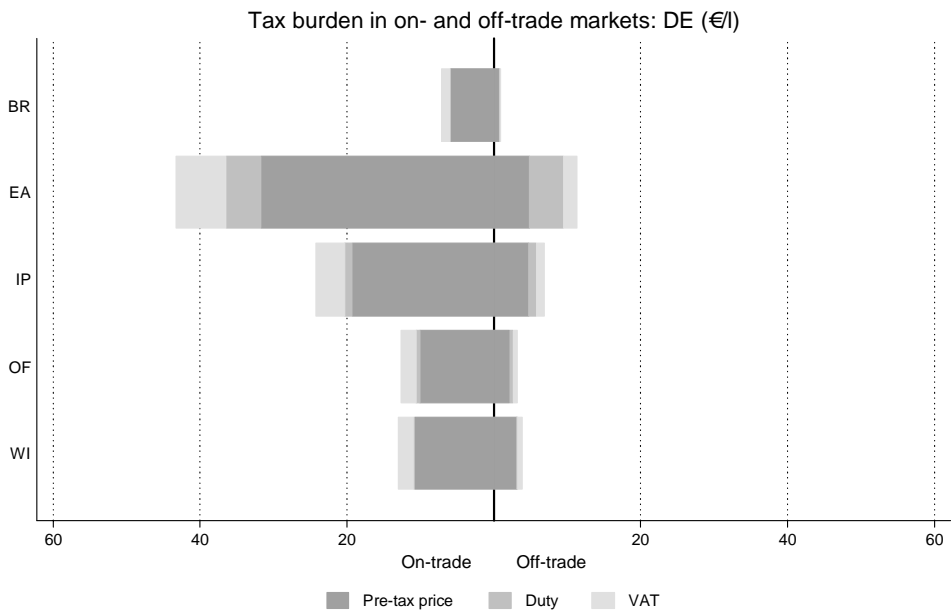
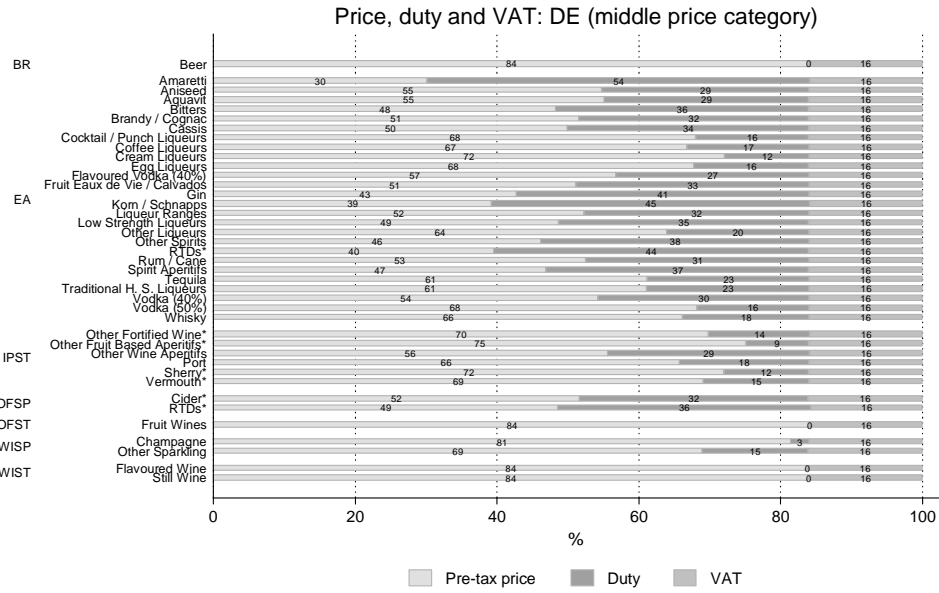
Consumption of pure alcohol by type of beverage: DE



Graphs by Member State

Source: LE analysis of data from this report.

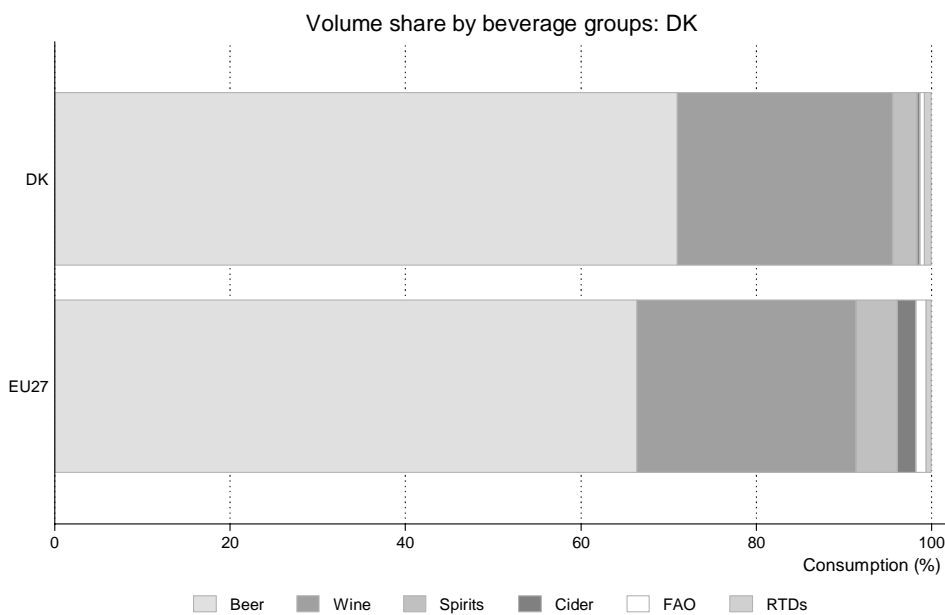
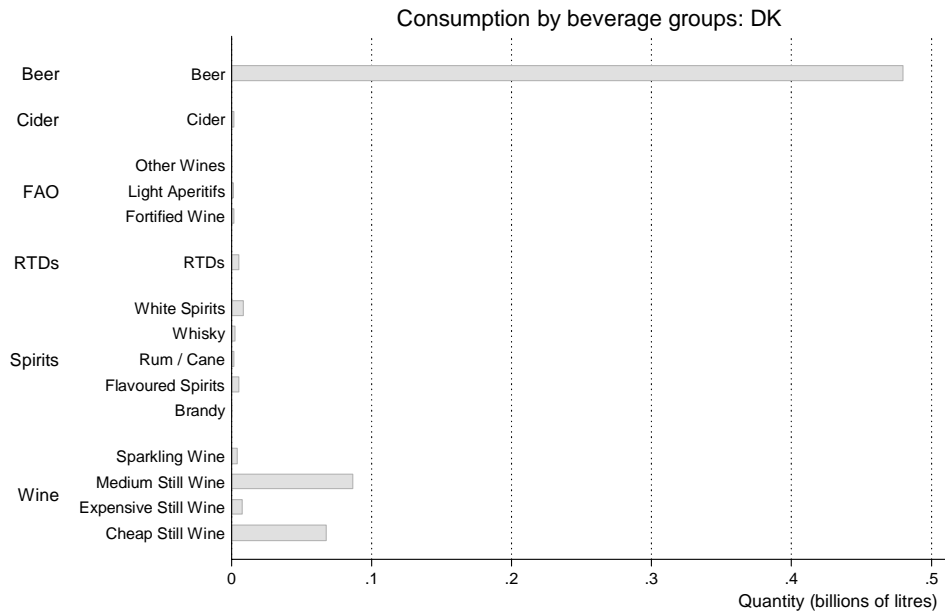
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

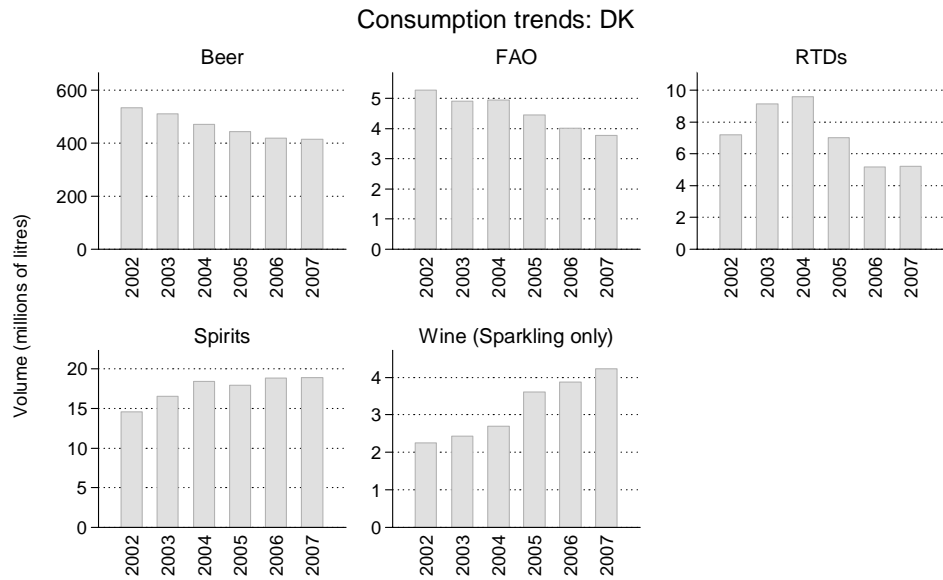
## Annex 11 Country reporting: DK

**Figure 1: Alcohol market (1)**

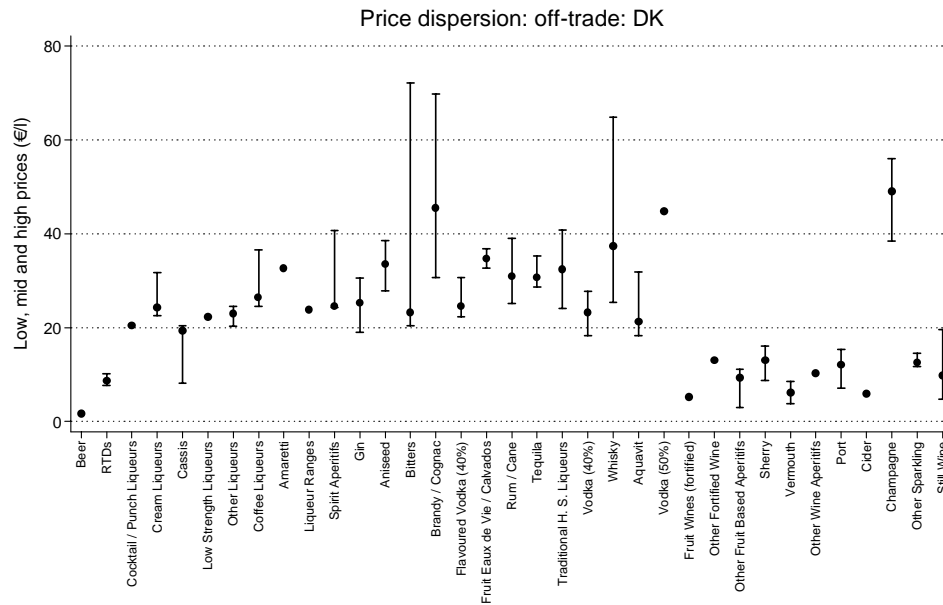


Source: LE analysis of data from this report.

Figure 2: Alcohol market (2)

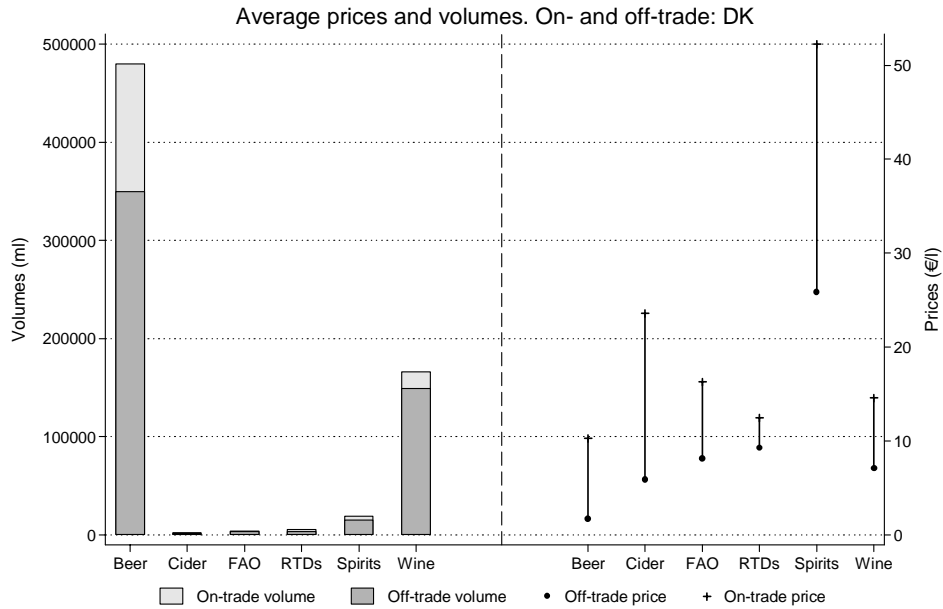


Graphs by categories

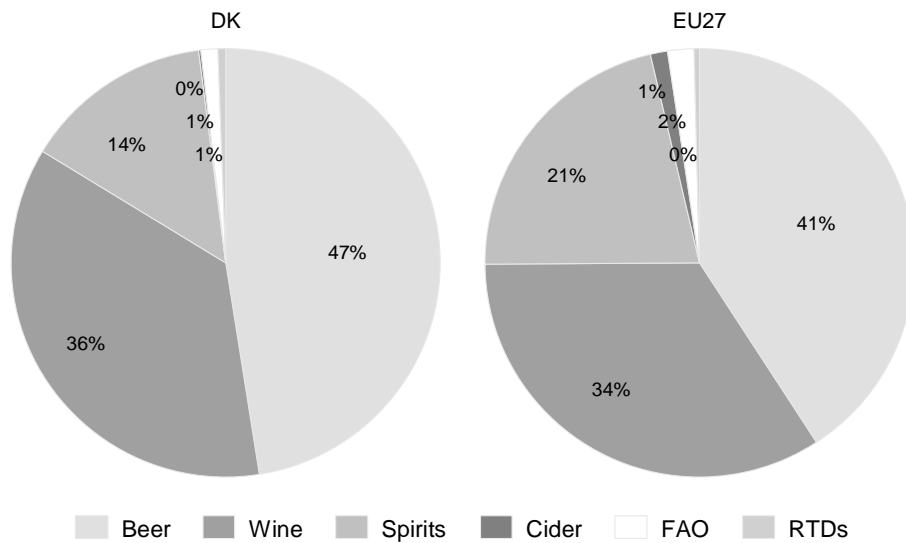


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



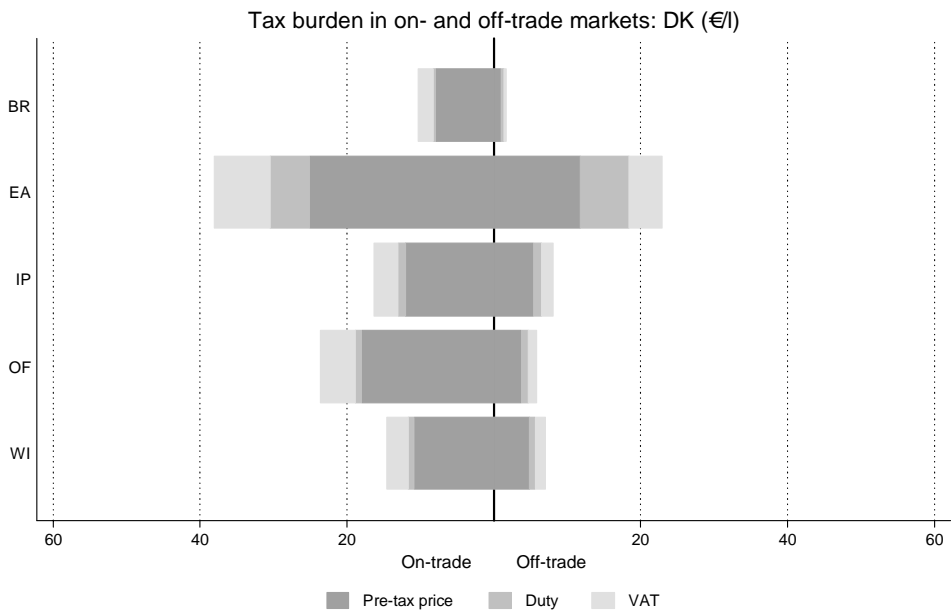
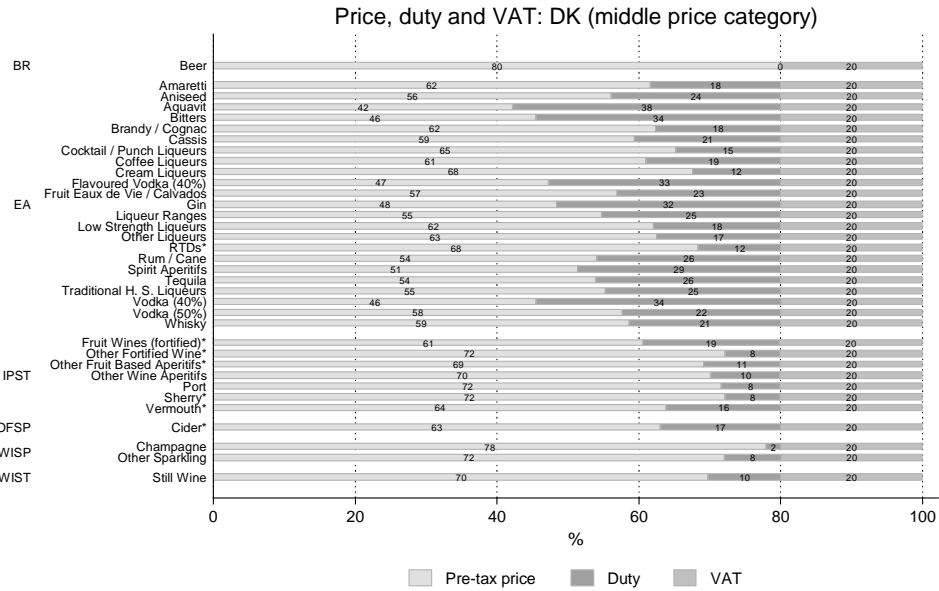
Consumption of pure alcohol by type of beverage: DK



Graphs by Member State

Source: LE analysis of data from this report.

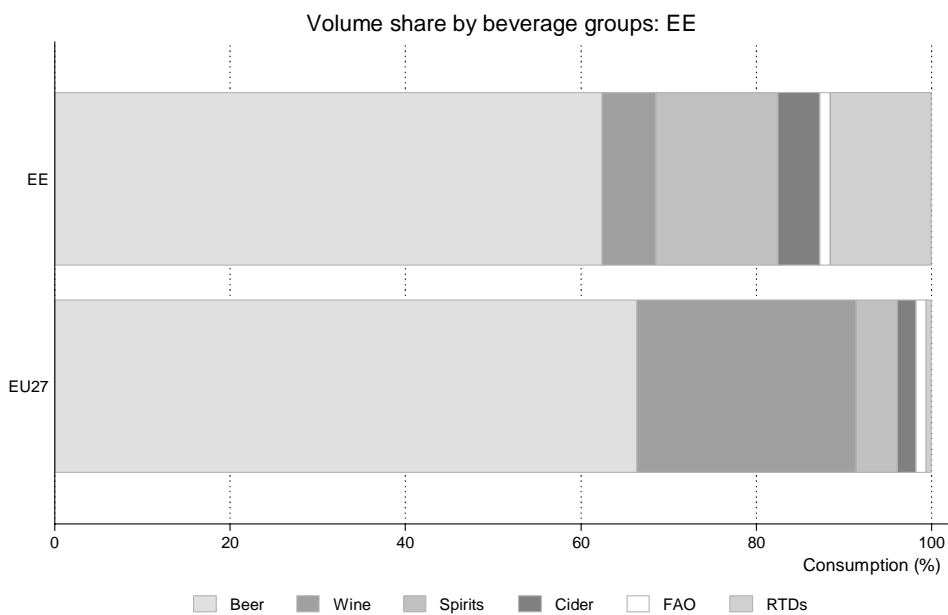
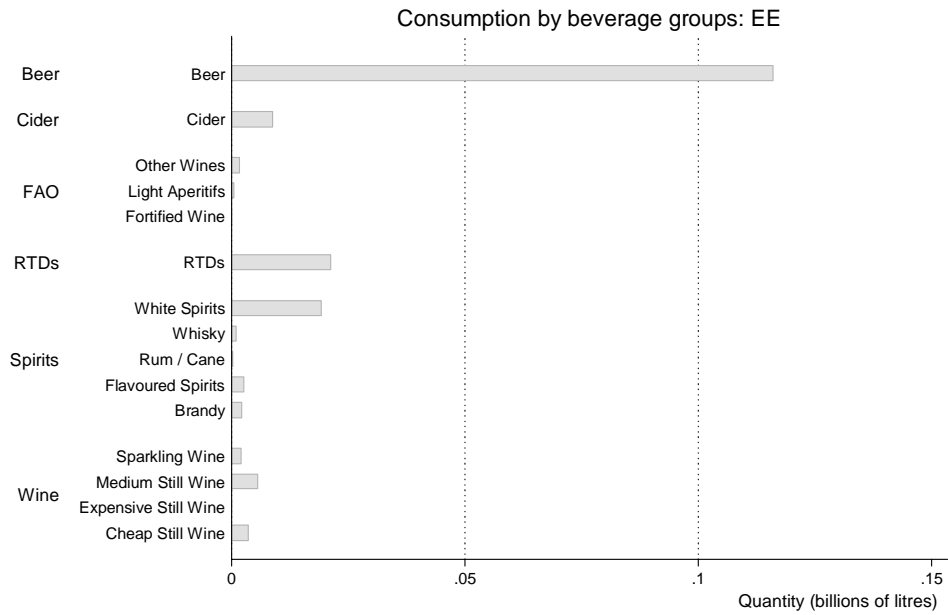
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

## Annex 12 Country reporting: EE

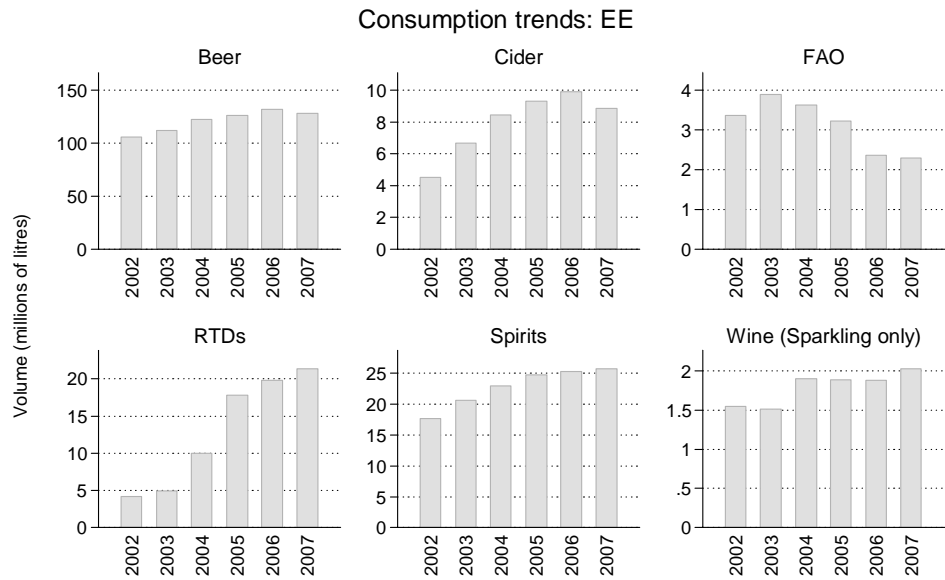
**Figure 1: Alcohol market (1)**



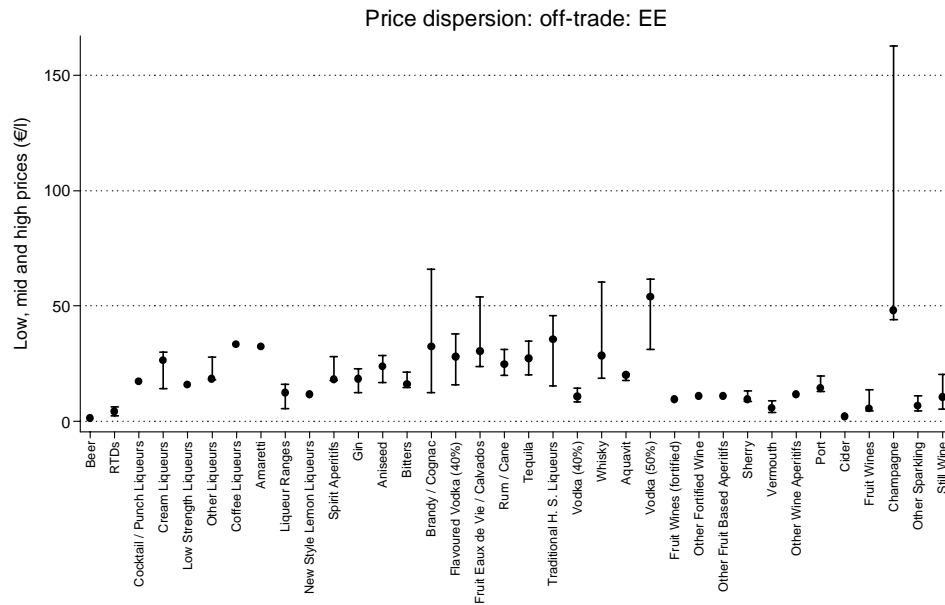
Source: LE analysis of data from this report.



Figure 2: Alcohol market (2)

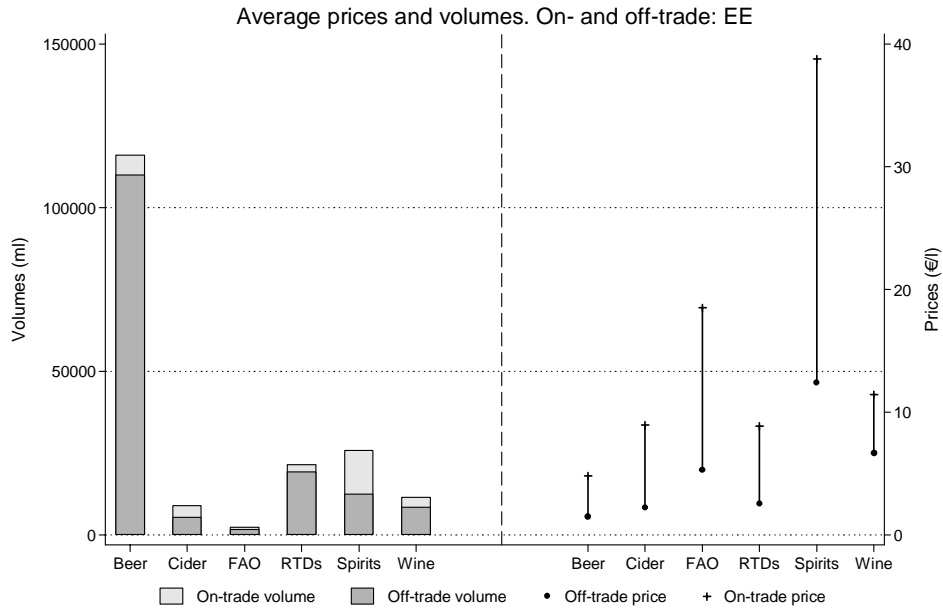


Graphs by categories

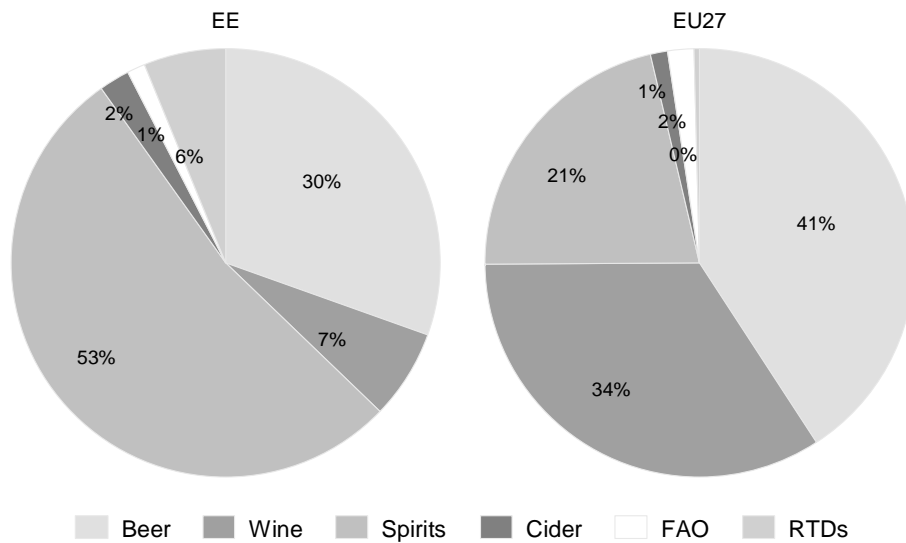


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



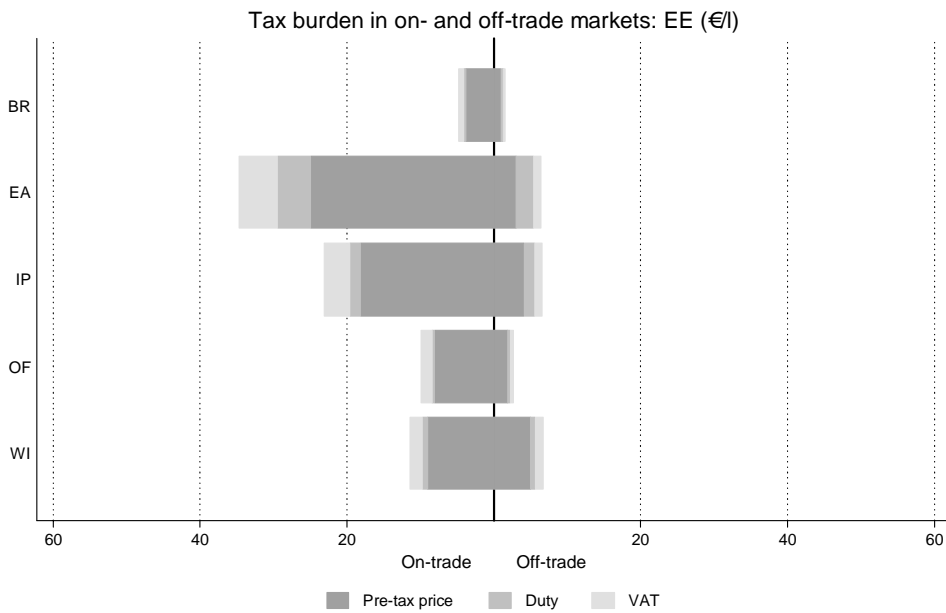
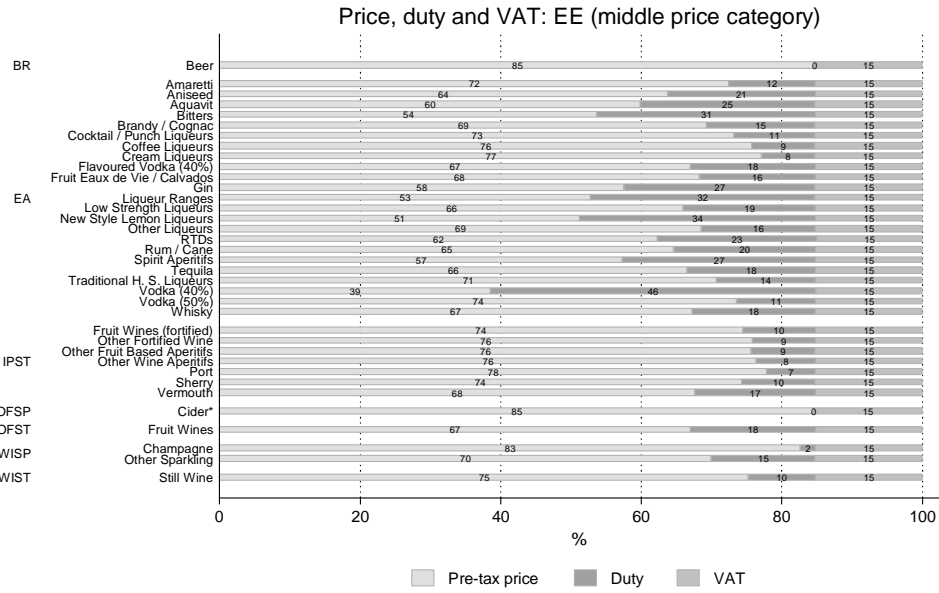
Consumption of pure alcohol by type of beverage: EE



Graphs by Member State

Source: LE analysis of data from this report.

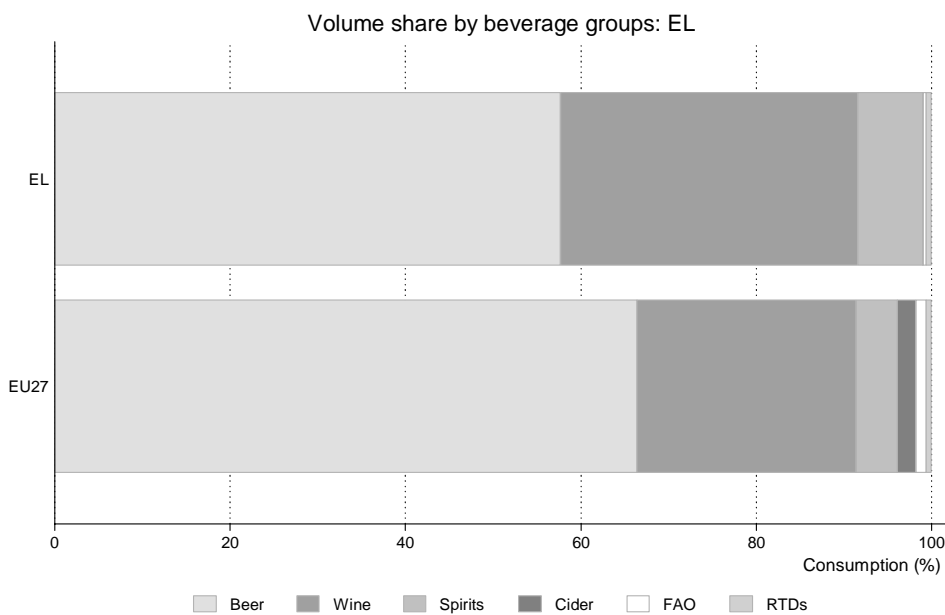
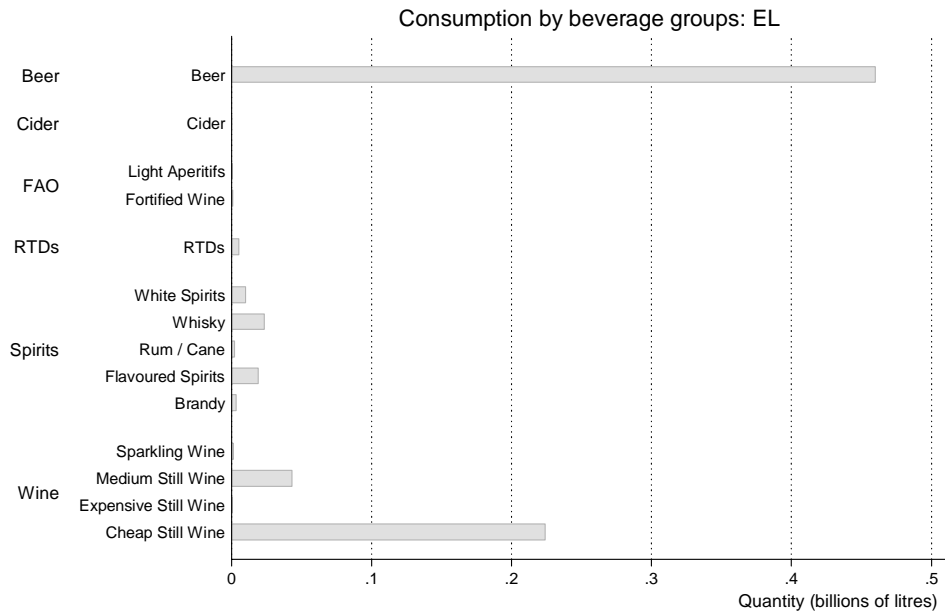
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

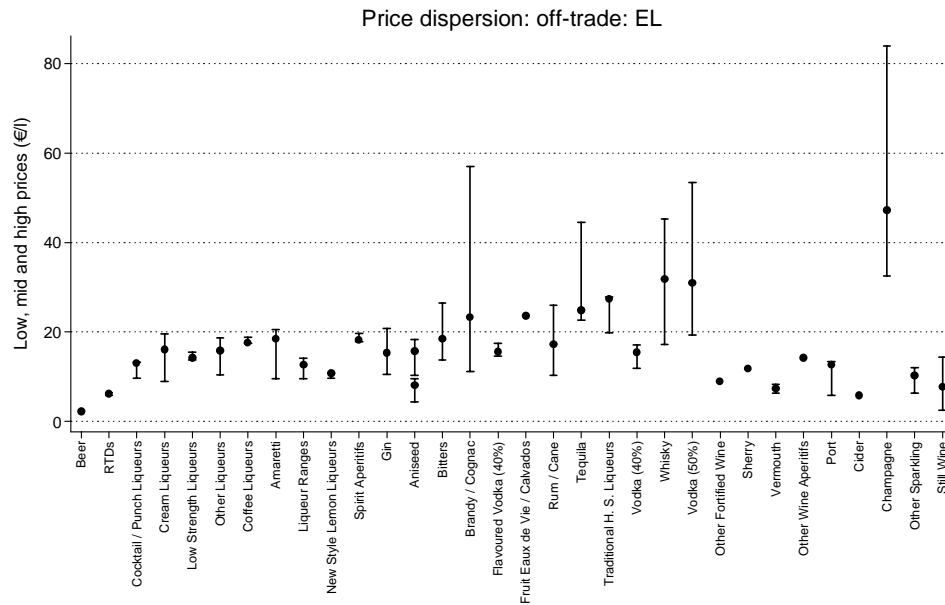
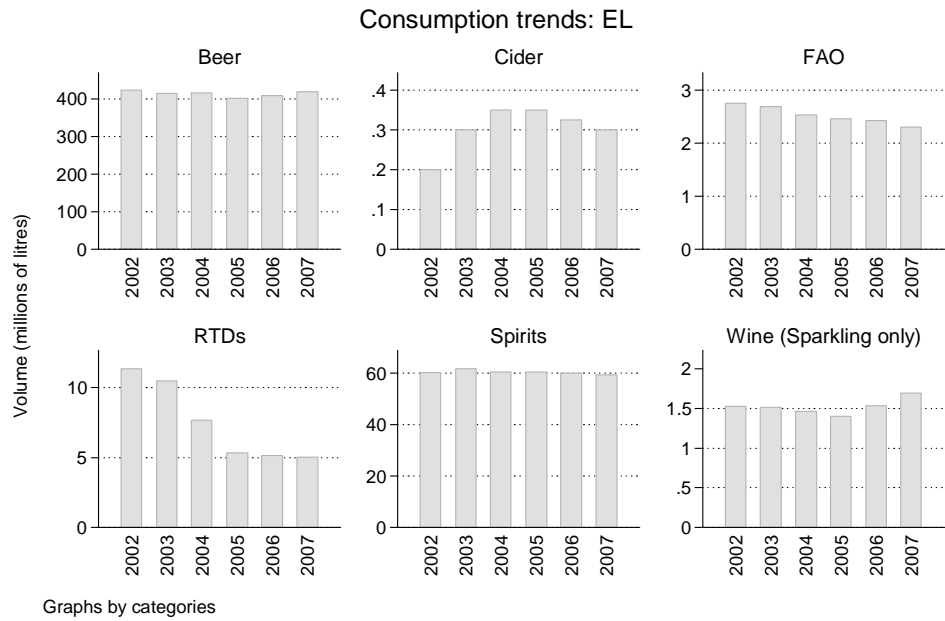
## Annex 13 Country reporting: EL

**Figure 1: Alcohol market (1)**



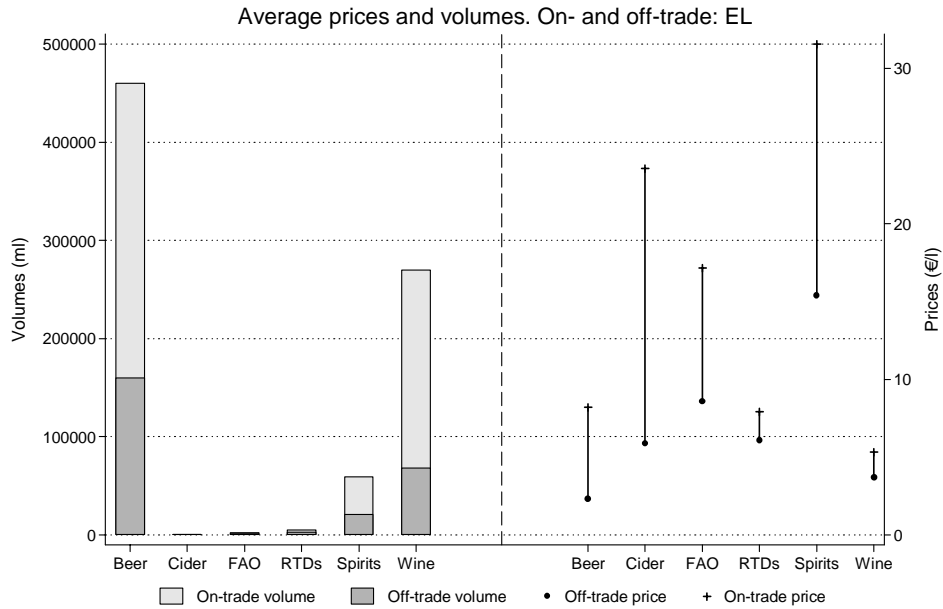
Source: LE analysis of data from this report.

Figure 2: Alcohol market (2)

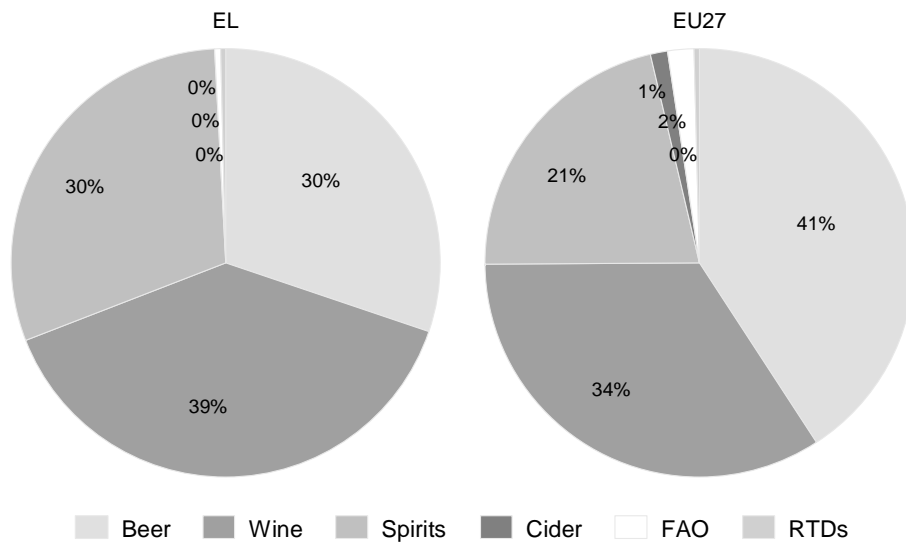


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



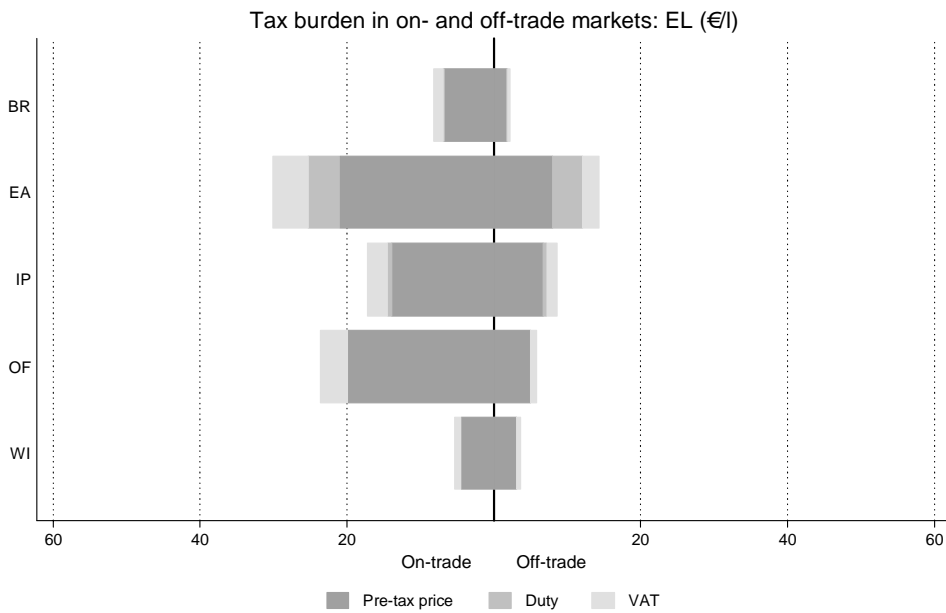
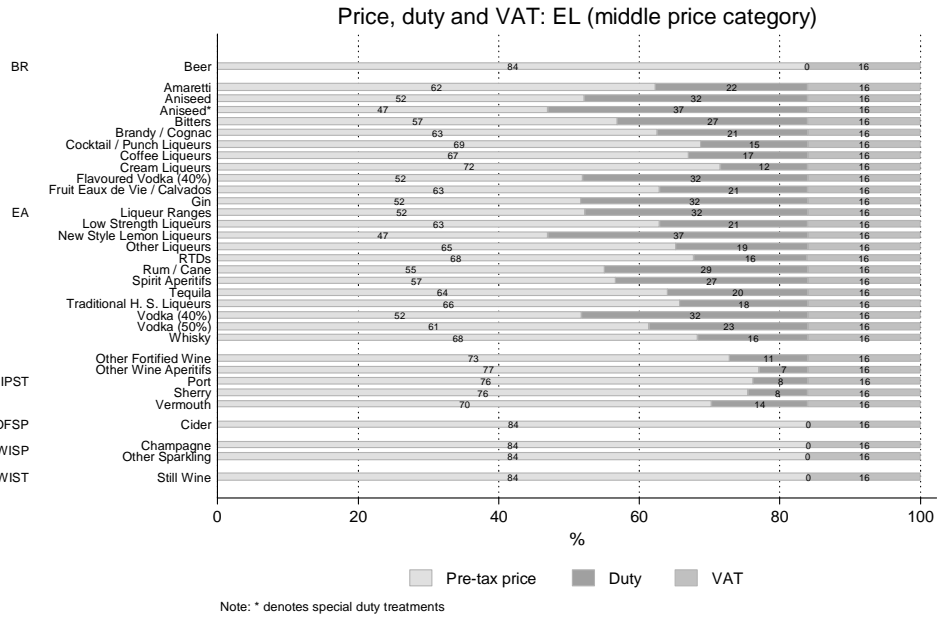
Consumption of pure alcohol by type of beverage: EL



Graphs by Member State

Source: LE analysis of data from this report.

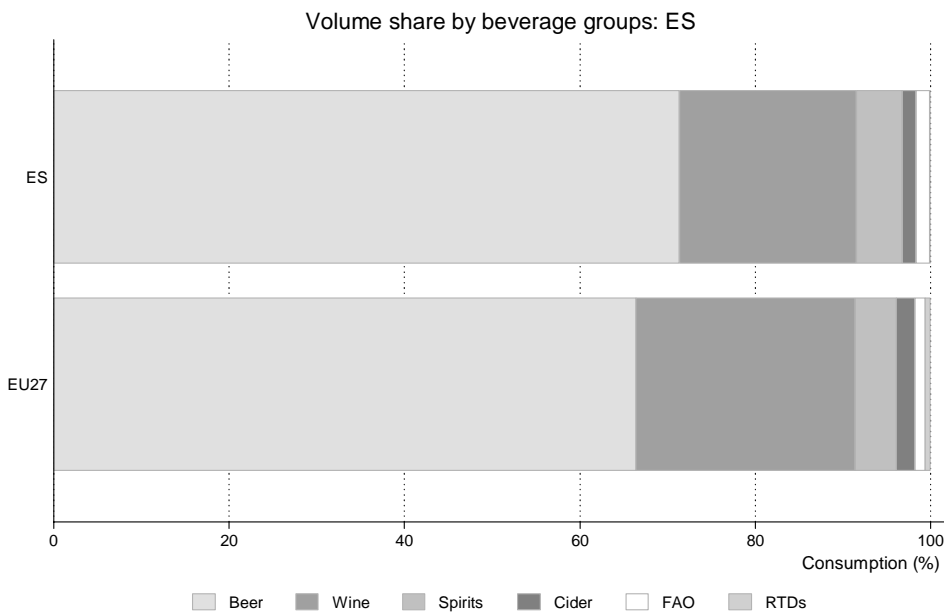
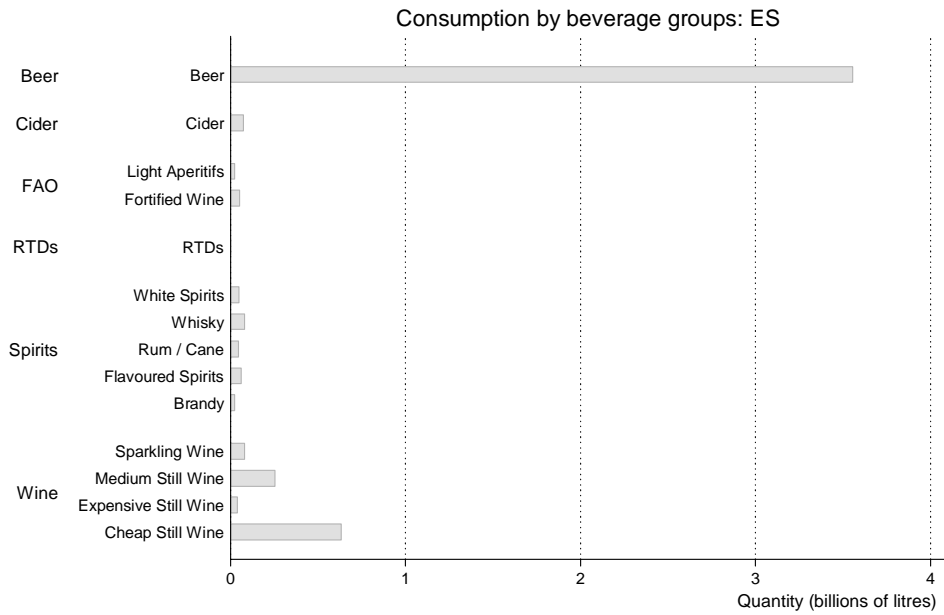
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

# Annex 14 Country reporting: ES

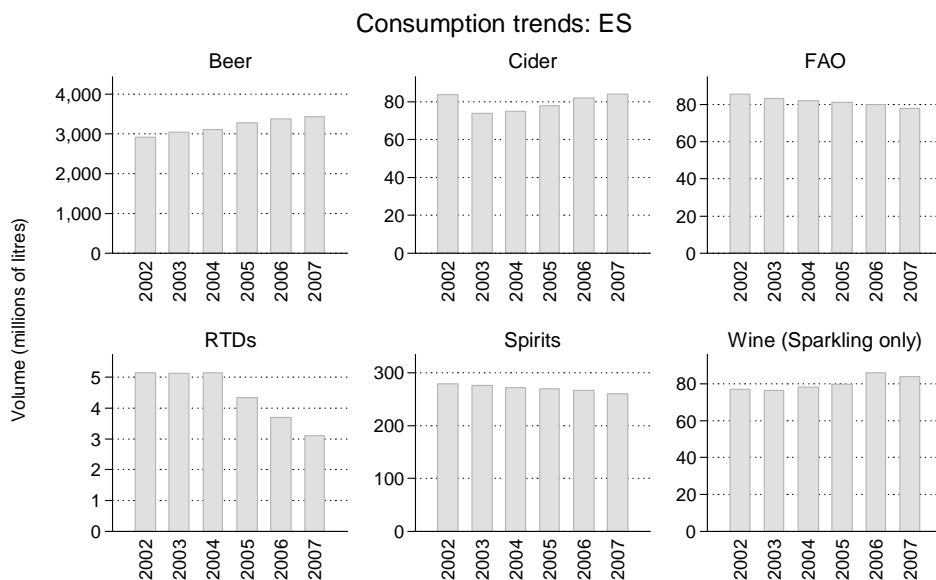
**Figure 1: Alcohol market (1)**



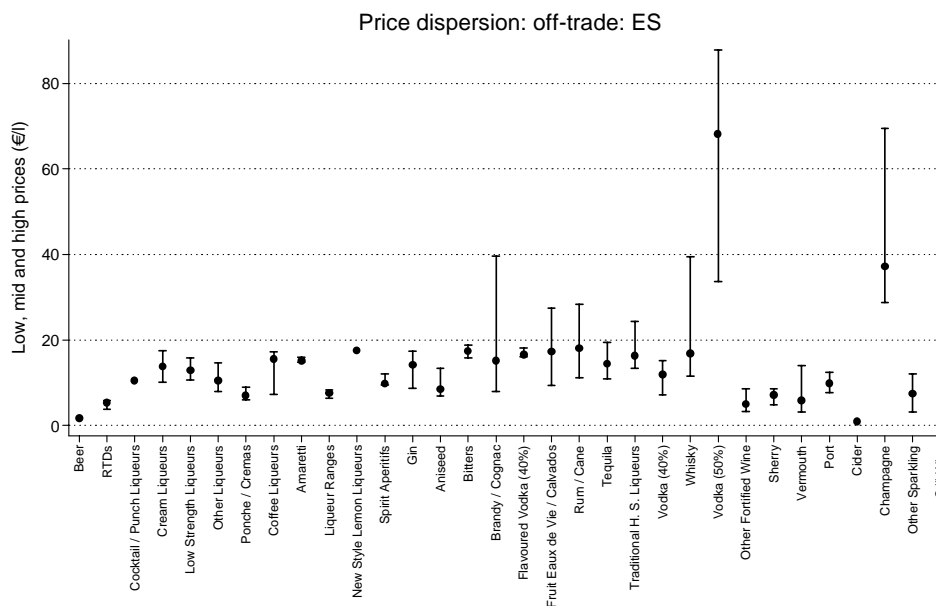
Source: LE analysis of data from this report.



**Figure 2: Alcohol market (2)**

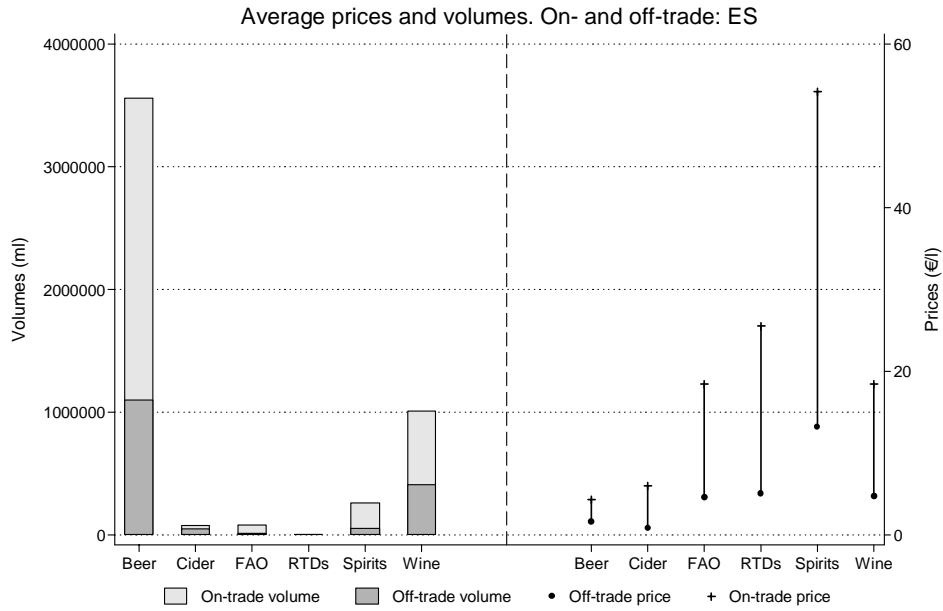


Graphs by categories

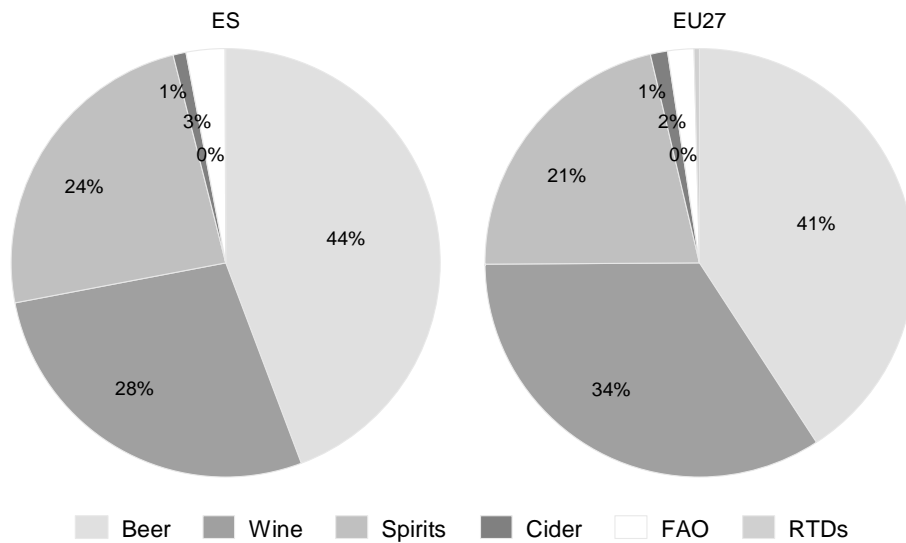


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



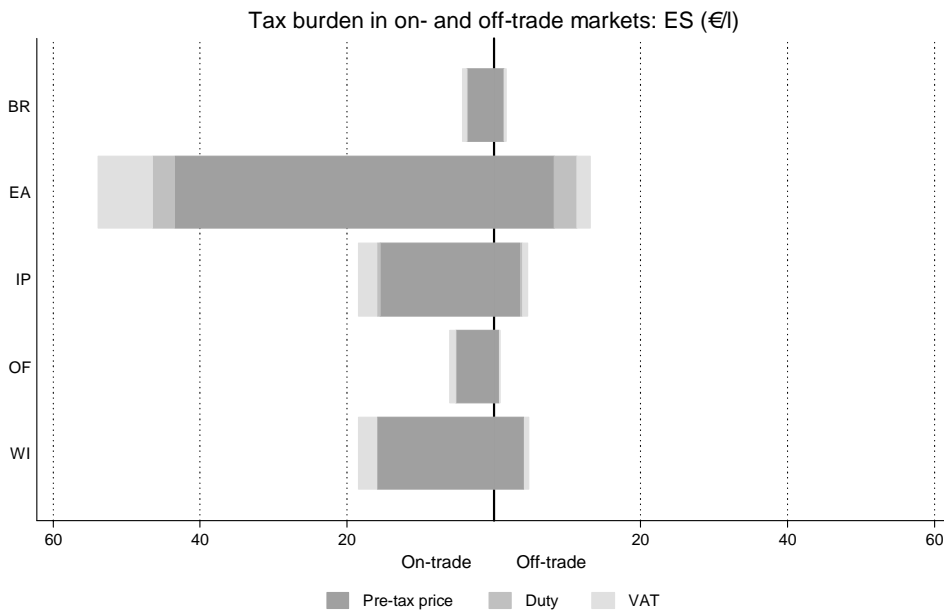
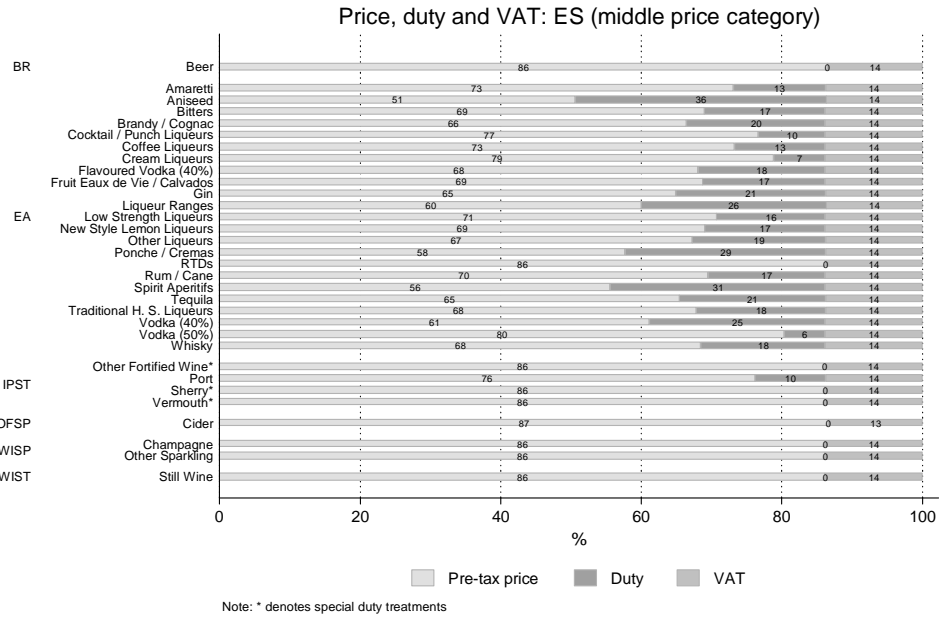
Consumption of pure alcohol by type of beverage: ES



Graphs by Member State

Source: LE analysis of data from this report.

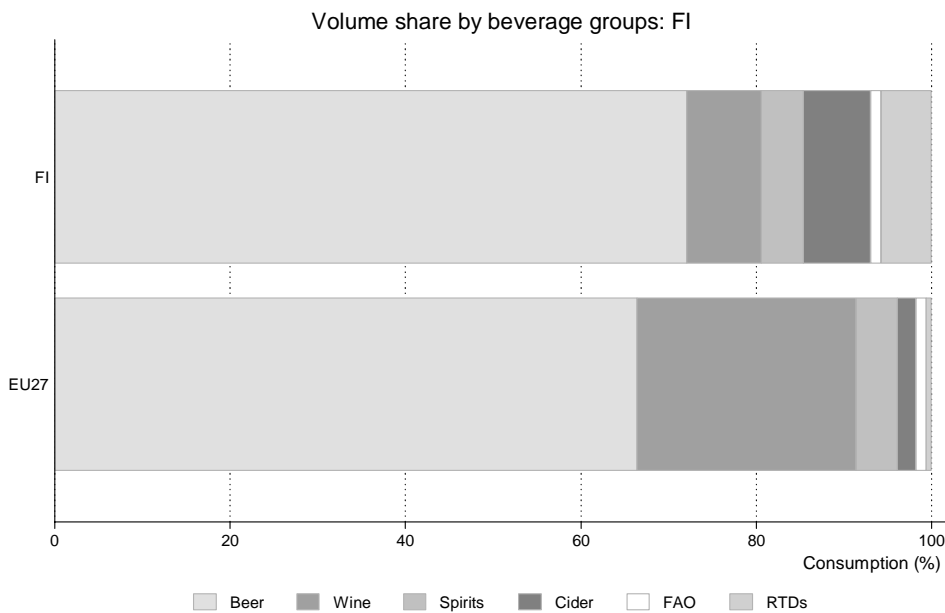
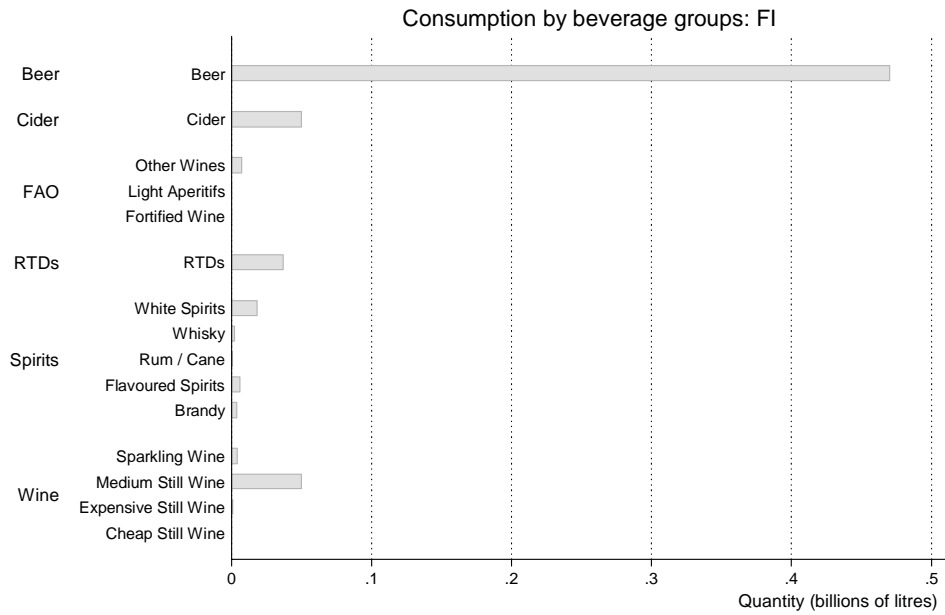
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

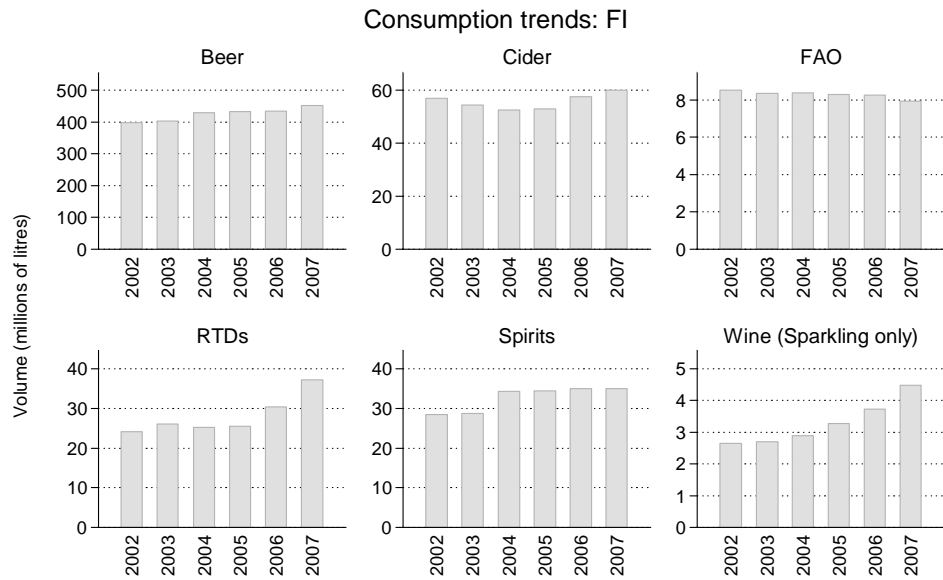
# Annex 15 Country reporting: FI

**Figure 1: Alcohol market (1)**

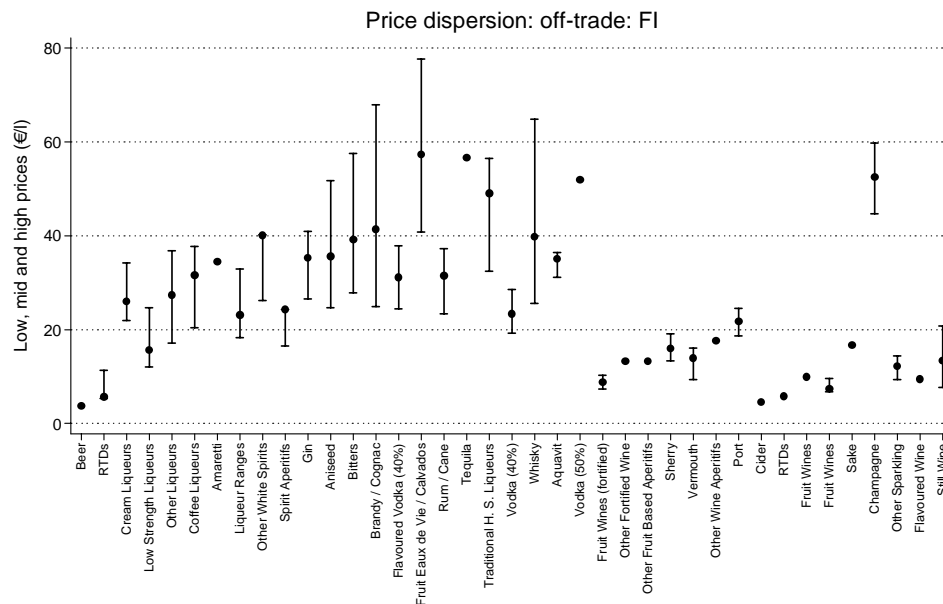


Source: LE analysis of data from this report.

Figure 2: Alcohol market (2)

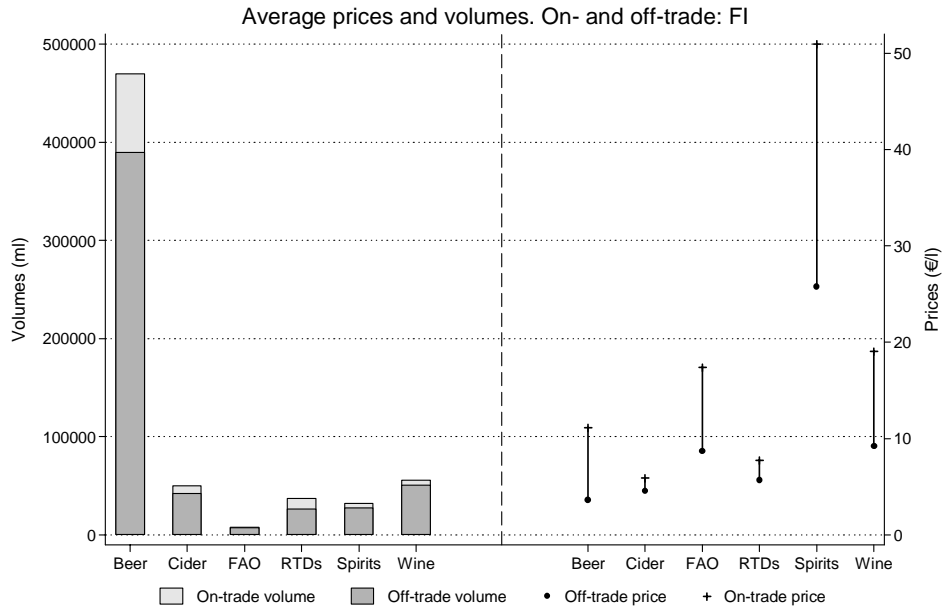


Graphs by categories

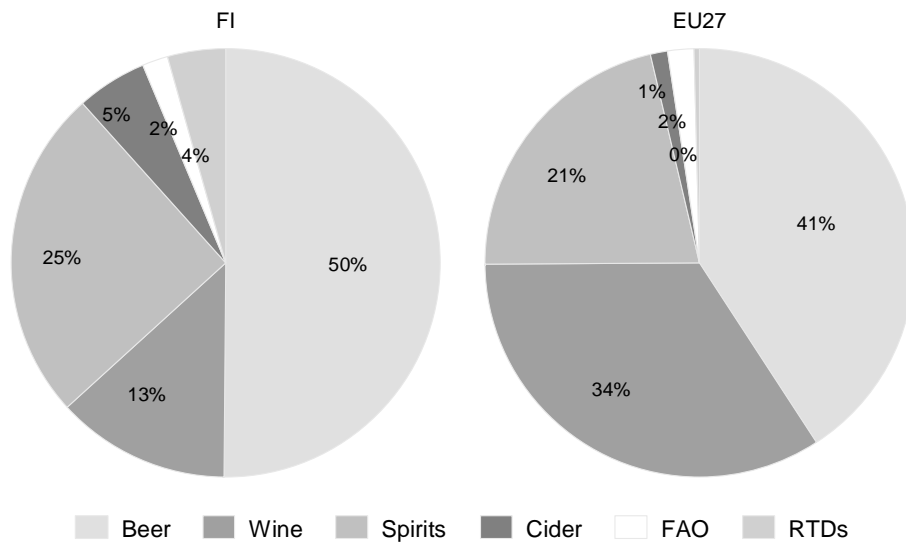


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



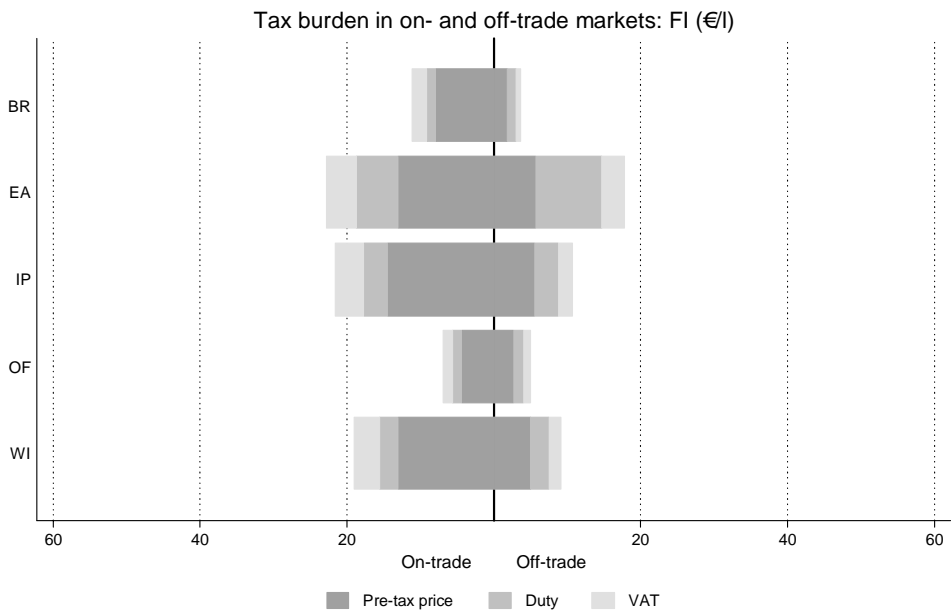
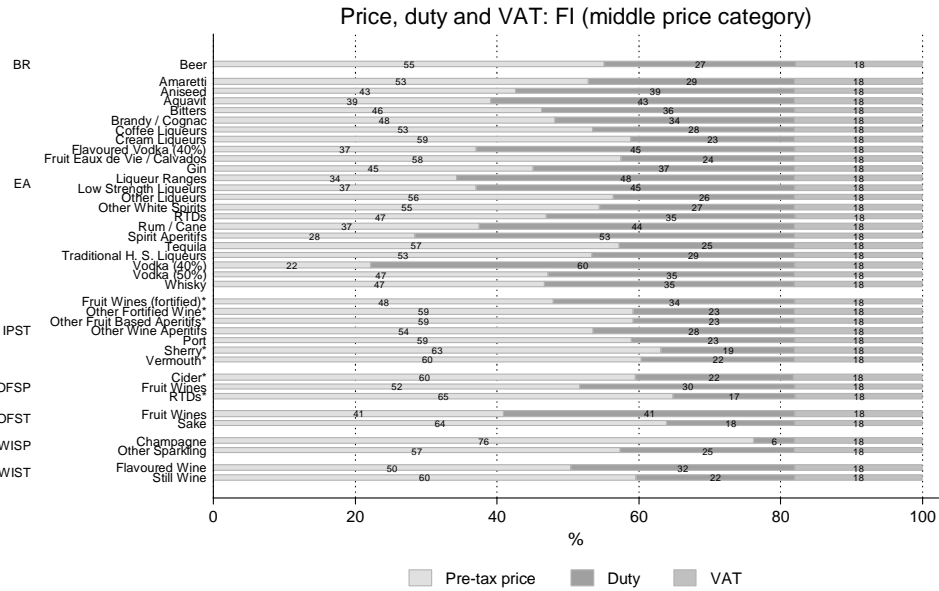
Consumption of pure alcohol by type of beverage: FI



Graphs by Member State

Source: LE analysis of data from this report.

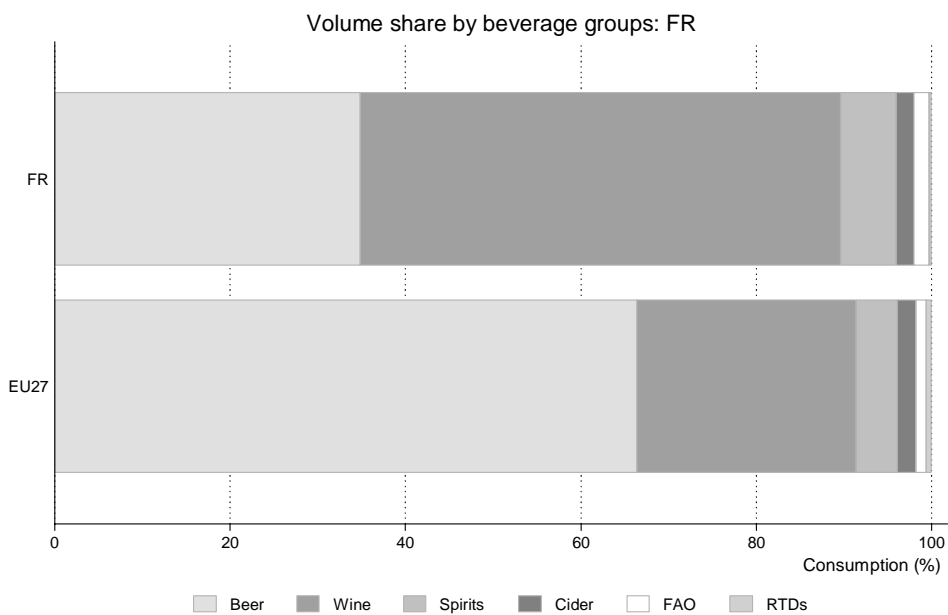
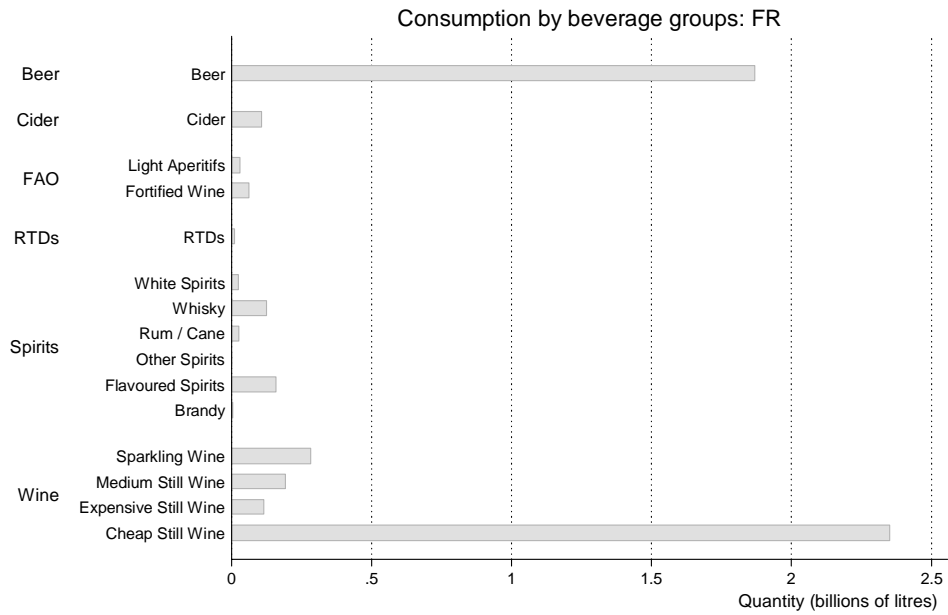
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

## Annex 16 Country reporting: FR

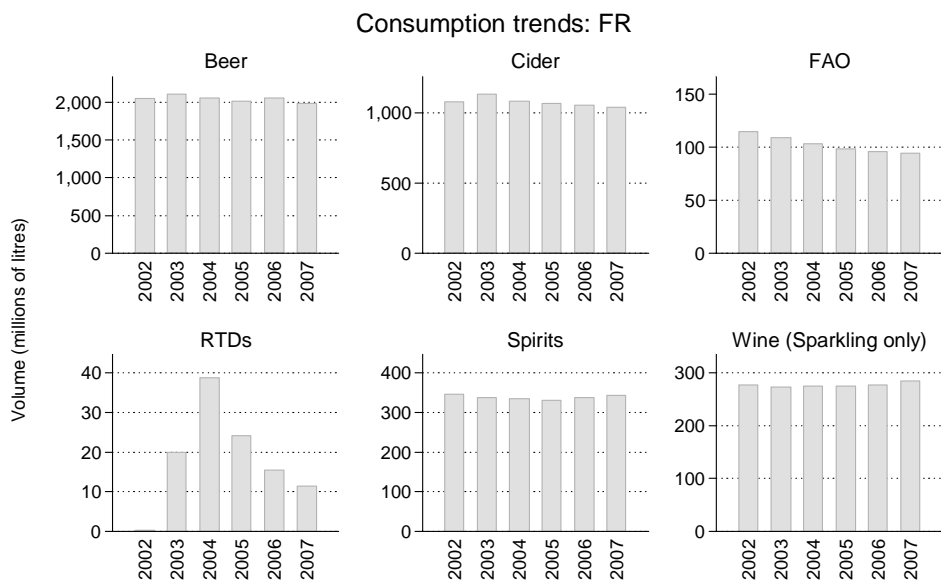
**Figure 1: Alcohol market (1)**



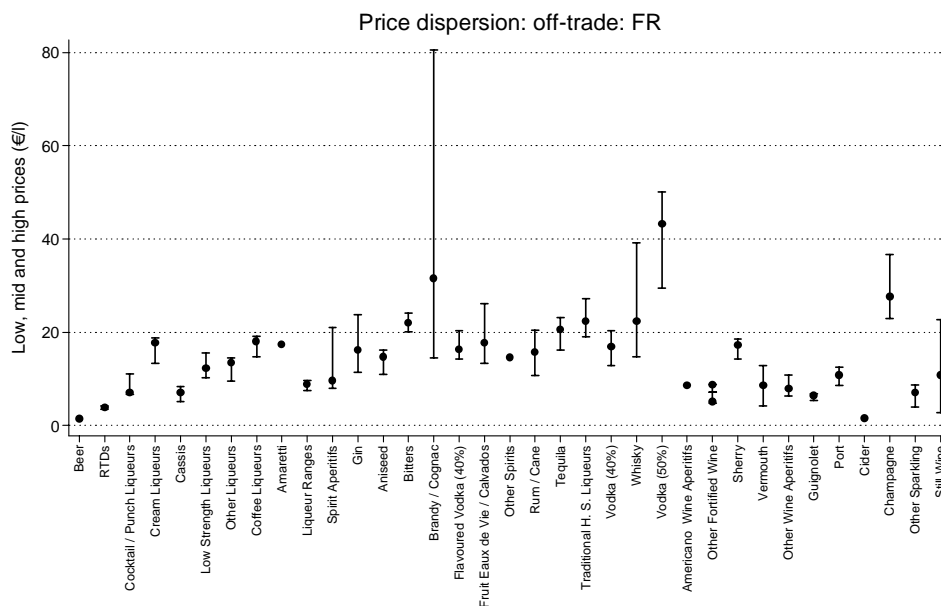
Source: LE analysis of data from this report.



**Figure 2: Alcohol market (2)**

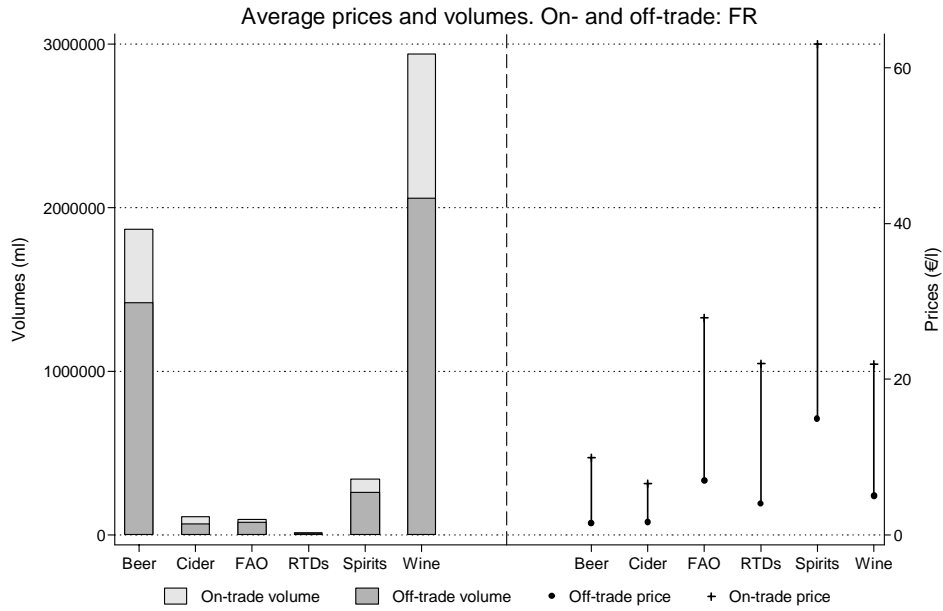


Graphs by categories

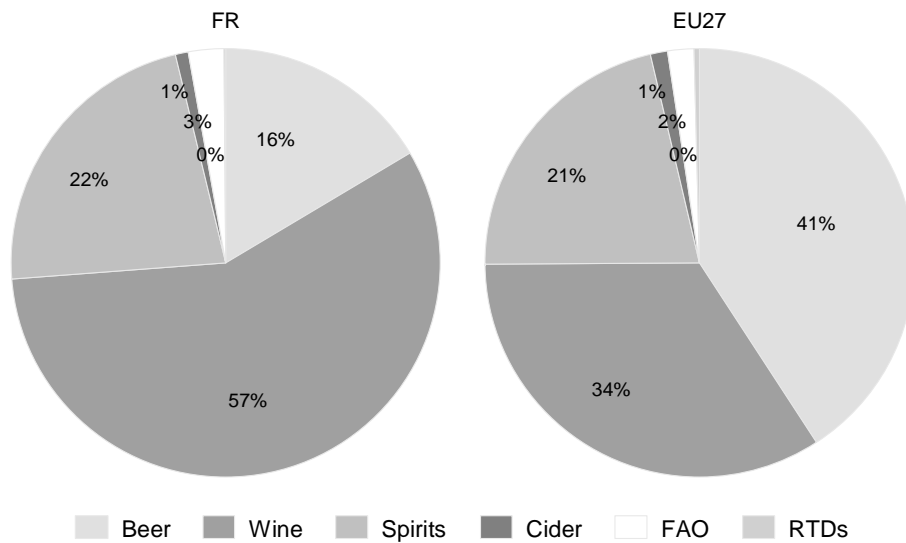


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



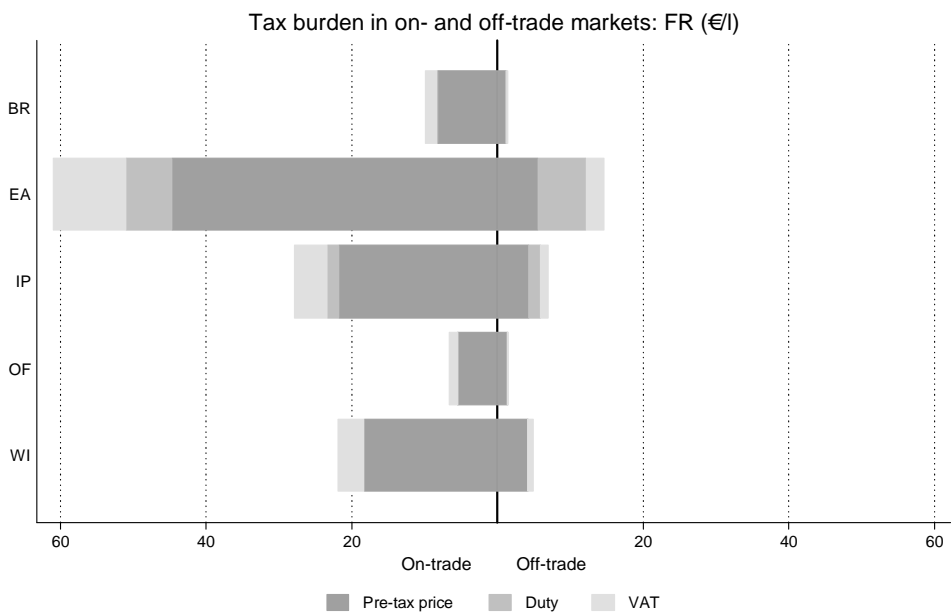
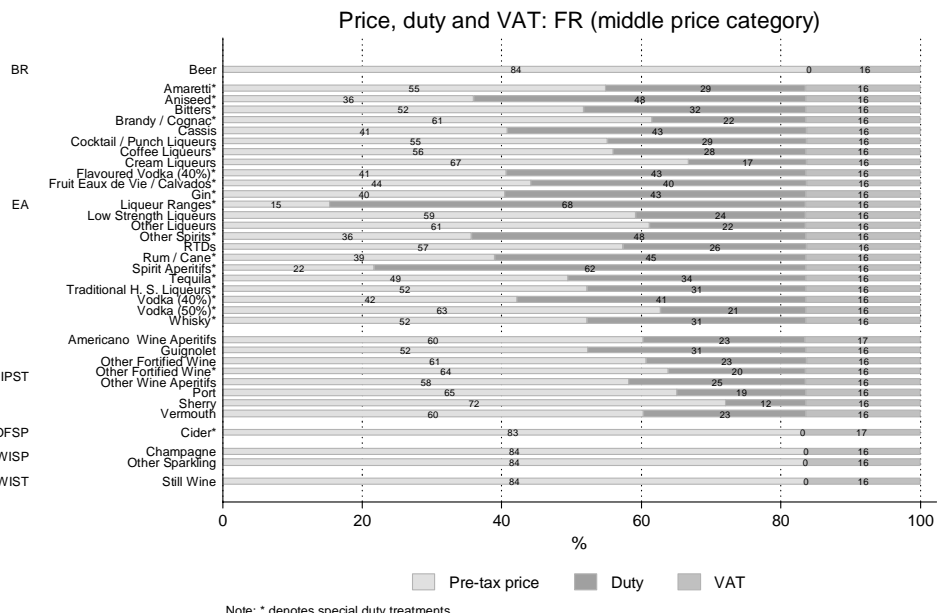
Consumption of pure alcohol by type of beverage: FR



Graphs by Member State

Source: LE analysis of data from this report.

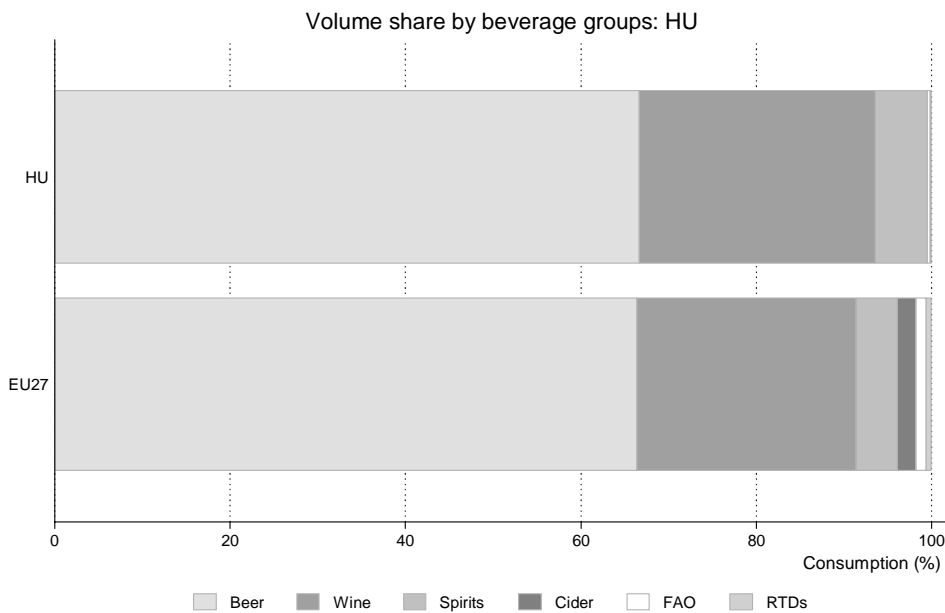
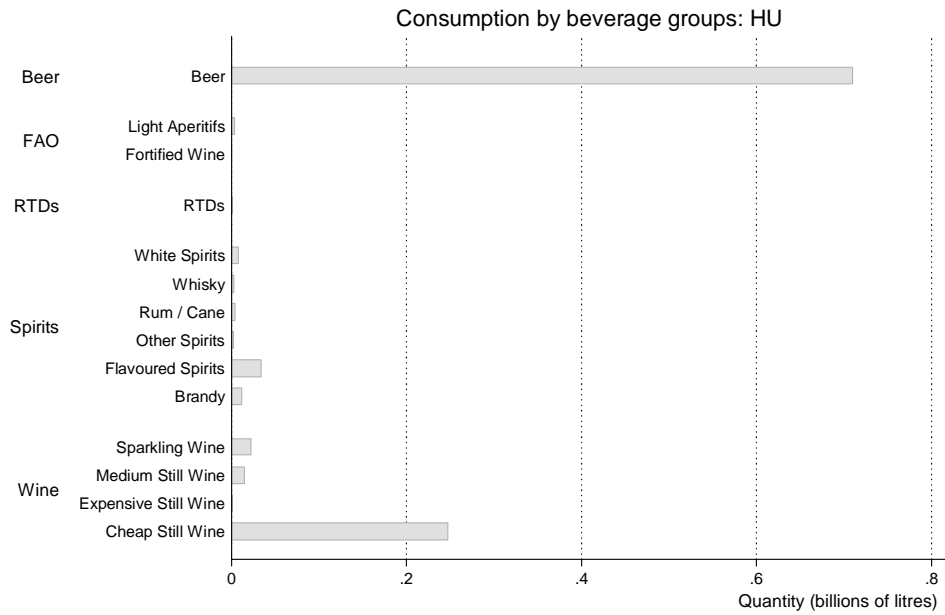
**Figure 4: Alcohol tax regime**



Source: LE analysis of data from this report.

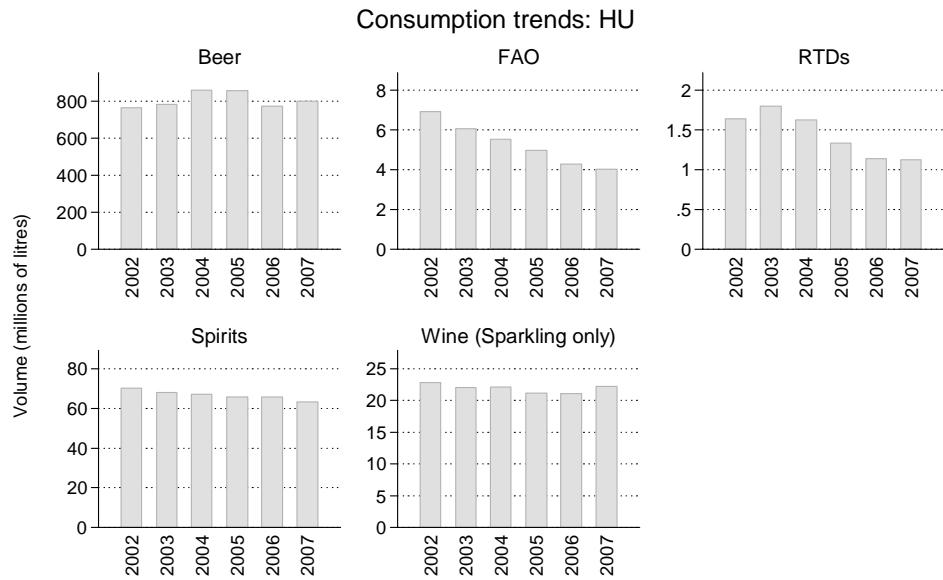
## Annex 17 Country reporting: HU

**Figure 1: Alcohol market (1)**

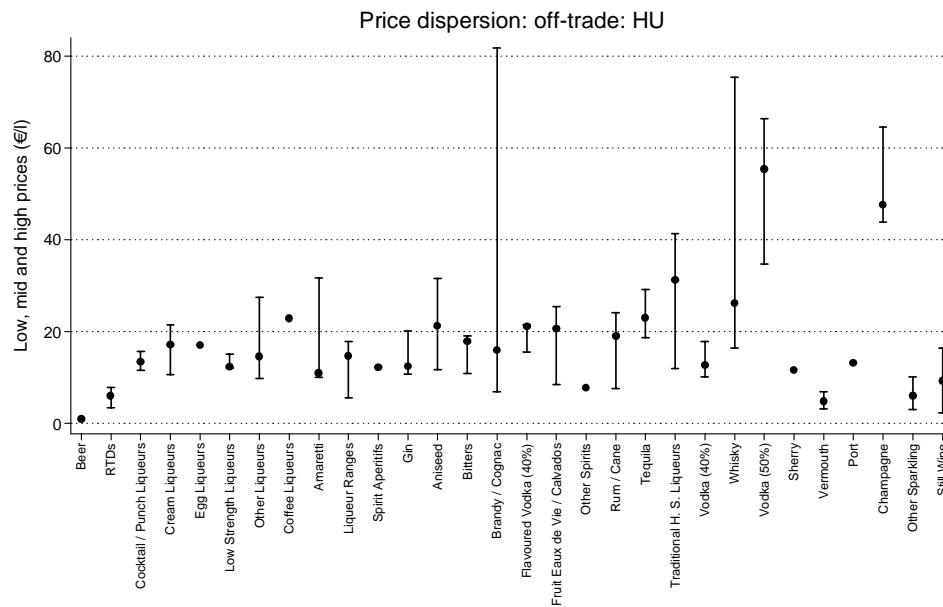


Source: LE analysis of data from this report.

Figure 2: Alcohol market (2)

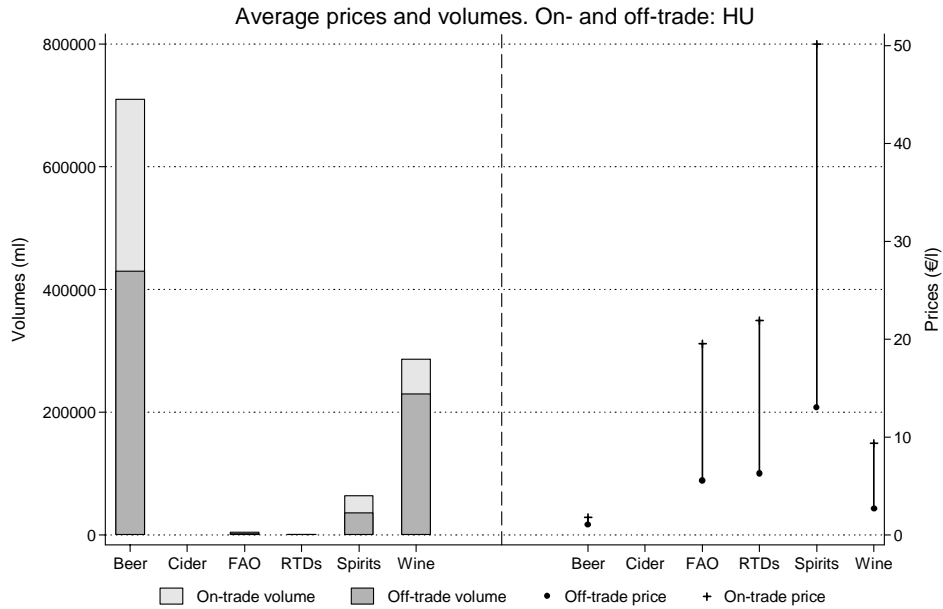


Graphs by categories

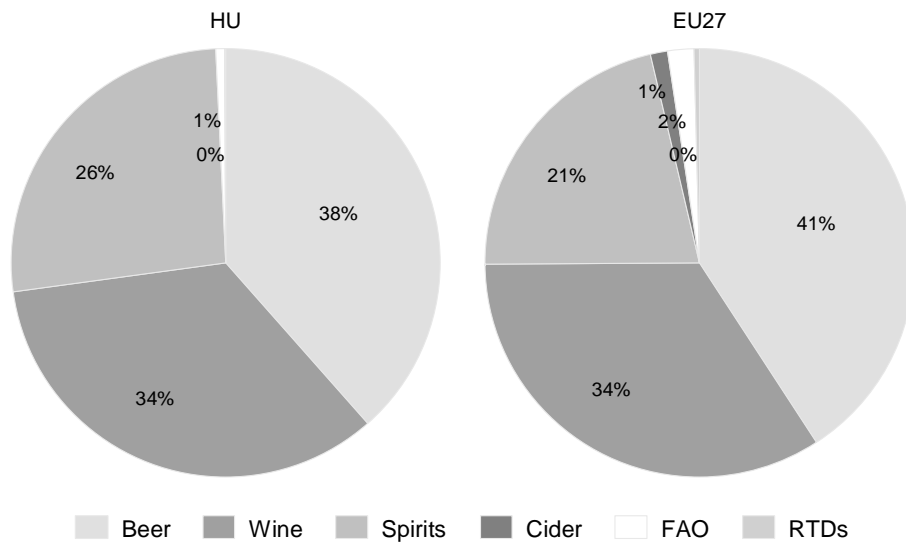


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



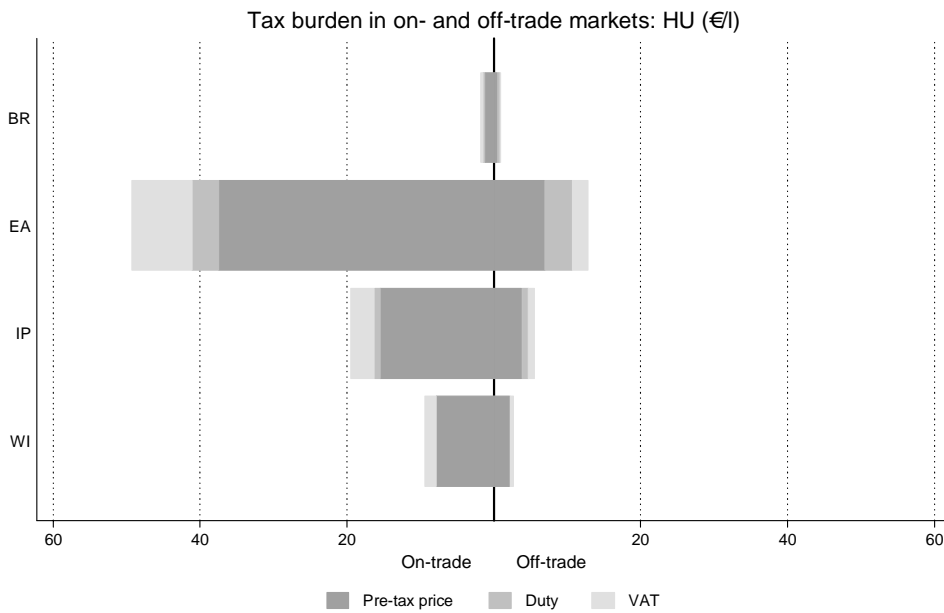
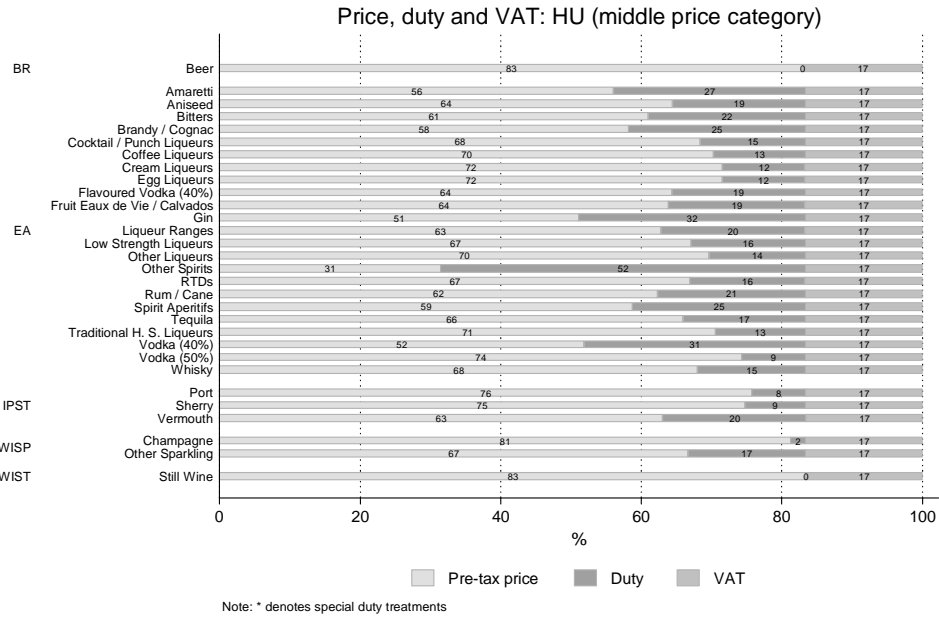
Consumption of pure alcohol by type of beverage: HU



Graphs by Member State

Source: LE analysis of data from this report.

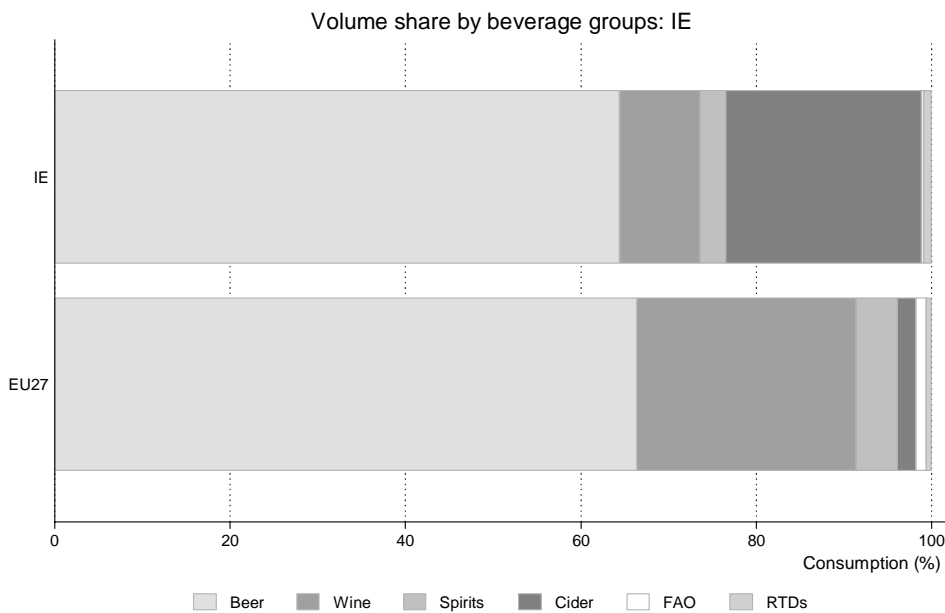
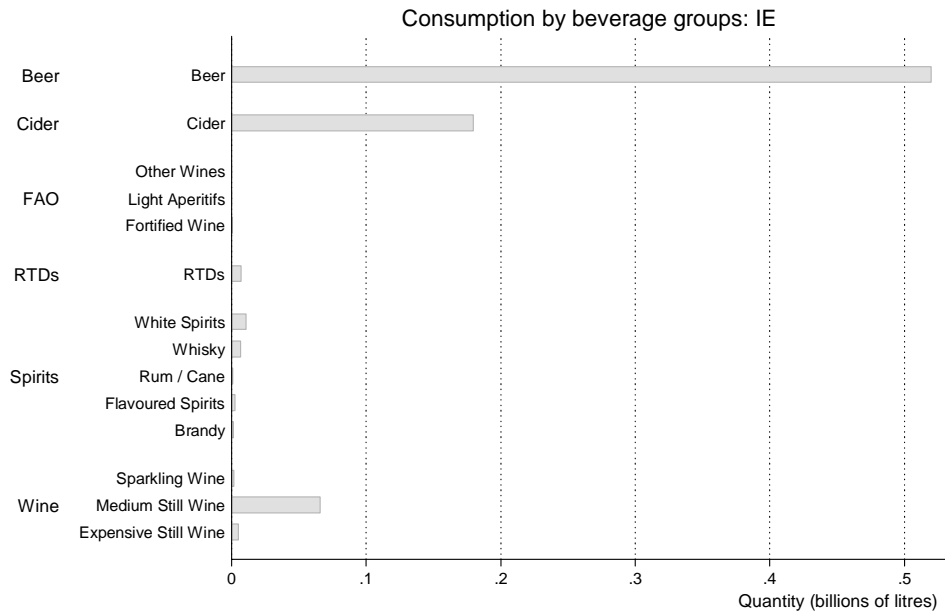
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

# Annex 18 Country reporting: IE

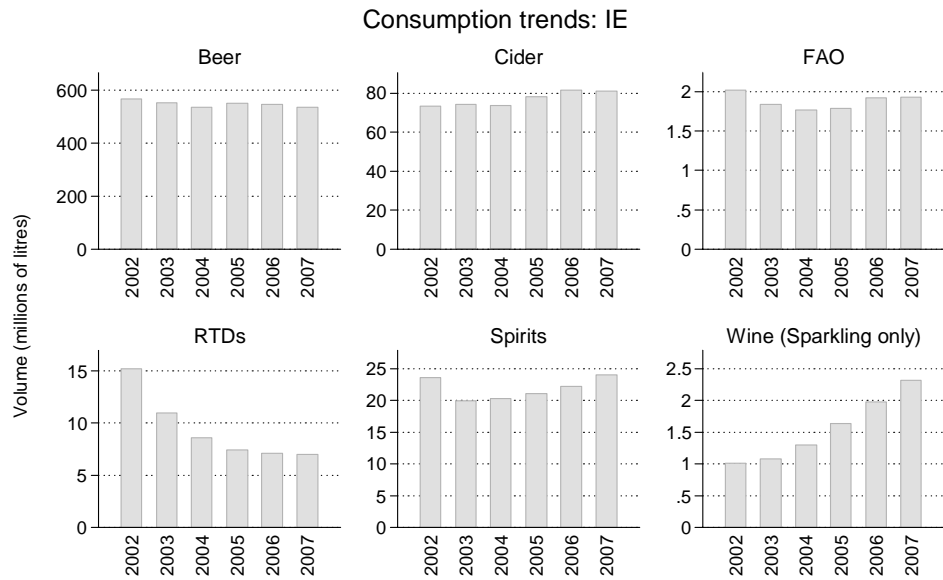
**Figure 1: Alcohol market (1)**



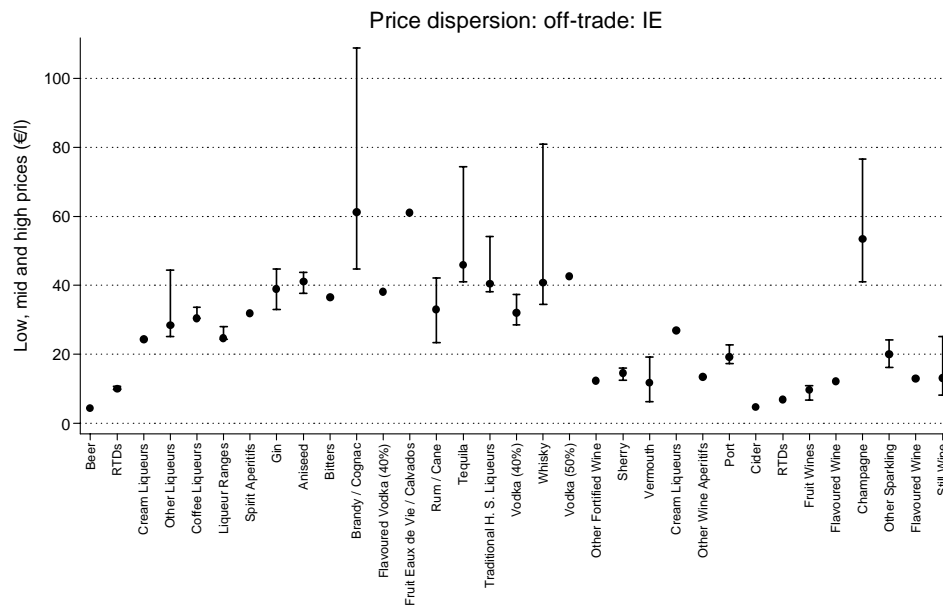
Source: LE analysis of data from this report.



Figure 2: Alcohol market (2)

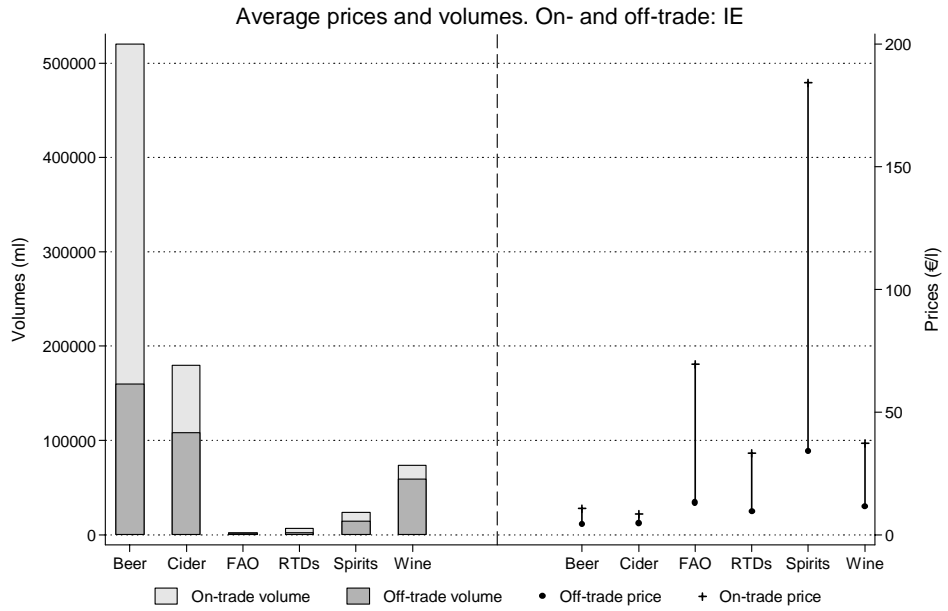


Graphs by categories

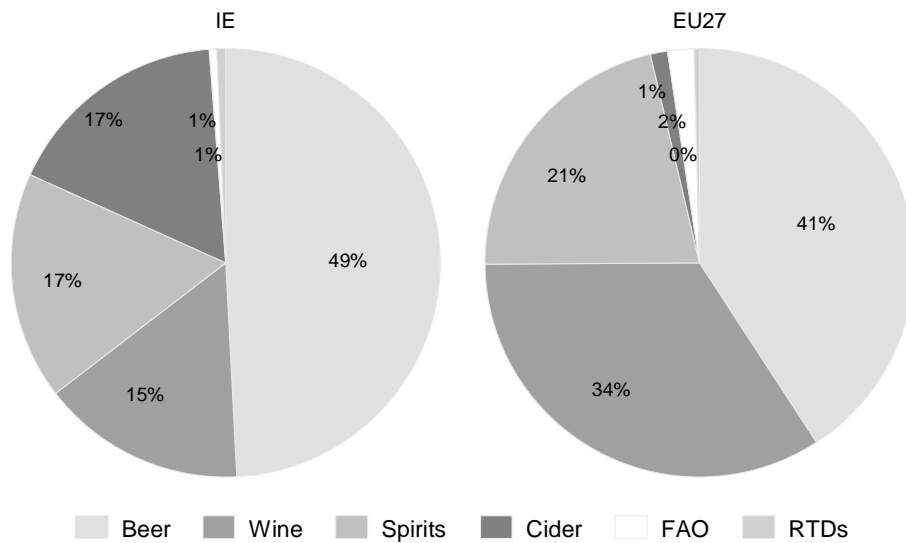


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



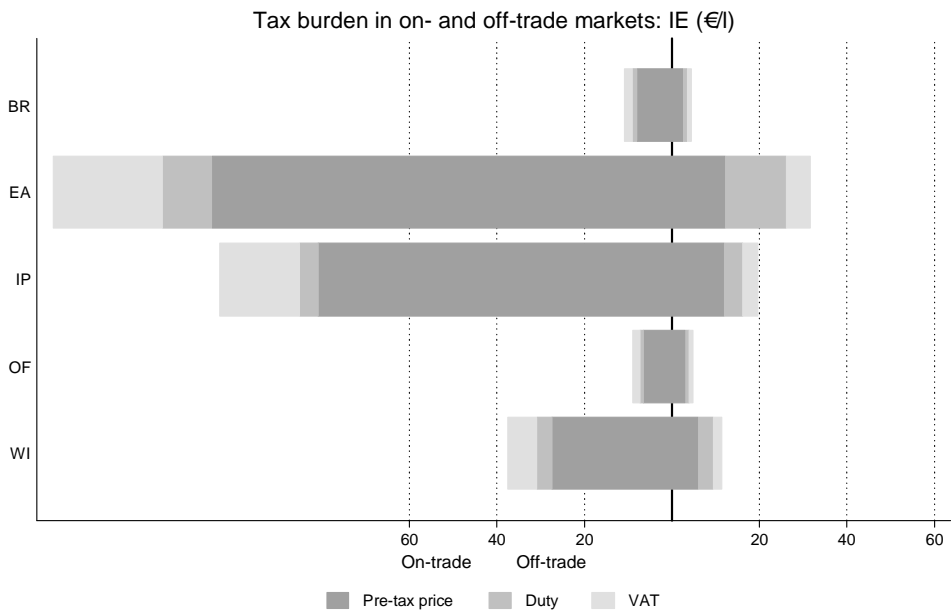
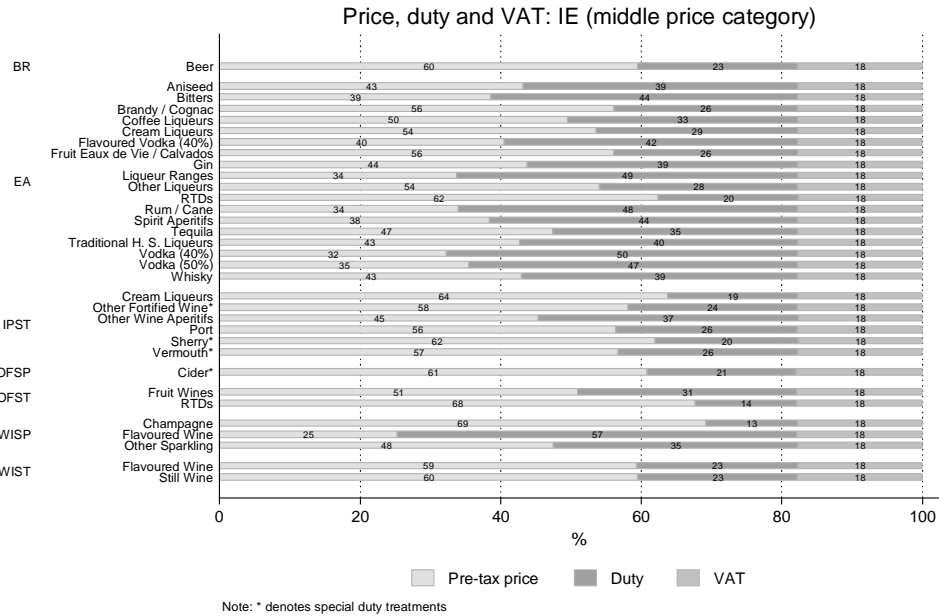
Consumption of pure alcohol by type of beverage: IE



Graphs by Member State

Source: LE analysis of data from this report.

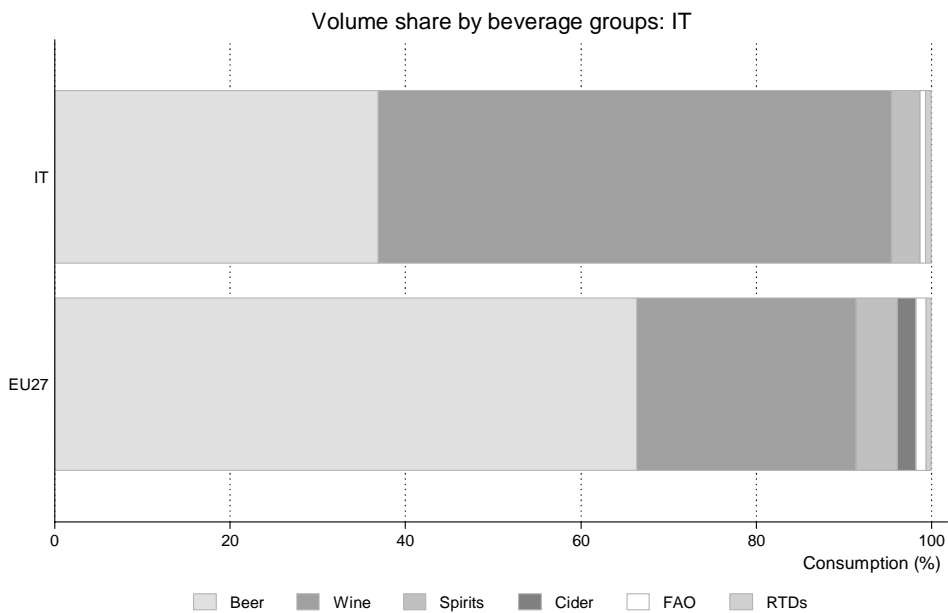
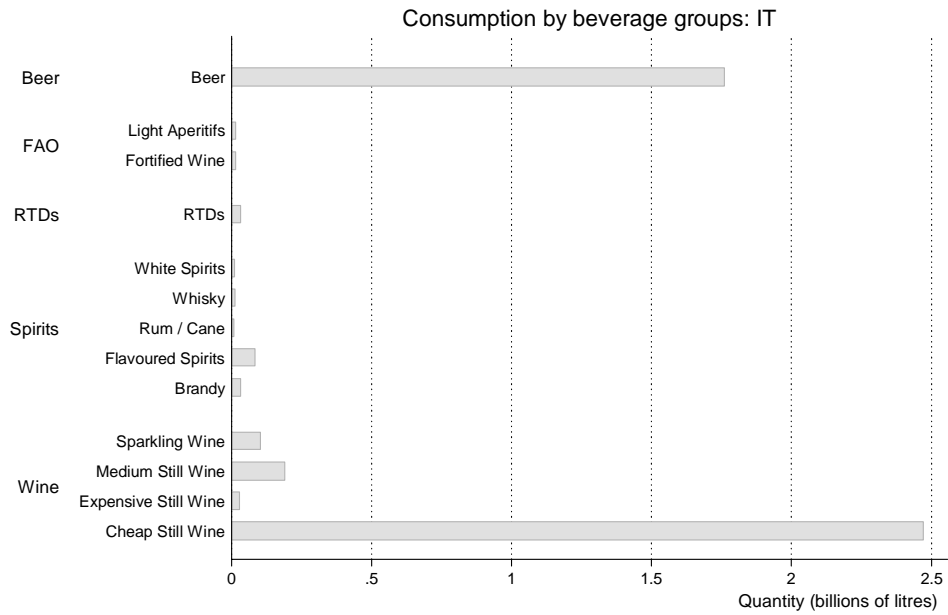
**Figure 4: Alcohol tax regime**



Source: LE analysis of data from this report.

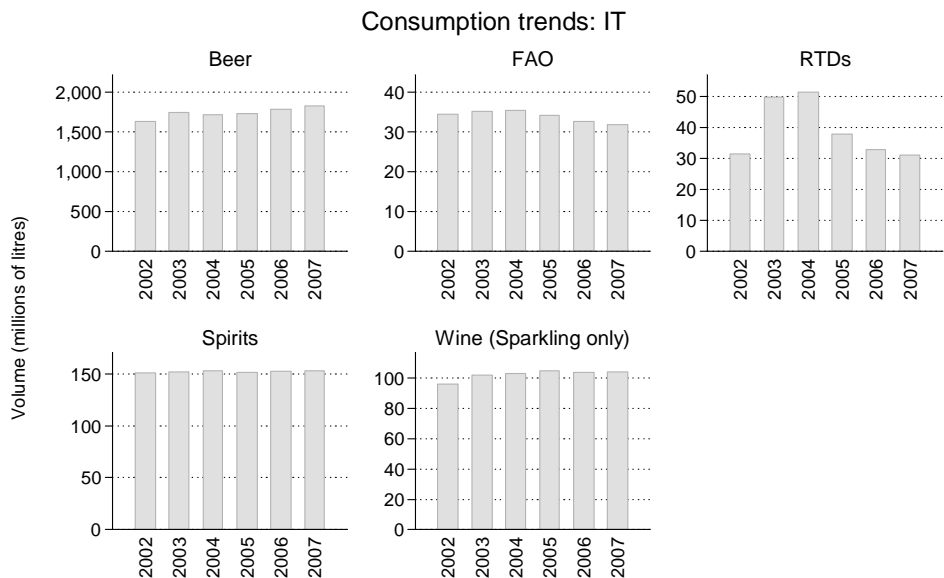
# Annex 19 Country reporting: IT

**Figure 1: Alcohol market (1)**

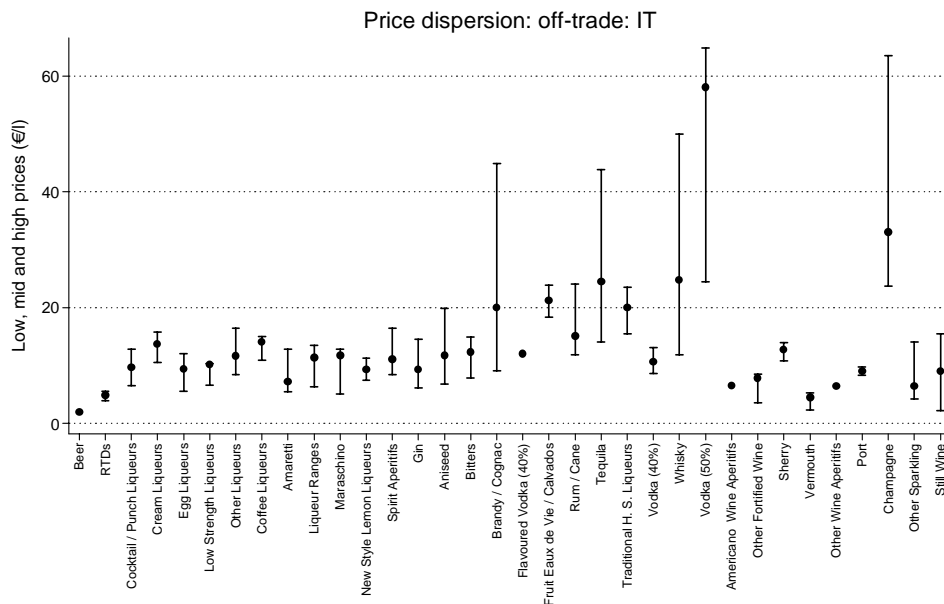


Source: LE analysis of data from this report.

**Figure 2: Alcohol market (2)**

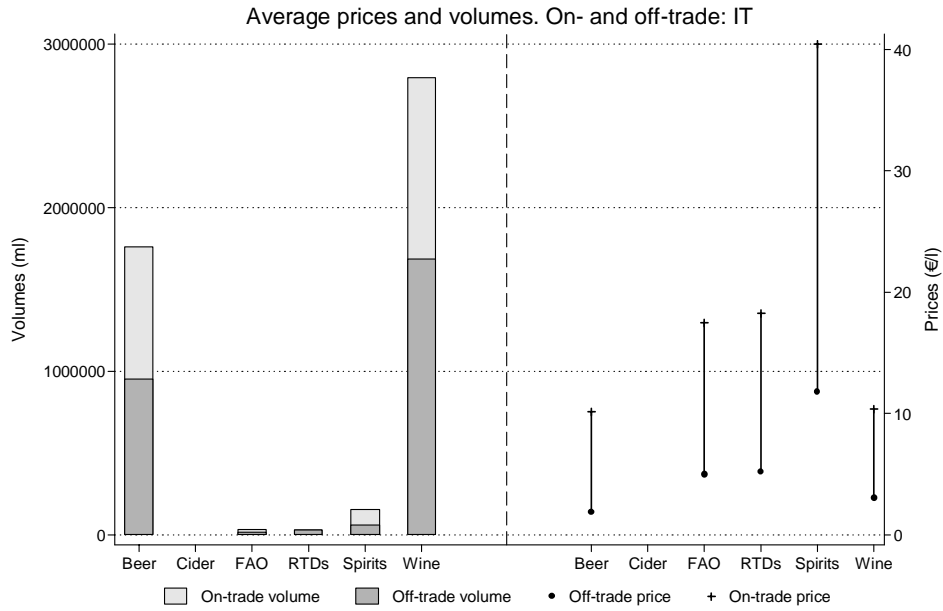


Graphs by categories

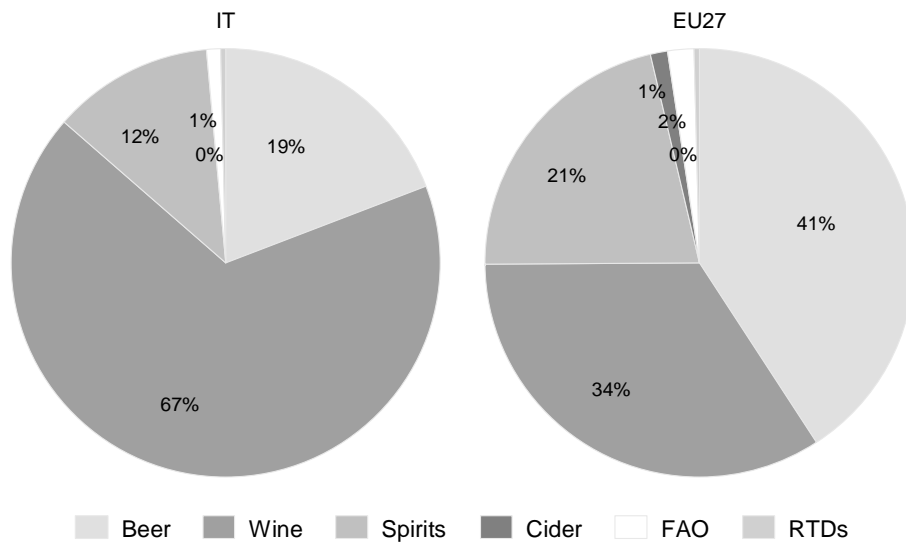


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



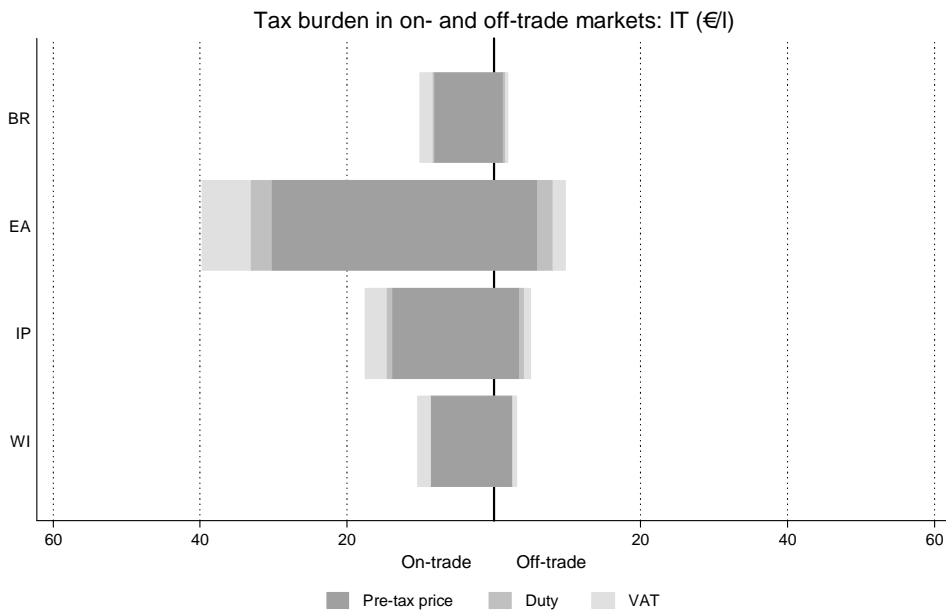
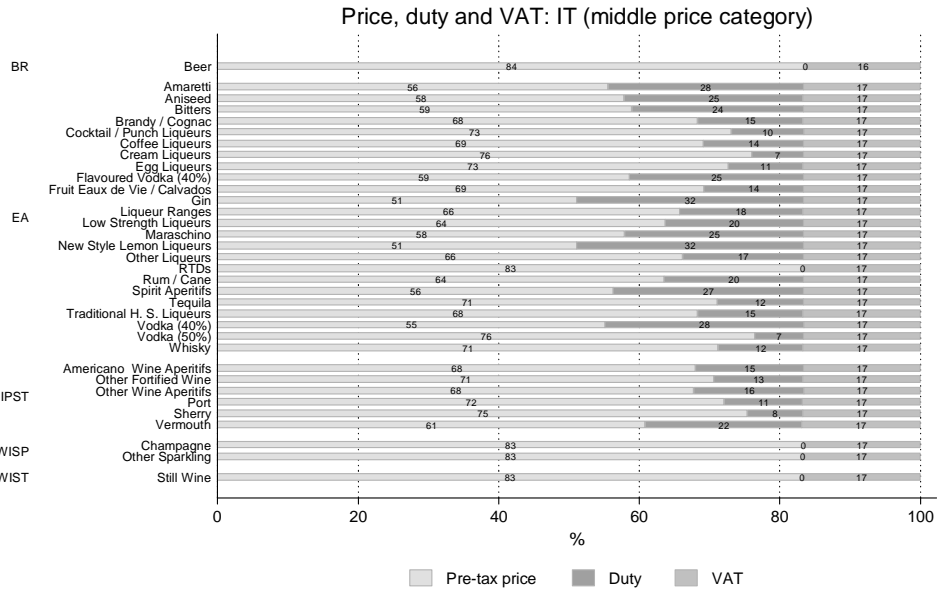
Consumption of pure alcohol by type of beverage: IT



Graphs by Member State

Source: LE analysis of data from this report.

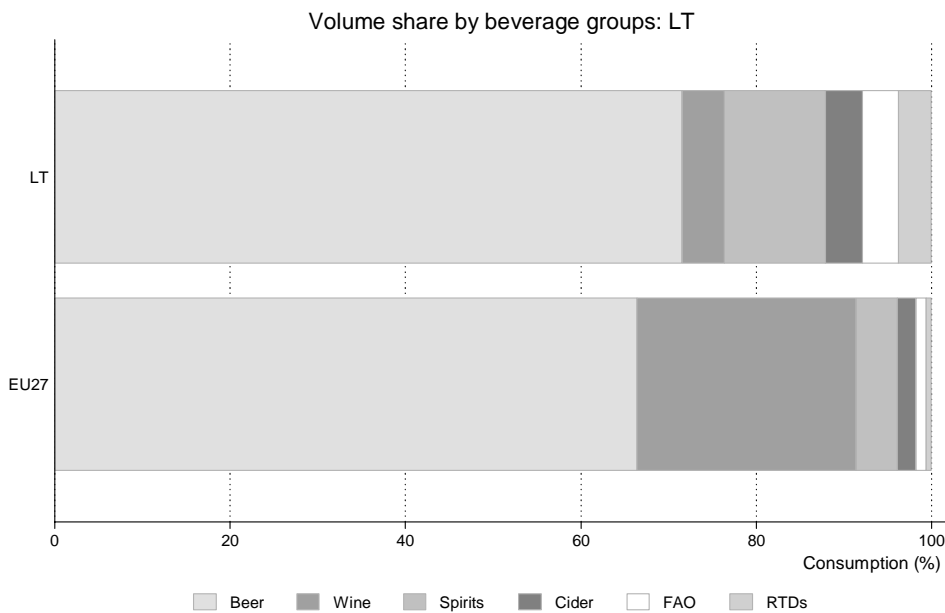
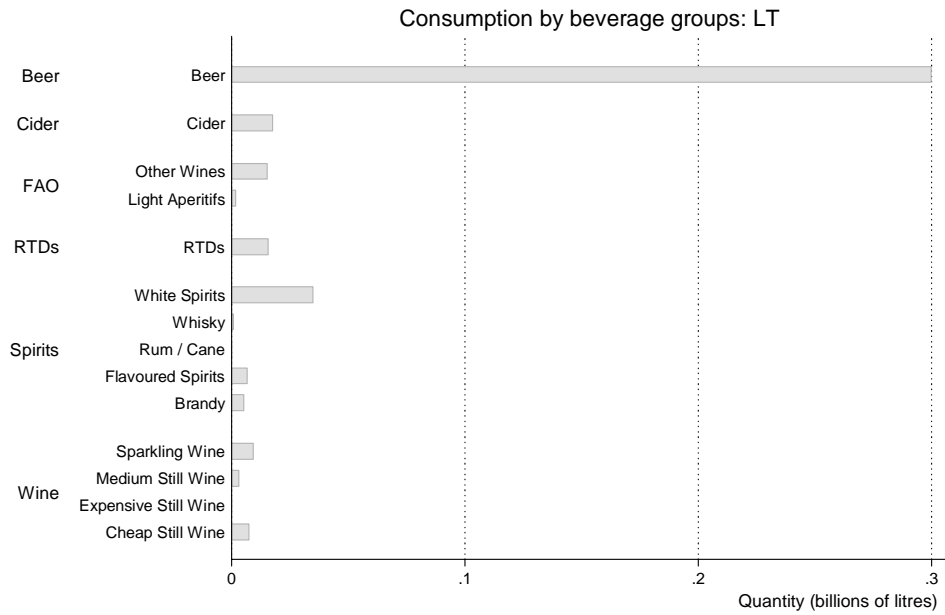
**Figure 4: Alcohol tax regime**



Source: LE analysis of data from this report.

## Annex 20 Country reporting: LT

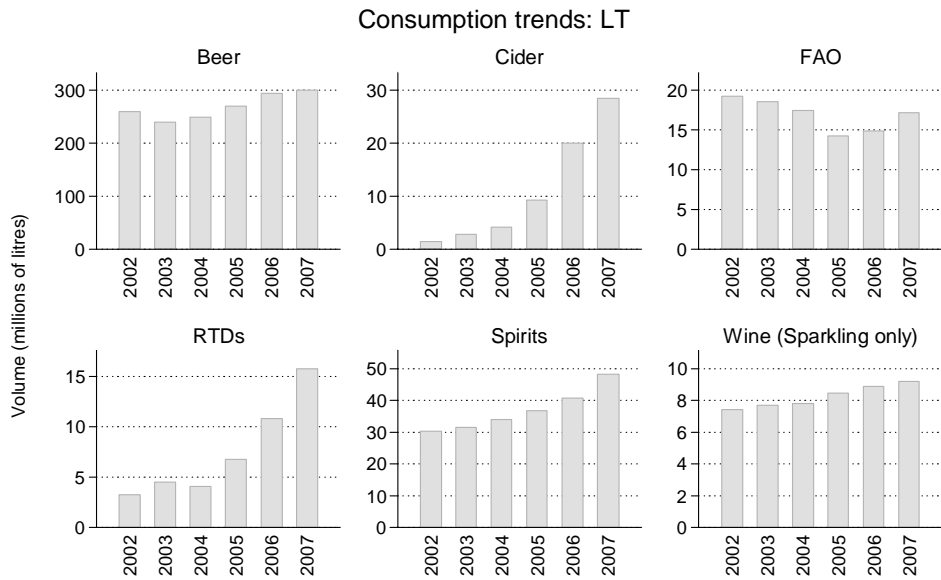
**Figure 1: Alcohol market (1)**



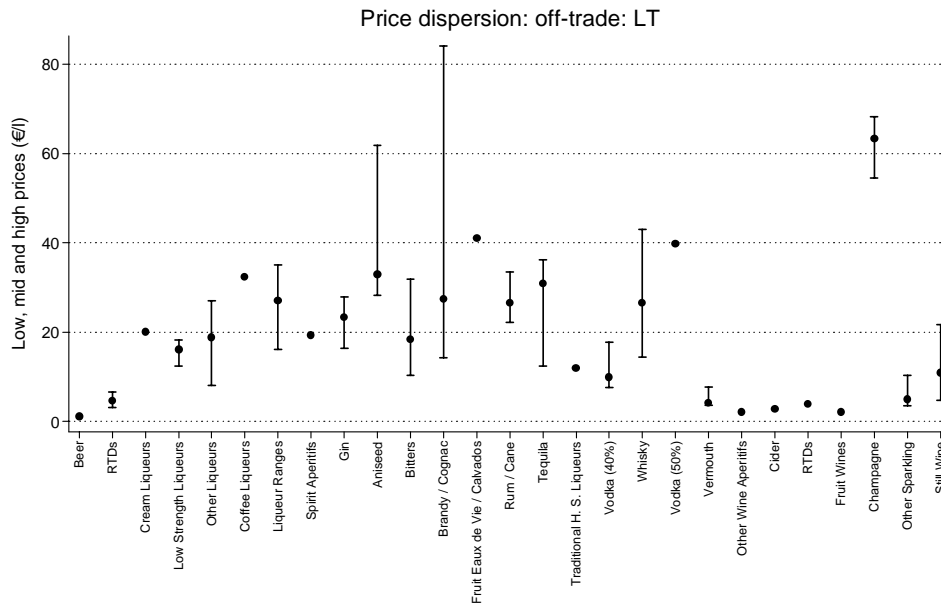
Source: LE analysis of data from this report.



**Figure 2: Alcohol market (2)**

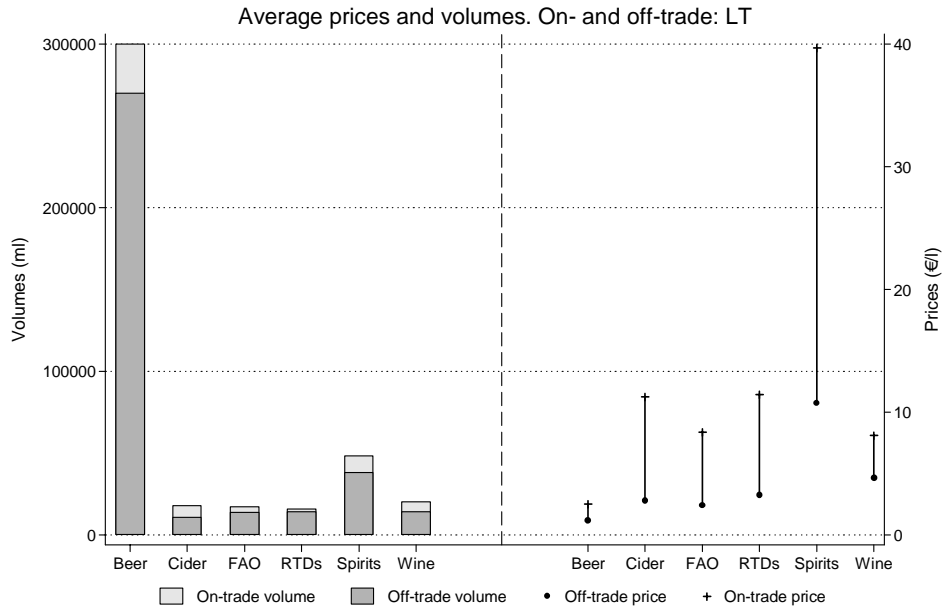


Graphs by categories

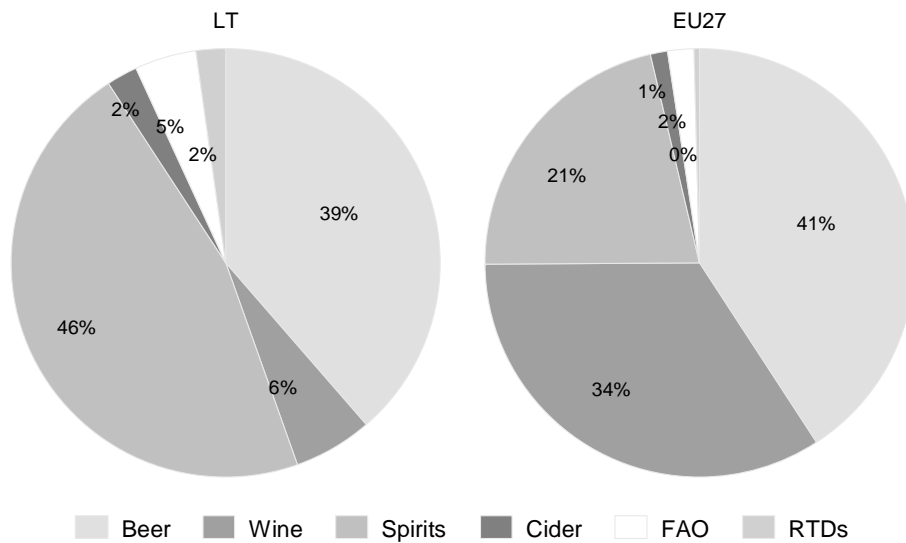


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



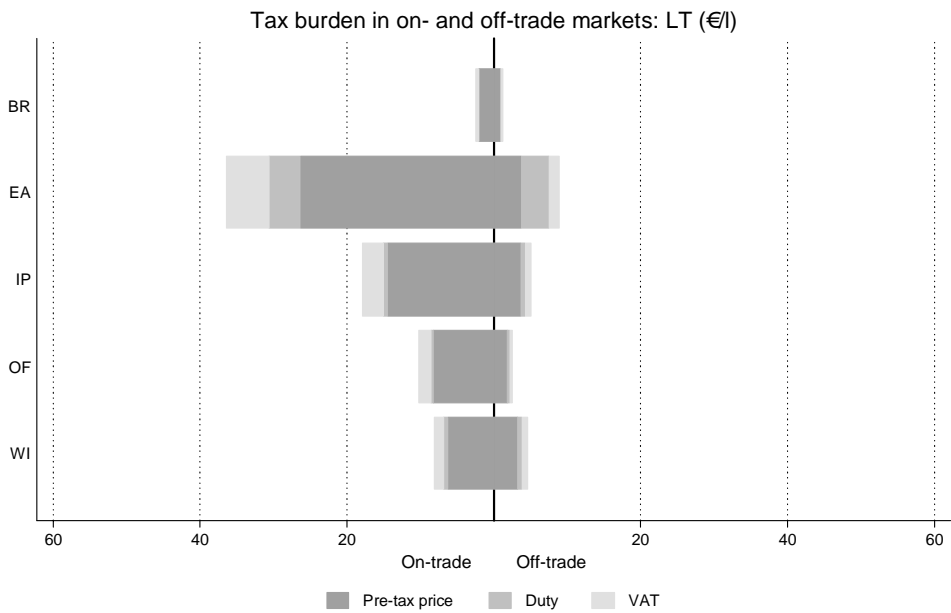
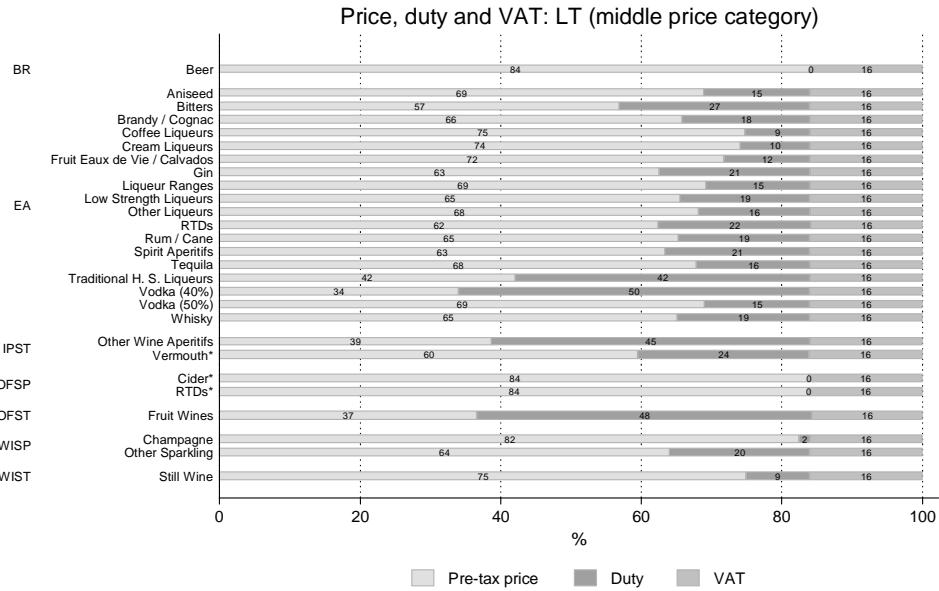
Consumption of pure alcohol by type of beverage: LT



Graphs by Member State

Source: LE analysis of data from this report.

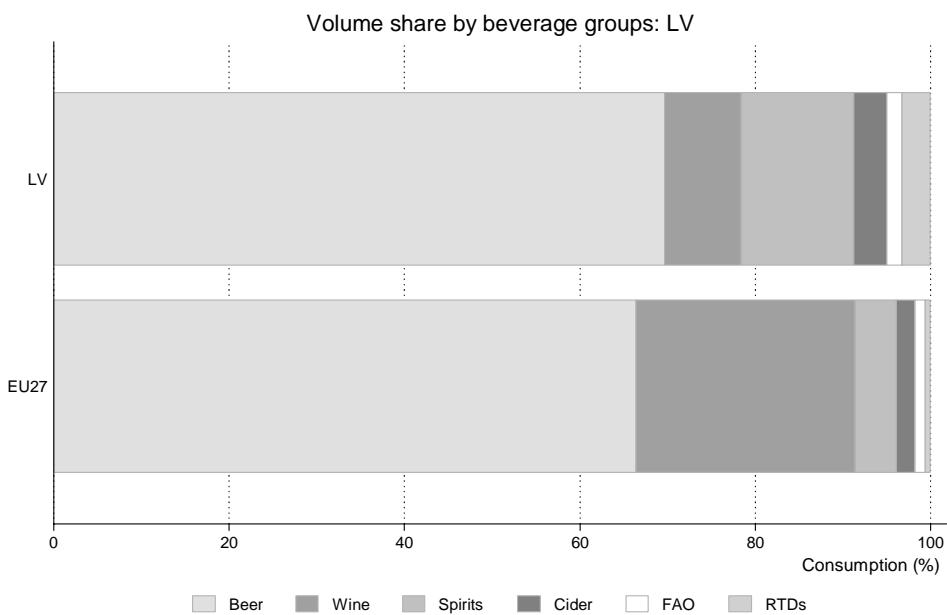
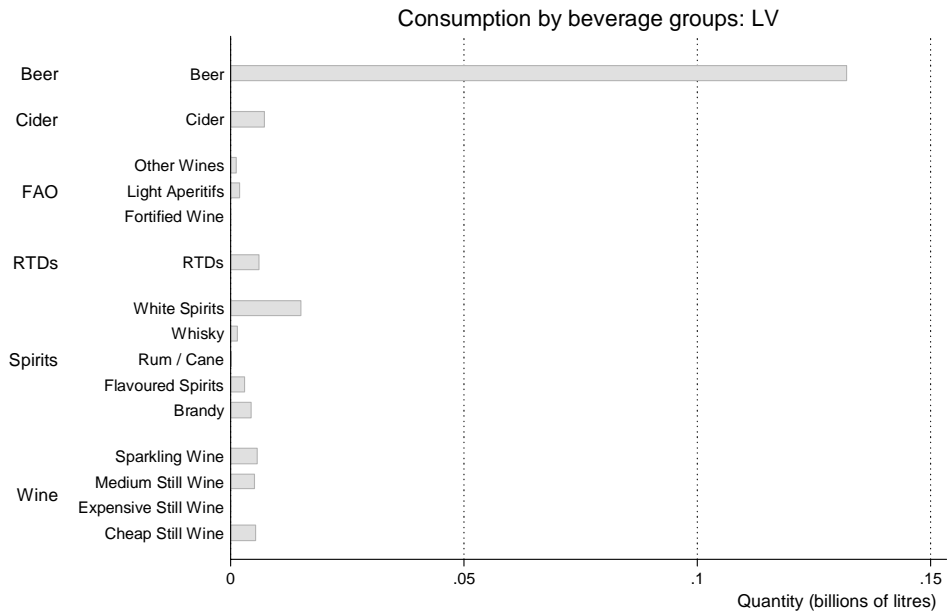
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

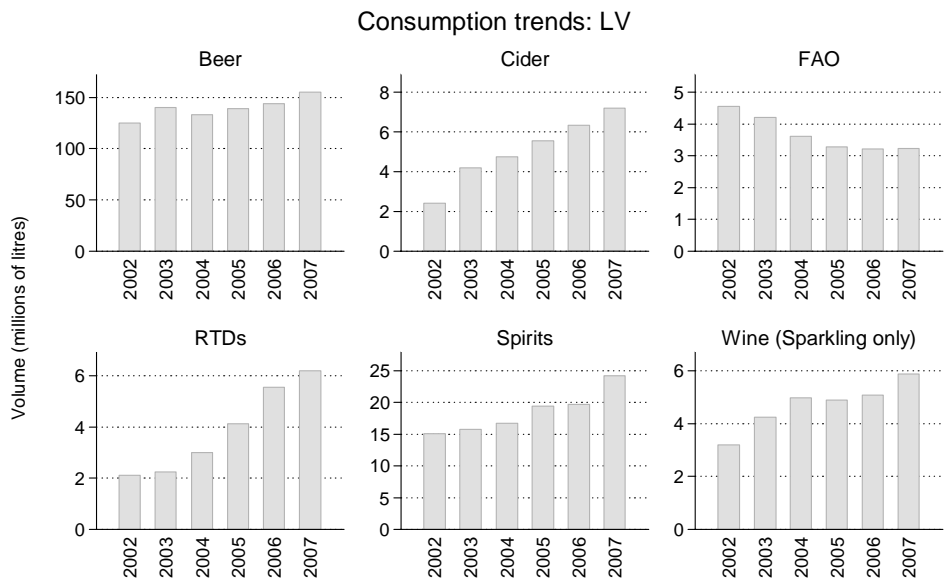
## Annex 21 Country reporting: LV

**Figure 1: Alcohol market (1)**

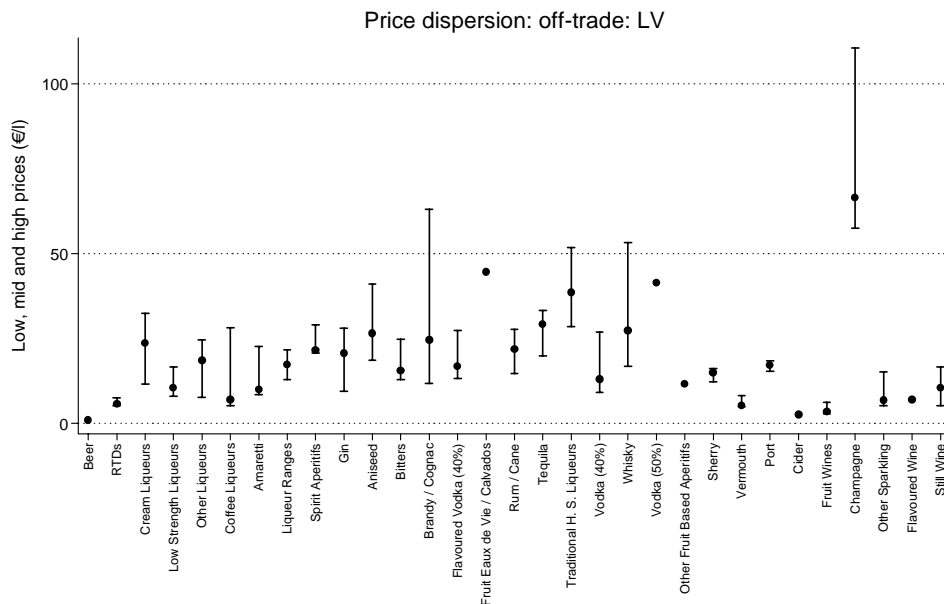


Source: LE analysis of data from this report.

**Figure 2: Alcohol market (2)**

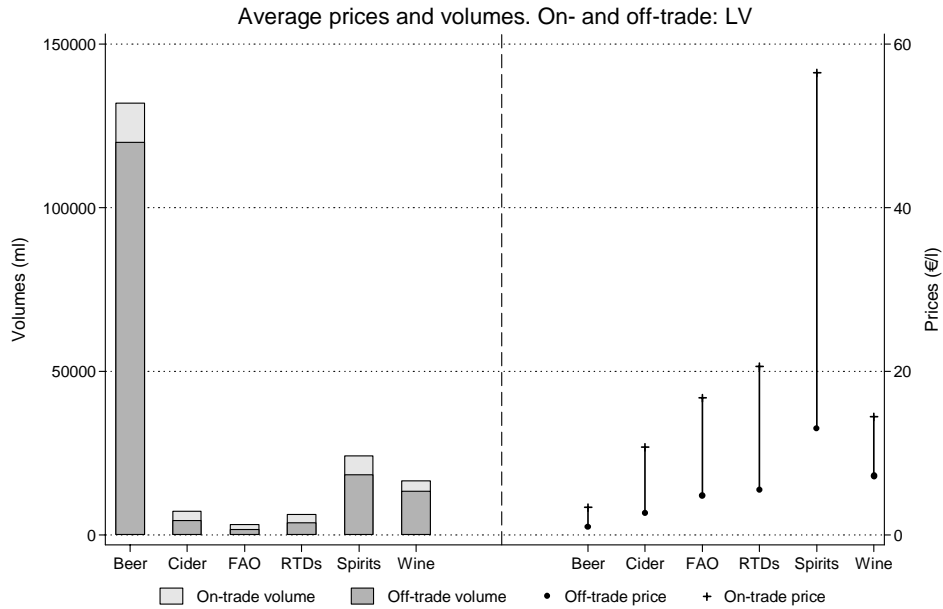


Graphs by categories

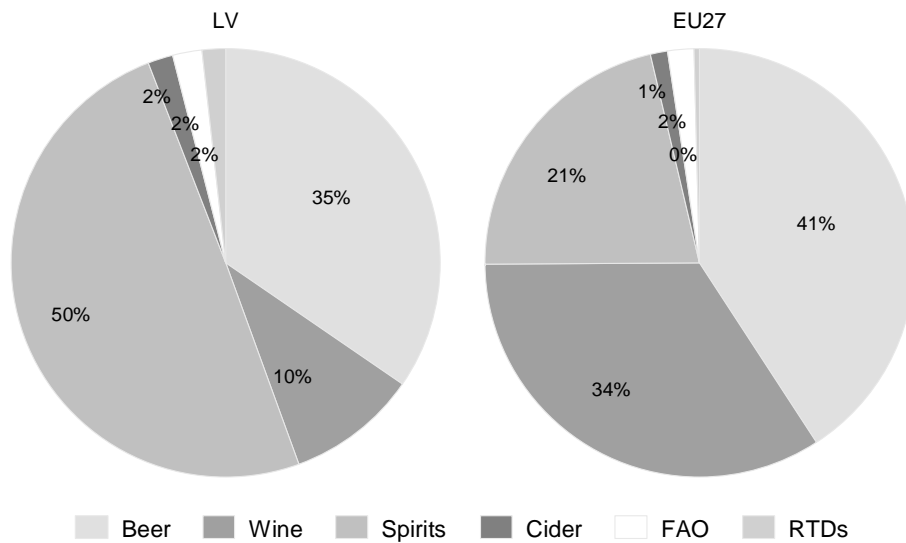


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



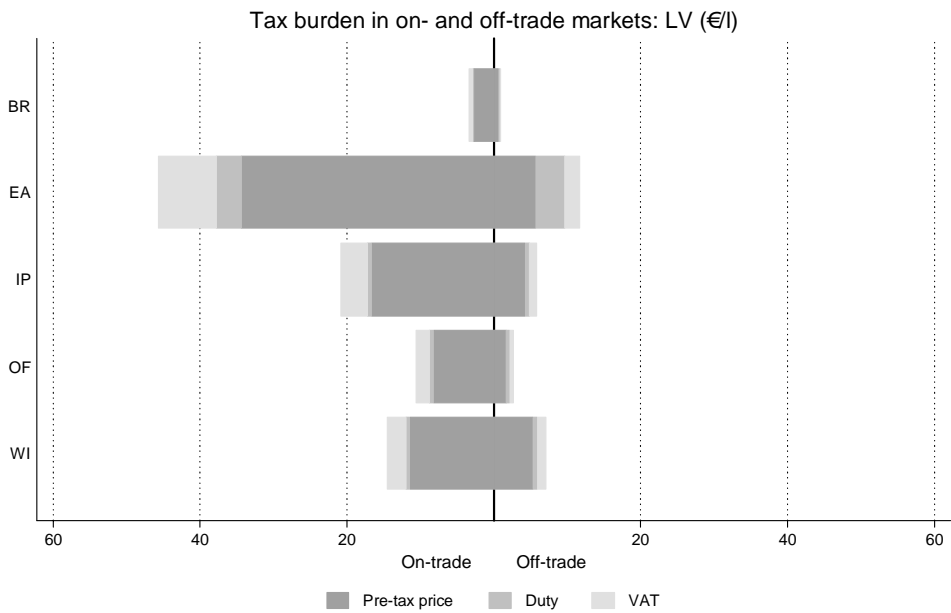
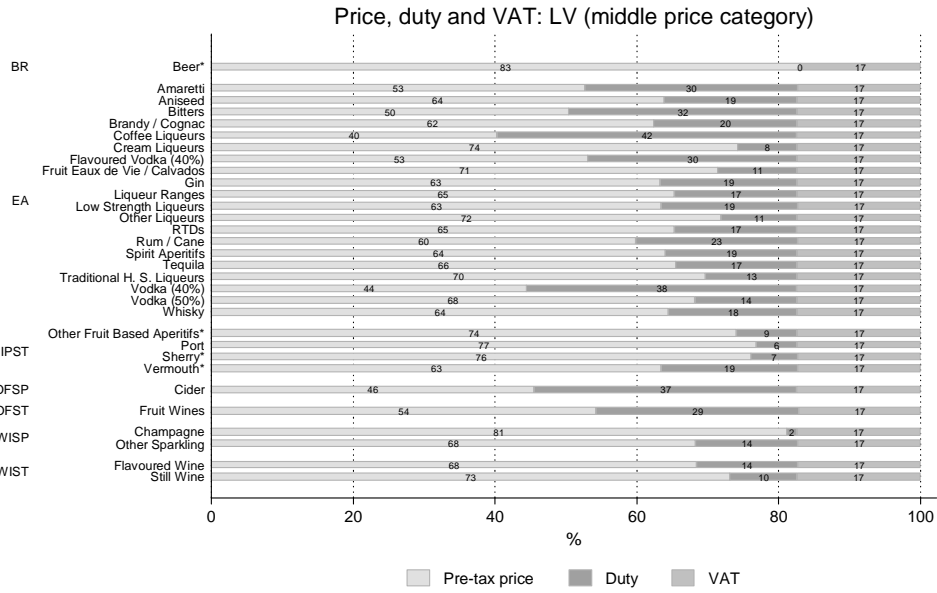
Consumption of pure alcohol by type of beverage: LV



Graphs by Member State

Source: LE analysis of data from this report.

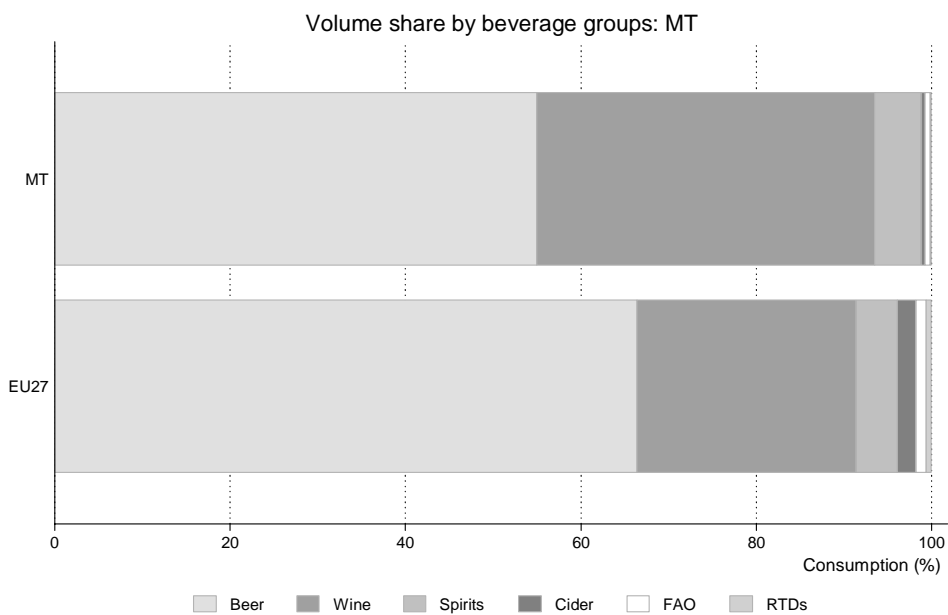
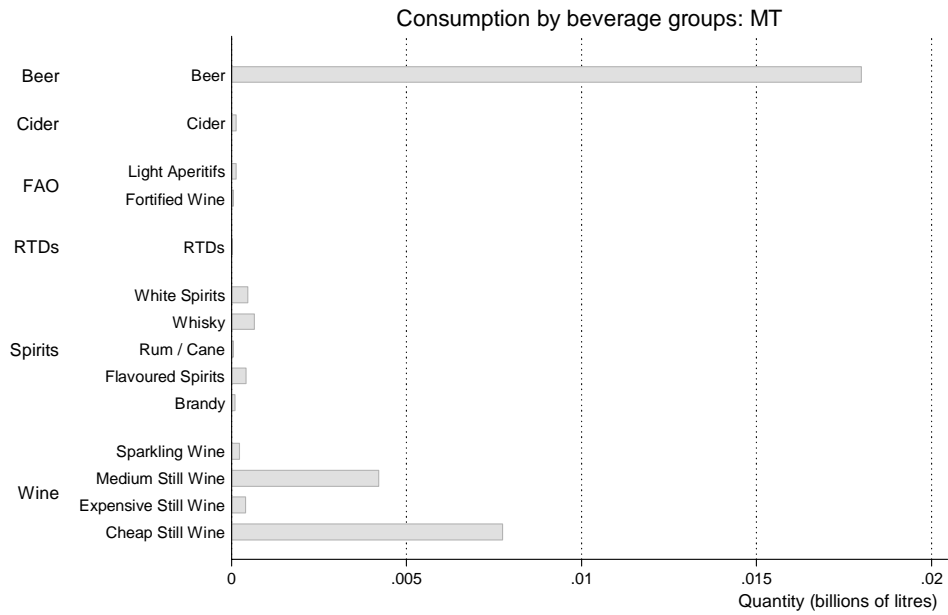
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

## Annex 22 Country reporting: MT

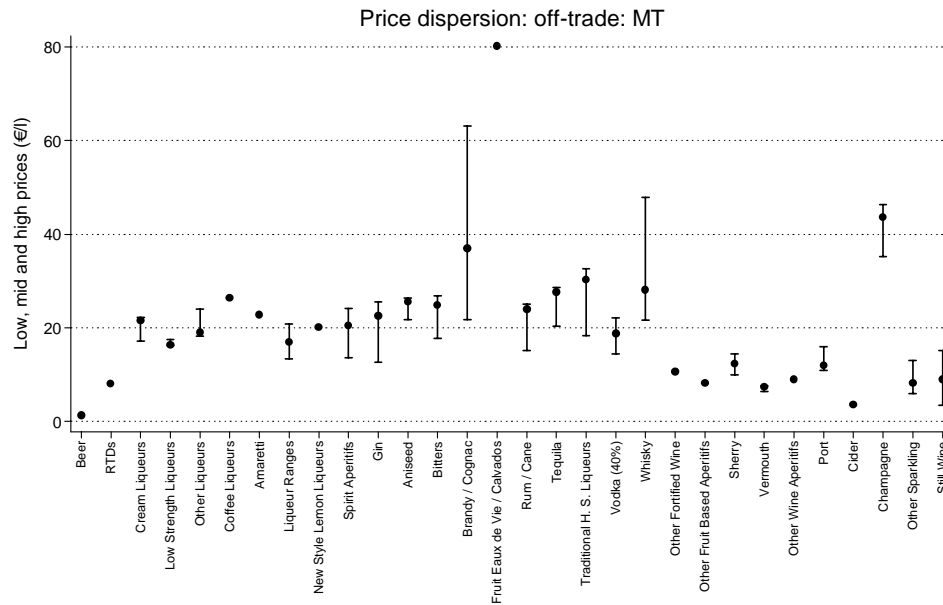
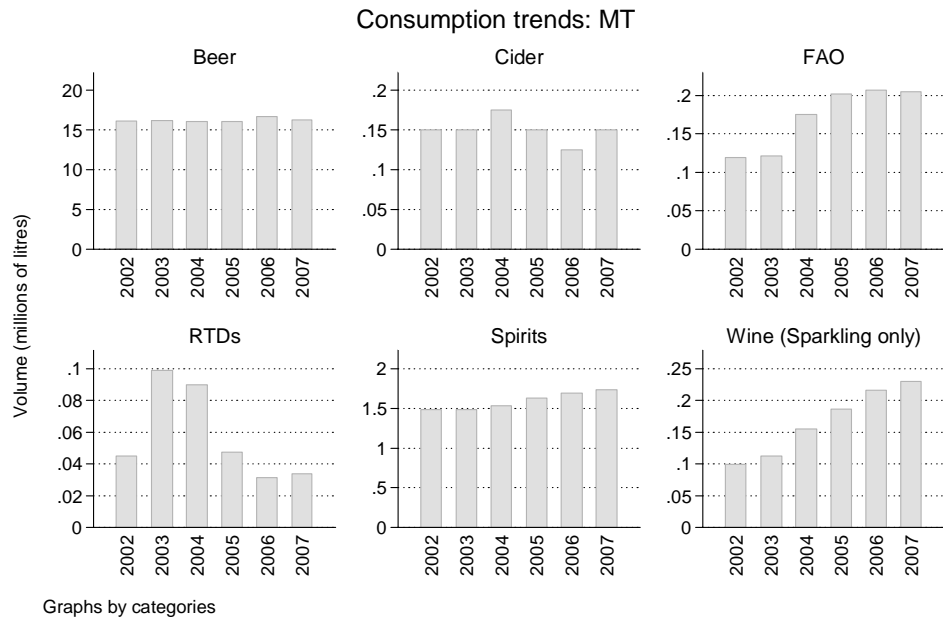
**Figure 1: Alcohol market (1)**



Source: LE analysis of data from this report.

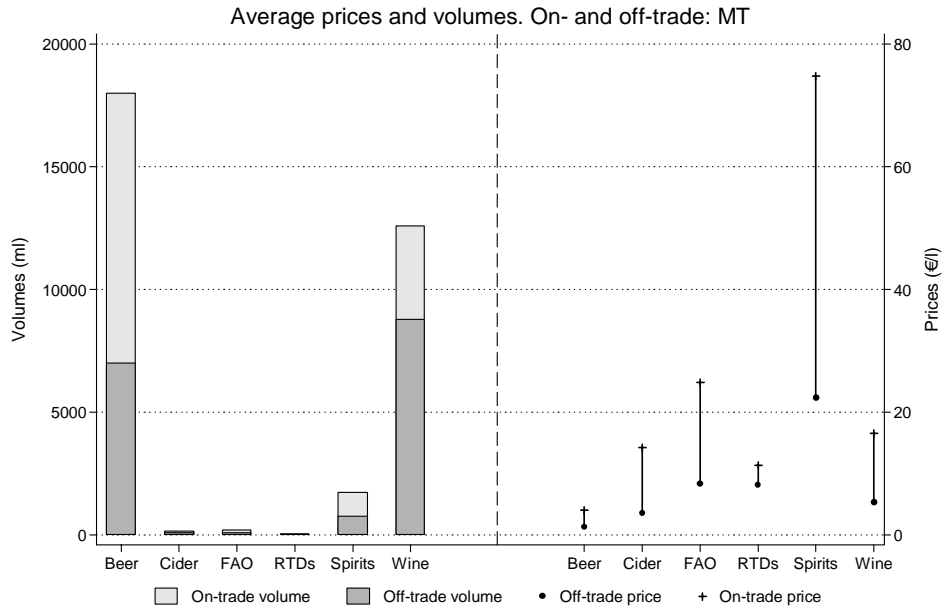


Figure 2: Alcohol market (2)

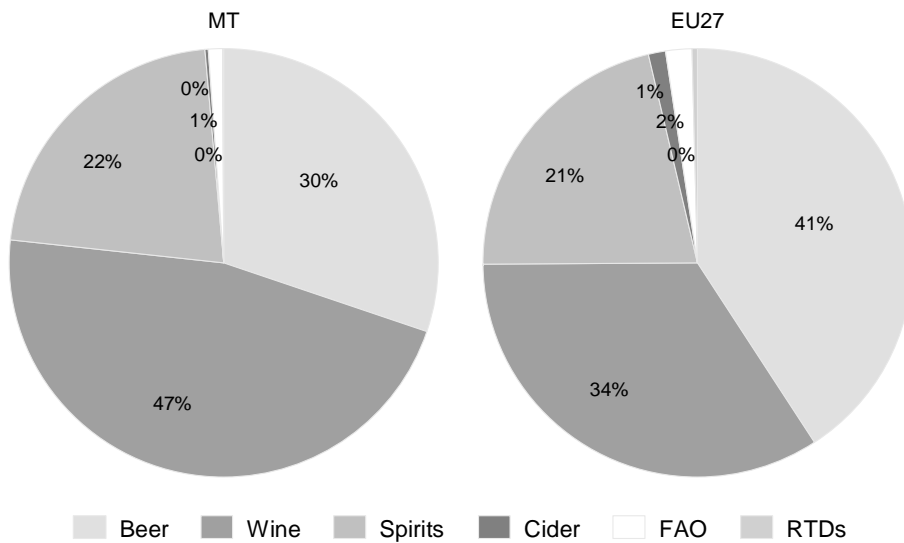


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



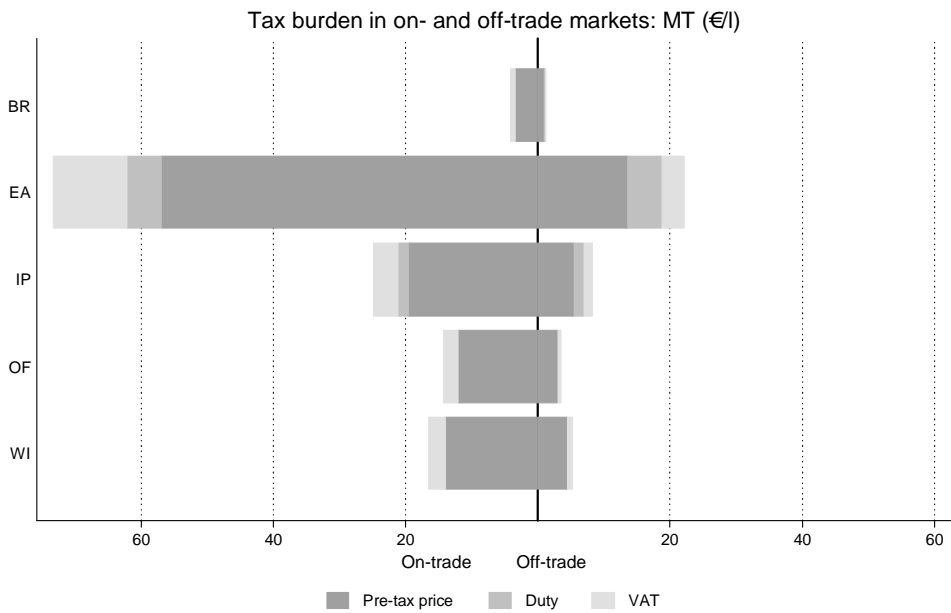
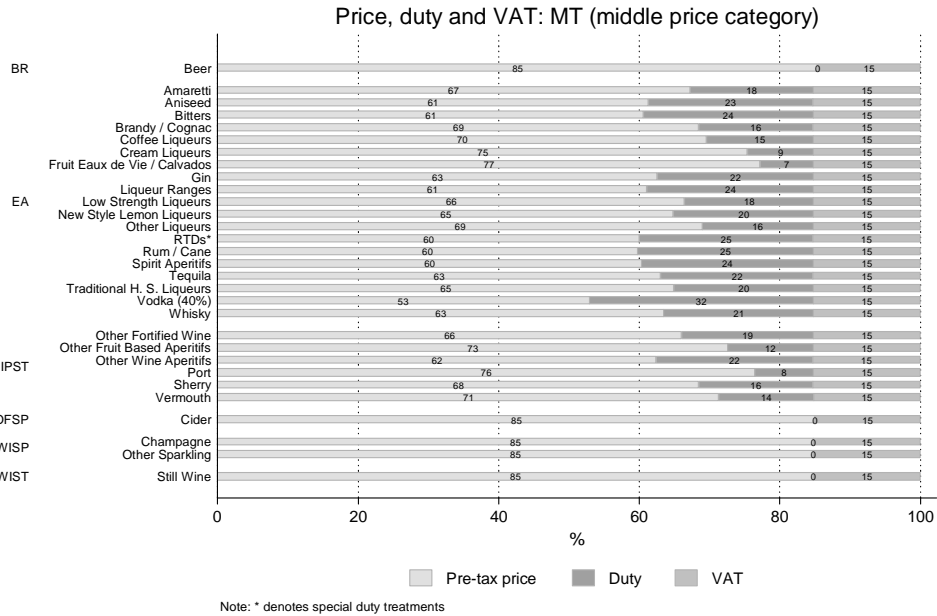
Consumption of pure alcohol by type of beverage: MT



Graphs by Member State

Source: LE analysis of data from this report.

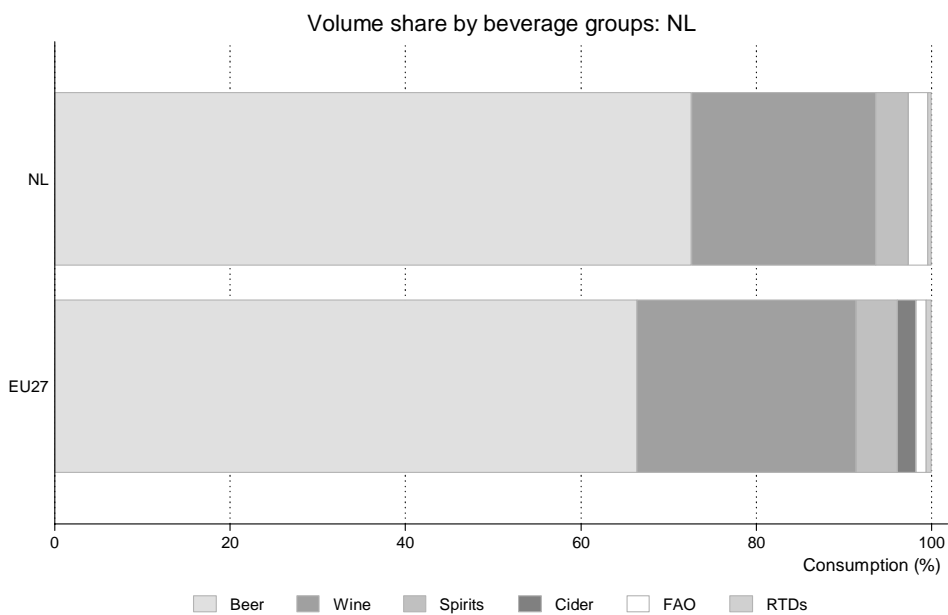
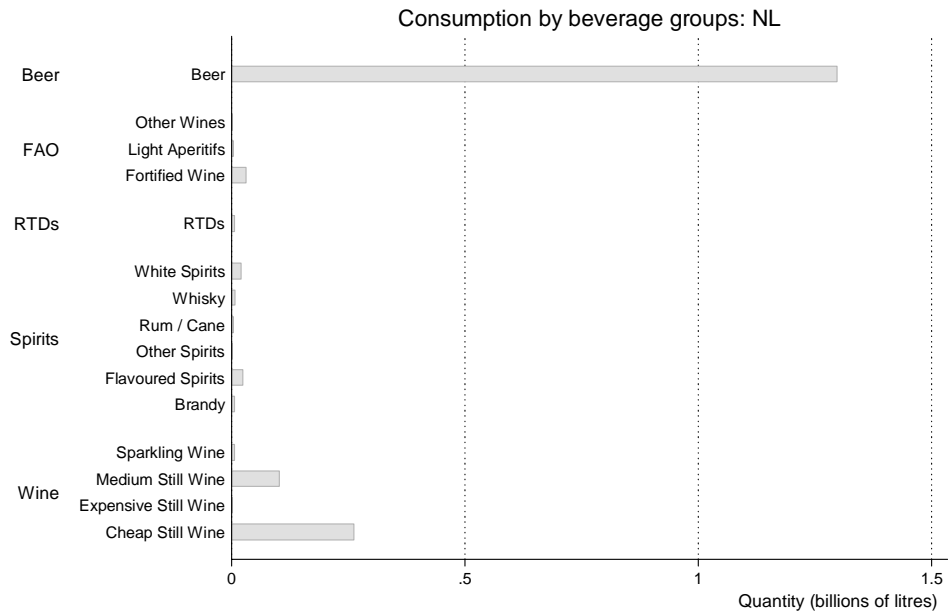
**Figure 4: Alcohol tax regime**



Source: LE analysis of data from this report.

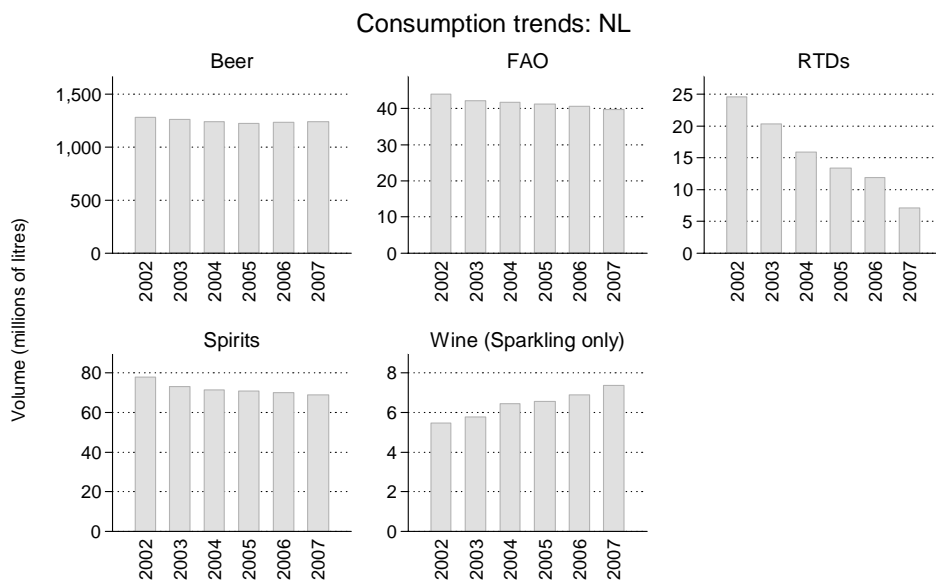
## Annex 23 Country reporting: NL

**Figure 1: Alcohol market (1)**

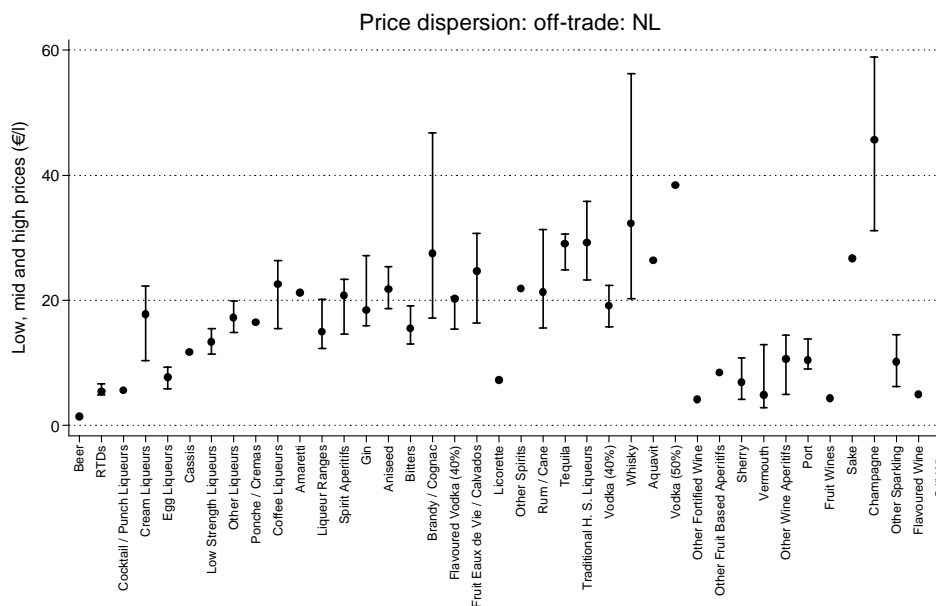


Source: LE analysis of data from this report.

**Figure 2: Alcohol market (2)**

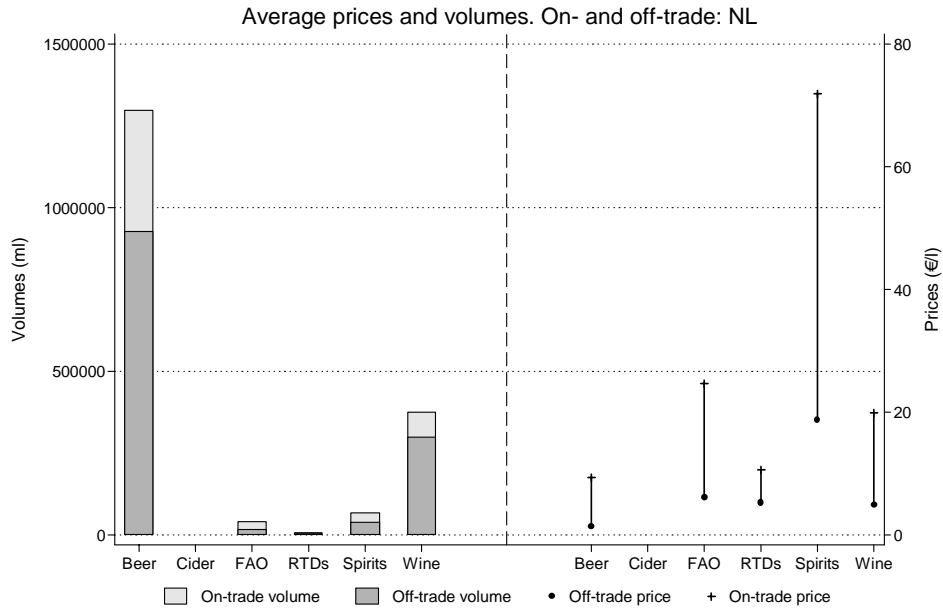


Graphs by categories

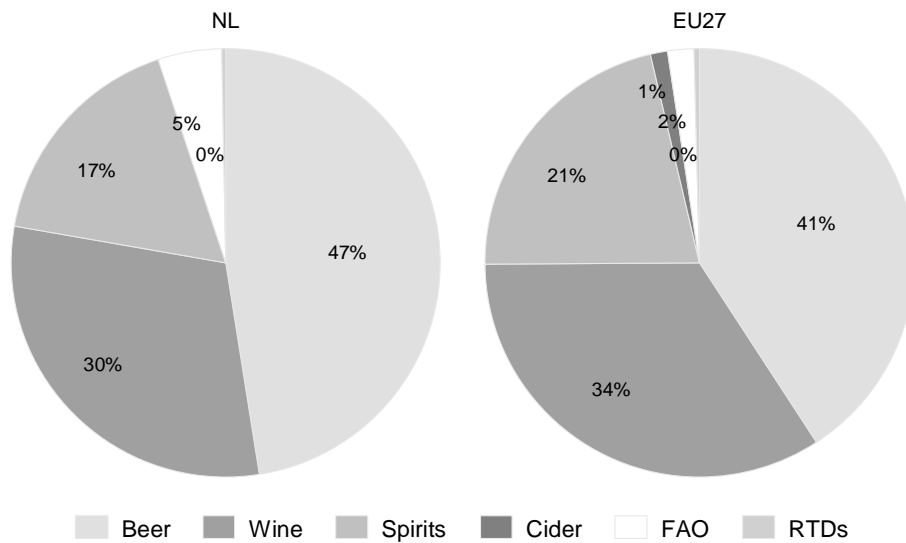


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



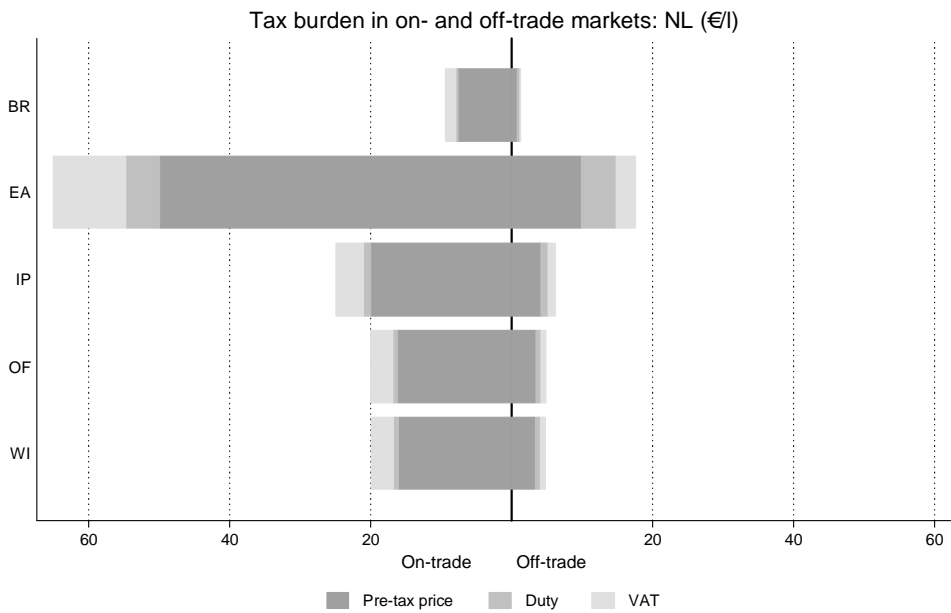
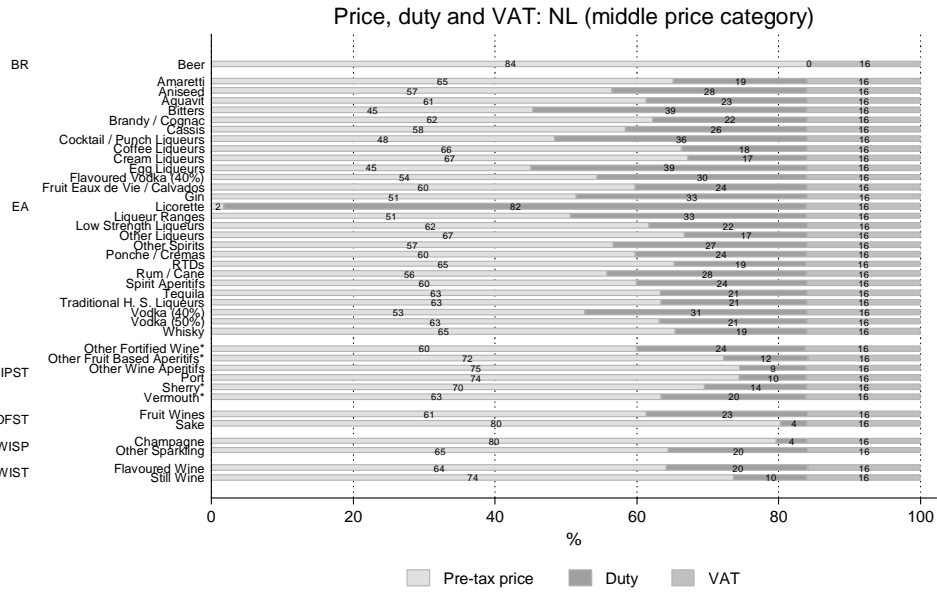
Consumption of pure alcohol by type of beverage: NL



Graphs by Member State

Source: LE analysis of data from this report.

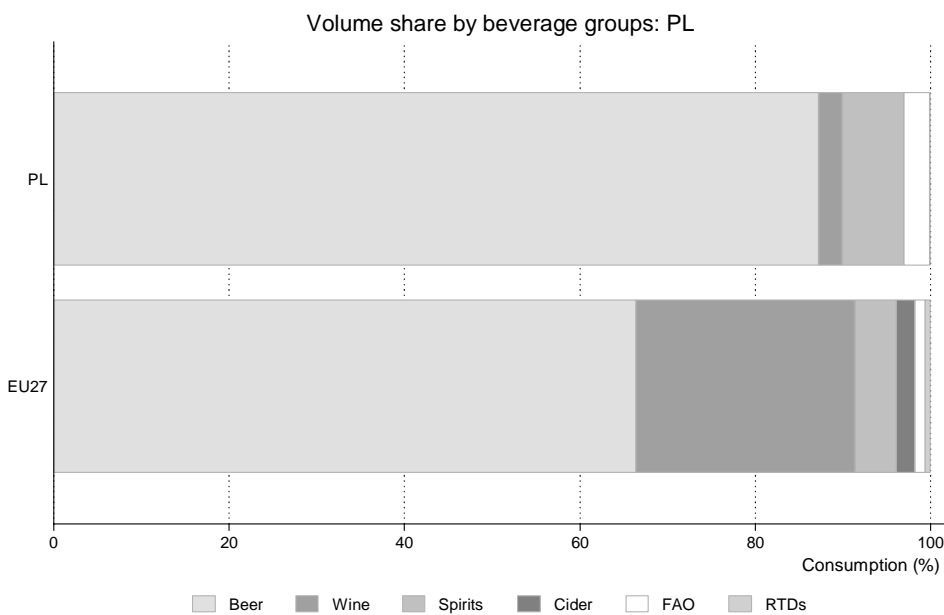
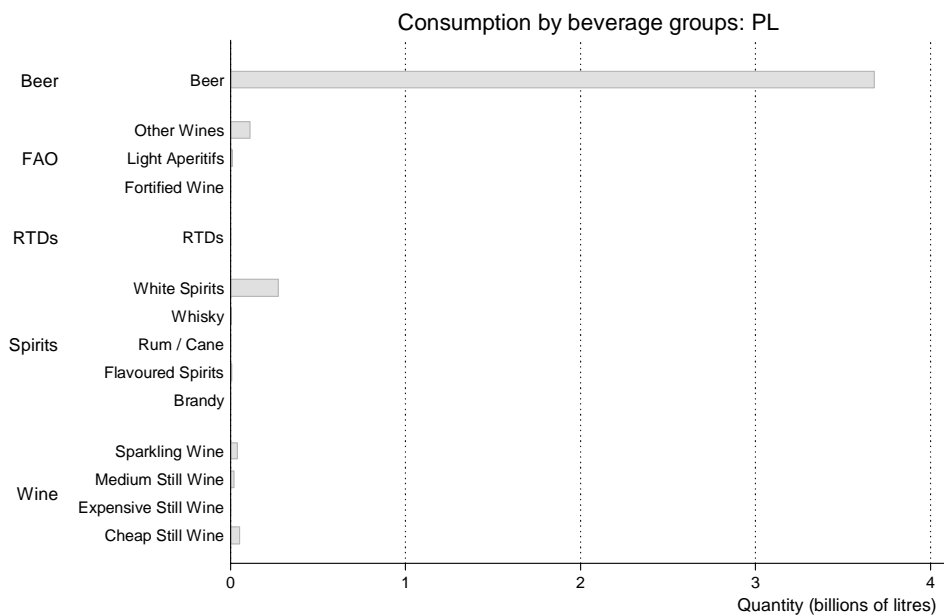
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

## Annex 24 Country reporting: PL

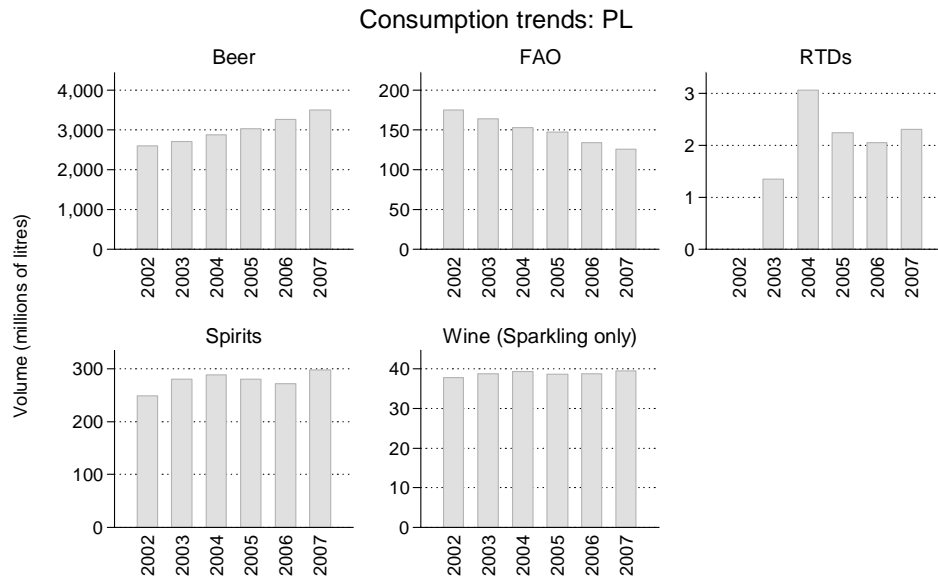
**Figure 1: Alcohol market (1)**



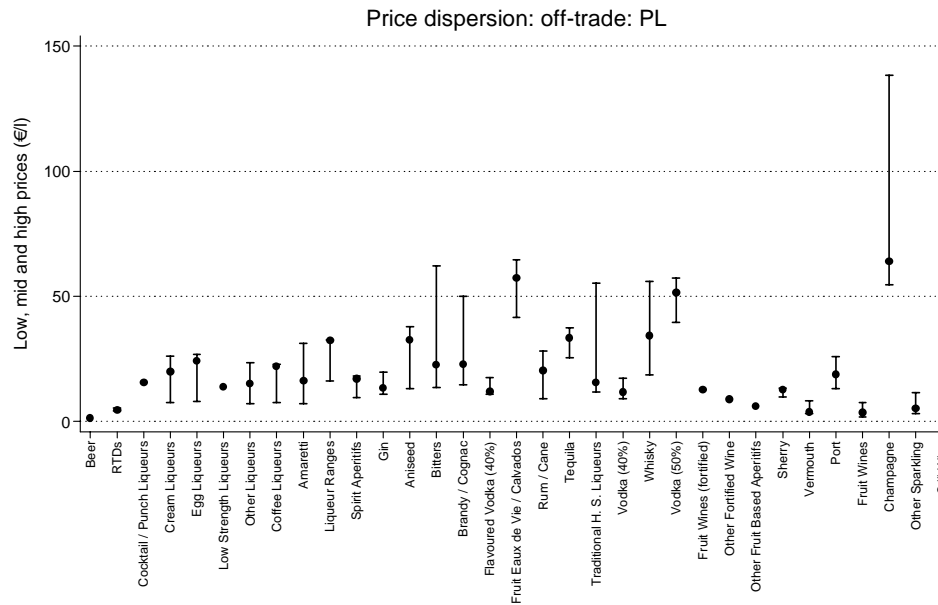
Source: LE analysis of data from this report.



Figure 2: Alcohol market (2)

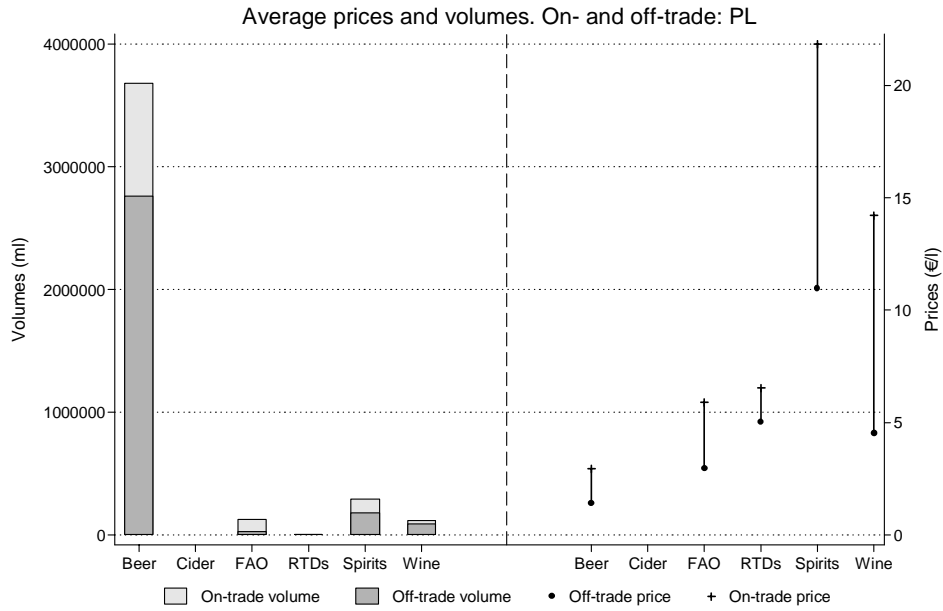


Graphs by categories

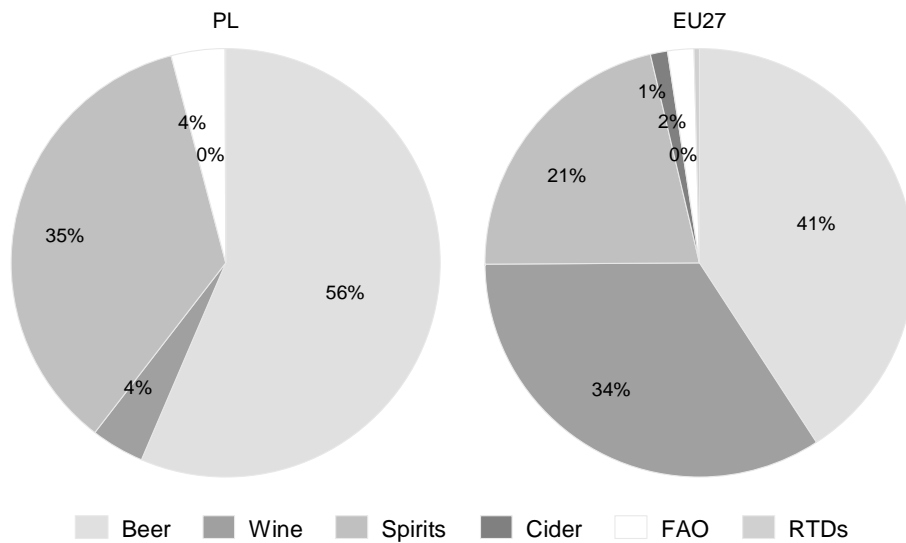


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



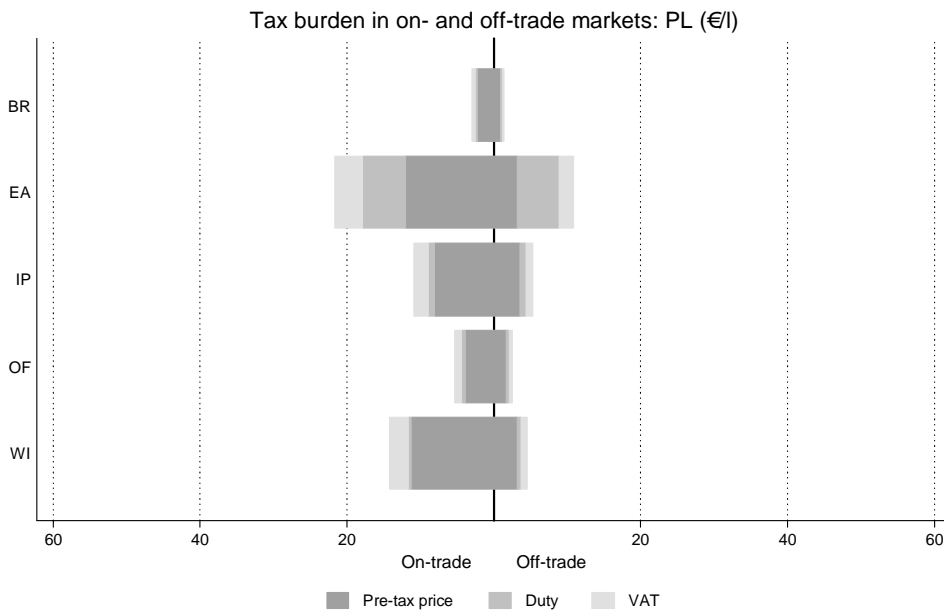
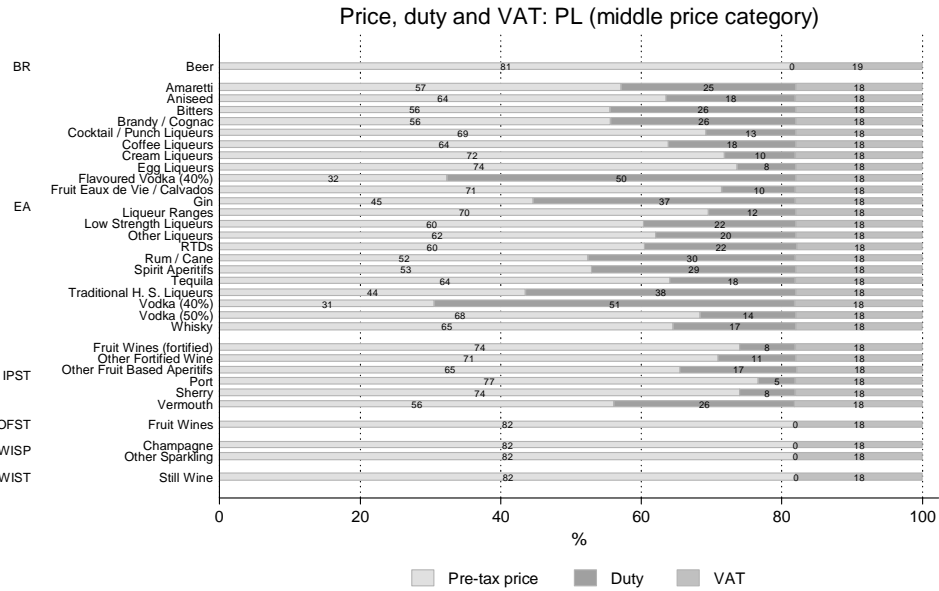
Consumption of pure alcohol by type of beverage: PL



Graphs by Member State

Source: LE analysis of data from this report.

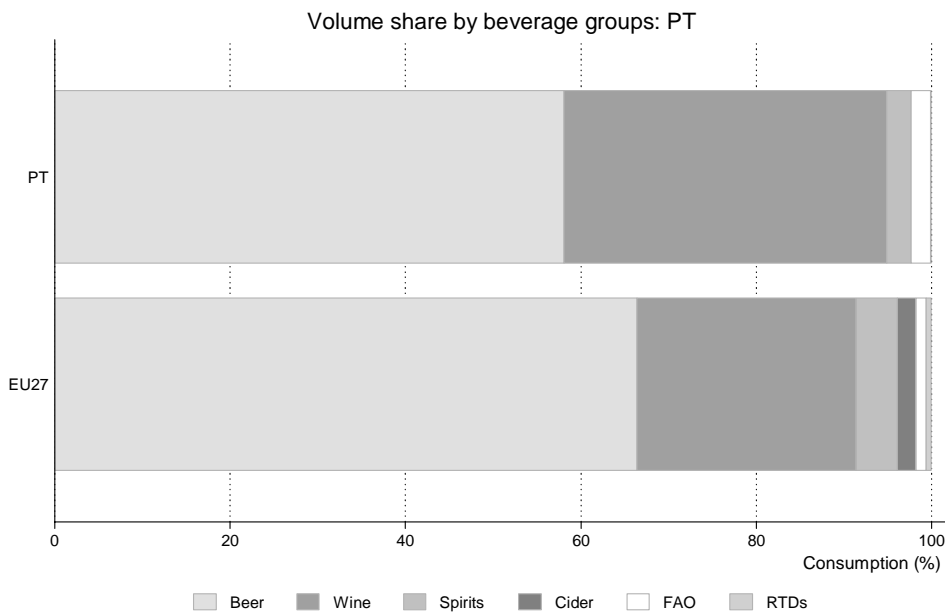
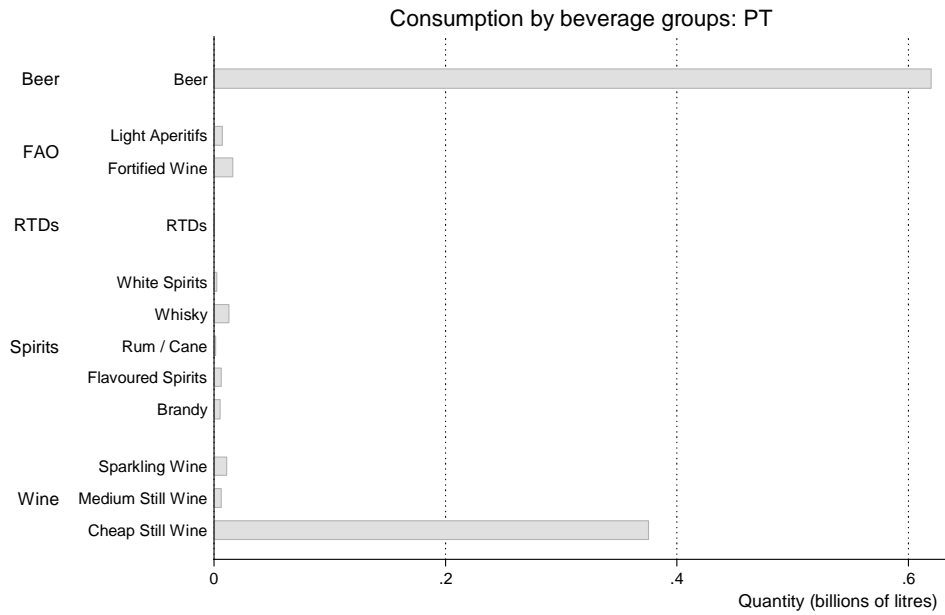
Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.

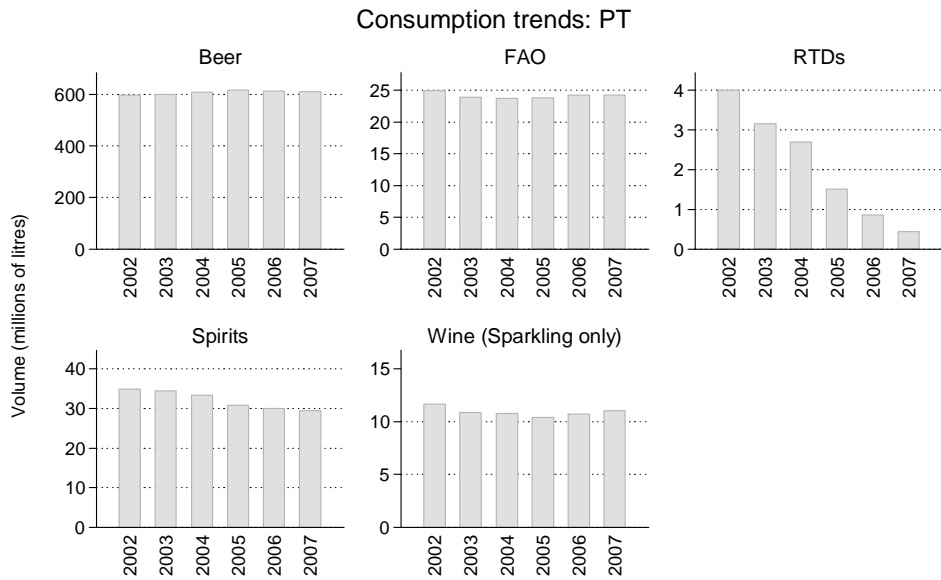
## Annex 25 Country reporting: PT

**Figure 1: Alcohol market (1)**

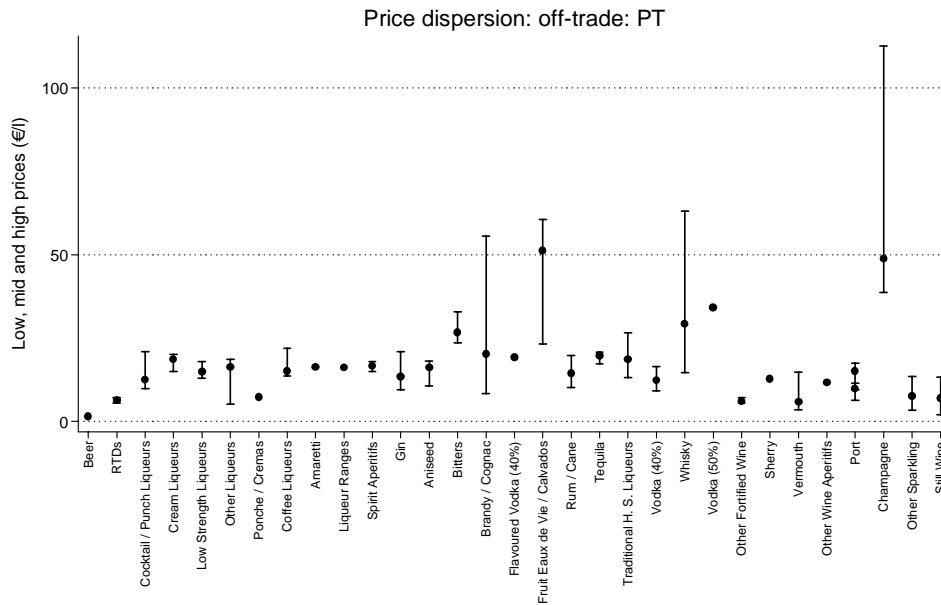


Source: LE analysis of data from this report.

**Figure 2: Alcohol market (2)**

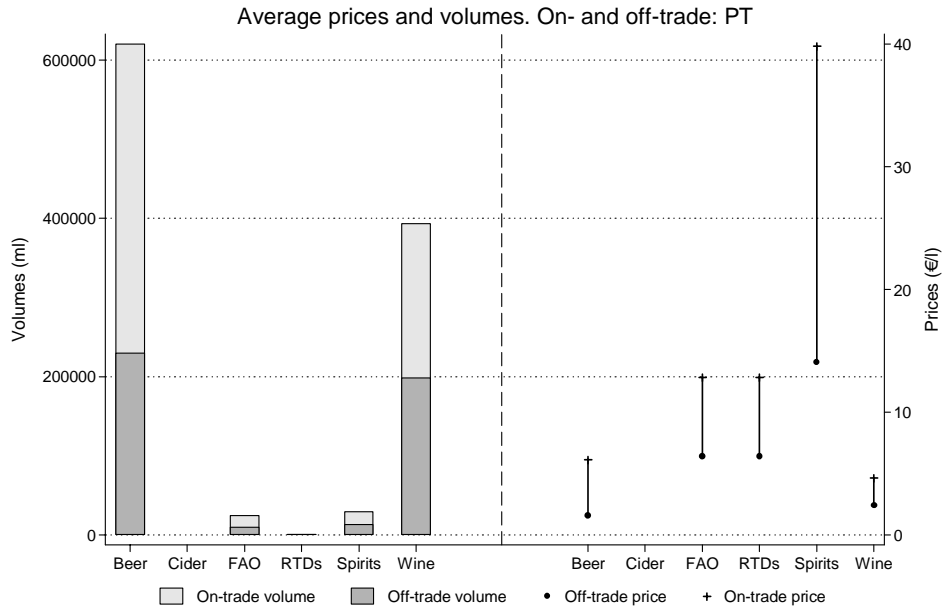


Graphs by categories

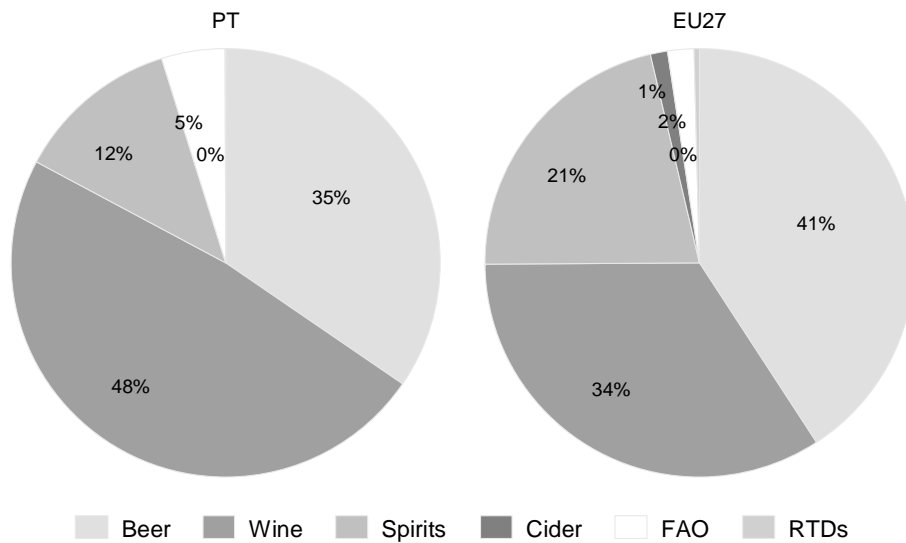


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



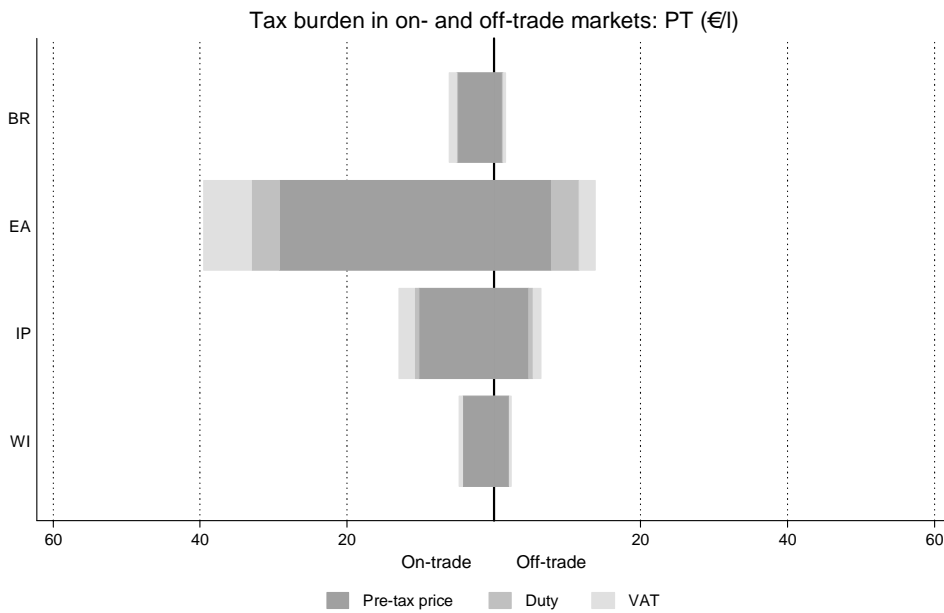
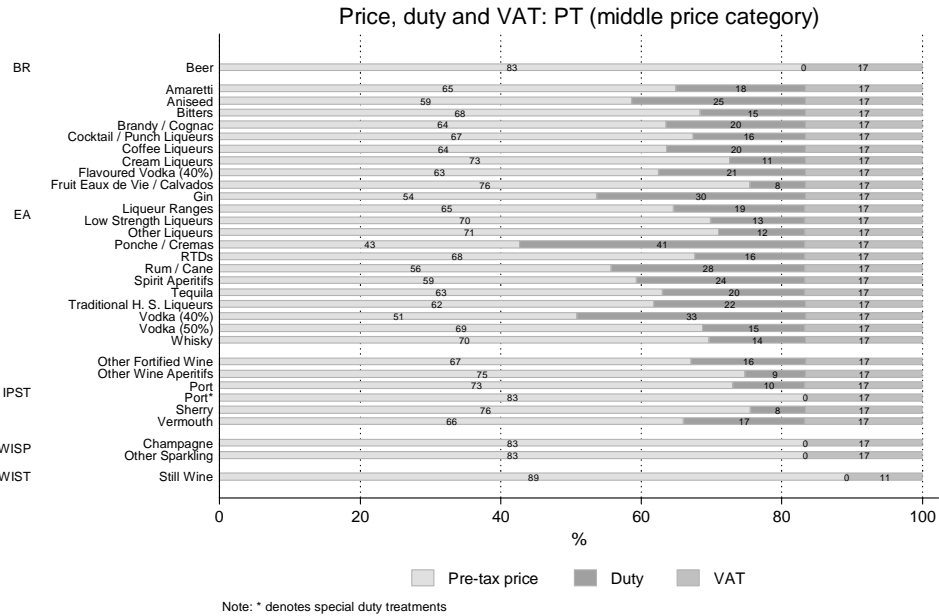
Consumption of pure alcohol by type of beverage: PT



Graphs by Member State

Source: LE analysis of data from this report.

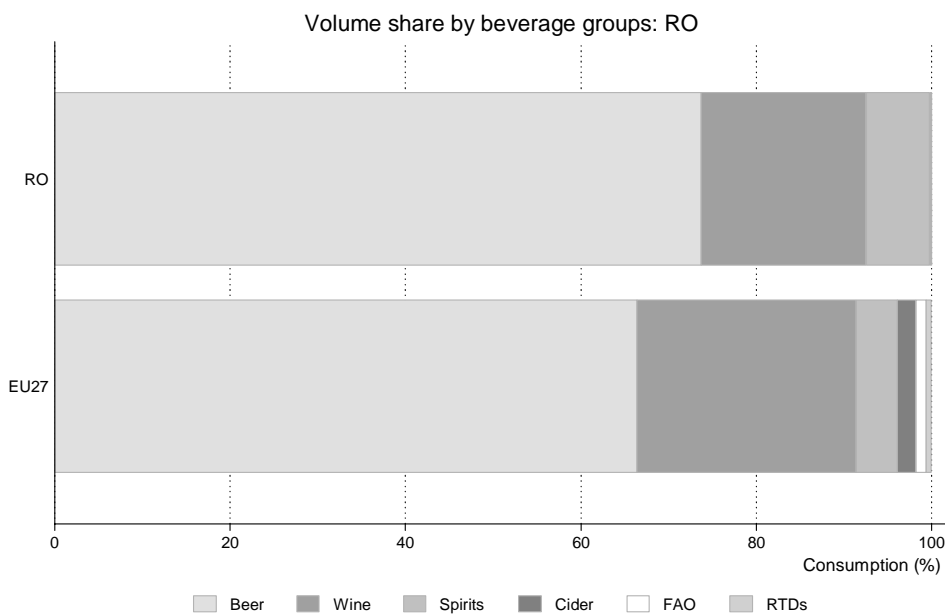
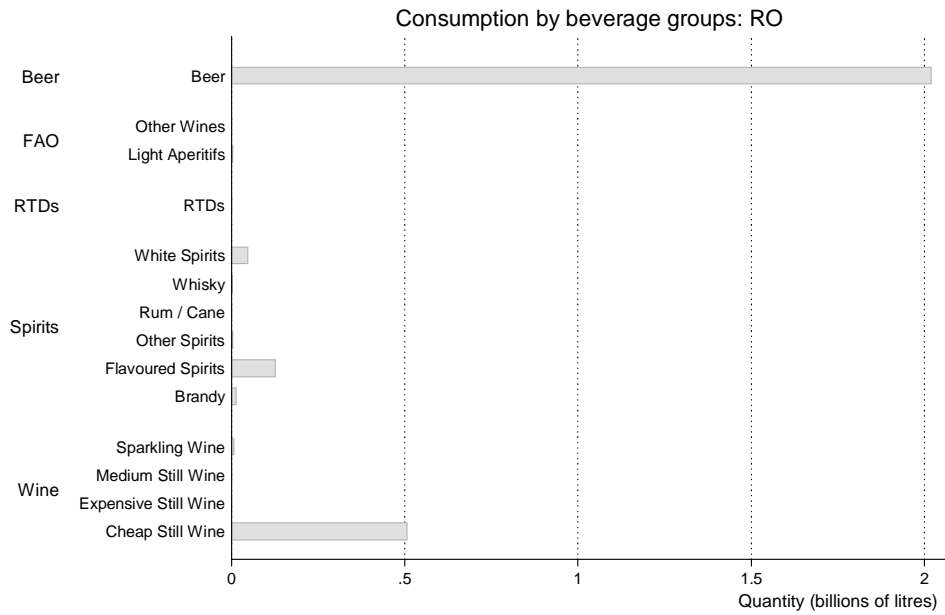
**Figure 4: Alcohol tax regime**



Source: LE analysis of data from this report.

## Annex 26 Country reporting: RO

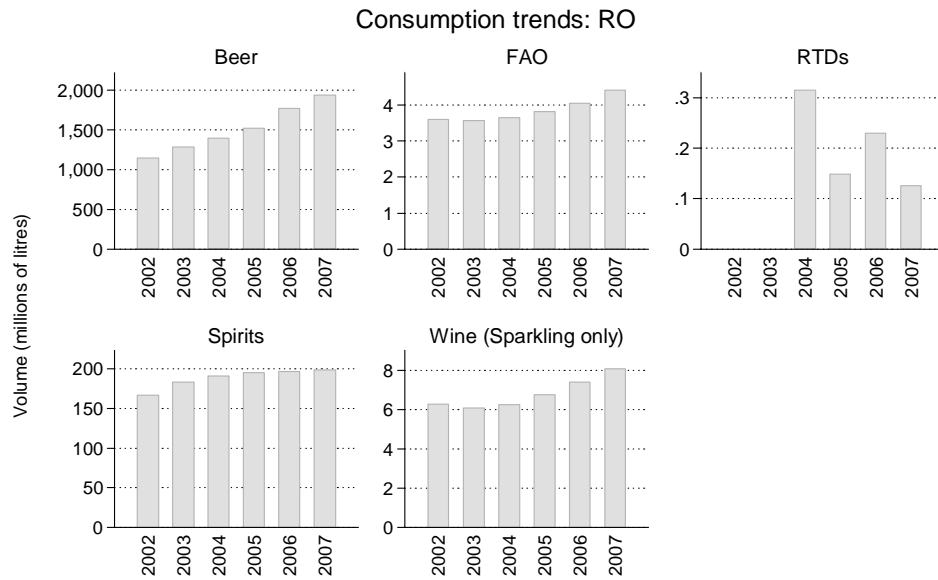
**Figure 1: Alcohol market (1)**



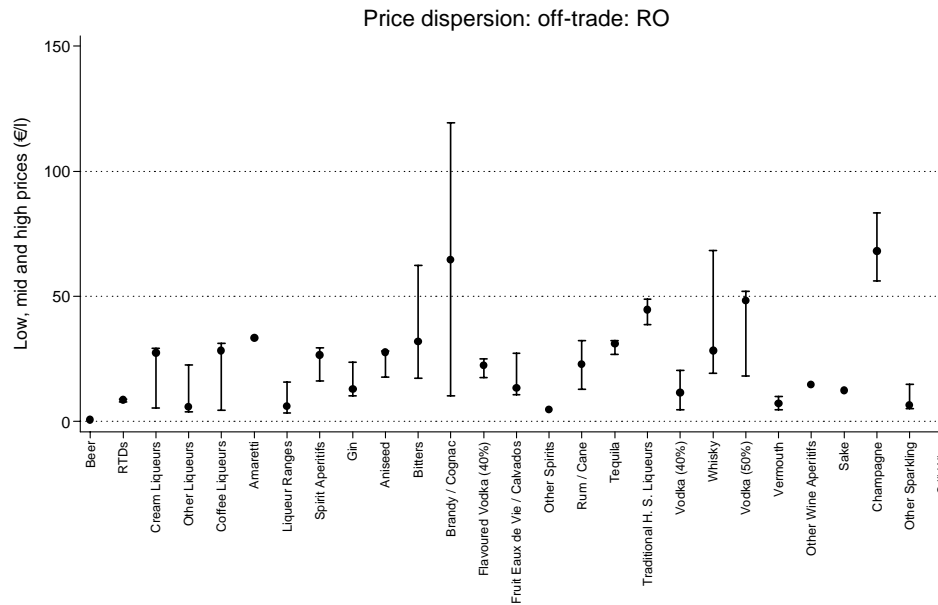
Source: LE analysis of data from this report.



Figure 2: Alcohol market (2)

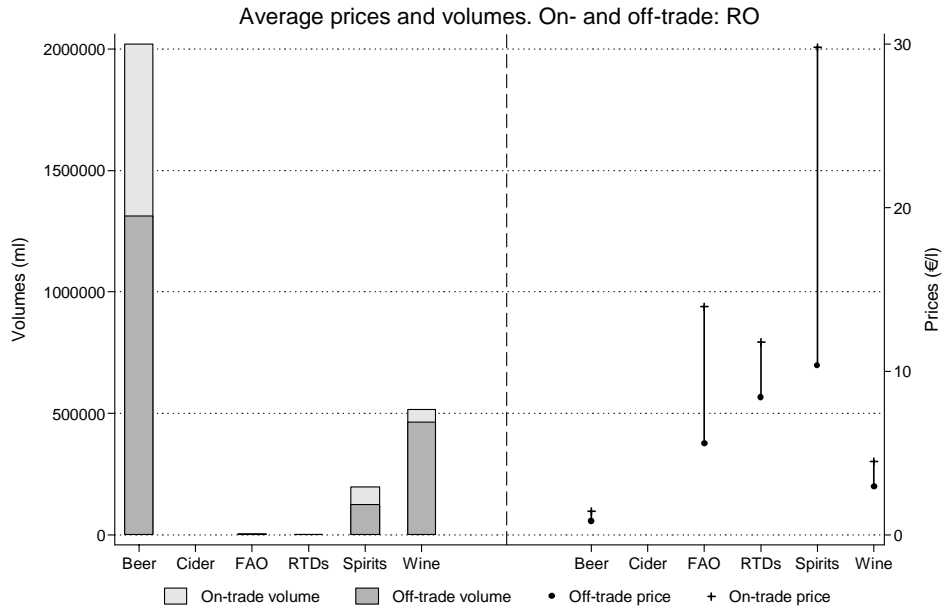


Graphs by categories

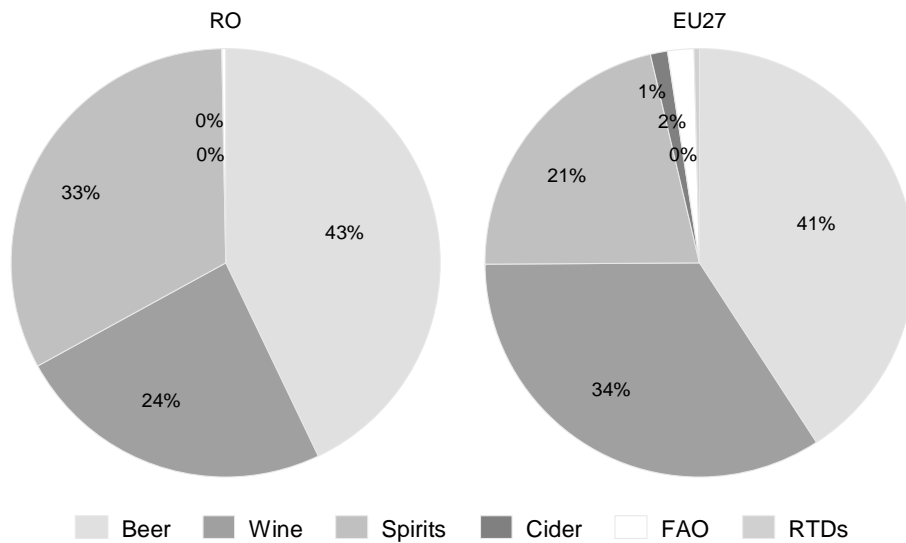


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



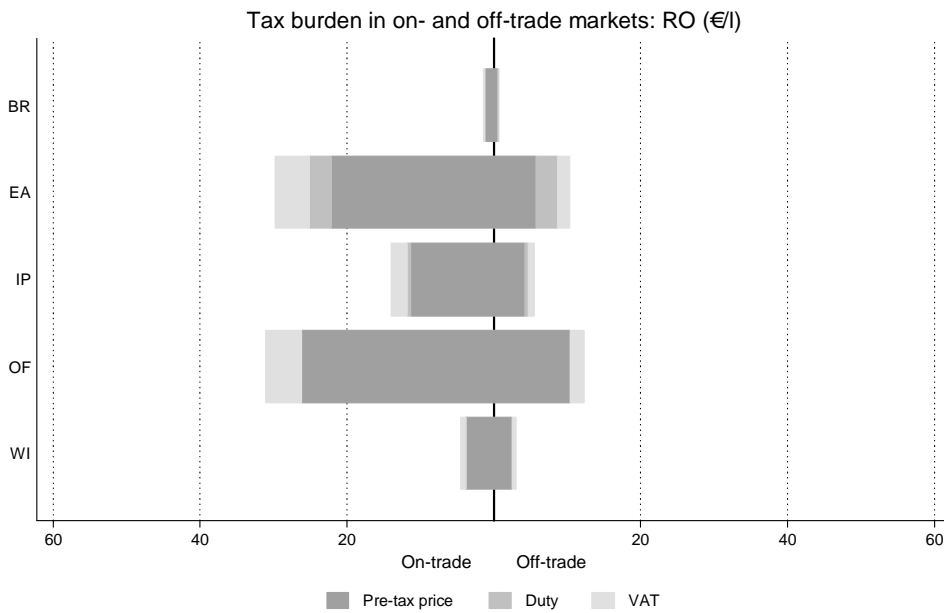
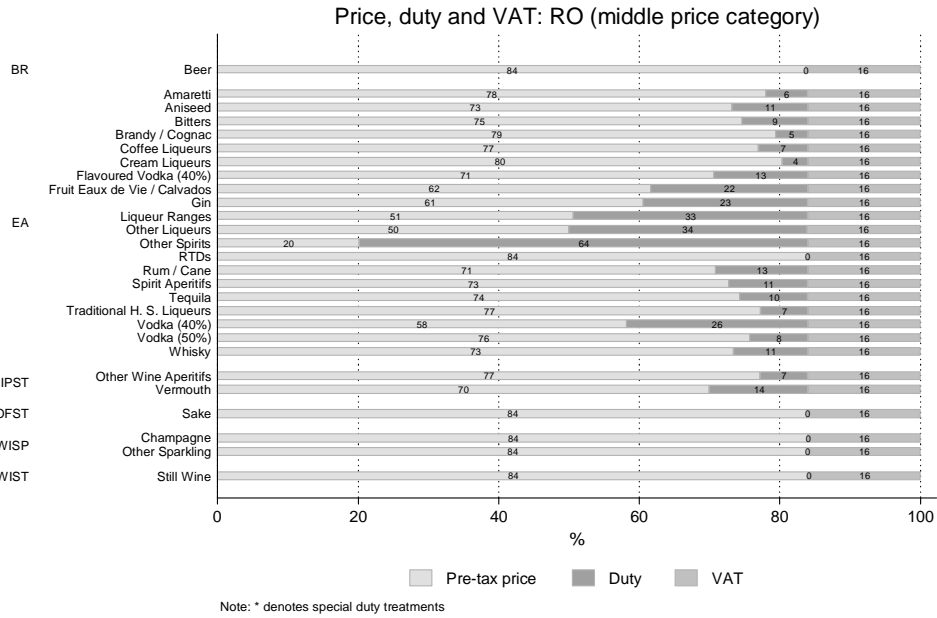
Consumption of pure alcohol by type of beverage: RO



Graphs by Member State

Source: LE analysis of data from this report.

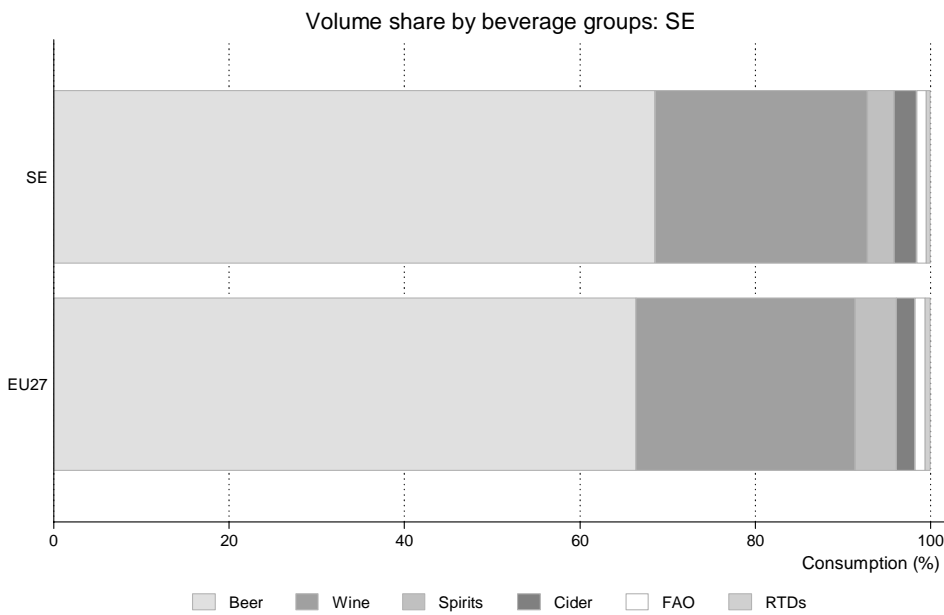
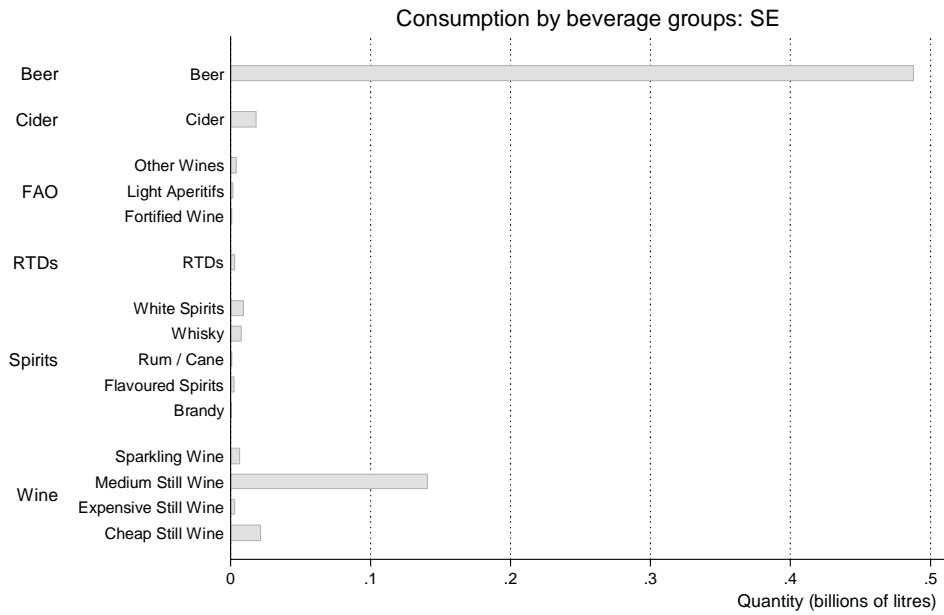
**Figure 4: Alcohol tax regime**



Source: LE analysis of data from this report.

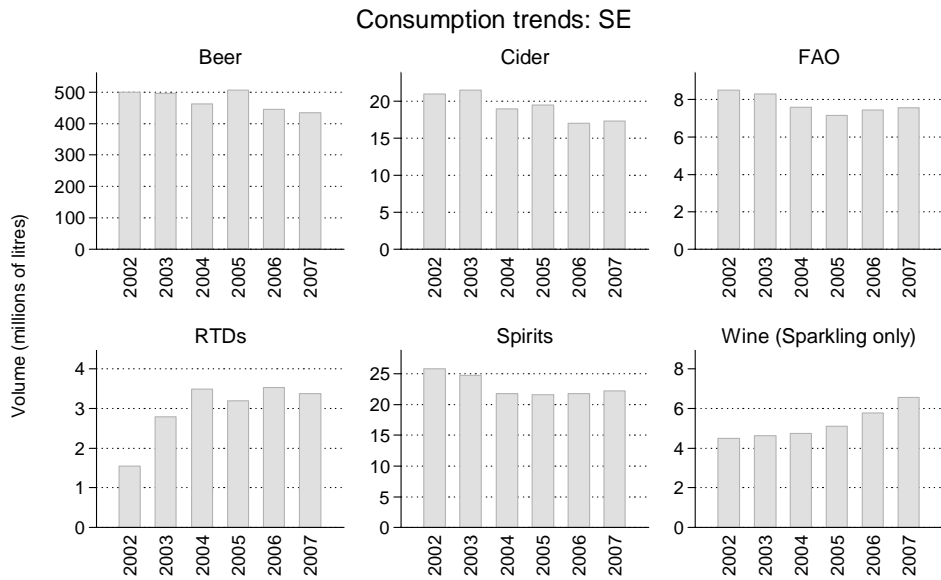
## Annex 27 Country reporting: SE

**Figure 1: Alcohol market (1)**

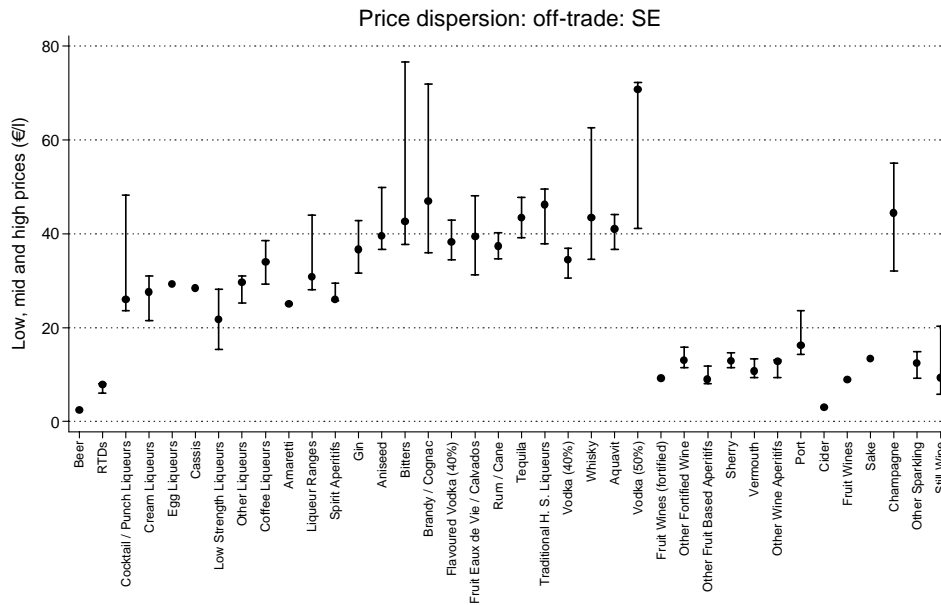


Source: LE analysis of data from this report.

**Figure 2: Alcohol market (2)**

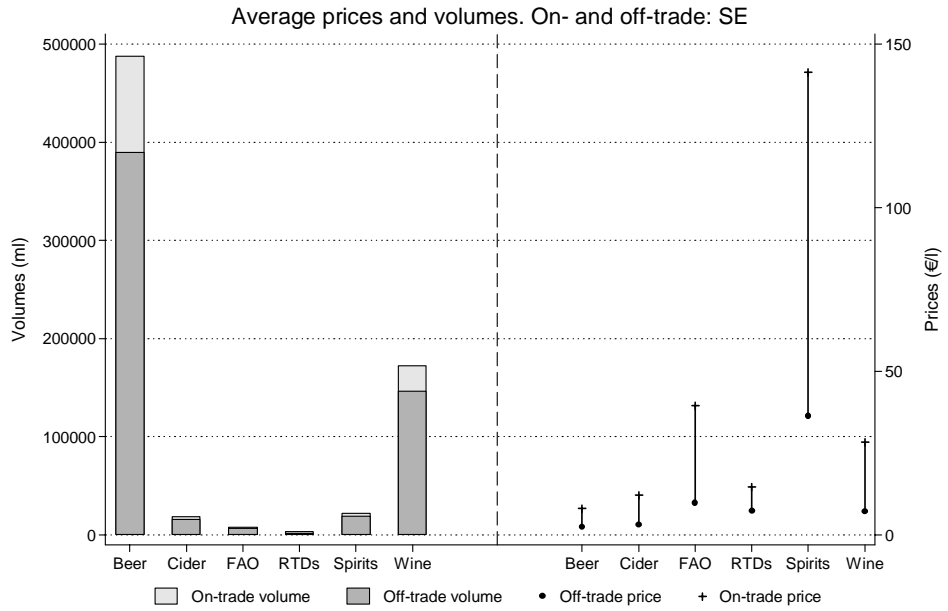


Graphs by categories

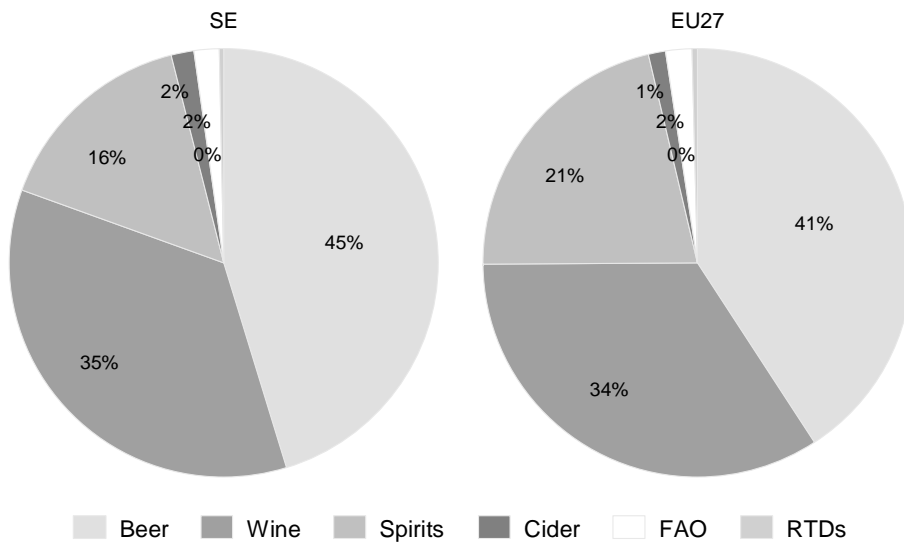


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



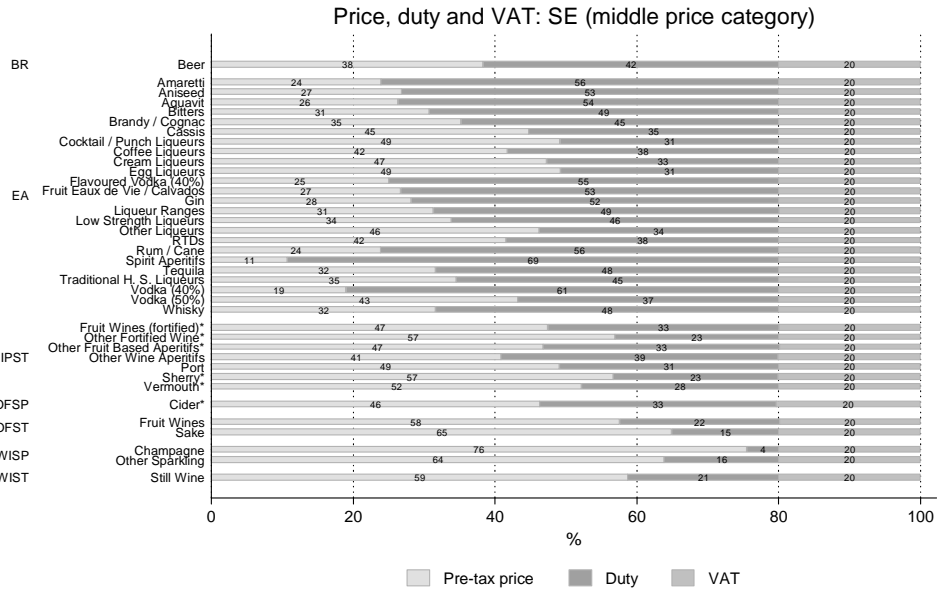
Consumption of pure alcohol by type of beverage: SE



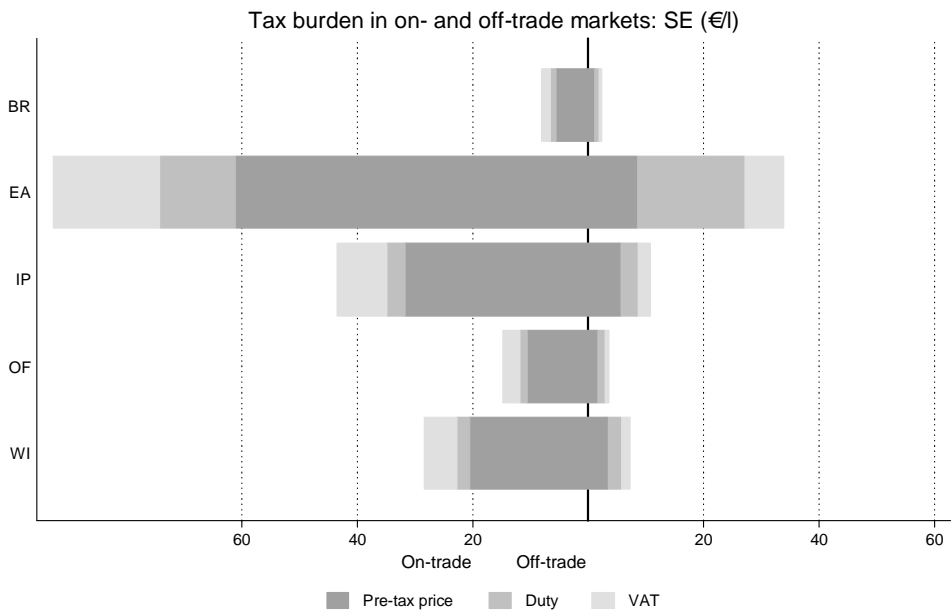
Graphs by Member State

Source: LE analysis of data from this report.

Figure 4: Alcohol tax regime



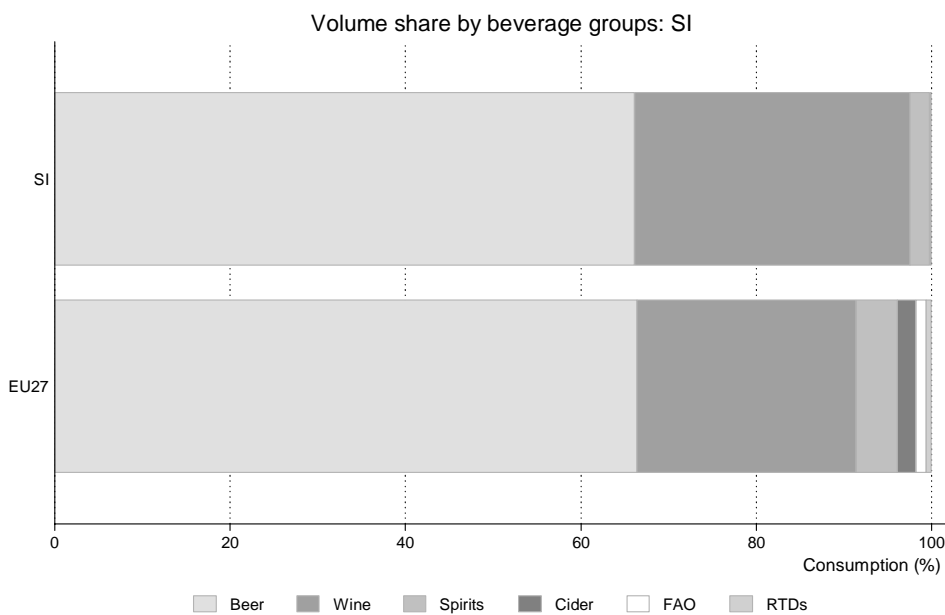
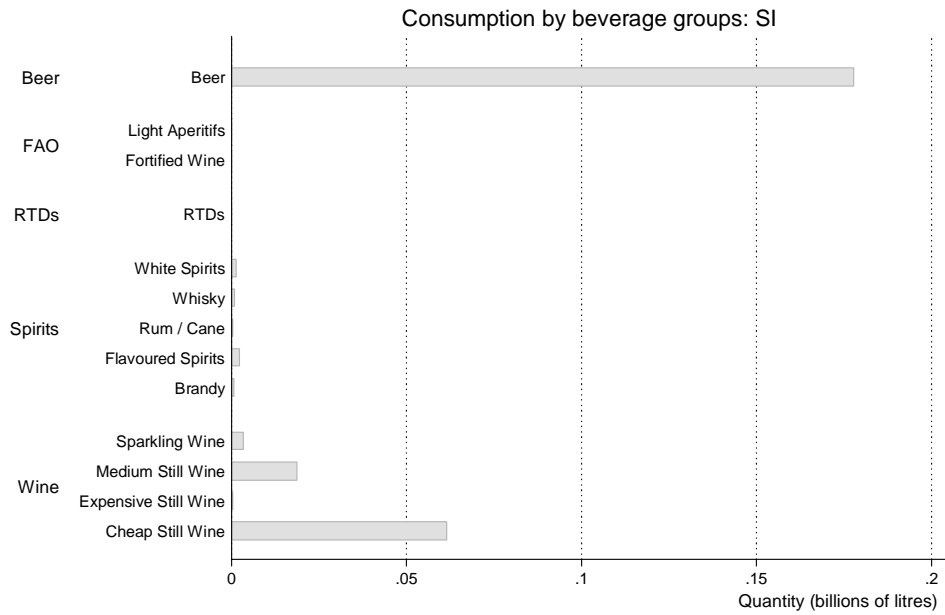
Note: \* denotes special duty treatments



Source: LE analysis of data from this report.

## Annex 28 Country reporting: SI

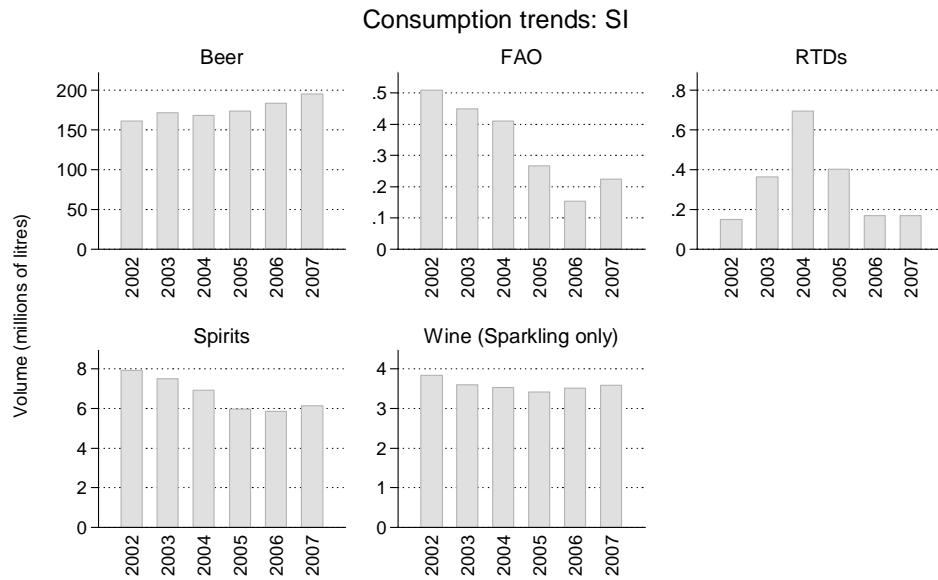
**Figure 1: Alcohol market (1)**



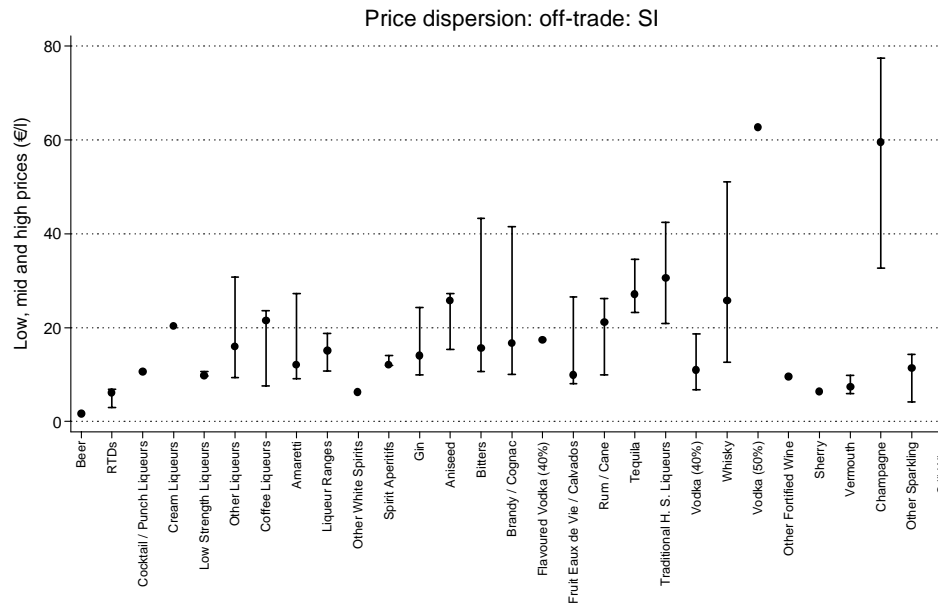
Source: LE analysis of data from this report.



Figure 2: Alcohol market (2)

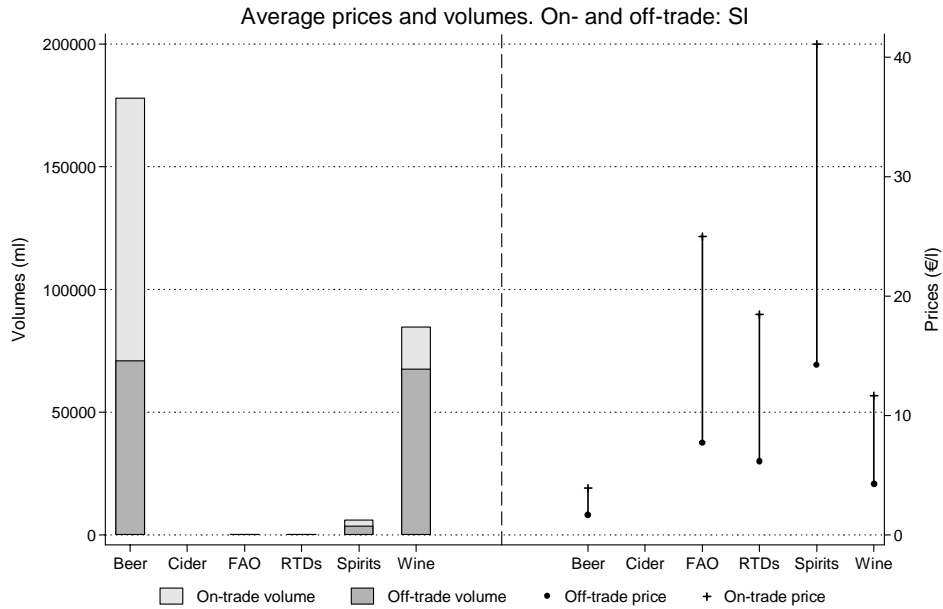


Graphs by categories

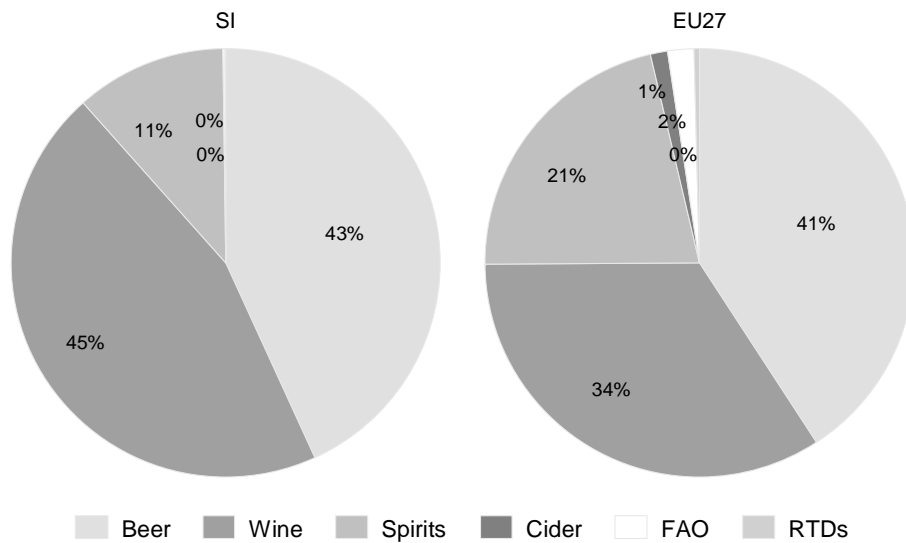


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



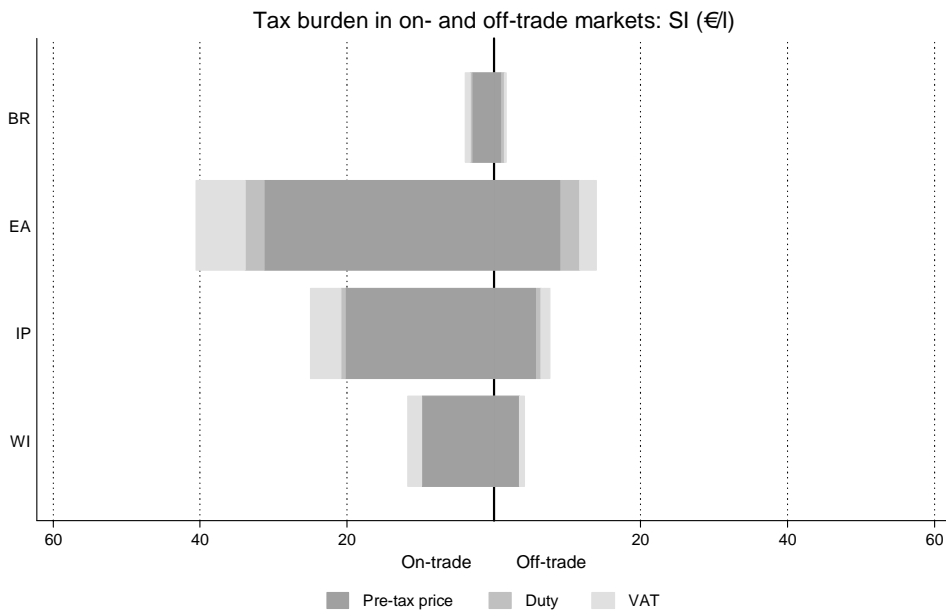
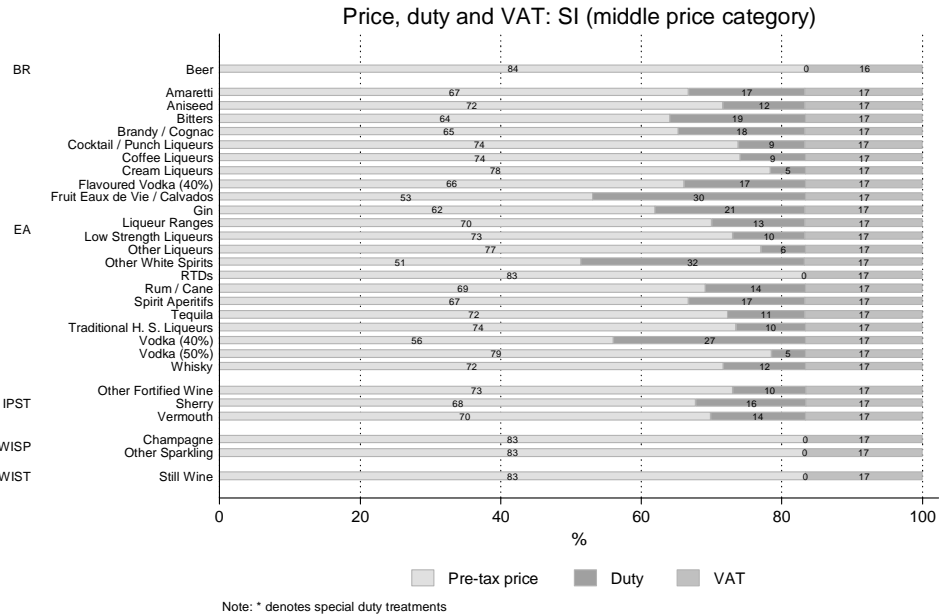
Consumption of pure alcohol by type of beverage: SI



Graphs by Member State

Source: LE analysis of data from this report.

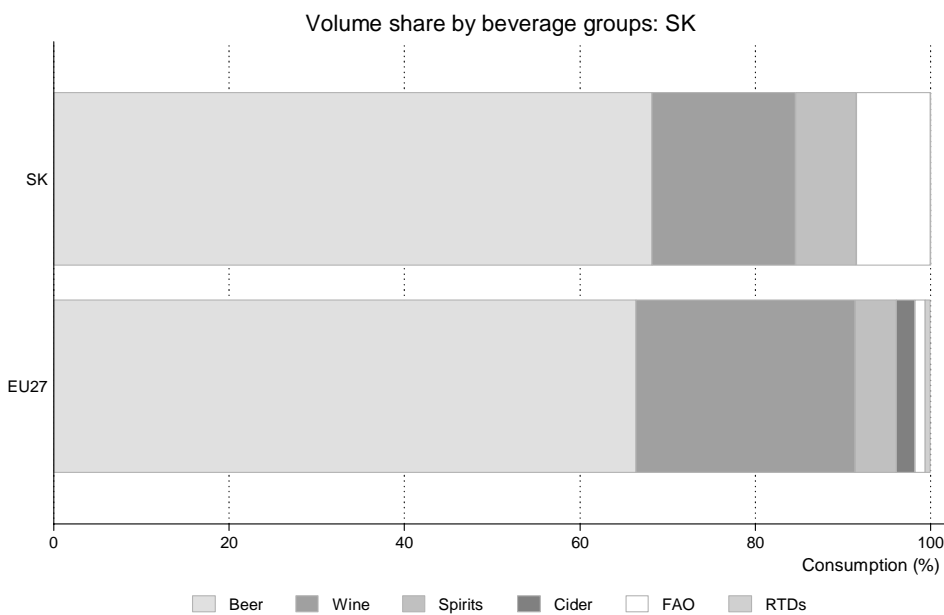
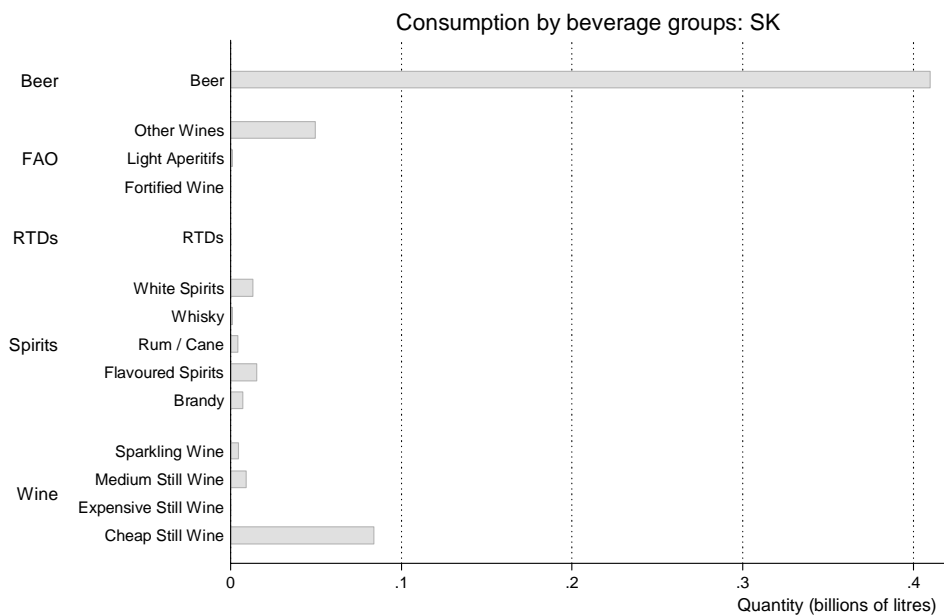
**Figure 4: Alcohol tax regime**



Source: LE analysis of data from this report.

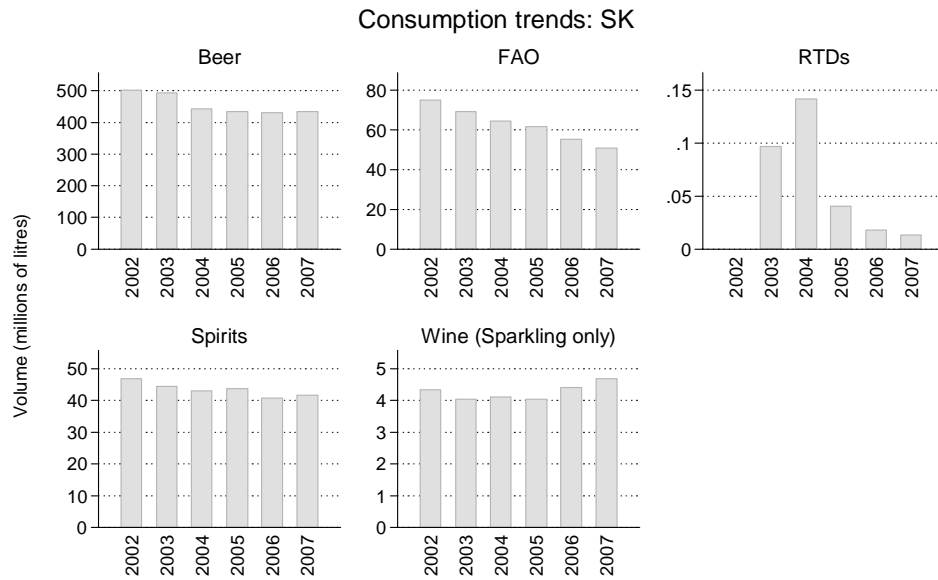
## Annex 29 Country reporting: SK

**Figure 1: Alcohol market (1)**

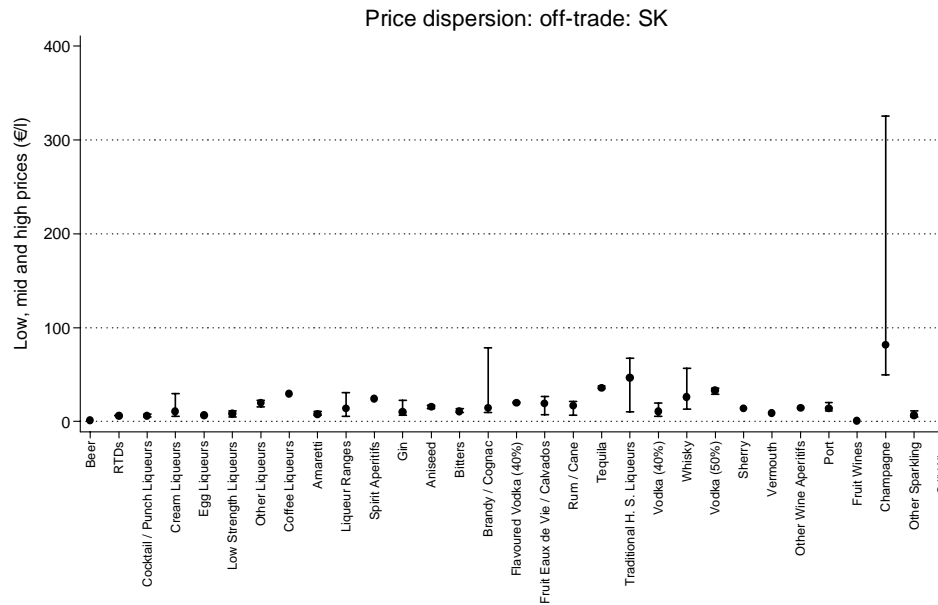


Source: LE analysis of data from this report.

Figure 2: Alcohol market (2)

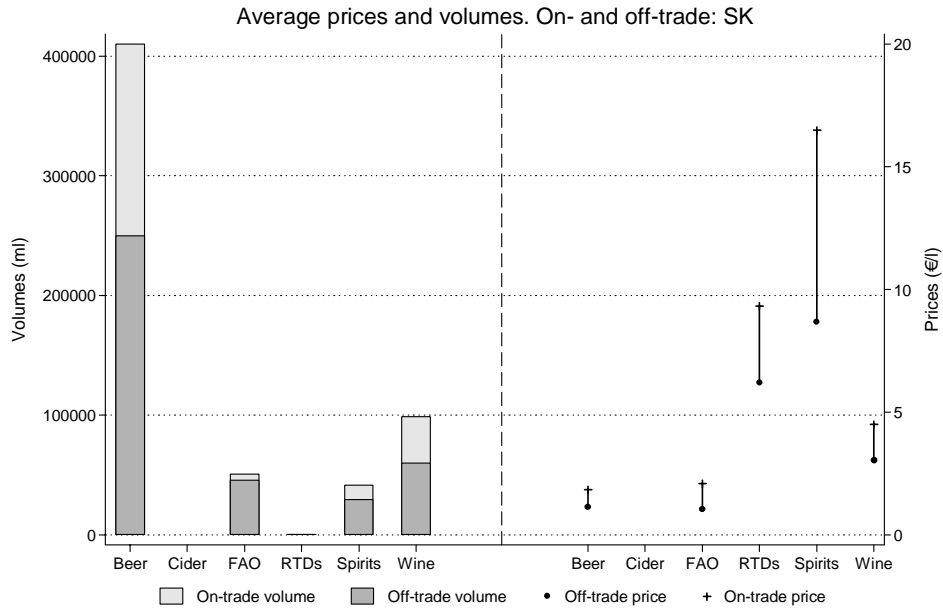


Graphs by categories

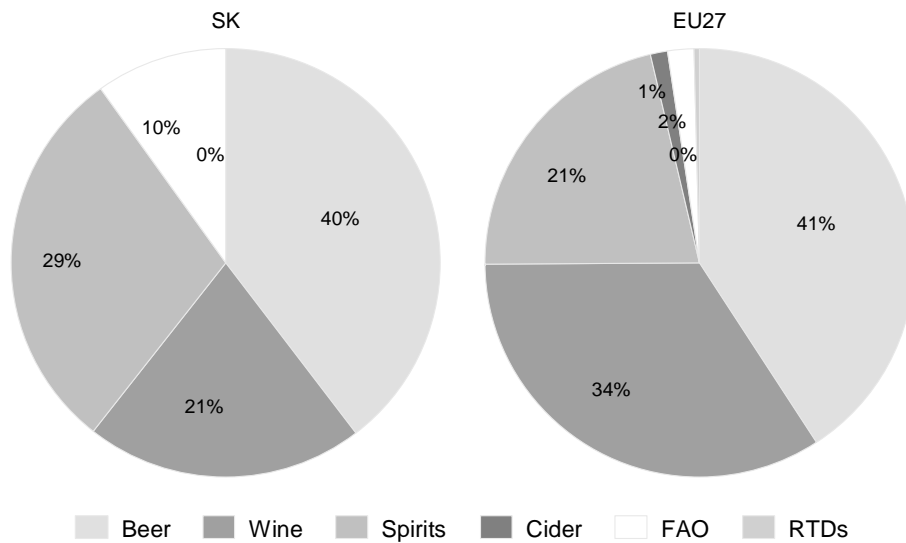


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



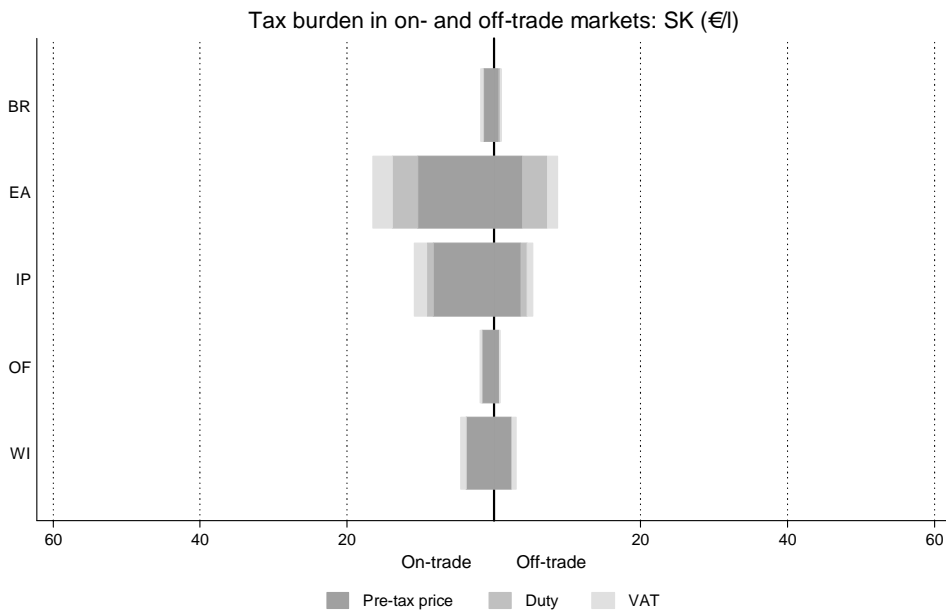
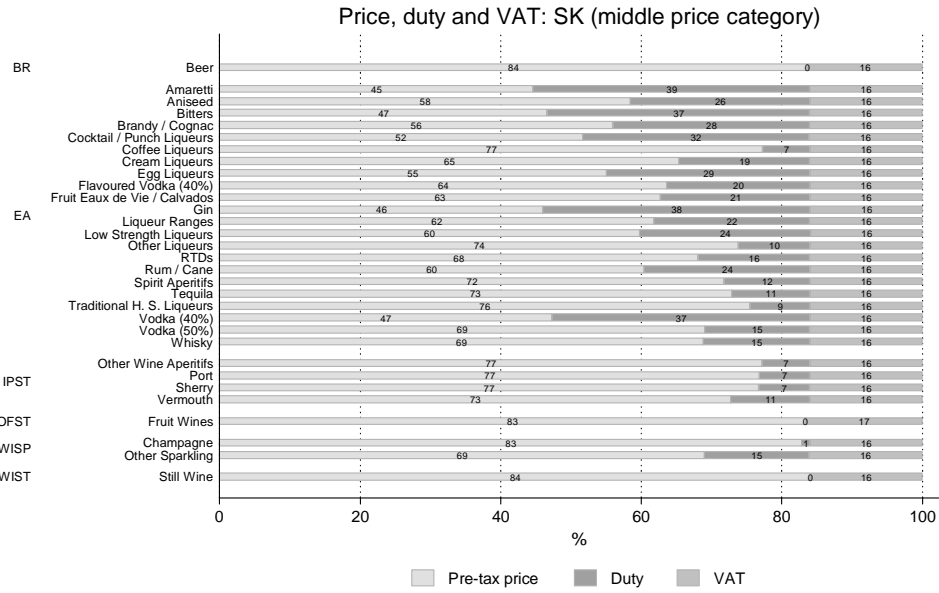
Consumption of pure alcohol by type of beverage: SK



Graphs by Member State

Source: LE analysis of data from this report.

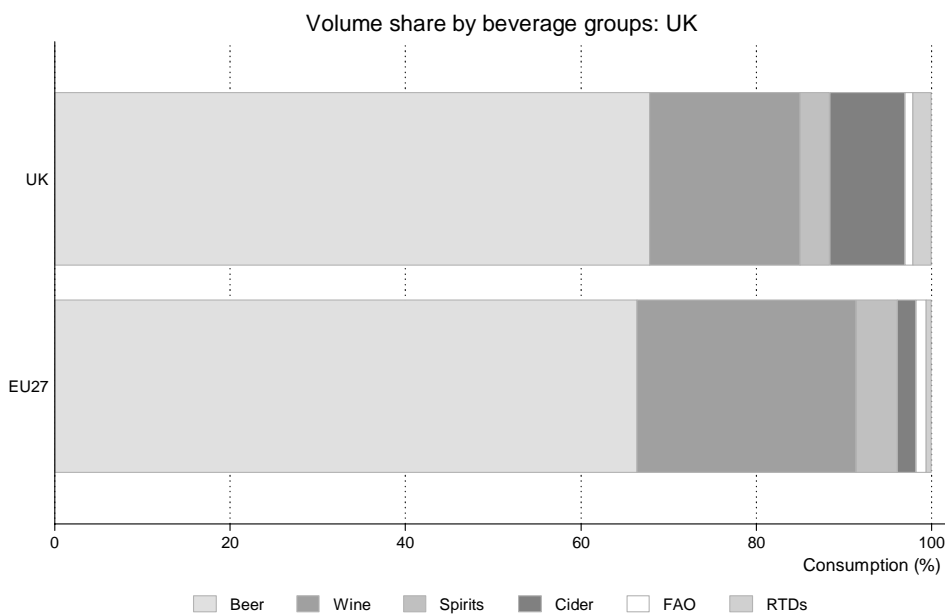
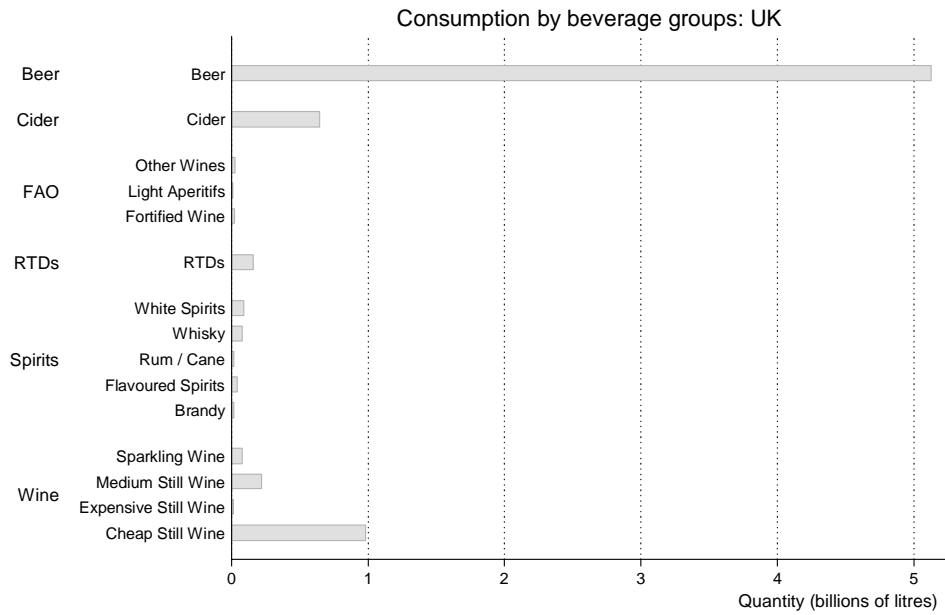
**Figure 4: Alcohol tax regime**



Source: LE analysis of data from this report.

## Annex 30 Country reporting: UK

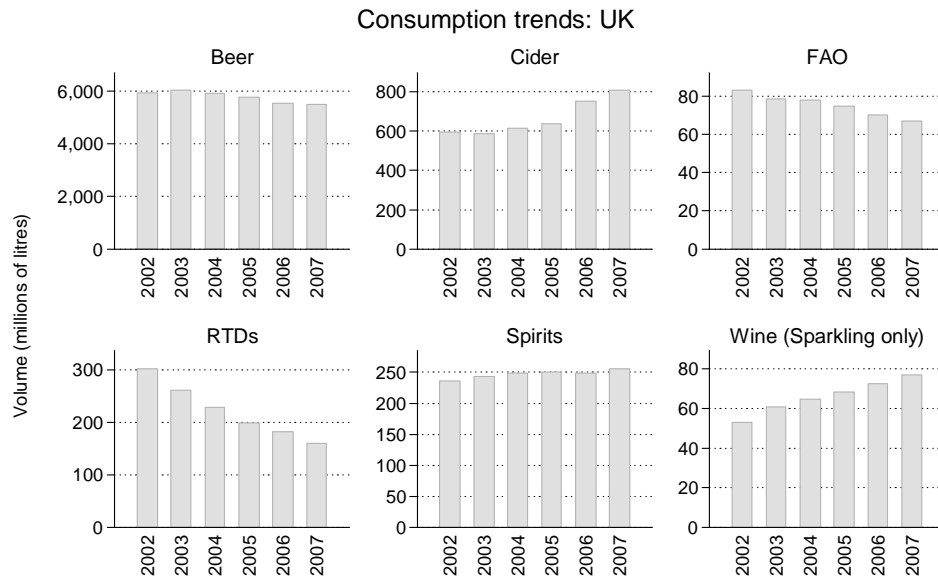
**Figure 1: Alcohol market (1)**



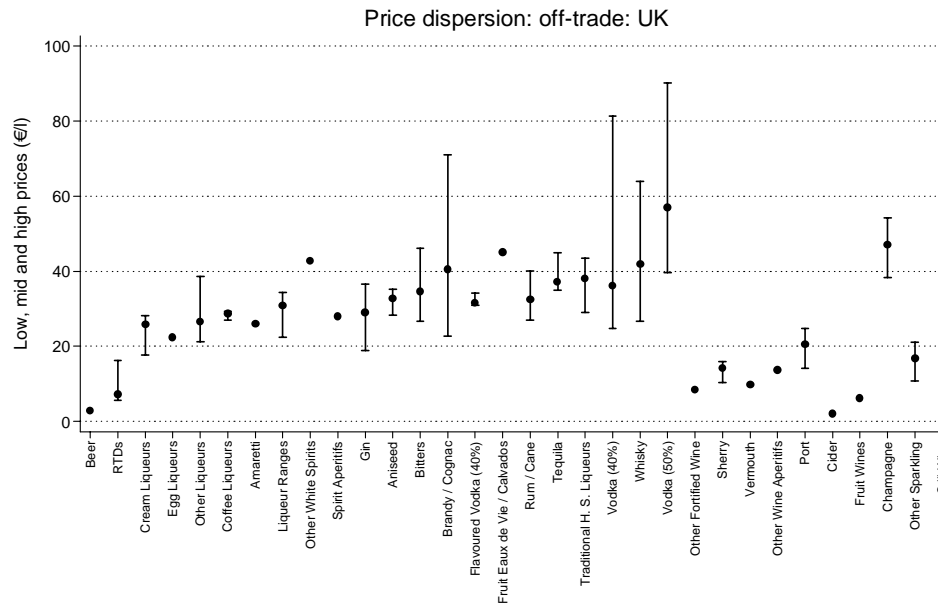
Source: LE analysis of data from this report.



Figure 2: Alcohol market (2)

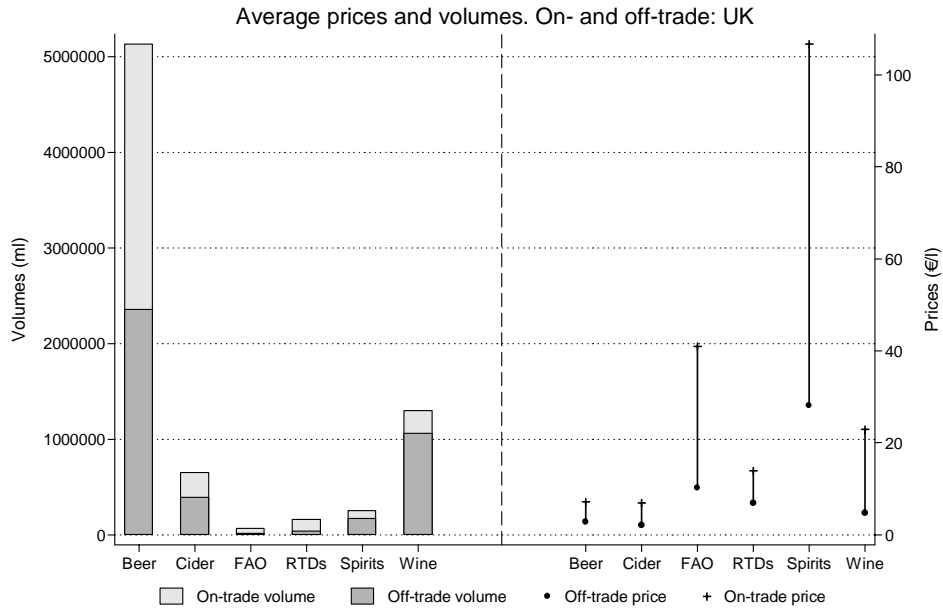


Graphs by categories

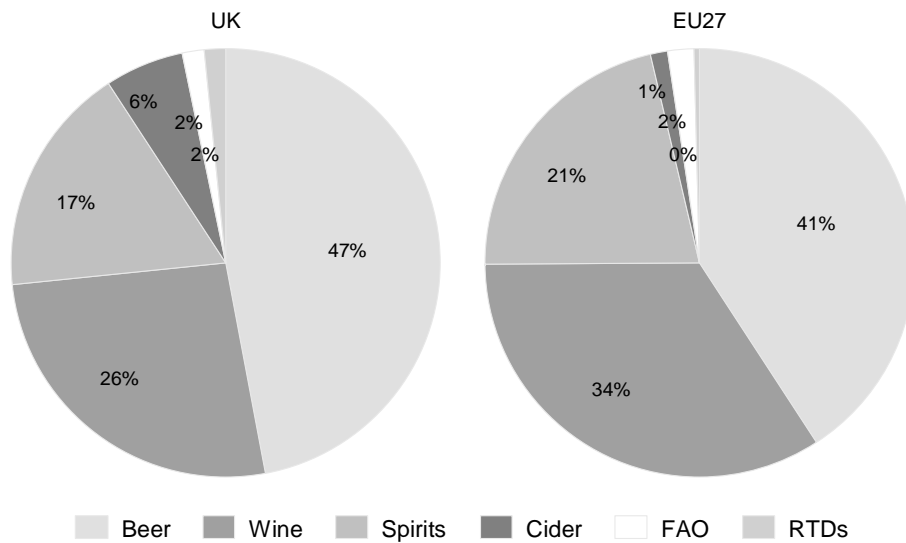


Source: LE analysis of data from this report.

**Figure 3: Alcohol market (3)**



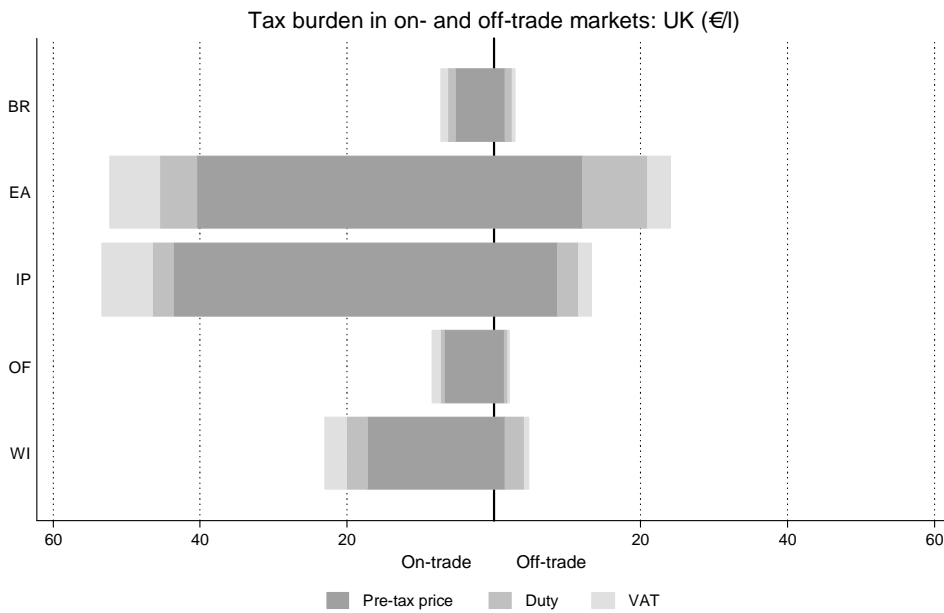
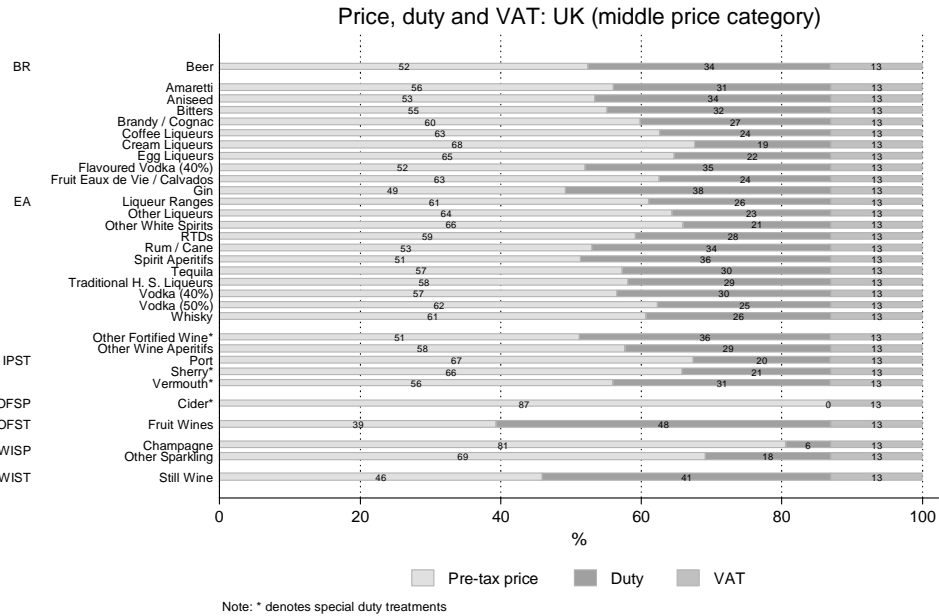
Consumption of pure alcohol by type of beverage: UK



Graphs by Member State

Source: LE analysis of data from this report.

Figure 4: Alcohol tax regime



Source: LE analysis of data from this report.