Study on the competition between alcoholic drinks

Final report - February 2001

Chapter 1 – Introduction and overview

1.1 Introduction

This report describes the work carried out in this study and the results obtained. It is the result of our research in all member states, at excise administrations, with various trade bodies, and various background material at our disposal.

1.2 Objective of the study

The objective of the study is to produce a detailed report on competition in the EU between beer, wine, sparkling wine, other fermented still and sparkling beverages, intermediate products and spirits to assist the Commission in fulfilling its obligations under Article 8 of Directive 92/84/EEC.

1.3 Scope of the study

The study examined the following six areas:

- *The extent to which price-sensitive competition exists between the various categories of drinks;*
- *The general effects of the minimum rates laid down in the Directive and of the rates actually applied in the Member States, on the consumption of the various categories of alcoholic drinks and in particular of competing drinks;*
- *The particular effects of the rates actually applied in Member States with regard to competition between the different categories of drink in relation to cross border shopping by individuals and to unlawful commercial movements of tax-paid goods across frontiers. For this aspect, the study should concentrate the research efforts on four Member States - Denmark, UK, Sweden and Belgium;*
- *Trends in consumption of drinks subject to the various rates;*
- *Reasons for these trends;*
- *Influence of changes in taxation upon them.*

Each of these areas was examined in both global terms covering the whole of the Community and also by individual Member States.

1.4 What we have done

We followed the work programme drawn up for the original award of the contract. As a first step we carried out a review of existing literature on the subject. This appeared in our inception report already provided to the Commission. We then designed a methodology for analysing the data we receive. This methodology appears at Appendix J.

We then set about collecting the data we need to carry out the study.

- We wrote to the excise administrations in each member state and asked them to let us have various items of data;
- We met with the excise and tax administrations in UK, Sweden and Denmark;
- We wrote to various other Government Departments in Belgium asking for data, since all data is not held by the excise authority;
- We wrote to European and National Trade Associations (wine, beer, sprits, cider) and asked them to let us have various items of data.
- We also met with a number of associations to explain the scope of the study and to hear their views:

- BLRA (Brewers & Licensed Retailers Association)
- Scotch Whisky Association
- Gin & Vodka Association
- CBMC (Confédération des Brasseries du Marché Commun, known as The Brewers of Europe)
- Swedish Brewers Association
- Wine & Spirits Association

We have received data on excise rates and consumption from some member states, but not all. We received comprehensive replies from Austria, Belgium, Germany, Denmark, Finland, UK, Ireland, Netherlands, Spain and Sweden. We received partial information from Greece and Portugal. We have not received data on excise rates from France, Italy and Luxembourg and data from these countries had to be completed using other sources.

1.5 Structure of this report

This report is divided into Chapters.

Chapter 1 is this introduction and sets out what we have done. Chapter 2 reports on what data we requested, and what we have received, and comments on the quality of that data. Chapter 3 describes the effects of the minimum rates in the member states. Chapter 4 describes the general effects of actual rates imposed. Chapter 5 deals with cross border traffic in general. Chapter 6 covers cross border activity in the UK. Chapter 7 covers Sweden. Chapter 8 covers Denmark. Chapter 9 describes the trends in consumption of the various drinks. Chapter 10 gives reasons for those trends. Chapter 11 discusses price sensitivity between drinks. Chapter 12 is a "What if?" model describing what would happen if excise rates were set at certain pre-determined levels. Chapter 13 contains a number of separate documents and technical material.

1.6 Executive summary

1.6.1 Introduction

In accordance with the terms of reference for this study we reviewed the effects of the minimum rates, the effects of the actual rates imposed, cross border activity in three member states, trends in consumption, and reasons for those trends, including competition between types of drinks. We also looked at the impact on consumption of adopting the same rate by drinks category in all member state.

1.6.2 Minimum rates

The minimum rates had some effect when they were first introduced in some member states. Seven member states were required to increase rates in order to comply with the new minimum rate.
However, the minimum has not changed since 1992, such that it is becoming less relevant each year due to inflation. To examine the impact of this, we reviewed what the position would be now if the minimum rate had been indexed at the EU inflation rate. Our findings are that four member states now have rates below an indexed minimum rate. Our conclusions on the minimum rate is that as a policy of seeking eventually to align rates across the European Union, this Directive had some effect in 1993, but without updating would appear to be generally ineffective in its current form.

1.6.3 Analysis of rates and consumption

We analysed the actual rates imposed over the last 30 years in all the member states on each type of drink, and also analysed consumption over the last 30 years. It is not possible to state that rates directly influenced consumption, since there are a number of other factors which could also influence consumption. However, assuming that other factors stay constant over time, there are a number of initial conclusions possible.

- Generally speaking, beer consumption has not changed as a result of duty rate changes, except in the UK and Spain, with some changes recorded in Greece.
- Seven member states do not currently charge any duty on still wine, so it is more difficult to draw overall comparisons between rate and consumption. However, in those countries where duty is charged, still wine consumption has in general not changed as a result of duty rate changes.
- In all member states where we have data, sparkling wine consumption has changed when the duty rate changes.
- In most member states (except for Greece, Italy, Luxembourg, Portugal), spirits consumption changes when duty rate changes.
- Cider consumption does not change when rates change.
- Intermediate products consumption changes when duty rate changes in all member states where we have been able to identify and analyse it separately.

1.6.4 Trends in rates

The most noticeable feature is that many member states changed their beer duty rates dramatically in 1993, some up, some down. Italy, Spain, and to some extent Denmark show the greatest variations. Six member states changed rates in 1993 partly because of the new minimum rate and partly because of the Single Market. The general trend is to increase rates either every year or every few years. Austria, Germany and Finland are the notable exceptions to this: Austria and Germany only changed their duty rate once in the last 30 years. Finland had an *ad valorem* rate up to 1994, so the amount of duty on beer rose automatically in line with inflation.
Duty on wine in Ireland shows the greatest variations, with large increases over the period. The UK shows a similar pattern, although the increases are not so great, closely followed by Netherlands also with large increases in wine duty over the period. On the other hand, Austria, Belgium and Denmark have not changed their rates significantly over the period. Four member states adjusted their rates in 1993 to take account of the minimum rate and the Single Market. Finland is again different to all the other member states in that it charged duty on wine as a percentage of the selling price, for most of the period in question. The remaining member states do not charge duty on wine.
Most member states have maintained steady increases in the duty rates on spirits, although Italy and Greece have increased rates dramatically over the period in question.

1.6.5 Cross border activity

We should expect to find cross border shopping and cross border smuggling only across land or sea boundaries where there is significant differentials in prices. We found significant rate differentials in neighbouring member states between UK and France, between Sweden and Denmark, and between Denmark and Germany. We looked more closely at UK, Sweden and Denmark.

- In terms of annual revenue lost through cross border shopping, using the latest figures available, we see that the UK loses most revenue, at €400 million per annum.
- If we look at cross border smuggling we have a very different picture. There is significant smuggling in UK, particularly on beer, some smuggled spirits in Sweden, but no material smuggling of alcohol in Denmark.
- We also expressed the quantities of alcohol bought across borders as a percentage of total consumption. Denmark has the greatest problem in percentage terms.
- In absolute terms, the UK is losing the most amounts of revenue each year in cross border traffic. However, in terms of market share, the problem is more acute in Denmark and Sweden, where about one quarter of spirits consumed are bought outside the consumers' own member state.

1.6.6 Trends in consumption

There is substantial variation in beer consumption per capita across Member States. Ireland had the highest beer consumption and Italy had the lowest. Most countries experienced an increase in beer consumption between the years 1970-1998. Only Belgium, France, the UK and Luxembourg experienced a reduction in beer consumption over the period, and some countries – notably Greece and Portugal – experienced substantial increases in consumption.
Like per capita beer consumption there is substantial variation in per capita wine consumption across member states. France had the highest average consumption and the UK had the lowest.
There is less variation in spirits consumption than there is beer and wine. Over the period 1970-1998 Greece had the highest per capita consumption of spirits and Portugal had the lowest. Excluding Portugal from the analysis, average consumption fell by around 7% between 1970 and 1998.

1.6.7 Reasons for those trends

By far the most important factor that has influenced the levels of beer, wine and spirits consumption is real GDP. The level of real GDP appeared as a significant influence on beer consumption in 6 countries, on wine consumption in 4 countries and on spirits consumption in 6 countries. The level of the population of drinking age appeared to be particularly significant in influencing the levels of wine and spirits consumption and to a lesser extent beer consumption. The unemployment rate appears to be fairly influential too, particularly in explaining levels of beer and wine consumption and to a lesser extent spirits consumption.
Fewer variables were significant in the models explaining changes in consumption. Again, GDP appeared to be influential in explaining changes in the consumption of all three drinks, but particularly beer. The other two variables – changes in the population of drinking age and changes in the unemployment rate - did not have much of an impact on changes in consumption of any drink.
When analysing those factors influencing the trends in consumption per person of drinking age, GDP seems to be the dominant factor in explaining trends over time – irrespective of whether the models are specified in terms of levels or changes. The level of the unemployment rate had most impact on levels of beer and wine consumption. But changes in the unemployment rate barely had an impact at all on changes in consumption per person of drinking age – only slightly on beer consumption.

1.6.8 Competition between types of drinks

We examined the degree of competition between alcoholic drink categories.
We reviewed existing studies on own price elasticity of demand. The following points are notable:

- Most of the studies agree that there is a negative relationship between the own price of different alcoholic beverages and demand;
- The own price elasticity of demand for beer shows the least variation with estimates falling between 0.12 and –0.9459;
- The own price elasticity of demand for wine varies between 0.2083 and –1.85;
- The own price elasticity of demand for spirits varies the most, with estimates lying between 0.16 and –2.03.

The key results from the studies where cross price elasticities were estimated are the following:

- The cross price elasticities of demand for beer range from 0.84 to –1.57 with respect to wine and from 0.59 to –0.92 with respect to spirits;
- The cross price elasticities of demand for wine range from 0.35 to –0.73 with respect to beer and from 0.94 to –0.95 with respect to spirits;
- The cross price elasticities of demand for spirits range from 0.67 to –0.62 with respect to beer and from 2.063 to –0.90 with respect to wine.

In addition to reviewing the literature, we sought to provide estimates of cross price elasticities that will inform on the degree of competition between drinks. In the course of our research we found this to be a difficult task for a number of reasons. Data on alcohol drinks' prices is either very scarce in most Member States and/or is not of the quality that can provide robust estimates of alcohol cross price elasticities. Furthermore, there is a range of factors that influence alcoholic drink consumption and the degree of switching by consumers between categories of drink. For example, consumers' attitudes to consuming wine may change over a number of years leading to an increase in wine consumption at the expense of other drink categories. Thus, in many circumstances, the switching to wine will be independent of the price of wine relative to other drinks, i.e. the switching would occur even if relative prices were stable over time. As changing consumer tastes are likely to be a critical factor influencing switching between drinks, this makes estimating price effects on consumption extremely difficult.
Notwithstanding these difficulties, for those countries for which there was sufficient price data (Belgium, Germany Ireland and the UK) we estimated both own-price and cross price elasticities. We were also able to estimate own price elasticities for beer in Austria, Cognac in France and spirits in Netherlands. Overall we found our estimates of own-price and cross-price elasticities accorded with those found in the literature. The majority of the own-price estimates were negative and relatively inelastic. For the most part short run and long run elasticities were less than one. Just under half of the estimated cross-price elasticities were positive, indicating that these drinks are substitutes for each other. Again, on the whole, the results indicate relatively inelastic responses - the demand for alcoholic drinks does not appear to be substantially dependent on relative alcohol prices. The only exception to this is in Belgium, where the demand for spirits seems to be relatively responsive to changes in the price of wine.
From our analysis it is possible to conclude that there is no systematic pattern of whether certain types of beverages are complements or substitutes for each other across the various studies. It is also the case that in the majority of cases the estimated cross price elasticities between drinks indicate a lack of price sensitiveness between alcoholic drinks. The demand for alcoholic drinks does not

appear to be substantially dependent on relative alcohol prices.

1.6.9 What if?

Based on a number of assumptions, and using low and high price elasticity, we calculated what would happen to consumption if rates were set across the Community at pre-determined common levels. We took three examples of common rates.

Moving to the minimum rates, indexed at EU inflation rate:

- Spirits would benefit substantially from a move to minimum rates – this would be particularly the case in Nordic countries but also in the UK and Ireland;
- Under the relatively high price elasticity option the increases in spirits' consumption is greater when compared to the more conservative cross price elasticity assumption;
- In the high elasticity option, the main losers would be in beer and wine – the Nordic countries would see significantly losses in wine consumption and Germany, Belgium, France and Luxembourg would lose beer consumption.

Moving to the indexed target rates:

- Under the low elasticity option, consumption of still and sparkling wine would increase significantly for the UK, Ireland and Denmark. We have not modelled the impact on countries with zero rates but it is very likely that wine consumption would fall in these countries albeit it is difficult to say to what extent. Denmark, Finland and Sweden would see consumption of spirits increase by close to 50% or above - Austria, Luxembourg, Italy and Portugal would see consumption fall by close to 30% or greater. Beer consumption would rise significantly in Finland, UK and Ireland .
- The results with the high elasticity assumption are mixed. Again, there are substantial gains for the Nordic countries in spirits but there are also falls in consumption for these countries in wine. The countries that gained the greatest with respect to the consumption of beer are Austria, Finland and Italy.

Moving to the median rate in each drink category:

- The results are similar in pattern and in size to the target rate scenario. The main gainers under the median excise duty rate scenario would be the Nordic countries UK and Ireland, primarily in spirits and beer. The main areas where there would be a decline in consumption is in the southern European countries. There would not be significant losses in countries with a low excise duty rate for still wine. This is because the median rate is slightly above zero.