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# The affordability of alcoholic beverages in the European Union

Understanding the link  
between alcohol affordability,  
consumption and harms

Lila Rabinovich, Philipp-Bastian Brutscher,  
Han de Vries, Jan Tiessen,  
Jack Clift, Anais Reding

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1776 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138  
1200 South Hayes Street, Arlington, VA 22202-5050  
4570 Fifth Avenue, Suite 600, Pittsburgh, PA 15213-2665  
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## Executive summary

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The European Commission (EC) commissioned RAND Europe to conduct a study on the affordability of alcohol products across the EU, and on the potential impacts of affordability on harmful use of alcohol. On this basis, the study is intended to provide evidence on whether alcohol affordability could be a useful policy lever to public authorities seeking to reduce harmful alcohol consumption in Europe. This section highlights some of the main findings of the research.

### **There is increasing pan-European interest in developing and implementing measures to combat alcohol harms**

Alcohol is an important economic commodity in Europe, creating jobs, generating fiscal revenues in the form of alcohol taxes, and contributing around €9 billion to the EU's economy through trade. But while alcohol has been, and continues to be, consumed in an unproblematic way by many people, a significant proportion of alcohol consumption is problematic and generates harms for individuals and societies. Alcohol is the third leading risk factor for death and disability in the European Union (EU) after tobacco and high blood pressure. Europe has the highest proportion of drinkers and the highest levels of alcohol consumption per head of the population in the world, with total alcohol consumption averaging eleven litres of pure alcohol a year per adult. These high levels of alcohol consumption recorded in the EU have been linked to a number of public health and other problems, including violence and crime, diseases such as liver cirrhosis, lost productivity and absenteeism, family breakdown and accidental death. Through these harms, alcohol misuse generates high costs to society. It was estimated that the costs in the EU of alcohol misuse was around €125 billion in 2003, equivalent to 1.3% of gross domestic product (GDP). This exceeds by an order of magnitude the reported contribution (about €9 billion) of the alcohol industry to the EU economy.

### **There has been a decline in the real value of alcohol excise duty rates across the EU**

The real value of excise duty rates for most alcoholic beverages has gone down since 1996 in the vast majority of EU Member States. Notable exceptions are the UK and Italy, which have seen an increase in the real value of excise duty rates for beer; with an increase for wine too in the UK. There has also been a decline in the EU minimum excise duty rates in real terms for alcoholic beverages since 1992 as they have not been adjusted for inflation.

### **There is a trend across the EU towards more off-trade alcohol consumption**

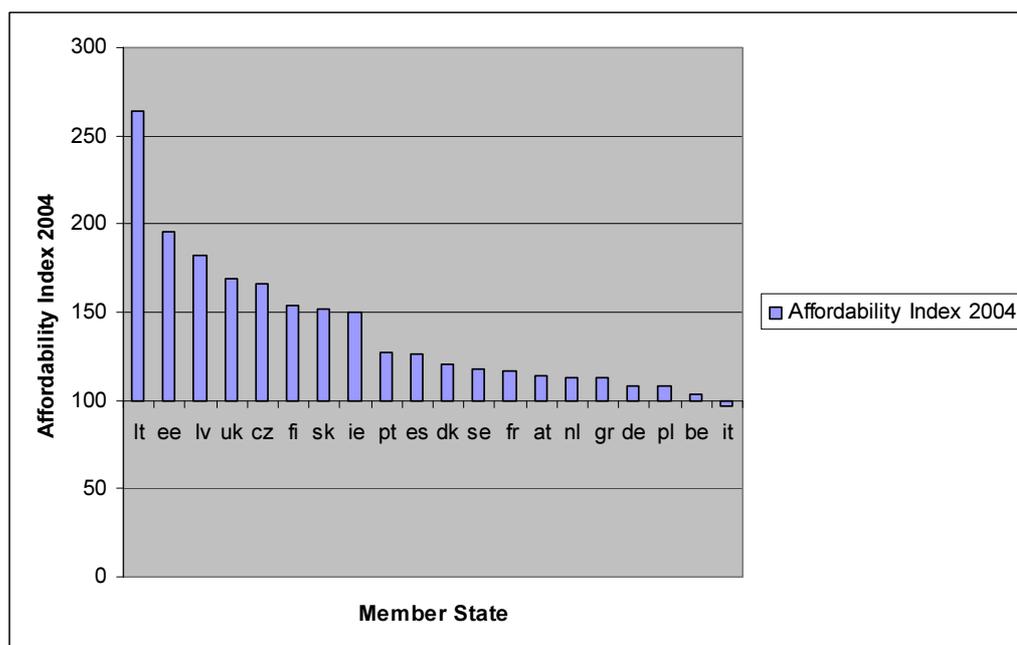
There is a trend across the EU towards more off-trade alcohol consumption, which tends to be cheaper than alcohol sold on-trade. On-trade refers to pubs, clubs, restaurants and

other retailers selling alcohol for consumption within the venue. Off-trade refers to supermarkets and off-licences, selling alcohol for consumption elsewhere. These are also referred to as on-premise and off-premise sales of alcohol. In countries such as the UK, Sweden, Finland, Latvia, Ireland and The Netherlands, off-trade alcohol sales appear to be growing relative to on-trade. This is true even in those countries in which the market share of the on-trade has traditionally been larger, such as Ireland and The Netherlands.

Although there is little research examining this particular question, it is possible that one of the main reasons for the increase in off-trade alcohol consumption is the lower prices of alcohol in the off-trade retailing. In many of the countries mentioned above, alcohol prices in the off-trade appear to be decreasing relative to on-trade prices.

### Alcohol has become more affordable across the EU since 1996

The affordability of alcohol is a composite measure looking at the net effect of price and income. The affordability of alcoholic beverages has increased in all countries examined, apart from Italy; that is, in nearly all countries examined alcohol has become more affordable over the last twelve years.<sup>1</sup> In six countries (Lithuania, Estonia, Latvia, Finland, Slovakia and Ireland) affordability of alcohol increased by 50% or more. The figure below shows the change in affordability of alcohol since 1996 for the twenty countries for which data are available.



<sup>1</sup> The fact that the affordability of alcohol in Italy has actually decreased over the time period studied here may reflect changes in alcohol consumption in the country in the last few decades. Overall alcohol consumption has declined considerably since the 1970s in Italy, traditionally a wine-drinking country, driven primarily by a decline in wine consumption (Simpura 1998). As a result, it has been argued that a response from the wine industry has been to switch from the production of cheaper wines (which were a ‘necessity’ for Italian consumers who used to drink wine with their meals) to the production of more expensive, luxury wines (A. Allamani, personal communication), thus leading to a decrease in the affordability of alcohol.

SOURCE: Eurostat, author calculations

**Figure 1: Changes in the affordability of alcohol between 1996 and 2004, selected EU countries**

Our analysis indicates that across the EU, 84% of the increase in alcohol affordability was driven by increases in income, and only 16% was driven by changes in alcohol prices.<sup>2</sup> This is primarily because while incomes went up considerably across the EU, the relative price of alcoholic beverages has remained relatively stable, or fallen at a lower rate than the income increases, in most of the EU countries included in this analysis.

**There is a positive relationship between alcohol affordability and alcohol consumption in the EU**

The balance of existing evidence indicates that there is a negative relationship between alcohol price and consumption, and a positive relationship between income and consumption. In accordance with these findings, our own analysis indicates that there is a statistically significant positive relationship between alcohol *affordability* (a composite measure looking at the effect of price and income) and consumption across the EU. More specifically, we find a short run elasticity of 0.22 and long-run elasticity of 0.32 (suggesting a total increase in consumption of 0.32% following a 1% increase in affordability). These elasticities are symmetrical; i.e. a 1% increase in affordability in the short-run has the same effect as a 1% decrease in affordability in the short-run.

This additional evidence on the positive association between affordability and consumption in Europe contributes to the growing understanding of the way in which drinkers respond to changes in how affordable alcoholic beverages are. The body of research on this issue contributes to an evidence base on alcohol pricing policy.

**There is a positive relationship between alcohol consumption and three types of harms: liver cirrhosis, traffic injuries and traffic deaths**

Our analysis suggests positive, statistically significant associations between alcohol consumption and three indicators of harm: fatal traffic accidents, (non-fatal) traffic injuries and liver cirrhosis. More specifically, we find that a 1% increase in per capita alcohol consumption is associated with an increase of 0.85% in fatal traffic accidents, 0.61% in traffic injuries, and 0.37% in the incidence of liver cirrhosis within the same year. We do not find a statistically significant association between alcohol consumption and homicide at the aggregate level.

Our findings support those of existing research on the link between alcohol consumption and these three types of harms. As discussed earlier in this chapter, there is substantial and robust evidence for this association, to which our own analysis contributes.

Our evidence - in combination with the existing body of research on the link between alcohol price/income/affordability and consumption, and on the direct link between alcohol price/income and harms - provides strong support for the use of alcohol pricing

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<sup>2</sup> The calculation is based on a double-log regression of the affordability index on the price index and income index – suppressing the constant term.

policies as a potentially effective measure to curb hazardous and harmful drinking in Europe.

### **Cross-border alcohol shopping for personal use has negative implications for the 'importing' country**

We conducted three case studies on cross-border alcohol consumption for personal use. The case studies were: UK-France, Finland-Estonia, and Sweden-Denmark-Germany. In all these examples there are significant differences in alcohol taxation and price between the countries, and these have combined with reductions in controls on imports for personal use leading to increases in cross-border alcohol consumption. In the case of Finland and Denmark in particular, the advent of lighter controls on alcohol imports for personal use were met with reductions in alcohol taxation with the aim of preventing greater losses in the demand for alcohol and thus protecting the national tax base.

Cross-border shopping increased significantly in these three cases following the reduction of controls on imports for personal use. The cross-border purchases not only reduce the tax revenues that can be collected by national tax authorities; there is also evidence that increased cross-border purchasing has led to an increase in consumption in the receiving countries, especially Finland and Sweden. This suggests consumers did not simply change the location of their alcohol purchases, but also increased their total alcohol consumption. However in some of the case studies consumption seems to have levelled off or even dropped somewhat once consumers adjusted to the availability of cheap alcohol in neighbouring countries, a phenomenon witnessed in Sweden and to a lesser extent in Finland.

Importantly, there is evidence of a relationship between the reduction of controls on imports for personal use and alcohol-related harms in the countries examined here. The evidence for this is robust in Finland, suggestive in Sweden, but still inconclusive in the UK.

The findings from this analysis refer to three case studies of cross-border alcohol consumption between countries sharing sea borders. It is unclear from this analysis whether these findings would be replicated in studies of cross-border consumption between other neighbouring EU countries with significant alcohol tax differentials. It is possible that countries with significant tax or price differentials sharing land borders experience even higher levels of cross-border alcohol shopping, although further research would be needed to ascertain this.

### **Alcohol pricing policies are not always used towards public health aims across the EU**

Existing research has shown that alcohol pricing policies can be effective levers to reduce alcohol-related harms. However, these policies are not always applied to public health aims across the EU. Taxation of alcohol, for example, is used primarily with fiscal rather than public health objectives across most of the EU; in fact, as our analysis shows, the real value of alcohol taxation has decreased since the mid-1990s.

Legislation setting minimum prices for alcohol, which could potentially reduce alcohol-related harms, is also uncommon in the region. This is most likely because minimum prices have tended to be seen as trade-distorting by the European courts (as setting an artificial price floor amounts to resale price maintenance, limiting and distorting price

competition), and therefore not typically considered an acceptable or feasible measure. Nevertheless, there are regulations in a small number of European countries (both EU and other European states) that act as ‘proxies’ for minimum price regulations. For example, in Germany, the so-called Apple Juice law states that in the on-premise trade, at least one alcohol-free beverage must be cheaper than the cheapest alcoholic beverage available.

The approach to restrictions on sales below cost and on sales promotions such as ‘two for one’ and ‘happy hour’, is much more diverse across the EU. While some countries (such as Belgium, Luxembourg and Poland) ban sales below cost and/or alcohol sales promotions, in others there are no regulations applying to these, or self-regulation only is in place.

### **Changes in current alcohol pricing policy could lead to reductions in alcohol-related harms – but some of them are more feasible than others**

Policy changes to reduce current levels of alcohol-related harms could be implemented at the EU or national level, such as increases in alcohol excise duties, reductions in the personal import limits or control of below cost and promotional sales. However, changes at the EU-level, such as meaningful increases in the minimum excise duty rates or revisions to the indicative levels for personal use for cross-border alcohol purchases, seem highly unlikely in view of the pre-eminence of single market priorities, and the need for consensus by all MS in EU fiscal policy. Increases in taxation at the national level could be an effective strategy to reduce alcohol-related harms, but their feasibility in the current European context is compromised by downward pressure on taxes caused by the single market, and by the strength of the opposition to tax increases.

This leaves restrictions on sales below cost and on sales promotions, which could also be effective in curbing alcohol-related harms, but are not widespread across the EU. These types of measure are unlikely to be deemed trade-restrictive, which should enable MS to implement this policy without contravening of EU law. Equally, from a legal perspective, bans on sale below cost could be part of industry self-regulatory codes of practice, although they are not yet widespread in current self-regulation initiatives. However, in most EU MS it is not known exactly how much alcohol is sold below cost, so the overall impact of this policy remains uncertain.

### **It is important to understand the influence of price and affordability on alcohol consumption and harms in order to inform effective policy-making**

Understanding the influence of individual factors such as price or affordability can provide policy-makers with a variety of tools to achieve the aims of policies to address a public health concern such as harmful and hazardous alcohol consumption. This and many other studies indicate that the price and affordability of alcohol *do* impact on levels of harmful and hazardous alcohol consumption; hence policy-makers should consider measures affecting the price of alcohol, and therefore its affordability, to help reduce alcohol related harms.

Harmful and hazardous alcohol consumption *is* a multi-factorial problem, so approaches to influence the price/affordability of alcohol are not the only elements of most countries’ alcohol strategies. Other policies have been shown to be effective in reducing harmful and hazardous alcohol consumption, such as reducing alcohol outlet density, increasing

minimum legal drinking ages, and enforcing drink-driving counter-measures. An effective alcohol strategy is a policy mix that includes evidence-based interventions in all these fields.