

CHAPTER 3. DOES ALCOHOL POLICY MAKE ANY DIFFERENCE? SCALES AND CONSUMPTION

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Summary

By constructing a scale measuring the strictness and comprehensiveness of formal alcohol policies, and applying it in 33 European countries, we can create an overview on how alcohol is governed and controlled in Europe. The filled-in scales showed that, despite signs of convergence, there are still vast differences on what kind of alcohol policy measures are implemented in Europe and also on how strict the measures are.

The alcohol policy scale, with a mean score of 71.3, varied from 38.5 points (permissive Luxembourg) to 133 points (stringent Norway) out of a possible 160. The four Nordic alcohol-monopoly countries still have by far the strictest alcohol policies in Europe. The results also show us that higher alcohol policy scores, as a rule, correlate with lower alcohol consumption levels. This is true for three of the four different regional profiles in Europe, the southern European profile being the exception that proves the rule.

Introduction

The demonstrated link between level of alcohol consumption and level of alcohol-related harm makes the implementation of effective alcohol policies an important public health question (Babor et al. 2010). In order to manoeuvre the consumption and alcohol-induced harm into a preferred direction, governments have the possibility to implement different types of alcohol policies and control measures.

The alcohol policy palette includes several different alcohol policy measures. Countries can combine the different components into, more or less, functional entities. The study that was conducted within the AMPHORA project aimed to measure the strictness and comprehensiveness of the diverse alcohol policies implemented across Europe. By developing a scaling tool and by implementing it in 33 European countries we are able to get a state of the art picture of the current alcohol policy situation in Europe.

The scale developed within the AMPHORA project is not the first one of its kind. Many attempts have been made to scale and measure alcohol policy, the first ones dating back to the late 1970's and early 1980's. Recent attempts to develop policy scales were undertaken in, for example, The European Comparative Alcohol Study (Karlsson & Österberg 2001) and the Eurocare project "Alcohol Policy Network in the Context of a Larger Europe: Bridging the Gap" (Karlsson & Österberg 2007).

The AMPHORA alcohol policy scale is built on the foundations of the Davies & Walsh scale from 1983 and has the same principle idea, but with added updated elements from current-day policies. The AMPHORA scale also includes more contextual information than any of its predecessors, plus an attempt to take the complex question on enforcement into consideration.

This chapter covers how the scales were structured, filled in and put into use. Some of the built-in weaknesses of the methodology are discussed, and the correlation between alcohol consumption and the strictness of policies is analyzed.

What we did

The AMPHORA scale consists of a four-page questionnaire on formal alcohol policies. There are over 50 questions - most of them are answered by ticking boxes, but open answers are also included. The questionnaire is divided into seven subcategories, dealing with different aspects of alcohol policies. The subcategories have been given weights, and questions within each subcategory generate points. All questions do not receive points, as some are used for collecting contextual information on the alcohol situation.

In the scale constructed in the Bridging the Gap project, a panel of experts were asked to give their verdict on the effectiveness of different alcohol policy measures included in the scale. In the AMPHORA scale, however, the weights were adjusted and validated by referring to state of the art research on evidence-based practice (WHO Regional Office for Europe 2009; Babor et al. 2010). As physical and economic availability are the most powerful tools in controlling alcohol consumption, each of them contributes 25% of the total maximum scores. Age limits, drink driving and alcohol advertising controls are each rewarded with a share of 15% of the maximum score, while public policy's share of the total score is a mere 5%. The first subcategory in the scale, i.e. "Starting points" is a general, descriptive category, which gives the possibility to specify how alcoholic beverages are defined in the country in question, and offers the opportunity to give a brief description on how alcohol is regulated by law in the country. One can, for instance, state that there is a specific Alcohol Act in force, or indicate that alcohol is regulated mainly through other, non-alcohol specific, legislations. Subcategory one is mainly for information gathering purposes, and it does not generate any numeric score, unlike the other subcategories in the scale.

The 33 forms were filled in using data collected by the WHO-EURO in the European Survey on Alcohol and Health, corresponding to the year 2010. In addition, we contacted experts in the countries in order to get more contextual information.

Table 1. Subcategories of alcohol policy measures

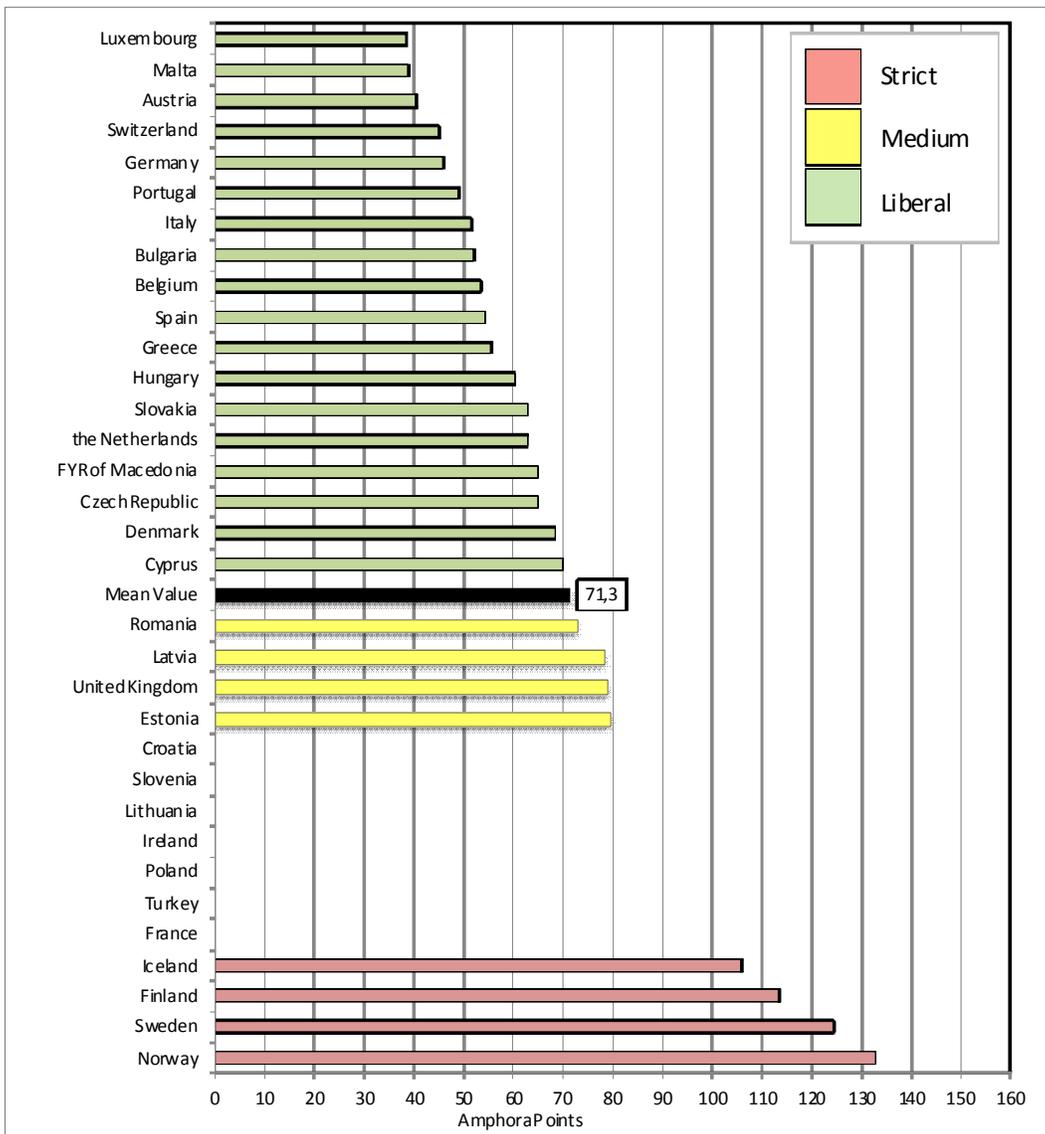
	Subcategory of alcohol policy measures	%	Max points
I	Starting points	0	0
II	Control of production, retail sale and distribution of alcoholic beverages	25	40
III	Age limits and personal control	15	24
IV	Control of drunk driving	15	24
V	Control of advertising, marketing and sponsorship of alcoholic beverages	15	24
VI	Public policy	5	8
VII	Alcohol taxation and price	25	40
	Total	100	160

What we found

After completing the scales for the 33 countries included in the study (EU 27 + Switzerland, Norway, Iceland, Croatia, Former Yugoslavian Republic of Macedonia and Turkey), we can determinate which countries have strict and/or comprehensive policies, and which countries have chosen a more liberal/lenient path. By looking at the ranking order of the countries, one can conclude that there are quite big differences in how the European countries have chosen to deal with the question of alcohol policies. In order to classify alcohol policies according to their strictness and comprehensiveness, the countries included in the study were divided into *liberal*, *medium* and *strict* alcohol policy countries (Figure 1).

This was done by dividing the scores between maximum and minimum in three equally large parts. The countries having the lowest scores contain the countries with the weakest formal alcohol policies in Europe. This group contains 18 countries that rank below the 33rd percentile of the scores (break point 70).

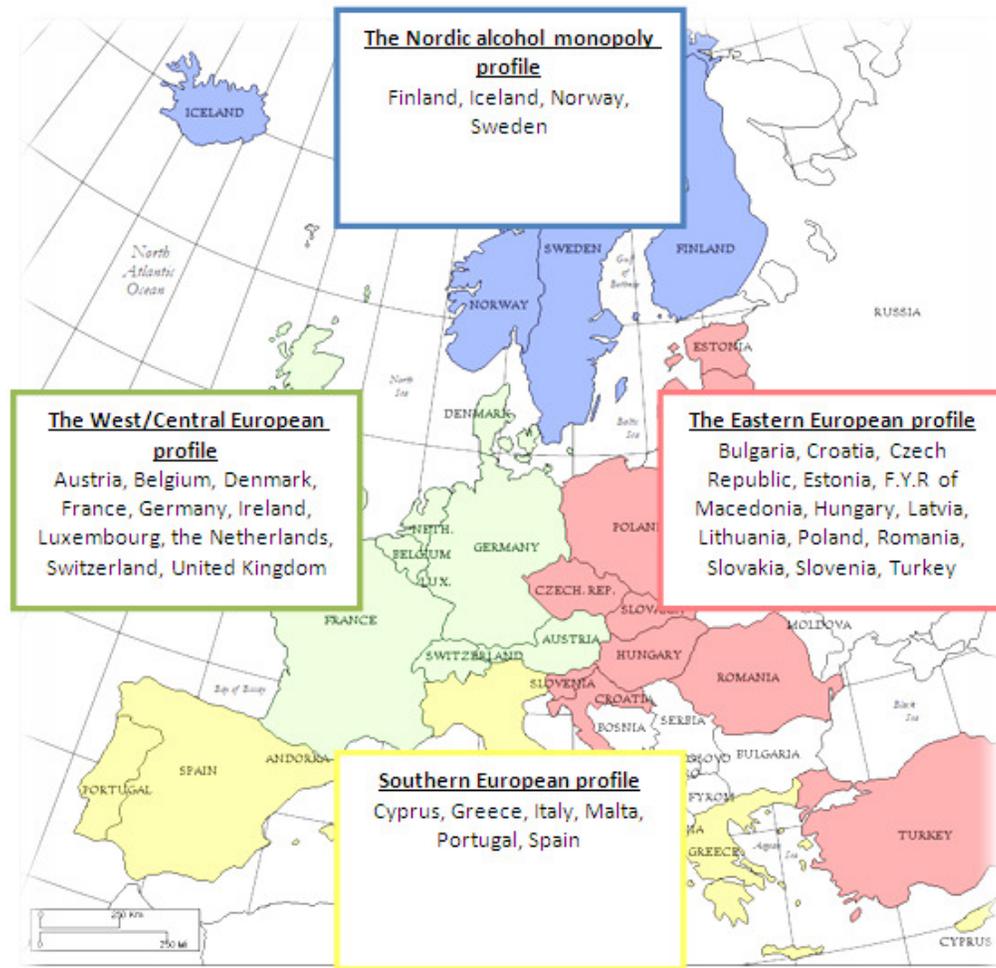
Figure 1. Ranking of alcohol policies



The medium alcohol policy group consists of 11 countries below the 66th percentile (break point 101), whereas only four countries were classified as strict alcohol policy countries. It hardly comes as any surprise that the countries with high alcohol policy scores are the Nordic countries that still have retail alcohol monopolies. The medium policy countries are a more heterogenic group that comprises three old EU member states (France, Ireland and the United Kingdom), six EU member states situated in the Eastern part of Europe, and the EU applicant countries Croatia and Turkey. The third and largest group is formed by the low-alcohol policy countries, which is also heterogenic considering geography, culture and history.

Another way of categorizing the countries is to divide them into four profiles according to drinking patterns, consumption levels and historical background (Shield et al. 2012; Figure 2).

Figure 1. Regional alcohol policy profiles in Europe²



Map provided by Cartographic Research Lab, University of Alabama

The four alcohol policy profiles are: the Nordic monopoly profile, the eastern European profile, the west-central European profile and the southern European profile. They all have diverse

² Finland, Iceland, Norway and Sweden form a Nordic group. Originally Shield et. al also included Denmark in this group, but the fact that Denmark lacks a retail monopoly makes it structurally very different from the other Nordic countries.

characteristics as well as different strengths and weaknesses when looking at separate subcategories of alcohol policy (Table 2).

Table 2. Scores for the regional alcohol policy profiles, according to category (percentage of maximum points for that particular category in brackets)

	I. Starting Points	II. Control of production, retail sale and distribution of alcoholic beverages	III. Age limits and personal control	IV. Control of drunk driving	V. Control of advertising, marketing and sponsorship of alcoholic beverages	VI. Public Policy	VII. Alcohol taxation and prices	Total
Max points	0	40	24	24	24	8	40	160
The Nordic monopoly profile	-	24.3 (61 %)	19.5 (81 %)	14.5 (60 %)	14.5 (60 %)	6.5 (81 %)	40.0 (100 %)	119.3 (75 %)
The eastern European profile	-	12.8 (32 %)	17.1 (71 %)	11.4 (47 %)	9.2 (38 %)	5.5 (69 %)	16.9 (42 %)	73.0 (46 %)
The west/central European profile	-	9.4 (24 %)	11.0 (46 %)	8.2 (34 %)	3.6 (15 %)	6.4 (80 %)	22.4 (56 %)	61.0 (38 %)
The southern European profile	-	11.1 (28 %)	10.0 (42 %)	8.7 (36 %)	4.5 (19 %)	6.7 (83 %)	12.3 (31 %)	53.3 (33 %)

The Nordic Alcohol Monopoly profile receives the highest scores for all categories except one. It also has the highest total score of 119.3 out of a possible 160. This profile has a lead over the other profiles especially in the second subcategory measuring the control of production, retail sale and distribution of alcoholic beverages, and in the seventh category measuring alcohol taxation and prices. The taxation tool can be applied for several different reasons, to meet for example fiscal, social order or public health interests, and the taxation levels vary a lot in Europe as the scores for the seventh subcategory show (see e.g. Österberg 2012).

We can, however, conclude that despite all the fundamental changes regarding physical and economic alcohol availability that the Nordic countries have encountered during the past few decades (Cisneros Örnberg & Ólafsdóttir 2008), the physical and economic availability in these countries is still restricted through retail monopolies and high taxes and prices.

Age-limits are also strictly regulated in the Nordic countries compared to the rest of Europe. Iceland, Norway, Sweden and Finland all have some age limits for alcoholic beverages set at 20 years, which gives them clearly the highest points in comparison. It is, however, also worth mentioning that the Eastern European profile scores highly in this category. None of the countries belonging to this profile have lower age limits than 18 years, whereas many countries in west and southern Europe have set age-limits of 16 years or even lower.

The points are fairly equally divided among the four profiles regarding control of drunk driving. Again, the Nordic monopoly profile scores highest with 14.5 points, while the west/central European profile scores the lowest with 8.2 points out of a possible 24. This is mainly explained

by the high BAC limits (0.08 %) in Ireland and United Kingdom, which lowered the score for the west/central Profile. However, in November 2011, and after the AMPHORA scale was created, Ireland has lowered the BAC limit to 0.05%.

Most of the countries included in the AMPHORA scale have fairly similar drink-driving policies. Twenty-two countries have set a BAC limit of 0.05% (only three countries had a limit of 0.08 % and eight countries, 0.02%), most countries have random breath testing in use, and a great majority of all the countries did not use alcohol ignition locks in 2010. This means we did not find huge variations between the four profiles when comparing drink driving policies.

Category number five dealing with control of advertising, marketing and sponsorship of alcoholic beverages shows that there are vast differences on how these issues are governed throughout Europe. Voluntary restrictions, in place in many European countries, did not generate any points in the scale because they can easily be trespassed or changed (Babor et al. 2010). This is the reason why the west/central European profile and the southern European profile show remarkably low scores for this category, only 3.6 points and 4.5 points respectively out of a possible 24. France is an exception in its group because of Loi Évin, a strict law regulating alcohol advertising. Countries both in the west/central profile and in the southern profile have long traditions of wine and beer producing. Strong industries tend to have interests to preserve their own markets and prevent or delay restrictions that would cause them to sell less of their products (Bond & Daube & Chikritzhs 2010). Hence, the strong presence of the alcohol industry in southern and Western Europe could at least partly explain the lack of strong advertising restrictions.

“Public Policy”, was the narrowest subcategory and could generate a maximum of 8 points including questions on alcohol strategies, authorities and information campaigns. All four country profiles came out with high scores for this category, with the Mediterranean countries at the top (6.7 points out of 8).

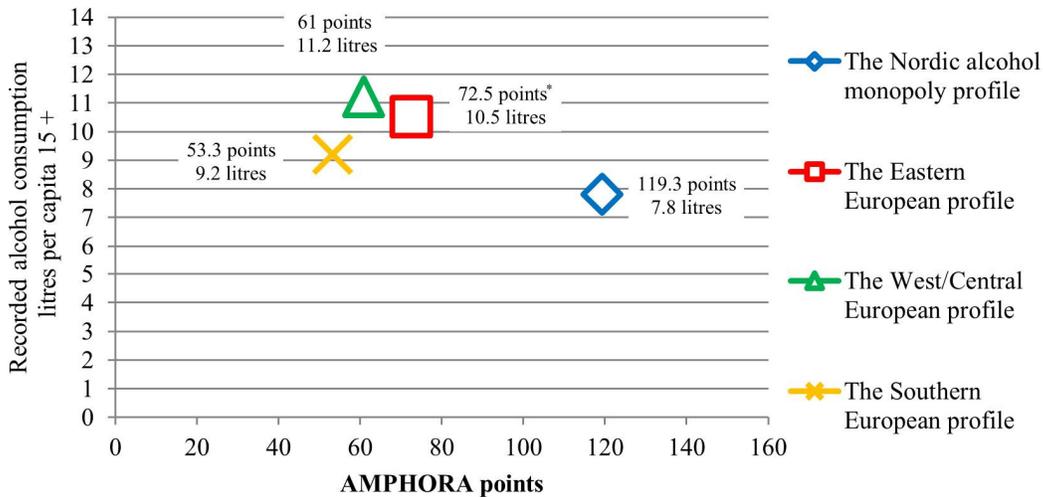
In order to conclude whether the policies implemented in the different countries are not only comprehensive, but also effective, we need to look at the alcohol consumption levels to see whether or not the implemented alcohol policies regulate the consumption in a desired manner. There is an established link between total alcohol consumption and alcohol-related harm, meaning that alcohol policies can be used to limit consumption, and improve public health (Bruun et al 1975).

When combining alcohol consumption data and the alcohol policy score, the Nordic alcohol monopoly countries have the highest score on alcohol policy (119.3) and the lowest consumption level (7.8 litres per capita 15 +). The eastern (10.5 litres/72.5 points) and west/central European profile (11.2 litres/61 points) are placed linearly in relation to the Nordic countries, suggesting that a higher alcohol policy score equals lower alcohol consumption. The southern European profile turns out to be a deviant case as it receives the lowest mean score for alcohol policy (53.3) and still has the second lowest consumption level (9.2 litres). The low alcohol policy score is mainly explained by low alcohol taxes (zero on wine in most countries), liberal marketing restrictions and weak physical control on alcohol availability (Figure 3).

It is worth pointing out that the alcohol consumption in southern Europe has been declining for some time now and, at the same time, changes in drinking patterns have occurred. Wine consumption especially has been decreasing since the 1970's, and for example in Italy, the drinking patterns amongst young people are starting to look like the ones traditionally found in the West, with beer and spirits consumption on the rise (Allamani, Beccaria & Voller 2010).

This is also the case in Spain where the “*botellón*” phenomenon has become a part of the young people drinking habits (Gual 2006).

Figure 3. Consumption and policies ³



There is, however, no direct causal link between changes in alcohol policy and alcohol consumption. Instead the relationship between these two seems quite complicated. For example, Italy set its first BAC limit only in 1988, and the first decree on guidelines for prevention and treatment for alcohol problems came only in 1993 – many years after the consumption started to fall. This “Mediterranean Mystery”, which cannot be explained by alcohol policies, has instead been accounted for by changes in society. One contributing factor has been urbanization, while changes in work organization are another factor (Allamani & Prina 2007).

What does this mean?

The results from the AMPHORA alcohol policy scale show us that there are great differences in how alcohol is governed throughout Europe.

Despite recent alcohol policy liberalizations in the Nordic countries, the four Nordic alcohol-monopoly countries have by far still the strictest alcohol policies in Europe. A common denominator for the top ranking countries is high taxes and restricted physical availability of alcoholic beverages.

With the exception of the southern European countries, higher AMPHORA policy score is associated with lower alcohol consumption. The decrease in alcohol (wine) consumption in the Mediterranean countries has been influenced mainly by societal factors like urbanization and changes in work organization, rather than changes in formal alcohol policies. Having the “least hazardous” drinking patterns compared to other European countries is another reason why the southern European countries should be regarded as the exception proving the rule (Shield et al. 2012).

When using policy scales, one should remember that there are some built-in problems with the methodology. First of all, it is hard to quantify and reduce complex policies into numbers

³ Latvia excluded from the profile due to lack of consumption data

that are trustworthy and internationally comparable. It is also tricky to measure the degree of enforcement, and including informal control practises in a scale should be avoided altogether. An attempt to measure enforcement was included in the AMPHORA scale derived from the WHO material, but only for a limited number of policies (BAC limits and advertising restrictions). It is hard to get objective data on how well policies are enforced, and in the end the enforcement estimates did not have any greater effect on the final scores in the AMPHORA scale. However, it is something worth looking closer at in future research.

It's also good to keep in mind that the scales measure formal, national policies and therefore, the differences between regions/cantons/länder etc. are not taken into account.

Despite several built in flaws, the pros of the scaling approach still clearly outweigh the cons. The scale gives us a large amount of data in numerical form, which makes it a strong tool in communicating with the public or politicians. With the help of scales it is easy to compare and rank countries, as well as getting an overview of the alcohol policies implemented in Europe.

Take home messages

1. The scale, which also serves as a tool for information gathering, translates formal alcohol policies into a single quantifiable figure, making it a strong tool in communicating with the public or politicians.
2. The results should be interpreted with caution, acknowledging the built in weaknesses of the scaling approach.
3. Although there are signs of convergence regarding both alcohol consumption and alcohol policies, there are still immense differences on how alcohol is governed in Europe.
4. Despite a turn towards more liberal alcohol policies during the past few decades, the four Nordic alcohol-monopoly countries still have by far the strictest policies in Europe.
5. With the exception of the Southern European Profile countries, higher alcohol policy scores, i.e. more strict and comprehensive alcohol policies, are strongly associated with lower alcohol consumption.

Conflict of Interest Statement

Thomas Karlsson and Mikaela Lindeman have no conflicts of interest to declare. In the last 5 years, Esa Österberg has received honoraria from Lundbeck.

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