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TECHNICAL REPORT

An Ex Ante Assessment of the Economic Impacts of EU Alcohol Policies

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Prepared for the European Commission

RAND EUROPE

The research described in this report was prepared for the European Commission.

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Executive summary

Introduction

The European Commission aims to put in place a comprehensive alcohol policy to combat the harmful effects of alcohol use in the European Union, especially with respect to the young. As with all major policy and expenditure proposals, this Communication requires an evidence-based ex ante impact assessment. The purpose of an ex ante impact assessment is to consider what will happen in the future if different policy options are adopted.

This report has two specific objectives: (1) an assessment of the current macroeconomic impacts of alcohol use and the likely future macroeconomic impacts of the proposed policy, and (2) an assessment of the current economic contribution of the alcohol industry and of the likely impacts of the proposed policy on the industry.

We first examine the nature and extent of the problem posed by alcohol use in the European Union. Next, we develop a conceptual approach that discusses how alcohol use is linked to macroeconomic development. This approach is then used to examine the future impacts of a successful alcohol policy on a number of macroeconomic aspects. The results of this examination are then applied to a comparison of the four policy options. Our report concludes with a chapter on monitoring and evaluation, and finally draws conclusions and formulates recommendations.

The problem of alcohol consumption

Alcohol consumption is linked to a host of severe problems in the European Union. The data seem to suggest that *on average* there is no real problem, because aggregate alcohol consumption is declining. There are at least two reasons to believe otherwise.

The harmful effects of alcohol use occur especially in the extreme ends of the distribution. Heavy and hazardous drinking account for only 15.5% of adults, but it still concerns 58 million Europeans. Cutting back heavy and extreme drinking is consequently the main challenge where use is concerned.

Youth drunkenness is on the rise in many Member States and alcoholic beverages are becoming more affordable and more easily available.

Alcohol use and harmful behaviour are related but different issues. Harmful effects can be attributed to the physical effects of drinking (a continuous effect), behavioural effects (an incidental effect), and external effects (effects on third parties).

The distinction between use and behaviour is crucial to an effective policy response to the harmful effects of alcohol use. Even though the two are intricately connected and policies generally affect both, the distinction is relevant to the sustainable impact of an alcohol policy. Responsible behaviour must become engrained in the behaviour of consumers for the impact of policy to become lasting or sustainable. A focus on use alone may produce short-term success that can only be sustained at high costs.

The economic importance of the alcohol industry

The alcohol industry is a large and elaborate industry with extensive forward and backward linkages. The value chain of alcohol production involves a host of economic activities. Any change in alcohol consumption will affect the manufacturers of alcoholic beverages as well as their suppliers and clients throughout the value chain.

The alcohol industry makes a modest contribution to the total economy of the EU25. The numbers concerned are, however, substantial and any change in economic performance will involve large amounts of money and a lot of jobs. The impact of a change in alcohol consumption on the economic performance of the alcohol industry will be felt more strongly in some nations than in others, most notably in the 10 Member States that produce and export most.

Assessing the impacts of alcohol policy

Stakeholder analysis shows that the most likely and influential supporters of a new alcohol policy are the central government, national institutes and organisations responsible for coordinating national activities in alcohol research, prevention and treatment, the criminal justice system and NGOs. The alcohol industry is the most likely opponent, even though its position will depend on the impact of the proposed policy on its (future) economic performance.

Labour

The impacts of a successful alcohol policy on productivity and competitiveness work mostly through labour input. National costing studies do overestimate the impact of absenteeism. Reducing absenteeism at work will raise output (although the marginal increase in output will be lower than that in labour input) but will lower average productivity. The same is more or less true for unemployment and premature mortality. Each is, however, subtly different:

- Absenteeism combines a loss of productivity with continued wage payments, thus raising the costs of production.
- Unemployment involves a social cost that is not balanced by an individual economic contribution, thus imposing a negative externality on (working) taxpayers.
- Premature mortality ends all individual and social costs and benefits that are related to the deceased and is often viewed from a lifetime rather than a short-term perspective.

What if alcohol-related absenteeism, truancy, unemployment, and underperformance at work decline? Every 1% increase in labour input will produce less than 1% increase in output and a decline in average labour productivity. A higher educational attainment will improve the average employment opportunities of students and the quality of labour input, in addition reducing unemployment as well as the psychosocial problems that may lead to alcohol abuse. The lower burden of absenteeism on wage costs and of unemployment on public expenditure and the tax burden improve the competitive position of industry. However, the macroeconomic impacts are not likely to be significant. The impacts may still involve several billion euros across the EU25, giving an alcohol policy absolute value even when it does not have a significant relative effect on growth rates, productivity or competitiveness.

Opportunity costs

Health care

Lower alcohol-related costs are unlikely to free resources for use outside the health care sector, given the existence of hospital waiting lists and constraints on health care capacity. A decline in alcohol-related health care would have little impact on the fixed costs of the health care industry. The internal savings due to a decline in the harmful effects of alcohol use are also unlikely to be

reallocated to health care R&D. The opportunity costs of alcohol-related morbidity and mortality relate mainly to the potential benefits of a reallocation of resources within the health care sector. One such benefit would occur as resources are shifted from treatment (dealing with current cases) to prevention (dealing with potential new cases). A far more important effect of the reduction in health care expenditure on alcohol-related deaths and diseases is that a shift in resources to the treatment of other diseases and to prevention helps improve the general health status of the labour force, thus adding to its efficiency.

Pensions

Population ageing is the main threat to the sustainability of European pension funds. A future reduction in the harmful effects of alcohol consumption may lower premature mortality and increase the number of people that reach retirement age. Alcohol users who die prematurely contribute to pensions funds but do not draw a pension. The likelihood of their death is, however, included in the calculation of pension premiums. The burden on pension funds will increase when premiums stay unchanged but alcohol-related deaths decline. However, the age distribution of alcohol-attributable deaths suggests that a significant proportion of premature mortality affects those who have contributed to pension savings for a relatively short period (up to the age of 44). This implies that in financial terms the proportion of pension premium that can be attributed to alcohol-related deaths is lower than was suggested in the above. Alcohol policy would consequently not have a very significant impact on the pension squeeze.

Crime

Law enforcement is a necessary evil, protecting society from crime and violence but at a high cost. A decline in the harmful effects of alcohol use would lead to an immediate saving through a reduction in property damage (assuming a fall in crime across all types of crime). The same decline would lead to lower prevention and insurance costs but with a lag. The money spent on law enforcement and the police on the effects of alcohol-related crime and violence would not fall immediately if at all if the harmful effects of alcohol use were to decline. These costs include high fixed costs that would be redirected to other crimes rather than reallocated to productive purposes.

Drink driving

A decline in drink driving and alcohol-related traffic accidents would truly free resources, albeit at the expense of the value added generated by car manufacturers, car repair companies, and rescue and emergency services. Time savings would yield economic gains mainly through the amount of time involved in transporting freight and other production-related transport.

An estimated inferred loss of Gross Domestic Product attributable to alcohol-related deaths and injuries in the EU produces fairly modest results. A 10% reduction in the number of deaths would liberate a mere €10 million in GDP losses. Injuries account for a larger proportion of immediate output losses with savings amounting to between €24 and €118 million depending on assumptions. The combined effect would then approximately amount to €34 to €128 million.

Insurance

A reduction in alcohol-related morbidity, mortality, traffic accidents, and crime will in time translate into lower insurance premium unless the specific risks had already been internalized. There will be a time lag between the realization of benefits and the decline in premiums, as insurers need robust evidence on levels of risk. If risks have not been internalized, all insured will benefit from a decline in alcohol-related risk, drinkers and non-drinkers alike. The macroeconomic impact is unlikely to be significant.

Taxation and public revenues

If all else remains the same, a 1% increase in excise duties lowers alcohol consumption by less than 1%. The impact of excises on consumption seems to be modest. There is, however, evidence to suggest that they are very effective with respect to heavy drinkers and young drinkers. Excises cannot, however, be the only instrument. A more comprehensive approach is necessary.

A rise in excise duties would cause total alcohol consumption to fall and public excise revenues to increase. Excise duties alone are not sufficient to achieve a sustained decline in alcohol use or an associated change in harmful behaviour, but they can be effective with respect to particular groups of consumers, most notably heavy drinkers and young drinkers. Since the impact on consumption would be entirely due to an artificial impulse –an increase in taxation– rather than a real impulse –changes in the costs structure or efficiency of alcohol production–, industry would incur a net loss.

Unrecorded alcohol consumption imposes a cost on society. Tax evasion imposes a negative externality: drinkers of illicit beverages contribute less to the social costs of alcohol use than drinkers of taxed beverages and the associated costs are imposed on society at large, drinkers and non-drinkers alike. Raising levels of excise taxation may cause a decline in alcohol consumption and an increase in revenues. However, in Member States with high levels of unrecorded consumption revenues may actually fall as consumers switch to illicit products. In addition, unrecorded consumption raises the costs of enforcement.

Monitoring and evaluation

As stated in the EC Impact Assessment Guidelines (SEC (2005) 8 June 2005) the road map for monitoring progress should "set measurable indicators to cover both the quality of outcomes and the implementation process, and define plans for evaluation."

Monitoring is a continuous function that uses the systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing development intervention with indicators of the extent of progress in the use of allocated funds. Establishing clear objectives and indicators is the first stage of putting in place a good quality monitoring system. The number of indicators should be small to facilitate the obtaining of data from the maximum number of Member States and to allow annual updating of data.

Evaluation is the systematic and objective assessment of an ongoing or completes project, programme, or policy, including its design, implementation and results. It should (1) assess the impact of each policy in the EU and at other levels (national and local); (2) assess the efficiency of resource use; and (3) assess how consistently and how well the policy interventions complement other relevant government, industry or community programmes, actions, and initiatives. A policy's impacts should be evaluated with respect to relevance, effectiveness and sustainability, efficiency, consistency, and acceptability.

Comparing the policy options

The Commission has identified four options for future alcohol policy:

No change: Policy decisions and initiatives will be left largely to Member States and stakeholders, while the EU continues to finance projects and networks, support research, facilitate exchange of best practice, and collect and disseminate information on alcohol consumption and harm, but does not coordinate activities across policy domains.

Coordination of activities at EU level: Similar to option 1, but the EU would encourage stakeholders throughout the European Union to undertake similar activities (e.g. self-regulation, common codes of conduct on commercial communication, exchange of best practice on interventions) and to hold Member States to their Treaty obligations.

A comprehensive strategy: Application of a wide variety of policy instruments (legislation, self-regulation, information and education campaigns, exchange of best practice, stakeholder involvement) across all relevant policy domains (internal market, taxation, transport, education, research and consumer policy). The strategy would focus on drink-driving, coordinated campaigns, protection of third parties, commercial communication, consumer information, and availability and prices.

Purely regulatory: Focus on the use of the policy instrument of regulation to achieve a decline in the harmful effects of alcohol use.

The four policy options currently exist only in principle. The impacts of a European communication on alcohol policy will depend on its details –most particularly on the operationalization of the proposed actions and initiatives– and on the preferences and choices of the main actors. Our comparison of the four policy options is consequently based on an understanding of the fundamental principles of each option and of the effectiveness and cost-effectiveness of the instruments that may be deployed.

The effectiveness and cost-effectiveness of policy instruments

The effectiveness of regulation and enforcement (the "hard" instruments) is generally high, while that of information, awareness, training and education (the "soft" instruments) is generally lower. The two categories are closer in terms of cost-effectiveness. The second "soft" instruments appear to be moderately to highly cost-effective in the areas of drink-driving, hazardous and harmful drinking, and families and children, but much less cost-effective in tackling the issues of violence and economic development.

The nature of each policy option

A first, high-level comparison of the four options suggests that:

- Option 1 will not result in a decline in the harmful effects of alcohol use.
- Option 2 will probably be a more efficient version of option 1, but without a structural improvement in alcohol policy.
- Option 3 is potentially the most efficient and effective approach in that it combines policies intended to lower alcohol use with activities aimed at behavioural change, although policies aimed at behavioural change are generally less (cost) effective.
- Option 4 will lower alcohol use through stricter regulation and enforcement, but that without a supporting information and education campaign, changes in use may not become engrained in consumer behaviour.

A comparison of the impacts of the four options across all policy domains related to macroeconomic and sectoral impacts resulted in an assessment of the marginal impact of options 2, 3, and 4 relative to the impacts of option 1.

On balance, *option 3* appears to provide more macroeconomic and sectoral benefits than the other two options. It combines "hard" and "soft" instruments, targeting the behavioural foundations of harmful drinking with the latter and reinforcing this with the (cost)effectiveness of the former. The macroeconomic impacts may not be significant relative to the size of the economy or the influence of other variables, but the amounts involved are still substantial. *Option 3* also performs better than the other options in the opportunities for synergy, even though *option 4* has a distinct advantage with respect to public revenues and its uses.

Option 4 presents a number of clear benefits, for example with respect to drink driving, health care, and public revenues. Its impact on productivity and competitiveness is somewhat positive,

while the regulatory option will most likely harm the alcohol industry and its supplying industries. *Option 2* is mainly a more efficient approach to the current set of policies and initiatives. Yet, our main conclusion is that option 3 dominates the other options.