

No place for cheap alcohol

THE POTENTIAL VALUE OF MINIMUM PRICING FOR PROTECTING LIVES

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ABSTRACT

The WHO European Region has some of the highest levels of alcohol consumption and corresponding rates of alcohol-related harm in the world. Pricing policies and taxation are among the most effective measures that policy-makers can use to address these harms, but they remain underutilized across the Region. There has been growing interest in recent years in a relatively new form of pricing policy to decrease alcohol affordability and consequently consumption – minimum pricing. This report discusses this (as yet) not widely used policy and its potential for improving public health and examines how minimum pricing policies should be applied alongside alcohol taxation measures. It reviews the status of implementation of minimum pricing globally, provides an overview of the most recent evidence behind the policy, addresses its main strengths and limitations and offers practical considerations for countries.

KEYWORDS

ALCOHOL DRINKING – prevention and control
ALCOHOL – adverse effects
HEALTH POLICY
NONCOMMUNICABLE DISEASES
RISK FACTORS
PRICING

ISBN: 978-92-890-5809-4

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Suggested citation: No place for cheap alcohol: the potential value of minimum pricing for protecting lives. Copenhagen: WHO Regional Office for Europe; 2022.

Cataloguing-in-Publication (CIP) data. CIP data are available at <http://apps.who.int/iris>.

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FOREWORD

As the First Minister of Scotland, I was delighted to be asked to write the foreword for this report by the World Health Organization.

The Scottish Government has a long history of trying to tackle Scotland's problematic relationship with alcohol. We have implemented evidence-based alcohol policies, such as the world-leading introduction of minimum unit pricing, lowered the drink-drive limit and banned irresponsible promotions.

Scotland's Alcohol Framework outlines our approach to reducing the affordability, availability and attractiveness of alcohol in line with WHO guidelines. I am therefore grateful for the leadership shown by WHO in laying out the evidence to support the implementation of policies that reduce the affordability of alcohol.

This new and important report highlights the tragic impact that problematic alcohol use has on our populations.

- Alcohol consumption and its related burden of disease are responsible for some of the greatest health and societal challenges faced by Member States of the WHO European Region.
- Globally, the European Region has the highest level of alcohol per capita consumption and the highest proportion of drinkers.
- One in every 10 deaths in the Region each year is caused by alcohol, amounting to almost 1 million in total, and many of these deaths occur at a very young age – one in four deaths among 20–24-year-olds is alcohol-attributable.
- Alcohol is a causal factor for more than 200 diseases, health conditions and injuries and is a Group 1 human carcinogen, causally linked to seven types of cancer.
- Like COVID-19, alcohol harm exacerbates existing health inequalities; similar levels of alcohol consumption are associated with a more damaging impact on the health of more deprived individuals and their families than of wealthier drinkers.

The report is also clear that one of the main barriers to the implementation of some of the most high-impact and cost-effective alcohol policies, and notably pricing policies, is significant and sustained opposition by parts of the alcohol industry. This is why my Government has made a commitment not to engage with the



A handwritten signature in black ink, which appears to read 'Nicola Sturgeon'. The signature is fluid and cursive, written on a white background.

alcohol industry on health policy development, health messaging campaigns, or on provision of education in schools and beyond school settings.

Our evaluation of minimum unit pricing is underway and we are also considering how the COVID-19 pandemic has impacted people's drinking behaviour. The Monitoring and Evaluating Scotland's Alcohol Strategy programme is essential to our understanding and will feed into our formal review, which will inform the Scottish Parliament's debate as to whether to continue minimum unit pricing.

I can assure you that as First Minister, I am determined that Scotland will share our experiences – what we got right and wrong – so that others have the opportunity to learn from our work, with the aim of reducing worldwide alcohol-related harms.

I congratulate WHO again for producing this report, which emphasizes the need for alcohol pricing policies if we are to see real change.

Rt. Hon. Nicola Sturgeon MSP, First Minister of Scotland

ACKNOWLEDGEMENTS

This report was developed by Colin Angus (Senior Research Fellow, Sheffield Alcohol Research Group, Sheffield University, United Kingdom), Aveek Bhattacharya (Chief Economist, Social Market Foundation, United Kingdom) and Maria Neufeld (Technical Officer, WHO European Office for the Prevention and Control of Noncommunicable Diseases, WHO Regional Office for Europe). It was coordinated by Carina Ferreira-Borges (Programme Manager, Alcohol and Illicit Drugs, WHO European Office for the Prevention and Control of Noncommunicable Diseases, WHO Regional Office for Europe), with contributions from Crispin Acton (Researcher, London School of Hygiene and Tropical Medicine, United Kingdom), Oliver Bartlett (Assistant Professor, Maynooth University, Ireland), João Marecos (Lawyer and Researcher, Imperial College London, United Kingdom) and Ashley Wettlaufer (Research Methods Specialist, Centre for Addiction and Mental Health, Canada).

The WHO Regional Office for Europe is grateful to the following reviewers of the document: Eric Carlin (consultant, WHO European Office for the Prevention and Control of Noncommunicable Diseases, WHO Regional Office for Europe); Jürgen Rehm (Senior Scientist, Centre for Addiction and Mental Health, Toronto, Canada); Franco Sassi (Professor, Centre for Health Economics and Policy Innovation, Imperial College London, United Kingdom); and Michal Stoklosa (Technical Officer, Fiscal Policies for Health Unit, WHO headquarters). The WHO Regional Office for Europe would also like to thank WHO headquarters staff members Anne-Marie Perucic (Technical Officer, Fiscal Policies for Health Unit), Laura Rossouw (consultant, Fiscal Policies for Health Unit) and Juan Tello (Unit Head, Less Alcohol Unit) for their review of the final draft.

The report compilation was greatly assisted by contributions from country representatives and technical experts at a meeting to consider the first report draft, which was held on 16 March 2021, hosted by the Government of the Netherlands. Several of these people also provided substantial support before and after this meeting: Kristina Galstyan (Team Leader on Public Health, Ministry of Health, Armenia); Wil de Zwart (Senior Policy Officer for Nutrition, Health Protection and Prevention Department, Ministry of Health, Welfare and Sport, the Netherlands); Manuel Cardoso (Deputy General-Director, General-Directorate for Intervention on Addictive Behaviours and Dependencies, Portugal); Ludmila Letnikova (Director, Department for Public Health, Communication and Expert Activities, Ministry of Health, the Russian Federation); Daria Khaltourina (Head, Risk Prevention Department, Central Research Institute for the Organization and Informatization of Health Care under the Ministry of Health, the Russian Federation); Marta Melnyk (State Expert, Expert Group on Noncommunicable Disease Prevention and Health Promotion Public Health Directorate, Ukraine); Clare Beeston (Public Health Intelligence Principal, Public Health Scotland, United Kingdom); Anastasia Bobrova (Head, Department of Human Development and Demography, National Academy of Sciences of Belarus); Kairat Davletov (Associate Professor of Medicine, Al-Farabi Kazakh National University, Kazakhstan); Ardine de Wit (Senior Health Economist, National Institute for Public Health and the Environment, Ministry of Health, Welfare and Sport, the Netherlands); John Holmes (Professor of Alcohol Policy, University of Sheffield, United Kingdom); Peter Miller (Professor of Violence Prevention and Addiction Studies, Deakin University, Australia); Yana Roshchina (Senior Research Fellow, National Research University Higher School of Economics, the Russian Federation); Anurag Sharma (Senior Lecturer, University of New South Wales, Australia); and Brian Vandenberg (Research Fellow, Monash University, Australia).

The publication was made possible by funding from the governments of the Netherlands and Norway in the context of a grant to the WHO European Office for the Prevention and Control of Noncommunicable Diseases.

ABBREVIATIONS

ABV	alcohol by volume
CIS	Commonwealth of Independent States
CJEU	Court of Justice of the European Union
EAEU	Eurasian Economic Union
EU	European Union
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
MEQR	measures having equivalent effect to a quantitative restriction
MET	minimum excise tax
MP	minimum pricing
MUP	minimum unit price/pricing
OECD	Organisation for Economic Co-operation and Development
PAHO	Pan American Health Organization
PALIs	police auxiliary liquor inspectors (Northern Territory, Australia)
PPP	purchasing power parity
TFEU	Treaty on the Functioning of the European Union
VAT	value added tax
WTO	World Trade Organization

EXECUTIVE SUMMARY

This report provides a first-ever review and global mapping of minimum pricing policies on alcohol and a summary of the most recent evidence on their impact. It discusses minimum pricing and a specific form – minimum unit pricing (MUP) – in connection with other pricing policies and, most importantly, alcohol taxation. The report also addresses the common arguments against minimum pricing and provides the counterarguments, based on available evidence. It discusses various legal issues related to minimum pricing, including implications within existing legal treaties and unions in the WHO European Region, such as the European Union (EU) and the Eurasian Economic Union. Finally, the report provides an overview of different minimum pricing models and their potential impact in combination with taxation measures on the alcohol market and consequently consumers, and offers considerations for implementation, enforcement, monitoring, evaluation and revision of minimum pricing policies.

Key messages

- Alcohol pricing policies and alcohol taxation are among the most effective and cost-effective measures to reduce alcohol consumption and harms, but they are also the most underutilized.
- Alcohol taxation is the most widely used pricing policy and all Member States in the Region have some form of alcohol tax in place, yet these taxes are often implemented in a way that is unlikely to be beneficial to public health.
- There are various sources of evidence on the impact of minimum pricing, including from systematic reviews, modelling studies and evaluations of real-life implementation scenarios. These demonstrate reductions in alcohol consumption and harms following the introduction of minimum pricing measures.
- A minimum price on an alcoholic beverage sets a fixed price level below which a specific volume of a finished product cannot be sold, while MUP is more specific and sets a level below which a fixed volume of alcohol (such as a standard drink) cannot be sold. As MUP is linked to the alcohol content of the beverage it will always be higher for stronger than for low-alcohol drinks, thereby incentivizing consumers and producers to favour lower-strength products. This report uses the term minimum pricing as an umbrella term to refer to both measures.
- Alcohol harm is concentrated in heavier drinkers, particularly those from lower socioeconomic groups. Minimum pricing policies can effectively target these drinkers and consequently can reduce health inequalities.
- Globally, only 14 countries currently have minimum pricing policies in place, and 11 are located in the WHO European Region (in the United Kingdom, only in Scotland and Wales). The countries with minimum pricing outside of the Region are Australia and Canada. Minimum pricing policies are in place in 10 of the 13 provinces in Canada, but in only one of the eight territories of Australia.

- 
- In the WHO European Region, 11 countries (in the United Kingdom, only in Scotland and Wales) have some form of minimum pricing policies on alcoholic beverages in place (mostly imposed on vodka and other spirits) and only four countries have a MUP on all alcoholic beverages (Armenia, Ireland, Ukraine and the United Kingdom (only in Scotland and Wales)), although in Ukraine the MUP is imposed on spirits only.
 - In the year 2020, the minimum prices for one litre of beer ranged between two international dollars (Int\$) and Int\$ 5 across the countries with this legislation, while the minimum prices for wine ranged between Int\$ 5 and Int\$ 12.5 per litre and between Int\$ 12.5 and Int\$ 40 per litre for vodka.
 - Currently, all five Member States of the Eurasian Economic Union (Armenia, Belarus, Kazakhstan, Kyrgyzstan and the Russian Federation) have minimum pricing policies for some alcoholic beverages. The Treaty on the Eurasian Economic Union explicitly allows Member States to establish their own minimum prices on spirits and raw ethanol.
 - Currently, Ireland and Slovakia are the only EU countries with minimum pricing policies for alcohol. In line with EU law, any minimum pricing measure adopted by an EU Member State will constitute a technical regulation and the legislation draft must be notified to the European Commission, providing specific supportive arguments. The legislation in question must follow a legitimate public health objective so that it is not dismissed because it has the potential to create barriers to the free movement of goods within the EU.
 - The case study of United Kingdom (Scotland) (the United Kingdom used to be an EU Member State) demonstrates the compatibility of MUP with EU law, with the Court of Justice of the European Parliament finding that MUP is likely to decrease heavy drinking and associated harms.
 - Common objections to minimum pricing are similar to those raised in relation to taxation, but these objections generally are not supported by factual evidence.
 - Increasing alcohol taxes is likely to grant an immediate and direct increase in government revenue. Minimum prices are likely to increase revenue for alcohol producers and retailers and, to a lesser extent, reduce government tax revenue. These losses, however, are likely to be offset by other economic gains, such as reduced health-care costs and greater economic productivity. Further evidence and evaluation studies are needed to understand the long-term consequences of minimum pricing measures.
 - There is potential for minimum prices to be used in combination with other complementary policies, including taxation, to reduce harm and increase government tax revenue. Minimum prices should therefore be considered as complementary to taxation, not as an alternative. Although minimum prices may lead to increases in unrecorded alcohol consumption, these can be prevented through targeted measures.



INTRODUCTION

1.1 Pricing policies and taxation: a powerful tool that is underutilized in the WHO European Region

Alcohol is a leading global risk factor for ill health and premature mortality and is responsible for an estimated 3 million deaths worldwide, of which almost 1 million occur in the WHO European Region (WHO, 2018). Globally, this Region has the highest share of deaths caused by alcohol consumption – about 12% of male and 8% of female deaths – and the causes of these deaths are the most common and frequent diseases and health conditions, including cardiovascular diseases, digestive diseases, cancers and injuries. Alcohol consumption leads to increased medical costs and health-care expenditures and to indirect costs through loss of income and productivity. A recent simulation study that combines the effects of alcohol consumption on life expectancy, health expenditure, employment and productivity highlights that based on current levels of drinking, the gross domestic product (GDP) from all member countries of the Organisation for Economic Co-operation and Development (OECD) is expected to be 1.6% lower over the period 2020–2050 than it would be if nobody consumed more than 1–1.5 drinks per day (OECD, 2021).

Progress has been made in recent years towards reducing this enormous health and economic burden, with total alcohol consumption per capita across the Region falling by 21% between 2010 and 2019, although it remains higher than any other WHO region (recent evidence suggest the decline is already beginning to slow (WHO, 2022)). This fall in consumption has been driven largely by large reductions in alcohol consumption in the eastern part of the Region, while almost no progress has been made in European Union (EU) countries (WHO Regional Office for Europe, 2019a; Probst et al., 2020). These reductions have coincided with the implementation of a broad platform of alcohol policies and have led to concerted falls in alcohol-attributable harm (WHO Regional Office for Europe, 2019a, 2020a; Neufeld et al., 2021).

Despite success stories in eastern Europe and central Asia, effective alcohol policies remain heavily underused across the WHO European Region (WHO Regional Office for Europe, 2021a). This is particularly true for pricing policies and taxation. Out of all available policy options to reduce alcohol consumption and the associated burden of disease, these policies remain the least implemented, although they reflect one of the best evidenced and cost-effective approaches available (WHO Regional Office for Europe, 2021a). Increasing excise taxes on alcoholic beverages is one of WHO's best buys to mitigate the public health harms of alcohol consumption, meaning that this is a policy that will yield the greatest possible health benefit for the resources invested (WHO, 2017; Chisholm et al., 2018).

While alcohol taxation is the most widely used policy, with all Member States in the Region having some form of taxation on alcohol, taxes commonly are set at very low levels or are structured in a way that is unlikely to be beneficial to public health (WHO Regional Office for Europe, 2020a).

1.2 Affordability – a key concept in pricing policy

Affordability denotes people's ability to buy and consume alcohol and can be seen as the net effect of alcohol price and people's income. The price of alcoholic beverages relative to other products and to inflation rates also plays an important role. There are various ways to operationalize affordability, especially across countries (Rabinovich et al., 2009; Kan & Lau, 2013).

Affordability is one of the key factors that impact alcohol consumption. Any type of measures implemented to control or affect the prices and affordability of alcohol can reduce alcohol consumption and therefore harm (Smith, 2005). In the context of a competitive market, alcohol consumption is negatively correlated with price, meaning that as price increases, consumers will reduce their consumption (Sornpaisarn et al., 2017). The overall price elasticity of alcohol demand (that is, the measurement of the change in the consumption of alcohol in relation to a change in its price) has an average value of approximately -0.5 , which means that a 1% increase in alcohol prices will yield a 0.5% reduction in its consumption (Gallet, 2007; Wagenaar et al., 2009; Fogarty, 2010).

Alcohol taxation is the most widely used policy measure to regulate alcohol affordability. All countries in the WHO European Region levy taxes on alcohol in one form or another, although there are many that de facto do not have a tax on wine (WHO Regional Office for Europe, 2020b). A growing body of research demonstrates that alcohol affordability has generally been increasing in the WHO European Region and in EU countries specifically because population income has increased while the relative prices of alcoholic beverages have remained generally stable or fallen (Rabinovich et al., 2009; Blecher et al., 2018). These low prices are supported not only by the relatively low alcohol excise rates, but also by the long-lasting financial support of the EU to wine producers (Anderson & Jensen, 2016).

Another factor that contributes to growing affordability over time is the fact that at least half of the countries of the WHO European Region do not regularly adjust their excise tax rates to keep pace with inflation. According to the latest available data, out of 46 countries from the Region that reported data, only 15 have linked their alcohol duties to inflation consistently across the different types of alcoholic beverages (Table 1).

1.3 Minimum tax share to control and reduce affordability of alcohol

As outlined above, there is overwhelming evidence from various studies using different methodologies to show that increasing excise tax can reduce alcohol affordability, consumption and harms in a cost-effective way (Wagenaar, Salois & Komro, 2009; Elder et al., 2010; OECD, 2015; Sornpaisarn et al., 2017; Chisholm et al., 2018). Introducing and raising taxes on products that have a negative public health impact, such as alcohol, tobacco and sugar-sweetened beverages, can be a win-win-win policy option because these health taxes can reduce consumption of unhealthy products and the resulting burden, generate tax revenue, reduce long-term health-care costs and increase long-term economic productivity (Task Force on Fiscal Policy for Health, 2019; WHO, 2019).

Table 1. Overview of countries in which alcohol excise tax rate is regularly increased to keep pace with inflation, wage increases or other measures on a periodic basis (N = 46)

Country	Beer	Wine	Spirits	Other ^a
Andorra	No	No	No	No
Austria	Yes	Yes	Yes	Yes
Azerbaijan	No	No	No	No
Belarus	Yes	Yes	Yes	No
Belgium	Yes	Yes	Yes	Yes
Croatia	Yes	Yes	Yes	Yes
Cyprus	Yes	Yes	Yes	Yes
Czechia	Yes	Yes	Yes	Yes
Denmark	No	No	No	No
Estonia	Yes	Yes	Yes	Yes
Finland	Yes	Yes	Yes	Yes
France	Yes	Yes	Yes	Yes
Georgia	No	No	No	No
Germany	Yes	Yes	Yes	Yes
Greece	No	No	No	No
Hungary	No	No	No	No
Iceland	Yes	Yes	Yes	No
Ireland	Yes	Yes	Yes	No
Israel	No	No	No	Yes
Italy	No	No	No	No
Kazakhstan	No	No	No	No
Kyrgyzstan	Yes	Yes	Yes	Yes
Latvia	Yes	Yes	Yes	No
Lithuania	Yes	Yes	Yes	Yes
Luxembourg	Yes	Yes	Yes	Yes
Malta	No	No	No	No
Netherlands	No	No	No	No
North Macedonia	No	No	No	No
Norway	Yes	Yes	Yes	Yes
Poland	No	No	No	No
Portugal	Yes	No	Yes	Yes
Republic of Moldova	Yes	Yes	Yes	No
Romania	No	No	Yes	Yes
Russian Federation	No	No	No	No
San Marino	Yes	Yes	Yes	No
Serbia	No	No	No	No
Slovakia	No	No	No	No
Slovenia	Yes	Yes	Yes	Yes
Spain	No	No	No	No
Sweden	No	No	No	No
Switzerland	No	No	No	No
Tajikistan	No	No	No	No
Türkiye	No	No	No	No
Turkmenistan	Yes	Yes	Yes	Yes
Ukraine	No	No	No	No
United Kingdom	Yes	Yes	Yes	No

Note: changes in the legislation since 2019 are not reflected. Seven countries of the WHO European Region did not submit data.

^aOther beverages are, for example, fortified wines or other fermented beverages with an alcohol by volume content that is higher than that of wine but below that of spirits. Information on the alcohol tax structure for these beverages was not available.

Source: the 2019 iteration of the WHO Global Survey on Progress on Sustainable Development Goals health target 3.5.

Several types of alcohol excise taxation exist globally and across the different countries of the Region, which may pursue different alcohol control objectives as appropriate within their national contexts (WHO Regional Office for Europe, 2020b). In addition to substantial variation in drinking patterns and levels across countries, countries' technical capacity for tax administration and tax collection also differs. Poorly designed tax systems, low excise rates and the failure to adjust them to rising income and price levels will reduce the health impact of this policy measure. Research has shown that the real value of alcohol excise duty rates has decreased and that the overall proportion of tax in final consumer prices overall is very low across the Region (Österberg, 2011; Neufeld et al., 2022).

The tax share – the percentage of price attributable to taxes in the final consumer prices of alcohol – is a concept that allows for monitoring the level of excise tax in the prices of alcohol across countries and over time. WHO has calculated and published the tax shares for tobacco for more than a decade, advising that the proportion of tax should represent at least 75% of the retail price of the most popular brand of cigarettes. In 2020, this recommended minimum tax share level had been achieved by 28 of the 53 countries in the Region (WHO, 2021).

Comparable measures for alcoholic beverages were not available until recently. Following the example of tobacco, the Pan American Health Organization (PAHO) started the development of a standardized tax share indicator for alcoholic and sugar-sweetened beverages in 2018 (PAHO, 2019) and the WHO Regional Office for Europe began the development of a benchmark for a minimum tax share for alcoholic beverages in 2021 as part of a special initiative on alcohol taxation (WHO Regional Office for Europe, 2021b). A recently published modelling study shows that more than 130 000 deaths could be averted annually in the WHO European Region if all countries were to introduce a minimum level of 15% tax on the retail price per unit of alcohol, regardless of the type of alcoholic beverage (Neufeld et al., 2022). The same study highlights that currently, the median tax shares of alcohol prices for beer, wine and spirits for the Region are 10.8%, 0.8% and 30.6% respectively. This demonstrates the huge gap in the tax shares between alcoholic beverages and tobacco and between different alcoholic beverages, highlighting that the full potential of taxation to reduce alcohol use and its burden is far from being realized in the WHO European Region.

1.4 Minimum pricing and minimum unit pricing as additional tools to reduce affordability of alcohol

A form of pricing policy that has received significant attention from policy-makers around the world in recent years is minimum pricing. Forms of minimum pricing have been in place in Canada and several eastern European countries for decades. Several countries of the Commonwealth of Independent States (CIS) introduced minimum prices in the 1990s and 2000s, mainly in an attempt to regain governmental control over price regulation once the Soviet monopoly on alcohol production and sale and governmental price regulation were abandoned (WHO Regional Office for Europe, 2019b; Neufeld et al., 2021). In 2011, Slovakia was the first EU country to introduce a minimum pricing regulation: the Act 530/2011 on Excise Duty on Alcoholic Beverage forbids the selling of spirits at a price cheaper than the sum of value added tax (VAT), excise tax and the minimum price of €0.86 per litre (Public Health Authority of the Slovak Republic, 2017).

Minimum pricing policy has found itself in the spotlight since its introduction in United Kingdom (Scotland)¹ in May 2018 following a high-profile legal challenge from the alcohol industry (Hawkins & McCambridge, 2020). Minimum pricing policies subsequently were introduced and implemented in United Kingdom (Wales), Ireland and Australia's Northern Territory (Welsh Government, 2018; Department of Industry, Tourism and Trade, 2021; Health Service Executive, 2022).

The basic principle of minimum pricing is that it introduces a floor price for an alcoholic product below which it cannot be sold to consumers. The rationale is that alcohol consumption and alcohol-related harm are not equal across the population. A small proportion of the population consume most of the alcohol drunk and as a result account for the majority of alcohol industry revenue (Bhattacharya et al., 2018). These same drinkers, particularly those from lower socioeconomic groups, experience much higher rates of alcohol-related harm than their peers (Mackenbach et al., 2015; Probst et al., 2020). A minimum price specifically restricts the sale of the cheapest alcohol, which generally is drunk disproportionately by the heaviest drinkers (Casswell et al., 2014; Gill et al., 2015; Laslett, Jiang & Room, 2021). As a result, it is argued that minimum pricing policies are more effectively targeted than taxation policies at the drinkers suffering the highest rates of harm; taxation policies adopt a whole-population approach and tend to affect the prices of all alcohol to a similar extent. Minimum prices can be introduced for specific products only (such as a bottle of vodka) or across all alcoholic products. A further special case of minimum pricing is when the floor price is applied to a fixed unit volume of alcohol, rather than a specific product. This means that the minimum price of a product is determined by the alcohol content only. This special form of minimum pricing, which has been introduced in Ireland, Scotland and Wales, is widely referred to as minimum unit pricing (MUP).

Although both pricing measures – taxation and minimum pricing – have enormous potential for reducing alcohol affordability and its consumption and harms, there is one crucial difference from the governance perspective: while higher excise tax will yield direct and immediate tax revenue to governments, the profit that is made with minimum pricing policies will most likely stay with the producers and sellers of alcohol, at least in countries that do not have government alcohol monopolies. More detailed information on minimum pricing and taxation, their potential synergies and potential strategies for retaining some of the additional revenue under a minimum price for government can be found in Chapter 7.

This report provides a comprehensive overview of current minimum pricing policies for alcohol around the world and presents an updated summary of the evidence on its effectiveness. It considers the most common arguments cited against minimum pricing, examines the evidence base around them and explores in detail the international legislation that relates to these policies. Some important issues to consider **after** minimum pricing has been implemented – how is it implemented, enforced, evaluated and monitored – are considered. Finally, the report addresses practical considerations around the relative advantages and disadvantages of alcohol pricing policies for different circumstances and policy aims.

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¹ For convenience, the four parts of the United Kingdom – England, Northern Ireland, Scotland and Wales – are referred to separately.

Infobox 1.

Minimum pricing, MUP and minimum tax share

A **minimum price** on an alcoholic beverage sets a fixed price level below which a specific volume of a finished product cannot be sold (setting a minimum price for the sale of one litre of vodka or wine, for example). As the minimum price is linked to the volume of **product**, not the volume of alcohol, the same minimum price would apply to an 11% alcohol by volume (ABV) bottle of wine as a 14% bottle. The minimum prices for the different product categories usually are specified in the original legislation of countries, such as decrees or special laws accompanying tax codes.

A **MUP** on an alcoholic beverage sets a level below which a fixed volume of alcohol (such as a standard drink) cannot be sold. MUPs therefore are levied in direct proportion to the volume of pure alcohol a drink contains. As the MUP is linked to the alcohol content, a 14% ABV bottle of wine would carry a higher MUP than an 11% bottle.

At present in the WHO European Region, seven countries have minimum pricing, three have MUP and one has both. Most have no form of minimum pricing in place at all. The available evidence largely relates to MUP, rather than minimum pricing, and suggests that this policy can decrease heavy drinking in the most vulnerable population groups, reducing overall alcohol-related harm while also reducing health inequalities.

A **minimum tax share** in retail prices of alcoholic beverages sets a minimum benchmark for the proportion of excise tax in the final retail price, regardless of the type of alcoholic beverage. This concept helps in monitoring the contribution of excise taxes to the prices of alcohol across countries and over time and identifying and making policy decisions that are needed to reduce the affordability of alcohol. WHO updates information on the tax shares for tobacco on an annual basis and recommends that tax should make up at least 75% of the prices of the most common cigarette brands. Similar guidance currently is being developed for alcoholic beverages, taking into account the different tax structures that exist in countries and across beverage types.

One main difference between minimum prices and minimum tax policies is that the extra profit made with higher alcohol prices remains with the producers, distributors and sellers of alcoholic beverages, while increasing alcohol taxes grants an immediate and direct tax revenue for governments. Evidence shows, however, that both measures can be used in a complementary way to reduce consumption and harms. Some countries in the Region regularly increase their alcohol taxes and minimum prices as means to regulate alcohol affordability and consumption.



2



POLICY MAPPING – WHICH COUNTRIES AND REGIONS HAVE A MINIMUM PRICE FOR ALCOHOL?

2.1 Global overview and timeline of minimum pricing measures

An extensive review of policy documents and other official sources was undertaken to map the extent and nature of minimum pricing and MUP policies for alcohol around the world. This was supported by responses to the WHO Global Survey on Progress on Sustainable Development Goal Health Target 3.5 and the WHO Global Survey on Alcohol and Health (which underlies the WHO global status report (WHO, 2018)), market research data and wide consultation with alcohol policy experts and stakeholders. Twenty-two jurisdictions across 13 sovereign states that have minimum prices for alcohol were identified through this process (Table 2).

This highlights that there have been three waves of minimum pricing. First are the longstanding minimum prices in Canadian provinces, many of which have existed for decades. Second, in the late 2000s and early 2010s, a number of countries of the former USSR – Belarus, Kyrgyzstan, the Republic of Moldova, the Russian Federation, Ukraine and Uzbekistan – introduced minimum prices. Slovakia also introduced a minimum price for spirits around this time, although unlike other minimum prices it applies to the price **before** tax (Public Health Authority of the Slovak Republic, 2017). Finally, in recent years, several governments in western Europe and Australia have brought in or explored MUP. The first comprehensive MUP policies covering all types of alcohol came into force in Scotland and the Northern Territory of Australia in 2018, Wales in 2020 and Ireland in 2022. Legislation for MUP passed the Irish parliament in 2018 and was implemented in 2022 (Health Service Executive, 2022). The United Kingdom (Northern Ireland) Executive has recently consulted on the introduction of MUP, having previously expressed its intention to introduce the policy (BBC News, 2014; Health Development Policy Branch, 2022). The House of Representatives in the Netherlands currently is considering a proposal for MUP (Dutch Institute for Alcohol Policy, 2020).

The concept of minimum pricing or MUP should not be confused with a ban on so-called below-cost sales, which is another pricing policy option available to policy-makers. Retailers may sell products at below the cost of manufacture or the cost at which they purchased them (therefore making a loss on sales to consumers) to attract consumers who may also purchase other more profitable items at the same time, or to undercut and drive out competitors. A number of countries, including Belgium, France, Italy, Poland and Spain, ban below-cost sales for several products, including alcohol (Hunt, Rabinovich & Baumberg, 2011). Retailers in France, for example, may not sell goods for less than the invoice price plus transportation costs and taxes (OECD, 2006). In United Kingdom (England),

Table 2. Global overview of jurisdictions with minimum prices for alcoholic beverages based on the latest available data

Country	Jurisdiction	Date first introduced	Price last updated	MP or MUP?	Wholesale or retail?	Beer	Wine	Vodka	Other spirits	Notes	Source
Armenia		2016	2020	MUP	Retail	x	x	x	x	Same MUP applies to all products and both on- and off-trades ^a	(Armenian Legal Information System, 2022)
Australia	Northern Territory	2018	2018	MUP	Retail	x	x	x	x	Same MUP applies to all products and both on- and off-trades	(Department of Industry, Tourism and Trade, 2021)
Belarus		1998	2021	MP	Retail + purchase price	–	Fortified only	x	x	Separate MPs for wholesale and retail	(Ministerstvo antimonopol'nogo regulirovaniya i trgovni 2020a, 2020b)
Canada	Alberta	2008	2016	MP	Retail	x	x	x	x	Applies to the on-trade only	(Alberta Gaming and Liquor Commission, 2017)
	British Columbia	1989	–	MP	Retail	x	x	x	x	Separate on- and off-trade prices, off-trade came first	(Stockwell et al., 2019)
	Manitoba	2001	2020	MUP	Retail	x	x	x	x	Separate on- and off-trade prices	(Legislative Assembly of Manitoba, 2014)
	New Brunswick	1999	2018	MP	Retail	x	x	x	x	Applies to the off-trade only	(New Brunswick Liquor Corporation, 2022)
	Newfoundland	2007	–	MP	Retail	x	x	x	x	Separate on- and off-trade prices	(Stockwell et al., 2019)
	Nova Scotia	1990	2007	MP	Retail	x	x	x	x	Separate on- and off-trade prices	(Stockwell et al., 2019)
	Ontario	1990	–	MP	Retail	x	x	x	x	Separate on- and off-trade prices	(Stockwell et al., 2019)
	Prince Edward Island	2009	2019	MP	Retail	x	x	x	x	Separate on- and off-trade prices	(Stockwell et al., 2019)
	Quebec	1995	–	MP	Retail	x	–	–	–	Applies to off-trade only	(Stockwell et al., 2019)
	Saskatchewan	2003	–	MP	Retail	x	x	x	x	Separate on- and off-trade prices	(Stockwell et al., 2019)
Ireland		2022	2022	MUP	Retail	x	x	x	x	Same MUP applies to all products and both on- and off-trades	(Health Service Executive, 2022)
Kazakhstan		1999	2022	MP	Retail	–	–	x	x	Separate MPs for different spirits types	(Oficial'nyj informacionnyj resurs Premier-Ministra Respubliki Kazahstan, 2022)
Kyrgyzstan		2013	2022	MP	Both	–	–	x	–	Applies to domestically produced vodka only	(Pravitel'stvo Kyrgyzskoj Respubliki, 2020)
Republic of Moldova		2010	2011	MP	Both	–	–	x	x	Separate MPs for wholesale and retail	(Ministerstvo sel'skogo khozyajstva regionalnogo razvitiya i okruzhayushchey sredy Respubliki Moldova, 2000)
Russian Federation		2000	2022	MP	Both + purchase price	–	Sparkling only	x	x	Separate rates for different spirits types. Separate MPs for wholesale and retail	(Ministerstvo finansov Rossijskoj Federatsii, 2022a, 2022b)
Slovakia		2011	2011	MP	Retail	–	–	x	x	Spirits cannot be sold below the sum of MP plus VAT and excise tax	(Public Health Authority of the Slovak Republic, 2017)
Ukraine		2008	2018, 2021 for wine	MP/ MUP	Retail	–	x	x	x	MUP for spirits, MP for wine, cider, perry and sparkling wine	(Kabinet Ministriv Ukrainy, 2018)
United Kingdom	Scotland	2018	2018	MUP	Retail	x	x	x	x	Same MUP applies to all products and both on- and off-trades	(Scottish Government, 2020)
	Wales	2020	2020	MUP	Retail	x	x	x	x	Same MUP applies to all products and both on- and off-trades	(Welsh Government, 2019)
Uzbekistan		2010	2022	MP	Both	–	–	x	x	Separate MPs for wholesale and retail	(Ministerstvo finansov Respubliki Uzbekistan, 2022)

MP: minimum pricing.

MUP: minimum unit pricing.

^a On-trade refers to places with on-premise consumption, such as bars, restaurants, hotels and nightclubs. Off-trade refers to places that retail alcoholic beverages for off-premise consumption, such as supermarkets, off-licences, shops and online stores.

alcohol may not be sold for less than the value of the taxes due on it (United Kingdom Home Office, 2017). Although such policies could be considered de facto minimum prices for at least some beverages and are unlikely to be harmful, they are also unlikely to affect more than a tiny fraction of the alcohol market (Griffith, Leicester & O'Connell, 2013; Brennan et al., 2014). Ultimately, while banning below-cost selling could form part of an overall suite of alcohol policy measures, it is unlikely to have any significant impact on alcohol-related harm alone.

The difference between more recent minimum **unit** prices and earlier minimum prices is significant. Rather than being levied in proportion to the volume of beer, wine or spirit sold, MUPs are levied in proportion to the volume of **pure alcohol** a drink contains. This means that the MUP is always higher for stronger drinks than for low-alcohol drinks, incentivizing consumers and producers to favour lower-strength products.

Where they have been introduced, MUP policies tend to be simpler to implement and enforce and are more comprehensive than earlier minimum price policies. Whereas MUPs in Australia's Northern Territory, Ireland, Scotland and Wales all have a single rate across all alcoholic drinks, minimum prices elsewhere, most of which are based on product volume rather than alcohol content, set different rates for beer, wine, vodka and other spirits. In many cases these apply only to some types of alcohol, with no minimum price applicable to other beverage types or a mix of the two approaches, as in the case of Ukraine (see Table 2). In some Canadian provinces, different minimum price policies operate in off-trade and on-trade contexts.

A further consideration is whether minimum prices are applied to **wholesale** or **retail** prices (or both). More recent MUPs are applied to all retail prices (those paid by consumers), while minimum prices in Canada and various eastern European countries have applied variously to both. These approaches have different strengths and weaknesses. Minimum prices applied to retail prices allow governments to control directly the price of the cheapest alcohol, and enforcement takes place at retail level. Minimum prices applied to wholesale prices are likely to allow more limited control of the prices of the cheapest alcohol, since retailers have some leeway in determining what markup from wholesale to retail prices they apply and enforcement takes place at wholesale level, so is much more likely to be a paperwork exercise.

The stated motivation or objective given by governments for minimum pricing also appears to vary between jurisdictions. In the Northern Territory of Australia (Department of Industry, Tourism and Trade, 2021), Ireland (Health Service Executive, 2022), Scotland (Scottish Government, 2020) and Wales (Welsh Government, 2019), the policy has been motivated by a desire to reduce the negative social, economic and particularly health impacts of drinking. Similarly, in the Russian Federation, minimum pricing has been included among a suite of measures to reduce the prevalence of alcohol-use disorders at population level (WHO Regional Office for Europe, 2019b; Neufeld et al., 2020). By contrast, in Canada, minimum pricing has tended to be seen by policy-makers more as a fiscal and economic measure that is used to raise revenues from government alcohol retailers and to stabilize alcohol markets by protecting them against aggressive price discounting (Thompson et al., 2017).

2.2 International comparison of minimum prices for alcoholic beverages

The level of minimum prices in countries can be compared in different ways. One common way to compare prices internationally and over time is by using the hypothetical currency of the international dollar (Int\$), which is based on the international average prices of commodities and purchasing power parities (PPP) of currencies. Prices expressed in Int\$ are converted using the country's PPP conversion factor instead of the current market exchange rates.

Fig. 1–3 show the minimum price for one litre of each of three standard products – 5% ABV beer, 12.5% ABV wine and 40% ABV vodka – all for the off-trade. Although traditionally comparisons are made between beer, wine and spirits, the overviews for vodka are also shown, as many of the reviewed jurisdictions have minimum pricing policies in place that target vodka specifically.

Overall, these figures show that Ireland's MUP, which has been set at €1 per standard drink containing 10 g of pure alcohol, is currently higher than minimum prices in most other jurisdictions. Canada's Prince Edward Island also stands out as having relatively high minimum prices, at least for beer and wine. Fig. 1 shows that minimum prices are less likely to be applied to beer than to other products, but those jurisdictions that have a minimum price on beer typically set it at around Int\$ 2–4 per litre. There is greater variation in minimum prices for wine, as Fig. 2 shows, running from Int\$ 4.79 to Int\$ 12.48 per litre. Fig. 3 shows that the minimum price for a litre bottle of vodka varies widely.

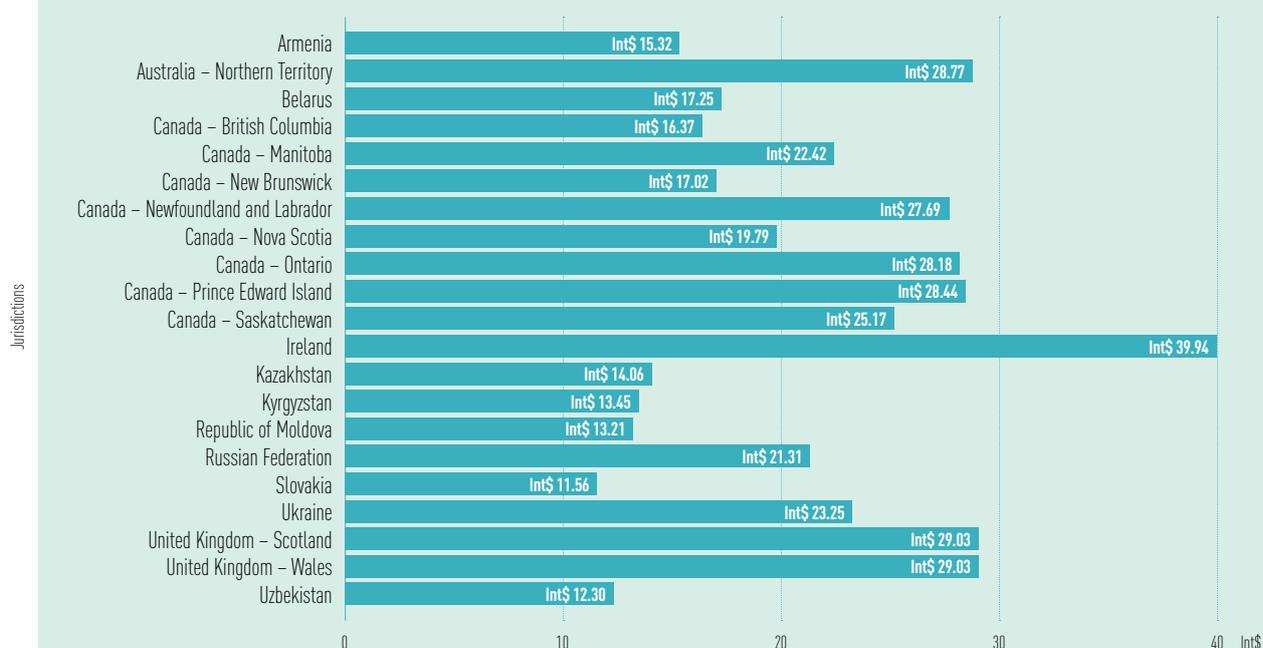
Fig. 1. Minimum price for one litre of non-draught 5% ABV beer in the off-trade, in Int\$, 2020



Fig. 2. Minimum price for one litre of 12.5% ABV wine in the off-trade, in Int\$, 2020



Fig. 3. Minimum price for one litre of 40% ABV vodka in the off-trade, in Int\$, 2020

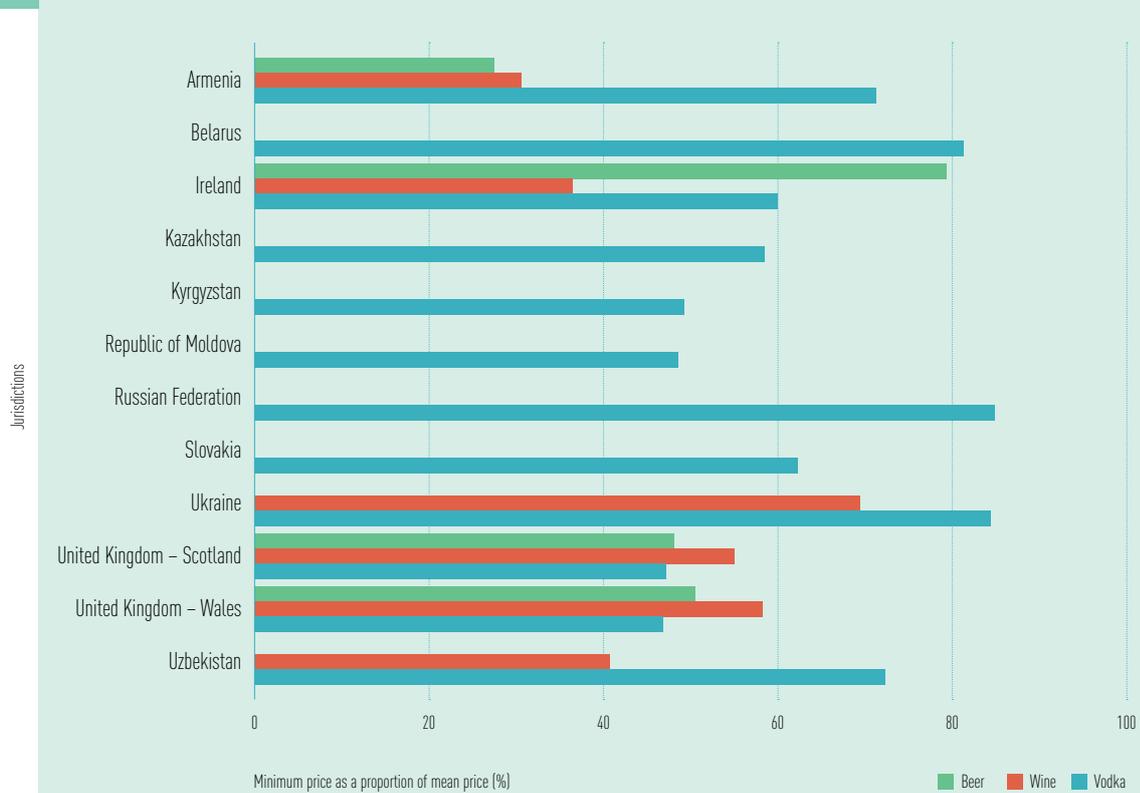


It is Int\$ 16–30 in high-income countries, with Ireland’s higher still at Int\$ 40. Minimum prices for vodka generally are lower in countries of the former USSR, with prices for a litre of vodka varying between Int\$ 12.30 in Uzbekistan and Int\$ 21.31 in the Russian Federation.

While comparing the levels of minimum prices in Int\$ is useful for understanding their relative value within each country, it is also helpful to understand how the minimum price levels relate to the average price of alcohol in each country. Average prices for the three types of alcoholic beverages (beer, wine and spirits) were obtained from the Statista webpage or from national sources, specifically government-issued statistical yearbooks. The closer the minimum price is to the average price, the more effective it is likely to be, assuming that the minimum price was set at a level that is likely to impact consumption and that regulation is effectively enforced. Minimum prices that are well below the average price are likely to affect only a small proportion of the alcohol market. Fig. 4 presents a comparison of the minimum price with the mean price for those WHO European Region Member States that have some form of minimum price in place for beer, wine and vodka.

Fig. 4 highlights that for many products, the minimum price is well below the mean price. In Armenia, for example, the minimum price for a bottle of wine is less than Int\$ 5, while the mean price is almost Int\$ 16. It is therefore questionable how much impact the minimum pricing policy is likely to be having. One other notable feature of these plots is the fact that the minimum price for vodka is over 80% of the mean price in Belarus, the Russian Federation and Ukraine. The fact that these values are so close suggests there is very little variation in the price at which vodka is sold, meaning that the sale of vodka in these countries is dominated by cheaper products.

Fig. 4. Mean and minimum prices for beer, wine and vodka in the WHO European Region





3



THE EVIDENCE FOR MINIMUM PRICING

The effectiveness of minimum pricing as a mechanism for reducing the health and social harms caused by alcohol is supported by a substantial body of evidence. This evidence comes in three main forms:

- indirect evidence that supports the underlying theory of minimum pricing – that reducing the affordability of alcohol will reduce alcohol consumption and harm;
- evidence from simulation modelling studies that synthesize this indirect evidence with a wide range of data to prospectively estimate the impact of minimum pricing policies on alcohol consumption and harm; and
- direct evaluation studies that have assessed the impact of minimum pricing policies on a range of outcomes.

There are significant differences in the extent to which each of these three bodies of evidence relates to either minimum pricing or MUP. The indirect evidence applies to both, as their underlying mechanism of effect – reducing alcohol affordability – is the same. However, existing simulation modelling studies relate exclusively to MUP and the direct evaluation studies cover a mixture of both. It is also notable that the overwhelming majority of the simulation modelling and direct evaluation studies to date have been conducted in high-income countries, with relatively few studies having been undertaken in low- and middle-income country contexts.

3.1 Indirect evidence – the effect of alcohol prices on consumption and harm

The basic mechanism by which alcohol pricing policies, including minimum pricing, reduce alcohol consumption is increasing the price of alcohol. There are important differences in **how** they do this and what products are affected, which are reviewed in Chapter 7, but the fundamental principle of reducing affordability is the same. There is abundant evidence that making alcohol more expensive reduces consumption, which in turn improves health and reduces wider social harms. Combining estimates from over 100 studies, meta-analyses have shown that on average, for every 10% increase in the price of alcohol, consumption falls by around 5% (Gallet, 2007; Wagenaar, Salois & Komro, 2009; Elder et al., 2010; Fogarty, 2010).

Studies have suggested that price sensitivity varies between beverage types, drinking locations or different groups of drinkers (Meng et al., 2014; Jiang et al., 2016; Griffith, O'Connell & Smith, 2019; Pryce, Hollingsworth & Walker, 2019). Even the most pessimistic of these studies, however, find that consumers respond to price increases by reducing their consumption. It is commonly argued, particularly by opponents of effective alcohol policy, that heavier drinkers are less price sensitive.

In truth, the evidence on this is mixed, but even if this were the case, it is still extremely likely that a price increase would lead to a larger absolute reduction in the alcohol consumption of heavier drinkers compared to that of moderate drinkers (WHO Regional Office for Europe, 2020b).

Since reducing alcohol consumption generally reduces the risk of a range of harms, it is anticipated that higher prices will improve health and social outcomes. Some studies have directly addressed the relationship. Combining 50 of them, one meta-analysis (Wagenaar, Tobler & Komro, 2010) estimates that a doubling of alcohol taxes is associated on average with a:



The clear conclusion of this evidence is that alcohol policies that succeed in increasing the price of alcohol will lead to falls in alcohol consumption and consequently falls in alcohol-related harm. This is not to say that minimum pricing will automatically lead to increases in the price of alcohol. For that to happen, the minimum pricing or MUP threshold needs to be set at a level that actually affects the prices faced by consumers (setting a minimum price that is lower than the current lowest-priced alcohol, for example, will have absolutely no impact) and needs to be appropriately enforced so that consumer prices change. Where appropriate, additional action may need to be taken to limit illicit or unrecorded sources of alcohol that enable consumers to circumvent the minimum prices. These issues are addressed further in later chapters of this report.

3.2 Modelling evidence for minimum prices

The consistent evidence that higher alcohol prices lead to lower alcohol consumption and harm strongly suggests that overall, minimum pricing will have positive health and social consequences. Average estimates, however, may not be a reliable guide to the size of the expected effects in a particular jurisdiction because (Gruenewald et al., 2006):

- they fail to account for local patterns of drinking and pricing (who is drinking what and how much they are paying for it); and
- they do not account for a specific feature of minimum pricing, whereby in raising the price of the cheapest alcohol, the policy limits the extent to which drinkers can trade down to less expensive drinks to maintain their consumption at the same level in response to a price increase.

As a result, researchers have directly modelled the expected impact of introducing MUP in a range of predominantly high-income countries. The models start with local data on levels of consumption and harm and how these are distributed across the population. They then estimate the effect of MUP on consumption, using assumptions on the relationship between price and consumption in that country. Utilizing international evidence on the relationship between consumption and harm, they then calculate the effects of these shifts in consumption on a range of health and social outcomes.

Most prominently, the University of Sheffield's Alcohol Research Group in England has used these methods to model the likely effect of a range of MUPs in Ireland (Angus et al., 2014a), England (Angus et al., 2016a; Brennan et al., 2021; Meier et al., 2021), Northern Ireland (Angus et al., 2014b), Scotland (Angus et al., 2016b), Wales (Angus et al., 2018), South Africa and Canadian provinces (Hill-McManus et al., 2012; Gibbs et al., 2021, 2022). Separate teams of researchers have also modelled MUP in Australia (Jiang et al., 2020), Canada (Sherk et al., 2020; Stockwell et al., 2020) and across OECD Member States (OECD, 2015, 2021).

Across these various models, a consistent finding is that introducing a MUP at a level that affects the price of a meaningful proportion of the alcohol being sold can achieve significant reductions in overall consumption and levels of harm. The higher the level of the MUP, the larger the benefits, although the less narrowly the impacts of the policy are confined to the heaviest drinkers – that is, higher MUPs are more effective, but less precisely targeted. The same is true for socioeconomic differences, with higher MUPs leading to greater overall improvements in health but with a lesser proportion of these gains coming from the most deprived groups. There is, however, significant variation in the magnitude of impact estimated by these studies due to differences in methodology, MUP thresholds modelled and characteristics of the drinker population of each country. For example, at full effect, Scotland's MUP of Int\$ 0.92 per 10 g of alcohol (£0.50 per United Kingdom unit) was estimated to reduce average consumption by 4% (Angus et al., 2016b), whereas a Int\$ 1.04 per 10 g MUP in Australia (Aus\$ 1.50 per 10 g) is estimated to reduce it by 15% (Jiang et al., 2020).

Another common finding across these modelling studies is that MUP leads heavier drinkers to reduce their consumption more, because they are more likely to favour the cheap drinks that are most significantly affected by the regulation. As a result, MUPs are estimated to save substantial numbers of lives: at the level implemented in Scotland and Wales, MUP is expected to cut the number of alcohol-attributable deaths by 7–9% (Angus et al., 2016b, 2018). The models also indicate that MUPs can reduce health-care costs, crime and workplace absences caused by alcohol.

Some of these modelling studies have also assessed the potential impact of MUP on health inequalities, finding that it has a greater effect on the consumption of lower-income drinkers. As lower-income drinkers generally experience much higher rates of alcohol-related harm than their higher-income peers, these studies find that MUP would be expected to reduce health inequalities overall (Meier et al., 2016). Evidence on the extent to which MUP would have differential impacts across society on, for example, gender differences in its effects is more limited and perhaps of lesser transferability, given the significant differences in the relationship between gender and alcohol consumption patterns across the European Region. One recent modelling study nevertheless estimated that a MUP in England would have a greater impact on the alcohol consumption and rates of alcohol-related harm in men than women (Meier et al., 2021).

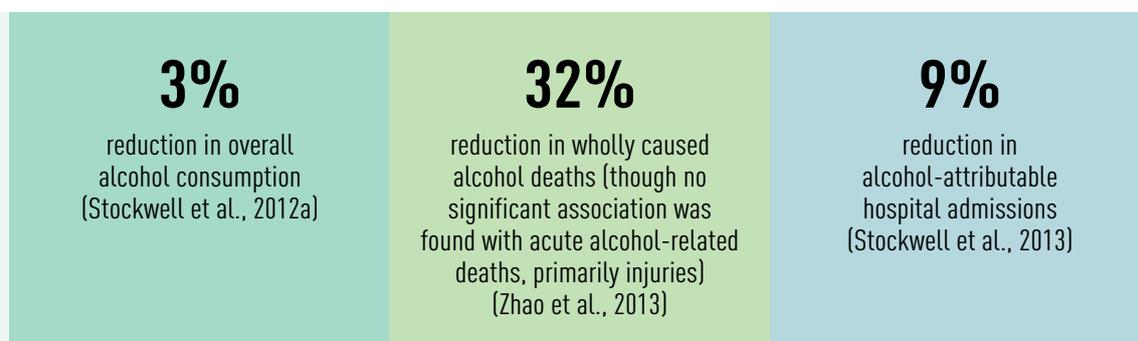
Modelling evidence suggests that MUP would generally be expected to achieve greater reductions in alcohol consumption and harm than just raising alcohol tax alone, at least in comparison to tax

rises on the scale that have typically been seen in the past. In Scotland, for example, it is estimated that alcohol taxes would have to rise by 28% to save as many lives as a £0.50 MUP would achieve (Angus et al., 2016b). It may be most effective to combine MUP with alcohol tax increases: modelling suggests that while a £0.60 per unit MUP would save 1200 lives each year in England on its own, 1700 lives could be saved if alcohol taxes were simultaneously increased by 10% (Angus & Ally, 2015). Similar results have been obtained from a Canadian modelling study that also concluded that optimal outcomes would be obtained from combining higher excise taxes on alcohol with a minimum price of Can\$ 1.75 per Canadian standard drink (Stockwell et al., 2020).

3.3 Direct evaluation evidence

3.3.1 Canada

Prior to the recent introduction of MUP in Australia's Northern Territory, Ireland, Scotland and Wales, most direct evidence on minimum pricing in practice comes from a team of researchers at the University of Victoria, Australia, who have examined the effects of changes in minimum prices in Canadian provinces using administrative data. In British Columbia, where minimum prices were adjusted irregularly over the course of 20 years between 1989 and 2010, on average every 10% increase in minimum prices was associated with a:



Poorer families appear to have experienced greater health benefits from minimum price increases in British Columbia: every 10% price increase was associated with a 35% reduction in acute alcohol-attributable hospital admissions in low-income regions, more than double the 16% fall across the province as a whole (Zhao & Stockwell, 2017).

Saskatchewan significantly increased minimum prices in April 2010, leaving it with some of the highest in all of Canada. The increase in minimum prices was greater for higher-strength products – for example, an 11% increase for beer under 6.5% ABV compared to a 96% increase for beer above 8.5% ABV. Comparing the two years before and after the minimum price increase in Saskatchewan, for every 10% increase in average minimum prices, overall alcohol consumption fell by 8%, more than twice the effect found in British Columbia (Stockwell et al., 2012b). This was driven not just by the reduction in the overall affordability of alcohol, but also by the fact that consumers shifted from higher-strength to lower-strength drinks: for every 10% minimum price increase, sales of beer above

6.5% ABV fell by 22% compared to an 8% decline in sales of beer below 6.5% ABV. Saskatchewan's minimum price increase was also found to lead to an immediate decrease in drink-driving offences by men (but not women) and a decline in alcohol-related violence a few months after the measure came into force (Stockwell et al., 2017).

3.3.2 Australia

MUP was introduced in Australia's Northern Territory alongside a dedicated police presence (known as police auxiliary liquor inspectors (PALIs)) outside many outlets selling takeaway alcohol. A recent evaluation of these policy changes, prepared for the State Government, found substantial evidence that the policies had contributed to reducing alcohol consumption and harm (Coomber et al., 2020). The study estimated that alcohol consumption had fallen by around 8% in the first year after the introduction of MUP and PALIs, based on wholesale sales data and a self-report survey. It also used administrative data to show that following these policy changes, there had been declines in the rates of:

- alcohol-related ambulance callouts
- alcohol-related emergency department presentations
- alcohol-related assaults
- protective custody episodes (people arrested because they are dangerously intoxicated)
- alcohol-related road-traffic crashes
- child protection cases.

It is not possible to ascribe these declines solely to MUP, as they may in part also be a consequence of the introduction of PALIs.

A subsequent study analysed wholesale sales data for the Northern Territory, finding that sales of alcohol had fallen across all product types but that the largest reductions (in the region of 50%) had been in the cheapest types of alcohol, which were those most strongly affected by MUP (Taylor et al., 2021).

A wastewater-based assessment demonstrated a large drop in alcohol consumption immediately after the introduction of the MUP and PALIs in the Northern Territory, while consumption in other regions remained relatively stable. The overserved reduction was no longer significant 2.5 years after the introduction of the MUP, however, pointing to the need to adjust the minimum prices over time (O'Brien et al., 2022).

Two further studies looked at changes in the number of admissions to intensive care units associated with hazardous and harmful drinking. Both studies found that the number of admissions fell significantly in the 12 months following the introduction of MUP and PALIs compared to the period before the policy was introduced (Secombe et al., 2021; Wright, McAnulty & Secombe, 2021).

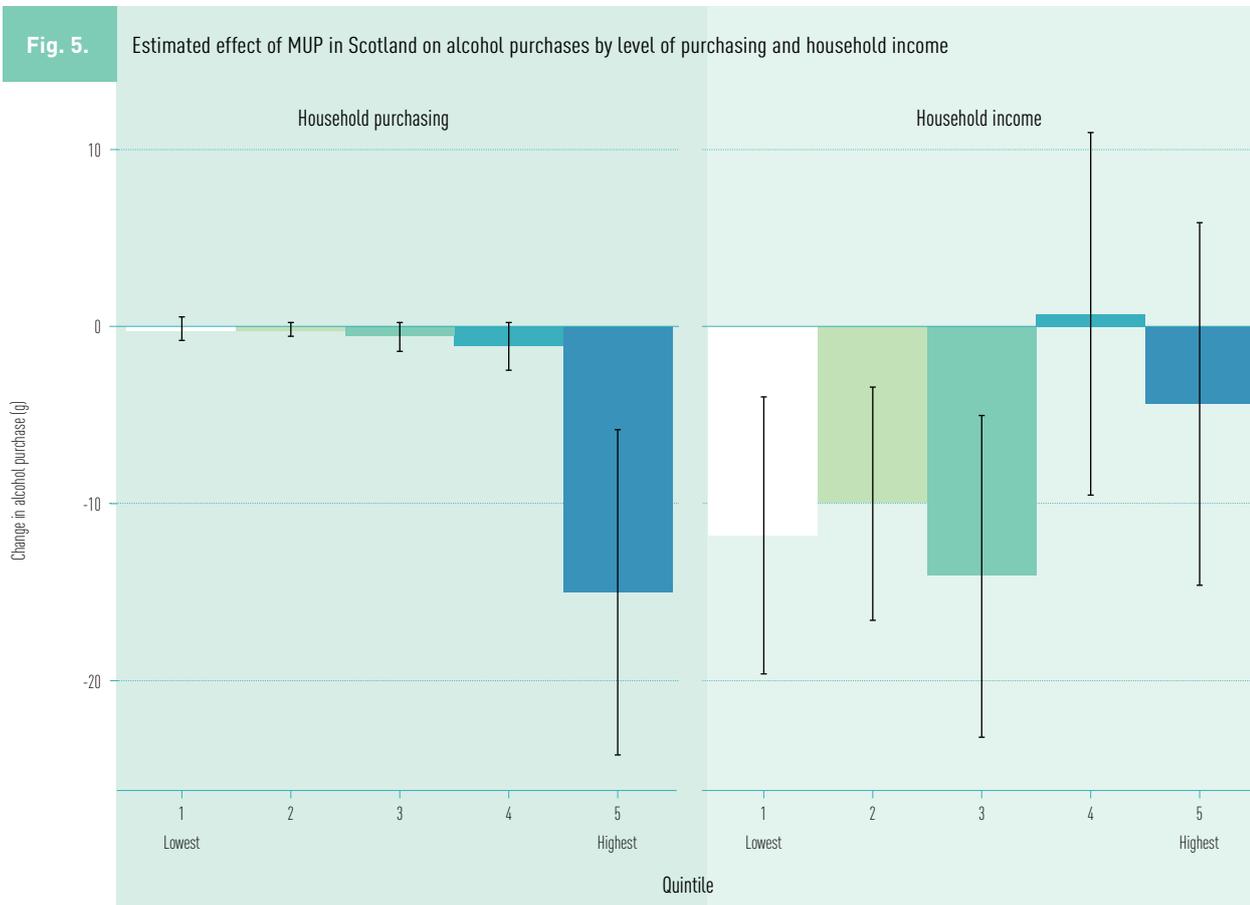
3.3.3 Scotland

Scotland was one of the first jurisdictions in the world to introduce a comprehensive MUP policy that applied to all alcoholic products. In light of its legal commitment to review the measure after six years (see Chapter 6 for details), the Scottish Government commissioned one of the most comprehensive evaluation programmes ever undertaken for a public health policy (Beeston et al., 2020; Public

Health Scotland, 2021a). This has been further supplemented by a number of independent evaluation studies to give in excess of 25 publications to date, with more studies scheduled to be published in the near future. The resulting evidence base covers many aspects of the impact of MUP that have not yet been explored in similar detail elsewhere, from an analysis of compliance which showed that retailers had overwhelmingly complied with the policy when it was introduced (Dickie et al., 2019) to studies that illustrated how the alcohol industry had reacted to the policy by reducing the alcoholic strength of a small number of products or repackaging them into smaller container sizes (Stead et al., 2020; NHS Health Scotland, 2022).

The clearest finding across multiple studies is that MUP has been successful in reducing alcohol consumption in Scotland. An evaluation of alcohol sales data found that sales had declined by 3.5% following the introduction of MUP (Giles, Richardson & Beeston, 2021), with a separate analysis of the same data reaching similar conclusions (Xhurxhi, 2020), while a study based on household-level purchasing data estimated that alcohol sales had fallen by 7.7% (Anderson et al., 2021). A further study looked specifically at the alcohol consumption of children and young people aged under 18 (the minimum legal purchase age for alcohol in Scotland), finding limited evidence of changes in drinking, largely because much of their alcohol was not purchased directly (because it was provided by older friends or family) or was already being sold at above the MUP threshold (Iconic Consulting, 2019).

A handful of studies have assessed how changes in alcohol consumption have varied across the population in Scotland. One such study aligns well with the prior modelling studies and evidence from Canada in finding that reductions in alcohol purchases were greatest among households that were buying the most alcohol pre-MUP and those on the lowest incomes (O'Donnell et al., 2019) (Fig. 5).



Source: O'Donnell et al. (2019). Reproduced with permission from the BMJ Publishing Group Ltd. under the Creative Commons CC-BY-NC 4.0 licence.

A study based on self-reported drinking diaries found that drinking fell among the heavier drinkers in particular, although perhaps not in the very heaviest consumers. The results also showed greater reductions in consumption for women, older drinkers and those living in **less** deprived areas, although this gradient was clearer for women than men (Rehm et al., unpublished data, 2022). Overall, these studies provide a consistent picture that consumption has reduced, particularly among heavier drinkers, although the differential impacts across other population characteristics, such as gender or socioeconomic position, remain less clear.

The evidence around changes in alcohol-related harm is more complex. While changes in drinking behaviour are likely to be observed immediately after a change in alcohol prices, there can be a substantial delay between changes in alcohol consumption and changes in risk of harm for many chronic health conditions linked to alcohol (Holmes et al., 2012). Further, the COVID-19 pandemic and its huge impacts on health and health-care services is a significant confounding factor for any analysis. The primary analysis of health outcomes has not yet been published, but the emerging evidence so far is somewhat mixed. In the first full calendar year after MUP was implemented, deaths from causes that are attributable only to alcohol (such as alcoholic liver disease or alcohol poisoning) fell by 10.2% (Angus, 2020) and the number of hospital discharges for alcohol-related liver disease also fell (Chaudhary et al., 2021). Neither the total number of alcohol-related emergency department attendances nor the extent of alcohol-related crime changed significantly, however (Krzemieniewska-Nandwani et al., 2021; So et al., 2021).

One of the key strengths of the Scottish MUP evaluation is the number of studies that have looked at potential unintended negative consequences of MUP. These studies have consistently found only very limited evidence of the negative consequences that were hypothesized before the policy was introduced. There has been very little evidence of increased cross-border purchasing of alcohol (Patterson et al., 2022), dependent drinkers switching to non-beverage alcohol or illicit drugs (Buykx et al., 2021; Holmes et al., 2022), increased levels of harm to children and young people due to the drinking of their parents or carers (McCann et al., 2020) or negative economic impacts on the alcohol industry (Frontier Economics, 2019; Stead et al., 2022). There was also only limited evidence of very heavy drinkers reducing their expenditure on other things to maintain their levels of alcohol consumption once MUP was introduced (Public Health Scotland, 2021b) and of negative impacts on a minority of homeless and street drinkers (Elliott et al., 2022). A more recent study, however, found some evidence that the introduction of MUP increased financial strain for a minority of those in economically vulnerable groups with alcohol dependence (Holmes et al., 2022).

3.3.4 Wales

MUP for Wales was introduced in February 2020, shortly before the start of the COVID-19 pandemic, which has presented a significant challenge to the evaluation. Two studies that have sought to evaluate the impact of the introduction of the policy nevertheless have been published so far. One looked at alcohol purchasing data and estimated that overall sales of alcohol had fallen by 8.6% (Anderson et al., 2021). The other, similar to the Scottish studies, found very limited evidence of negative consequences such as switching to illicit drugs (Holloway et al., 2022). Interestingly, this study also found that even negative consequences individuals had themselves predicted, such as some degree of stockpiling of alcohol prior to the policy being introduced, had not in fact come to pass.

3.3.5 Ukraine and CIS countries

Minimum prices for vodka and other spirits in the Russian Federation have been increased progressively since 2010. A minimum price for sparkling wine was introduced in 2016 as part of a suite of measures to reduce harms due to alcohol consumption that included higher taxes on alcohol, restrictions on the sale and marketing of alcohol and stricter drink-driving measures (WHO Regional Office for Europe, 2019b; Neufeld et al., 2020). Per capita alcohol consumption fell by 26% between 2010 and 2016, bringing substantial declines in alcohol-attributable mortality and alcohol-use disorders. The specific contribution of minimum pricing to these positive trends is hard to disentangle from the impacts of concurrent policies, but a natural experiment in the fluctuation of different policy measures allows for some evaluation. In 2015, minimum prices for vodka and other spirits with ABV greater than 28% were temporarily decreased and the planned long-term increases in alcohol excise rates for all alcoholic beverages were frozen for the period 2014–2016. As a result, affordability of vodka increased during these years and the observed general declining trend of all-cause and alcohol-attributable mortality slowed down for this period (WHO Regional Office for Europe, 2019b; Neufeld et al., 2020). The introduction of, and increases in, minimum prices for vodka and some other alcoholic beverages in Ukraine and CIS countries such as Kazakhstan, Kyrgyzstan and Uzbekistan were also associated with reductions in per capita consumption, although much less literature exists for these countries and it is hard to separate out the unique contribution of minimum prices to these reductions, as many other policy measures were introduced in parallel (Moskalewicz & Österberg, 2016; Davletov et al., 2020; Neufeld et al., 2020).

3.3.6 Overview of direct evaluation evidence

This overview of the direct evaluation evidence clearly shows that the vast majority of research on the impacts of minimum pricing has come from Scotland. This has the benefit of providing a relatively comprehensive picture of the impact of MUP **in Scotland**, but there may be concerns about the generalizability of some aspects of this evidence to other regions and countries. In particular, further evidence from Ukraine and CIS countries on the impacts of minimum prices would be very valuable in understanding how their effects might vary across different contexts.

Overall, the direct evidence provides robust indications that minimum prices are effective in reducing alcohol consumption. Evidence from Canada, Australia and, to a lesser extent, the Russian Federation and other CIS countries provides strong support that minimum prices are also effective in reducing alcohol-related harm. The evidence from Scotland, however, is still emerging, and evidence published to date is more mixed. The Scottish studies do, however, provide very clear evidence that many potential negative unintended consequences of MUP, such as drinkers switching to illicit drugs, have not come to pass to any significant degree. The evidence from Scotland also suggests that the impact of MUP on dependent drinkers has been mixed, emphasizing that there may be a benefit in introducing MUP alongside additional policies targeted specifically at this group, such as increased funding for specialist alcohol treatment services and screening and brief intervention programmes addressing alcohol at the level of primary health-care services.

Infobox 2.

Three main evidence sources for the impact of minimum pricing

The effectiveness of minimum pricing to reduce the health and social harms caused by alcohol is supported by three main types of evidence.

Indirect evidence supports the underlying theory of minimum pricing that reducing the affordability of alcohol will reduce alcohol consumption and harm. It comes from a variety of systematic reviews and meta-analyses. Systematic reviews have shown conclusively that increasing alcohol prices leads to reduced alcohol consumption and harm (Wagenaar, Tobler & Komro, 2010; Sharma, Sinha & Vandenberg, 2017).

Evidence from simulation modelling studies is based on procedures that systematically synthesize indirect evidence on minimum pricing with a wide range of data to prospectively estimate the impacts, often looking at different scenarios. Modelling evidence which found that MUP would be effective and well targeted was critical to the court case that ruled that MUP was legal in Scotland (Angus et al., 2016b).

Direct evidence comes in the form of direct evaluation studies that assess the impact of minimum pricing policies on a range of outcomes in those countries and regions where minimum pricing policies have been implemented. Evidence from Scotland has shown that the introduction of MUP has led to reductions in alcohol consumption (Giles, Richardson & Beeston, 2021) while Canadian studies indicate that raising minimum pricing levels was associated with fewer alcohol-attributable hospital admissions and a reduction in health inequalities (Zhao & Stockwell, 2017).





4



COMMON OBJECTIONS TO MINIMUM PRICING POLICIES

Despite the evidence of its positive health and social effects, the introduction of minimum pricing is often opposed, with concerns expressed about unintended side-effects or consequences that might counterbalance or outweigh any benefits.

4.1 Effect on moderate and heavy drinkers

For alcohol policies to be effective in reducing alcohol-related harm, they should effectively target the drinking of those consuming alcohol at levels that are harming their health. Opponents of alcohol pricing policies often claim that these policies also impose a financial cost on moderate drinkers. While there may be arguments to be made about whether such costs are worth the overall benefit to society, in the case of minimum pricing, and particularly MUP, the impact on moderate drinkers is likely to be extremely modest – even more modest than from other pricing policies such as increasing taxation. Minimum pricing affects the prices of only the cheapest alcoholic products, which primarily are purchased by heavier drinkers. The more expensive products that are preferred by moderate drinkers are much less affected by the policy. In contrast, most forms of tax increase will affect the prices of **all** alcoholic products to some extent. These differences are discussed further in Chapter 7.

The evidence supports this view. Following the introduction of MUP in Scotland, there was no significant change in consumption or expenditure among the 40% of households that purchased the least alcohol (O'Donnell et al., 2019). Modelling of a £0.50 MUP in England indicates that people drinking within the United Kingdom's low-risk drinking guidelines² would reduce their consumption by 21 g of ethanol **a year** – roughly equivalent to a single glass of wine. Their spending on alcohol would be expected to increase by £2.40 (0.7%) more per year (Angus et al., 2015). By comparison, the effect is far greater for heavier drinkers. Those consuming at harmful levels³ are estimated to reduce their consumption by 3.3%, or nearly 134 United Kingdom units, and to spend £81.30 (2.8%) more per year.

4.2 Effect on inequality

A common objection to minimum pricing is that it is regressive, imposing greater costs on those on lower incomes. The extent to which minimum pricing affects different groups in the population is likely to vary from country to country, depending on drinking patterns and the level of the minimum

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² At the time, 21 United Kingdom units (168 g ethanol) per week for men and 14 United Kingdom units (112 g) per week for women
³ Defined as exceeding 50 United Kingdom units (400 g ethanol) per week for men and 35 United Kingdom units (280 g) for women.

price. In most countries, however, while richer households tend to consume more alcohol, the cheaper alcohol that is affected by minimum pricing policies is more likely to be purchased by poorer households (Sassi et al., 2018).

An analysis of alcohol purchases in the eight months following the introduction of MUP in Scotland found that households of all income levels increased their alcohol spending by similar amounts on average, except for the top 20% (O'Donnell et al., 2019). Modelling of a £0.50 per unit MUP in Scotland suggests that the economic impact of the policy is similar for drinkers in poverty and other drinkers. Those in poverty would reduce their spending on alcohol by 1.1%, while other drinkers would increase their spending by 1% (Angus et al., 2016b). By contrast, modelling of an Aus\$ 1 per standard drink MUP in Australia found that alcohol spending would rise most for those in the bottom 40% of the income distribution (Vandenberg & Sharma, 2016).

While minimum pricing may impose greater financial costs on poorer households in some contexts, these households are also likely to see greater health benefits. Initial evidence from Scotland suggests that lower-income households are more likely to have reduced the amount of alcohol they buy (O'Donnell et al., 2019). It is also important to note that lower-income households experience a substantially greater level of negative health impacts related to alcohol (Mackenbach et al., 2015). As a result, reductions in alcohol consumption in more deprived groups are likely to lead to larger health gains than equivalent reductions in less deprived groups, reducing the often-stark inequalities in health across societies. This is borne out by observational evidence from Canada (Zhao & Stockwell, 2017) and modelling work in Australia (Vandenberg & Sharma, 2016), South Africa (Gibbs et al., 2021) and the United Kingdom (Holmes et al., 2014) that suggest minimum pricing averts more deaths and hospital admissions among socially disadvantaged groups.

4.3 Effect on businesses and the economy

The aim of almost any effective alcohol pricing policy is to reduce the total volume of alcohol sold. Minimum pricing is likely to reduce alcohol sales, particularly as it targets the price of the cheapest products that are consumed disproportionately by heavier drinkers, who account for a large proportion of overall alcohol sales (Bhattacharya et al., 2018). This drop in sales volume, however, is likely to be offset to a substantial degree by an increase in average prices following the removal of the cheapest alcohol from the market. Indeed, prospective modelling suggested that the total value of the alcohol market in Scotland would **grow** by 0.7% following the introduction of a £0.50 MUP (Angus et al., 2016b). Initial evaluation evidence following the introduction of MUP supports this, finding little effect on the profitability of retailers and producers and no evidence that it has caused business closures or reductions in employment or investment (Frontier Economics, 2019). Even if alcohol pricing policies had a negative impact on alcohol producers and retailers, it is unclear that consumer spending would not simply be diverted to other areas of the wider economy (Bhattacharya, 2017).

While the overall value of the market for alcohol may not change substantially, minimum pricing is likely to have an effect on competitive dynamics within the alcohol industry. Evidence from Scotland shows that smaller retailers felt the policy had been beneficial to them, as it had removed the

competitive advantage large supermarkets had when pricing cheaper products (Stead et al., 2020). Higher prices in shops could also potentially lead some drinkers to shift some of their consumption to bars and restaurants, although modelled estimates suggest this is unlikely (Angus et al., 2015). Producers of alcoholic products at different ends of the pricing spectrum may be affected in different ways as consumers' behaviour changes.

Since a substantial proportion of alcohol-related harm occurs in people of working age (OECD, 2015) and heavy drinking is associated with a significant reduction in GDP (OECD, 2021), minimum pricing is likely to bring benefits to the wider economy beyond the alcohol industry, with the potential to reduce alcohol-related sickness, deaths and unemployment. Modelling evidence for England suggested that a £0.50 MUP would lead to a 2% fall in workplace absence, worth an estimated £13 million per year to the economy (Angus et al., 2015). Evidence from the United States of America also supports the conclusion that reducing alcohol consumption can lead to wider economic benefits, with a study finding that a 10% increase in beer consumption was associated with a 0.41% fall in annual income growth (Cesur & Kelly, 2014).

4.4 Effect on tax revenue

Because minimum pricing should result in reduced alcohol sales overall, it is likely to reduce revenue from alcohol taxes if tax rates remain unchanged. The introduction of MUP in Scotland was predicted to cost the Government £40 million a year (Office for Budget Responsibility, 2018) and in Wales £25 million a year (Office for Budget Responsibility, 2020) in foregone tax. This loss in revenue nevertheless is very likely to be partially offset by higher revenue from VAT, which increases in line with prices.

Minimum pricing measures are likely to benefit the public finances overall by reducing alcohol-related costs to health-care services and the policing and criminal justice system, as well as leading to higher tax revenue from increased economic output. A 2015 study looking at the potential impacts of MUP in England, for instance, estimated that a £0.50 MUP would lead to a decline in alcohol use, which in turn would result in a 2.8% fall in alcohol-related health-care costs (–£1.4 billion) and a 2.5% reduction in the costs of crime to society (–£2.2 billion) over the first 20 years following implementation (Angus et al., 2015). Similarly, modelling from the OECD estimated that the introduction of a MUP would reduce health-care costs by Int\$ 160–180 per person per year in countries such as Austria, Denmark, Germany and Luxembourg (OECD, 2021). A wider comparison of the impacts of minimum pricing and taxation can be found in Chapter 7.

4.5 Effect on unrecorded alcohol

Unrecorded alcohol – a broad umbrella term for alcohol that is produced and consumed outside the formal channels of government control – is a significant concern in many countries, whether through issues around cross-border trade, increases in illicit and homemade production, or drinkers switching to non-beverage alcohol (such as mouthwash, rubbing alcohol or other non-

beverage alcoholic products). The potential interactions between pricing policy and these factors can be complex and may require specific complementary policy action alongside minimum pricing to ensure the policy is effective and not undermined by unrecorded alcohol, which can remain as a cheap source of alcohol for heavy drinkers and especially people with alcohol-use disorders from lower socioeconomic groups (Lachenmeier, Neufeld & Rehm, 2021).

In some countries of the former USSR, the introduction and constant raising of minimum prices was also perceived as a measure against cheap counterfeit alcohol, clearly signalling a price benchmark below which regular alcoholic beverages should not be sold in retail sale (Neufeld et al., 2021). For instance, some studies from the Russian Federation suggest that the established minimum prices have made it easier for consumers and the responsible state authorities to distinguish between legal alcoholic beverages and illegal products and counterfeits in wholesale and retail sales (Gil, Khaltourina & Korotaev, 2016; Neufeld et al., 2019). Overall, it should be noted that almost all available evidence on the impact of minimum pricing comes from higher-income countries, where relatively small proportions of unrecorded alcohol are consumed and where the harms associated with the consumption of unrecorded alcohol are notably lower than in countries with lower incomes (Lachenmeier, Neufeld & Rehm, 2021). A small number of modelling studies looking at the impacts of MUP in low- and middle-income countries nevertheless have been published, with findings generally in line with similar studies in high-income countries (Gibbs et al., 2021, 2022; OECD, 2021; Chaaban et al., 2022). Despite these recent studies, until further evidence emerges, the wider generalizability of the findings of the studies on minimum pricing that are available today should be treated with caution. More research on the real-life implementation of minimum pricing policies in the eastern countries of the WHO European Region is needed.

Substantial price increases and price differentials across borders can encourage cross-border trade in alcohol, sometimes illicit (including smuggled alcohol) (OECD, 2015). Interviews with retailers in border towns suggest that some Scottish consumers may have increased alcohol purchases in England after MUP was introduced in Scotland but not in England, but such cross-border purchases accounted for a very small proportion of overall sales (Frontier Economics, 2019). Similar increases in cross-border shopping were observed across Baltic countries after tax increases in Estonia and Lithuania had considerably increased their alcohol prices and more alcohol purchases from Latvia were recorded (Täht & Laarmann, 2019; Pärna, 2020; Neufeld et al., 2021). Illegal sales of cheap spirits smuggled from Kazakhstan were reported in some communities in the Russian Federation as the result of differences in price levels between the two countries (Neufeld, Wittchen & Rehm, 2017).

Illicit cross-border trade is complex, is determined by a variety of factors, including geography, the incidence of crime and corruption, the strength of law enforcement and price differentials, and tends to be a more significant issue in low- and middle-income countries (OECD, 2015). Care in planning of enforcement may be needed if introduction of MUP leads to price rises across a large section of the market.

Effective alcohol strategies need to consider the targets for particular policies and the combined impacts of a number of policies. For example, if MUP is being considered, there is likely to be a beneficial combination with taxation (duty) policy. Much of the enforcement of taxation and MUP may be complementary. If there is a large informal alcohol sector in a country, the scope for improving enforcement of regulations and the context for changes in alcohol policy would need to be considered.

There is little robust evidence on how minimum pricing affects consumption of illicit alcohol and other substances, although the initial evidence from Scotland and Wales suggests that this has not been a common response to the policy being introduced (McCann et al., 2020; Buykx et al., 2021; Holloway et al., 2022). Surveys of dependent drinkers suggest, however, that the most common responses to alcohol becoming less affordable are to re-budget or reduce consumption (Falkner et al., 2015; OECD, 2015; Erickson et al., 2018). Interviews with drinkers and alcohol treatment providers in Wales prior to the introduction of MUP found that for most drinkers, “alcohol is a clear drug of choice, and crossing over to drugs, and especially towards the margins of legal/illegal activity, was just not an option” (Holloway et al., 2019). At the same time, interviews conducted with patients of alcohol and drug treatment centres in cities of the Russian Federation documented that the increases in alcohol prices – driven by increases in excise tax and minimum prices – had little overall impact on their drinking behaviours because there were various cheap alternatives in the form of unrecorded products (Bobrova et al., 2009; Neufeld et al., 2016, 2019; Neufeld, Wittchen & Rehm, 2017). Some interviewees implied that they would switch to drinking unrecorded alcohol whenever they had no money for so-called conventional alcoholic beverages.

Other studies also report a potential risk of increased consumption of illicit drugs and non-beverage alcohol (such as mouthwash or rubbing alcohol). For example, 41% of residents in a Canadian managed alcohol programme reported using illicit drugs and 41% reported consuming non-beverage alcohol as a coping strategy when they were unable to afford alcohol (Erickson et al., 2018). Prescription medications such as benzodiazepines that mimic the effects of alcohol, as well as cannabis and spice (synthetic cannabinoids), are believed to be the most common substitutes for alcohol, with drinkers far less likely to switch to harder drugs such as cocaine or opiates (Holloway et al., 2019).

The evidence from Canada suggests that to the extent that such switching from alcohol to other substances has occurred, any negative health and social effects have been swamped by the positive effects of reduced licit alcohol consumption – otherwise, the positive outcomes described above could not have occurred (Stockwell & Thomas, 2013). In contrast to the suggestions of some sceptics, previous price increases in the Russian Federation did not lead to an overall increase in unrecorded consumption and consequently losses in revenues and increased demand for alcohol treatment. Various studies concluded that since the adoption of the different pricing measures, total alcohol consumption has decreased considerably and the share of unrecorded alcohol has remained relatively stable, mainly thanks to the overall suite of measures implemented (Stockwell & Thomas, 2013; Neufeld & Rehm, 2018; Neufeld et al., 2020; Zasimova & Kolosnitsyna, 2020).

4.6 Increased industry revenue

The final concern raised against minimum pricing policies is that the economic gains they bring will accrue to the alcohol industry in countries that do not have government alcohol monopolies. Profit margins on alcoholic beverages will rise with the implementation of minimum pricing policies, which will incentivize the alcohol industry to attract new consumers through different means. These higher profits may be used to increase marketing expenditures by economic operators to promote their brands and expand further, especially in the digital sphere; evidence shows clearly that marketing activities are crucial to reinforcing the concentration of the global alcohol market and ensuring the

dominance of a few companies, especially in the case of the beer market (Jernigan & Ross, 2020; WHO Regional Office for Europe, 2020c).

At the same time, and especially if countries choose to introduce minimum pricing policies instead of raising alcohol taxes because of less resistance to these measures, governments will have fewer resources available to mitigate the consequences of increased marketing activities and to offset fiscal costs stemming from alcohol consumption and alcohol-related harm.

There are no evaluation studies of the long-term consequences of minimum pricing policies to offer guidance on the issues raised.

The concerns are legitimate, but it is important to balance any potential longer-term harms that may arise from increased alcohol industry revenue against the health and economic benefits that arise from the policy itself. It may be possible to take additional policy action to recoup some or all of the additional revenue from industry into the public purse by, for example, imposing an additional so-called windfall tax or levy on alcohol retailers and/or producers. Such an approach was attempted in Scotland, with the introduction of a Public Health Supplement in 2012 that levied an additional tax on large retailers selling alcohol and tobacco (Scottish Government, 2011). Ultimately, the policy was scrapped in 2015, but there are important lessons that may make similar measures more successful in other contexts (Hellowell, Smith & Wright, 2016). An alternative option may be to introduce a minimum price alongside an increase in alcohol taxation, particularly where alcohol taxation is levied in a way that is consistent with public health (on the basis of alcohol content). In this way, minimum pricing and taxation may work together to reduce alcohol-related harm while increasing government revenue directly.

It is also important to recognize the political reality faced by many policy-makers investing in improving public health. The alcohol industry generally opposes alcohol pricing policies (precisely because they are effective in reducing consumption), which can lead to effective policies not being implemented (Gornall, 2014). The fact that minimum prices might increase industry revenue may reduce this opposition and enable effective policies to be implemented. In Canada, the alcohol industry is generally supportive of minimum pricing (Thompson et al., 2017).



Infobox 3.

Summary of common objections to minimum pricing

The six most commonly voiced objections against minimum pricing are very similar to the objections used against higher alcohol taxation. The arguments and counterarguments are very similar for both pricing measures, and the evidence shows that most of the objections do not stand up to fact checks.

Moderate and heavy drinkers

Modelling studies have suggested that the price increases occurring under a minimum price policy are effectively targeted at heavier drinkers, with only modest impacts on moderate drinkers (Hunt, Rabinovich & Baumberg, 2011). Increases in taxation, by contrast, are more likely to affect the prices paid by all drinkers (Angus et al., 2016b). Real-world evidence from Scotland appears to bear this out (O'Donnell et al., 2019).

Inequality

Alcohol harm is more severe among lower socioeconomic groups. As minimum pricing policies effectively target the alcohol purchased by heavier drinkers on lower incomes, this means that the most deprived groups see the greatest reductions in harm, leading to a reduction in health inequalities (Meier et al., 2016; Zhao & Stockwell, 2017)

Businesses and the economy

The introduction of minimum prices is likely to increase revenue to alcohol retailers and producers, as a reduction in overall sales value is more than offset by an increase in average prices paid. There would also be benefits to the wider economy, with fewer years of working life lost to alcohol-related ill health and reduced levels of workplace absence or workplace productivity due to the aftereffects of alcohol consumption.

Tax revenue

Although no comprehensive evaluation has yet been published on the net revenue impacts of minimum pricing policies to government, it is likely that the introduction of a minimum price will reduce government revenue from alcohol taxation. However, the tax revenue losses are likely to be offset by economic gains elsewhere through reduced health-care and criminal justice costs, greater economic productivity because of a healthier workforce and increased VAT receipts.

Unrecorded alcohol

It is possible that the introduction of a minimum price may lead to increased consumption of unrecorded alcohol, but there is little evidence to suggest this has happened to date where MUP policies have been implemented. In settings where unrecorded alcohol is a major concern, it is advisable to introduce complementary policies to address the issue alongside minimum pricing.

Increased industry revenue

The introduction of a minimum price is likely to lead to increased revenue to the industry, which in turn might be spent by economic operators on further expansion and marketing strategies. There are no evaluation studies on the long-term impact of minimum pricing on the alcohol market and industry activities. It is important to balance any potential longer-term harms that may arise from increased alcohol industry revenue from minimum pricing against the health and economic benefits that arise from the policy itself. The crucial thing for countries to consider is that minimum pricing policies should not be implemented instead of taxation and that various options for a complementary approach are available.



5



LEGAL ISSUES RELATING TO MINIMUM PRICING POLICIES



The *Global action plan for the prevention and control of noncommunicable diseases 2013–2020* notes, “governments have the lead responsibility for ensuring that appropriate institutional, legal, financial and service arrangements are provided for the prevention and control of noncommunicable diseases” (WHO, 2013). In the field of alcohol policy in particular, the *Global strategy to reduce the harmful use of alcohol* notes that all countries should put in place “appropriate legal frameworks to reduce harmful use of alcohol” (WHO, 2010). The final report of the regional consultation on implementation of the European Action Plan to Reduce the Harmful Use of Alcohol 2012–2020 (WHO Regional Office for Europe, 2020d) identifies legislative action as necessary in several of the 10 action areas of the European Action Plan to Reduce the Harmful Use of Alcohol (WHO Regional Office for Europe, 2012).

Legislation with public health objectives may conflict with other legally protected public interests. Policy-makers should be aware of how to design public health legislation in ways that are compatible with these other legal interests and be prepared to put forward legal arguments to defend public health laws in the event that other parties challenge their compatibility with other legal frameworks.

Alcohol is a commodity that is widely traded between countries. This trade is governed by a complex and diverse set of international trade agreements and bodies that oblige governments to ensure national laws do not directly or indirectly hinder the cross-border movement of goods. They also preserve the ability of governments to pursue other objectives that conflict with the promotion of free trade, such as public health protection, if these objectives are pursued through strictly necessary means that restrict trade to the least possible extent.

Against this background, the following sections analyse the compatibility of minimum pricing policies with relevant free movement of goods provisions in EU, World Trade Organization (WTO) and Eurasian Economic Union (EAEU) law.

5.1 EU law and minimum pricing

5.1.1 Notification procedure for technical regulations

Any minimum pricing measure adopted by an EU Member State will constitute a technical regulation under Directive 2015/1535/EU (European Parliament, 2015). According to Article 1(1)(f), a technical regulation is any “technical specification”, “other requirement” or “rule on service”, the observance of which is “compulsory, de jure, or de facto”.

A technical specification is defined in Article 1(1)(c) as:

a specification contained in a document which lays down the characteristics required of a product such as levels of quality, performance, safety or dimensions, including the requirements applicable to the product as regards the name under which the product is sold, terminology, symbols, testing and test methods, packaging, marking or labelling and conformity assessment procedures.

Other requirements are defined in Article 1(1)(d) as:

a requirement, other than a technical specification, imposed on a product for the purpose of protecting, in particular, consumers or the environment, and which affects its life cycle after it has been placed on the market, such as conditions of use, recycling, reuse or disposal, where such conditions can significantly influence the composition or nature of the product or its marketing.

Minimum pricing legislation, which stipulates that alcohol products cannot be sold unless they meet a specified price floor, will fall within the scope of the Directive. The draft form of the legislation therefore must be notified to the European Commission according to Article 5 of the Directive before it can be enacted. Article 1(1)(f) defines a “draft” technical regulation as “text ... formulated with the aim of enacting it or of ultimately having it enacted as a technical regulation ... at a stage of preparation at which substantial amendments can still be made”. Article 5 stipulates that the grounds on which the legislation is being adopted must be made clear when the notification is made to the Commission, if they are not already clear from the legislation itself.

Following notification, under Article 6 the Member State must postpone the enactment of any technical regulations notified to the Commission by three months. During this time, the Commission or another Member State can issue a “detailed opinion” if they find that the legislation in question may create barriers to the free movement of goods. If this happens, the Member State must extend the postponement period to six months while it responds to any detailed opinions that have been issued.

5.1.2 Free movement of goods

Article 34 of the Treaty on the Functioning of the European Union (TFEU) provides that “[q]uantitative restrictions on imports and all measures having equivalent effect shall be prohibited between Member States” (Court of Justice of the European Union (CJEU), 1974). Quantitative restrictions are limits on the amount of goods that can cross a border, while measures having equivalent effect to a quantitative restriction (MEQR) are “[a]ll trading rules enacted by Member States which are capable of hindering, directly or indirectly, actually or potentially, intra-Community trade”.

A Member State rule will fall within the definition of a MEQR if it concerns the characteristics of a product (CJEU, 1982), concerns the sale of the product and has a greater impact on imported goods compared to domestic goods (CJEU, 1993), or concerns the use of goods and hinders the ability of imported goods to access the market of the Member State. In its *Mickelsson and Roos* judgement, the CJEU confirmed that if a Member State law is likely to have a “considerable influence” on consumer behaviour towards an imported good, it will hinder market access for that imported good (CJEU, 2009).

Minimum pricing policies will certainly constitute a breach of the prohibition in Article 34, since they are conceived from the outset to influence significantly the behaviour of consumers. There are exceptions to Article 34, however. Article 36 of the TFEU provides that Article 34 “shall not preclude prohibitions or restrictions on imports ... justified on grounds of ... the protection of health and life of

humans". This exception applies when a Member State rule specifies that imported goods are to be distinguished from domestic goods to the detriment of imports (direct discrimination). A different exception is available where a Member State rule does not specify that imported goods are to be treated differently, but nonetheless indirectly has this effect due to the manner in which the rule operates (indirect discrimination). In such circumstances, according to the CJEU's *Cassis de Dijon* judgement, Article 34 will not prohibit such rules if they are "recognized as being necessary in order to satisfy mandatory requirements relating in particular to ... the protection of public health" (CJEU, 1979).

In practical terms, EU law empowers Member States to adopt trade-restrictive legislation (such as minimum pricing legislation) as long as it genuinely pursues a legitimate public health objective⁴ in a proportionate manner. A legitimate public health objective will not be considered to be genuinely pursued if it is raised to disguise a blatant attempt at economic protectionism.

The burden of showing that a rule is proportionate falls on the Member State not only when notifying the legislation to the Commission, but also when defending the measure if its compatibility with EU law is challenged in court. To be proportionate, a rule must satisfy two criteria.

- It must be appropriate for achieving the public health objective it pursues. In practice, this means that Member States must show the rule is genuinely grounded in the available evidence.⁵ For minimum pricing legislation, the Member State should:
 - aggregate the body of scientific evidence that supports minimum pricing policies;
 - explain how minimum pricing legislation is designed with that evidence in mind; and
 - highlight how the evidence shows that minimum pricing is effective in reducing alcohol consumption in at-risk drinkers.
- It must be necessary for achieving its objective but be no more restrictive of the free movement of goods than is needed to effectively achieve the public health objective. In practice, this means that if a Member State can choose between more than one measure that could effectively achieve the public health objective, it must choose the least restrictive option. For minimum pricing legislation, which will be compared with other fiscal policies, taxation in particular, the Member State should:
 - explain precisely the exact nature of the public health objective being pursued, which in the case of minimum pricing is the reduction of alcohol consumption among harmful and heavy drinkers; and
 - explain why other less trade-restrictive public health policies (such as increasing taxation) are not as effective as minimum pricing at achieving that objective.

5.1.3 The *Scotch Whisky* case study

In December 2015, the CJEU delivered its judgement in *Scotch Whisky*, a case that was referred from the Court of Session in Scotland in which the compatibility of the Alcohol (Minimum Pricing) (Scotland) Act 2012 with EU law was being challenged by the Scotch Whisky Association and other alcohol trade bodies.

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⁴ Preventing alcohol-related harm is considered to be a legitimate public health objective (Cases C-1/90 and C-176/90 *Aragonesa* [1991] ECLI:EU:C:1991:327, paragraph 15).

⁵ For an example of an alcohol policy measure that was found to be unsupported by evidence, see Case 178/84 *Commission v Germany* [1987] ECLI:EU:C:1987:126, paragraph 49. The German prohibition on the use of all additives in beer production on public health grounds was found to be disproportionate because additives authorized for use in beer production in other Member States were also authorized in Germany for use in virtually all beverages apart from beer. The German measure was therefore inconsistent and not in line with the evidence base on additives.

The CJEU found that introducing a minimum price for alcohol prevents traders from reflecting the potentially lower cost of imported alcohol in selling prices, so will hinder market access sufficiently to breach Article 34 of the TFEU.⁶ The CJEU also made clear, however, that minimum pricing genuinely pursues a legitimate public health objective, and – as long as the legitimate objective is identified specifically as the reduction in alcohol consumption among heavy drinkers and drinkers with potential alcohol-use disorders – is both appropriate and necessary.

On appropriateness, the CJEU held:⁷

a measure that sets a Minimum selling price of alcoholic drinks, the very specific aim of which is to increase the price of cheap alcoholic drinks, is capable of reducing the consumption of alcohol, in general, and the hazardous or harmful consumption of alcohol, in particular.

When the litigation was first initiated, the Scottish Government had presented the objective of the legislation as being **both** the reduction of alcohol consumption among the general population and among at-risk drinkers. It was therefore unsurprising that, on necessity, the CJEU held:⁸

it must be stated that the fact that increased taxation of alcoholic drinks entails a generalised increase in the prices of those drinks ... does not appear, in the light of the twofold objective pursued by the national legislation at issue in the main proceedings ... to lead to the conclusion that such increased taxation is less effective than the measure chosen.

On the overall proportionality of the legislation, the CJEU concluded:⁹

Articles 34 TFEU and 36 TFEU must be interpreted as precluding a Member State choosing ... the option of legislation, such as that at issue in the main proceedings, which imposes [minimum pricing] for the retail selling of alcoholic drinks, and rejecting a measure, such as increased excise duties, that may be less restrictive of trade and competition within the European Union. It is for the referring court to determine whether that is indeed the case.

This judgement initially was assumed by some commentators to mean that minimum pricing was incompatible with EU law. Following its application by the referring Scottish courts, however, it is clear that the judgement means the opposite (Alemanno, 2016; Andreangeli, 2017; Bartlett & Garde, 2017; Bartlett & MacCulloch, 2020). The crucial part of the CJEU's judgement reads:

The reasons which may be invoked by a Member State by way of justification must be accompanied by ... specific evidence substantiating its arguments ... that burden of proof cannot extend to creating the requirement that ... the competent national authorities ... must prove, positively, that no other conceivable measure could enable the legitimate objective pursued to be attained under the same conditions ... it is for the national court ... to determine the relevance of the evidence adduced by the competent national authorities in order to determine whether that legislation is compatible with the principle of proportionality ... that court must, in particular, examine objectively whether it may reasonably be concluded from the evidence ... that the means chosen are appropriate for the attainment of the objectives pursued and whether it is possible to attain those objectives by measures that are less restrictive of the free movement of goods.

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⁶ At paragraph 32.

⁷ At paragraph 36.

⁸ At paragraphs 47–49.

⁹ At paragraph 50.

If a government identifies the primary objective of minimum pricing legislation as the reduction of consumption among heavy and at-risk drinkers (which the Scottish Government had the opportunity to clarify when the litigation returned to the referring court for its final decision), the weight of available evidence on minimum pricing and heavy drinking will lead to a conclusion that minimum pricing is reasonably and objectively more effective in reducing the alcohol consumption of heavy and at-risk drinkers than increasing tax on alcohol.¹⁰

The above case study shows that it is essential to frame the objectives of minimum pricing legislation explicitly. Minimum pricing is a targeted measure and governments should make clear that it is employed to achieve the specific objective of tackling the consumption of high-strength, low-cost alcohol among heavy drinkers. This framing must be context-specific – governments should produce impact assessments based on evidence from their own jurisdiction that illustrate patterns of harmful alcohol consumption and explain why minimum pricing legislation is necessary.

5.2 WTO law and minimum pricing

5.2.1 Article III(4) General Agreement on Tariffs and Trade

The provisions of the General Agreement on Tariffs and Trade (GATT) will apply to minimum pricing measures adopted by WTO members. Article III(4) provides that imported products “shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use”.

The WTO Appellate Body has confirmed (WTO, 2001a) that three conditions must be met for a measure to violate Article III(4):

- the imported product and the domestic product that is allegedly receiving more favourable treatment are “like products”;
- the measure complained of must be a “law, regulation, or requirement” that affects the internal sale, offering for sale, purchase, transportation, distribution or use of the imported product; and
- the imported product must have received “less favourable” treatment than the “like” domestic product.

Assuming the definition of “law, regulation or requirement” encompasses measures such as minimum alcohol pricing, the interpretation of “likeness” and “less favourable treatment” must be clarified.

The Appellate Body said in the *European communities – Asbestos* case that “likeness” concerns “the nature and extent of a competitive relationship between and among products ... there is a spectrum of degrees of ‘competitiveness’ or ‘substitutability’ of products ... [it is not the case that] all products which are in some competitive relationship are ‘like products’ under Article III:4” (WTO, 2001b). The Appellate Body has clarified that “less favourable” treatment concerns “the conditions of competition” (WTO, 2001a)

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¹⁰ This was confirmed by the United Kingdom Supreme Court in 2017 on appeal from the referring Scottish courts. The United Kingdom Supreme Court concluded that the available evidence showed that increasing tax on alcohol could not reduce consumption of alcohol among harmful and heavy drinkers in the same way that minimum pricing could, and therefore that the Scottish legislation was proportionate (paragraph 128).

between groups¹¹ of imported and domestic products, and whether these conditions are modified “to the disadvantage of the imported product” (WTO, 2001a). This is determined by analysing “the design, structure, and expected operation of the measure”, substantiated using evidence of actual or potential market effects.

Minimum pricing legislation would probably be incompatible with Article III(4) GATT, as it prevents groups of imported alcohol products from benefiting from any potentially lower production costs, consequently affording them less favourable treatment. It is clear from *Japan – Alcohol II* (WTO, 1996a) that diverse types of alcoholic beverage will be interpreted to be in a competitive relationship and therefore to be considered like products that must receive equal treatment.

Minimum pricing legislation has been directly addressed once before in *Canada – Provincial Liquor Boards (US)* (WTO, 1992). The United States challenged several aspects of the alcohol monopolies that were operated by Canadian provinces, including a minimum pricing regime for beer. The minimum price was different in each province and was not calculated according to any formula but was fixed at a specific price aligned with the prices of either domestic or imported products. The Panel noted that when the price was aligned with domestic beer costs, worse treatment was accorded to imported beer if it could have been supplied below the minimum price, so Article III(4) was breached “to the extent that [minimum prices] were fixed in relation to the prices at which domestic beer was supplied” (WTO, 1992).

5.2.2 Minimum pricing and Article XX(b)

The *EC – Seal Products* case clarified that analysis of a potential breach of Article III(4) cannot include consideration of any justifying factors – these must be considered under Article XX GATT (WTO, 2014). Article XX outlines a number of circumstances in which state laws may be excused from the requirements of Article III(4). Article XX(b) provides that measures “necessary to protect human, animal or plant life or health” will be permitted as long as they are not applied in an arbitrarily discriminatory manner and are not a disguised restriction on international trade.

To benefit from the exception in Article XX(b), two criteria must be met by a state law. It must:

- be “necessary” to protect public health; and
- not be applied in an arbitrarily discriminatory manner and must not be a disguised restriction on international trade.

Canada – Provincial Liquor Boards (US) cannot help to predict how the Article XX(b) will apply to minimum pricing measures adopted in the context of competitive markets, because it concerned a minimum pricing regime adopted under a monopoly. The case suggests that a public health rationale might justify a minimum pricing regime, but it must be noted that it related only to beer, whereas contemporary minimum pricing policies apply to all types of alcohol. It was also decided before a substantial evidence base developed on the effectiveness of minimum pricing compared to increased taxation.

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¹¹ *United States – Measures Affecting the Production and Sale of Clove Cigarettes* (4 April 2012) WT/DS406/AB/R, paragraphs 178–182. In this case, the Appellate Body recognized that, in the circumstances of the case, the group of imported products should be defined as clove cigarettes, given that virtually all cigarettes imported into the United States from Indonesia were clove cigarettes, with a very small percentage of imports being other types of cigarettes (paragraphs 196–197). It also recognized that flavoured cigarettes other than menthol cigarettes had a very small market share in the United States, so the group of like domestic products to be compared should be defined as menthol cigarettes (paragraphs 199–200). The correct analysis should therefore focus on whether the United States measures in question affected competition between domestic menthol and imported clove cigarettes to the detriment of the imported clove cigarettes.

There consequently is no clear precedent in WTO law for how minimum pricing measures should be analysed, but certain practical steps clearly are essential to increasing the likelihood that the Article XX(b) exception will be interpreted as applying to minimum pricing legislation.

- The framing of objectives is a crucial precursor to the rest of the analysis under Article XXb (McGrady, 2011). Minimum pricing measures must be clearly framed as measures that target heavy and hazardous drinking.
- The *Brazil – Retreaded Tyres* case confirmed that different public health measures cannot be seen as alternatives if they are designed as cumulative and nonsubstitutable components of an overall strategy (WTO, 2007). The complementary relationship between minimum pricing and taxation must be highlighted to ensure that it is seen as a necessary measure that cannot simply be replaced.
- *Brazil – Retreaded Tyres* also clarified that necessary measures will demonstrate a “genuine relationship of ends and means” and will make a “material contribution” to the achievement of the objective (WTO, 2007). The growing extent of modelling and observational evidence for minimum pricing must be emphasized.
- *Korea – Various Measures on Beef* confirmed that measures with slighter impacts upon trade are more easily considered necessary than those with large impacts (WTO, 2001a), but *EC – Seal Products* clarified that even highly trade-restrictive measures could still be necessary if the contribution of a measure to its goal is in balance with the extent of the restriction it makes on trade (WTO, 2014). The fact that MUP policies only affect the price of the cheapest and strongest alcohol should be emphasized.
- *US – Gasoline* confirmed that the “chapeau” requirement of Article XX – to not afford protection to domestic products in the implementation of the measure – is to prevent the abuse of the exceptions granted by Article XX (WTO, 1996b). *US – Shrimp* (WTO, 2001c) clarified that preventing abuse means ensuring that good faith motivates the prioritization of one WTO Member State’s treaty rights over another state’s competing treaty rights. *Canada – Provincial Liquor Boards (US)* illustrates that setting arbitrary minimum prices is liable to be seen as protectionist. The fact that the objective formula used in minimum pricing legislation applies to any alcoholic beverage irrespective of its origin should be emphasized (WTO, 1992).

5.3 EAEU and minimum pricing

The EAEU is an international economic bloc established by the former USSR states of Armenia, Belarus, Kazakhstan, Kyrgyzstan and the Russian Federation. The Union in its current form was created in 2014 with the signature of its main governing document, the Treaty on the Eurasian Economic Union (WTO, 2015). This came into effect in 2015 and aims to create economic integration between these countries with harmonized common markets for goods, services, labour, capital, single transport, energy, agriculture and other sectors of the economy determined by the Treaty.

Minimum pricing policies fall within the Treaty's Section XVIII, which governs general principles and rules of competition and, in particular, Article 77 on state price regulation. The Article states that Annex 19 of the Treaty provides more details on the procedures for the introduction of state price regulation and how the respective decisions to introduce state price regulation can be contested by Member States.

Article 81 of Annex 19 of the Treaty states (WTO, 2015):

The Member States shall introduce state price regulation in commodity markets that are not in a situation of natural monopoly in exceptional cases, including emergencies, natural disasters, national security matters, provided that the problems that have emerged may not be eliminated through any measures having a less negative impact on the competitive situation.

Article 85 provides a list of exceptions of the goods to which these particular rules do not apply. Among the exceptions are "vodka, liquor and other alcoholic beverages of more than 28 per cent" as well as "ethyl alcohol from food raw materials"; minimum prices are explicitly mentioned in relation to these two exemptions in the Treaty. This means that Member States are free to impose their own national price regulations on such alcoholic drinks and establish minimum prices, including minimum prices for wholesale, distribution and retail sale.

All Member States have now established national minimum prices on vodka and some also have minimum prices on other alcoholic beverages, including those with an ABV below 28% (such as in the case of minimum prices on sparkling wine in the Russian Federation). Uniquely, Armenia has a single MUP per litre of pure alcohol that applies across all alcoholic beverages.





6



CONSIDERATIONS AFTER MINIMUM PRICING HAS BEEN IMPLEMENTED

The introduction of minimum pricing is not just a case of passing the relevant legislation. Planning and consideration are needed to determine how the policy will be practically implemented and enforced, monitored and evaluated, and reviewed and revised over time.

6.1 Implementation and enforcement

The approach a government takes to implementation and enforcement is likely to depend on the regulatory infrastructure already in place. In Scotland, MUP has been appended to the existing system of licensing as an additional mandatory condition of being permitted to sell alcohol. Responsibility for implementing and enforcing MUP, along with the rest of the licensing system, is devolved primarily to local authorities. Prior to MUP coming into law, many local authority licensing officers wrote to and visited licensed premises in their area, focusing attention on smaller independent off-trade retailers, to provide information and guidance on the new regulations (Dickie et al., 2019). In this phase, they were supported by information campaigns from national government and trade associations. Once MUP was in place, licensing officers undertook routine inspections to ensure prices (on tags on the shelf and electronic till systems) were compliant. Where breaches have been found, the preferred approach in Scotland is to resolve the issue through discussion (Scottish Government, 2018), but repeated failure to comply with MUP can lead to the vendor's alcohol licence being reviewed and ultimately revoked.

In Wales, enforcement has primarily been delegated to trading standards officers, local authority agents responsible for enforcing consumer protection regulations. The Welsh Government has provided additional funding for these officers to carry out extra inspections of alcohol retailers for the first three years (with most focused on the first year) after the policy comes into force. As in Scotland, officers are advised to work with retailers voluntarily to resolve breaches, but the ultimate penalty for noncompliance is a fine of £150–200 (Welsh Government, 2020).

Ireland's MUP legislation establishes "authorised officers" to monitor and enforce the law (Department of Health, Healthy Ireland, Health Service Executive, 2021). In practice, these are likely to be environmental health officers of the Health Service Executive who will be granted power to inspect alcohol retailers. Where they find breaches, authorized officers may levy fines of up to €2000 or pursue criminal charges that will lead to a larger fine or even imprisonment.

In Canada, provincial governments are responsible for much of the distribution and sale of alcohol, so can simply stipulate the minimum price. At the same time, enforcement of minimum pricing in private retailers – again, through the licensing system – has tended to be relatively weak. For example, it was not until 2016 that British Columbia introduced a system of warnings and potential fines for private liquor stores that sell alcohol below the minimum price (Chow C et al., unpublished

presentation to 43rd annual alcohol epidemiology symposium of the Kettil Bruun Society, Sheffield, United Kingdom, June 2017).

In general, a number of decisions need to be made in determining how to implement and enforce minimum pricing.

- **How much notice to give retailers:** in Scotland, where the final details of the policy were confirmed only in the month before it came into force, officials have suggested it would have been better to have had more time to develop and disseminate guidance (Dickie et al., 2019).
- **Where to target information:** while the Scottish Government focused its attention on retailers and industry groups, the Welsh Government additionally carried out a mass communications campaign aimed at the general public in the three months leading up to MUP (Welsh Government, 2020).
- **Who to task with enforcement:** enforcement is devolved to local authorities in Scotland and Wales. In Ireland, it is the responsibility of environmental health officers.
- **Whether enforcement should be proactive or reactive:** local authorities in Scotland and Wales decide how to enforce minimum pricing (Scottish Government, 2018; Welsh Government, 2020). At least in the early months, the primary approach seems to have been proactive inspection of retailers (Dickie et al., 2019). In British Columbia, by contrast, the approach is reactive: authorities rely on competing retailers to report violations (Chow C et al., unpublished presentation to 43rd annual alcohol epidemiology symposium of the Kettil Bruun Society, Sheffield, United Kingdom, June 2017).
- **How to respond to breaches:** the preferred response to initial violations in some jurisdictions is verbal warnings and mediation rather than immediately applying penalties. Eventual penalties may include fines or the removal of the outlet's license to sell alcohol.

6.2 Monitoring and evaluation

It is extremely important to monitor and evaluate a relatively novel policy like minimum pricing. While the evidence presented above offers strong reasons to expect minimum pricing to be effective in reducing alcohol consumption and harm, it remains necessary to build the evidence base and examine whether it works in different contexts and at different points in time – in richer and poorer countries, countries with different drinking cultures and existing levels of regulation, and countries more or less exposed to cross-border trade.

Even if a government could be entirely confident that minimum pricing would be likely to have positive effects, monitoring and evaluation remains important. Monitoring will be necessary to ensure compliance with the policy. It can also help to identify unintended consequences (such as any shift to illicit alcohol) so that mitigation measures can be put in place. It will be important to demonstrate the effectiveness of the policy in the country to maintain political support for minimum pricing (it is notable that public support for MUP in Scotland is substantial and has **increased** since

the policy was introduced (Ferguson, Beeston & Giles, 2020). Monitoring and evaluation can also help governments to adapt the design of the policy over time to improve its effectiveness by, for example, adjusting the level of the minimum price.

An effective monitoring and evaluation programme is likely to have the following features.

- **Robust analysis:** the programme should use appropriate and reliable research methods. The quality of evidence produced will be higher if researchers have adequate time to gather baseline data, understand different sources and plan their analyses. Consequently, it may be beneficial to set up the evaluation before the policy has even been confirmed, as in Scotland, where research began eight years before MUP eventually came into force (having been delayed by legal challenges).
- **Access to the best available data:** data relevant to the evaluation on, for example, alcohol sales are often used by the alcohol industry. If the official evaluation cannot access data of comparable quality, its credibility could be undermined. It may be appropriate in some contexts for governments to require retailers or producers to share relevant data to support monitoring and evaluation.
- **Focus on the most important outcomes:** an effective evaluation should have a clear theory of change specifying the effects the policy is anticipated to have (Craig et al., 2008). Given resource limitations, evaluators are likely to need to identify and prioritize the most important outcomes, recognizing that they will be unable to cover every outcome satisfactorily.
- **Independence:** for the findings of the evaluation to be trustworthy and recognized to be free from bias, it is preferable for researchers to be outside government, and for the researchers to be given autonomy over how to collect, analyse and interpret data. It is useful to define ways of working explicitly to prevent government interference and ensure scientific independence. The team evaluating MUP in Scotland has a memorandum of understanding with the Government detailing appropriate roles and responsibilities. The Welsh Government's evaluation has been commissioned via open tender from a research team outside of government, managed and quality-assured according to government social research principles (United Kingdom Government, 2018).
- **Trust and credibility:** the programme should be transparent and engage proactively with stakeholders to build confidence in the findings.

There may be benefits in engaging with the alcohol industry in line with clearly defined and transparently communicated rules of engagement – for example, including industry representatives on an advisory/oversight group with explicit terms of reference, as in Scotland and Wales. This could facilitate access to data and contextual information to support interpretation, and enhance the credibility of the programme to industry and other stakeholders. Pricing policies should nevertheless at all times be proposed, guided and formulated by public health interests, based on clear public health goals and the best available evidence, and without interference from economic operators. Given the strong resistance of many industry actors to minimum pricing (McCambridge, Hawkins & Holden, 2013; Hawkins & Holden, 2014) and the inherent conflict of interest that economic operators have

(Wagner & Steinzor, 2006), alcohol industry involvement brings the possibility of delays and disruption to the programme. Any involvement of the alcohol industry must be managed extremely carefully. It may, for example, be beneficial to have a separate panel for industry, restricted to practical issues of implementation rather than advising on scientific matters, which is supported by the evidence on the industry scientific activities and how they drive away research agendas from questions that are the most relevant for public health (Babor, 2009; McCambridge, Hawkins & Holden, 2013; Fabbri et al., 2018).

6.3 Review and revision of minimum pricing policies

The legislation for MUP in Scotland and Wales includes a so-called sunset clause that repeals the measure after six years unless the respective parliaments actively vote to retain it. The intention is for the parliaments to be able to consider the evidence generated by the official evaluations to decide whether to continue with the policy.

Even without a legislative requirement to revisit the policy, it is important to review and revise minimum pricing regularly to make necessary adjustments. Many Canadian provinces alter their minimum prices in an ad hoc and inconsistent manner; as a result, minimum prices often fail to keep pace with inflation, eroding their effectiveness in regulating cheap alcohol and reducing health harms (Thompson et al., 2017).

A better approach is that of institutionally embedding the adjustment of minimum prices. This could take the form of a requirement to review the level of minimum prices after a given number of years, similar to a sunset clause. Alternatively, minimum prices could be increased automatically in line with inflation (or some other measure of alcohol affordability); many countries do this for alcohol taxes and the Canadian province of Ontario has automatic increases in place for its off-trade minimum prices (Thompson et al., 2017).





7



CHOOSING THE MOST APPROPRIATE PRICING POLICIES

The evidence to support the use of alcohol taxation and pricing policies, specifically minimum pricing and MUP, as tools to reduce alcohol consumption and improve health is overwhelming. However, not all policies are equally effective, have equal distributions of effect across the population, or are equally appropriate for all circumstances. Some policies may be more or less aligned with policy-makers' goals, whether to improve public health, increase revenue or achieve some other desired outcome or combination of both. Policies do not have to be mutually exclusive – the best approach in many circumstances may be a combination. As was described in Chapter 2, the reality is that most countries in which minimum pricing policies have been introduced are using them along with taxation measures in a complementary approach to reduce alcohol affordability and improve public health.

The optimal policy for any given situation is a decision that can only be made by policy-makers with responsibility for that jurisdiction. This chapter outlines some important considerations that may help to inform these decisions.

7.1 Targeted alcohol policy

In broad terms, alcohol control policies generally are evaluated by the extent to which they reduce alcohol consumption or harm in the total population. The population-wide impacts, however, can obscure important differences in the extent to which alternative policy options affect the drinking behaviour and harm outcomes of specific groups within the population. For example, policies that have a greater impact on drinking among lower socioeconomic groups will be more effective in reducing alcohol-related health inequalities. Similarly, policies that have a greater impact on the drinking of heavier drinkers will be more effective in reducing harm than those that equally affect all drinkers. The evidence is unequivocal that population-wide measures that affect all people who consume alcohol can be effective in reducing consumption and harms, but policies that have the biggest impacts on the heaviest drinkers will lead to greater reductions in harm for that group.

There may also be relevant legal considerations relating to the so-called targetedness of a policy, as discussed in Chapter 5 in relation to the Scotch Whisky Association's challenge to the legality of MUP in Scotland under EU law. This challenge was ultimately unsuccessful as MUP was established to be a more targeted policy than taxation increases for achieving a reduction of alcohol-attributable harm in heavier drinkers.

7.2 Comparing taxation with minimum pricing

Minimum pricing is a regulation measure rather than a fiscal one and is not an alternative to taxation. Excise taxation is the primary and most appropriate fiscal policy tool available to governments to reduce alcohol consumption and harms (although not all countries design alcohol taxes following public health considerations) (WHO Regional Office for Europe, 2020b).

Policy-makers should be aware of some important differences between the two approaches, which can be viewed as complementary. One critical difference is the fact that additional revenue raised through increased taxation is retained by governments, while most additional revenue raised through minimum pricing is likely to go to retailers and producers of alcohol. Taxation increases the prices faced by consumers by increasing the amount of money from each sale that must be returned to the government as tax. By contrast, minimum pricing increases the prices faced by consumers by setting a minimum threshold price below which certain products cannot be sold, thereby allowing retailers to retain most of the increase in price, although any additional profits may ultimately be shared throughout the entire supply chain.

As discussed in Chapter 4, there may be negative consequences for public health by increasing alcohol industry revenue, although the potential to take mitigating action to reduce these increases in revenue may exist. It is also important to consider the wider financial implications of any pricing policy, including the longer-term benefits from reduced harm. In light of these concerns, it is tempting to question whether the same impacts as minimum pricing may be achieved through taxation instead, thereby retaining revenue directly for governments.

The available evidence suggests it is very possible to achieve the same reductions in alcohol consumption and related harm as minimum pricing **at population level** by increasing taxation. Modelling studies in Scotland and Wales have found that the tax increases required would be substantial (in excess of 30%) to achieve the same estimated outcomes as a £0.50 MUP (Angus et al., 2016b, 2018), but there are important differences in the distribution of these policies within the population. Minimum pricing policies specifically affect the price of the cheapest, highest-strength alcohol, which is drunk disproportionately by the heaviest drinkers (Black, Gill & Chick, 2011; Angus et al., 2016b) and is most strongly associated with heavy episodic drinking (Mäkelä et al., 2007). Increasing taxation levels increases the price of all alcohol (or at least, of all alcohol that is taxed) to some extent. The prices faced by moderate drinkers will be largely unaffected by minimum pricing policies but will be affected by tax increases.

Not all taxation policies are equal in terms of their effect. There are three main mechanisms for taxing alcoholic products:

1.
unitary taxation,¹²
whereby tax is levied
on the basis of the
product volume

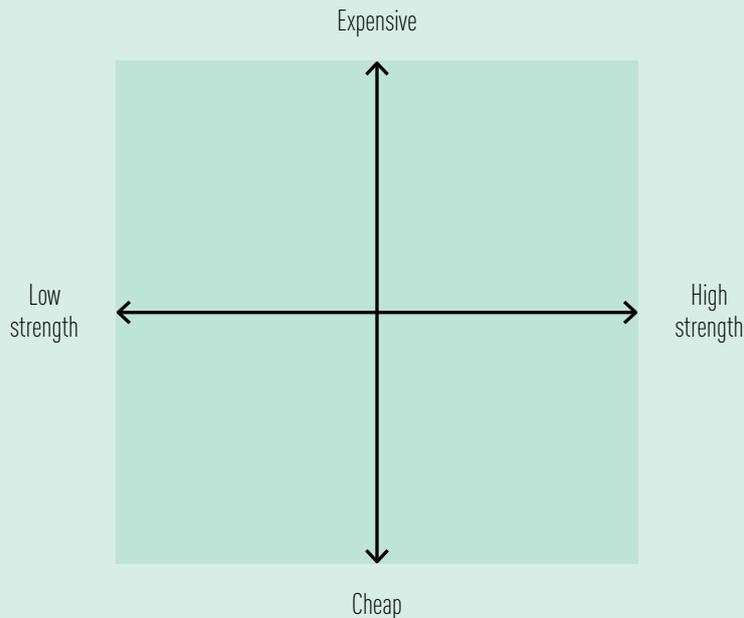
2.
specific taxation,
whereby tax is levied
on the basis of the
alcohol content

3.
ad valorem taxation,
whereby tax is levied
on the basis of the
product price.

¹² A wide range of terminologies exists for these approaches to taxation, with some sources referring to what are called here “specific” and “unitary” taxation as different forms of “volumetric” or “ad quantum” tax, or alternatively referring to what is referred to here as “unitary” taxation as “volumetric (unitary) specific” tax, and what is called here “specific” tax as “alcohol-content based specific” tax.

One way to illustrate the differences between these approaches in terms of how they affect the alcohol market is to divide the market up on the basis of whether products are high- or low-strength and whether they are high- or low-price, as illustrated in Fig. 6.

Fig. 6. Simplified schematic of the alcohol market

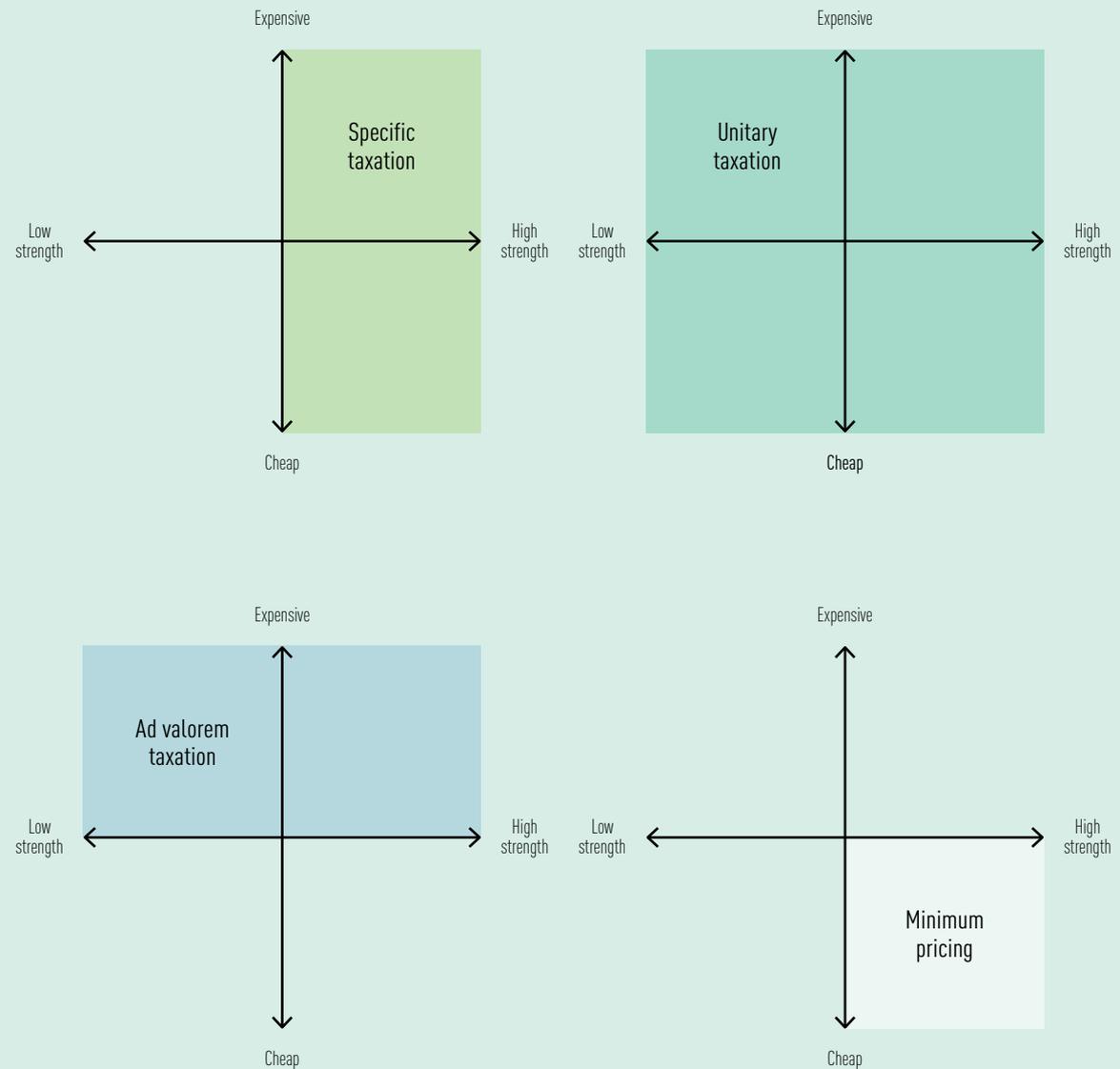


The extent to which different pricing and taxation policies affect different parts of the market can then be visualized on this space (Fig. 7). Specific taxation is linked to the alcohol content of a product, so increasing specific taxes will have the greatest impact on high-strength alcohol, irrespective of price. Unitary taxes are levied on the basis of product volume, not alcoholic strength, so an increase in unitary tax will not obviously have a greater impact on high- or low-strength, cheap or expensive alcohol. Ad valorem taxes are levied on the basis of price, so an increase in ad valorem taxes will increase the cost of more expensive alcohol, irrespective of strength. Minimum pricing and, to a greater extent, MUP specifically affect only high-strength, low-price products.

Fig. 7 is simplified; alcohol tax structures can vary widely, with differential duty rates for different product types, or may apply to products at different strengths (WHO Regional Office for Europe, 2020b). Tax structures can also be used in combination (for example, with ad valorem taxation applying in addition to specific or unitary taxes). The broad message, however, remains the same – taxation is less targeted on high-strength, low-cost alcohol than minimum pricing. As a result, almost any taxation approach is likely to have a wider impact on moderate drinkers, while minimum pricing more effectively targets the heaviest drinkers who are experiencing the greatest burden of harm.

Fig. 7.

Illustration of the impact of taxation and minimum pricing policies on the alcohol market



It may be possible to design more complex tax structures that are more effective in explicitly increasing the prices of the cheapest alcohol, but any such approaches would need to be tailored to the specific context of each country and may fall foul of some of the legal challenges discussed in Chapter 5. The effectiveness of any tax structure will directly depend on a country's technical capacity to design and implement a certain tax structure and to functionally organize the administration of tax. More complex tax structures require more capacity and transparent, effective and efficient tax administration, which in turn depend on high compliance and low administrative costs in relation to collected revenue. Evidence shows that opportunities for tax avoidance tend to increase with the raising level of tax structure complexity, so it is paramount for policy-makers to identify appropriate options of tax design, including minimum pricing, as potentially complementary measures (Sornpaisarn et al., 2017).

As discussed in Chapter 4, several possible approaches could combine the targetedness of minimum pricing with the revenue-raising aspects of taxation increases. One such approach would be to introduce some form of windfall taxation on the additional profits generated for alcohol retailers and/or producers following the introduction of a minimum price. Another might be to combine the introduction of a minimum price with an increase in taxation and/or restructuring of the tax system to align better with public health interests (meaning taxation is proportional to alcohol content). Very little research has been done to date on the extent to which minimum pricing policies and tax increases can work in combination, perhaps because this will depend on a wide range of context-specific factors such as the current alcohol tax system and patterns of alcohol consumption, but this is a promising avenue that policy-makers may wish to explore further.

There is one further potential approach, although this has not, to date, been applied to alcohol products. In recent years, various European nations, including Ukraine, Spain and the United Kingdom, have introduced a minimum excise tax (MET) for tobacco. This sets a floor level for the tax payable on a product, either in absolute terms (in Int\$ per pack, for instance) or as a proportion of the total sales price (for example, at least 70% of the sales price must be made up of taxation). If the combination of taxes levied on the product fall below this threshold, then the MET comes into force and the tax payable is increased to the floor level. In essence, a MET is very similar to a minimum price, but the threshold price applies specifically to the tax component of the price, not the overall price (as is the case with minimum pricing) and any additional revenue goes to the government rather than retailers and producers. There is relatively limited evidence to date on the effectiveness of METs for tobacco, although initial signs are promising (López-Nicolás & Stoklosa, 2019; Hiscock et al., 2020).

The overarching message from these considerations is that minimum pricing policies should not be seen as replacements for taxation, but rather as being complementary to tax systems, which should be designed in line with public health interests and as appropriate considering the technical capacity of the country.

7.3 Comparing minimum pricing with MUP

Chapter 2 of this report identified that both minimum prices and MUPs are in use in various countries around the world, sometimes simultaneously within the same country but applied to different products. The difference between the two approaches is broadly analogous to the difference between specific and unitary taxation. Minimum pricing sets a floor price for a specific product, typically a litre of a finished product. MUP sets a floor price for a fixed volume of ethanol. In practice, this means that the minimum prices for two similar products but with different alcoholic strengths (such as a 12% and 14% ABV bottle of wine) will be the same, while the MUP will be higher on the stronger product, as it contains more alcohol. As a result, MUP is likely to be marginally more targeted than minimum pricing as it is directly linked to alcohol content. To some extent this difference can be mitigated by having either minimum prices that are linked to strength, as is the case in several Canadian provinces, or that apply to narrow categories of product within which there is unlikely to be significant variation in alcoholic strength, as is the case in several eastern European countries.

This suggests that if targetedness is the only consideration, MUP generally is preferable to minimum pricing. However, there may be other issues that should be considered at the same time. The most important is in relation to enforcement. In some circumstances, where on-site inspections are a key aspect of the monitoring and enforcement of a minimum pricing policy, there may be specific advantages to minimum pricing, under which all bottles of vodka or wine may have the same threshold price, rather than MUP, where the MUP for each product needs to be calculated separately by officials.

7.4 Comparing wholesale with retail minimum prices

All of the minimum prices identified in Chapter 2 are applied to retail, so represent the minimum price at which a consumer can purchase alcoholic products. It is also possible to implement minimum prices at wholesale level by imposing a minimum price at which a **retailer** can purchase alcoholic products. Wholesale minimum prices can be used instead of retail minimum prices or alongside them. The use of both together can potentially place restrictions on retailer profits, at least on cheaper, higher-strength products, but their relative merits will be considered separately.

Retail minimum prices impose a direct floor on the prices at which consumers can purchase alcohol. Wholesale minimum prices impose a direct floor on the prices at which retailers can purchase alcohol. Retail minimum prices therefore exert more direct control over the prices faced by consumers. Under a wholesale minimum price, a retailer still has some degree of freedom over how to pass the minimum prices they face on to consumers, or, to put it another way, what profit margin they may choose to apply on top of their costs, or even whether to sell some products at a loss. There are laws in place preventing this below-cost selling in several European countries, but they are often complex to enforce (WHO Regional Office for Europe, 2020b). Evidence has shown for taxation that retailers generally pass a greater proportion of tax increases through on higher-price products than lower ones, essentially using higher profits on more expensive goods to subsidize lower profits on cheaper products (Ally et al., 2014; Wilson et al., 2021). While there is little direct evidence on the extent to which retailers pass through wholesale minimum prices to consumers, it is likely that wholesale minimum prices are less effective in preventing the availability of very low-price high-strength products compared to retail minimum prices.

Another important difference between retail and wholesale minimum prices relates to how they are enforced. As discussed in Chapter 6, enforcement of retail minimum prices generally is done through physical inspection of retailers, while enforcement of wholesale minimum prices generally is a paperwork exercise undertaken by reviewing sales records and receipts in wholesalers. Local contexts may make these alternative approaches relatively easier or harder. In a country with a smaller number of well regulated retailers (or even a state monopoly), retail minimum prices are likely to be easier to enforce, particularly if there is already a robust enforcement mechanism in place for other retailing laws and regulations (such as a well resourced alcohol licensing inspection department). In a country with many poorly regulated or unregulated outlets but a small alcohol wholesale sector, it may be easier to administer and enforce a wholesale minimum price.

7.5 Conditions for each approach

This chapter has outlined some of the key differences, strengths and weaknesses of different forms of alcohol taxation and minimum pricing policies in terms of their effects and how they are distributed across the population, where any additional revenue is directed and also practical considerations about enforcement. Ultimately there is no one-size-fits-all policy and policy-makers should consider the specific context of their jurisdictions and the key aims they are seeking to achieve.

There are, however, some general guidelines that may be useful. MUP is likely to be the most effectively targeted policy and will lead to the largest reductions in alcohol consumption in the heaviest drinkers, assuming the MUP is set at an appropriate level. Minimum prices are likely to be effectively targeted, but to a lesser extent than MUPs. Both forms of minimum pricing are likely to be more targeted than increases in alcohol taxation, although they require rather different mechanisms of enforcement and are unlikely to return as much tax revenue to government. Retail minimum prices of all forms are likely to be more effective than wholesale minimum prices in directly regulating the price of cheap alcohol but are enforced differently. Across all these policy options, the impact of unrecorded alcohol is important to consider. In general, issues around unrecorded alcohol are unlikely to render alcohol pricing and taxation policies ineffective, but they can reduce their effectiveness and may alter policy priorities.





ALCOHOL
FREE
ZONE

8



CONCLUSIONS: THE VALUE OF MINIMUM PRICING FOR PROTECTING LIVES

Alcohol taxation and pricing policies have enormous potential to reduce alcohol consumption and harm across the WHO European Region. The evidence base for the effectiveness of the various available policy options has been developing rapidly over the past years.

Minimum pricing and MUP policies could play an important role in reducing alcohol-related harm. As with any public health policy, minimum prices should be viewed as one part of a comprehensive suite of policies that can work in conjunction to improve public health outcomes. Minimum prices generally are more targeted than other pricing policies, as by specifically increasing the price of the cheapest, highest-strength alcohol they will have the largest impact on the heaviest drinkers, who experience the highest rates of harm.

Evidence shows that minimum pricing policies should be used in a complementary approach alongside other pricing policies, first and foremost taxation, and should be based on the different drinking patterns and harm profiles of countries, their needs and technical capacity.

At present, the potential of minimum pricing policies remains largely untapped, but several countries have been successfully introducing and raising minimum prices and taxes on alcoholic beverages over time.



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The WHO Regional Office for Europe

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ISBN 978-92-890-5809-4



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