

Understanding the drivers of illicit alcohol: an analysis of selected country case studies

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Abstract

In addition to depriving governments of revenue from legitimate economic actors, the illicit alcohol trade is a major threat to public health. The World Health Organization's (WHO) 2017 guidance on alcohol taxation has been influential in driving policies on this subject, particularly in developing countries. However, their analysis and limited academic literature do not fully account for the distinction between the licit and illicit markets, even though the illicit market leads to serious public health risks. Complementary to the WHO's concerns, this paper seeks to add an additional perspective by suggesting that high rates of tax cause diversion to the illicit market, and the analysis of that market should include the effects of taxation. Government policies on alcohol and taxation should therefore account for the illicit market and avoid diversion to it, to reduce harm to public health. The paper offers an analysis and recommendations for customs, tax, and public health officials to discourage the illicit market and avoid tax leakage, such as use of tax stamps, coordination with industry and more holistic enforcement measures. Several case studies, using data from an international consultancy that has researched the illicit market, illustrate the themes of the article. The authors call for additional research in the academic community to further define the causal relationship between tax, affordability, and the size of the illicit market and to tailor enforcement strategies that address specific aspects of the illicit market in particular countries. The serious health risks associated with illicit alcohol consumption make such research a necessary and complementary component of WHO efforts to advance public health.

Keywords: Alcohol taxation, customs, excise rates, illicit alcohol, illicit trade, smuggling, tax stamps

1. Introduction: context for the WHO guidance on alcohol taxation

As part of its growing emphasis on non-communicable diseases, the WHO's 2017 guidance on taxation and its *Resource tool on alcohol taxation and pricing policies* (WHO, 2017) have been influential in driving both academic literature on alcohol taxation and, to some degree, the taxation agenda, particularly in developing countries. For instance, one article in support of the policy (Chisholm et al., 2018) argues that higher taxes remain a 'best buy' for countries as a part of alcohol control strategies and represents a 'highly cost-effective use of resources'.

For the purposes of this paper, illicit alcohol is defined as any taxable alcoholic beverages on which the lawful duties and taxes due have not been paid (WHO uses the broader term of 'unrecorded' alcohol [WHO, 2017], which includes legal home brewing and community alcohol). Generally, illicit alcohol enters a market through 'diversion' from a lawful supply chain, produced outside the licensed regime,

is ‘under-invoiced’ or records understate the tax liability, ‘smuggled’ across a border, or acts as a ‘surrogate’ in which alcohol illegally made or made for a non-beverage purpose is packaged and sold as a beverage – sometimes illegally and dangerously packaged as a known alcohol brand.

However, the WHO analysis and a review of current events in terms of alcohol tax policy and administration does not adequately address the critical distinction between the licit and the illicit market nor elaborate directly on strategies for combating the illicit market, even though the illicit market leads to serious public health harms. While the WHO’s strategy (WHO, 2010) is specifically termed a ‘Global strategy to reduce the harmful use of alcohol’, many features of the legal market serve specifically to mitigate or prevent public health harms. Instead, WHO proposes that ‘An updated list of the most effective and complementary policy options recommends increasing excise taxes on alcoholic beverages as one of the most cost-effective interventions governments can use’ (WHO, 2017, p. v).

Complementary to the WHO’s concern for public health harms resulting from alcohol, this article considers several drivers of the illicit alcohol trade, a key concern of customs and fiscal officials worldwide, particularly in developing nations, as that trade causes both public health harms by its very nature and serious fiscal shortfalls that governments could use to improve public health. In the legal market, tax is often a large component of price, and tax increases are passed on to consumers. Since tax is not a variable for illicit suppliers, this paper suggests that high rates of tax divert trade to the illicit market, and in this sense the affordability concept is consistent with the WHO’s view that ‘The price of alcohol is the main factor influencing alcohol consumption and its related harms’ (WHO, 2017, p. 6).

While the WHO’s Resource tool (2017) cites several studies regarding price elasticity and consumption of alcohol, in the authors’ view it focuses too much on the link between tax elasticity and price elasticity and too little on the link between increases in the rate of taxation and shifts to the illicit market. Mixing price elasticity and tax elasticity runs the risk of presenting an incomplete picture of the market and missing the impact of the illicit market on public health harms. This could lead to overemphasising absolute levels of taxation in achieving public health goals.

The authors also agree that price is the main driver of the illicit alcohol market. But the analysis only begins, not ends, with taxation. Our position is that the absolute level of taxation (combined with consumers’ ability to pay tax) contributes significantly to the presence and extent of an illicit alcohol market when it makes the illicit market more affordable. This paper argues as well that sharp increases in tax as opposed to phased, multi-year tax increases can have a particularly strong impact on driving the illicit trade. Finally, the authors assert that an appropriate rate of excise tax should take into consideration average wages and/or purchasing power, the country’s overall fiscal position, and the rates of excise in neighbouring countries.

Still, some aspects of the WHO Resource tool (2017) point towards a more comprehensive understanding of the total market for alcohol. Cnossen’s insight (Cnossen, 2010), that externality correction is among the principal objectives of excise taxation, should be reflected in countries’ deliberations on how their taxation policies affect the illicit market. However, the authors disagree with the implied conclusion from that paper that (legal) alcoholic beverages have few substitutes. Case studies show that the presence of the illicit market – and the ease with which many consumers switch to it based on considerations of price – or, more recently, as will be illustrated below during pandemic-related prohibitions, illicit substitutes, are both easily available and often attractive to consumers despite the dangers. In other instances, consumers are not even aware that they have been offered illicit products, as they are often provided in the same packaging as licit products; the hospitality sector and markets can be misled as a result (Euromonitor International, 2018; Neufeld et al., 2019; Maroney, 2020). Any discussion of substitution must therefore include the illicit market to take full account of public health harms and fiscal loss to governments.

Indeed, the *Resource tool* notes that ‘As alcohol taxation increases, the amount of unrecorded alcohol consumption tends to increase, thereby reducing the effectiveness of alcohol taxation and pricing strategies’ (WHO, 2017, p. 18). Thus, when implementing strategies, governments should also consider policies that aim to reduce the unrecorded consumption of alcohol. This includes, in our view, not only greater enforcement of national laws but also changes to taxation policies that push consumers towards the illicit market.

Further, the authors agree that ‘Unrecorded alcohol consumption has been shown to reduce the effectiveness of alcohol taxation and pricing strategies’ (WHO, 2017, p. 17) and that increased enforcement is a necessary priority for many countries.

Notably, the *Resource tool* (WHO, 2017, p. 60) acknowledges that:

High tax increases may provide financial incentives for under-invoicing, misdeclaration of the quantity or description of the product, smuggling, and illicit production, particularly when tax laws and enforcement are weak, penalties are small, and if the prosecution of smugglers takes time. Both tax revenues and consumption are impacted by the presence of an illicit market, and the impact is greater if this market is substantial.

But this raises serious questions about the cost-effectiveness of tax increases alone in combating harms from alcohol, as so many public health harms occur from the illicit market.

Similarly, the authors agree with the *Resource tool* on the important point that ‘Tax administration should be effective and efficient’ (WHO, 2017, p. xii). Effective tax administration requires a high level of compliance by taxpayers, whereas efficient tax administration requires low administrative costs in relation to revenue collected.

Effective and efficient tax administration requires technical capacity by the administrative agency and a well-designed tax system. A well-designed excise tax policy exhibits transparency and is easily defined; increased efficiency can be achieved by reducing administrative costs.

However, the authors add that beyond rate levels, tax *systems* should also be designed so as not to affect particular sectors of the market disproportionately, particularly for sectors that account for only a small part of the illicit market in any country. Technical capacity includes verification or compliance with health or other regulatory standards directly or indirectly. In practice, if the size of the illicit market is small or if the components of that illicit market are not properly understood, a mechanism such as tax stamps would not offer an appropriately targeted solution based on the specific problem.

Beyond the headlines, then, the *Resource tool* (WHO, 2017) offers much additional material for reflection. In short, the authors believe government policies on alcohol and taxation should account for the illicit market – and that this will save lives in countries around the world.

2. The impact of the illicit market

2.1. The global scope of the problem

Studies have attempted to estimate the scope of the global illicit alcohol market, notably Euromonitor International (2018). The broad conclusion is that the illicit alcohol market is quite large, though with variations in both size and scope (the composition of the market) among countries, and now accounts for a significant percentage of alcohol consumption worldwide. Euromonitor estimated that roughly one in four alcohol bottles is illicit, representing 25.8 per cent of all global consumption (Euromonitor International, 2018). The WHO expected ‘unrecorded consumption’ to rise to 27.7 per cent by 2025

(WHO, 2018, p. 58). In the 2018 Euromonitor study, spirits accounted for the bulk (81%) of the illicit market, due to generally higher prices for spirits (and thus higher profits from illicit sales), as well as opportunities for bottle refilling and counterfeit labelling, which are less profitable for other types of alcohol. Beer accounts for about 10 per cent of the illicit market.

There is also a link between what is often known as ‘surrogate’ alcohol, counterfeited alcohol and health risks from methanol poisoning. Manning and Kowalska (2021) have mapped poisoning directly attributed to illicit alcohol in several countries between 2015 and 2020 and identify over 750 reported deaths and over 4,300 reported hospitalisations in those countries. Some of this alcohol is denatured to make it unpalatable as a beverage; in some cases the denaturant itself is alcoholic, and both these products are entering markets packaged as beverages, including branded beverages, ‘tax free’, at considerable health risk (Organisation for Economic Co-operation and Development [OECD], 2016).

Additionally, the illicit alcohol market deprives governments of much-needed revenues, erodes the rule of law, and leads to severe public health consequences. Public policy, including an overly complex regulatory environment and weak or non-existent enforcement, can unintentionally stimulate the market, as can poorly monitored distribution channels (for instance, for illegal importation of ethanol).

Along with this comes enormous fiscal losses from tax evasion through illicit trade. The European Union (EU) reports a loss of EUR1.2 billion (USD1.328 billion) in total government revenues due to tax evasion associated with illicit trade in alcohol (European Union Intellectual Property Office [EUIPO], 2016), which is a staggering amount given that the percentage of illicit trade in the EU market is far lower than in emerging markets. In many countries, the illicit trader is not the ‘moonshiner’ of popular imagination but rather an organised criminal business evading the law, selling products that are clearly unsafe and unregulated and deliberately escaping revenue that is rightfully due to governments.

Nations impose taxes and fees on alcohol through a variety of policies, some more complex than others, to meet national objectives around consumption, revenue and other objectives such as promotion of the agriculture, tourism and hospitality industries. Generally, however, most countries impose excise taxes on volume, the quantity of alcohol in a particular product, or on price, which can affect leakage to other markets and therefore should be controlled. Differential tax regimes do exist – for instance, to support small producers and local products and to encourage consumption of beverages with lower alcohol content. Alcohol tax policy is also considered in terms of the size and pace of rate increases with ‘sudden’ large ad hoc rate increases seen as potentially a greater risk than those alcohol tax policies in which rate increases are applied in a consistent manner, such as tax rates linked to economic indicators such as the Consumer Price Index (CPI).¹

Other factors also affect the illicit market, including the prevalence of traditional artisanal beverages not registered with tax authorities and which in some cases can be permitted in the same manner as ‘home brew’, the lower prices often available in the illicit market (particularly for products such as spirits with high alcohol content), and the ease of availability of often ‘tax free’ ethanol (potable or denatured) which is used for industrial purposes but which can readily be used as ‘surrogate’ alcohol or as counterfeit beverages.

2.2. The COVID-19 pandemic and the illicit alcohol market

In several countries, policies responding to the COVID-19 pandemic may have influenced (and in some cases inadvertently promoted) the illicit alcohol market. Restrictions on trading hours, the types of stores that could remain open as essential businesses, and in some cases outright prohibition or severe taxation of alcohol contributed to rises in the illicit market as purchasers sought alcohol by other means, frequently with tragic consequences.

In India, the National Capital Territory of Delhi imposed a ‘special corona fee’ of 70 per cent on alcohol sales during the pandemic (Times of India, 2020a). At that time, the state government was faced with a sharp rise in expenses relating to the coronavirus pandemic, when sales of all items fell during the lockdown. But singling out one industry for disproportionate treatment also carries serious risks. After an initial rise in sales due to pent-up demand, alcohol sales in the state saw a steep decline after the increase. Delhi consumers boosted their purchases of alcohol from neighbouring states where taxes were lower, and illicit liquor traffic increased in Delhi. This kind of sharp increase in tax and therefore price, for which both consumers and industry are unprepared, runs the risk of encouraging the illicit trade while discouraging legitimate purchases, with costs to both Delhi’s fiscal position and public health. Delhi was both the first Indian state to impose a ‘corona cess’ (surcharge) and the first to remove it.

2.3. Taxation and the legal industry

In countries where production and consumption of alcohol beverages is legal, this industry operates in a highly regulated environment designed to ensure its safe production and safe consumption (for instance, manufacturing and selling licences must be obtained, and legal purchasing age laws exist for consumption). Industry also bears many of the costs of compliance with that regulation. This influences the total consumer price for alcoholic beverages. Appropriate and fair levels of taxation contribute to an effective regulatory scheme, keeping related administrative costs low, and fill state coffers for public health, education, and other necessary functions of government.

The legal industry has a right to insist that governments consider factors such as sustainability of the industry, equity and transparency in alcohol tax policy design. Alcohol tax increases should not be used to discriminate and should be applied with consistency and without surprise and should be set after understanding the impact upon the market. Supporting alcohol tax policy, particularly any significant tax rate increases, should be an investment in increasing law enforcement capacities to mitigate a certain portion of revenue loss. One major objective of alcohol tax policy and enforcement is to reduce the price differentials between legal and illicit products and thereby lessen the incentives for criminals to engage in illicit alcohol production and trafficking, with its tragic consequences.

As noted above, attempts to estimate the global illicit market are inexact because of a lack of reliable information. For this paper, data from Euromonitor International – a market research consultancy that has specialised in estimates of illicit trade in various goods in 45 countries around the world – are useful in providing both research into the several categories that comprise illicit alcohol trade (e.g., adulterated product, counterfeit, tax leakage, unregulated artisanal) and strong estimates of fiscal loss, thus encouraging policymakers to act on recommendations to reduce the illicit market.

A series of case studies below examines the possible link between high levels of tax (or actual prohibition) and incidence of illicit trade, which leads so often to public health harms.

3. Country case studies: illicit alcohol penetration and responses

3.1. Dominican Republic

The Dominican Republic (DR) suffers the highest prevalence of the illicit market in Latin America (Euromonitor International, 2020; International Alliance for Responsible Drinking [IARD], 2018). One in three bottles is in some way part of the illicit market (Mejia, 2021) which is destabilising for the legitimate market. The DR is a developing nation with a tax system that includes an ad valorem (10%) tax based on the retail consumer price combined with an alcohol by volume (ABV) content-based ‘impuesto selectivo al consumo’ (‘selective consumption’ tax or ‘excise type’ tax) at USD12 per litre of absolute alcohol.

Further, the DR imposed a very high increase in rates in a short period of time. A tax reform in 2013 increased the ad valorem tax rate by 33 per cent from 2012 – a ‘tax shock’ that had and continues to potentially contribute to the current high levels of illicit market shares of spirits and beer. The authors argue that a better policy approach would have been for the Dominican Government to communicate proposed excise tax hikes in advance and transparently, to assist the legal market in adjusting to a gradual rise and help ensure that products remain affordable to reduce the risk of diversion to the illicit market.

In 2016, the total illicit alcohol market was 141,052 HL LAE (hectolitres of pure alcohol), the majority of which was illicit spirits (Euromonitor International, 2017). In that year, this was approximately 30.8 per cent of the total alcohol market, among the highest in Latin America (with a regional average that year of 20.2 per cent). This illicit market had a value of USD548 million and represented a fiscal loss to the government of USD262 million (Euromonitor 2020; IARD, 2018).

Alcohol taxation, and excise taxes more generally, are important to the revenue of the Dominican Government, both through excise and ad valorem taxes, not least from the tourism industry. Government revenues (Dominican Today, 2020), fell 14.3 per cent in the first half of 2020. Given the importance of liquor duty to the government, anything that harms excise revenue – notably, the illicit alcohol trade – reduces monies available for education, public health, and other essential government functions.

Sadly, reports of deaths, often around major holidays, from consuming illicit, often adulterated, liquor are common. Curfews and other COVID-19 restrictions on the hospitality sector may have inadvertently contributed to this problem in 2020–2021. There were at least 166 deaths in the first half of 2021, in addition to more than 330 in 2020 (Witt, 2021a). Excessive levels of tax encourages illicit production and black markets, with tragic consequences. As former Dominican Minister of Health Rafael Sánchez Cárdenas has said, ‘Clerén [illicit alcohol] has a [death] rate much, much higher than Covid-19 – 63.2% at one point during the pandemic’ (Witt, 2021a).

The Dominican Government has started on a path to counter the illicit market. It has empowered a multisectoral committee to combat illicit trade, and its Decree 275-21 seeks better control of importation and commercial use of products used to make alcoholic beverages, to reduce the risk of diversion to the illicit market. But much more remains to be done. In particular, the government is strengthening controls on the distribution chain, charting the path from production to consumption, and undertaking a strategic consumer education campaign warning of the dangers of illicit consumption. Overall, the DR example suggests it is possible that high rates of tax do not deter consumption; in fact, they push people towards the more dangerous illicit market, increasing public health harms. However, the government demonstrated its willingness to fight illicit alcohol by signing Decree 55-21, which established an enforcement agency to fight illicit trade of regulated products. This Decree represented the culmination of years of discussions on the lack of a concerted effort to fight illicit trade.

While the Dominican Customs and Tax Collection Agency began working together in 2016 on efforts to stop the illicit trade and have had some impact, much work remains. Imports of contraband, both raw ethanol and finished products, contribute significantly to the trade, including counterfeit products. Somewhat unusually, Euromonitor found that prices between the licit and illicit markets did not vary at that time – leading to a situation in which there was fiscal loss but no corresponding economic benefit for consumers (and significant risk from contraband products) and reaffirming the urgent need for a broad consumer education campaign on the dangers of the illicit market. Limited or weak customs and licensing enforcement as well as the potential for high profit helps drive this trade. A combination of tax reform and enhanced enforcement, including stronger criminal penalties, is needed to address illicit trade systemically.

3.2. Case study: Colombia

Colombia is another example of a country in which social acceptance of consumption of illicit alcohol (Euromonitor 2020; IARD 2018) has led to a thriving illicit market, despite the health risks to consumers. Sharp price differentials between the licit and illicit market drive this social acceptance and consumption.

Approximately 22.8 per cent of the total market is illicit, with a value of USD1.504 billion and constituting 366,361 million HL LAE, for a USD678 million fiscal loss. From 2017 to 2019, the consumption of illicit alcohol rose approximately 2.9 per cent in volume LAE (Euromonitor International 2020). This was driven primarily by an increase in retail prices, causing an increase in fiscal loss of 4.8 per cent between 2017–2019. During the COVID-19 restrictions in 2020, the share of the illicit market temporarily rose to near 40 per cent, supported by the growth of marketing illicit products through social media and other digital channels (Transnational Alliance to Combat Illicit Trade [TRACIT], 2021).

The nature of the illicit market varies widely among countries, based on many factors including geography (the ease of smuggling), levels of tax and other enforcement, importation of ethanol, and the size of largely unregulated artisanal markets. In Colombia, the largest share (53 per cent) is adulterated alcohol, nearly 28 per cent is contraband (much arriving via Venezuela and the Caribbean), nearly 10 per cent is alcohol not intended for human consumption, 5.4 per cent is artisanal production, and 4.1 per cent simply evades production taxes (Euromonitor International, 2020). Each causes fiscal loss assuming that consumption would otherwise take place in the legal market; nearly two-thirds of the illicit market is made up of alcohol that risks direct public health harms from consumption (more if one includes potentially risky artisanal products).

According to Euromonitor's surveys, price is a key driver of the illicit market, in both directions. The devaluation of the Colombian peso played a role in controlling contraband. Overall, consumption of illicit alcohol rose 27 per cent from 2011–2019, though there was a drop between 2014 and 2015 from 371,527 to 347,501 HL LAE. The value of the total illicit market rose 44 per cent in that period, leading to a 45 per cent increase in fiscal loss. Euromonitor estimated the total price gap at about 9.9 per cent in 2019, though the price gap for the contraband sector was approximately 24.4 per cent. As in many countries, spirits (particularly whiskey, in Colombia's case) had the highest price gap, and beer the lowest. Beer accounts for only 1 per cent of the illicit market (3,217.5 HL LAE), with USD2.7 million fiscal loss.

At the other end of the scale, adulterated alcohol accounts for 53 per cent of volume in the illicit market and 65.6 per cent of fiscal loss. Much of this results from importation of potable ethanol; 73.6 per cent of ethanol used for adulteration is imported legally into Colombia.

Tax remained relatively stable in the 2017–2019 period, at USD18.2–18.5 per LAE during 2019. As prices for alcohol fell in 2014–2015, including the price gap between licit and illicit product, so did consumption in the illicit market (Euromonitor International, 2020).

Tax evasion, in particular by declaring less alcohol content in their products than actually exists, rose 41 per cent from 2011–2019, with an 11.5 per cent rise in 2017–2019 alone. This caused USD32 million of fiscal loss.

In Colombia's work against the illicit market, beer, although it represents only 7.9 per cent of the legal market, has been a success story: illicit beer consumption fell 52 per cent between 2011 and 2019 because of significant diminution of the contraband market – which represented 78.2 per cent of the illicit beer market in 2014 but only 37.2 per cent in 2019, for a total reduction of nearly 50 per cent.

Another key policy is to promote denaturation of potable ethanol to reduce the risk of diversion to illicit alcohol consumption and thus reduce public health harms. Reforms to the ‘Ley de Licores’ (liquor law) to further restrict the use of ethanol in illicit activities, particularly adulteration, would assist in combating the illicit market. Because imports of denatured ethanol were 2.0 per cent larger in 2019 than in 2017, there was no migration from denatured ethanol to drinkable ethanol (Euromonitor International, 2020).

Another powerful solution to help reduce the illicit market is electronic invoicing, a model pioneered in major Latin American markets such as Chile, Brazil, and Mexico, starting in 2003 (Barreix et al., 2018). For such a system to work well, it must both permit sufficient control by the tax authorities and also provide benefits to taxpaying corporations to encourage adoption.

Colombia took first steps in this direction through Article 37 of Law 223 of 1995, granting authority to the national government to regulate electronic invoicing, followed by Regulatory Decree No. 1094 of 1996, Law 527 of 1999 (concerning electronic certifications and e-signature), Law 962 of 2005 (extending the scope of electronic invoicing), and Regulatory Decree No. 1929 of May 2007. But the system would work better if DIAN (the Colombian revenue authority) adopted a new model, including standard forms for invoicing, validating authenticity (including use of QR codes), and acknowledgment of receipt.

3.3. Case study: South Africa

South Africa is another example of a jurisdiction that imposed severe restrictions on alcohol sales as a measure designed to address the COVID-19 pandemic. As Euromonitor (Euromonitor Consulting, 2021) reports,

The dry sales ban resulted in an increase in the demand for illicit alcohol, further incentivizing syndicates to take advantage of the depressed legal market for profit making. Indirect consequences saw a rise in homebrew consumption-related deaths as well as an increase in criminal activities. Lack of punitive measures and enforcement further encouraged illicit activity.

Further, the ban pushed consumers into the ‘home brew’ market, with supermarkets reporting a 900 per cent increase in pineapple sales; indeed supermarkets began selling pineapples packaged with yeast for the home brew of traditional ‘pineapple beer’ (TRACIT, 2021).

Even before the ban, the illicit alcohol trade in South Africa was near global standards, at 665,431 HL LAE or 22 per cent of the total market in 2020, having grown by a 10 per cent compound annual growth rate between 2017 and 2020 (Euromonitor Consulting, 2021), with a value of R20.5 billion (USD1.252 billion) and an estimated fiscal loss of R11.3 billion (USD690.4 million). However, this is considerably lower than the 40 per cent average for African countries (Euromonitor International, 2018; IARD, 2018). The illicit market in South Africa is characterised by high rates of smuggling and under-declarations of imports. Counterfeiting (23%) and illicit homebrew (24%) also play significant roles.

The ban raised prices for alcohol, as there was no way to purchase alcohol legally during that time, and also encouraged the growth of the illicit market given the expectation of strong profits, as illicit traders could control both the supply and the price. Once the ban was lifted, illicit traders resorted to undercutting licit market prices outside of the legal sales ban by 43 per cent to retain demand and beat competition (Euromonitor Consulting, 2021). Such actions reinforce the fiscal loss already experienced because of the ban – revenues that could have been used to fight the pandemic. Increased homebrewing (as well as counterfeit or adulterated alcohol) also raised the potential for serious health harms.

Notably, the ban also changed the direction of South Africa's fiscal policies related to alcohol. The South African Treasury had previously determined to limit the rise in alcohol excise tax to the rate of inflation. Following increases in excise duty in 2019 (SA News, 2019) and of between 4.4 per cent and 7.5 per cent again in 2020, the Treasury noted (SA News, 2020) that 'The excise burdens for most types of alcoholic beverages... currently exceed the targeted level as a result of above-inflation increases and price fluctuations.' Because inflation is now lower as the economy has slowed, increases in excise duty led to increases effectively above the rate of inflation and thus above the policy target. The policy of limiting excise tax rises to the inflation rate helps avoid diversions to the illicit market, which grew during the pandemic-related prohibition.

As the South African Revenue Service (2021) notes:

The primary function [of excise duties] is to ensure a constant stream of revenue for the State, with a secondary function of discouraging consumption of certain harmful products; i.e. harmful to human health or to the environment.

From this perspective, it is clear that only lower rates of tax meet the goal of providing "a constant stream of revenue for the State" by discouraging consumption of harmful illicit (and thus untaxed) alcohol.

More broadly, South Africa's efforts to combat illicit trade in alcohol have been hampered by a lack of enforcement of current regulations and relatively light penalties (Euromonitor Consulting, 2021). Pandemic-related prohibition has only made the problem worse. It will require redoubled efforts for the government to seize the initiative and deter migration to the illicit market.

3.4. Malaysia

Malaysia has the second highest beer excise duty rate globally behind Norway (Confederation of Malaysian Brewers Berhad [CMBB], 2022), which makes contraband attractive, with estimated illicit sales of beer between 70 per cent and 80 per cent of the market in the Malaysian states of Sabah and Sarawak and up to 14 per cent of beer sales in Peninsular Malaysia (Wong, 2020). The CMBB also indicates that the main concern is diversion of product which is tax suspended as either exports or sale to the duty-free island of Labuan, as well as some smuggling from Indonesia, Thailand and the Philippines.

There is less known as to the extent of the illicit spirits market, but it is not at the size of beer, and this paper notes that 'compound hard liquor', the leading spirits category, is taxed at just over one-third the rate of beer, which may be a factor (CMBB, 2022). Illicit spirit does exist, however, with the Malaysian Ministry of Health identifying some 33 deaths from methanol poisoning in one period in September 2021, most attributed to migrant worker camps and the consumption of counterfeit liquor (New Straits Times, 2021).

Malaysia has seemingly turned to retailers, wholesalers and the public to assist with the response to the illicit alcohol market by offering a mobile phone app in support of its digital tax stamp system. All imported beer, and all locally produced wines and spirits, require tax stamps to be applied to the product that contain both a unique serial number and several encrypted data fields, which are registered and stored in a centralised system. For locally manufactured beer, a secure ink spray is used instead of the digital tax stamp.²

The system supplier to the Royal Malaysian Customs Department not only provided officers with handheld scanning devices³ to conduct ‘real time’ verification of products in the supply chain but also allowed for the technology to be downloaded as an app known as ‘*JKDM2u*’ for use by private citizens and liquor businesses also to confirm the tax status and authenticity of alcoholic beverages (with a supporting ‘hot line’).⁴ The Director-General of Royal Malaysian Customs made a statement that he expected the app, released in late 2018, to improve revenue collections by USD72 million in its first year of use.⁵

3.5. United Kingdom

A close examination of policies in the United Kingdom (UK) shows that coordinated strategies to reduce the illicit market can have significant impact.

A three-stage strategy (2005, 2010, and 2016) has increased the revenue protected from fiscal loss to over GBP1 billion a year, on relatively moderate investments including GBP17.6 million (USD27.206 million) for increasing the capability to investigate fraudulent businesses in 2010 and GBP47 million (USD72.652 million) in additional resources to introduce an alcohol control room and taskforce to strengthen the ability to intercept illicit alcohol (Her Majesty’s Revenue and Customs [HMRC], 2016).

HMRC established a Joint Alcohol Anti-Fraud Taskforce (JAAT) to increase collaboration with industry as well as with other UK and international enforcement agencies (JAAT, 2015). In 2014, the UK Government introduced new due diligence requirements for businesses to take reasonable steps to avoid fraud and secure wholesale and retail supply chains. Tightening terms for excise duty repayments also helped reduce fraud, cutting claims by over GBP40 million (USD65.896 million) per year.

Principal lessons from the UK experience include benefiting from a relatively small taxpayer base of producers, warehouses, and importers; tax stamps on spirits; partnership with business, including memorandums of understanding on supply chain controls; effective monitoring of licensure; adoption of electronic tax payments; higher penalties to reinforce the significance of the offence; and, not least, political will across the public sector and a public awareness campaign. One initiative worthy of note was the introduction of the Alcohol Wholesale Registration Scheme (AWRS) in 2016, which effectively set up a ‘due diligence’ process for alcohol retailers requiring them to confirm AWRS registration of their suppliers and penalises those retailers who acquire from non-AWRS registered suppliers. Through these efforts, the UK was able to reduce the size of the illicit alcohol market overall (including beer, wine, cider, intermediate products, and spirits) from 12.1 per cent in 2014/15 to 9 per cent in 2019/20, including illicit beer sales, which were estimated at the ‘upper end’, near 25 per cent of the market, and spirits, which in combination with the tax stamps in 2006 has seen a fall from an upper end estimate of nearly 20 per cent (HMRC, 2021).

6. Analysis of the case studies and further research required

This paper suggests that significant increases in the level of taxation of excisable and highly taxed goods for which there are large differences in taxation among neighbouring countries (and nearby countries, for instance through maritime smuggling) increases the risk of fraud and smuggling. After reviewing several countries, there appears to be justification to further research a link between alcohol tax rates and the extent of the illicit alcohol market, even though other indicators also appear to be present, in particular the regulation of sales and the capability of both enforcement measures and of the customs and tax administration officials who enforce the relevant laws.

WHO estimates that approximately 25 per cent of all alcohol consumed as a beverage globally in 2016 (by consumers over 15 years of age) was ‘unrecorded’ (WHO, 2018). This has been used as a ‘threshold’ in analysing the case study countries, with the DR and Malaysia (beer) above this threshold,

South Africa and Colombia just below, and the UK down from near 25 per cent illicit markets for beer and 20 per cent for spirits (using HMRC's 'upper band' figures). It should also be noted that Colombia and the DR are well above the regional average unrecorded levels, which are 14 per cent of the alcohol market (WHO, 2018).

6.1. Levels of tax and fiscal strategies

The main point of this paper is to encourage further consideration of the impact of and on the illicit alcohol market in determining appropriate rates of tax. The example of Malaysia with its second highest level of beer excise taxation globally and the extent of the illicit beer market clearly suggests the strong possibility of a link between high rates of tax and illicit activity. However, what is required is a definition of 'high levels of tax' given that a range of economic factors such as 'income levels', product pricing, and 'affordability' could come into play. In short, consumers in some economies may be able to afford the tax component of the product more than others. Equally, what capability is there for the supply chain to 'absorb' tax or tax increases so that there is minimal impact on final pricing to the consumer?

The authors believe there should be research conducted into the extent of taxation in relation to product pricing in the context of the economic conditions of the country being studied. A USD10 per litre of alcohol tax rate may have little impact in a developed economy, but USD10 per litre could be a significant driver of illicit alcohol in a developing economy as consumers struggle to afford an alcoholic beverage.

Similarly, there may be value in studying the deployment of various alcohol tax policy strategies, particularly those which include the 'tax shock' or rapid tax increase in response to a consumption issue or a budget increase measure, looking at policy implementation in the context of the economic conditions of the country concerned and further comparing such policies with alternate approaches such as smaller tax rate rises or regular tax rises such as those linked to an economic factor such as the CPI.

The alcohol tax rates of excise in neighbouring countries, and countries' overall fiscal position can also be part of these considerations.

6.2. Reducing tax leakage

Tax leakage remains a problem in many countries. Steps such as electronic invoicing systems that link producers with customs and revenue authorities directly and securely, higher penalties for tax evasion, and greater fiscal controls in supply chains help solve the problem. Modern revenue controls with remote access to all production and bottling data, as well as audits complemented by unannounced physical checks address revenue leakage from unrecorded products of licensed producers. Partnership with industry can also help: legitimate businesses that pay all excise and product taxes are eager to find cost-effective ways of collecting this revenue – and to ensure that their competitors do not benefit from tax leakage.

6.3. Tax stamps

On traditional paper-based tax stamps, caution is recommended despite advances in areas such as enhanced security features. Digital tax stamp alternatives (smart stamps) may work better and help avoid risks of counterfeiting and price increases unjustified by increased revenue collection (Godden & Allen, 2017).

Tax stamps have both benefits and costs. They can, in some circumstances of high illicit trade, help identify contraband, particularly if producers and importers can source and adhere the stamps directly into their labelling, protecting government revenue, public health through deterring the illicit market, and brand identity for producers. To achieve these objectives, stamps should be provided at low cost rather than as a revenue stream in themselves. Otherwise, stamps impose an administrative burden on legitimate businesses beyond the existing need to pay value-added tax (VAT) and other taxes and can sometimes be copied, providing a false sense of both authenticity and the security and safety of the product. Of themselves, tax stamps do not benefit public health (other than by identifying some contraband).

It is important in this regard to remember the purpose of tax stamps is to reduce tax evasion and increase revenue by providing a physical confirmation of tax paid. However, tax stamps in a compliant sector do not increase revenues but make legal products more expensive. This is a counterproductive result, as the effectiveness of stamps depends on their ability to close the revenue gap between the licit and illicit markets – yet increasing the price of legal products widens the price gap and risks increasing diversion to the illicit market, exacerbating the problem tax stamps are intended to solve. This effect, the counterfeiting of stamps, and the failure of sustained revenue increases have been observed in markets as divergent as Turkey, Denmark (where the government abolished stamps in 2015), Colombia, and Morocco (Godden & Allen, 2017; Hatim, 2020; Euromonitor International, 2015).

Kenya's experience shows challenges with reliance on tax stamps. The Kenyan Revenue Authority (KRA) has adopted excise tax stamps (since 2013 the Excisable Goods Management System) in both digital and paper formats (Godden & Allen, 2017). The system was designed to ensure traceability of excisable products while increasing public revenue and reducing tax evasion.

The first goal, traceability, is achieved when production lines accurately transfer production data to KRA's servers – but that does not happen in real time, leading to inefficiencies in data processing. Further, in January 2019, authorities found counterfeit stamps on USD12 million of alcohol products (SafeProof, 2019). The presence of counterfeit stamps renders traceability impossible, even if manufacturers are successful in detecting counterfeit stamps. Because importers of excisable goods are registered and licensed with KRA, stringent customs border controls would be a more effective control of contraband products than excise stamps, which are in any case applied only once goods have entered Kenya.

Significant differences in excise taxes among countries in the East African Community cause price differentials that drive a market for contraband, again reinforcing the importance of customs enforcement over tax stamps. Further, because beer is not widely counterfeited in Kenya, the digital stamp added costs with little corresponding revenue effect or reduction in the illicit market for that product. A similar effect was observed in Morocco after 2012 when a tax stamp system increased the costs of production by 6–12 per cent, resulting in a 12–25 per cent increase in the price of legal beer. Sales fell about 9 per cent following the price increase, but smuggling of illicit beer did not fall (Godden & Allen 2017).

While digital stamps represent an attempt to use modern technology in goods tracking, the system is ineffective without strong customs enforcement, including surveillance of the supply chain and marketplace with tax stamp verification by officials. Further analysis is warranted as to the revenue gains from tax stamps or fiscal marking schemes versus the costs of running the programs, including the use of surveillance of the supply chain and marketplace with tax stamp verification in compliance programs.

6.4. Customs and other enforcement measures

As the above analysis shows, enforcement efforts by customs and other authorities are essential to combat the illicit market. Given the fiscal loss and costs to human health resulting from the illicit alcohol market, customs officials should pay closer attention to production and smuggling of illicit alcohol, to promote both higher revenues and positive public health outcomes. Governments facing large illicit alcohol markets may wish to increase penalties for crimes in this area, to address the risk/reward calculations of participating in the illicit market.

More basically, governments should also increase enforcement of existing national laws, including giving authorities sufficient powers (search, seizure, destruction) and penalties, including prison time for offenders, following the example of illegal drugs and narcotics, given the risks to human health. Cross-border cooperation will be necessary for markets where borders are porous, coastlines offer opportunities for smuggling, or excise tax rates differ sharply.

Of course, to do so, customs authorities need budgets and resources sufficient to the task, as well as enhanced training and use of intelligence tools and risk analysis. It is essential to understand the nature and extent of the illicit trade and then match remedies to the nature of the problem through a coordinated national enforcement strategy to target the methods, routes, and actors involved.

To address the informal and unregulated artisanal market, tax authorities may wish to consider awareness campaigns to address the health risks and encourage migration towards formalisation in the sector (beginning with amnesty and registration), offering incentives to unlicensed small-scale producers to register for consumer protection quality controls, including safety inspection.

Ethanol regulation and control, including making ethanol undrinkable through denaturing, is an effective way to address counterfeiting of spirits and adulteration. Customs officials will play a vital role in enforcing these regulations at the border.

Finally, the authors believe the World Customs Organization (WCO) should highlight the importance of the illicit alcohol market not only for state revenues but for public health. While national governments must take the lead in addressing the illicit market in their own countries, increased cross-border cooperation in areas of high smuggling or other diversion are appropriate.

More broadly, we call for further research in the academic community to illuminate the illicit market and further define the causal relationship between tax, affordability, and the size of the illicit market, as well as the relationships between various parts of the illicit market in particular countries. The numerous tragedies associated with illicit alcohol consumption in countries around the world show that such research, far from undermining the WHO's goals in reducing harms from alcohol consumption, is both a complementary and necessary component in achieving our common goal of advancing public health.

No country has yet succeeded in eliminating illicit trade in alcohol, though some have come close: the US has reduced illicit trade to around 2 per cent, while Panama stands at 2.2 per cent and Chile at 1.5 per cent of total consumption (Euromonitor International 2020). These successes are achieved through multi-pronged, multi-stakeholder efforts.

Proven steps exist that many countries have taken to combat the illicit alcohol trade. However, they require political will, and perhaps the best way to achieve that is for public health authorities and customs officials to work together rather than in separate spheres. Public education on the risk of consuming illicit alcohol is a necessary task and a good place to begin this cooperation where it does not yet exist.

Excessive alcohol taxation fuels crime and death and harms domestic industries whose taxes contribute to essential government services. Better, more calibrated policies on alcohol taxation that understand and target the illicit market reduce fiscal loss and, more importantly, avoid needless and preventable death and injury.

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Notes

- 1 See, for example, Australia, New Zealand or the United Kingdom.
- 2 See Royal Malaysia Customs Department Legislation & Guide (customs.gov.my).
- 3 SICPA Mobile 45.
- 4 See JKDM2u – Download (apps112.com) for details of the app and download options.
- 5 Director-General Subromaniam, 12 December 2018, press conference statement (MYR 0.24 to USD).

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