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Health Taxes in the Lao PDR



 Global Tax Program

Technical Note

February 2024

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This note was published in January 2024 by the World Bank Global Tax Program Health Taxes Project Team and the Lao PDR Health, Nutrition and Population Team as an input to dialogue on health taxes in Laos.

The work is a product of the staff of the World Bank with external contributions, and includes support from the Health Taxes Workstream under the Bank's Global Tax Program (GTP), which works with countries to strengthen domestic resource mobilization. The work was one activity under the Lao PDR Health Programmatic Advisory Services and Analytics: Building a Resilient Health for Universal Health Coverage (P175906) with generous funding from the Government of Japan through the Japan Policy and Human Resources Development Fund (PHRD).

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Key Messages

Health taxes are excise taxes imposed on products that have a negative public health impact (e.g. taxes on tobacco, alcohol, sugar-sweetened beverages (SSBs))¹. Sometimes referred to as sin taxes, they result in healthier populations and generate revenues for the budget even in challenging tax administration and low-capacity environments.² Increased interest from Ministries of Finance and Health across developing countries in health taxes signals this twin health and revenue imperative.

Excise taxation is one of the most cost-effective policy measures to reduce consumption of these products, while also raising meaningful revenue. On average, 0.6% & 0.3% of GDP are raised globally from tobacco and alcohol excise taxes respectively.³

In the Lao PDR, the tax system under collects revenue, artificially inflating the role of excise taxes.

Excise tax collection in Laos averaged 3 percent of GDP during 2010-19, a figure that declined significantly to 2.3 percent of GDP in 2020-22. This does not mean that excise tax rates are high in Laos. Rather, the relative contribution of excise seems artificially large because the broader tax system only collected 11 percent of GDP in tax revenue.

Tax reforms introduced on 1 January 2024, which focused on rate increases only, will generate negligible revenue: only 0.02% of GDP. However, adopting the recommendations in the attached note will net nearly 1% of GDP in the first year alone.

While health excise taxes can provide health and revenue gains for Laos, to realize gains, health excise tax structure needs to be addressed, in tandem with significant and regular rate increases. Tobacco, alcohol, and non-alcoholic beverages all employ ad valorem taxes on the Cost, Insurance and Freight (CIF)/producer price, which are considered a poor practice from both an economic and health perspective. Ad valorem tax invites tax evasion by under declaring the value of production or the value of CIF to reduce tax liability. Ad valorem tax also leads to larger price disparity across brands and that allows people to switch to a cheaper brand instead of quitting smoking. While the tax on cigarettes employs the ad valorem rate in the context of a mixed tax structure, the specific component is ignored by the tobacco industry, which limits revenue collection; the presence of tax tiers is also problematic. Following WHO recommendations, there is a clear global trend in countries moving from ad valorem to specific taxes on tobacco.

With a mixed tax structure, the excise tax should rely more on the specific tax than ad valorem tax to improve health and revenue gains; tiers need to be removed since they cannot be justified by differential harm caused by cigarettes with different cost of production. Changing the base of the ad valorem tax to retail prices will also improve tax administration since it is significantly easier to monitor and enforce.

The Investment License Agreement (ILA) on tobacco has impeded the effectiveness of tobacco tax collection in the Lao PDR. The exemptions and privileges in the ILA should end. A 25-year ILA was signed by the government in 2001 with the joint-venture cigarette manufacturer that prevents the government from collecting all applicable taxes. The tobacco industry pays the preferential reduced tax rate as specified in the ILA. The ILA is the primary reason for low cigarette prices, low tax revenue and the resulting health and economic harm. The government should end the exemptions and privileges in the ILA as soon as possible to ensure that the agreement, which is set to expire in 2026, does not renew.

¹The term health taxes almost always refers to excise taxes. Other indirect taxes like VAT (or sales taxes) are not health taxes since they do not change relative prices and reduce consumption through increased cessation, reduced initiation and intensity of use. Import tariffs are also not considered health taxes since they influence where something is produced rather than where it is consumed.

²This term has become unpopular since public health approaches focus on patterns of use at a population level, and more recently, on the social and commercial determinants of health, rather than individual behaviors.

³ See World Bank 2023 Health Tax Knowledge Note: [Unpacking the Empirics Behind Health Tax Revenue](#).

Health excise tax reform is in line with the National Socioeconomic Development Plan Financing Strategy and The National Agenda of the Government of the Lao PDR. Combined with ending the ILA tax privileges, proposed changes will bring nearly 1% of GDP in revenue in the first year alone. For all three product areas, tax structures should be reformed, and rates increased to move towards international best practice, including simpler structures and higher reliance on specific taxes. All specific tax rates need to be automatically adjusted for inflation and income growth to preserve real values.

Table A: Proposed health tax reforms

	Cigarettes	Alcohol	SSBs
Structure	Keep the existing mixed system	Change to uniform volumetric specific tax by alcohol types <i>Remove tiers based on alcohol content to simplify tax administration</i>	Change to uniform volumetric specific tax <i>Remove tiers between soft drinks and energy drinks</i>
Rate	Ad valorem - 72% (as of Jan 1 2024) Specific - 800 kip per pack (600 kip excise tax + 200 kip to TCF); increased by 800 kip annually, Tax stamp fee -500 kip per pack <i>plus adjust all specific components annually for inflation and income growth</i>	Start with beer at 9,000 kip per liter; Wine at 30,300 kip per liter; Spirits at 72,000 kip per liter. plus adjust annually for inflation and income growth	Start with 3,000 kip per liter; plus adjust annually for inflation and income growth
Base	Volume for the specific tax, producer price for ad valorem tax	Volume of beer, wine, and spirits	Volume of non-alcoholic beverages minus any unsweetened water

The proposed tax policy is conservative compared to lower-middle-income countries where, for example, the median excise tax per cigarette pack was 8,000 kip in 2020. The proposed excise tax on beer is the same as currently applied in Vietnam. For SSBs, the government should also ensure that the tax does not apply to unsweetened waters.

In the Lao PDR, the latest excise tax reform approved in 2023 and effective Jan 1, 2024 is projected to have almost no impact on smoking prevalence and minimal impact of cigarette tax revenue in real terms. Figures A and B show the amount of revenue anticipated. The 2023 alcohol and non-alcoholic beverage excise tax reform is projected to have a similarly low impact. However, the tax reforms proposed in this note would result in better public health due to lower smoking prevalence and reduced consumption of alcohol and sugary drinks. These would reduce health care expenditures and improve labor productivity, with most benefit enjoyed by the poor.

The proposed tax reforms would bring additional tax revenue of 2,532 billion kip, equivalent to 1% of GDP, within the first year.

Table B: Additional Excise Tax Revenue Expected from the Proposed Health Tax Reform

Category of products	Additional tax revenue (excise plus VAT)
Cigarettes	432 billion kip
Alcohol	1,788 billion kip
Sugar-sweetened beverages	312 billion kip

Further, while these reforms will improve the flow of resources to the Tobacco Control Fund (TCF), its operational inefficiencies and bottlenecks need to be resolved. A more in-depth diagnostic is required to consider how to move this forward. However, health taxes can provide additional revenue for health without earmarking and by way of increasing the size of the public budget, and in turn, allocations to the health sector.

Figure A: Expected cigarette tax revenue after 2023 tax reform

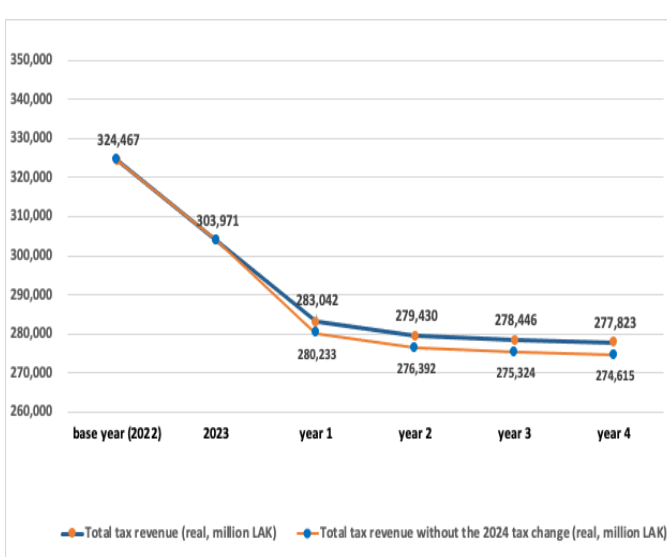
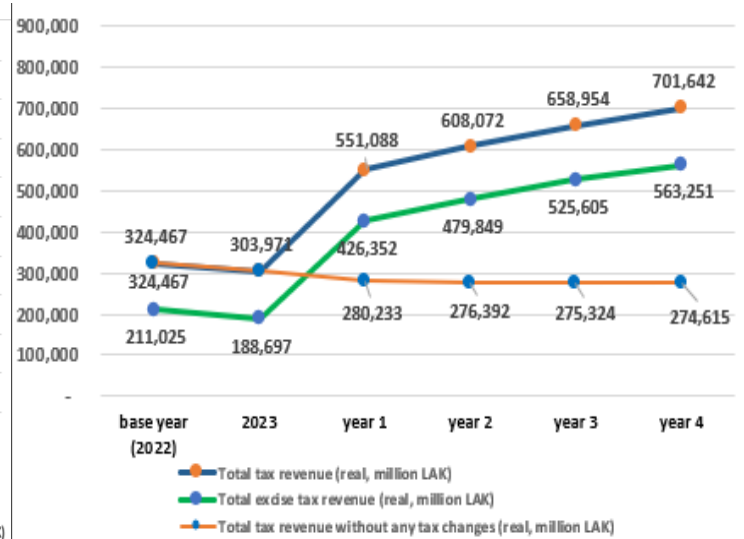


Figure B: Expected cigarette tax revenue from the proposed reform



Note: Based on World Bank calculations. Figures are inflation adjusted

Excise taxes need to be a part of an efficient tax system, including tax administration, otherwise tax policy goals will be undermined. The current tax administration in Laos is weak, especially when it comes to the cigarette market. Administrative capacity development will require a longer-term agenda, and may include targeted support to areas such as track and trace. Other actions to strengthen tax administration should also be considered, such as the use of technology to aid monitoring and enforcement, and licencing. In combination, the policy and administrative actions outlined above, in tandem with removal of the privileges in the ILA, would help to provide the health and revenue impact direly needed in Laos.

This technical note summarizes best practice and country examples in health excise tax reform. A forthcoming policy brief will break down the above reform proposal in more detail.

1. Introduction to Health Taxes

Like all taxes, one of the key roles of excise taxes is to generate tax revenues to fund the day-to-day operations of government. Unlike non-discriminatory consumption taxes like value added tax (VAT) that apply to most goods and services, excise taxes are discriminatory consumption taxes levied on a narrow range of both domestically produced and imported products. Historically, the primary purpose of excise taxes was revenue generation. In an era where direct taxes like income taxes were less common, indirect taxes – including excise taxes – were the primary source of tax revenue. Excise taxes were generally levied on goods that were strong revenue generators due to their relatively inelastic nature, but in many cases were also applied to luxury goods due to their inelastic demand and because they were most often consumed by a small number of consumers. Furthermore, excise taxes are relatively easy to collect since they are collected early in the supply chain.

As modern tax systems evolved – with greater emphasis on tax revenue generation from income taxes and VAT – the role of excise taxes evolved. While they are still efficient revenue generators, excise taxes now play an important role correcting negative *externalities* and *internalities*. Negative externalities are the uninternalized costs of consumption, or the harms that accrue to non-consumers. Applying an excise tax to correct for a negative externality is a Pigouvian tax – a well-established economic concept. Negative internalities are the costs that accrue to an individual that are not considered when making the decision to consume (see Box 1).

Excise taxes on tobacco, alcohol and SSBs are often referred to as “health taxes”.⁴ They are termed health taxes since their consumption harms health, and taxes that reduce their use can improve health. However, to differing extents all these products generate negative externalities or internalities and are strong candidates for government intervention, including taxes. Health taxes result in healthier populations and generate revenues even in difficult tax administration and low-capacity environments. They are unlike other indirect taxes like VAT, which are not able to correct for externalities or internalities since they do not change relative prices or reduce consumption through increased cessation, reduced initiation, and intensity of use. Import tariffs are also not considered appropriate in this context since they influence where something is produced rather than where consumed.

Box 1: Negative Externalities and Internalities

Unlike other indirect taxes the primary goal of health taxes is to correct market failures and reduce the consumption of products that generate negative externalities and internalities.

Externalities are uncompensated social costs that result from consumption, such as illness from second-hand smoke and damage from accidental fires (tobacco), vehicle accidents, violence, and crime (alcohol), and health costs not borne by the consumer, such as cross-subsidization from higher insurance premiums and higher public spending on health financed from general taxation (Lane, 2022). Levying excise taxes on these goods discourages their use, increasing overall social welfare. Tobacco and alcohol are found to generate large negative externalities making a convincing case for taxes.

Internalities are self-imposed costs that occur because consumers underweight the future consequences of present consumption, i.e., impatience or time-inconsistent preferences, or because of imperfect information relating to health and nutrition, in particular underestimating the extent of addiction that results from consumption, especially among youth (Lane, 2022). These occur since consumers may be misinformed, have insufficient or imperfect information, and often influenced by pervasive marketing distorting decision-making. Furthermore, they may not consider, or may discount future health consequences too heavily due to time-inconsistent preferences, habit strength and addictiveness.

SSBs do not generate large negative externalities, at least not to the same extent as alcohol and tobacco. However, the contemporary interest in SSB taxes has spurred an increased interest amongst behavioural economists in negative internalities, including amongst children. Gruber and Köszegi (2008) were one of the first empirical contributions that showed that health taxes should not focus only on externalities, but also internalities, estimating that tobacco taxes in the US needed to be nearly doubled to account for the internalities. Similarly, a growing body of evidence is making a convincing case to tax SSBs in order to correct for market failures arising from internalities, with an estimated socially optimal SSB tax in the US needing to be between 34 and 71 US cents per litre (Allcott et al., 2019a). SSB consumption was found to be higher among consumers who are less informed about nutrition and profess less self-control (Allcott and Taubinsky, 2015). For alcohol, these two types of costs seem to be more balanced even though there is a large variation across countries (Lane, 2022).

⁴ Sometimes referred to as “sin taxes”. This term has become unpopular since public health approaches focus on patterns of use at a population level, and recently, on social and commercial determinants of health, rather than individual behavior.

Negative externalities and internalities are not the same as “health harms”. For instance, a consumer might smoke, or drink alcohol or sugar-sweetened beverages (SSBs) because the enjoyment they gain may outweigh the health harms. However, what matters is whether their consumption imposes harms on others (externalities) or themselves that they do not correctly internalize (internalities). This economic framework is convincing and while externalities are well understood and by themselves justify taxes to correct market failures on alcohol and tobacco, the advancement in our understanding of internalities improved the case for alcohol and tobacco taxes and provided justification for SSB taxes. The main target of health taxes is tobacco, alcohol and SSBs due to their direct and sizable impact on public health. Their consumption contributes significantly to the rising burden of NCDs. Between 1990 and 2019, deaths from NCDs in low- and middle-income increased from an estimated 52 to 77 percent of all deaths, with particularly marked increases in Southeast Asia (GBD, 2019).

Mortality and morbidity in Lao PDR due to tobacco and alcohol use and diets high in SSB consumption are higher than peers in lower middle- income countries (LMICs) and for alcohol higher than in the Southeast Asian region. Using globally comparable data (GBD, 2019), consumption of these products contributes 21.5 percent of all deaths in Laos, higher than in the Southeast Asian region as a whole and in lower-middle-income countries. When considering disability adjusted life years lost (DALYs), they contribute 13.6 percent of all DALYs in Laos, again higher than in peer countries. The same trends are observed when considering the rate of death and DALYs lost per 100,000 people. The following figures show a summary of these data, with Figure 1 showing the rate of death and Figure 2 the rate of DALYs lost, due to tobacco and alcohol use and diets high in SSB consumption in 2019.

Figure 1: Deaths due to tobacco, alcohol and SSB use in Lao PDR and peer countries

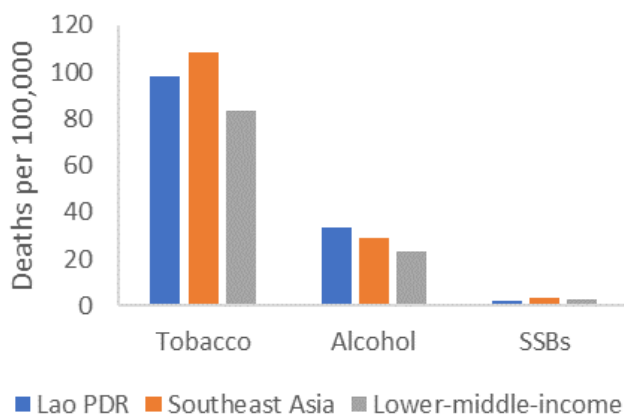
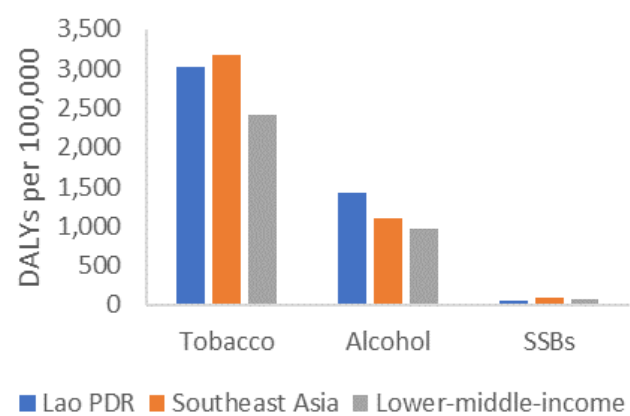


Figure 2: DALYs lost due to tobacco, alcohol and SSB use in Lao PDR and peer countries, 2019



Source: GBD (2019). This is modelling data based on limited country data

These results have significant human capital implications. Investing in human capital is foundational for inclusive growth. Many LMICs have significantly constrained fiscal space and must make tough trade-offs to invest in their human capital through expanded access to quality education and health services. Yet illness and premature deaths from NCDs are higher in LMICs, cutting people off from their peak productivity years and preventing countries and households from reaping the full returns on these investments. Health taxes can act as financial disincentives to harmful consumption patterns (World Bank, 2021).

Firstly, many of these deaths occur in the prime productive age. For example, a large portion of heart disease deaths among those aged between 40 and 64 are due to smoking, suggesting a reduction in economic productivity due to lost work years (NCI, 2016). The larger gap in DALYs lost due to alcohol use compared to tobacco use likely results from Laos’ relatively young population with many alcohol-related deaths and injuries occurring at younger ages than tobacco, leading to larger productivity losses, meaning larger potential gains from reducing alcohol use. Secondly, tobacco, alcohol and unhealthy diets generate significant economic costs, estimated to be close to 5 percent of global gross domestic product (GDP). In LMICs in Asia, productivity loss alone due to premature death and disability caused by tobacco, alcohol, and SSBs use amount to 2.1 percent of GDP. The cost of medical treatment and other social costs would further increase these costs (Lane, 2022). Tobacco demonstrates the

devastating economic impact of using these products. In 2017, tobacco use costs the Lao economy kip 3.6 trillion, equivalent to 2.3 percent of GDP (UNDP, 2021). The cost associated with alcohol use is about as high as the costs of tobacco use (Lane, 2022). The economic burden due to alcohol and tobacco use in Laos will likely continue to rise. As a country’s level of economic development increases, so do the economic costs, all else being held constant. For example, research shows that the economic cost of smoking in rises from 1.2 percent of GDP in low-income to 2.2 percent in high-income counties (HICs) (Goodchild et al., 2018), even though smoking prevalence is lower in HICs. This is because the cost of healthcare increases as countries gets richer since the demand for and quality of healthcare increases, increasing costs. An example of this in practice is China, where the economic cost of smoking rose from \$7.2 to \$28.9 billion between 2000 and 2008 even though tobacco use did not increase (Tobacco Atlas, 2009).

An additional consideration are the trends mortality and morbidity over time. The net result is that tobacco use increased from the fourth to the third highest risk factor for DALYs lost in Laos between 1990 and 2019, despite the significant decline in the rate of DALYs lost attributable to tobacco use during this time while alcohol use remained unchanged as the eighth highest risk factor. However, these declines are not occurring quickly enough. This highlights that the relative burden of tobacco and alcohol use is rising in Laos. This is attributable to the health transition that is occurring coinciding with the significant economic growth in recent decades. For example, significant gains have been made in water and sanitation, declining from the third to the twelfth most significant risk factor for DALYs lost during the same period.

Figure 3: DALYs lost due to tobacco use in Laos and peer countries, 1990-2019

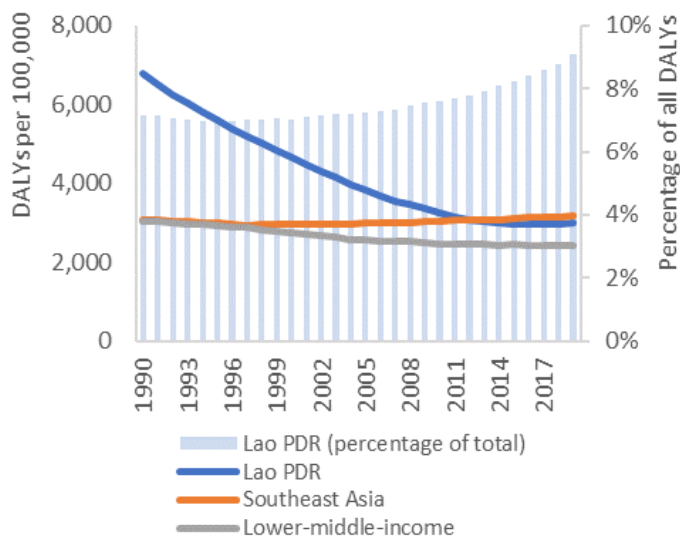


Figure 4: DALYs lost due to alcohol use in Laos and peer countries, 1990-2019

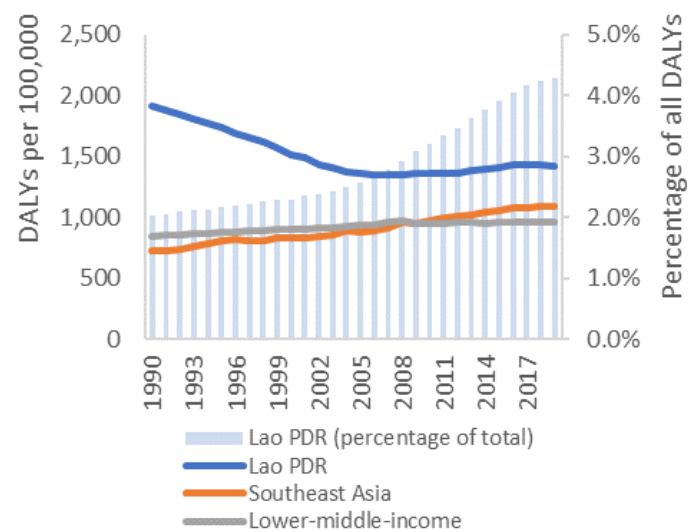
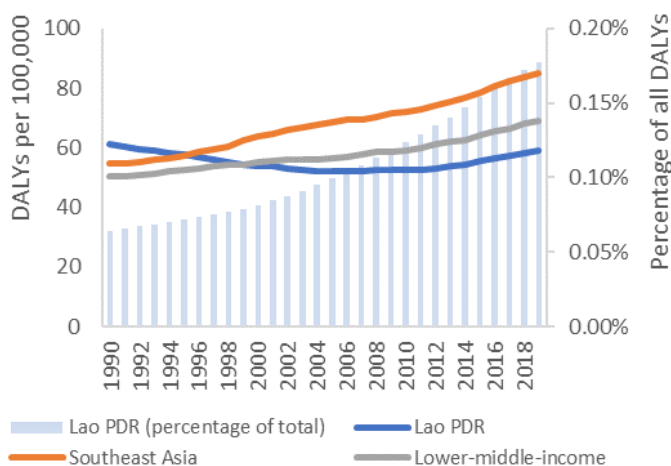


Figure 5: DALYs lost due to SSBs in Laos and peer countries, 1990-2019



Source: GBD (2019).

Figures 3-5 show the trends in the rate of DALYs lost in the Lao PDR and its peer countries from 1990 to 2019 due to tobacco, alcohol and SSBs, respectively. A feature of the figures is that they also show the contribution to all DALYs lost in Lao PDR over the same period (in the shaded bars behind the lines). While the DALYs lost attributable to tobacco use have declined sharply in Laos, the trend in other Southeast Asian countries has been flat and the trend in other lower-middle-income countries has seen much slower declines, albeit both from lower bases. While this trend is very encouraging, the contribution of tobacco use to all DALYs lost in Laos has been rising. DALYs lost attributable to alcohol use have also been falling, although this decline has stopped in the last 15 years with an uptick in recent years. Trends in peer countries also show an increasing rate of DALYs lost in recent years. Furthermore, the contribution to all DALYs lost has been rising even more sharply than tobacco. While diets high in SSBs are not a significant contributor to DALYs lost at present, the trends are flat in recent decades. Continued economic development will likely see this continue to rise rapidly in the coming years.

The net result is that tobacco use increased from the fourth to third highest risk factor for DALYs lost in Laos between 1990 and 2019, despite the significant decline in the rate of DALYs lost attributable to tobacco use during this time while alcohol use remained unchanged as the eighth highest risk factor. This highlights that the relative burden of tobacco and alcohol use is rising. This is attributable to the health transition that is occurring coinciding with the significant economic growth in recent decades. For example, significant gains have been made in water and sanitation, declining from the third to twelfth most significant risk factor for DALYs lost during the same period.

2. The Impact of Health Taxes

The empirical evidence on the effectiveness and cost-effectiveness of health taxes in reducing the negative externalities and internalities as well as reducing the associated health harms and raising tax revenues are well established for tobacco and alcohol and is emerging for SSBs (Chaloupka and Powell, 2018). Taxes themselves do not directly affect externalities, internalities, health, and revenues, but rely on a policy transmission mechanism that relies on well designed and implemented taxes that raise prices, that in turn reduce consumption and improve health – this is discussed in detail in sections 2.1, 2.2 and 2.3. The reduction in consumption is less than proportional to the increase in tax and price and ensures that even though consumption declines, tax revenues increase – this is discussed in detail in section 2.4. However, many LMICs tax these products far below their optimal level building a case for increasing health taxes to increase the magnitude of the impact (WHO, 2021a). In most cases, this is the result of poorly designed tax structures as well as low tax rates. The design of the tax is of critical importance, and section 3 considers the design of taxes, including tax structures and bases, in detail providing product specific recommendations and case studies. A poorly designed health tax will result in a failure of the policy transmission mechanism that will likely reduce or minimize the impact of health taxes or tax increases, limiting the impact on consumption, health and/or revenue, or even resulting in unintended consequences and poorer outcomes.

2.1. Impact of Taxes on Prices

Health taxes themselves do not affect behavior, but rather affect prices that in turn affect behavior. However, health taxes are the policy tools available to government to affect prices. The relationship between tax and price is primarily affected by the structure of the tax (including the type of tax, the tax base and where in the supply it is applied) as well as firm strategy and industry structure. This relationship is analyzed through the tax pass-through rate which refers to the extent of which the tax (or tax increase) is passed on by firms to consumers in terms of higher prices. In response to an increase in the tax rate, firms may increase the after-tax or net-of-tax price exactly equal to increase in the tax (full pass-through of the tax) or they may under-shift (i.e., the firm absorbs some of the tax increase itself) or over-shift (i.e. the firm increases the price by more than the tax increase). The degree to which manufacturers adjust their prices in response to a health tax increase will depend on several factors, including the market structure and level of competition, their market share, the amount of the tax increase, the

possibility for consumer to buy from other sources (e.g. cross border shopping), the product, the country setting, etc. Empirical evidence suggests that, in general, health tax increases are passed on to consumers via higher prices (Linegar and van Walbeek, 2018).

2.2. Impact of Price on Consumption

The price elasticity of demand for a product is defined as the percentage change in consumption that results from a one percent price increase, all else remaining constant. For example, if the price elasticity of demand is -0.4 it means that a ten percent increase in price will result in a four percent decrease in consumption of that product (NCI, 2016). The negative sign of the price elasticity means that the price and demand move in the opposite direction, reflecting the *law of demand*, a foundational principle of microeconomics.

Empirical studies show that the price elasticity of demand of tobacco in LMICs is about -0.4 to -0.5 (i.e. a ten percent price increases results in a four to five percent decline in consumption), -0.64 for alcohol products, -1.21 to -1.4 for SSBs (Lane, 2022). Recent evidence indicates that demand for tobacco products in LMICs is at least as responsive to price as demand in HICs, and likely more responsive. In the presence of addiction, long-term price elasticities are larger than short-term elasticities (Becker and Murphy, 1988; Gruber and Köszegi, 2001), meaning that most price elasticity estimates underestimate the long-run effectiveness. A recent study (Gertler et al., 2021) explicitly incorporates rational addiction and present bias to evaluate an SSB tax in Mexico, finding that the long-run price elasticity is approximately 50 percent larger than the short-run price elasticity.

Young people tend to be more responsive than adults to changes in tobacco product prices. This has been documented in numerous countries including from LMICs. Cigarette prices have a greater impact on regular smoking than on early experimentation with smoking. Smokers at earlier stages are smoking few cigarettes and are likely to rely on social sources for those cigarettes. As they progress toward regular smoking, they begin to buy their own cigarettes, become more aware of prices, and consequently become more sensitive to price (NCI, 2016).

Declines in consumption – described above – need to affect either increased cessation, lower intensity of use by continuing used or reduced initiation, or a combination of both. A review based on 116 studies from HICs, concluded that a price increase of tobacco products by 20 percent would reduce overall consumption of tobacco products by 10.4 percent, prevalence of adult tobacco uses by 3.6 percent, and initiation of tobacco use by young people by 8.6 percent (NCI, 2016). Few studies have looked at the impact of prices on cessation of tobacco use in LMICs. However, Ross et al. (2014) analyzed the impact of changes in cigarette excise taxes on smoking cessation rates with data from three neighboring Eastern European countries and estimated that a 10 percent increase in cigarette taxes increased the probability of smoking cessation among smokers by 1.6 to 2.3 percent.

Trends in Prices in Laos and Peer Countries

Cigarettes are a relatively homogeneous product; however, prices of cigarettes vary substantially within a country, varying by brand, retail environment and location. In addition to variation in prices within the market, the variation in prices over time is important since it is the change in price over time that affects consumption. Assessing the trends in prices over time is critically important in assessing the effectiveness of tax policy. Official data on cigarette prices in Lao PDR is not available, nor is data from independent providers. However, WHO collects prices of the most sold brand of cigarette in almost every country in the world every second year to track global progress. The price of the most sold brand of cigarette in Laos between 2008 and 2020 is shown in Figure 6 with the price decomposed into the various tax and non-tax components. The trend represents a single brand and observation rather than an average of the market and is expressed in real terms (constant 2020 prices). It shows an increase in real prices in 2014 in response to the Decree on Tobacco Control Fund that imposed specific tax of 200 kip per pack and two percent additional tax on the industry profit. The subsequently tax changes including an increase in the specific tax rate had limited impact on cigarette prices due to the Investment License Agreement (ILA) that grants the domestic industry preferential tax rates.

The WHO data also allows comparison of the price of cigarettes in Laos with prices in peer countries. Figure 8 shows the price of the most sold brand in each country in US dollars in the Asia-Pacific region in 2020, decomposed into the excise tax and net-of-excise and Figure 9 shows the same for all lower-middle-income countries. Countries are arranged from lowest to highest price. Laos has the second cheapest cigarettes out of 35 countries in the Asia-Pacific region, and third cheapest cigarettes out of 52 lower-middle-income countries, with the price per pack dramatically lower than in most countries. Clearly, excise taxes are the most significant determinant of prices and countries with higher prices almost always have higher excise taxes.

Figure 6: Price and affordability (right scale) of the most sold brand of cigarettes in Laos, 2008-20

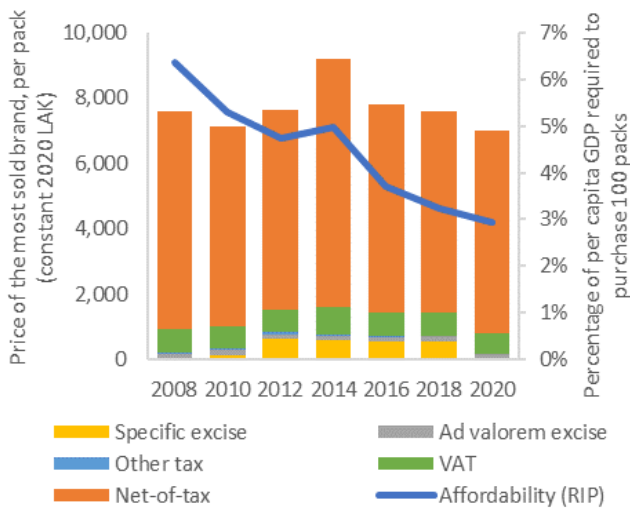


Figure 7: Prices of most sold brand of cigarettes in Asia-Pacific region, 2020

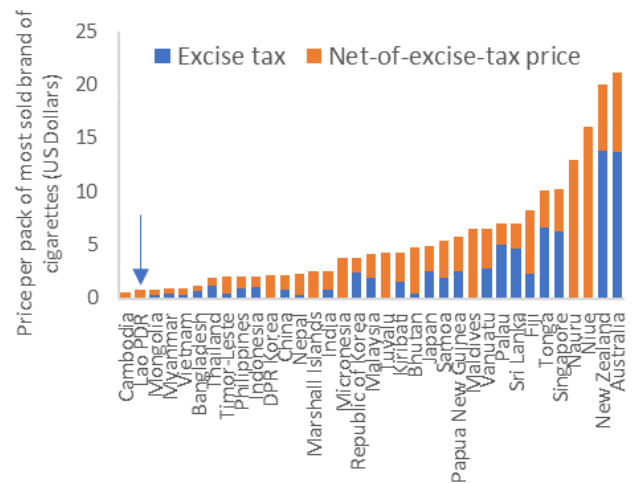
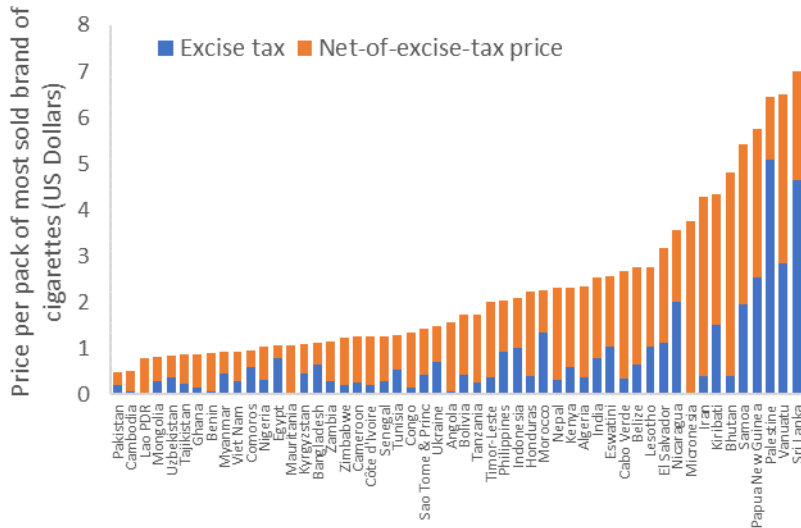


Figure 8: Prices of most sold brand of cigarettes in lower-middle-income countries, 2020



Source: WHO (2021)

2.2.1. Affordability

Retail prices are a key determinant of tobacco, alcohol and SSB consumption, and changes in the retail price induce changes in consumption. Consumption is also sensitive to changes in consumer incomes—the higher the income the more it is likely to be purchased. In most economies consumers respond to the interaction of prices and incomes. For example, if prices do not change (or change slowly), but income increases (or increases faster than prices), goods are becoming more affordable. This is a positive development for many goods and services since this implies an increased standard of living, however this is a negative development for goods and services that generate significant negative externalities and internalities. Since the early 2000s, many LMICs, particularly in Southeast Asia have experienced rapid economic growth during which excise taxes and prices of tobacco, alcohol and SSBs have not kept up with the growth in income. Given this rapid economic growth, increasing prices alone may not be sufficient to reduce the health-related harms and negative externalities and internalities.

Cigarettes in Laos have become dramatically more affordable in recent years. WHO data shows that that the most sold brand is nearly twice as affordable in 2020 than it was in 2010 (WHO, 2021a). Unfortunately, time series data for alcohol and SSBs were not available for similar analysis.

To effectively target negative externalities and internalities, and change behavior, health tax policy needs to reduce affordability over time. However, when incomes rise faster than prices, adjusting health taxes for inflation to maintain their real value is not sufficient to ensure that certain products do not become more affordable over time. It may therefore be necessary to link health taxes with income growth to ensure declining affordability.

Box 2: Affordability of cigarettes, alcohol and sugar-sweetened beverages

There are several ways of estimating trends in affordability over time. A popular method is the Relative Income Price, which measures the percentage of annual per capita GDP required to purchase 100 packs of cigarettes (or 100 liters of beer or SSBs). Figures 9-11 show the trends over time in affordability of cigarettes, beer and SSBs respectively, as measured by the Relative Income Price.

Since 1990, cigarettes have become less affordable in most HICs, yet more affordable in most LMICs, due to prices rising significantly more than incomes in HICs, whereas price increases lagged increases in incomes in LMICs, and in many cases, prices even declining in LMICs. However, there has been remarkable progress since 2010. Larger tax and price increases have resulted in cigarettes becoming less affordable in the majority of LMICs in the last decade, despite strong economic growth. This has been ascribed to improvements in tobacco tax policy, including several high-profile successes (Blecher, 2020). Trends in cigarette affordability have coincided with trends in sales volumes, falling by 38% in HICs between 2006 and 2019. Conversely, cigarette sales volumes rose by 4% in LMICs during the same period, however volumes have declined every year since 2014 (Euromonitor, 2020).

Affordability of alcohol (proxied by beer) and SSBs show vastly different trends. Between 1990 to 2016, alcohol and SSBs have become more affordable in most countries, both HICs and LMICs, although with larger magnitudes in LMICs than in HICs.

Trends in SSB affordability are concerning in that SSBs have become more affordable in almost every country in the world (Blecher et al., 2017; Blecher et al., 2018). While increases in affordability are largely attributable to strong economic growth, the results highlight the importance of tax policy as a public health measure given that increasing affordability is a key driver of increases in consumption of tobacco, alcohol and SSBs.

Figure 9: Average annual percentage change in affordability of cigarettes in 85 countries, 2010-18

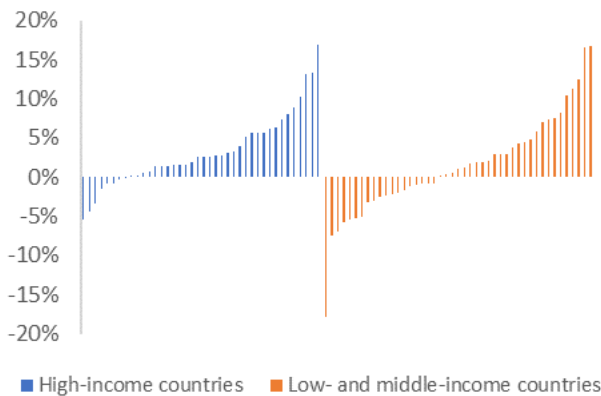


Figure 10: Average annual percentage change in affordability of beer in 80 countries, 1990-2016

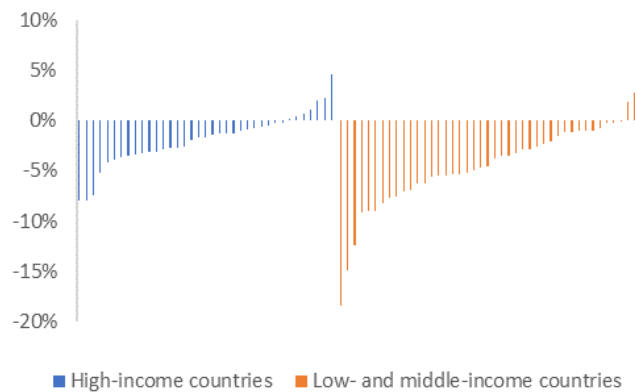
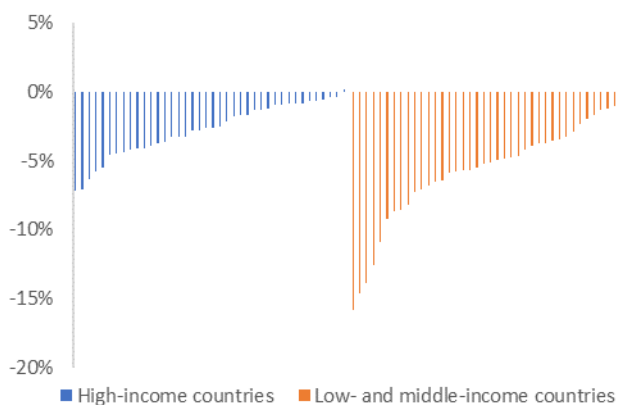


Figure 11: Average annual percentage change in affordability of SSBs in 82 countries, 1990- 2016



Note: A positive line means a decrease in affordability.

Country names have been removed for simplicity.

Source: Blecher (2020)

2.3. Impact on Health

Research evidence around the world demonstrates that health taxes are a highly effective policy instrument for improving population health and reducing risks associated with the use of unhealthy products. For example, higher tobacco taxes that increase prices lead to smoking cessation, inhibit smoking initiation, and motivate users to reduce consumption (NCI, 2016). Numerous studies show a quantitative relationship between length of smoking, smoking cessation, and the benefits of quitting smoking with mortality. The risk of death declines as the time since an individual quit smoking lengths, with the reductions in relative risk on heart disease and stroke more immediate than the effects on respiratory disease and cancer. About a quarter to a half of those who quit smoking will avoid a smoking-related premature death. A large study that followed thousands of smokers for nearly two decades concluded that smoking cessation reduces mortality risk, but smoking reduction (i.e. cutting down the number of cigarettes per day) is not associated with a decrease in mortality from tobacco-related diseases (Godtfredsen et al., 2002). An empirical study in the United States concluded that a 10 percent increase in the tobacco tax saved over 6,000 lives a year (NCI, 2016). Another study in the European Union found that an increase of €1 (\$1.18) per pack in the median cigarette price driven by tax increases was associated with a significant decline in infant mortality both in the year of the tax increase and in the following year. Cigarette price increases across 23 European countries between 2004 and 2014 were associated with 9,208 fewer infant deaths (Filippidis et al., 2017). Research shows that a once-off tax-induced 50 percent price increase on tobacco, alcohol and SSBs has the potential to avert more than 60 million deaths over 50 years with more over 52 million being averted in LMICs (Summan et al., 2020).

2.4. Impact on Tax Revenues

In addition to correcting for negative externalities and internalities health taxes are also an important and efficient revenue generator due to their inelasticity of demand, meaning that declines in consumption will be less than proportional to the increase in price. Furthermore, since taxes are only a share of price, the tax elasticity is more inelastic, ensuring that increases in taxes result in increases in revenue (NCI, 2016). The magnitude of revenue increases is a function of the magnitude of tax increases. Larger tax increases results in more revenue. Health taxes are also relatively easy to administer amplifying their potential as an efficient revenue generator.

Taxes on tobacco and alcohol have significant capacity for raising revenue. Optimal tax policy design suggests that goods with inelastic demand, such as tobacco and alcohol, can be taxed at a relatively high rate (OECD, 2021b; WHO, 2021b). SSB taxes generate less revenue for several reasons. Firstly, SSBs are relatively less inelastic than alcohol and tobacco, and sometimes they are even elastic, meaning that declines in consumption after tax/price increases are much larger. The less inelastic demand can be ascribed to the larger number of substitutes (e.g. water) available to consumers. Tax increases change the price gaps between SSBs and substitutes (ideally not taxed), inducing larger behavioral changes. Furthermore, novel tax structures can be designed to encourage reformulation, and these reduce revenue potential. It can be argued that SSB taxes are not conceptually designed as revenue generating taxes. However, this is not universal and there are many countries where SSB taxes have significant revenue potential, particularly in countries with no or low alcohol sales.

Health tax revenues need to be considered within each economic framework, and policy makers may be seeking not to maximize tax revenues, but rather to minimize externalities and internalities. However, since health tax rates are generally considered to be below socially optimal levels in most countries, excise tax revenues rarely account for the total economic costs to society. WHO estimates the total economic cost of smoking to be 1.8 percent of global GDP (Goodchild et al., 2018), significantly higher than the average tobacco tax revenues of 0.6 percent of GDP. The total economic cost of alcohol is estimated to be significantly higher than for tobacco (Baumberg, 2009), while alcohol tax revenues are on a similar level (0.3 percent of GDP). SSB taxes (including non-alcoholic beverages) contribute, on average, less than 0.1 percent to GDP, substantially less than do alcohol and tobacco. The IMF (2016) observes that “tobacco excise receipts vary across countries but have proved to be a significant and stable source

of revenue for many.” More recently, the IMF has argued that SSB taxes could provide much larger shares and sources of revenue in low-income countries where tax-to-GDP ratios are low (Petit et al., 2021).

The Bloomberg-Summers Task Force on Fiscal Policy and Health highlights the revenue potential of increasing health taxes, globally (Summan et al. 2020). A once-off tax induced 50 percent price increase on tobacco, alcohol and SSBs in 2018 has the potential to raise nearly \$26 trillion in tax revenue in inflation adjusted terms over 50 years, 57 percent of which in LMICs. Higher taxes on alcohol have the largest revenue potential representing 79 percent of the revenue gain.

Box 3: Case Studies of Health Tax Revenues in Southeast Asia

While the data previously described indicates that health taxes make very small contributions to tax revenues as a percentage of GDP, there are notable outliers. For example, tobacco excise tax revenues contributed 4% to fiscal revenues in China in 2016 (Goodchild and Zheng, 2018). Notably, tobacco is a state monopoly in China. While these contributions are high, and reflect the high smoking prevalence rates in China, they have declined dramatically from over 10% in the early 1990s (Hu et al., 2008) as a result of increasing economic diversification and slowly declining smoking prevalence. Vietnam is also a state monopoly with relative high smoking prevalence rates, yet tobacco excises only contributed 1.4% to total tax revenue and 0.3% of GDP in 2018 (Ross, 2021; OECD, 2021). This is likely due to a poorly designed ad valorem tax structures which results in very low taxes and prices (Blecher and Le, 2018).

Indonesia has one of the highest smoking rates in the world with tobacco excise tax revenue contributing 10.6% of total tax revenue and 1.1% of GDP in 2020 (Ross, 2021). This grew significantly from the early 1980s, peaking in the early 2000s due to a series of tax increases. It declined substantially between 2004 and 2007 corresponding with weak or no increases in tobacco excise rates (Barber et al., 2008), but has increased in the 2010s with more significant tax increases. The Philippines is an example where alcohol and tobacco tax increased dramatically tax revenue since the introduction of reforms in 2012. Combined with tax structure reforms, the contribution to total tax revenue increased from 1.4 to 2.2% (0.2 to 0.4% of GDP) for alcohol excise and from 2.0 to 4.2% (0.3 to 0.8% of GDP) for tobacco excise between 2012 and 2019, respectively. This coincided with an increase in the tax to GDP ratio from 15 to 18% (OECD). The absolute magnitudes of tax increases are also important. In the Philippines, alcohol excise tax revenue increased from 24 to 33 billion pesos between 2012 and 2019, and tobacco excise revenue from 77 to 148 billion pesos, increases of 168 and 273% in real terms respectively, in just seven years.

There is limited information on SSB tax collections. Tonga’s high SSB tax rates returned exceptionally high revenue of 0.8% percent of GDP (\$0.8 million) (World Bank 2020b). Yields were lower in the Philippines (0.15% of GDP) and Thailand (0.02% of GDP) although absolute amounts collected were nontrivial at \$505 million in the Philippines (2018) and \$90 million in Thailand (2020) (Food Navigator-Asia, 2021). In the Philippines, revenues initially fell short of targets by about 50% because of difficulties in differentiating between products with local sugar content and those with added high fructose corn syrup, which had different tax rates. This highlights the adverse impact of complex tax structures (Lane, 2022). In Thailand, the lower revenue was considered a success from the public health perspective, because the producers responded by reformulating products, with sugar content dropping by 26% in energy drinks and by 18% in fruit juices, while the number of beverages meeting “healthier choice” standards increased tenfold between 2017 and 2020 (Lane, 2022).

Revenue in the Lao PDR

From 2018 to 2022, Laos collected approximately 25 percent of total tax revenues from excises. Excise tax collection averaged 3 percent of GDP during 2010-19 but significantly declined to 2.3 percent of GDP in 2020-22, partly due to the COVID-19 pandemic. However, this does not mean that excise tax rates are high in Laos. Rather, the relative contribution of excise seems artificially large because the broader tax system only collected 10.5 percent of GDP in tax revenue. The significance of the excise tax in total revenue will even increase, due to the recent reduction in the VAT rate from 10 to 7 percent, and lower personal income tax rates. This highlights the importance of raising additional revenue from health taxes through structural reforms and increases.

There is significant scope to raise tax revenue from tobacco and alcohol in Laos. This can be achieved by reforming the tax system, including by imposing higher tax rates, and by improving tax administration. Strengthening the tax administration is particularly important in this respect. For example, Laos currently loses at least 92.8 billion kip (\$9.8 million) per year from just the specific component of the cigarette excise tax, because the local tobacco companies do not comply with the tax law (Ross, 2021). Trends in alcohol consumption point to a growing excise revenue potential (Euromonitor, 2020). This potential can only be realized with adequate supply chain controls and a change from ad valorem to specific (or mixed) tax structure.

Health tax revenue can be a reliable source of tax revenue even in the long run despite of the theory of the Laffer curve that is not empirically supported (WHO, 2021b). This is due to relatively low-price elasticity of demand for tobacco and alcohol. Even in a high-tax and declining prevalence country such as Australia, tax increases resulted in tax revenues increases. Therefore, governments can currently rely upon health taxes as a reliable source of revenue (Moerno-Dodson B 2017).

2.4.3. Use of Revenues

Policy makers and other stakeholders often debate whether health tax revenue should go to general revenue or whether it should be partially or fully earmarked. Typical reasons for earmarking are to offset any burden imposed on low-income groups by higher health taxes, enhance the public health impact of higher health tax by supporting other programs controlling consumption of unhealthy products (e.g. smoking cessation programs), and/or to make the tax politically more palatable to a particular constituency (e.g. to support tobacco farmers). Earmarking may ensure a continuous regular source of funding that is not subject to annual budgetary review. However, earmarking may lead to rigidities and inefficiency in expenditure, as the spending cannot be reallocated to higher priorities and may lead to procyclical spending. Earmarking may not lead to durable increases in expenditure if earmarked tax collection drops, or if other budgetary funding is reduced to offset the positive impact of the earmark. A distinction needs to be made between hard earmarks, when the revenue can only be used for a defined purpose, and soft earmarks which have a more flexible link between revenue and expenditure. These are used in the Philippines, where earmarked revenues from corrective alcohol and tobacco taxes must be allocated to health, but priorities can change as indicated in the health budget (Cashin, Sparkes, and Bloom 2017). The existing fiscal system is also an important consideration for countries considering earmarking for health or other expenditure purposes: the degree to which earmarking is already an applied practice can govern the palatability and feasibility of reforms. Numerous countries earmark some or all revenue from health taxes, including 35 countries earmarking revenue from tobacco taxes, 9 from alcohol taxes, and 10 from SSBs or other harmful products (Lane, 2022; Cashin, Sparkes and Bloom 2017). Lessons from nine countries with tobacco tax earmarking have been summarized by WHO (2016a).

In 2013, the Lao government established the Tobacco Control Fund (TCF) as a health promotion fund to implement and promulgate the law on tobacco control. The TCF was supposed to be funded from earmarked taxes on tobacco products. These consisted of a surcharge specific tax of 200 kip per pack and an extra two-percent profit tax on the tobacco industry. In practice the TCF is not yet fully funded, since the domestic industry does not pay this tax, citing the ILA. The TCF receives only small income, from the 200 kip per pack on imported cigarettes.

In March 2022, the government amended the tobacco control law to strengthen tobacco control measures. It expanded the definition of tobacco products to cover electronic smoking devices (SEATCA, 2022). It also reclassified the additional two percent of profit tax earmarked for the TCF to a two-percent surcharge on top of the excise tax on tobacco products, with an increase of one percent every two years. The specific tax surcharge of 200 kip per pack is the same but it will be increased by 200 kip per pack every two years. It is not clear, if the domestic tobacco industry will comply with these taxes/contributions to the TCF given that the ILA is in effect until 2026. Further, the TCF faces operational inefficiencies, with even the limited funds that have been received from import failing to be mobilized until recently.

3. Existing Practices in Designing Health Taxes

The ideal tax system is one that allows for domestic resource mobilization, without discouraging economic activity, however excise taxes are unique in that they are intentionally discriminatory and to some extent distortionary. This enables them to effectively target the negative externalities and internalities and reduce the consumption of goods and services that cause social damage, particularly health (Sassi et al., 2013) and ultimately lead to positive socio-economic outcomes. However, the effectiveness of excise taxes in achieving these outcomes depends heavily on the tax structure and tax rates. A poorly designed tax system is unlikely to bring about the expected benefits,

resulting in political capital being lost in the process, making future reforms more challenging. Poor outcomes may even result in countries backtracking on reforms. The structure of excise taxes refers to the type of tax that is levied and the base that the tax is applied to. However, given the varying nature of excisable products as well as the different negative externalities and internalities they generate, optimal tax structure and rates vary. Furthermore, this will be influenced by country specific challenges and needs and ultimately the capacity and resources available to administer them, including collection and enforcement.

Box 4: Earmarking Case Studies

Thailand

In Thailand, the Health Promotion Foundation Act of 2001 added a 2% surcharge to alcohol and tobacco excise tax and allocated that revenue to the ThaiHealth Promotion Foundation, an autonomous state agency, which has broad responsibility for health promotion activities that are not supported by the Ministry of Public Health. Revenues rose from approximately \$60 to \$120 million a year as excise taxes increased over time. An evaluation of the ThaiHealth in 2019 reported that ThaiHealth plays an important role in supporting public campaigns in schools to become free of sweetened carbonated beverages, alcohol abstinence campaign during three-month Buddhist lent, and promoting physical activity nationwide. The tobacco control package of policies supported by ThaiHealth resulted in a substantial decline in tobacco use (from 22.5% in 2001 to 18.2% in 2014) and per capita alcohol consumption (from 8.1 litres pure alcohol in 2005 to 6.9 litres in 2014). The percentage of the adult population doing at least 150 minutes of moderate-intensity or 75 minutes high intensity aerobic exercise per week, increased from 66.3% in 2012 to 72.9% in 2017. A dedicated funding mechanism, a transparent and accountable organization, and the engagement of civil society organizations and other government agencies enabled the success of ThaiHealth. Source: Pongutta et al. (2019)

The Philippines

The Philippines reformed their tobacco tax structure from a tiered specific tax (effectively tiered on value) to a uniform specific tax between 2012 and 2017. The lowest of the four tiers was 2.72 pesos per pack in 2012, while the highest was 28.3 pesos per pack. The tiers were consolidated in an upward manner, culminating in a uniform specific tax of 30 pesos in 2017, continuing to rise to 35 pesos in 2019 (Kaiser et al., 2016). Large increases of tax resulted in higher cigarette prices and reduced their affordability, leading to a sharp reduction in cigarette sales by 26% between 2012 and 2019, while tax revenues increased by 273% in inflation adjusted terms. 85% of incremental revenue from tobacco was “soft” earmarked for health, helping to triple the Department of Health’s budget to finance universal health coverage for the poor, health related millennium development goals, medical assistance for the retired and enhancement of medical facilities (Task Force on Fiscal Policy for Health 2019). The additional financing for the health sector notably enabled a significant expansion of the Philippine Health Insurance Coverage of the poor, and the health sector share of budget expenditure rose from 6% in 2012 to about 7% in 2017 (Cashin 2020). The remaining 15% of incremental revenue was dedicated to help tobacco farmers to diversify out of tobacco growing. The policy changes have been so successful that an additional reform was passed in 2018 that legislated tax rates to continue to increase annually until reaching 60 pesos per pack in 2023, after which it will automatically increase by 5% annually. These changes are expected to raise 130 billion pesos (\$2.5 billion) over 5 years. Furthermore, similar structural reforms and rate increases have taken place on alcohol since 2012 with equally impressive results, and an SSB tax was included in the 2018 legislation. 100% of incremental alcohol excise revenue to the health sector.

Tax design can also determine whether changes occur through the demand side (i.e. consumers reacting to changing prices) and/or the supply side (i.e. firms reacting to changing taxes). For instance, specific tobacco taxes generate a demand side reaction in that they increase prices and reduce quantity demanded. On the other hand, specific excise taxes on alcohol and SSBs — which may be more appropriately levied on the volume of alcohol and sugar — generate supply side incentives/reactions by encouraging producers to lower alcohol or sugar content or shift marketing expenditures to lower alcohol or sugar products.

3.1. Types of Excise Tax

There are two types of excise taxes: *ad valorem* excise taxes that apply tax based on a percentage of the value and *specific excise* taxes that apply tax based on the volume (i.e. per pack of cigarettes or liters of beverage). The base of an *ad valorem* tax depends on where in the supply chain it is applied. A tax applied later in the supply chain (potentially all the way up to the final retail price) will always result in a higher effective tax (i.e. the value of tax per unit) than if it were applied earlier in the supply chain. The base of a specific tax can be volumetric (i.e. per pack of cigarettes or liters of beverage), or in the case of alcohol or SSB, based on the alcohol or sugar content.

Specific and ad valorem taxes each have advantages and disadvantages regarding ease of administration, behavior changes, nature of the externality, distributional effects and predictability, stability and buoyancy of the revenue streams. Specific and ad valorem excise taxes can be combined in a number of ways including mixed systems, in which both tax types are applied to a product, as well as various hybrid systems that may include attributes of both. For example, the smaller or larger of either may be applied, or an ad valorem tax may be applied with a minimum tax value per unit (called a tax floor or specific tax floor). Other characteristics may be applied to these systems including thresholds (a benchmark below which no excise is levied, e.g. beer with less than 0.5 percent alcohol by volume (ABV) being exempted from an excise tax) or tiers (different tax rates applied to different tiers based on the value/price or product characteristics, e.g. sugar content). The advantages and disadvantages of combined systems are ultimately determined by how much they resemble specific and/or ad valorem taxes. Generally, there is a consensus that good practice favors specific taxes. However ad valorem taxes can play an important role in a well-designed and implemented excise tax on products with unique characteristics or in countries with unique needs. Furthermore, it does not mean that specific taxes do not have disadvantages that requires mitigation.

The preference for specific taxes is that they are more effective at targeting negative externalities and internalities and affecting behavior change. This is because externalities and internalities do not vary by the value of the product, for example a cheaper cigarette is not less harmful or addictive than a more expensive cigarette, rather the externalities and internalities are more closely correlated with the volume of consumption which a specific tax is levied on. Specific taxes are less susceptible to fraud and corruption. Further, specific taxes also result in lower levels of consumption (due to higher prices on cheaper brands since the tax does not vary by value) and larger declines in consumption in response to a tax increase (since relative tax price increases are higher on cheaper brands). This results in a lower variance in prices in the market and fewer incentives and opportunities to trade down to cheaper brands in response to a price increase (see Chaloupka et al., 2019) for the application of this to tobacco. Furthermore, taxes are more likely to be fully passed through and/or over shifted under specific taxes compared to ad valorem taxes where they are more likely to be under shifted. In undershifting, producers reduce their ex-factory prices (the tax base). This is a manipulation of the system and unique to ad valorem taxes. Under shifting occurs more under ad valorem tax systems since this reduces the tax liability of producers and is a tax avoidance mechanism but can also extend to tax evasion.

Tax structures can also generate supply sided incentives for firms, to lower sugar or alcohol content, or to shift advertising to lower sugar or alcohol products by levying taxes on alcohol and sugar content, or using tiers and thresholds based on alcohol or sugar content. This highlights the importance of ensuring that health taxes target externalities and internalities rather than just overall consumption. However, the complexity in tax design, specifically on alcohol and SSBs where the alcohol or sugar content may be part of the tax structure or base increases the complexity of tax administration and may be beyond the capabilities of some countries, particularly those with low baseline capacities. Tax systems need to be designed to target externalities and internalities, but also to remain within the capabilities of country authorities. Simpler systems may be more effective at reducing externalities and internalities in countries with limited tax administration capacity.

Generally, specific taxes are considered easier to administer since they require only the determination of the physical quantity of the product taxed (OECD, 2020) which can be verified relatively easily compared to values. Furthermore, specific taxes treat imported and domestic products equally whereas ad valorem taxes may levy the same tax rate but result in vastly different values of the excise between imported and domestic products. If imported products have significant cost or pricing advantages, this will result in much lower effective excise taxes on imported versus domestic products.

Specific and ad valorem taxes have different effects on tax revenue generation. Generally, specific taxes provide a more stable and predictable revenue stream since the tax revenue is not impacted as significantly by industry pricing strategies. Furthermore, ad valorem taxes can easily be under shifted when taxes increases, undermining revenue impact. It must be noted that the revenue effects can vary substantially by products, and depend

significantly on the heterogeneity of products, price elasticity of demand, tax pass-through, and the availability and the extent to which substitutes are taxed.

A notable weakness of specific taxes is that they need to be adjusted to maintain their value in retail terms. This is particularly important in the contemporary macroeconomic climate with higher global inflation. Ad valorem taxes create a natural hedge against inflation although it is still subject to firm behaviors. Many countries protect specific taxes against inflation by implementing automatic adjustment mechanisms. Laos applies different tax structures on tobacco, alcohol, and non-alcoholic beverages, which are explored against best practices below.

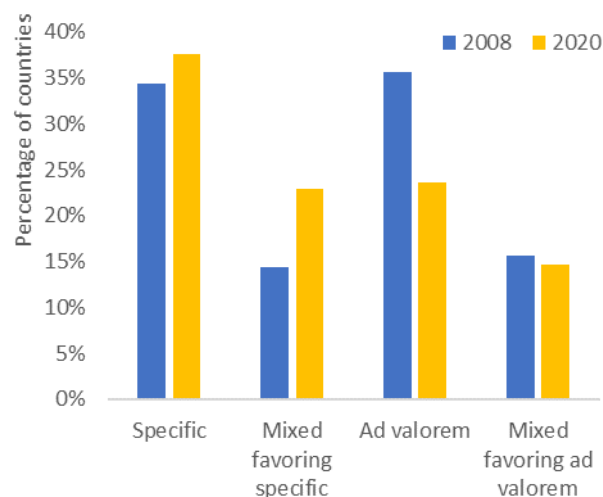
3.2. Existing Practices in Tobacco Taxes

Tobacco taxation in Laos has a mixed tax structure with a specific tax of kip 600 per pack of 20 cigarettes and an ad valorem rate of 72 percent of producer prices. Furthermore, a minimum price of 4,000 kip per pack is applied. Since the externalities and internalities of *tobacco* are directly related to the number of cigarettes consumed and does not significantly vary by the price or characteristics, is it appropriate to tax all cigarettes equally. As such, uniform specific taxes where the same specific tax is applied to all cigarettes, is the best practice. Ad valorem (and tiers) are not considered a good practice since this incorrectly implies that cheaper cigarettes have a smaller negative externality and internality compared to a more expensive cigarette. The appropriateness of mixed systems depends on the relative contribution of the specific and ad valorem components. Mixed systems that favour the specific component are a better practice than mixed systems that favour the ad valorem component and the larger the specific component, the better the practice.

Unsurprisingly, WHO (2021a) recommends that countries implement uniform specific taxes or mixed systems where the specific component is larger than the ad valorem. WHO's recommendation highlights the importance and even preference of the uniform specific component over the ad valorem component in achieving improved health outcomes. The ad valorem component provides flexibility to countries that seek to generate higher revenues at the cost of a larger tax administration burden. In countries with limited tax administration capacity a mixed system may generate additional complexity with limited benefit by having to administer two systems. Box 5 shows country case studies of different tax structures in practice from Vietnam (ad valorem tax) and South Africa (specific) to highlight these advantages and disadvantages.

Figure 12: Tobacco tax structures in 2008 and 2020

Source: WHO (2009; 2021)



There is a clear global trend in countries following WHO recommendations in moving from ad valorem to specific taxes on tobacco. Figure 12 shows the tobacco tax structures in all countries reporting to WHO in 2008 and 2020. Of the 181 countries in 2020, 61 percent relied on either pure specific or mixed tax system favoring specific taxes, compared to 39 percent of countries opting for pure ad valorem systems or mixed systems favoring ad valorem. Furthermore, a plurality of countries chose specific tax systems and even among countries with mixed systems, a plurality had systems favoring the specific component. The number of countries that have pure ad valorem systems has fallen sharply, highlighting the importance of reform to ensure that Laos keeps up with good practices and trends in excise tax policy design.

Box 5: Case Studies of Tax Structures

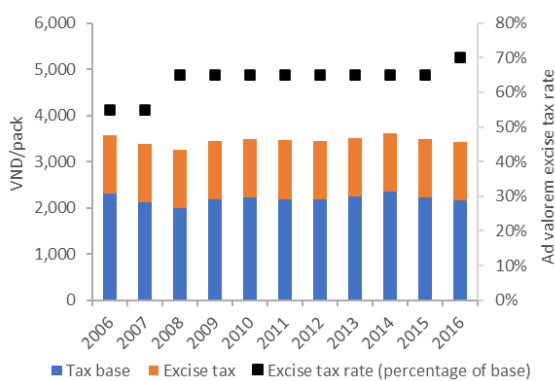
Ad valorem taxes in Vietnam

Vietnam applies an ad valorem tax on cigarettes on the ex-factory price (i.e. early in the supply chain). The same system applies to most other excisable products, including alcoholic beverages. The ad valorem tax rate on cigarettes was increased from 55% to 65% in 2008, and again from 65% to 70% in 2016, with little impact on cigarettes prices. Figure 13 shows the price of cigarettes in Vietnam in real terms (constant 2016 prices) between 2006 and 2016, decomposed into the excise tax and tax base. The trend shows how prices did not increase in response to the tax increases, and thus no decline in sales. In fact, tax increases coincided with small declines in real prices, and increases in sales of 2% between 2006 and 2016 (Euromonitor, 2021). While excise tax revenues increased from VND 13.5 to 13.8 billion between 2013 and 2019 this was a decline of 11% in real terms (Ross, 2021). Mortality due to tobacco use did not change between 2006 and 2016, and DALYs lost increased during that period (GBD, 2019). The reason for the price decline was due to “under shifting”, a practice whereby producers reduced their ex-factory prices (the tax base). This is a manipulation of the system and unique to ad valorem taxes. As the example of South Africa will show, specific taxes tend to be over shifted. Under shifting occurs more under ad valorem tax systems since this reduces the tax liability of producers and is a tax avoidance mechanism but can also extend to tax evasion. Specific taxes are less likely to be under shifted since producers cannot reduce their tax liability through their pricing strategies and are more likely to compensate for declining volumes by over shifting tax increases. The tax reforms in Vietnam represent a lost opportunity by expending political capital on tax increases that do not result in health or revenue benefits, and are a function of the poor tax structure, including the ad valorem tax structure and small tax base.

Uniform specific tax in South Africa

South Africa has a uniform specific tax on cigarettes and has consistently increased the tax rate since the early 1990s (see Figure 14). Between 1990 and 2020, excise tax rates increased by 603% in real terms, resulting in dramatically higher retail prices (by 251% in real terms) that resulted in sales falling by 60%. The decline in sales is corroborated by declines in smoking prevalence and smoking related mortality. Adult smoking prevalence fell from 32% in the early 1990s (Van Walbeek, 2002) to 25% in 1998 (Steyn et al., 2002), and subsequently to 18% in 2012 (Reddy et al., 2015). Between 1990 and 2019, tobacco’s contribution to all-cause mortality declined from 13% to 8% of all deaths, and from 8% to 5% of all DALYs (GBD, 2019). At this same time, excise tax revenues increased by 203%. The evolution of tobacco tax revenues (See Figure 15) shows three phases. Between 1961 and 1976, tax rates declined by 14% in real terms, but increasing volumes resulted in tax revenues increasing by 87% in real terms. Tax rates did not decline in nominal terms but were eroded by inflation. Between 1976 and 1990, significantly higher inflation and fewer adjustments to the tax rates meant even greater erosion in the real value of excise tax rates, declining by 68% in real terms, resulting in excise tax revenues declining by 45% in real terms. Excise tax rates began to increase in the early 1990s resulting from deliberate efforts to raise the tax. Notably, tax revenue is significantly off its peak of 2015 as South Africa has experienced significant challenges with tax governance and administration, and tobacco excise tax was no exception (see Van Walbeek, 2020).

Figure 13: Tobacco excise taxes and price in Vietnam, 2006-16



Source: Blecher and Le (2018)

Figure 14: Cigarette taxes, prices and sales/consumption (right scale) in South Africa, 1961-2020

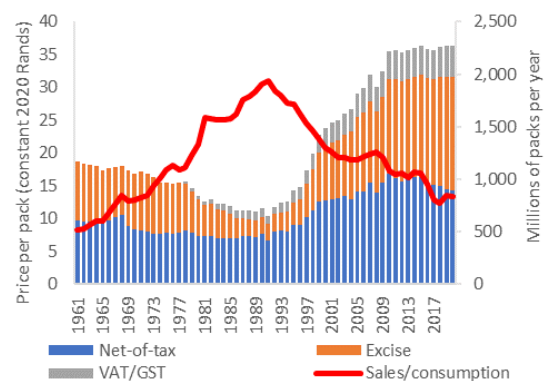
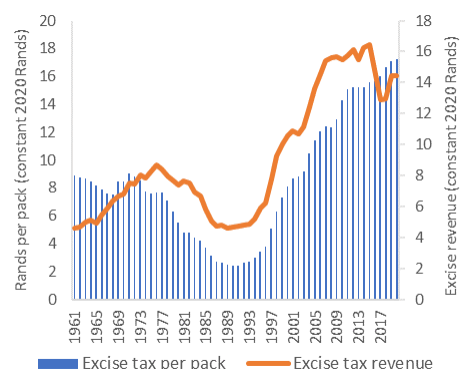


Figure 15: Tobacco excise taxes and tax revenue in South Africa, 1961-2020



Source: Economics of Tobacco Control Project

3.3. Existing Practices in Alcohol Taxes

Alcohol taxes are ad valorem in Laos, applied to the ex-factory price (i.e. early in the supply chain) for domestically produced goods and to the Cost, Insurance and Freight (CIF) value for imported goods. Beers are charged at either 60 or 70 percent depending on alcohol content, while other alcoholic beverages are charged at 72, 90 or 110 percent depending on alcohol content. For both beer and spirits, the higher the alcohol content, the higher the rate. Laos also has an issue of unrecorded alcohol: recorded is at 7 liters of pure alcohol per capita, and unrecorded at 3.4 liters of pure alcohol per capita (WHO 2018a). While this may not be a large issue for taxes, higher prices of recorded alcohol may include some levels of substitution (Rehm, 2022).

Negative externalities and internalities due to alcohol use are more complicated and nuanced than for tobacco. For this same reason as tobacco, specific taxes are also preferred to ad valorem tax structures on alcohol. However, since the externalities and internalities are directly related to the consumption of ethanol, alcoholic beverages with a higher alcohol content should be taxed more than beverages with lower alcohol content. This is achieved by making the alcohol content the base for the tax. However, this may result in lower alcohol products becoming relatively cheaper compared to higher alcohol products, raising concerns that it may encourage increased youth drinking, including greater initiation and experimentation, may encourage binge drinking or increase access to alcohol by other vulnerable populations including those with alcohol use disorders. If externalities and internalities vary within the population and are higher amongst these groups, volumetric specific taxes (i.e. the volume of the beverage rather than the alcohol content used as the tax base) are more likely the optimal tax structure. In cases where cheap alcohol is a concern, volumetric specific taxes may also be preferable since they will ensure cheaper products become more expensive thereby discouraging experimentation and initiation by adolescents, reducing availability to vulnerable populations including heavy drinkers and reduce concentration of drinking. Once again, the Lao ad valorem tax structure is not in line with good practices or trends in other countries. These challenges are nearly identical to tobacco, resulting in lower prices, greater incentives for consumers to trade down to cheaper alcohol, incentives for firms to under shift tax increases and difficulties in tax administration. Specific taxes are preferable to ad valorem taxes and it is recommended that Laos reform its structure to a specific tax.

Alcohol-content-based specific taxes also generate incentives for producers to reformulate products to lower alcohol content, bring new low-alcohol products to market, or shift advertising from higher- to lower-alcohol content products in order to reduce their tax liability. The use of alcohol content as the tax base generates significant complexities in excise tax administration and regulatory system given the need to evaluate and measuring alcohol content of a large number of heterogeneous products on an ongoing basis and may require a broad range of infrastructure including laboratories and skills including regulatory and labelling policies. Countries need to weigh up the relative effectiveness of the tax structure in reducing the health burden due to alcohol consumption given the patterns of alcohol use in their countries, but also consider the tax structure in the context of their excise tax administration and regulatory capacity. While alcohol content-based approaches may be the focus of future reforms, the Lao PDR may be advised to use a volumetric approach as an initial step.

A further complication is the wide variety of alcohol products. Unlike with cigarettes, this likely results in varying externalities and internalities due to varying consumption patterns (e.g. alcopops and youth binge-drinking). This may justify taxing different alcohol products with varying tax structures and rates. There is no one-size-fits-all way of dealing with the heterogeneity of alcohol products, and almost every country takes a different approach according to their unique market characteristics. Box 5 details the different approaches of South Africa and Thailand, highlighting the different uses of tax structure and base and shows how reforms should focus on specific taxes. An alternative and elegant solution is to exploit natural HS categories by clustering products, for example with similar alcohol content, thereby allowing several categories to have different tax rates that reflect their relative alcohol content. This allows some element of the magnitude of externality and internality to affect relative tax rates without the administrative challenges of the alcohol-content-based specific tax. While this system does not generate within-category incentives, it does ensure that between-category variations in alcohol content are not ignored.

Box 6: Case Studies of Alcohol Tax Structures**Thailand**

Thailand has a long history of alcohol excise taxes, which have evolved over time in relation to both tax structure and rates. Since 2017, Thailand has applied a mixed system with an alcohol-content-based specific tax and the ad valorem tax based on a beverage's retail price exclusive of VAT (significantly later in the supply chain than in Laos, resulting in a higher effective tax) (Tawichsri, 2019). Five smaller earmarked taxes amounting to 17.5% of the combined excise values fund various services. Alcohol excise tax is an important source of government revenue accounting for 29% of total excise tax revenue, 5% of total government revenue and 1% of GDP in 2020 (Saengow, 2020). Excise tax rates vary by product type and characteristics including prices, alcohol content and container size, and are shown in Table 1.

The Thai system is complex, using an array of nine categories and tiers, each with their own tax rates. The structure favours domestic producers and cheap alcohol products. For example, more expensive wines (both grape and fruit wine) are usually imported and attract significantly higher specific tax rates, compounded by the ad valorem tax levied on top of the specific excise, than lower priced counterparts that are more likely domestically produced. Furthermore, the cheapest wines do not incur ad valorem tax. A similar pattern occurs on distilled spirits where clear spirits attract lower tax rates than dark spirits with the former more likely to be domestically produced and the latter more likely to be imported. Domestic producers have large market shares in all lower-taxed alcohol categories (Yongpisanphob, 2019). For example, more than 80% of clear and dark spirits are produced locally by a large producer. In addition, two large domestic producers make up 93% of the beer market, and a local company sells more than 70% of the fruit wine marketed in Thailand. The complexity is highlighted by the effective tax rate per standard drink (a measure that standardizes alcohol content). The effective tax rate per standard drink varies from as little as 3 baht per standard drink on clear spirits and other fermented beverages to 52 baht per standard drink on expensive wine. Given that the ad valorem and specific rates vary by product type and other product characteristics, an example of how the tax is calculated for a particular product is provided in Table 2. The calculation is for two domestically produced whiskeys with 40% ABV (i.e. dark spirit) in a 750 ml bottle, but with differing retail prices of 1,400 baht and 1,021.26 baht, respectively. This highlights the variation in the system. Even two products in the same category have differing taxes due to the ad valorem component. Furthermore, it highlights the difficulty in assessing ad valorem tax bases.

The current alcohol excise tax system in Thailand is still simpler than the one it replaced in 2017. The previous system was also a mixed system, but one where the specific tax was the higher of either an alcohol-content-based or volumetric specific tax (Tawichsri, 2019). That system, while significantly more complex effectively created a tax floor on the specific component, ensuring that the alcohol-content-specific tax did not encourage the marketing of cheap products that promoted drinking among vulnerable groups. Such system can simultaneously reduce harmful alcohol use and prevent drinking initiation (Sornpaisarn et al., 2012; Sornpaisarn et al., 2015). The specific tax based on alcohol content alone can reduce heavy alcohol use, because it makes high-alcohol content beverages more expensive relative to low-alcohol content beverages (Sornpaisarn et al., 2015; Sornpaisarn et al., 2016). However, this could promote drinking initiation since Thai adolescents usually start drinking with low-alcohol-content beverages (Sornpaisarn et al., 2012).

Table 1: Alcohol excises taxes in Thailand in 2021

Product Type	Ad valorem rate	Specific tax	Total excise
	% per liter of absolute alcohol	Baht per standard drink	
Fermented beverages:			
Beer	22%	430	13
Wine and sparkling wine:			
Price < 1,000 baht	0%	1500	24
Price > 1,000 baht	10%	1500	52
Fruit wine			
<7% ABV; container <0.33 liter	10%	150	6
>7% ABV; container >0.33 liter			
Price <1,000 baht	0%	900	14
Price >1,000 baht	10%	900	40
Other fermented beverages	10%	150	3
Distilled beverages			
Clear spirits	2%	155	3
Dark spirits	20%	255	12

Note: Price means the recommended retail price whereas the base for the ad valorem tax is the retail price excluding VAT; a standard drink contains 16 ml of ethanol. Source: Tawichsri (2019)

Table 2: Decomposition of taxes on two hypothetical whiskies in Thailand

		Baht	
Net-of-tax (1)		986.62	700
Specific tax (2)	255 baht / liter absolute alcohol	76.55	76.55
Ad valorem tax (3)	20% of (1)	197.32	140
Earmarked taxes (4)	17.5% of (2) and (3)	47.92	37.9
Sub-total (5)		1308.41	954.45
VAT (6)	7% of (5)	91.59	66.81
Retail price (7)		1400	1021.26

3.4. Existing Practices in SSB Taxes

Non-alcoholic beverages are ad valorem applied to the ex-factory price (i.e. early in the supply chain) for domestically produced goods and the CIF value for imported goods. This is charged at 12 percent, with energy drinks a higher rate of 17 percent. The weakness of the ad valorem taxes in Laos is compounded by using a tax base early in the supply chain. This tax base is reliant on the reporting by manufacturers and importers to determine their tax liability. Tax avoidance and evasion involving this type of tax base is almost guaranteed (Ross et al., 2017). Using retail price as the tax base is preferable since retail prices can be verified independently by the authorities (Ross, 2018; Ross et al., 2017). However, this is still an inferior policy option compared to higher specific taxes.

The externalities and internalities from *SSBs* are directly related to the sugar content. Higher sugar content beverages are likely to result in higher externalities and internalities, and similarly to alcohol, this favours tax structures that levy a specific tax based on the grams of sugar rather than the volume of the beverage. Novel tax designs, including thresholds and/or tiers based on sugar content may target externalities and internalities even more directly. Most jurisdictions also apply excise taxes to diet drinks (e.g. Philadelphia) and a third globally tax bottled water, with a half of these in LICs (e.g. Ethiopia). Sometimes called non-alcoholic beverage taxes, these are often imposed to generate more tax revenue. However, it is also argued that this makes the tax less regressive because higher-income consumers consume more diet drinks or bottled water. While this may be true, they are only justified if they generate similar externalities and internalities to *SSBs*, which is implausible. The corollary is how some jurisdictions exclude some products from the tax (e.g. 100 percent fruit juice in South Africa). While this sugar is naturally occurring and not added, it is sugar nonetheless and causes the same harm and generates externalities and internalities (Wojcicki and Heyman, 2012; Gill and Sattar, 2014). The economic framework supports taxes on *SSBs* rather than a broader non-alcoholic beverage tax, including all sugary drinks in the tax. Furthermore, a tax on *SSB* rather than broader non-alcoholic beverage tax will also increase the health impact of the tax since it will result in larger relative price differentials between caloric and non-caloric beverages. However, *SSB* taxes will generate less excise tax revenue than a broader non-alcoholic beverage tax given that the tax will be applied on fewer products, however the lost tax revenue can be made up with a higher tax rate.

Once again, the ad valorem tax structure presents challenges for Laos and is not in line with good practices or trends in other countries. These challenges are nearly identical to those for tobacco and alcohol, resulting in lower prices, greater incentives for consumers to trade down to cheaper non-alcoholic beverages, incentives for firms to under shift tax increases and difficulties in tax administration. Specific taxes are preferable to ad valorem taxes.

A secondary consideration is the tax base of the specific tax, that is whether to apply the specific excise in a volumetric manner (i.e. based on liters of the beverage) or on the sugar-content (often called a nutrient-content tax since it is based on the grams of sugar per liter or similar measure). Given that the negative internalities are linked to the sugar content, it is argued that nutrient-content taxes are a better proxy of the negative externality than volumetric taxes. Furthermore, nutrient-content taxes will reduce the total volume of sugar consumed whereas volumetric taxes will reduce the total volume of taxed beverages. This will influence the effectiveness of the tax in

the health burden due to SSB consumption. Additionally, nutrient-content taxes also generate incentives for producers to reformulate products to lower sugar content, bring new no or low-calorie products to market, or shift advertising from higher- to lower-sugar products to reduce producers' tax liability. As with alcohol, nutrient-content taxes have a high tax administration and regulatory burden that requires mechanisms to measure and evaluate sugar content of a large number of heterogeneous products on an ongoing basis and may require a broad range of infrastructure such as laboratories, acquiring new skills and implementing new regulatory and labelling policies. While such approaches may be the focus of future reforms, Laos may be advised to use a volumetric approach as an initial step. At least 121 SSBs taxes are in place globally (World Bank 2023b). Box 7 highlights recent SSB taxes implemented in Hungary, Mexico, South Africa and the United Kingdom (UK), highlighting the significant variation and even experimentation in SSB tax design around the world.

Box 7: Comparative Examples of SSB Tax Structures

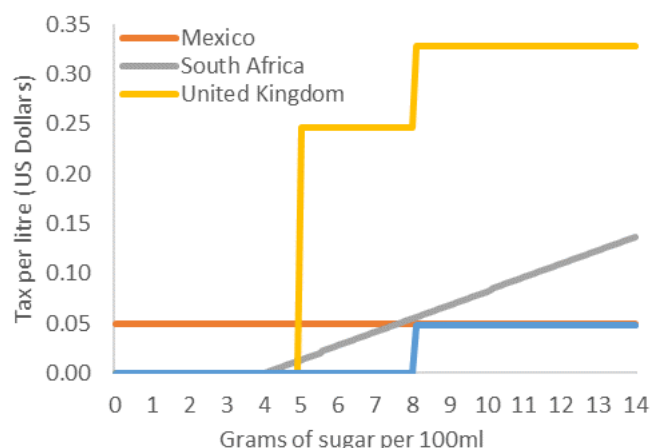
Tax design can determine whether changes occur through the demand side (i.e. consumers reacting to changing prices) and/or the supply side (i.e., firms reacting to changing taxes). For instance, uniform specific tobacco taxes generate a demand side reaction. However, when levied on the volume of sugar in order to target externalities and internalities, taxes generate supply side incentives/reactions by encouraging producers to lower sugar content, or shift marketing expenditures to lower sugar products. Tiers and thresholds based on sugar content can also generate supply side incentives. A similar example of alcohol taxes in South Africa showed the impact of increasing alcohol-content based taxes on beer advertising and subsequently consumption of alcohol from beer.

Recent experience in SSB tax designs has shown promise in generating dramatic supply-sided responses. Four prominent examples that highlight this are volumetric taxes in Hungary and Mexico, and nutrient-content based taxes in South Africa and the UK. Mexico's tax is a uniform specific tax, applying the same tax rate to all taxed beverages whereas Hungary's volumetric tax includes a threshold of 8g of sugar per 100ml, meaning that the volumetric specific tax only applies to beverages with 8g or more of sugar per 100ml. South Africa applies a sugar content based specific tax, similar to those applied on beer and spirits, but also with a threshold of 4g of sugar per 100ml, meaning that the specific tax only applies on sugar content above the threshold (e.g. 10g of sugar per 100ml is only taxed on 6g). The UK takes a different approach to a nutrient-content tax by using tiers instead of a linear model. It applies a lower volumetric tax rate for SSBs with less than 8g of sugar per 100ml, and a higher volumetric rate for SSBs with more than 8g of sugar per 100ml. Furthermore, the UK also uses a threshold of 5g of sugar per 100ml. Figure 19 shows the value of the tax in US dollars per gram of sugar per 100ml for the four countries.

The figure highlights the incentives of the different systems. It shows how the volumetric system in Mexico would not generate any incentives for producers to lower sugar content since the same tax applies no matter the sugar content. In this case, the tax should increase the prices of taxed products and affect demand for taxed and non-taxed products, so reducing consumption of taxed beverages and/or increasing consumption of untaxed beverages. Hungary generates some incentives for producers to lower sugar content, but in a binary manner. Either they get below 8g of sugar per 100ml and pay no tax, or do not and pay the tax no matter the sugar content. Thus, an SSB with 10g of sugar has a strong incentive to reduce to 7.9g, but no more. Drinks already less than 8g have no incentive to reformulate or increase prices since they are not subject to the tax.

In South Africa the system generates strong continuous incentives to reduce sugar content given the linear model and significantly lower threshold. Table 3 shows the excise tax per liter and the sugar content of several popular brands before tax and clearly shows the linearity of the incentive. Recent research shows that the incentives worked, and firms reacted strongly. Among 30 of the most popular taxed SSBs, 18 reduced their sugar content to below the 4g threshold to avoid their tax liability entirely and a further 9 reduced their sugar content but remained above the threshold thereby partially reducing their tax liability (Heneck, 2022).

Figure 16: SSB tax rates per gram of sugar in Hungary, Mexico, South Africa and the United Kingdom



Source: Global Tax Program, World Bank estimations

In the UK, evidence shows that manufacturers engaged in dramatic product reformulation to lower sugar content to reduce their tax liability (Scarborough et al., 2020). Furthermore, the UK provided producers with a significant lead time (nearly two years) between announcement and implementation with the intention of giving firms time to develop and implement reformulation strategies before the implementation. Many producers began reformulating immediately, but Scarborough et al. (2020) show a significant clustering in this behavior at the time of implementation.

These examples highlight the potential for innovative design and the high degree of specialization in the area, to the point that the expertise and experience may not be part of the typical focus of macroeconomists or health economists. Ensuring that tax systems and reforms are well designed requires

analysis of the market and existing tax systems, understanding of capacity including tax administration, and a strong analytic understanding including specialized economic research. The more complex the tax structure, the more challenging tax administration becomes. Not all countries have the capacity and expertise to implement and administer complex systems.

A practical challenge would come with a threshold or tiered system – the decision as to where to place the threshold or tier would require a substantial undertaking.

4. Implementing Health Taxes

4.1. Key Challenges

The challenges involved in Implementing the health tax good practices presented in this technical note are summarized in this chapter, which includes a specific case of industry interference with tax policy in Laos. These challenges can be addressed by implementing evidence-based measures and by following FCTC recommendations.

4.1.1. Political Economy

One of the main arguments put forward against health taxes are that they have a disproportionate impact on low-income consumers and increase poverty. The traditional view is that health taxes, like other consumption taxes, are regressive, because low-income groups spend a larger share of their income on them. However, this does not account for the behavioral impact of the tax increases. Lower-income groups are less inelastic than higher-income groups meaning that they will reduce consumption by more for the same price increase. Lower consumption will reduce their relative expenditure by more, but also reduce out-of-pocket medical spending and extended working lives by more. This has been demonstrated in a dozen World Bank country studies on the distributional impact of alcohol, tobacco, and SSB taxes (Fuchs 2020). In addition, the newly collected tax revenues can be directed toward low-income groups to correct for any adverse impact of higher taxes as has been done in Thailand, the Philippines, and tobacco taxes in Vietnam (WHO, 2015).

Another argument used against health taxes is their potential to lower employment in the affected sectors, including agriculture, manufacturing, and retail sectors. This is an incorrect view of the dynamic nature of the economy. The shifting of consumption to other products and spending the newly generated tax revenues will create new jobs in other sectors of the economy. In addition, the shift from tobacco to other products is likely to be

Table 3: Effective tax per litre on selected SSB brands in South Africa

Product	Sugar (g/100ml)	Tax per liter (rand)
Generic	2	0.00
Generic/threshold	4	0.00
Vitamin Water	5.4	0.29
Powerade	7.7	0.78
Fuze Tea	7.7	0.78
Schweppes	8.9	1.03
Sprite	10.2	1.30
Coca Cola	10.6	1.39
Sparletta	11	1.47
Stoney	11.6	1.60
Play	11.7	1.62
Twist	12.9	1.87
Fanta	13.5	2.00

Source: Global Tax Program, World Bank estimates

gradual over time and the impacted sectors will not face a sudden drop in demand due to higher health taxes (World Bank 2023a). This will allow farmers to diversify into alternative crops and employees to find alternative jobs. In some countries, political economy opens the door for the government to assist farmers in this transition as in the Philippines (Kaiser et al., 2016). Studies on the overall impact of tobacco control on employment find no net effect or modest gains (NCI, 2016). A model simulation for Pakistan of raising the federal excise duty on cigarettes to 70 percent of the retail price found that declines in tobacco growing and cigarette manufacturing employment would be far outweighed by increased employment in other sectors (Sabir et al., 2021). Many studies suggest that higher health taxes will be job generating, not job cutting policies (Frieden and Blakeman, 2005; OECD, 2021b).

Investigations of the alcohol sector confirm findings from similar studies of the tobacco industry and show that employment declines resulting from tax and price policies within the affected industries will be more than offset by the employment increases in the rest of economy (WHO, 2022; World Bank 2020c).

4.1.2. Special Considerations- Industry License Agreement in Laos

Tobacco control employs a distinctive model of governance based on minimizing industry engagement in policy and research — a norm codified in Article 5.3 of the WHO’s Framework Convention on Tobacco Control (FCTC). The FCTC remains the only treaty that requires actions to minimize industry interference (Hill et al., 2022). This approach can be adopted for other unhealthy commodities such as alcohol and SSBs to protect policy and research from industry interference, thus tackling the drivers of NCDs. Such approach will address economic and social inequities that underpin the harms of tobacco and other products subject to health taxes.

A key challenge in implementing tobacco tax collection and tobacco control in Lao PDR is the Investment License Agreement. The government signed this in November 2001, five years before signing the WHO-FCTC, to promote foreign investment in the country. The agreement resulted in the creation of a joint venture company, Lao Tobacco Limited (LTL), with the Lao government and Imperial Tobacco Group as major shareholders. The government receives dividends from Imperial Tobacco (BBC, 2022). The ILA hinders tobacco tax policy, limiting tax structures and tax increases, undermining revenue collection and funding for the Tobacco Control Fund.

As written, the ILA grants a preferential tax treatment to the LTL (and is also provided to the second largest cigarette company, Lao-China Hongta Good Luck Tobacco (STOP, 2022)). The ILA provides several preferential treatments and benefits. Most significantly, it sets fixed tiered tobacco excise tax rates for the 25-year period from 2001 to 2026. The tax is 15 percent of production cost if the production cost is less than 1,500 kip per pack of cigarette 20 units, and 30 percent if production cost is either equal to or more than 1,500 kip per pack of cigarette 20 units. For the past 24 years, LTL has declared its production cost lower than 1,500 kip per pack of 20 cigarettes, therefore always paying the lower tax rate (Lao News Agency, 2015). Furthermore, both these rates are already a considerable discount from the standard excise rate on cigarettes of 57 percent.

The ILA poses a major challenge to compliance with tax laws and policies. Tobacco companies use this as leverage for non-compliance with several regulations. In January 2013 a Prime Minister’s decree established the TCF, to be financed by two percent of tobacco industry profits, and an additional specific tax of 200 kip per cigarette pack. Firms do not comply with this, citing the ILA. The 2015 tax law changed the tax rate to 30 percent of wholesale price in 2016-17, and increased it to 45 percent in 2017-18, and 50 percent in 2019-21 and to 57 percent from 2022 onwards. Again, firms do not comply with these rates, citing the ILA. A 2019 Ministry of Finance regulation increased the specific tobacco tax from 500 to 600 kip per pack. Shortly afterwards, firms ceased paying the specific tax, again citing the ILA.

Importantly, while the ILA is a significant challenge to implementing excise tax policy, it should be noted that even if the ILA was revised or revoked so that firms party to the ILA did not receive preferential tax treatment, it would only represent a marginal improvement of tobacco tax policies given very low tax rates and poor tax structure of tobacco taxes in Laos. For example, the 600 kip per pack specific tax (\$0.04) amounts to a fraction of what the World Bank and WHO recommend in peer countries. For example, WHO recommends the implementation of a

specific tax of \$0.22 per pack in Vietnam in addition to the existing ad valorem tax of 70 percent of ex-factory prices (WHO 2018b). In Cambodia, the World Bank recommends a specific tax of \$0.71 per pack over a five-year period in addition to the existing ad valorem tax of 20 percent (levied similarly early in the supply chain).

The ILA has clearly restricted the government's ability to impose higher excise taxes on cigarettes and reform tax structures. Dramatic reform, including revocation or discontinuation of the ILA is necessary if the Lao PDR is to design and implement successful and optimal tobacco tax policies. However, reform or revocation of the ILA is not a policy goal in itself, and tobacco tax policy goals should be significantly more ambitious if they are to ensure better tax structure and dramatic increases in state income.

4.2. Excise Administration

Health taxes will not result in the desired health and fiscal impact if they are not properly administered. Therefore, strengthening excise administration and health tax reforms should be viewed as complementary activities. The expectations associated with health taxes must be aligned with the realities of the excise administration system otherwise both public and administrator trust, and confidence in these policy tools will be undermined, opening the door for industry pushback. Therefore, building the right expertise on how to administer taxes is critical, both to support regular administrative functioning and to curb unintended outcomes like tax evasion and avoidance (World Bank, 2019). In addition, strong and effective administration can support and inform policy decisions including tax increases without meaningful or significant elevation of risks of tax evasion.

Health taxes are attractive from the administration perspective since they are collected early in the supply chain from a small number of taxpayers (manufacturers and/or importers). Excise administration becomes challenging where value chains are complex and/or where the product has many varieties or substitutes. Excise administrators must be aware of the industry incentives to exploit illicit trade to advocate against tax reforms, or how they may favor certain tax reforms that hurt competitors. This situation requires more careful and transparent engagement with these industries.

Health taxes may require significant regulatory expertise, including interactions with systems that deal with standards setting, measurement and labelling. For example, excise administrators need to understand how to measure alcohol content, or how producers can manipulate alcohol types.

Good practices in tobacco excise administration are set out in the FCTC Protocol to Eliminate Illicit Trade in Tobacco Products (WHO, 2013) that entered into force in 2018. Most relevant are practices related to the control of the supply chain including licensing, due diligence, tracking and tracing, record-keeping, sale by internet, free zones and international transit, duty free sales and other security and preventive measures. Additional measures include law enforcement including dissuasive sanctions, and international cooperation on technical, administrative, law enforcement and legal matters. Best practices in alcohol and SSBs markets are very similar as for tobacco.

4.2.1. Tax Avoidance and Evasion

Tobacco, alcohol and beverage companies and their allies, including front groups, often argue that revenue and health gains of health taxes are overstated because of increased illicit trade. The public health community, policy makers, and the general public, are mostly familiar with expressions "smuggling" or "illicit trade" when the issue of not paying all tobacco taxes is being discussed. However, the complexity of the phenomenon calls for use of more precise terminology. Being familiar with and using the proper terms when debating this issue will help to advance the discourse and to determine the correct approaches to measuring the scope of the problem (Ross, 2015).

The term "illicit tobacco" trade is defined by the WHO FCTC (WHO, 2005) as a practice or a conduct prohibited by law which relates to production, shipment, receipt, possession, distribution, sale, or purchase of tobacco products, including any practice or conduct intended to facilitate such activity. Therefore, the term "illicit tobacco trade" covers all illegal activities related to the tobacco trade, not just the circumvention of tobacco taxes. Illicit trade can occur anywhere along the supply chain, from manufacturing, through distribution, to the retail stage. Diversion

from legal to illegal trade typically occurs before the point where taxes are assessed, particularly when diversion is motivated by tax evasion.

Circumvention of taxes is classified as either tax avoidance (legal methods of circumventing taxes) or tax evasion (illegal methods for circumventing taxes). *Tax avoidance* includes legal activities and purchases in accordance with customs and tax regulations, most of which include the payment of some taxes, and are done mostly by individual product users (e.g. cross-border shopping, duty-free shopping, internet and mail/phone purchases), but companies also engage in it (e.g. changing some product features or its production process in order to reduce tax liability). *Tax evasion* consists of illegal activities intended to avoid paying some or all taxes. It includes smuggling products across borders, selling genuine products that were manufactured illegally, selling counterfeit products, illicit whites (brands manufactured legally but distributed to large extent via illegal supply channels for the purpose to evade taxes (Ross, 2015)), or selling or buying products via internet, phone, or mail without paying the appropriate taxes. Counterfeit products are manufactured without authorization of the rightful owners of the trademarked brand, with intent to deceive consumers and to avoid paying duty.

In the alcohol market, the important term is “unrecorded alcohol”. WHO defines unrecorded alcohol as alcohol that is not recorded in the country where it is consumed. This includes home production, cross-border shopping, surrogate alcohol, illegal homemade and artisanal production, and illegal production and smuggling on a commercial (industrial) scale. Unrecorded alcohol can be legal or illegal. Examples of legal unrecorded alcohol are legal homemade/informally produced alcohol, alcohol intended for industrial or medical uses, legal alcohol obtained through cross-border shopping (which is recorded in a different jurisdiction), and consumption of alcohol by tourists. In many cases, an illicit product can fall into more than one category. An example is an illicit homemade alcoholic beverage created from smuggled surrogate alcohol. Policy makers are interested in unrecorded alcohol because it can limit the effectiveness of tax as a public health measure and to undermine revenue generation.

4.2.2. The Size of Tax Evasion, Tax Avoidance and Unrecorded Alcohol

There are numerous methods to measure the scope of tax avoidance and tax evasion. These include surveys of product users, examination of packaging obtained from users, retailer, from trash, comparison of sales with consumption (Gap Analysis) and econometric modeling. However, there is not a single method that will produce a definitive estimate, because all have advantages and disadvantages. Since the weakness of a particular approach can be exacerbated by specific market conditions, it is important to use local specific knowledge and creativity when applying these methods. Given the complexity of tax avoidance and evasion and the methodological limitations, it is important to triangulate the estimates of using different methods. Many studies apply the same method over time to capture changes in tax avoidance/evasion rather than generating a single point estimate. For more detail, see Ross (2015) and WHO (2022).

A 2009 study based on a sample of 84 countries found that 11.6 percent of the world’s cigarette market was illicit. A more recent study using data from 36 countries found a similar estimate: the illicit cigarettes market share was 11.2 percent (Goodchild et al., 2020). Estimates of the size of the illicit alcohol market depend on the definition of illicit alcohol. Estimates focus primarily on unrecorded consumption, of which illicit market is just a subset. Since illicit product can fall into more than one category, there is a risk of overestimating the size of the illicit alcohol market. WHO reports that the global share of unrecorded consumption was 25.5 percent in 2016. This average estimate hides large regional differences as well as differences related to income. These estimates come with two major caveats: first, they are primarily based on expert opinions supplemented by survey data to allow for statistical modeling; second, it is not clear how much of the unrecorded consumption is illicit (WHO, 2022).

The industry is motivated in exaggerating the extent of tax avoidance/evasion. Studies supported by the industry cannot be trusted due to lack of transparency and the use of potentially contaminated data (Ross and Blecher, 2019).

4.2.3. Causes of Tax Evasion, Tax Avoidance and Unrecorded Alcohol

Tax evasion, tax avoidance and unrecorded alcohol is motivated by numerous factors, both on the demand and supply side. On the demand side, customers choose how much of their income to allocate to different products based on relative monetary prices, perceived quality, ease, and costs of purchase, expected legal costs associated with purchasing illegal products, social norms, and other relevant variables. Customers treat low-tax products as (potentially imperfect) substitutes for full-tax products and consider their full price when determining quantity demanded. The full price consists of the amount of money the buyer pays to the seller in exchange for the product (i.e. monetary price), the costs of convenience of obtaining the product, and the risk associated with the transaction and consumption of the product. The non-monetary component of the full price represents transaction costs. For example, the point of sale can be a well-kept store near the place of residence (lower transaction costs) or a dark alley in an unsafe part of town (higher transaction costs). Those who purchase illegal cigarettes may face legal sanctions and uncertainty about the quality of the product.

Given the higher transaction costs of illicit products, their monetary price needs be lower than legal products, unless the perceived quality of illicit products is higher or a particular brand is not supplied via legal channels. The degree of substitution between legal and illegal products also depends on availability of a particular brand, individual tastes, and incomes. The monetary price differences between legal and illicit goods can be observed in many markets. In some markets the price of illicit brands can be higher. For example, in Vietnam the price of a smuggled cigarette brand manufactured in the UK was higher than that of the locally produced version of the same brand, since the smuggled cigarettes were perceived as being of higher quality (Ross, 2015).

The supply side is primarily driven by the possibility of making extra profit, but this is weighed against the size of the expected profit and the profit expected from other business activities, i.e. the opportunity cost. Factors determining the amount of profit include the size of the price gap between legal and illicit products (linked to the level of taxation and/or restriction on legal products), the costs of obtaining/manufacturing illegal products including the availability of ingredients and packaging materials, labor costs, and costs linked to the probability of being caught, prosecuted and punished, and the certainty and the severity of the punishment. These costs are a function of the strength of governance, the existence of a clear and transparent regulatory framework, the level of corruption, the strength of the rule of law, the degree of effective enforcement, the capacity of judiciary systems, the utilization of adequate sanctions, and the existence of informal distribution and organized crime networks (Ross, 2015).

Overwhelming evidence, including from the industry's own documents, shows that smuggling formed part of transnational tobacco companies' business model. There is growing evidence indicating that these companies continue to be the key drivers of the contemporary global illicit tobacco trade (Gomis et al., 2021). Many studies concluded that the size of the illicit market is to large part controlled by the tobacco industry (Ross, 2015). This industry conduct undermines the effectiveness of tax increases (Ross and Blecher, 2019).

4.2.4. How Does Tax Evasion/Avoidance Undermine Tax Policy?

Illicit trade has a negative impact on public health, government revenue, profits of legitimate businesses, safety and security, and society at large by undermining the rule of law. Opponents of health taxes argue that higher taxes and prices result in increased illicit trade and tax avoidance. However, a review of country experience indicates that taxes and prices have a limited impact on the illicit market share for cigarettes (Little et al., 2021; Ross et al., 2019). Non-price factors such as governance status, weak regulatory framework, social acceptance of illicit trade, and the availability of informal trade networks appear to be far more important determinants (World Bank, 2019).

Evidence suggests that the consumption of tobacco products is higher than it would be in the absence of tax avoidance/evasion. However, a tax increase lowers the consumption of tobacco products even in the presence of tax avoidance/evasion since the prices of both full-tax and low-tax cigarettes increase (Little et al., 2021). For this reason, tax avoidance/evasion may reduce, but does not eliminate the effectiveness of health tax increases in reducing product use. The presence of illicit products on the market is not even an obstacle in raising revenues.

Research demonstrates that even if a tax increase may lead to more tax avoidance/evasion it will also reduce overall consumption and increase tax revenues, since the observed reduction in full-tax products after a tax increase is only partially offset by substitution towards low-tax goods. Therefore, countries can safely increase taxes if they pay attention to enforcement and tax administration (World Bank, 2019).

4.3. Improving Excise Administration

4.3.1. The Importance of Data Collection

Excise administration cannot trust the data provided by the industry given the conflict of interest. Data needs to be crosschecked against independently collected statistics. The most important data to collect are traded volumes (domestic market, export, and import), product prices, tax revenue, and data related to compliance (e.g., number of seizures). Data on the retailing landscape allows another important way to cross-verify the macro data from production and trade (Baker et al., 2021).

Technology can improve the collection of information on traded goods. Digitalization allows tax and customs authorities to offer electronic tax filing, pre-populate tax returns, and verify customs and business activity. These could improve tax compliance and enforcement by reconciling payment differences, monitoring real-time revenue collection, performing audits, and using big data to assess taxpayer risks. They also reduce the time burden associated with administration. Data from a track and trace supply control system can support the investigative component of illicit product seizures, given that data held in the track-and-trace tag can be used to confirm characteristics such as the authenticity of the product, product description, manufacturer, first customer, and intended market of consumption.

4.3.2. Solutions for Tax Evasion

Tobacco and alcohol markets require particularly strong excise administration and control measures because the value of tax is relatively high resulting in higher risk. Furthermore, a significant proportion of the tax evasion occurs through organized crime channels rather than normal ways of indirect tax evasion requiring focused solutions.

The FCTC Protocol to Eliminate Illicit Trade in Tobacco Products (WHO, 2013) describes solutions for tax evasion in tobacco market. Similar measures are applicable to the alcohol market. The core prevention principles of the Protocol are described in section 4.2 above, and includes excise stamp regimes and/or more sophisticated track and trace systems, as well as bonded warehouses for products that have not yet been taxed. Box 9 gives examples of countries dealing successfully with tax evasion. Technical assistance is often required to understand the attributes and characteristics of different trace and track systems, as well as their operating constraints to ensure that authorities are procuring and implementing cost effective systems best suited to their circumstances. In addition, effective enforcement penalties are needed to ensure compliance with these administrative controls (Petit and Nagy, 2016).

Strengthening the general and specific excise-related capacities of both the Lao Tax and Customs Administration is required in parallel with the recommended significant increase of excise duty rates. This is necessary to achieve the revenue and health policy impacts of such an increase. Reinforcing management capacities, in particular developing relevant anti-fraud policies and operational plans, as well as monitoring and evaluating their implementation are needed. Further, simple changes to data collection forms, such as requiring reporting on volumes, would go a long way to supporting monitoring and evaluation efforts. In the excise operational area, capacities in the collection and analysis, and the effective use of information should be strengthened. Also, developing the risk management systems, the IT capacities, and the training of staff focused on exercise-related administration is needed. The very limited results of enforcement (minimum additional revenues assessed and collected as a result of audits and the limited number of fraud cases detected, the small values and quantities of seizures following anti-smuggling activities) against the backdrop of low compliance and the relatively large size of the illicit market of excisable products requires improvements in the enforcement capabilities.

In any case, commitment, and political support to excise administration from government to enforce laws and regulations will critical going forward. This is particularly important in case of government owned enterprises.

Box 9: Examples of Countries Addressing Tax Evasion

Georgia

Since 2013, all cigarette packs intended for the domestic market must carry a paper-based fiscal stamp with a high level of security features (overt, semi-covert, and covert). These stamps are unique, secure and non-removable. Each stamp contains information stored in a serialized code intended for tracking and tracing and for a data management system. This information includes the name of producer or importer, product name, time and place of production, and volume. The data management system is located at the Georgia Revenue Service and the information sent to the data center is transmitted in near real time. A web application allows domestic producers and importers to order, forecast, pay, and activate the fiscal stamps. This electronic system of excise marking imposes an immediate control by identifying the producer, the product, and how the product entered the market. Even though the system is capable of both tracking and tracing, it is currently used only for tracing. The field officers of the Georgia Revenue Service carry hand-held inspection devices allowing product authentication. Packs intended for export carry a bar code indicating the destination country. The cost of the system (5 euros per 1,000 stamps) is only marginally more expensive than the previous tax stamp system. Costs were initially covered by the government but since 2018 have been passed on to producers and importers (World Bank, 2019).

United Kingdom

The United Kingdom has followed a different approach that included systematically assessing the scale of tax evasion, creating a new enforcement agency; deploying overseas intelligence officers to intercept and seize smuggled products before entering the country; reducing the returns to smuggling by increasing criminal and civil sanctions; adding more customs officers and x-ray scanners to increase border enforcement; placing covert markings on cigarette packs allowing authorities to authenticate products; and a focus on the disrupting of supply and distribution chains of illicit products. This occurred while simultaneously increasing taxes on excisable products and measuring dramatic declines in illicit volumes (Blecher, 2019).

4.3.3. Tax Revenue in the Presence of Tax Evasion/Avoidance

Research demonstrates that tax avoidance/evasion may reduce, but do not eliminate, the effectiveness of tobacco tax increases in reducing tobacco use and raising revenues (Ross, 2015). For example, in Sweden cigarette tax increased by 43 percent between December 1996 and August 1997, while the share of illegal cigarettes consumption rose from 2.3 to 5.8 percent of total consumption between 1996 and 1998. However, the overall demand for cigarettes declined and smoking prevalence dropped by 19.1 and 4.4 percent among men and women, respectively. The largest decrease was among youth and young adults (16–24 years old), whose prevalence fell by 25 and 17.4 percent among males and females, respectively. Additionally, tobacco tax revenue rose by 9 percent in 1997 compared to 1996 (Ross, 2015). Similarly, a significant 1999 cigarette tax increase in California that resulted in large price differences with all its bordering states and countries motivated only 5 percent of smokers to purchase tax-free cigarettes, demonstrating that a cigarette tax increase can achieve the public health objective of reducing smoking despite the presence of tax avoidance/evasion (Ross, 2015).

An increase in health taxes does not automatically lead to an increase in tax evasion (Ross et al., 2019) or unrecorded consumption (Rehm et al., 2022). Since illicit tobacco and unrecorded alcohol are usually cheaper than legal/registered ones, a standard argument against raising health taxes is the increase in illegal/unrecorded consumption, particularly in countries with weak tax administration capacity. In practice however, the amount of illegal/unrecorded consumption does not only depend on the taxes that are levied but also on other factors including the price and availability of illegal/unrecorded products, how they are perceived by the population and the policy measures taken to reduce illegal/unrecorded consumption.

Empirical evidence showed that the illicit cigarette market declined after the 2017 tax increase in Mongolia (Ross et al., 2019). Similarly, recent increases in alcohol taxes in Kenya did not lead to substantial increases in either unrecorded consumption or decreases in government revenue (Rehm et al., 2022). On the other hand, Finland decreased alcohol taxes by 33 percent in 2004 to reduce the tax differential and prevent cross-border shopping after Estonia joined the European Union. Yet, unrecorded consumption in the country increased (WHO, 2017d).

4.4. Interface between Tax Policy and Excise Administration

4.4.1. The Role of Tax Structures in Excise Administration

The more complex the tax structure, the more challenging excise administration becomes. Tax systems need to be designed to target externalities and internalities, motivating complex tax designs, specifically on alcohol and SSBs where the alcohol or sugar content may be part of the tax structure or tax base. Simpler tax designs (e.g. volumetric taxes) may be more effective when tax administration capability is limited or lacking.

The ad valorem tax structure in Laos makes excise administration more difficult because it requires an assessment of the value of goods. This assessment must happen early in the supply chain because the tax base is wholesale price, ex-factory price or CIF. This makes it even more challenging, because the tax administrator must rely on manufacturers and importers who have low compliance around the tax liability. Tax avoidance/evasion in this type of tax system is almost guaranteed (Ross et al., 2017). Using retail price as the tax base is preferable since retail prices can be verified independently by the authorities (Ross, 2018; Ross et al., 2017). However, this is still an inferior policy option compared to using high uniform specific tax.

4.4.2. Product Specific Challenges; Intended versus Unintended Substitution

When there are close substitutes to the excisable products demand can be very sensitive to price. For example, higher prices for cigarettes may lead consumers to trade down to cheaper tobacco products such as roll-your-own cigarettes. In this case, the improvement in health outcomes and the tax revenue would be less than expected. These situations can be avoided through careful tax design such as equalizing tax rates on close substitutes (Lane, 2022). In Tonga, for example, the differential tax imposed on imported and domestic SSBs resulted in substitution towards the lower-taxed domestic products. Surveys showed that only a minority of consumers changed consumption patterns (World Bank, 2020b). New Zealand increased tax on the ready-to-drink (RTD) alcohol in 2008. The policy reduced RTD consumption by 35 percent, but increased the consumption of spirits by 18 percent, and the consumption of beer by 5 percent. However, the total consumption of taxed alcoholic beverages declined by 0.5 percent (New Zealand Law Commission, 2010).

4.4.3. Tax Avoidance and Tax Reforms

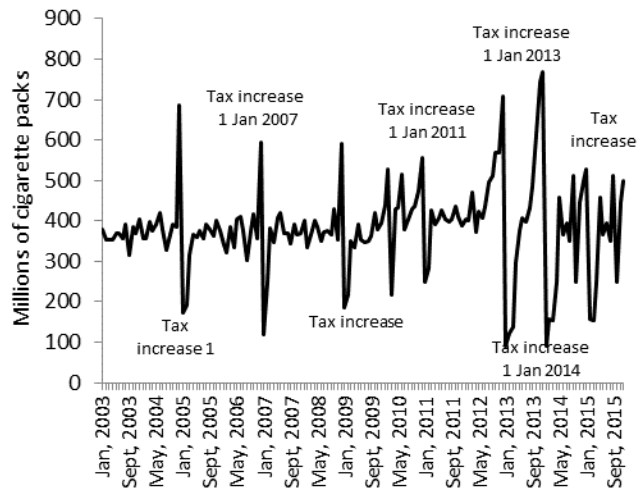
Manufacturers and importers of products subject to health taxes employ several strategies to negate or minimize the full effects of health tax increases, including frontloading, changing product attributes or production processes, lowering prices, over- or under-shifting taxes, timing of price increases, and engaging in price discrimination and/or price promotions.

Frontloading, also called forestalling or stockpiling, occurs when firms oversupply products to the market before tax increase. This temporarily increases production, removals from warehouses to distribution, and official sales, since sales are recorded when companies pay excise/sales taxes, not when a product is purchased by a customer. Companies engage in this practice to pre-pay the lower tax rate before the new higher tax rate comes into effect. They may even advise their customers to do the same by stocking up before taxes/prices increase. When the tax increases, retailers then have available stock of lower taxed products for sale that can be sold for the old price, or for the higher price — thereby increasing margins. Either way, firms try to avoid paying the difference between the old and new tax rates on some products that are still in distribution after the new tax rate is in effect. The longer in advance a tax increase is known, the more time the supply chain has to oversupply the market. However, oversupply is limited by shelf life.

Since it takes the market time to absorb the oversupply, production, removals from warehouses, and official sales decline during the period immediately following the tax increase. This is often exploited by firms who argue that the decline is a result of an influx of illicit products whereas it is a function of supply chain strategy. However, once the oversupply of products is absorbed, usually within a few months, official sales and tax revenue will increase to the new market equilibrium level, reflecting consumers' responses to higher prices after the tax increase (Ross et

al., 2017). Figure 17 shows that the volume of cigarette removals from warehouses in the Philippines increases in anticipation of tax increases and decreases immediately after the tax change as the industry waits for the lower-taxed cigarettes to be sold. Government records showed inflated tax revenue before the tax increases followed by a drop afterward. The front-loading was addressed during 2014 resulting in less revenue fluctuation in 2015.

Figure 17: Volume of cigarette removals in the Philippines (domestic production)



Source: Ross et al. (2017)

Many of these responses to health tax increases are predictable since they are used systematically across countries. Governments can and should adopt appropriate measures to eliminate or reduce tobacco industry manipulation. They can, for example, ban sales of products with old tax stamps, or limit the quantity of products released to the market in the months prior to a tax increase, using past trends in cigarette demand to forecast the market capacity. This requires systematic data collection to monitor industry behavior. Data monitoring before and after a tax increase is needed to develop messaging related to frontloading. Additionally, it can be useful to monitor industry messaging before and after a tax increase, changes in illicit cigarette trade, and changes in consumer behavior.

A tax increase can be either fully passed through to retail prices, or it can be over- or under-shifted. Over-shifting a tax increase raises retail prices more than the tax increase. Higher profit margins compensate the industry for reduced sales due to higher tax while the government can be blamed for the full price increase. Over-shifting can occur selectively, e.g. on higher priced brands, since the demand for them is usually less price sensitive. Over-shifting at all price levels has a positive impact on public health since it suppresses demand but results in less than predicted tax revenue. In South Africa, for example, inflation-adjusted tax increased by 377 percent from 1994 to 2010. During that time the industry increased its net-of-tax price by 173 percent. It increased both tax revenue and the industry's profitability despite lower sales. This industry behavior indicates that the market can absorb higher prices, and therefore higher taxes (Ross et al., 2017).

Under-shifting reduces the public health impact of tax increases due to a smaller than expected reduction in demand but increases the tax revenue above the expectation due to larger than expected sales. Ad valorem taxes are more likely permanently under-shifted (see the example of Vietnam in Box 4) as the supply chain seeks to lower their tax liability by reducing the tax base. Sometimes under-shifting of tax increases can be temporary attempt to preserve sales as the industry absorbs a part of the tax increase, usually on low price brands, to retain price-sensitive consumers. From January 2007 to January 2008, the inflation-adjusted cigarette excise tax in Ukraine rose by 6 percent, yet real cigarette prices fell by 11 percent as the industry absorbed the small tax increase to keep prices and the demand stable. After more significant tax increases in 2009, the tobacco industry began to over-shift increasing its own price exclusive of tax by 39 percent from January 2009 to December 2010 (Ross et al., 2017). Using a specific tax or setting a minimum tax floor can limit the industry's under-shifting since it guarantees that a product cannot not be sold for less than these values and will enhance the effectiveness of tax as public health tool.

5. Reform Options for the Lao PDR

Evidence based health tax policy is the most effective and efficient tool to reduce negative impacts of consuming unhealthy products that generate negative externalities and internalities. However, the current tax structures and tax rates in Lao PDR are inadequate to perform this function. Further, the ILA creates a significant barrier to effective tax collection and should end as soon as possible.

Health-oriented excise tax reforms should focus on reforming the tax structure, increasing tax rates and improvements in tax administration. While the tax structure on cigarettes already includes a specific component, this component is ignored by most of the tobacco industry, claiming an exemption. Removing this exemption would be a critical step in health tax reforms.

Tax structure reforms on alcohol and non-alcoholic beverages are also advised, with specific taxes replacing the ad valorem tax. Tax tiers should be removed and reformed to ensure alcoholic products of similar strength are taxed more equally. Furthermore, government should consider which non-alcoholic beverages are subject to excise taxes and ensure that healthy beverages like unsweetened water are not subject to excise. This will essentially reform the non-alcoholic beverage tax into a SSB tax and a true health tax. Alongside the reforms in tax structures, raising tax rates, notably the specific tax component, will result in increases in tax revenues and improvements in health.

Tax administration needs improvements to better control the supply of products with health-related externalities and internalities. This can be achieved by accelerating digital transformation/automation, for example by introducing a track and trace system.

Less complex reforms, such as improving reporting forms to collect data on volumes, will also support strengthened monitoring. Given identified data gaps in terms of market size, prevalence, price dispersion, price/income elasticities, it is imperative that the government conduct a review of data it collects and develop a data collection plan so that the important market parameters can be captured, analyzed, and fed into evidence-based policy reforms.

In the long run, tax rates need to increase significantly and regularly to reduce the affordability of tobacco, alcohol and SSBs and to effectively control the public health impact of tobacco/SSBs use, and alcohol abuse. Combined with reforms to the tax structure, they may also generate additional tax revenue. The post pandemic effort to revive the economy is a good opportunity to do so.

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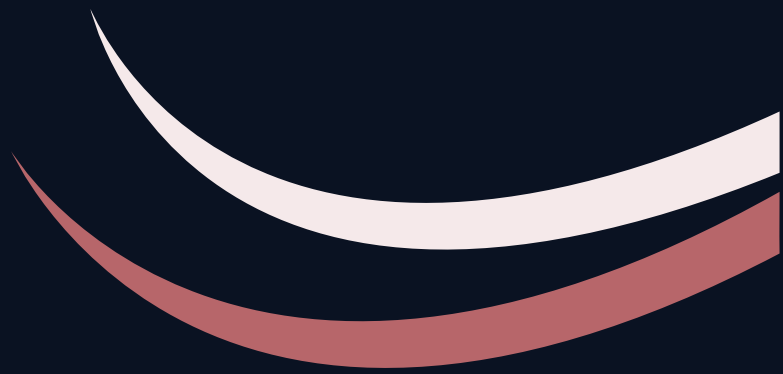
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