E/C.18/2024/CRP.36

Distr.: General
27 September 2024

Original: English

Committee of Experts on International Cooperation in Tax Matters
Twenty-ninth session
Geneva, 15-18 October 2024
Item 3(o) of the provisional agenda
Health Taxes

Co-Coordinators' Report: New Chapters

Summary

This note is provided to the Committee ***for first discussion*** at its Twenty-ninth Session.

At its Twenty-third Session in October 2021, the Committee established the Subcommittee on Health Taxes. Health taxes are excise taxes on tobacco, alcohol, sugar-sweetened beverages and other harmful products that are intended to reduce their consumption, thus improving health outcomes. Health taxes therefore directly support a number of the Sustainable Development Goals. The Committee's work on this topic would focus on providing tax policy and administration guidance to assist countries in adopting the most effective health taxes, from both a health and revenue perspective.

At its Twenty-fourth Session, the Committee approved a work program (E/C.18/2022/CRP.4) that would focus on producing a handbook on health taxes for developing countries.

This document contains drafts of the remaining substantive chapters of the proposed handbook. It includes *Chapter 6: Practical Considerations for Health Tax Revenue Use; Chapter 7: Administering Health Excise Taxes; Chapter 9: Ensuring Coherence Between Policy Instruments*; and *Chapter 11: Specific Issues with Respect to Tobacco Taxation*.

The Subcommittee now asks the Committee to have a ***first discussion*** of these chapters.

Chapter 6: Practical Considerations for Health Tax Revenue Use

I. Introduction: Setting the Scene

Especially in these times of limited fiscal space, countries are increasingly considering revenue raising and spending policies simultaneously to boost growth, generate revenue equitably, and channel expenditures to priorities that strengthen human capital and social assistance programs.[1]

In this environment, health taxes and their revenue use have generated strong interest amongst policy makers, and will be the focus of this chapter. These have been demonstrated to be one of the most cost-effective policy measures for reducing the consumption of alcohol, tobacco and sugar-sweetened beverages- and in turn reduce associated mortality and morbidity. Well designed and administered health taxes make sense in their own right, and are a way to generate revenue while addressing a set of negative internalities and externalities (see previous chapters). By supporting healthy outcomes, health taxes can also enhance human capital, preventing illness and premature deaths from Non-Communicable Diseases (NCDs) that cut people off in their peak productive years, thereby contributing to future economic growth (World Bank 2021).

Health taxes are a relatively underleveraged revenue-raising resource, which can be used to support fiscal recovery and strengthen the general budget, especially when designed and administered well (World Bank 2023a). Compared to other taxes, they are relatively easy to administer and do not create distortions that may impact economies. Health tax revenue will be a function of how much related products are consumed in the country of interest, however, when all else is equal (e.g., holding population size and consumption levels constant) magnitudes will very much depend on the effectiveness of the tax design and its administration (see chapters 4 and 7). For instance, a review of country-level revenue statistics show that tobacco and alcohol excise taxes generate an average of 0.6 and 0.3 percent of GDP in tax revenue, respectively, with SSB taxes generating significantly less (World Bank 2023b).

On the spending side, some national governments are also exploring the use of health tax revenue to meet policy objectives related to specific sectors, programs or populations. In particular, in part due to the special nature of health taxes being linked so closely to health-related internalities and externalities, the use of health tax revenue has often, although not exclusively, been proposed as a mechanism to support health sector policy objectives (Tandon et al 2021). For instance, earmarking revenue is often proposed as a way to protect resources for particular priorities in the health sector, insulating funding flows to these policy targets against shifts in broader budgetary priorities. Indeed, for health tax revenue, WHO sources on tobacco, alcohol and SSBs all discuss the role that earmarking can play in financing social priorities given various contextual factors at country level including public finance capacity, and how they can be leveraged to enhance the likelihood of the passage of health tax reforms from a political economy perspective (WHO 2010, 2016, 2021, 2022, 2023).

There are a range of mechanisms that can be considered in the context of "revenue use", or the practice of directing health tax resources towards expenditure priorities. These range from relatively more rigid approaches, such as earmarking, to less rigid approaches including various forms of commitments (see a detailed discussion of types below).

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[1] The World Bank defines human capital as the knowledge, skills, and health that people accumulate over their lives—is a central driver of sustainable growth and poverty reduction. More human capital is associated with higher earnings for people, higher income for countries, and stronger cohesion in societies. Resources can be found via the World Bank Human Capital Project: https://www.worldbank.org/en/publication/human-capital#About

Of these, earmarking – the process of linking revenue to an expenditure priority explicitly via legislation – is perhaps the most well-known, and there are a considerable number of countries that use earmarking as a part of their regular fiscal rules. Some forms of earmarking align with standard international budget and public finance principles, while others, such as hard earmarking, do not (WHO 2017). However, at a conceptual level, fiscal experts often view any type of earmarking as a deviation from best practice, where budget processes are efficient in allocating resources to priority expenditures. This perception is due to the likely impacts of earmarks on reduced responsiveness and introduction of rigidities that impact the ability to shift resources across emerging priorities and in times of fiscal need (Allen, Hemming and Potter, 2013), as well as on principles such as budget universality and common pooling (Bird and Das-Gupta, 2014, Potter and Diamond 1999, Allen, Hemming and Potter, 2013). In particular, some authors state that earmarking is a questionable practice when it comes to using revenue from general taxation (Allen and Tommasi, 2001). However, the same authors also articulate that earmarking can improve fiscal efficiency by linking payment transparently to related expenditures in some cases, especially when there is a strong link between the tax and benefits, making them more publicly acceptable (IMF 2001; Allen and Tommasi 2001; Allen, Hemming and Potter, 2013). Others are more equivocal, stating that the net benefit or cost of earmarking is determined by design considerations (Musgrave and Musgrave 1973). Indeed, the line is not always clear, as some take the position to articulate both pros and cons of the practice.

In a well-functioning fiscal system, spending priorities will be regularly reviewed and decided upon as part of the regular budget process, and will be financed from general revenue. When countries already have strong budgeting processes and institutional and governance systems in place, spending priorities will be met (see chapter 3: Role of Health Taxes in National Budgets). However, even in these contexts, health tax reform in and of itself may still provide a window to improve resource allocation or attention to sectoral policy objectives, without the use of an earmark. For instance, early tobacco tax reforms in South Africa in the 1990s coincided with significant increases in social spending and emphasis on health, as well as general improvements in economic growth and tax buoyancy.

This chapter provides an overview of key considerations regarding health tax revenue use. Drawing on a new database on earmarking, as well as case studies that touch on various emerging revenue use options, the chapter first outlines categories for understanding policy priorities, a taxonomy for considering how health tax revenue use strategies – including a focus on earmarking as the most formal approach to revenue use – can be classified and then applied based on what is best suited to meet those priorities in various contexts. The chapter then moves to a brief review and categorisation of country practices according to their policy objectives, how this has worked for health financing, and a consideration of political economy and public financial management considerations.

2. Strategic considerations for health tax revenue use

Design principles of health taxes are well covered in other chapters in this handbook. It is important to emphasize that first and foremost, health taxes should be well designed, implemented and administered. Without these considerations- for instance- not following best practice principles such as reliance on a higher specific component and indexation for inflation, revenue may be eroded over time, and any discussions focused on expenditure priorities from this revenue source will be fruitless. With very limited revenue and health impact due to a badly designed and executed tax, considering how their revenues are to be used will be a moot point.

Once appropriate design considerations have entered into discourse, it may be desirable to complement these discussions with those around expenditure priorities. To this end, there are two key decision points for finance policy makers in considering revenue use in the context of health taxes. The first decision point relates to potential policy objectives which may be conceptually linked to a health tax, such that the use of revenue may be considered appropriate, either to offset potential (negative) impacts of the health tax, further support the objectives of the health tax, or address political and/or constituency concerns related to the health tax.

The second decision point relates to the most appropriate revenue use approach that can be used to direct resources towards that particular priority. We use the term "revenue use" broadly because in not all contexts will earmarking be the best way to direct funds. To look at this issue, we use a framework that sorts these approaches by situating them in a spectrum that starts from least rigid (e.g., commitments adopted in parallel to a health tax reform) to the most rigid (e.g., a hard earmark that ties the health tax revenue raised to a spending purpose by law).

a) Defining the policy priority

The first step in determining an appropriate approach to revenue use is clarifying the policy priority or objective, which in many cases is conceptually linked or aligned to the objective or impact of the health tax. Although revenue use strategies can be put in place simply from a political economy perspective of generating public support for health tax reform, there is usually also a specific rationale cited as to what the revenue will fund. In practice, there are three common policy objectives related to the use of health tax revenue, which include reinforcing measures, compensatory measures, and other social priorities (see figure x). *Reinforcing measures* align to the objectives of health taxes to reduce consumption of specific products associated with health risks (health promotion, smoking cessation). For instance, a Ministry of Health may include a reinforcing measure to introduce cessation programs for smoking or health promotion at the time of a health tax reform, independently of receiving any funding from the health tax directly. *Compensatory measures* target particularly impacted populations to offset the impacts of health taxes (for example, tobacco leaf farmers where in some contexts, livelihoods may be impacted by reduced consumption of tobacco following the implementation of a health tax- See chapter 8). Finally, there may be *other social objectives* that can also be supported by health tax revenue, which can be achieved through specific sectoral financing, or targeting of standalone programs (such as in Lithuania where 1% of revenue from tobacco is earmarked to finance a Physical Education and Sport Support Fund).

These policy objectives related to revenue use can also be broadly considered from the perspective of the 'level' at which they are operationalised; either addressing broad, sector-wide objectives, an objective to fund a particular program, or an objective to direct resources towards a particular population that would benefit from the funding.

In this section, we describe in detail the rationale and nature of these different policy objectives related to revenue use, based on practice to date.

Figure x. Examples of Defined Expenditure Purposes to meet Policy Priorities

Priority Level	**Reinforcing measure**	**Compensatory measure**	**Other social priority**
Aim	*Directly supports a specific health tax policy by funding programs aligned to its objectives (i.e. smoking cessation)*	*Addresses equity impacts and other unintended consequences of taxation that target particular impacted populations*	*Supports broader sectoral financing, or other programs or populations within health or other sectors*
Sector	*Preventive health*	*Agriculture*	*Environment, health insurance*
Program	*Cessation support, cancer treatment, safe drinking water*	*Welfare measures*	*Child development*
Population	*Youth anti-smoking campaigns*	*Activities supporting tobacco farmers*	*Activities supporting general health of elderly*

Reinforcing measures

Health taxes are commonly linked to preventive health initiatives, to increase available funding in a global context where preventive health has been shown by some studies to receive as little as 2-3% of national health budgets (Gmeinder et al, 2017). These preventive health initiatives support and further the broad health objectives of such taxes, helping to reduce consumption of unhealthy products and foster health promoting behaviours that mitigate the prevalence of risk factors for NCDs. Specifically, these reinforcing measures support the fiscal disincentives for consumption of unhealthy products such as alcohol, tobacco and SSBs through addressing other drivers of consumption (such as awareness of risks or marketing), contributing to healthier behaviours and improved health outcomes (World Health Organization 2019). For example, there is some evidence that complementary measures such as labelling and awareness campaigns can have a multiplier effect on the impact of a health tax through addressing knowledge of health harms as a driver of consumption, in conjunction with the price incentive (Thow, Downs et al. 2014; Colombo et al 2023- See also chapter 9).

As such, using revenue to create additional incentives for behaviour change can further the impact of a tax and support improved health outcomes. At the sector level (preventive health), this can include the use of health tax revenue to create new institutional structures. Over the past four decades of tobacco control, this has often taken the form of using tobacco tax revenue to create health promotion foundations (Schang, Czabanowska et al. 2012). For example, the Western Australian Health Promotion Foundation (HealthWay) – funded through hard earmarking of tobacco tax revenue – contributed to reduced smoking prevalence through targeted health promotion and cessation programs combined with a comprehensive tobacco sponsorship buy-out that significantly reduced the marketing of tobacco (Holman, Donovan et al. 1997). Similarly, in Thailand, a 2% surcharge of excise taxes on tobacco and alcohol is used to fund ThaiHealth, which was established in 2001 (Pongutta, Suphanchaimat et al. 2019). ThaiHealth supports evidence generation, campaigns and social mobilization to address noncommunicable disease risk factors, such as tobacco-use, harmful use of alcohol and sedentary behaviour (Sopitachasak, Adulyanon et al. 2015; Tangcharoensathien et al 2024).

The creation of formal institutions with health tax revenue has both strengths and limitations. A key strength is sustainable financing for preventive health activities (Javadinasab, Asl et al. 2019). However, the sustainability of this funding is not always guaranteed. In the case of the Victorian Health Promotion

Foundation (VicHealth) in Australia, tobacco tax earmarking was not sustained due to political challenges, and the earmarks ceased 10 years after its creation. However, the earmarking of tobacco tax revenue did lead to the establishment of a well governed and regarded institution, which now receives ongoing budgetary allocations for health promotion activities after the end of tobacco tax earmarking (Borland, Winstanley et al. 2009; World Bank, forthcoming). However, institutionalization can also create rigidities, and challenges adapting to fluctuations in revenue – including in some cases administrative capacity challenges in disbursing revenue. For example, in French Polynesia an earmarked tax on confectionary and SSBs generated more revenue than was expected, and was not able to be fully spent by the health promotion fund, which led to a decision to redirect revenue (Thow, Quested et al. 2011).

Health tax revenues can also be used to fund preventive health through sector-level initiatives. For example, in the Republic of Korea, the Healthy City Wonju project was effectively financed through earmarking the local tobacco consumption tax (Nam, De Leeuw et al. 2011). This project takes a comprehensive approach to preventive health, in line with the WHO Healthy Cities Initiative, including integration of health considerations into urban planning and other facets of local government, introduction of health impact assessments, and partnerships for health promotion.

At the program level, reinforcing measures tend to focus on health promotion broadly, as well as specific programs that target the products associated with risk. The use of tobacco tax revenue to fund cessation programs is well-established. Cessation programmes target people who are most affected by smoking and excise tax increases, but who have fewer resources to quit, which creates a strong ethical rationale for using tobacco tax revenue for their support (Hoek, Edwards et al. 2021). Cessation programs are also highly cost-effective, even when taking into account lost tobacco tax revenues. A study conducted in South Korea found a 1.4 – 1.7 (expressed as benefit: cost ratio) return on investment, resulting from [the allocation of tobacco tax revenue] to smoking cessation programmes (Connolly, Baker et al. 2018). Contributors to cost-effectiveness include the higher lifetime earnings that former smokers generate as well as lower lifetime healthcare costs, resulting from a reduction of smoking-attributable disease and mortality. (Connolly, Baker et al. 2018). Related to this is the use of health tax revenue to ensure equity of access to healthier alternatives. For example, in Mexico, SSB tax revenue was earmarked for potable water in schools (Hagenaars, Jeurissen et al. 2017).

Health promotion programs can complement and reinforce health taxes through creating supportive environments. The Government of South Africa, for example, indicated soft earmarking of SSB tax revenue to fund health promotion initiatives (Hofman, Stacey et al. 2021). Similarly, the Government of French Polynesia earmarked revenues for community and health promotion programs (Hagenaars, Jeurissen et al. 2017). In the United States of America, revenue from city-level SSB taxes has been used for health-related investments including access to healthy foods and beverages, and promotion of overall physical, mental or social health and wellbeing (Krieger, Magee et al. 2021). There is little information on the effectiveness of these programmes specifically, however, there is global evidence for the effectiveness of health promotion in increasing health-promoting behaviours (Basińska-Zych & Springer 2021; Nickel & Knesebeck 2020; Nickel & Knesebeck 2019).

At the population level, health tax revenue has sometimes been directed towards youth, who are at a critical lifestage for prevention. For example, revenue from the UK's SSB tax was linked (informally) to school-based health programmes (Thow, Rippin et al. 2022). Specifically, funds generated by the levy were promised by the government to support investment in children's breakfast clubs and school sports programs (Hashem, 2024). In the USA, SSB tax revenue collected at the city and state level has been used to promote 'Youth Development' in Berkeley, Boulder, Oakland, San Francisco and Seattle, including through mentoring, job training, and academic support for high school students (Krieger et al 2021).

Compensatory measures

'Compensatory measures' categorises the use of health tax revenue to address equity impacts and other unintended consequences of taxation that target particular impacted populations. These linked compensatory mechanisms have for the most part been focused on tobacco more than alcohol, and increasingly SSBs, and generally target actual or perceived reductions in consumption of targeted goods as a result of the taxes, that can have impacts on specific populations. Authorities often need to respond to concerns raised regarding the household budgetary impact of higher prices on addictive products such as tobacco and alcohol on low-income consumers, as well as the potential negative impacts of health taxes for producers, particularly those who are low-income primary producers.[2]

Program level approaches to compensatory revenue use have often focused on consumers. The addictive nature of tobacco, in particular, has given rise to concerns regarding regressivity and the impact of health taxes on household budgets. Any negative financial impacts on low-income households are likely to be short term and somewhat offset by reduced healthcare costs, better health, and improved welfare (Paraje et al, 2023). Further extensive research has shown that health taxes are progressive when factors such as sensitivity to price changes in poor populations as well as savings and health care costs are taken into account.[3] However, governments may have legitimate concerns for the welfare of people who are very poor and where behaviour change may be quite difficult (for example, due to tobacco addition), and may take steps to mitigate such impacts through compensatory welfare-oriented initiatives. As a result, health taxes may be presented as a part of a fiscal package that includes explicit compensatory mechanisms aimed to offset the short-run fiscal or equity impacts of the tax reform on households. For example, the 'pro-poor' TRAIN tax reform in the Philippines in 2018 included both health taxes (new initiatives and increases to existing taxes) and substantial equity-oriented measures to support low-income households (Onagan et al, 2019).

Tobacco farmers have been identified as a priority for population level initiatives, funded from health tax revenue, due to concerns regarding the potential impacts of declining tobacco use on their livelihoods. Tobacco farmers are often poor and face challenges in shifting to alternative crops due to the vertically integrated nature of the tobacco industry (Lecours 2014) and the unusual seasonality of the tobacco crop. For example, in both Indonesia and Philippines, part of earmarked health tax resources is used to target programs in tobacco growing regions. While in Philippines earmarking funds to farming regions was an important decision for political economy reasons, the impact on supporting crop transition away from tobacco has been limited. In Indonesia, for instance, tobacco excise revenue was allocated to be used for health in provinces and districts engaged in tobacco production based on the amount collected, with the majority of revenue going to 3 provinces: East Java, Central Java, and West Tengarra.[4] However, there was

[2] These impacts may be limited. In LMICs, fiscal incidence analysis often finds the excise taxes are not regressive, as products are often used by higher income households, and that there are very few tobacco producing countries where tobacco farmers welfare may be a concern in this regard. Please see Tobacco Excise Taxes and Tobacco Leaf Farming- Key Considerations. Global Tax Program Health Taxes Knowledge Note Series (World Bank, 2023c).

[3] See here for summary of research, as well as distributional effects of tobacco taxation in Bangladesh, Bosnia and Herzegovina, Chile, Georgia (2), Indonesia, Moldova, Russia, South Africa, Ukraine, Vietnam; Distributional impacts of taxes and benefits in eight post-soviet countries; Distributional effects of tobacco tax in eight low and middle income countries; Comparative study on redistribution via VAT and cash transfers in four middle income countries, Compartmental model study on consequences of cigarette price increases in 13 middle income countries; SSB Taxation pilots for Kazakhstan and Ukraine; as well as the TOBACTAX Tool

[4] Further, while it is estimated that from the provincial earmarks more revenue went to health than was intended (60% instead of 40% of the revenue prior to the 2023 revision), this is only tracked at the federal level and not based on a detailed accounting of how the earmarked resources are expended by province (World Bank, forthcoming).

limited impact on farmers from the additional earmarked revenues going to these regions, although resources were transferred for this purpose. Similar concerns regarding producer impacts have also been identified regarding sugar farmers (Mounsey et al 2020; Thow et al 2021), although to date there has not been any revenue use recorded.

Ways in which revenue use can support broader (social) policy objectives

Health tax revenue has been used to support broader sectoral financing relevant to social policy objectives. This is often focussed on the health care system, for example, through supporting health insurance, but has also included broader aspects of social policy, such as investing in human capital or community wellbeing. Although this use of revenue is broadly consistent with health tax objectives (i.e. to improve health and wellbeing in the long term), this use of revenue does not compensate directly for perceived impacts of taxes (as per compensatory measures) or contribute to the specific objective of health taxes (as per reinforcing measures).

Health tax revenue has been used to support health system initiatives, including health insurance and health worker wages. For example, SSB tax revenues in Portugal were formally earmarked for the National Health Service in 2017, and in Hungary for health worker wages via the National Health Fund in 2011 (Thow, Rippin et al. 2022).

Another broader social policy-related use of health tax revenues has been to support the development of human and community capital. For example, the Republic of Korea has formally earmarked a 30% surtax on alcoholic beverages to increase education spending, in order to improve the quality of education (Kaiser, Bredenkamp et al. 2016). However, there has been limited research into the scope and impact of this earmark. Similarly, the revenue from city-level SSB taxes in the United States of America have been earmarked in part for human and community capital investments (67% of all allocations), including early childhood education, community infrastructure improvements, and youth and workforce development (Krieger, Magee et al. 2021).[5]

Earmarking by sector: Current practice[6]

In conjunction with the diverse policy priorities outlined above, earmarking can also be considered by sector. Specifically, earmarking can be applied at whole-of-sector, program and population level (Table 1). An ongoing World Bank study examined examples where all or a portion of revenue from tobacco, alcohol and SSB taxes was earmarked for particular expenditure purposes (World Bank, forthcoming).[7] The following sections break down preliminary results from this study,[8] which examined the breadth of

[5] In this study, there were a total of 7 US cities that were analysed – Berkeley (tax introduced in 2015); Albany, Boulder, Oakland and Philadelphia (tax introduced 2017), San Francisco and Seattle (tax introduced 2018). Oakland and Seattle allocated 45% and 47% of their funds respectively to building human and community capital; Philadelphia dedicated 91% of revenue from tax to human and community capital building.
[6] Note that all figures in this section are provisional and will be updated once the forthcoming study is completed.
[7] Note that while this study uncovered some examples of broader revenue use policies, the initial objective was to examine earmarking. As such, examples of revenue use have been explored only in case studies and as they were uncovered.
[8] An upcoming study on health tax revenue use produced by the World Bank Global Tax Program health taxes project examined the number of countries that earmark health taxes for health as well as other sectoral policy objectives. The study compiled a database as well as a number of case studies including Australia- VicHealth, Botswana (In Progress), Cote D'Ivoire (IP) Dominica, Hungary (IP), Indonesia, US –Philadelphia, Jamaica, Lao PDR (TBC), Philippines; Dominica and Jamaica studies funded by PAHO. A set of additional rapid reviews are also in progress. The current practices sections of this chapter both draw from this ongoing research. The study includes

experiences with earmarking across expenditure purpose levels by examining policies from over 70 jurisdictions.[9] It is complemented by findings from case studies using revenue use policies other than earmarking. For this work, expenditure purposes were first broadly grouped into health and non-health, identifying 168 different purposes. 60% of all identified expenditure purposes were earmarked for health priorities (See table x). Note that the number of earmarked sources and expenditure purposes is not 1:1- in many cases, a single earmarked revenue stream fed into multiple expenditure purposes, or in others, multiple earmarked sources were used to fund a single, or multiple expenditure purposes.[10]

Table x. Expenditure by sector across all earmarked sources

Level	Count of Level
General sector- health	25
General sector- non health	30
Targeted population- health	6
Targeted population- non health	2
Targeted program- health	71
Targeted program- non health	29
TBD	5
Grand Total	**168**

Programs. Funding targeting programs were the most common expenditure purpose level. By far the largest specific sub-category was for targeted health programs, which aligns to overall findings that health sector most often seeks to earmark. Within this sub-category, reinforcing policy priorities were most common (45), with tobacco control as the most frequently listed priority: Over 30% of revenue earmarks directed towards this purpose. Outside of "other", earmarked funds for health promotion, which often included a broader NCD focus (13%).[11] The category "other" covered a diverse set of expenditure purposes, ranging from school health, health worker wages, nutrition, alcohol harm reduction, and illicit trade.[12] At the program level, 2 measures were also identified as compensatory measures.

Sector. funding targeted at overall health sector priorities occurred in 27 cases, such as the "health sector", MOH, or the national health insurance scheme or a health fund. In one case, the SDGs was also listed as a target. Nearly half of funds went to priorities outside of the health sector (30 cases). Investments in other sectors were most frequent for sports (8) and education (6); agriculture, environment (both US) and general social security were each present in one instance.

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examples of both hard and soft earmarking. Other case studies have also been produced on Cote D'Ivoire and Morocco by OECD which include sections on earmarking.

[9] Including Algeria, Argentina, Australia, Bangladesh, Belgium, Benin, Bolivia, Botswana, Brazil, Bulgaria, Cambodia, Canada, Cape Verde, Chad, Colombia, Comoros, Congo, Costa Rica, Cote d'Ivoire, Djibouti, Dominica, Ecuador, Egypt, El Salvador, Estonia, Finland, France, French Polynesia, Gabon, Guatemala, Hungary, Iceland, India, Indonesia, Iran, Ireland, Jamaica, Kenya, Lao PDR, Lithuania, Madagascar, Maldives, Marshall Islands, Mauritania, Mauritius, Mexico, Mongolia, Morocco, Nepal, New Zealand, Nicaragua, North Macedonia, Palau, Panama, Paraguay, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Serbia, Slovenia, Switzerland, Thailand, Tuvalu, United Kingdom, United States of America, Venezuela, Viet Nam, Yemen.

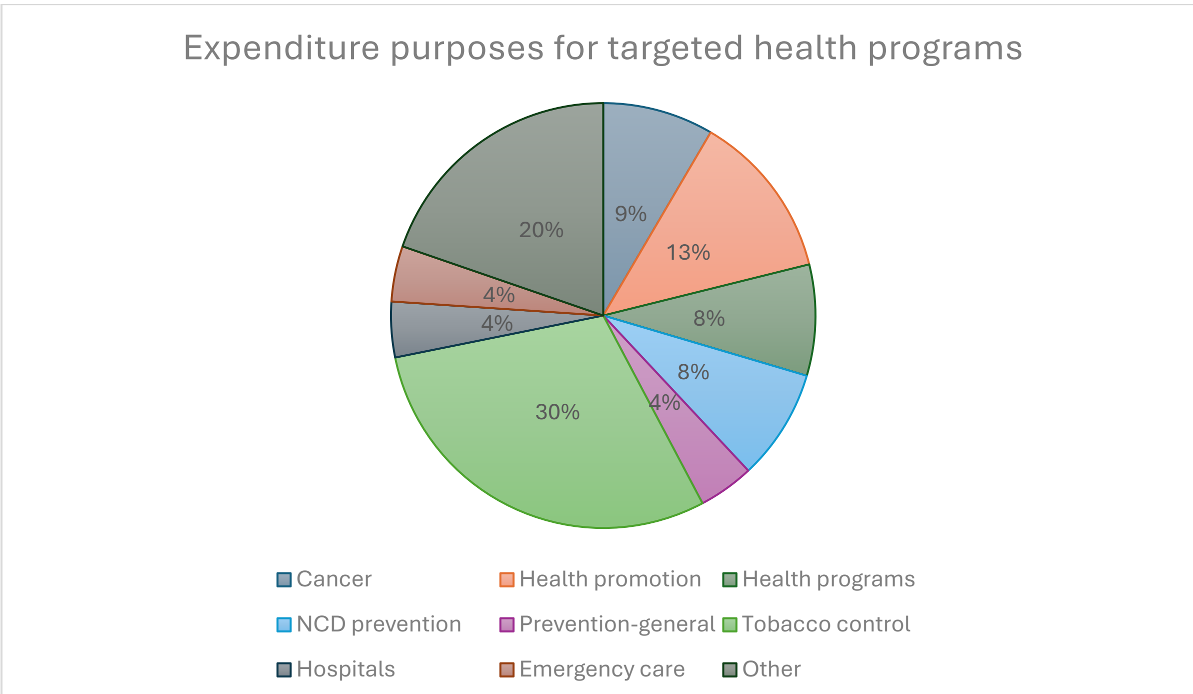
[10] Note that each particular expenditure purpose is only counted once for the purpose of this exercise. For instance, if both earmarked tobacco and alcohol tax revenue is used, for example, to fund prevention, health promotion and health insurance premiums for the poor, each expenditure purpose is counted only once.

[11] Note that insurance coverage here differs from funds targeted only at a health insurance scheme, where the expenditure purpose is not specified as improving coverage explicitly. Note as well that specific contributions for priority populations is covered separately.

[12] Note that all purposes classified as "other" included only 1 instance of that expenditure purpose.

Populations. In terms of populations, health taxes were most frequently earmarked to cover priorities for vulnerable groups (3) and poor households (2). Other populations included students in Egypt, where their insurance premiums are covered by health tax revenue, as well as insurance for tobacco growers in India. Compensatory measures targeting tobacco growers or tobacco farming (3) were also funded by earmarked revenue in Argentina, Indonesia and the Philippines.

Figure x. Targets for health tax expenditure purpose under health programs[13]



b) Revenue use mechanism

The second key consideration related to revenue use is the appropriate mechanism to achieve the policy objective. This choice will depend on the fiscal rules and degree of adherence to them within the country context, public finance capacities, as well as the existing set of funding channels at the country level that may be used to ensure transparency, efficiency and accountability to the public as a part of good fiscal practice.

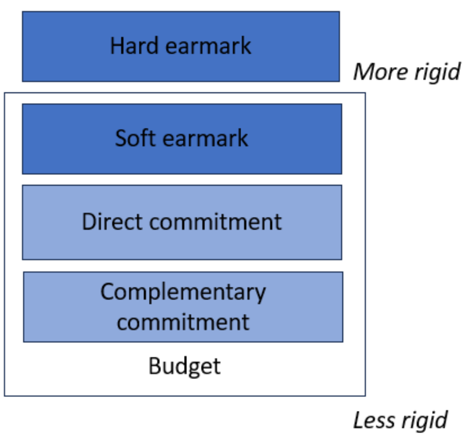
In terms of directing resources towards specific policy priorities, different levels of action may be considered. At a strategic level, for instance, before any revenue use strategy is decided, health tax reforms can often be rationalized to the public as a way to help pass a reform from a political economy perspective via their direct health impact and efficiency gains to the health sector, and without making a commitment to allocate any specific resources. Indeed, revenue use decisions may around health taxes may also be made without any health excise tax reform being enacted. Further, health tax reform can also have revenue impacts that may increase the overall budget envelope, creating opportunities for increased allocations towards social sectors. Additionally, governments may be open to some adjustment of sectoral spending

[13] Total number of countries (71): Cancer (6); Health Promotion (9); Health Programs (6); NCD prevention (6); Prevention-general (3); Tobacco control (21); Hospitals (3); Emergency care (3); Other (14)

levels away from historical trends, and sector actors can theoretically use health tax reform as an opportunity for budget advocacy, leading to active reprioritization within the budget (Tandon and Cashin 2010). Specific expenditure objectives may be put forward as a part of regular budget negotiations for particular sectors, programs or populations to be prioritized.

Following commitments regarding revenue, specific revenue use mechanisms beyond earmarking may also be considered. In figure x, the light blue elements represent the least rigid or committal mechanisms where health tax reforms can have an impact at the sectoral level, while the medium blue shades represent the two types of non-legislated commitments that can be used to channel revenue towards sectoral priorities. The dark blue represents two types of earmarking, hard and soft. Along with direct and complementary commitments, soft earmarking is situated within the budget, and aligned to standard budgeting practices at the country level. On the other hand, hard earmarking operates outside of standard budget processes, and is reflective of a range of practices adopted at the country level that are more rigid in nature.

Figure x. Revenue use mechanisms to meet policy objectives.



Earmarking

Earmarking is the practice of dedicating all or a portion of revenue from a specific source and setting it aside for a designated purpose via legislation. Experts and practitioners tend to discourage the practice of linking revenues to specific expenditures, on principles such as budget universality and common pooling (Potter and Diamond 1999, Bird and Das Gupta 2014, Allen et al 2013), and specifically articulate that it is a poor practice when it comes to earmarking revenue from general taxation (Allen and Tomassi, 2001). Earmarking can also introduce rigidity, constraining the use of resources for other purposes. Empirical evidence suggests that when it comes to the impact on prioritization in the budget, earmarking may result in little to no net gain for the expenditure purpose, or even an overall decrease in expenditure due to fungibility (Dye and McGuire 1992) Further, it should be noted that since revenue collected from tobacco excise tax will often not be commensurate to the negative externalities' cost, even a full earmark will not be effective in mitigating these externalities. Additionally, there are concerns about revenue driving expenditure – in other words, the amount of revenue determines what is spent instead of need – which may introduce inefficiencies (Wilkenson 1994). In some contexts where earmarks exist, fiscal experts have raised more specific questions around topics such as illegal fiscal substitution, which while pointing to issues of enforcement and compliance where local authorities move earmarked funds to other expenditure purposes, also raises questions about potential efficiency gains in the face of known population needs or preferences (Blackwell et al 2006). Still some fiscal experts are equivocal, with the net benefit or cost of earmarking being determined by design considerations (Musgrave and Musgrave 1973).

There are also potential benefits to earmarking for specific purposes, including those benefits linked to political economy considerations, which have been recognised recently by the IMF, World Bank, in addition to the WHO (Petit and Nagy 2016, Cashin et al 2017, Bird 2015, Ozer et al 2020, WHO, 2020). For instance, earmarking can be used in contexts where it is allowable by fiscal rules for principles of transparency and public accountability. Earmarking revenue may also help to ensure that commitments to reinforce or compensate for the impact of taxes, or address specific policy priorities, won't be eroded or overlooked. In addition, earmarking may be a useful mechanism to support health tax increases over time, by increasing the political palpability of a reform when they are linked to a related program- or for tobacco, to counter industry arguments (WHO 2021, 2022, 2023). For instance, earmarking may provide political benefits as a selling point for raising taxes (Mossialos et al 2002); however, this might be countered by the potential for political lobbying or revenue capture towards a specific end (Allen and Tommasi 2001). The IMF also notes that in cases with significant political interference in decision-making, earmarking may be "more efficient than not earmarking" in terms of improving allocation of resources (Chu and Hemming 1991).[14] The impacts are not always straightforward, and whether earmarking makes sense or not is highly dependent on the fiscal situation, political context and public financial management practices in a particular country.

Earmarks themselves can also be structured in different ways, as an additional tax that is directed towards the expenditure priority, as a portion of an existing tax, as the sole source, or in conjunction with other sources of financing for an expenditure priority. If an earmark is established, it might be hard or soft.

Earmarking of health taxes is most often applied in countries that already use this tool as a regular part of their existing fiscal systems and have sufficient public financial management capacities to manage those earmarks. For instance, in the Philippines, one of the most often cited cases of a successful health tax earmarking reform, earmarking for specific expenditure purposes is a regular part of fiscal practices. Earmarking also permeates public finances at detailed levels through hard and soft allocation of tax and non-tax revenues for a variety of purposes. For example, national government revenue sharing with the Bangsamoro region includes earmarks on royalties from energy and mineral resource production, agricultural import duties, fisheries fees and charges, service fees for metrological works, rice competitiveness tariffs and earmarking of specific shares of revenue from many other fees and charges.[15] In the health sector, the primary revenue source that is earmarked relates to health excise taxes, or 'sin taxes' in the Philippines context– taxes on products considered undesirable for health, social and cultural reasons. In 2022, almost 95 percent of earmarked revenue for health programs in the Philippines came from excise tax revenue on tobacco, alcohol, SSB and HTVP.[16]

However, the legal ability and capacities to apply earmarking does not mean that it will be used as a policy tool when it comes to directing resources towards expenditure priorities: In the US state of Philadelphia, despite the ability to use earmarking to direct resources towards expenditure priorities, the state used a direct commitment to fund new programs through the program budget at the same time as a health tax reform, using this mechanism as a way to directly track resource flows towards these expenditure priorities. In other countries (Chile), earmarking is unconstitutional,[17] not practiced, or is used but unsuccessful in terms of meeting its expenditure purposes for a variety of reasons (Laos, Botswana) making the use of alternative revenue use approaches a necessity (World Bank, forthcoming).

Options for other revenue mechanisms outside of earmarking

Mechanisms other than earmarking may be leveraged to conceptually ringfence the money for specific expenditure purposes, but without the use of an earmark. Recent World Bank research finds an increase in

[14] Note that Chu and Hemming discuss this in the context of strong earmarking, which is also often defined as alignment to the budget process instead of the degree to which there is a strong link between the revenue and expenditure purpose.
[15] Department of Budget and Management, 2022, Earmarked revenues, Budget of Expenditures and Sources of Financing, Table B.15.
[16] Sources: Department of Health, *2022 Sin Tax Annual Report*, Table 4, Manila, Philippines and Department of Budget and Management, *Budget of Expenditures and Source of Financing*, FY 2023, Table B.15, Manila, Philippines.
[17] Note that other countries in Latin America also do not allow packaging of expenditure and revenue reforms together.

expenditure on specific programs or populations in conjunction with a health tax reform. This finding opens two new categories of revenue use for consideration: complementary policy commitments which are taken by the recipient sector at the time of reform but are not directly funded by the new revenue source, as well as direct commitments that are, again, not legislated as an earmark, but can be tracked against a specific commitment via regular budget channels (World Bank, forthcoming). These options are important because they can provide alternate mechanisms for countries to achieve their policy objectives, while avoiding rigidities and political issues associated with earmarking, a revenue use mechanism that may not align to their macroeconomic contexts and capacities.

Direct commitments. In direct commitments, funding is directed towards a particular policy area or set of priorities but without being legislated as an earmark. However, in the case of a direct commitment the funding can be tracked directly back to policy priorities by using existing channels and/or regular monitoring and reporting, using in some cases budgetary tools such as program budgeting, or budget tagging. Conceptually, other existing channels (for instance, in targeting funding for poor populations, use of existing conditional cash transfer schemes) that align with the original policy objective may be considered.

As an alternative to earmarking, the use of the program budget can facilitate the use of a direct commitment linked to budgeting and accounting for results. In Philadelphia, while earmarking is feasible, it is not common and a complex process constitutionally. To this end, only limited formal earmarks are applied- however, revenue sources are commonly tied to specific expenditure purposes through more informal arrangements that help to specify how resources can flow to particular priorities but without explicitly tying those resources via an earmark. Philadelphia uses program-based budgeting – an evidence-based best practice in which appropriations are made on the basis of program need and performance. To this end, the use of the program budget allowed for clear targets to be established that make it easier to fund specific priorities as well as account for results. Targets for each fiscal year were determined as part of the annual budget processes and were adjusted as needed. During implementation, several City agencies work together to administer tax-related programs, which are described as programs, subprograms, or activities in budget documents including pre-K, community schools and the ReBuild program. The revenue source and amount is also clearly delineated in program budget documents, but there is no further link between the revenue and expenditure.

Complementary commitments. With complementary commitments, a separate policy action is taken as a result of a health tax being amended or adopted into law, which is only conceptually linked to the health tax, but is not necessarily linked to an explicit budgetary tracking mechanism. In this case, budgetary funding is directed towards a particular policy priority without being legislated as an earmark, and may include compensatory mechanisms adopted as a part of a fiscal package, that included both specific earmarks as well as other revenue use mechanisms. For instance, in Hungary the primary objective of the Public Health Product Tax introduced in 2011 (in Hungarian: NETA) was to increase funding for the health sector. This included addressing underfunding of the health service, and in particular doctors' salaries, which was leading to health professionals seeking jobs in other countries (UK health forum, 2019). A related objective was to address the worsening health status of Hungarians and the social and economic costs of an unhealthy diet, including through price changes that incentivise consumers to improve their diets and investment in health promotion initiatives (UK Health Forum, 2019) (Box 2). Similarly, in Philadelphia a complementary commitment directed SSB tax revenue towards a set of programs using the program budget and without the use of an earmark (World Bank, forthcoming).

Box 2: Revenue-related commitments for the Public Health Product tax in Hungary
The revenue-related commitments for the Public Health Product tax in Hungary were operationalised in two ways, through a mix of earmarking, complementary commitments and other deductions offered to taxpayers in order to offset impacts of the taxes. These two explicit expenditure purposes were determined at the time that the tax was designed. The public health fund component was operationalized through a deduction: Taxpayers are allowed to deduct up to 10% of their tax liability to finance 'health promotion programs'. As of 1 January 2019, 'health promotion programs' only refers to activities, promotional campaign, and programs of the government body in charge of the healthcare system (i.e. not activities organised by a taxpayer).[18] In this case, the government is effectively foregoing revenue in order for it to fund health promotion initiatives. The component that was committed for health workers' wages was operationalized as a complementary commitment. This included the introduction of a residence scholarship programme by the Hungarian government, which offered a monthly raise to medical resident doctors who made a commitment to work in the public sector while obtaining their specialisation. [19] A staged increase of 20% in the salaries of medical doctors and nurses already working in the system was also introduced in 2012, phased over a three-year period.[20] Over time, the NETA has become a stable and growing source of revenue of the Health Insurance Fund.[21]

Current practice[22]

Currently, 75 known countries and jurisdictions earmark or have earmarked revenue from health taxes. The total frequency of direct and complementary commitments is not known, although some were uncovered during this research. In terms of revenue sources, direct earmarking of excise or other special levies, surcharges or additional taxes linked to the collection of excise taxes for tobacco, alcohol and SSBs are applied. In total, 94 different health tax revenue sources were identified across countries, with some countries using multiple earmarked revenue streams across expenditure purposes. Of these countries, the majority (66) earmark revenue from tobacco taxes, followed by alcohol (18) and SSBs (10).

[18] Corporate – Other taxes: Public health product tax. https://taxsummaries.pwc.com/hungary/corporate/other-taxes
[19] OECD. Hungary: Country Health Profile 2017. https://www.oecd-ilibrary.org/social-issues-migration-health/hungary-country-health-profile-2017_9789264283411-en
[20] OECD. Hungary: Country Health Profile 2017. https://www.oecd-ilibrary.org/social-issues-migration-health/hungary-country-health-profile-2017_9789264283411-en
[21] ASSESSING THE EFFECT OF THE PUBLIC HEALTH PRODUCT TAX IN HUNGARY BETWEEN 2011-2017 Csákvári T, Németh N, Kerner Á, Sebestyén A, Endrei D, Boncz I https://www.valueinhealthjournal.com/article/S1098-3015(18)32751-7/fulltext 2018
[22] Note that all figures in this section are provisional and will be updated once this study is completed.

Table x. Jurisdictions that earmark across product areas (75 total countries and jurisdictions)

	66	Algeria, Argentina, Australia (Victoria), Bangladesh, Belgium, Benin, Botswana, Brazil, Bulgaria, Cambodia, Canada (province), Cape Verde, Chad, Colombia, Comoros, Congo, Cook Islands, Costa Rica, Cote D'Ivoire, Djibouti, Ecuador, Egypt, El Salvador, Estonia, Finland, France, Gabon, Guatemala, Iceland, India, Indonesia, Iran, Ireland, Jamaica, Kenya, Lao PDR, Lithuania, Madagascar, Maldives, Mauritania, Mauritius, Mexico, Mongolia, Nepal, Nicaragua, North Macedonia, Palau, Panama, Paraguay, Philippines, Poland, Qatar, Republic of Korea, Romania, Serbia, Slovenia, Switzerland, Taiwan, Thailand, Tuvalu (TBC), United Kingdom, United States of America (States), Venezuela, Viet Nam, Yemen
	18	Bolivia, Cambodia, Colombia, El Salvador, Estonia, Guatemala, Jamaica, Mexico, Mongolia, New Zealand, Nicaragua, Palau, Panama, Paraguay, Philippines, Romania, Thailand, United States of America (States)
	10	American Samoa, Dominica (cancelled), France, French Polynesia, Hungary, Marshall Islands, Nicaragua, Philippines, Portugal, United States of America (States) *75 Countries and Jurisdictions*

Note: that some countries have earmarks for more than one product, as such the numbers are not 1:1.

Further, in some cases, revenue from health taxes is combined with that from other (non-health) taxes, and together earmarked for the same expenditure purpose. For instance, in Colombia, state and municipal revenue from both lotteries and alcohol taxes are used to pay insurance premiums for poor households. In Jamaica, sources from environmental taxes including those on petroleum and motor vehicles are combined with alcohol tax revenue as a part of a "special consumption tax", as well as revenue from a separate tobacco excise tax (see section x below). In El Salvador, taxes on firearms and ammunition also make up a portion of the earmarked source. Two known jurisdictions (Philadelphia, Hungary) used a combination of direct and complimentary commitments to fund priorities.

Structure of the earmark. In some countries, earmarks are collected as total or a portion of revenue from excise taxes (Cape Verde, Colombia, Costa Rica- See also OECD 2024) while in others they are collected as a special additional surcharge on top of the excise tax (Indonesia; Thailand). In other countries, political economy factors have led to the labelling of additional tobacco excises as "fees", as a way to circumvent challenges with implementing earmarked excises. For instance, together with Eswatini, Lesotho, Namibia and South Africa, Botswana is a member of the Southern Africa Customs Union (SACU). While the customs union brings obvious advantages, it also imposes restrictions on member countries' ability to set the level of the excise tax on tobacco and creates a common pooling mechanism for revenues. By establishing both an additional alcohol and tobacco tax as a "levy", Botswana was able to circumvent SACU limitations on taxes, as well as establish hard earmarks that diverted alcohol and tobacco revenue to health (World Bank, forthcoming). In other contexts, earmarks are placed on other portions of tobacco-linked revenue (i.e., industry profits), making them not true health taxes. For instance, in Lao PDR, while a portion of the earmark for health comes from an additional specific tax, another component is meant to come from a special additional tax on tobacco industry profits.[23]

The way that earmarks are structured and collected will also depend on tax administration capacities, and thus the efficiency and predictability of funding flows may be impacted.[24] In this study, the majority of

[23] Note that this is a separate profit tax and is not linked to collection of Corporate Income Taxes (CIT) in Laos. An Investment License Agreement (ILA) creates special conditions for domestic producers which limits the collection of both components. See Lao PDR Tobacco Law and SEATCA 2014.

[24] Regular product excise: the amount that goes to the expenditure purpose is all or a portion of an existing excise tax on tobacco, alcohol, or SSBs. Note that cases where all revenue from an excise is dedicated to expenditure purpose are included under fixed amount, not under fixed percent (100%). Includes specific additional taxes where

countries (tobacco- 58, alcohol 13, SSB 3) used a fixed percent or fixed amount (in the case of specific excises) of the regular product excise, diverting revenue from these sources from the general budget, whereas a subset relied on revenue from a smaller, additional tax (tobacco-15, alcohol 2, SSB N/A). In the cases where a special additional tax is used, it can be argued that these are completely additional to any revenue that would have been diverted to the general budget, as they are established following the excise and as a piggyback to the regular excise, are the result of specific political economy factors, and thus do not detract from resources that would have gone to the general budget. On the other hand, while there are not reported cases to date where these additional taxes diverted revenue that would have been collected from the main product excise, it is feasible that this might indeed occur. Further, across all product categories, revenue allocated from earmarks on regular product excise was either between 0-5% of the total revenue collected from the product excise (24 cases), or 100% of excise revenue (25 cases), making an even split between cases where the revenue as a proportion of excise was potentially substantial-depending on the structure of the excise- or minimal. All other cases make up a small share of the total and fall somewhere between this range. For additional taxes, the vast majority of cases (11) allocated 100% of the additional tax to the expenditure priority, with the rest allocating 20% or less of revenue towards the expenditure priority. Given the size of these additional taxes, the amount of revenue is small compared to what is collected through the overall product excise.

Implementation arrangements. Information on implementation arrangements is not consistently reported in the existing literature or legislation. In some cases, revenue may go to funds managed by National Health Insurance authorities (Ghana), National Funds for the development of Youth Sport and Recreation (Madagascar), or other extrabudgetary arrangements including foundations with board oversight and management, a form of "hard" earmarking (Thailand). In other cases, funds flow directly to Ministries of Health (Panama; Romania). In still others, earmarked resources are consolidated and then released for the earmark expenditure purpose based on requests made as a part of regular budget processes, making the earmark "soft" in nature (Philippines). While some of these cases are well documented, in others, little is known at the country level about how effective many of the earmarks are in terms of achieving their intended purpose- for instance, some countries with known earmarks have not been able to effectively release collected revenues (Lao PDR). In others (Dominica)- the earmark was established, but never used for its intended purpose (World Bank, forthcoming).

3. Relevant political economy dimensions

The use of revenue to further support the health impact of a tax can help to address politico-economic aspects of health taxes, including overcoming potential opposition to taxes or tax increases (See also chapter 10). First, there is strong evidence that public support for health taxes increases if the revenue is used to support health initiatives (Vardavas, Filippidis et al. 2012, Tamir, Cohen-Yogev et al. 2018, Eykelenboom, Van Stralen et al. 2019). Second, the use of earmarking and other forms of commitments with health taxes can increase their political acceptability (Eykelenboom, Van Stralen et al. 2019, Thow, Rippin et al. 2022). For example, in French Polynesia, the remit of the health promotion foundation that was established provided benefits to the remit of seven ministers, ranging from transport, to education, to youth (Thow, Quested et al. 2011). In Thailand, the creation of an independent health promotion foundation increased the ability of government to address industry interference and support civil society (Pongutta, Suphanchaimat et al. 2019). In the USA, a review of early tobacco taxes found that earmarking revenues was popular with voters, and helped bring in allies (Nicholl 1998).

all revenue goes towards expenditure purpose(s). To this end, fixed amount- additional tax is represented as 100% of additional tax (note that for Ireland the Levy is specified as a ceiling, TBD if there is additional revenue collected above this ceiling). NA- Tobacco, SSB and alcohol are US where multiple earmarks exist at state level. SSB is Dominica where earmark was established but cancelled.

In part, this increased acceptability is generated by the creation of a direct link between the costs of risky health behaviours (e.g. to the health care system) and the use of revenue (e.g. earmarking for the National Health Service) (Eykelenboom, Van Stralen et al. 2019). For example, the Government of the Philippines attributed its success in increasing excise tobacco and alcohol in 2013 to the fact that most of the incremental revenues were earmarked for health expenditures (Bird 2015). A recent review found that increased acceptability of taxes with earmarked revenue also reflected the tangible or traceable policy output, providing a direct link to a positive health benefit (Elliott, Topp et al. 2020).

However, earmarking of health taxes can also generate politico-economic challenges due to trade-offs and different interests of stakeholders regarding earmarking (Ozer, Bloom et al. 2020). Industry lobbies strongly and consistently argue against health tax earmarking (Smith, Savell et al. 2013). In the USA, tobacco tax earmarking has sometimes been opposed as serving “special interests” such as physicians and hospitals, and a review of eight case studies of earmarking found that it did not automatically draw support from the intended beneficiaries (Nicholl 1998).

In line with the existence of different stakeholder perspectives on earmarking, framing regarding earmarking has varied, depending on the context. In some cases, governments have emphasised the role of the (health) tax in raising revenue for an important (sometimes non-health) policy objective; and in others, they have emphasized the additional health benefits achieved by earmarking the health tax revenue. For example, in Philadelphia, the SSB tax was framed more as a source of revenue for an important social issue – i.e. early childhood education – and this non-health frame was seen as key to avoid debates about the ‘nanny state’ and also broaden the evidence for effectiveness from simply health impacts to childhood development (Purtle, Langellier et al. 2018). In contrast, in the Philippines, the significant increase in excise taxes on tobacco and alcohol as part of a major tax reform was framed as a health measure: “the cause of good health helped fuse a winning political coalition amid formidable opposing lobbies” (Kaiser, Bredenkamp et al. 2016).

4. Revenue use for health financing

As discussed, health sector actors often raise the idea of health taxes in the context of broader DRM or health financing strategy discussions, as an innovative modality for raising revenue for health, and often linked to the concept of earmarking. Separately, a 2017 study that looked at earmarking for health more broadly found than 80 countries were applying nearly 130 different earmarking policies to direct revenue towards health or specific programs or populations that benefit from health sector funding. These earmarks occur across more than 10 different revenue sources, such as payroll or income tax, different consumption taxes and debt relief (WHO 2017).

In this context, some health taxes are introduced specifically with the purpose of financing the health sector, and linked to larger health financing schemes or priorities such as Universal Health Coverage. Further, in some cases, health tax revenue is used in tandem with other non-earmarked or earmarked funding sources, including payroll taxes (such as in Jamaica), which are the most common form of earmarked financing for the health sector: a total of 62 countries earmarked payroll taxes for the population or formal sector workers as a part of a public scheme (WHO 2017).

However, earmarks are not a magic bullet able to solve all sectoral financing issues, which often have a number of drivers. For instance, current health financing best practice encourages countries to move away from contribution-based financing -including earmarked payroll taxes- and a focus on the general budget as a core source of financing (Yazbeck et al 2023). Despite this, health taxes have also been posited as a supplemental source of financing to ease the transition away from payroll tax. In order to explore these issues, this section will briefly touch on country experiences with earmarked payroll taxes, countries that earmark both payroll and health taxes to finance health insurance, and countries that include health taxes along with general budget resources as a way of financing health sector needs. The examples of Ghana and Jamaica will also be raised in order to explore challenges with overall sustainability and sufficiency of resources as they relate to health sector financing. While there are examples where health tax earmarks have contributed to sector financing objectives, experiences also flag challenges with resource management, earmark design, and importantly, whether resources actually lead to a net increase in revenue for the sector over time.

A number of countries face significant challenges with sustainability of earmarked revenue from payroll taxes in particular as a part of social health insurance schemes, which are most often presented as a hard earmark (WHO 2017). In particular, payroll taxes which are sometimes collected as a part of social security contributions, which are challenging to implement in countries with high labor informality, increase the cost of labor, and provide incentives to bypass this system (Yazbeck et al 2023). However, countries with higher shares of formal sector labor also face challenges with sustainability and sufficiency over time. For instance, in Estonia, payroll taxes were used to fund the Estonian Health Insurance Fund, including health and pension contributions at 13% and 20% of employee wages and self-employed earnings respectively. Collected as a part of mandatory social tax, employers contributed on behalf of employees and self-employed workers paid fixed premiums to obtain coverage. While the earmark provided more than 90% of resources and has helped to advance priorities, shortfalls occurred for the first time in 2016 and were impacted by use of a hard earmark, which limited the ability to increase the contribution rate, leading to the shortfall needing to be covered by reserves (WHO 2017). Indeed, today, many high-income countries are also looking to expand their funding sources away from social health insurance earmarks given the raising cost of social security and reduced contributions (for example, France), especially as populations age and labor markets contract (Yazbeck et al 2020). For low and lower middle-income countries with different structural and economic constraints, including a high degree of informality, further challenges ensue in terms of sustainability and sufficiency of revenue.

In Ghana, while hard earmarks established to fund National Health Insurance were agreeably instrumental in establishing the scheme, there remain significant issues with additionality and efficiency. Established in 2003, Ghana NHIS was funded initially by two 2.5 percentage point earmarks levied as a portion of both VAT and Social Security Contribution revenue- however overall revenue to the health sector- both per capita and as a share of GDP- declined, returning total revenue to pre-earmark levels for the sector over time. Additionally, while the earmarked funds provide on average 91 percent of NHIS's funding and 26 percent of resources for public programs in the health sector, Ghana's NHIS continues to face financial sustainability challenges including increasing costs of medical claims due to rising population coverage of the scheme and utilization of health services, delays in the release of funds and inadequate expenditure controls leading to reduced efficiency. Due to these factors as well as a host of public financing challenges- including a recent cap on the amount of earmarked funding- the NHIS began experiencing financing deficits in 2009, and needed to utilize investment income to finance the gap (WHO 2017). Funding for the health sector also returned to pre-earmark levels This points to the need for better expenditure management strategies to help manage resources.

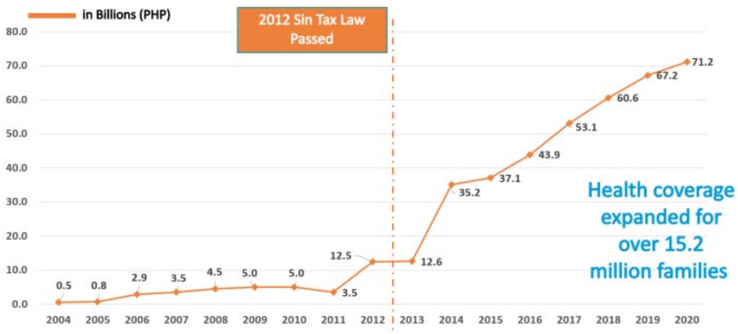
In Jamaica, earmarking of funds from tobacco taxes to fund National Health Insurance have also faced sustainability challenges, with payroll taxes needing to be increased on order to make up a broader portion of the funding. The government of Jamaica created the National Health Fund (NHF) in 2003, with the aim of providing both individual and institutional benefits through the provision of subsidized drugs and supporting health-system strengthening projects. At inception, the NHF was funded through three hard earmarks: 1) 20% of Special Consumption Tax (SCT) revenues from tobacco products, 2) 5% of all SCT revenues from alcohol and petroleum products; and 3) 1% tax on gross salaries collected with the 4% National Insurance contribution.

The use of earmarked tax revenue to fund the NHF generated several lessons. Given the national economic downturn at the time of its founding, there was no general funding available to support the NHF, and earmarking new tax revenue provided a solution to this challenge without reducing revenue in the general fund. Prior positive experiences with earmarked projects (e.g. the National Housing Trust) increased public and inter-ministerial support for this financing structure, and the NHF's clear mandate and strong governance mechanisms further strengthened public trust. Finally, the use of existing tax structures reduced potential administrative burden, and over time, the diversification of sources for earmarked revenue increased the fund's resilience to unexpected changes in any single revenue stream over time. However, there were challenges with the earmarked funding streams: following the dramatic drop in tobacco tax revenue in 2006 when Carreras closed their manufacturing facility in Jamaica, reliance on payroll taxes needed to increase. Further, sustainability of the funding of the NHF from earmarked taxes is vulnerable to potential reductions in, for example, the tobacco and petroleum markets, and also reliance on the need to increase rates, regularly review tax structures, and index for inflation in order to ensure revenue sustainability. Since 2010, tobacco SCT revenues as a proportion of total earmarked tax revenues for the NHF have decreased, further increasing reliance on other sources (World Bank, forthcoming).

In Philippines, a soft earmark for health introduced as a part of the 2012 Sin tax reform included revenue from tobacco, alcohol, and eventually SSBs as well as lotteries. The earmarks were introduced in tandem with this reform and as a part of a political promise from the government not to introduce new taxes, which helped to increase the political palpability and acceptability of reforms. Further, alignment with the budgeting process, the use of multiple sources of revenue in order to reduce reliance on just the earmarked funds alone, and productive monitoring practices helped to ensure the efficiency and effectiveness of the earmark. Indeed, the contribution of earmarked revenues has grown considerably in most years since the Sin Tax Law took effect in 2013, but the amounts have fluctuated from year to year. The share of earmarked revenue has varied from as low as 16 percent in 2021 to a high point of 59 percent in 2022. The relative contribution of earmarked funding must therefore be adjusted each year based on its share of total revenue, as they were during the COVID-19 pandemic. For instance, as tax collections went down during the pandemic, the lagged effect on revenues became visible in 2021. The share of revenue from earmarked taxes fell during that period, however net allocations to the health sector did not decline as additional revenue was provided from other sources for health to address service needs and related actions due to COVID-19. Besides this, Philippines has a strong history using earmarking as a fiscal practice, which also creative a supportive reform environment (WHO 2017; Ozer et al 2020; World Bank, forthcoming).

Over time, the earmarks have provided significant resources for the health sector in the Philippines, tripling revenue for health over five years (2013-2018), decreasing smoking prevalence, and expanding coverage by paying for health insurance premiums for the poor by using a national poverty targeting system to select beneficiaries (Ozer et al 2020). In this way, the government has expanded coverage to over 15.2 million families (See figure x). However, the way that earmarked resources in the Philippines are monitored, reported and managed contribute significantly to the success of the reform efforts, and it cannot be taken for granted that these capacities will be present in all contexts. Further, the Philippines example highlights the need for continual reform to the health tax base over time in order to ensure sustainability of resources. For instance, the 2018 TRAIN reforms in Philippines involved simplification of tobacco tax rates and introduction of SSBs into the tax regime, while earmarks for tobacco alone were reformulated in 2019 to rebase the earmark from incremental to total revenue (World Bank, Forthcoming).

Figure x. Health coverage expansion in the Philippines post 2012



5. Lessons learned from expenditure and revenue management considerations (PFM)[25]

Further, the way that public financial management systems are structured also impacts the way that revenue use policies are structured (World Bank, Forthcoming). This is true both for earmarks, and the other revenue options that exist outside of earmarking. The following section will briefly outline some considerations and learnings including fiscal context and adoption, and across stages of the PFM cycle (budget formulation, execution/implementation and monitoring). To note, these countries represent a range of different product taxes, namely SSB, tobacco and alcohol, as well as examples of hard and soft earmarks, as well as commitments.

For instance, some countries have earmarking as a part of their fiscal context, but this does not always equate to space to apply it as a tool. For example, in Philadelphia, while earmarks are allowed and used as a part of the budget process, they are politically difficult to put in place and thus an earmark on a local SSB tax was not employed in the end, with a program budget applied instead to ensure accountability and transparency. In the Philippines, building upon the use of earmarks as a regular part of their fiscal system, a soft earmark on health taxes was used- however what made the earmark "soft" in the case of the Philippines was the adoption of a complementary set of rules from the Department of Budget and Management that governed the allocation and disbursement of the fund after the TRAIN act was issued. However, there are also examples where fiscal rules are not adhered to, an issue that can limit transparency and accountability, and sacrifice the public contract in the process. In Botswana, lack of consistent reporting limited transparency and understanding around how funds associated with earmarked alcohol and tobacco tax revenue was being utilised (World Bank, forthcoming).

In terms of adoption, many of the countries presented were meeting an urgent need. For instance, some were in fiscal crisis at the time of reform- this included fiscal deficits in Jamaica, Australia and other countries. In the case of Botswana, who had favorable economic conditions, the desire was to include revenue from tobacco taxes outside of the SACU pooled mechanism. Further, despite views that hypothecation protects funding from political issues, the VicHealth case study demonstrated that the independent health promotion entity was still vulnerable, when a change in government nominally capped funding without indexation, diminishing real operational resources during this period (1992-1993 to 1995-1996)- soon after state licensing fees were rescinded (1997) and VicHealth was brought onto consolidated revenue as a part of a political move to end the earmark (1998-1999).

Good design and implementation is key for health impact and for revenue raising. Our stock take indicated that not all of the taxes included best practice design in terms of favoring a higher specific component over

[25] This section draws heavily on case studies prepared as a part of a forthcoming World Bank study.

ad valorem, which may have impacted revenue, although many evolved throughout implementation. This includes indexation: In Jamaica, for instance, the tobacco tax was levied in a way that led to early potential revenue losses, including limited rate changes and erosion by 30% of the total projected revenue from the fund. This was partially addressed in 2015 and 2016, when the government adjusted the nominal SCT rate. However, tobacco tax revenue was impacted by other shocks, including the exit of the main tobacco producing company. The amount of revenue earmarked from tobacco for the NHF decreased by about 50% in 2006 and stayed at that low level in 2007- to this effect, other sources, including earmarked payroll tax, continue to make up a larger share of the pie.

***Budget formulation*-** The majority of earmarks in these case study countries followed regular budgetary channels at the budget formulation phase. This was true even for Australia, where the earmark allowed for the creation of an independent institution and separate fund- planning was further facilitated by the agency taking a medium-term perspective (5 years) that allowed plans to align to the annual budget process. In Philadelphia, where a formal earmark was not used, the program budget supported budgeting for results through annual program targets.

***Revenue collection*-** most countries used existing collection channels to collect excise instead of designating the function of collecting earmarked revenues to a supplementary agency or organization- In Jamaica, existing channels were used to collect funds through the Tax Administration Jamaica (TAJ), easing the administrative burden. However, in other cases, tax structure negatively impacted collection- for example. in Botswana, a 6% handling fee was charged by the revenue authority, but it seems that this has not been regularly collected.

Execution- A lack of plans for how the resources will be spent limits the efficiency of execution and in some cases, has further effects; program level priorities created rigidity that contribute to underspend, especially when the nature of the priority is subject to shifts. For instance, in Philippines, disbursement rates for one of the earmarked programs targeting health facility enhancement were around one-third of allotments in 2018 and 2020. However, in the case where the earmark was not formal, additional flexibility could be used in times of fiscal crisis- For instance, the City of Philadelphia was able to respond to shifts in revenue, expenditures, and programmatic priorities in light of unanticipated circumstances, including COVID-19. The pandemic caused programs funded by the tax to temporarily shut down and forced the City to direct staff and financial resources to other sectors (e.g., public health), which was made possible by the avoidance of using formal, hard earmarks on an SSB tax.

Lessons from monitoring reinforce the need for strong accountability and monitoring of performance, and in order to assess whether the funding is meeting the objective of the earmark - for instance in Indonesia, while there is central monitoring, there is limited access to results, and reporting against expenditures is challenged by a lack of consistent classifications across administrative levels.

In Philadelphia, even though there is no legal mandate requiring beverage tax revenue go to specific programs, there are several channels for monitoring spending against programs and to ensure accountability for targets. In this case, use of the program budget allowed for clear targets to be established that make it easier to track funding against specific priorities as well as account for results. Targets for each fiscal year are determined as part of the annual budget processes and can be adjusted as needed.

6. Conclusion

Health excise taxes are a valuable and impactful fiscal reform that when properly structured, can have both significant health and revenue impacts. Revenue from health taxes has been used for compensatory measures that address equity and impact concerns related to the tax, for reinforcing measures that further support the specific health related objectives of the tax, and for other social policy objectives that enhance human capital and community wellbeing. A range of mechanisms have been used to direct revenue, ranging from approaches such as earmarking, to other measures that include direct and complementary commitments.

Whatever the mechanism for revenue use, channels that ultimately align to standard budget processes are preferred over those that circumvent regular budget channels. Policymakers should keep their policy objectives front of mind when selecting mechanisms in order to avoid any unintended consequences.

Critical factors for any revenue use policy include acceptability, transparency and public trust- these factors are linked to the degree to which governments can be held accountable to the commitments that they make. While revenue use is often associated with increased political and public acceptability of health taxes, countries often explore earmarking as an option for directing health tax revenue towards the health sector and other social priorities, the success of earmarking policies are highly dependent on the existing fiscal system in countries, as well as the existence of strong public financial management systems that can help direct health tax revenue towards various sectors, programs and populations. An important aspect of the fiscal management of health taxes relates to generating the political economy support for such initiatives. This appears to relate directly to the form of commitment made by decision-makers for the use of the resources.

In some jurisdictions, where budgeting is already complicated by an array of legislated commitments, it may be difficult to establish a legal hard earmark without resistance or some compromise to other commitments on budgetary allocations. Further, a hard commitment may do nothing but crowd-out the resources that would otherwise have been allocated to the sector in question.

Reporting on health tax revenue collected and the application of the funds collected can strengthen revenue use, and also provide accountability to taxpayers and constituencies that supported the policy. Reporting on how funds are used may require highlighting results related to funding for the sector, program or population in question- and can include prioritizing a channel with strong transparency and accountability as a part of the fund flow arrangements, which may not be an earmark. While this may be seen as a somewhat less concrete commitment to the policy objective or outcome in question, the idea is embedded in the principle that it is overall alignment with good budgeting practices, including accountability and reporting on results that matters most- not the specific channel, and that this principle is consistent with the drive to get political support.

Further, policy objectives for health tax revenue use can be structured to compensate for the known side effects that the tax may have on particular population groups, sometimes as a part of a package of reforms, or to strengthen the intended purpose of the reform. Once policy objectives have been established, it should be determined whether known funding channels exist to help achieve these expenditure purposes, or whether an earmark or other specific revenue use tools should be employed. In and of itself, health tax reforms may still provide a window to improve resource allocation or attention to sectoral policy objectives, without the use of an earmark. Further, emerging evidence has shown examples of health tax reforms that can be used to achieve the same policy objective, such as complementary commitments adopted at the time of reform, or direct commitments that can be tracked through existing systems such as a program-based budget.

Checklist for decisionmakers

- ✓ Foremost, focus on the revenue side- ensuring that health taxes follow best practice design principles, including higher reliance on specific taxes, and indexation for inflation as a first step on any health tax reform, and to ensure both revenue and health impacts. Without well designed and administered health taxes, expenditure focused discussions around how health tax revenue will have little utility.

- ✓ During design, assess the impact that the earmark will have on existing revenues from the excise, both based on the percent allocated and whether the funds will come from total revenue or as an additional tax.
- ✓ Ensure that the policy priority is well defined, and if revenue use is considered, countries should select the best option (hard/soft earmarking, direct/complementary commitment) based on the country’s framework that regulates budget and budgetary processes.
- ✓ Earmarking is not a magic solution to increase revenue for a program or sector. Because expenditure can increase more quickly than anticipated, because revenue are fungible, and because it is often used in the first place for political purposes- which all may shift over time.
- ✓ In many countries, earmarking is a regular fiscal practice and has been used to support various sectoral objectives and outcomes, making the success of this practice very specific that countries context. In others, political and public finance factors will make earmarking an unpalatable choice.
- ✓ In general, revenue use practices that align to the standard budget process are preferred over other approaches such as hard earmarking.
- ✓ This in turn makes public financial management practices and capacities important factors in determining which mechanism is the best fit for a specific policy objective. Further, different existing channels may be better suited to achieve policy goals over the long run than the establishment of an earmark.
- ✓ There is a need to evaluate/assess spending that is financed by any revenue use mechanism, for both accountability and advocacy purposes.

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Chapter 7: Administering Health Excise Taxes

1. General issues in tax administration

a) What is tax administration and why is it important

The tax administration of a country is responsible for the timely and accurate collection of tax revenues in order to fund public services and other expenditure obligations of government[26] through the implementation and enforcement of tax legislation and regulations.[27] Different institutional arrangements exist across countries, shaped by differing legal, political, and judicial regimes as well as by their cultural and historical background. These contextual factors will inform decisions around the implementation of new taxes, where a standard approach is often neither practicable nor desirable, especially given the particular set of priorities and challenges different tax administrations will face.

As a result of these complex forces, a variety of institutional arrangements have evolved in countries, generally differentiated along the spectrums of unity, autonomy, and centralisation:

- From a unified administration responsible for all categories of taxation to multiple administrations responsible for separate categories, such as direct, indirect, and customs;
- From an administration that is within or under the direction of the ministry of finance to an autonomous administration;
- From an administration that is centralised to one where the administration of certain or all categories of taxation is delegated to sub-national bodies.[28]

Whatever organisational structure is chosen, effective tax administration is essential as it leads to higher revenue collection and promotes trust in government.[29] How governments raise money to finance public expenditure, including healthcare, education, and critical infrastructure, is central to the development and progress of every country.[30] Taxes ensure governments have at their disposal sufficient revenue to pursue economic growth and social harmony. A fair, efficient and effective tax administration promotes public confidence, not least because the tax administration is often one of the most visible manifestations of governance for the public.

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[26] OECD (2023), Tax Administration 2023: Comparative Information on OECD and other Advanced and Emerging Economies, OECD Publishing, Paris, https://doi.org/10.1787/900b6382-en, p 25.
[27] Alink M, Van Kommer V, IBFD, *Handbook on Tax Administration (Second Revised Edition)*, p 163.
[28] OECD, Tax Administration in OECD and Selected Non-OECD Countries: Comparative Information Series (2006), February 2007, pp 8-10.
[29] OECD, *Taxation & SDGs: First Global Conference of the Platform for Collaboration on Tax, 14-16 February 2018, New York, Conference Report* First global conference of the Platform for Collaboration on Tax - February 2018 (oecd.org), p 21.
[30] IMF Working Paper, Chang ES, Gavin E, Gueorguiev N, Honda J, Raising Tax Revenue: How to Get More from Tax Administrations?, July 2020.

b) The link between tax policy and tax administration

The primary purpose of a tax administration is the collection of tax revenue to fund public services[31] in compliance with national tax law.[32] To discharge these tasks, tax administrations require appropriate human and material resources, effective technological resources, good governance and management, appropriate internal controls, and appeal and dispute resolution mechanisms. Other external factors influence the effectiveness and efficiency of a tax administration, including the wider political, social, economic, and cultural environment. The focus of this Chapter will be on resourcing, governance and management, internal controls, and appeal and dispute resolution mechanisms.

Countries that strengthen and increase the effectiveness and efficiency of their tax systems can generate the domestic resources needed to meet the Sustainable Development Goals (SDGs) and promote inclusive economic growth[33] as sustainable tax environments are good for business investment.[34] A well-functioning tax administration is fundamental in promoting formal business activities, investment, and economic growth whereas a malfunctioning tax administration raises the cost businesses incur in complying with the government's tax requirements.[35] The effectiveness of a tax administration refers to the extent to which compliance by taxpayers is ensured, while its efficiency refers to the cost of administration relative to revenue collected.[36]

An effective tax administration can alter the relationship between citizens and the state. Taxpayers are more likely to comply with tax laws when they perceive that the tax administration is even handed and honest, that the tax burden is distributed in an equitable manner, and that the funds go towards public services they value. Governments can build public trust by improving both the design and administration of their tax systems.[37]

2. Excise tax administration- why is it unique?

As noted in earlier chapters, excise tax is charged on a narrow base of goods and services with certain specific characteristics and hence differ significantly from other taxes such as income taxes and valued added taxes. In many countries, the scope of excise taxes goes beyond health taxes and includes products such as fuel, cosmetic products and other selected goods and services such as telecommunications and gambling. The administration of excise tax therefore also contains certain unique elements to support the implementation of these taxes.

As a tax which is increasingly being levied based on weight, quantity, product content or volume rather than value, it works to place a significant tax burden upon each taxable product, even those products of relatively little cost to produce, such as SSBs. If excise tax can be avoided or evaded it provides a substantial commercial advantage in the marketplace and increased profitability. Thus, excisable goods

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31 https://www.oecd-ilibrary.org/sites/1e797131-en/1/3/2/index.html?itemId=/content/publication/1e797131-en&_csp_=38baa8bc2bc68a4be5b070db809f1650&itemIGO=oecd&itemContentType=book

32 https://www.oecd-ilibrary.org/docserver/9789264205376-4-en.pdf?expires=1674918868&id=id&accname=guest&checksum=35C0DF937FC4FAE79FEDCDDE0D340201

33 Countries must strengthen tax systems to meet Sustainable Development Goals - OECD; Platform for Collaboration on Tax, *Taxation & SDGs: First Global Conference of the Platform for Collaboration on Tax*, p 17 (World Bank Document (tax-platform.org))

34 Platform for Collaboration on Tax, *Taxation & SDGs: First Global Conference of the Platform for Collaboration on Tax*, p 19 (World Bank Document (tax-platform.org))

35 https://openknowledge.worldbank.org/bitstream/handle/10986/10564/483120BRI0FIAS10Box338894B01PUBLIC1.pdf?sequence=1&isAllowed=y

36 International Monetary Fund, "The Reform of Tax Administration", Tanzi, V., Pellechio, A., February 1995 (WP/95/22), p 10; World Health Organization, WHO Technical Manual on Tobacco Tax Administration, 2010, p 55

37 Platform for Collaboration on Tax, *Taxation & SDGs: First Global Conference of the Platform for Collaboration on Tax*, p 22 (World Bank Document (tax-platform.org))

have had a history of attracting illicit activities such as smuggling, as well as taxpayers who attempt to understate their tax liabilities.

Traditionally tax administrations would station officials permanently at each licensed premises to ensure that they had full physical control over the manufacturing process, including approving each production run. Physical control extended into the management of the inventory of finished goods, and agency officials ensured excisable goods did not leave a licensed premises unless the excise had been properly assessed and collected. In many cases, this tax assessment was sometimes performed by the officers themselves.

In more recent years most tax administrations have moved to self-assessment and/or remote monitoring regimes that still include the requirements of licensing and permissions to undertake certain activities with most of the control and monitoring being done through the use of technology. As such, the excise regime still recognises the need for tax agencies to have control and visibility of the processes and transactions which affect excise tax liabilities.

Excise administration has also seen the implementation of unique technologies such as tax stamp systems, remote production monitoring systems, track and trace systems and other technologies that are mainly used to monitor excisable goods in recognition of the need for specific controls that are unique to this sector.

Excise administration requires a specific focus, control measures and systems different to the administration of other domestic taxes, and customs duties. These differences also impact the organisation of the excise tax administration which requires a range of specialised functions because of the nature of excise goods especially as it concerns the production, storage and release of excise goods and the monitoring of excise liabilities. These are discussed in more detail in this chapter.

The main components of excise tax administration are illustrated in figure 1 below.[38]

[38] Note that the building blocks outlined in the excise tax administration framework draw from a forthcoming World Bank excise tax administration toolkit, which includes a guide, diagnostic tool and model legislation for use by decisionmakers.

Figure 1. Main components of excise tax administration

3. Governance and institutional arrangements

Governance refers to the institutional or structural framework that determines the responsibility, authority, and accountability of the institution responsible for tax administration.[39] While there is no single model of governance applicable to tax administration everywhere,[40] an effective tax administration will require a certain degree of autonomy so that decisions are taken for reasons of effectiveness and not unduly influenced by political factors.[41] Autonomous decision making is appropriate in the area of overall general management, including the development of strategic vision and plans, setting strategic and operational goals, risk management, operational and performance management, and the management of a number of processes by which to operate the tax system effectively and efficiently.[42] Critical to the success of tax administration is the administrative arrangements of the tax authority, which includes its organizational structure and processes. A well-structured tax authority with clear lines of responsibility and reporting, ensures that tax matters are handled consistently and efficiently.

A) Institutional arrangements

Excise taxes are levied on domestically produced goods and apply equally to imports of such goods, raising issues of coordination between tax and customs administrations where these are separate bodies. Also important is the relationship between excise taxpayers and the revenue agency, including the manner in which taxpayers interact with the tax administration. All of these issues require a clear understanding of governance, and the institutional arrangements that underlie this within a changing environment. For instance, automation of transactions - including the manufacturing process - with the revenue agency are preferred, and these are monitored for risk, with the agency responding as appropriate to changes in risk.

Tax administration management is responsible for the allocation of resources and overseeing the day-to-day operations of the organisation. Resource allocation is critical because it determines the capacity of the

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[39] IMF, *Revenue Administration: A Toolkit for Implementing a Revenue Authority*,2010, p 8
[40] IMF, *Revenue Administration: A Toolkit for Implementing a Revenue Authority*,2010, p 9
[41] Handbook on tax administration, Alink, Matthijs.; Kommer, V. van (Victor), Amsterdam: IBFD; 2011, p 127
[42] Handbook on tax administration, Alink, Matthijs.; Kommer, V. van (Victor), Amsterdam: IBFD; 2011, p 68

tax administration to carry out its functions effectively. Further, adequate financial resources are essential to proper administration, allowing for the hiring and retention of qualified staff, investment in modern technology and infrastructure, and the implementation of comprehensive training programs. These resources enable tax authorities to properly enforce tax laws, conduct audits, provide taxpayer services, and administer tax collection and reporting procedures efficiently.

A tax administration authority will perform certain essential functions in the execution of its mission, including: taxpayer registration and identification, assessment, collection and audit, and associated support functions, including personnel management, planning and control, and taxpayer information and assistance.[43] Whilst both policy and administration functions may fall under the same ministerial portfolio, likely a Ministry of Finance, a Fiscal Policy Department or similar likely will take the lead on policy development considering the expertise required and the need to coordinate between tax administrators and other government agencies such the Ministry of Health and Industry, as well as various law enforcement agencies.

The structural form that an excise tax administration takes is influenced by multiple factors, including considerations of administrative efficiency. Such considerations may often argue in favor of excise administration being undertaken by a separate Department, Agency or specialized Unit within a broader Tax Department, Revenue Service, or part of a Customs & Excise Department, however, each excise administration faces a particular set of circumstances that may make other structural forms more appropriate. Furthermore, the most appropriate form may change over time in response to changes in the wider technological, economic, social, or political environment. Therefore, countries should consider their unique circumstances in determining whether to create a separate department, Agency or specialised unit. These factors may include, the size of the industry dealing in excisable goods, tax avoidance risks, the effectiveness of the integrated functions, among others. As with any tax administration agency, those administering excise tax should coordinate with excise tax policymakers to ensure excise tax policies are clear, will meet objectives and can be effectively administered without the likelihood of tax avoidance, tax evasion and continual legal challenges disputes over liabilities, in what is referred to as the tax policy life cycle (IMF, 2017, p9).

One complicating factor for excise tax administration is that excise goods, particularly alcohol, tobacco, petroleum fuels and automobiles, are traded in great volumes globally and are imported into domestic markets and compete directly with locally manufactured excise goods, or in some cases are further manufactured and/or blended with domestic excise goods. In some cases, a country may rely on imports to supply the overwhelming majority, if not all, of its excise goods.

This can create dual excise systems, one administering domestic goods and another administering imported excise goods and can influence the government's decision on who administers excise tax. The approach to administering excise tax at a national level will differ country by country but can be summarised as (adapted from IMF, 2017):

- a single 'Customs & Excise Department' where the one agency administers excises on both domestic production and imports (*e.g.*, Indonesia, New Zealand);
- a 'Revenue Service' which administers all domestic and international trade taxation, including excise (*e.g.*, South Africa, Fiji);

[43] Guidelines for improving tax administration in developing countries: improving the efficiency and effectiveness of tax administration and strengthening domestic financial resource mobilization United Nations, Department for Development Support and Management Services, New York: UNO, 1997, p 19.

- a 'Customs Department' administering excise over imported goods and a separate Excise Department' administering domestic production (*e.g.*, Thailand, Sri Lanka);

- a 'Border Agency' managing imports including the declaration of excise goods and a 'Domestic Tax Agency' administering both domestic production and the import of excise goods (*e.g.*, Australia, United Kingdom); and

- in the case of economic communities, a Revenue/Customs agency able to administer domestic production, imports of excise goods and the intra-community movement of excise goods (*e.g.*, European Union, South African Customs Union).

Thus, considerations as to the location of excise tax administration may depend on the role of excise products in the economy such as:

- The volume of imports versus domestic production, may drive excise administration into a 'Customs & Excise' Department or part of a customs function of a Revenue Service;

- Significant domestic manufacturing sector may see excise administration in a domestic Tax Department or part of a domestic tax function of a Revenue Service; or

- Where there is no 'Customs Department' as such but rather border management agencies, the excise administration will be in the domestic Tax Department or Revenue Service.

b) Excise tax administration functionality

Excise administration requires specific focus, control measures and systems that are different from administering other domestic taxes, and customs duties. Whilst this does not suggest the need for a separate excise agency, there are a number of functionalities, many unique to excise, that require resourcing, procedures and systems. Some of these can be synergised with a broader 'Customs & Excise', 'Domestic Tax Agency' or 'Revenue Service' and functionalities developed as part of these, such as an integrated revenue collection system, single taxpayer identification numbering and taxpayer accounts. However, a range of specialised functions are needed in the agency structure to reflect the nature of excise goods production, importation, storage, release, distribution and the monitoring of excise liabilities.

The functionality itself can then be split between real time operations that are required to process excise taxation such as licence and permission issuance, reporting and payments, refunds, and rulings. Then as is set out in the section on risk below, the agency will need the functionality to identify risks to excise tax collection and target these as appropriate, as well as addressing that risk through audit and compliance activities. Investigating and subsequently prosecuting offenders that intentionally non-comply is also performed within the agency, and these functions are all conducted 'post transaction'.

c) Managing risk

Excise – a high risk tax environment.

As a tax which is increasingly being levied on weight, quantity, or volume rather than value, excise works to place a significant tax burden upon each taxable product, even those products of relatively little production cost. If excise tax can be avoided or evaded it provides both a substantial commercial advantage in the marketplace and increased profitability.

As a result, for many years excise tax administrations have traditionally stationed officials permanently at each licensed premises, sometimes referred to as lockers or gatekeepers as they were possession of the keys to the premises and where they had full physical control over the manufacturing process, including approving each production run. Physical control extended into the management of the inventory of finished goods, and agency officials ensured excisable goods did not leave a licensed premises unless the excise had been properly assessed and collected. In many cases, this tax assessment was sometimes performed by the officers themselves.

In some case, officers are still stationed in excise-liable manufacturing and storage facilities today, either in all licensed premises such as in Sudan and Sri Lanka, or in only the larger excise-liable manufacturers, such as in Kenya and Thailand. However, developments in business accounting systems mean that much of the accounting by excise manufacturers and other dealers is fully automated through internationally recognised financial management systems (FMIS). Most FMISs will have manufacturing operations and warehousing of inventory components, while some FMISs even have excise modules that plug in to the FMIS. These advances in record keeping make illicit or undeclared production, or understating taxable deliveries, more difficult to hide as a single system automatically captures all excise tax related transactions, rather than the former system of keeping handwritten logbooks of raw materials, finished goods and deliveries.

Technologies have also advanced to make remote monitoring of liability possible, with many FMISs able to generate periodic operation reports or tax payment reports, for electronic lodgement directly into agency IT systems. This can extend to data coming directly, in real time, from counters and flow meters on production lines to the agency, which when all put together, provides the ability to make informed risk management decisions over where to direct resourcing, to improve levels of compliance. The emergence of new technologies to assist in excise administration is further explored in section 5 below.

Physical controls transitioning to self-assessment and integrated tax systems

It is now recognised that the approach of stationing officials at licensed premises is no longer efficient nor effective, and it is strongly recommended that agencies still utilising this approach consider transitioning to risk managed self-assessment by excise taxpayers. Apart from potentially encouraging inappropriate relationships between agency staff and excise licensees, deploying full-time resources on every low-risk licensed operation is not an effective use of those resources.

In many cases, this traditional physical control approach may also ignore the risk from outside the licensed regime. Whilst officers tightly control licensed operators, activity outside of these, such as from smugglers and from unlicensed manufacturers, may go unnoticed and not get addressed. Those officers formerly stationed at licensee premises can now be redeployed and address these wider excise tax evasion risks.

The adequacy of the licensee's FMIS (as well as other risk factors of the business), are considered as part of the decision as to whether to grant a licence to a particular business. The standard of the FMIS can also be periodically reviewed through the audit program. However, self-assessment is also supported in a risk managed setting through other legislative and administrative controls such as; licence renewal; financial securities; access to rulings and reviews; and sanctioning to incentivise compliance.

In addition, the OECD (2020)[44] envisions opportunities for tax systems that are integrated within taxpayer's natural systems. This provides an opportunity for Tax Agencies and taxpayers to increasingly collaborate

[44] OECD (2020), Tax Administration 3.0. The Digital Transformation of Tax Administration, OECD, Paris.

and join-up services, adding value to the taxpayer, reducing administrative burdens and assuring secure, transparent and highly reliable outcomes. Therefore, there are considerable opportunities in adopting taxation processes that fit in with taxpayer's natural systems, such as FMISs and others which can facilitate compliance by design and make non-compliance difficult, as it will require deliberate and burdensome additional activities. As noted above, it is critical that the taxpayer natural systems be periodically reviewed through, for example, eco system audits by the tax administration, to provide reassurance to the tax administration of the functioning of the various interconnected and seamless systems.

It is however important to note that even as tax authorities consider the use of systems that are integrated with the taxpayer systems, the WHO Protocol to Eliminate Illicit Trade in Tobacco Products requires the implementation of track and trace systems for tobacco products that are independent of the tobacco industry. Noting the huge risks in the management of excisable goods, the use of integrated systems for excise purposes may be seen as a complementary compliance measure. The data generated through these integrated systems could then be used for further analysis and to compare with the data captured by the other independent systems implemented by tax agencies.

d) Coordination between domestic and imported goods

Given the likelihood that there will be two significant sources of excise tax revenue to administer, one from licensed domestic manufacturers and another from importers, there needs to be a level of coordination between the two. Even where the same agency is responsible, coordination issues can arise. The main considerations in the question of coordination between domestic and imported excise goods are to:

- Avoid tax revenue losses as excisable goods move across the border or out of a Free Zone for the domestic market, leaving the control of customs and becoming the responsibility of the domestic tax agency, and conversely where domestic excise goods have sought an excise tax exemption as an export and leave the control of the domestic tax agency for customs export clearance, or entry to a Free Zone; and

- Ensure the country is compliant with GATT Article III which requires equal treatment between domestic and imported excise goods in terms not only of tax rates, but also administrative controls, so that excise administration does not become 'protection' for domestic goods or a barrier to trade. It is also important to understand that manufacturers and distributors of excise goods are very likely to have a portfolio of brands that include both local and imported products, providing to their customers a selection of products to suit all tastes and price ranges.

Where two agencies are administering excise taxes, the risk of non-compliance increases significantly, and the respective agencies will need to coordinate the administration of excise goods from the time of their importation through the Customs Department processes, and clearance into the domestic market, with excise tax payment likely administered by the domestic tax agency. Further, the need to coordinate again arises where domestically produced excise goods seek an exemption of excise from the domestic tax agency on the basis that they will be exported or moved to a place such as an airport duty-free shop, ships stores or bonded facilities that are administered by the Customs Department.

Customs, through the World Customs Organisation (WCO), has recognised the risk in the global trade in excise goods, and has developed the *Revenue Program* (WCO, 2024) for member countries to counter the risk – including beyond smuggling, commercial fraud practices such as mis-classification, under-valuation, misstating origin or understating quantity. This chapter will not extend into customs-specific controls but recommends reviewing the recent work in this area by the IMF (IMF, 2022).[45]

[45] https://www.elibrary.imf.org/display/book/9798400200120/9798400200120.xml?code=imf.org

A basic level of cooperation must exist between excise and customs administrations. Importantly, there needs to be the sharing of information, preferably digitally, using the same or easily linked IT and administrative systems. This can also be extended to not only sharing information through integrating the systems but also automating data analysis and risk management based on the information obtained from the various systems. Obstacles to this could include: privacy legislation preventing the sharing of information between agencies; differing IT systems and standards; and the use of different identification numbers being one for domestic tax payments and another for Customs and trade transactions (IMF 2022, pp182-184).

Within a broader 'Revenue Service' this may be made simpler by having a closer structural alignment and IT connectivity between the customs and excise functions, with a common Tax Identification protocol to link the taxpayer to all tax obligations such as in the Seychelles Revenue Commission (SRC). The SRC established an Excise Tax Unit in the Customs Division responsible for the issuance of licences to manufacture and store excise goods. Before applying to the Excise Tax Unit for a licence the taxpayer must be registered with the Domestic Tax Division of the SRC. All excise related production and administration activities, including the acquisition or import of raw materials, manufacturing, inventory, deliveries and exports, have been added to the ASYCUDA system of the Customs Division as a new functionality to support risk management and excise payment reconciliation.

With a common registered taxpayer identifier, there is a greater potential for agencies like the SRC to not only analyse for risk the import and export activities against domestic production, but perhaps for additional data matching and analysis with other tax liabilities, such as raw material costs for Corporate Income Tax (CIT) purposes against excise production, or sales values for VAT purposes against excisable sales.

In this regard, Poland's National Revenue Authority implemented a 'fully integrated customs duty and tax system' comprising several platforms, including ZEFIR, which is described as a budgeting, accounting and settlement system, and CELINA which processes customs and tax declarations, as well as producing reports for risk and management reporting purposes (OSCE & UNECE, 2012, p 106).

Another example is Kenya where the Excisable Goods Management System (Kenya's track and trace system- managed by the Domestic Taxes Department) has been integrated with the Customs system which allows for matching of imported products with the number of digital stamps affixed with excise stamps issued by the Domestic Taxes Department. This ensures that digital stamps issued for imported products are matched against the quantities declared through the Customs system to ensure that no extra stamps are issued which can potentially be used on illicit products.

4. Excise tax administration building blocks

The following building blocks comprise the basis for an effective excise tax system administration with a focus in this case on health taxes applied to tobacco, alcohol and SSBs. The objectives of these building blocks are to provide a range of legislative and administrative controls that ensure all excise tax liabilities are properly identified and tracked through to the time they are bought to account by the appropriate taxpayer, and at the appropriate time. These building blocks recognise the often unique nature of excise taxation.

a) Licensing

Taxpayer registration is known as the bedrock of tax administration, (Junquera-Varela, Félix et al 2024, p77), and is the identification of all taxpayers along with a capture of a minimum level of detail about each entity, and the assigning of a unique Taxpayer Identification Number (TIN). The TIN becomes a means to identify a taxpayer in all relevant areas of the tax system, and begins a framework for monitoring that each entity is reporting and paying all taxes they are expected to pay through the IT systems that manage those taxes, and is the mechanism by which tax agencies will communicate with the taxpayer on issues such as audit, disputes, refunds, demands, and management of tax debt.

In relation to excise taxation, it is expected that any applicant for an excise licence will have a TIN as they will be reporting and paying CIT, VAT, Withholding Tax, and possibly a range of any number of other taxes depending on the nature of their business and the country's tax laws. As such, there should not be an issue of an excise licence to an entity without a TIN.

There are generally two types of excise licences – 'Manufacturing' and 'Storage' as these are seen as two distinctly different operations with differing risks to manage. This is created by making the actions of manufacturing, storing, moving or otherwise dealing in excisable goods illegal unless the person has the appropriate licence to do so. Countries may wish to further create their own sub-categories of licences to better manage or understand the nature of their operating environment such as those in Box x.

Box x Types of licence with possible sub-categories

Manufacturing Licence

- Excise Manufacturer (e.g. Distilled Spirits, Beer Brewing, Tobacco Product, SSB)
- Secondary Manufacturer (e.g. Blending, Packaging, Re-packaging)
- Special Manufacture (e.g. Methylator, De-alcoholiser)

Storage Licence

- Private (Own excise goods)
- Public (On behalf of owner of excise goods)
- Duty Free Shops (Airport, Seaport, Inland)
- Catering (Ships stores, aircraft stores)
- Special storage (Exhibitions, Trade Fairs, Approved Government Concessions)

Excise licences are a means to reduce risk to the excise revenue at the outset by both having full knowledge of the industry and activities, as well as providing a 'benchmark' for which entrants must meet to access the excise tax system (Preece, 2008). Excise licences should only be granted to those applicants who are 'fit and proper' and meet the prescribed criteria around capabilities of accounting systems, plant and equipment, experience of staff and suitability of premises. Fit and proper is also a test that will include reference to past criminal convictions, bankruptcies, and current or recent negative customs and tax compliance findings.[46] There are also options to levy administrative fees on both the application for an excise licence, and where granted, a licence fee which is a one-off levy or levied annually and/or at renewal.

A revenue agency administering excise tax will require a process to be in place to assess the suitability of excise licence applicants, in particular to decide on the information sought and vetted in an application process and the extent of documentary reviews and visits to premises.

The requirements for licensing should be adequate to establish whether the applicant is 'fit and proper'.

[46] See UK HMRC AWRS50200 - Fit and proper test: fit and proper criteria - HMRC internal manual - GOV.UK (www.gov.uk) and Australian Taxation Office Fit and proper person declaration | Australian Taxation Office (ato.gov.au)

The requirements may differ based on the class of goods (e.g. the requirements for tobacco manufacturers may differ slightly from those of SSB manufacturers) however, requirements should be clear, and the list of requirements made available to allow applicants to plan accordingly when setting up manufacturing plants or storage facilities. This also helps in minimising disputes relating to rejection of licenses or permissions.

Upon granting an excise licence, certain considerations can be made with a view to further protecting excise tax revenues (Preece, 2008) and include:

- Restricting the activities at a licensed premises (e.g. SSB licensed manufacturers cannot manufacture cigarettes);
- Conditioning a licence (e.g. Report within 30 days any change to an accounting system);
- Depositing or providing a financial guarantee or security which covers some or all of the licensee's excise tax liability of a tax period.

Once a licence is granted, the objective is to maintain all licensees operating in the system as 'low risk', and with this have an overall confidence that all excise revenue liabilities created in the system are being properly managed and bought to account. As such, the legislative framework around licensing should contain the necessary incentives for licensees to comply by establishing the ability for the agency to:

- Periodically renew the licence following a process of seeking information and/or validating that 'low risk' status of the licensee is current and that no material changes or incidents have occurred to suggest that risk has increased;

- Suspend a licence for a period where monitoring activities have highlighted non-compliance of a nature that puts the excise revenue is at risk, whilst the licensee is allowed to operate until the issues that led to non-compliance have been addressed. This may include suspending a licence whilst a criminal investigation into evaded tax revenue, or any serious crime, is conducted and the case moves to prosecution through the Courts; and

- Cancellation of a licence upon confirmation that the licensee is no longer 'fit and proper' including insolvency, findings of serious non-compliance that will be sanctioned and/or successful prosecution for criminal behaviour.

Suspension and cancellations of licences are a considerable compliance option to address risk and should serve to incentivise compliance. The consequences of suspension and loss of licence is effectively the end of that licensee's business operations and income.

b) Production controls

Record keeping is essential for all forms of taxation, as it allows for the revenue agency administering the tax to verify through auditing that the correct amount of tax has been paid. As a function, record keeping underpins tax auditing and suggests that there should be a legal basis in each tax system for which records are required to be kept, including the type of records, clarity on electronic records, access to those records and for how long they should be kept (Junquera-Varela, Félix et al 2024, pp92-98). For excises, record keeping should commence with the acquisition of raw materials and should be mandatory for at least each production run, as it is the point when excise tax liability arises.

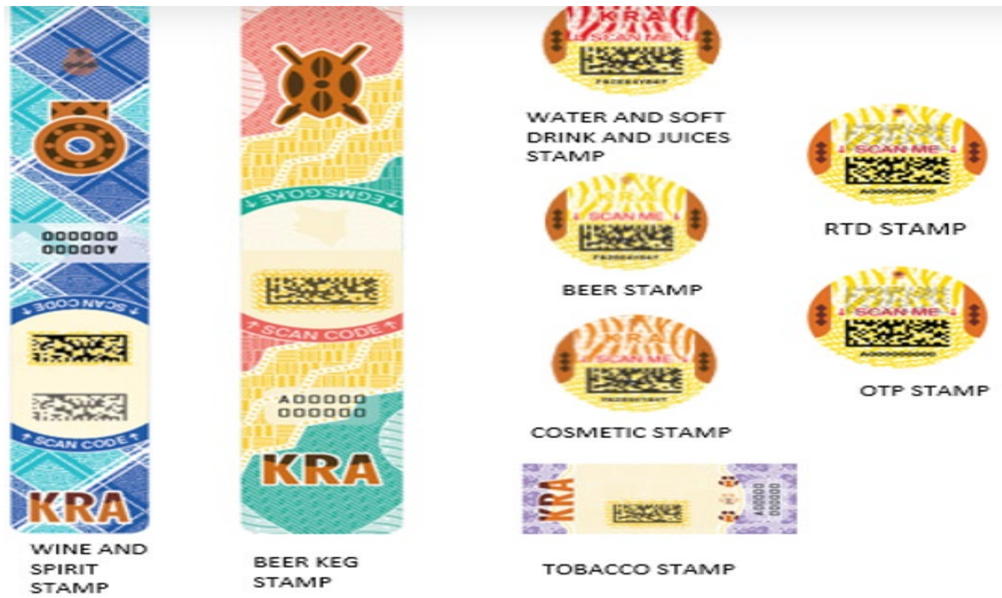
There will be excise tax law differences country by country as to exactly where the excise tax liability is created; for example, this could be at production, such as in the fermentation tank, or when the tobacco leaf is chopped, or packaged or when the product is delivered for sale into the market. The OECD (2023, p18) leaves this open for countries to decide, stating 'excises may be imposed at any stage of production or distribution'; however, it is recommended that a licensee's records can show the excise tax liability as goods come off the packaging line and that this liability can be correlated to the raw material inputs and production processes. To achieve this, this chapter sets out the extent of record keeping for manufacturers and it is highly likely that this requirement will align with most FMIS accounting systems.

These records can be the basis of periodic reporting to revenue agencies, by extracting data from the FMIS for monthly or quarterly production statements. This allows for closer and more expeditious monitoring of risk, especially if these production reports are submitted electronically. Alternatively, these records are reviewed during programmed audit activity or during other compliance visits in which the revenue agency may be reviewing losses or taking samples of goods to conform classification.

Excise goods can be volatile by nature which is a significant factor in determining a tax liability as excise is often levied according to weight or volume. Factors such as temperature can alter alcohol content readings, and the accuracy of filling machines can impact what quantities are actually packaged into containers for sale. As such, manufacturers should be required to ensure the accuracy of their measuring equipment on an ongoing basis through legislative controls to require the use of appropriately approved measuring equipment which is serviced and recalibrated in accordance with the suppliers' specifications or national consumer laws. This can extend beyond measuring devices and into storage vessels which themselves are calibrated and have permanent capacity markers.

The production line process has also become more important to the addressing of certain risks through application of fiscal marks which are stamps or other indications placed directly on the products at the time of packaging. These fiscal marks are 'real time' visual indicators as to the excise tax status of the product, generally differentiated for each type of excisable product and sometime by packaging size. In some cases, there can be further differentiation of 'tax paid', 'tax exempt', 'duty free' or 'export' status. Box x is a set of health tax-eligible goods of tobacco, beer, wine/spirits, RTDs and SSBs from Kenya, noting the 2D barcoding that will carry certain data about the product and its tax status, and which will be discussed in a later section as a part of a discussion of the digitisation advances in excise tax administration.

Box x Kenya Revenue Authority[47] – fiscal marks for heath tax goods paying excise tax



The WHO (2021, pp127-129) now seeks as a supply chain control for tobacco products, the use of Track and Trace (T&T) and has made this a requirement for parties to the Protocol to Eliminate Illicit Trade in Tobacco Products in Article 8. Although the T&T required under the protocol is for regulatory purposes, many countries have implemented fiscal marking systems which offer T&T capabilities, in which the fiscal mark applied at packaging is programmed to hold data about the production and tax payment, as well as customer data in some cases. Once activated, users of the technology can ‘track’ a product as it moves through a supply chain giving real time confirmation of product authenticity and tax status, as well as ‘tracing’ the movement of that product – allowing officials to potentially understand if and when an offence related to the is committed. For alcoholic beverages, the benefits of fiscal marking, and being part of a T&T system is suggested as an effective compliance tool (WHO, 2023, pp121-122).

There are unique requirements of fiscal marking for each of tobacco, alcohol and SSBs in particular, the differing packaging types, and these will be captured below.

c) Inventory controls

As with production, record keeping is again essential for the control of excisable inventory in licensed premises. Records around finished goods will allow for the revenue agency to verify during programmed audits that all excisable inventory can be accounted from its receipt, either from production, acquisition from another licensed entity, or as an import, until there is a proper acquittal of the tax liability from a tax paid sale, sale to another licensed entity, approved remission or a tax exempt sale such as an export or exempt end user. To achieve this, this chapter sets out the extent of record keeping for those persons holding a storage licence, including licensed manufacturers who store inventory whilst awaiting for it to be sold, delivered or transferred.

[47] What you need to know about Excise Duty on Water - KRA

The record keeping requirements will again align with most FMIS accounting systems, with such systems capturing sufficient data on each taxable product to identify its excise tax liability for the purposes of assessing and paying that tax at the appropriate time. Again, these FMIS accounting systems will be scrutinised prior to issuing the storage licence and will be further subject to audit activity as conducted to ensure they are accurately recording and reporting excise tax liabilities.

There are several dealings that may occur in relation to excisable inventory, and each represent a risk to excise tax revenue and thus require additional levels of control. Some examples of these common dealings are listed in Box x, and include:

Box x. Possible excise dealings requiring controls, such as a permission-based system

- Under-bond or tax suspended movements between excise licensed premises, or between excise licensed premises and customs law prescribed premises for those imported excise goods or excise goods to be exported;
- Repackaging of excise goods to alter their form, such as reducing whisky with water and cola to manufacture 'ready to drink whisky and cola' in cans;
- Remanufacturing of excise goods to become new non-excise goods such as rum, to be used in flavouring chocolate, or neutral alcohol to manufacture hand sanitizer;
- Blending or mixing to make new products that will be exempt or zero rated for excise tax, such as denaturants added to distilled spirits to make methylated spirits;
- Blending or mixing to make new products that will become a different excise good such as mixing distilled spirits with gasoline or diesel to manufacture E10 or B10 fuels; or
- Excise tax-free sales to an excise exempt end-use or end-user such as cigarettes sold to a diplomatic mission, or SSBs sold to ships stores on international voyages.

To manage the risk over these types of dealings in excisable inventory, a Permission system is recommended, in which the licensee requests a Permission from the revenue agency to conduct the dealing in a one-off situation, or on a continual basis, where there is an ongoing contractual relationship between the licensee and the customer. Often seen as an extension to the licensing regime, as it involves licensed entities (WHO, 2021, pp103-105), the revenue agency can decide to grant or deny a Permission based on risk, and if granting a Permission, reduce the risk by applying conditions and/or requesting financial securities for the excise tax at risk.

A level of checks should be conducted prior to the issue of a Permission; in some cases the risk should see the revenue agency conduct a full due diligence. Whilst some risk can be controlled, such as the movement of excise tax-suspended goods between two excise licensed premises which are already considered 'fit and proper', other dealings will carry a level of risk which is quite higher, such as when one party maybe outside of the licensed system. Those dealings where excise tax rates will be 'zero rated' based on an end-use or end-user out, should result in a significant level of verification of that end-use or end-user, and scrutiny of quantities being sought. For example, a confectioner seeking to manufacture excise tax free liqueurs would be asked to provide a range of business certifications, recipes and expected sales before issuing a Permission.

The legal framework should require licensees to store all goods in a manner that facilitates the tax agency to take stock of the inventory in the licensed premises. This ensures that taxpayers facilitate, and do not frustrate, the process of taking stock at any time that the tax agency deems necessary.

Risk is also managed post transaction, after the initial decision is made to grant a Permission, through the condition of Permissions requiring the keeping of records, and subsequent access to them (WHO, 2021 p104). Non-compliance can lead to suspension or cancellation of a Permission, and the recovery of excise taxes that cannot be accounted for, either through a written demand or the calling up of the financial security from the Permission holder. Other sanctions are also contemplated in later sections where the Guide discusses the enforcement aspect of excise tax administration.

Excise goods are often fast moving, in great volumes, and can lead to issues such as breakages, mis-picks and other errors when unloading, storing or delivering. As such, storage licensees should be required to ensure they have internal systems and controls such as stock-takes to try and prevent issues or to be able to quickly detect issues and address these, which may include making adjustments to excise tax reports and payments. A process for remissions in the case of damages and breakages is outlined later; however, underpinning the management of inventory is the ability for revenue agencies to ask for a licensee to account for that excisable inventory at any time.

Similar to that ability discussed above for Permission holders, where a licensee cannot account for inventory, then a demand for any excise tax payable on that unaccounted for inventory can be made. Likewise, further sanctions may be appropriate, or the opening of an investigation if that loss of inventory is part of serious non-compliance or fraud.

d) Reporting and payment

Clarity on who holds the excise tax liability is essential in excise tax administration. It should be recognised that in addition to any licensed manufacturer, importer or licensed storer of excisable goods, there may be an actual owner of excisable goods who is simply storing their inventory in a properly licensed premises to defer the payment of excise tax. As such, the excise tax liability falls upon the excise licensee or the owner of the goods, whomever causes or orders the excisable goods to leave the licensed premises for domestic market or home consumption.

The concept of ‘home consumption’ is important as this relates to the prescribing of the taxing point, or that point that triggers the party with liability to bring that liability to account with tax payment or confirmation of an excise tax exemption.

The taxing point is the point at which the excisable goods physically leave an excise licensed premises for home consumption (Preece 2008, p84). For imported excise goods, this may be defined as the point where customs law clearances have been completed and the goods delivered from a wharf, airport or bonded warehouse.

Some countries prefer setting a taxing point closer to the point of manufacture, and so prescribe the delivery to home consumption from the licensed manufacturing premises. This effectively removes the ability to sell excise goods on an under-bond or tax-suspended basis, unless that sale is made as an export, or to a duty-free shop or under a catering bond at a place of export.

Otherwise, it is likely that the taxing point is the ‘final’ sale and delivery into home consumption from perhaps a licensed storage premises, meaning a manufacturer or importer can sell under-bond or tax suspended to another licensed entity and a permission is in place for the physical transfer of goods. This mechanism provides a tax relief or deferred tax circumstance, an important aspect for such highly taxed goods, as excise tax becomes payable close to the timing of the sale and payment by customers.

As with most taxes, excise can also be attributed to an accounting period or tax period for the purposes of reporting and payment. This essentially provides a credit arrangement as all deliveries past the taxing point are recorded against the appropriate accounting period then reported and paid after the accounting period ends – for instance, the next working day after that accounting period end reflecting little delay on receipt of revenue and the capabilities of FMIS to produce the necessary reports.

Another unique risk to excise tax comes from the announcement of an excise tax rate increase and the need to protect excise tax revenue in the period between the tax rate increase announcement and it taking effect, known as 'forestalling' (WHO, 2014, p14). The WHO recommends measures to deny the practice of delivering excessive levels of inventory past the taxing point ahead of the new tax rate being made effective. Given health taxes can be specific in nature/levied per quantity, there is the possibility that a country adjusts these tax rates at least annually for inflation, in addition to any policy being reviewed and increased at the time that the national Budget is formulated and/or after other policy announcement. Ample opportunity exists for licensees to front load or forestall in what is effectively a tax avoidance scheme.

The WHO (2021, pp138-139; 2023, p153) recommends anti-tax avoidance measures, specifically addressing forestalling, be included in national legislation and should also include the ability for the revenue agency to set amounts of excise goods that could normally be expected to be delivered in the intervening period between an announced tax increase and the effective date of that tax increase. In summary, the measure also includes the ability for any excise goods delivered in excess of that declared amount to be subject to the new excise tax rate.

Excise tax liabilities should be managed through an excise tax account which is effectively an operating account to which liabilities are added in each accounting period, and reduced as excise tax debts are paid, or, as is provided for in the next section, as credits in the form of refunds, rebates and drawback to be deducted.

e) Refunds, rebates, remissions, drawbacks and adjustments

There are a number of situations in excise taxation that give rise to a refund or credit of excise tax. In addition to errors made in an assessment of excise tax liabilities that may give rise to a refund, or credit, excise taxes have a number of unique circumstances that can give rise to additional excise tax refunds, credits, adjustments or where that liability is written off for the taxpayer. As a consumption tax, there may be occasions where the excise goods are not consumed in the domestic market or are consumed in an excise tax exempt manner. Thus, these refund circumstances require clear prescription in the legislation to prevent non-appropriate returning of taxes.

One principle of excise tax refunds is that they should not be offered to under-write poor business decisions or poor-quality manufacturing, for example where a licensee has goods returned due to sub-standard quality or there is no market for the goods (Preece, 2008, pp86-88). While tax refunds are common in all tax laws, excise tax offers several unique categories which are summarised with examples in Box x.

Box x Types of excise tax refunds

- Refund – due to unintentional error in the original assessment where excise tax liability was overstated, e.g. overstatement of quantity delivered to home consumption

- Rebate – due to an excise paid delivery being consumed in an excise exempt end-use or by an excise exempt end-user, as such many circumstances will be paid to a third party who had ownership of the goods at the time they were consumed in excise tax free circumstances, e.g. 20L drum of excise tax paid rum used to flavour cakes and pastries

- Remission – due to damage, breakage or reasons deeming the product unfit to consume, excise tax liability can be written off in the inventory, e.g. pallet of bottled SSBs stored in licensed premises hit by reversing forklift becoming unsellable, and

- Drawback – export of excise tax-paid goods, and which can be paid to a third party who has ownership of the excise goods at the time of export e.g. Shipping company purchases excise tax-paid cigarettes from a grocery wholesaler, for the crew of a departing international ship

Applications for refunds, rebates, remissions and drawbacks are generally tightly controlled given the level of risk, and in some cases that risk relates to the large size of the payment claimed. As systems and risk management processes evolve, a greater degree of self-assessment is being seen, in particular where applications are made into an electronic system that has the ability to flag and stop high risk applications, cross match with other data such as with the original excise tax payment and provide reporting that allows for close monitoring of applicants.

Applications for each type of refund claim should include appropriate supporting information on which refund approval can be granted, such as commercial documents confirming an end use in the case of a rebate application, photographs of damaged goods for remission, or export declarations or Bills of Lading to support drawback applications. These can often be uploaded in an electronic system, or provided in those cases where a system cannot verify certain aspects, or the revenue agency flags a risk.

In cases where goods are damaged for example, (e.g. fire) the legislation should require the taxpayer to retain evidence of damage for verification and provide timelines within which such damage is reported to the tax authority (e.g. 48 hours after the damage occurs). This ensures that the tax authority can verify the claims immediately after the damage occurs, and the tax authority can reject a claim if the damage was not reported within the prescribed timelines.

It is also advisable for countries to put time-limits on the application for refunds, especially drawbacks where the value of the refund may be higher than the value of the excise tax paid, in cases where the export has occurred a number of years after excise payment. A 12 -month time limit may be appropriate for the applicant to make various refund claims. In addition, a limitation should be provided that restricts the refund to not more than the excise paid.

Refund, rebate, remission and drawback applications and payments will also be subject to the usual audit and recovery provisions – similar to the excise tax payment side. Audit and compliance activities post-transaction may lead to future recovery of over-stated refund claims and where appropriate, sanctions in addition to a demand for the excise tax refund to be repaid.

Not all errors will result in a refund, and in many cases errors in assessing an excise tax liability will result in an under-payment being found and a requirement to pay additional excise tax. Short-payments of excise tax discovered by the taxpayer may be voluntarily disclosed (to avoid potential penalties) although a right exists for the revenue agency to consider charging interest on short-payments.

Similarly, one might consider a scenario where the revenue agency has identified the short-payment or perhaps an incident where a breach of the law, or an error has occurred and excise goods have been found in home consumption without excise having been paid, in comparison with the tax rate in force at the time of the demand. An example here could be an approved under-bond or tax suspended movement having goods stolen or lost in transit. This type of provision also works in tandem with other actions to recover excise tax from scenarios where excise goods may be missing from the licensed premises or otherwise cannot be satisfactorily accounted for, after an audit or compliance check. Again, interest may be sought from this identified short-paid excise tax.

f) Certainty and transparency for taxpayers

In a self-assessment-based tax system, an important aspect is for taxpayers to have confidence in the decisions and assessments they make when determining their tax liabilities. If they have followed the law, the administrative rules, and revenue agency procedures, then they can file a report and make a tax payment with certainty that they have satisfied their requirements and have complied with their tax liabilities. For excise taxation, these types of decisions will focus on (See box x):

Box x Types of excise tax decisions requiring a Ruling

- Classification of goods in the excise tariffs, particularly when there are tax rate differentials for example 'has sugar been added', 'mixtures of fermented and distilled alcohols';
- Quantity of goods for taxation, such as variations between actual and labelled contents of a product, temperature corrections in alcohol strength, moisture corrections in tobacco;
- Taxable value in ad valorem or mixed excise tax rates, such as 'what cost components to include or exclude';
- Refund/Rebate/Remission/Drawback circumstance has been met or not met for example 'when did goods become unfit for consumption', or 'when did refund circumstance occur'.

In tax disputes, the formal appeal process through the Courts can be lengthy and costly and so other mechanisms can be put in place to reduce the number of disputes proceeding to Court, including a Rulings system for areas of uncertainty (Junquera-Varela, Félix et al 2024, p77). The decision-making process that comprising a 'Rulings' system would include an application step, likely with supporting evidence, and a timeframe for review and decision by the revenue agency. Critical to Rulings, and considered best practice in avoiding disputes, is for the decision of that Ruling to be binding on both the agency and the excise taxpayer (Waerzeggers & Hillier 2016). This is provided that the application was not based on false statements and should remain unchanged whilst all the circumstances remain unchanged. Rulings issued to an individual is known as a Private Ruling and the decision will only apply to the applicant and their circumstances.

This Rulings system may also be extended to the concept of Public Rulings that, again, will be binding on the revenue agency and in this case, all excise payers who face identical circumstances. Public Rulings can be issued by the revenue agency where they believe the decision they are making for an applicant is an issue that will likely be experienced sector-wide, and certainly an issue with broader implications for a larger cohort of excise taxpayers. In this case, the references to an individual excise taxpayer, or that could identify an excise taxpayer, will be removed, but the decision published and advertised across the sector affected.

Where taxpayers are not satisfied with a decision of the revenue agency, including a decision made as part of a ruling application process, and the taxpayer believes the decision maker has not properly considered all of the information, then an avenue should exist for such a decision to be formerly reviewed outside the revenue agency, likely through an administrative or tax Court, depending on the country. Not every decision should be available for review, rather, those decisions that have a material impact on an excise taxpayer and their excise tax liabilities, the most important of these decision types being listed in Box x, but should be clearly prescribed in the law so that the relevant Court can take up the matter.

Box x Types of excise tax decisions available for formal review:

- Refusal to grant a licence to manufacture or store to an applicant;
- Overly restrictive conditions attached to a licence granted to an applicant;
- Refusal to grant a permission to conduct an excisable dealing;
- Overly restrictive conditions attached to a permission;
- Classification, taxable quantities or taxable values of excise goods;
- Denial of a refund, rebate, remission or drawback of excise tax application;
- Demand for excise tax to be paid by an excise taxpayer;
- Decision made in a ruling application; and
- Application of an administrative penalty.

Certainty and transparency is also enhanced through the publication of directions and notices, not only as to the requirements of taxpayers, but also the requirements of revenue agency staff as they administer the laws. Legislation is required to provide the head of the revenue agency with the authority to make directions, and notices for excise taxpayers to follow in terms of assisting them in understanding expectations and in complying with the law. Similarly, Standard Operating Procedures (SOPs) for staff to properly administer the law can also be made and published for stakeholders to view.

The publication of non-confidential procedures creates transparency for excise taxpayers in understanding how revenue agency staff will conduct their duties in terms of the processes and transactions that apply to them, and where circumstances arise, use the SOPs to question or seek review of certain decisions of the revenue agency. Confidential SOPs such as intelligence gathering, or risk targeting, should not be widely available or published. However, all general administrative procedures impacting excise taxpayers should be publicly available, and indeed should be demonstrably followed by revenue agency staff.

g) Audit and compliance

Excise taxpayers are of small, medium and large turnover and may have an array of record keeping and accounting capabilities. Many of the audit approaches used in other taxes will also apply to excise taxpayers; however auditing and other compliance activities are focused on those aspects unique to excise taxes and licensed excise taxpayers.

Audits and various compliance checks of excise licensees will occur at the licensed premises where production and/or storage operations take place as the audit will often encompass an examination of manufacturing processes including measuring, counting and weighing, as well as stocktake counts and an inspection of any records which may be required to be kept at the premises. Records are most likely electronic in terms of operation of an FMIS, however, in some cases, manual logs or records may be kept such as measures of product in vats or tanks, servicing of equipment logbooks, or visitor or delivery registers.

Generally, tax audits may be categorized into three broad types: desk audit, issue-based audit or comprehensive audit. An excise audit may include simple desk audits of any supporting documentation to support, for example, a refund or drawback payment, an issue-based audit (e.g. auditing accounting for excise stamps) through to full comprehensive systems-based audits to ensure the licensee's business systems and internal controls are accurately recording transactions and that errors are prevented or quickly detected, as is the security and relevant operations in the licensed premises.

To support this, legislation is suggested which provides revenue agencies with specific powers to enter a premises, not necessarily with advanced notice, and review records including those in the FMIS, as well as stop persons and vehicles in or interacting with the licensed premises, and ask questions. Those vehicles may also be searched. Quite different to general tax audit powers is the ability to inspect any excise goods, including removing any excise goods for further tests, such as at laboratories where issues like classification, or alcohol strength, can be confirmed.

It is also highly recommended that excise law adopts the growing practice of accrediting audit and compliance staff at the revenue agency who will be entering licensed premises and undertaking those audits or compliance checks. The ADB (2018, p77) identifies in the Asia and Pacific regions around half of the tax administrations surveyed had at least some formal accredited in-house or external training required to be undertaken by staff, as indeed would be expected of any similar 'tax professionals' working on tax compliance issues with a client in the private sector. This ensures a level of competence and professionalism in the auditor, a level of efficiency in that audit or compliance check and can also deter illicit activities. The revenue agency and the licensee can have confidence in the conduct and findings of the review, and that the risks will be identified addressed at minimal disruption to compliant licensees. This includes the concept of accrediting revenue agency officials, although it does leave which accreditation criteria to meet up to each agency. These criteria should be published as a Directive or Notice for transparency. Box x looks at the types of criteria that could be used to accredit audit and compliance staff intended to enter licensed premises.

Box x Accreditation criteria – excise auditors

- Minimum years of experience within the agency; and/or
- Minimum education levels achieved; and/or
- Tertiary level education qualifications; and/or
- Industry experience prior to joining agency; and/or
- Professional association membership e.g. CPA; and/or
- Specific expertise e.g. FMIS, audit; and/or
- Internal agency auditing and compliance related courses; and /or
- Updated their technical knowledge annually

In terms of identifying and addressing risk, the revenue agency will use a range of sources and information from the licensee, the industry and the economy to develop risk areas and targets for audit and compliance activities. This will include the type of audit or check, and the priority in timing to undertake those checks.

These aspects should be brought together as an agency compliance plan or similar, where the results of these audits and compliance checks feed back into future compliance plans or are even used to propose policy changes. These types of risk management operations are not legislated; however, a revenue agency's management of excise tax risk is still an important component.

h) Enforcement and sanctioning

Enforcement and sanctions may incentivise compliance by making it costly to not comply (Junquera-Varela, Félix et al 2024, p107) and that effective enforcement will lead to a greater likelihood of being sanctioned either administratively or criminally, as appropriate. This does require a full set of enforcement powers be included in the law, allowing for investigating and prosecuting through the Courts, although this is generally only utilised in more serious non-compliance, habitual non-compliance and fraud cases, and administrative remedies are often preferred. As such, legislation should provide a range of sanction types, which for excise taxation may be a little different to general taxation. Box x outlines some of these excise tax-based sanction options in addition or in lieu of full prosecution.

Box x Excise tax related sanctions in lieu of prosecution

- Suspension or cancellation of an excise licence
- Suspension or cancellation of a permission
- Additional restrictions or condition applied to an excise licence or permission
- Increase in value of financial security over an excise licence or permission
- Seizure and/or forfeiture of excise goods subject of non-compliance
- Removal of excise tax deferral arrangements (i.e. required to pre-pay excise tax)
- Administrative penalty notices (% of excise tax under-stated)

Enforcement and sanctioning begin with identifying all Offences which can be committed under excise taxation. All offences should be able to be read with an appropriate set of maximum (or minimum and maximum penalties) which provides a guide to Courts as to the seriousness of the offence and the extent of any penalties that be applied upon a conviction. These penalties can be financial, such as a fine, or incarceration, or a combination of both. Often financial based penalties are seen to be linked to the amount of excise tax evaded, for example a maximum penalty may be prescribed as being 'five times the amount of the excise tax evaded'.

In order to prosecute serious non-compliance or fraud, or to establish the extent of detected non-compliance, a formal investigation will need to occur to collect and analyse evidence, and where sufficient evidence exists, provide that in a format for prosecutors. The collection of evidence will require powers for revenue agency investigators beyond the previous powers of audit and compliance checks which are limited to licensed premises and those people, goods and vehicles on the premises.

Considering the additional powers given to officers tax fraud investigations may fall to a specialist unit within the tax agency to undertake (Junquera-Varela, Félix et al 2024, p93). Thus, it may be that the formal investigation of a possible criminal excise offence may be taken up by the 'Investigations Unit' or similar of the revenue agency, rather than a team within the excise operations area.

Investigative powers can extend to cover any premises, people, goods or vehicles suspected of being connected to the commission of an excise offence. General investigative powers, which initially involve a level of consent and cooperation by the suspects, may be established before recognising that is some cases this might not be forthcoming and additional powers are needed. In this case, excise investigators from the revenue agency may apply for a warrant from the appropriate judicial process in their country, which involves sharing the evidence and suspicions with a magistrate or judge, as appropriate.

With a warrant, it becomes an offence to obstruct the investigators' entering premises, seizing records, goods, and other evidence and may grant investigating officers the legal power to break open rooms, cabinets, and gain access to IT systems. Evidence can be taken away from premises to be analysed at the revenue agency and only returned if not forfeited through a guilty verdict or ordered returned by a Court. It is common practice for the actual excise goods which are part of the offence, and which are available to be seized, to be forfeited to the revenue agency upon a guilty conviction for disposal, sale or otherwise, by the agency.

Case management or the management of referrals from auditors and compliance staff of potential serious non-compliance is a critical component; here decisions are made as to whether a formal investigation should be opened, whether that investigation finds sufficient evidence to prosecute in the Courts, or whether the case should go back to the originating audit and compliance areas for administrative based sanction such as that laid out in Box 4.9. Whereas the balance between the cost of taking a formal investigation through to full prosecution and the value of any taxes potentially recoverably is an important consideration, it is also a relevant consideration that such investigations send important messages to the excise taxpaying sector regarding deterrence and equality of treatment.

i) Other internal controls

As noted earlier in this chapter, if excise tax can be avoided or evaded, it provides both a substantial commercial advantage in the marketplace and increased profitability. Thus, excisable goods have had a history of attracting smugglers and other criminals, as well as providing financial incentives to excise taxpayers to attempt to understate their tax liabilities.

Criminals therefore usually take advantage of weak controls and corrupt government officials to avoid or evade paying the correct share of taxes. It is therefore important for tax administrations to ensure that they put in place effective internal controls to mitigate against corruption. Corruption may be defined as the abuse of public power for private benefit[48]. Tax administration is perceived as a sector particularly vulnerable to corruption due to the complexity of tax laws, the discretionary powers of tax officials, and the often low cost of punishment. Corruption can lead to a reduction in revenues collected and a consequent reduction in funding available for public services. Corruption also increases the size of the underground economy, not only undermining the tax structure, but also eroding public trust in the tax administration and compliance with tax law[49].

Weak enforcement often means there is no significant risk of detection and punishment, which further encourages corrupt behaviour. A high tax burden and compliance costs can exacerbate the situation[50].

The underlying causes that drive corruption among tax officials include: complex and unclear tax laws, unclear or complex procedures; non-transparent hiring and reward mechanisms; a low level of skills; a lack of professional ethics and integrity; low pay and a lack of incentives; conflicts of interest; the "get- rich-quick" syndrome; and insufficient checks and balances within the administration.[51] Corruption in tax administration manifests itself as *collusive*, where officials facilitate the underpayment of taxes in exchange

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[48] U4, Revenue administration and corruption, Odd-Helge Fjeldstad

[49] https://knowledgehub.transparency.org/assets/uploads/kproducts/Tax_administration_topic_guide.pdf

[50] https://openknowledge.worldbank.org/bitstream/handle/10986/10564/483120BRI0FIAS10Box338894B01PUBLIC1.pdf?sequence=1&isAllowed=y

[51] https://openknowledge.worldbank.org/bitstream/handle/10986/10564/483120BRI0FIAS10Box338894B01PUBLIC1.pdf?sequence=1&isAllowed=y

for a personal payment, or *abusive*, where officials use their discretionary powers to extort bribes from otherwise honest taxpayers[52].

Tax administrations need to effectively combat corruption. Transparency International recommend a range of measures, to be employed at different levels of tax administration, to address corruption, including the simplification of tax regulations; autonomy for the tax authority in meeting established performance criteria ; transparent and merit-based recruitment, training and career opportunities; internal audits, monitoring and investigations; optimizing the use of technology for filing and paying tax; transparency of the tax administration; and international cooperation[53].

A comprehensive set of measures must be implemented to eliminate all forms of corrupt practices. Some of these critical measures include; asset declaration by tax officials, establishment of integrity committees, internal affairs committees within the tax administration, having in place clear procedural manuals, and modernized tax systems. For instance, enforcing the periodic submission of asset declarations by all tax officials is crucial in the fight against corruption. This measure enhances transparency and accountability among tax employees by mandating the disclosure of their financial holdings and assets, facilitating the detection of any unexplained wealth or suspicious transactions. The development of clear procedure manuals is another essential aspect of combatting corruption in tax administrations.

Collectively, these measures promote transparency, accountability, and fairness in tax administration. They ultimately empower governments to collect revenue more efficiently and rebuild public trust in the tax system, reinforcing its effectiveness and integrity.

5. Product Specific Controls

The previous section looked at the basic building blocks which make up effective excise tax administration, and these apply generally to all excisable goods. The nature of health taxed goods does mean that some administrative controls do need to be established which are unique to, and applied to, that product. This section outlines such product specific controls for each of tobacco, alcohol and SSBs which have been proposed to address risks to the excise revenue that apply to each of these product categories.

a) Tobacco

Cigarettes and other tobacco products generally carry a very high excise tax burden as policy makers look to reduce consumption of this product. This in turn establishes a significant risk to the excise revenue as criminals seek to profit from evading such taxes. The additional controls placed on tobacco products are put in place to address this risk, and the manufacturer/importer/distributer tobacco products will need to include in their licence applications details in relation to the number and capacity of cigarette manufacturing lines, as well as details of the equipment used to measure and weigh products among others. Such details provide insights into the potential excise tax liability at risk and will support the implementation or operation of the country's Track &Trace (T&T) or general fiscal marking system.

Recognising the broader tobacco tax evasion and avoidance risks, and fully consistent with Article 6 of the WHO's Protocol to Eliminate the Illicit Trade in Tobacco Products, a number of additional excise related dealings will be included for tobacco and tobacco products for licensing or licensing type controls. The additional excisable dealings included that require a permission from the revenue agency are summarised in box x below.

[52] https://knowledgehub.transparency.org/assets/uploads/kproducts/Tax_administration_topic_guide.pdf
[53] Tax_administration_topic_guide.pdf (transparency.org)

Box x Additional tobacco related excisable dealings requiring permission

- Being in possession of any tobacco seed, plant or leaf of tobacco. This recognises that the excise tax risk usually begins with the raw materials, and will reduce the risk of unauthorised production;
- Planting, growing, harvesting, or curing tobacco and tobacco leaf. This again recognises that the excise tax risk usually begins with the raw materials, and will reduce the risk of unauthorised production;
- Buying, importing, selling or exporting cigarette making machines so that production capacity can be better tracked by the revenue agency, as well as recognising that it will reduce the risk of unauthorised production; and
- Where no other government agency has legal jurisdiction, permission is required for wholesaling, or retailing, even though the excise has been paid. This provides an ability to better monitor the full supply chain and market for illicit products.

Under Article 6 of the Protocol to Eliminate Illicit Trade in Tobacco Products, it is recognised that licensing, registration or permission type functions are moving to points earlier in the tobacco supply chain, such as tobacco farming (WHO, 2021, p104). This reflects the nature of the risk and ensures that the primary raw material for cigarettes and other tobacco products – the tobacco leaf, is bought under the controls of the revenue agency and such raw materials cannot be diverted to unlicensed cigarette and tobacco product factories or diverted directly into the market. Similar to raw materials, licensing, registration or permits should also extend to actual cigarette making machinery (WHO, 2021, p121) to extend knowledge of production capacities and where that is located. Notwithstanding, there is no circumstance in which a cigarette making machine should be located anywhere other than in a licensed excise manufacturing premises.

Fiscal marking is a general provision as discussed earlier under the production controls section, where such markings are applied on products during packaging. There are a number of unique requirements that need to be set out for tobacco, such as the level of packaging requiring a fiscal mark, and where they are applied. Identification marking for tobacco products is seen as a critical supply chain control and such marking should be part of a T&T system, but can also occur independently (WHO, 2021, pp122-134). Where T&T systems are in place, this affixing of the relevant marking will also 'activate' the marking, providing the mechanism for those markings to be read in the supply chain and marketplace (see section on T&T below**).**

Noting the growth of new and emerging tobacco and nicotine products, it is important that special considerations are made regarding the taxation and administration of these products. The legal provisions need to clearly define the products that are subject to excise, the excise rate and the unit of measure, noting that for example, the unit of measure of cigarettes differ from that of Electronic Nicotine Delivery Systems (ENDS), Electronic Non-Nicotine Delivery Systems (ENNDS), and nicotine pouches, among others. Special controls may also apply depending on whether the ENDS and the other emerging tobacco and nicotine products are produced in the country or imported.

Disposal of tobacco waste is also critical since it can be used to make tobacco snuff or smoking tobacco and as such special considerations needs to be made to ensure that tobacco waste is accounted for, and that the tax agency has full visibility of how the waste is managed.

b) Alcohol

Alcoholic beverages will in many countries carry a high excise tax burden per product which presents a risk to the excise revenue from criminals by attempting to manufacture or import outside of the licensed excise tax system. However, in addition to this general risk, it is common for differing excise tax rates to apply to the various categories of alcohol and so there are additional risks identified by the WHO (2023, p121) around manufacturers or importers mis-classifying product to attract lower tax rates, an activity made easier by the heterogeneity of alcoholic beverages.

From an excise administrative and compliance perspective, the risk is broadly described as unrecorded alcohol which as the term suggests, is that this is alcohol not officially captured in records of the agency responsible for excise administration and therefore official government statistics (Rehm, J, Neufeld, M, et al, 2022). There may be several reasons for this, and each is a category of risk that needs to be addressed by the relevant agencies. First is that alcohol which is produced at home or by traditional means in traditional community settings, and for which the government may have implemented a policy to reduce the alcohol excise tax rate, or even exempt such products from excise. The challenge for revenue agencies is preventing such products from being diverted into the domestic market with the excise tax concessions applied, despite the diversion meaning the concessions should no longer apply.

Alcohol as well has many non-beverage end-uses which are tax free or exempt of excise, as the product is consumed as a raw material input to a new industrial product or used in its pure form as a sterilizing or solvent agent. The WHO (2023, pp128-129) refers to this unrecorded alcohol risk category as surrogate alcohol, being an illicit product being alcohol not intended for consumption as a beverage and so is excise tax free, but rather than being used as intended, it is diverted to the beverage market. Not only can this type of product result in excise tax revenue losses, but often there are significant health consequences from its consumption as it is not fit to be consumed.

Unrecorded alcohol can also result from unlicensed production in a household or commercial facility, un-documented production in a licensed excise facility or from smuggling into the market from a third country – even though the smuggled alcohol is recorded in the country of origin (Rehm, J, Neufeld, M, 2022). The concern is that commercially produced alcohol in this risk category can deliver large volumes of low priced and high strength alcohol in the market. In some cases, these illicit production facilities may counterfeit alcohol types calling their product 'whisky' or 'rum' or even counterfeit popular brands to attract consumers to a low-priced but well known alcoholic beverage.

Given these differing risks of unrecorded alcohol entering a market, a range of additional controls are placed on alcoholic beverage manufacturers and importers to directly address these risks. Through the licensing process it is recommended that applicants also need to include in their applications further details in relation to the number and capacity of distillation, brewing, tank storage, and packaging line capacities, as well as details of the equipment used to measure alcohol strengths and product volumes. These additional details again provide insight in the potential excise tax liability at risk and will support the implementation or operation of the country's fiscal marking system.

In relation to the areas of risk from diversion of tax free or excise exempt alcohol, it is recommended that it first be established what categories of end-use or end-users be entitled to receive excise tax free alcohol, allowing for the tailoring of more specific requirements to be met before granting a permission to take possession of such tax-free alcohol. A number of exempt end-use and end-user categories are suggested in Box x.

Box x. What end-uses can give rise to excise exemption

- Distilled spirits for use in the education and science sector, with permissions likely sought by universities, schools or other research institutions that would use such product to sterilize equipment, preserve specimens, or sanitize;
- Distilled spirits for medical use, with permissions likely sought by hospitals, clinics, pharmaceutical manufacturing businesses to be used in sterilization, medicinal products, etc;
- Other distilled spirits (undenatured) for industrial or manufacturing use, with permissions likely sought by manufacturing businesses to be used as inputs for mouthwash, perfumes, deodorants, and other products that the head of the agency is satisfied must not be denatured;
- Other distilled spirits to be denatured by a licensed excise manufacturer;
- Any alcohol for use in manufacturing or foodstuffs including flavourings with permissions likely sought by food manufacturing businesses to be used as inputs for confectionary, essences, etc.
- Any alcohol for consumption by a duty and tax-exempt organisation or its staff with permissions sought by embassies, consulates, UN, or any other international organisations that are duty and tax exempt under an internal convention such as the *Vienna Convention 1961*, provided that where annual limits are placed on duty and tax free purchases, those limits have not been exceeded.

The permission system does allow for the head of agency to approve or not approve an application for such a permission for alcohol specific dealings. In some cases, approval for a permission under a scenario listed in Box x will not be granted as the applicant has not been able to demonstrate that they are appropriately associated with the end-use sought, and/or demonstrate they require the volumes of excise free alcohol applied for, and so the supply is considered to be excessive and the risks unwarranted.

Alternatively, approval for a permission can be granted but where a degree of concern or risk is present from the application information the permission can be granted with restrictions or conditions, and/or the requirement to first lodge a financial security for the potential excise tax risk. Recipients of a permission are then required to keep records and produce these to the revenue agency on request, and where this does not occur, or the records to not allow an accounting for the excise exempt alcohol, then the relevant excise tax can be recovered, and further subject to administrative penalties or prosecution.

Alcohol is a volatile product and alcohol volumes can vary according to temperature. As such, an import product specific control particularly relevant to alcohol excise taxes based on alcohol content, is to determine what that alcohol content is for when that product passes the taxing point, and to reconcile finished goods in the packaging tanks, and even back to product in manufacturing tanks. The most common standard, indeed that used in the international trading environment is 20 degrees Celsius[54], which is proposed in addition to the head of agency being able to issue a Notice as to what devices are acceptable to determine alcohol strength and are consistent with those recommended by the WHO (2023, p125), and what alcohol strength should be recorded in the FMIS for excise tax purposes.

[54] See chapter 22, heading 2208 of the HS nomenclature

Box x Alcohol strength – common measuring devices

- Gas chromatography
- Distillation with gravimetric measurement of the distillate in a density meter
- Infra-red spectrometry
- Densitometric analysis measuring density
- Refractometer measuring the refractive index of the distillate, and less sensitive
- Biosensor, Flow injection using permeation through a membrane, and/or the enzymatic method

Alcohol excise taxes based on alcohol content such as 'per LPA' or based on a unitary basis such 'per L' also require knowledge of fill or content as the product is put into its package, as there are often issues of over and under-filling of packaging. To support the collection of excise tax revenue on alcohol, the same process of sampling of alcohol strength should also include measurement of actual volume in a calibrated vessel. The determining of actual volume in a container in a production run is again recommended be set out in a Notice issued by the head of agency for that purpose and should align with the Notice on determining alcohol strength (if issued). These Notices will set out aspects such as the number of samples and the timing of removing the samples from each production run, and how the testing of these samples translates as what is recorded in the FMIS.

Both alcohol strength (when part of the tax rate) and actual contents should be the same as the label for the product, although many countries will allow a small tolerance if the label is used to assess excise tax. To ensure this is not abused, it is recommended that a mechanism to assess excise tax liabilities on the higher of the label or the actual strength and fill be implemented.

Fiscal marking is recommended as an 'appropriate tool' for compliance over alcoholic beverages by the WHO (2023, p151) and additional licensing information sought will assist in assessing the potential production capacity of a licensee. Further, additional requirements are needed if a country has adopted fiscal marking, including details for different alcoholic beverage packaging types. These additional details will also assist if the country has also adopted a track and trace system for alcohol products with such markings to be affixed in the same manner.

c) Sugar-Sweetened Beverages

Excise tax rates applying to SSB beverages are generally significantly lower than for alcoholic beverages, and risks therefore are lower. One of the main risks identified by the WHO (2022, pp66-67) is from the classification of SSBs and whether a product is correctly classified as falling outside of excise or is indeed an excisable beverage, and if a taxable beverage has the correct excise tax rate applied where differing classifications have differing tax rates. Whilst this depends on the individual excise tariff set by individual countries, excise taxpayers manufacturing or importing SSBs will need direction through a Notice (or some form of administrative instrument such a Regulation or Ruling) to provide clarity on what are key questions for classifications as set out in Box x.

Box x Typical classification questions in SSB excise taxation

- Does excise apply on beverages with added sugar – what is added sugar and does this apply to naturally occurring sugars in other additives, or artificial sweeteners?
- What is a naturally occurring sugar?
- What is an artificial sweetener?
- How is total sugar determined – is this included in labelling?
- How is total sugar determined – sampling and analysis?
- Are there ‘food laws’ or ‘packaging requirements’ which provide for total sugar information on labels?
- Will there be exceptions from inclusion in excise taxation, such as milk-based products with added sugar and/or total sugars that would be taxable?

The content of any such Notice issued by the head of agency will need to identify the taxable characteristic of the SSBs in question to provide this guidance, and provide country-based examples of this question (WHO, 2022, pp59-61). Similarly, the same Notice also needs to include how that taxable characteristic is determined or measured – such as compliance with consumer labelling laws where details as to sugar and types of sugar contents are included, or whether the sugars and types of sugars require self-assessed or independent sampling and analysis.

The WHO (2022, p67) also notes the potential emerging classification risk of concentrates and powders given most SSB excise tax rates are on a unitary basis. The issue being that the volumes of concentrates by their nature are lower than the volumes of the retailed product and may lead to excise tax planning, to lawfully avoid SSB excise liabilities.

For clarity and avoidance of risk, where an SSB excise licensed manufacturer will also produce alcohol based RTDs such as the manufacturer of cola flavoured sodas that also produces a line of whisky and cola RTDs, these businesses must seek an excise manufacturing licence as an alcohol beverage manufacturer. If, however, an SSB manufacturer only seeks tax-free alcohol to manufacture their flavours, then they may still seek an excise licence for SSB manufacture and utilise the appropriate permission-based regime to access tax-free alcohol.

A minimal but growing number of countries are looking at fiscal marking of SSBs in the same manner as tobacco and alcohol. In these cases, additional requirements relating to SSB packaging types for a country that has or is looking at adopting fiscal marking should be explored.

6. Emerging technologies

A number of emerging technologies are relevant to the administration of health taxes.

a) Digitalization

Tax administrations worldwide are embracing digitalized solutions to improve the service to taxpayers and better target compliance activities.[55] The digitalisation of tax administration aims to keep pace with the technological innovation and automation that has revolutionised economies and societies.

Currently, taxpayers generally must take active steps to understand, calculate and report tax liabilities as well as keeping required records,[56] while tax administrations rely upon resource-intensive investigations and audits to identify noncompliance.[57] Digitalisation offers the prospect of building tax compliance into the systems that taxpayers use for their own purposes. Such an approach promises to reduce the compliance burden of having to use a separate process for taxation. Additionally, by moving taxation closer to the taxable event, the tax administration is able to gather real-time information in a dynamic manner, rather than relying upon post-hoc evaluations of historical transaction data.

The digitalisation of tax administration is built around the secure and unique identification of taxpayers using a digital Identity[58] and the building-in of tax rules into the business accounting systems used by businesses[59] through tools such as Continuous Transaction Controls (CTCs) that enable the collection of data directly from the businesses systems, in real-time.[60]

Tax administrations have also sought to automate risk management procedures. In 2020, Uzbekistan introduced an automated risk management system to identify and monitor high-risk taxpayers, and developed tools for risk profiling for large taxpayers and SMEs.[61]

b) Track and trace

Unique to excise tax administration is the process of marking all excisable products before they leave a licensed excise premises for home consumption, sale to another licensee or for export. As discussed, these markings have developed into tools in which each stamp has a unique identifying number, as well as certain relevant data about the product which can be read at any time.

Traceability further builds on this by allowing for data to be added to the stamp as the product moves through the supply chain and can be done efficiently by 'aggregation' or by linking individual excise products or packets to outer packaging. For example, a cigarette packet has a stamp, as does a cigarette carton which contains 10 cigarette packets and which links to those 10 packets, as well as a master-case containing 50 cartons.

The track and trace system (T&T) was not designed for the purpose of tax collection and the procedures put in place by tax administration authorities for the control of tobacco and the collection of tobacco taxation

[55] OECD (2020), Tax Administration 3.0: The Digital Transformation of Tax Administration, OECD, Paris. http://www.oecd.org/tax/forum-on-tax-administration/publications-and-products/ tax-administration-3-0-the-digital-transformation-of-tax-administration.htm, p 3
[56] OECD (2020), Tax Administration 3.0: The Digital Transformation of Tax Administration, OECD, Paris. http://www.oecd.org/tax/forum-on-tax-administration/publications-and-products/ tax-administration-3-0-the-digital-transformation-of-tax-administration.htm, p 11
[57] OECD (2020), Tax Administration 3.0: The Digital Transformation of Tax Administration, OECD, Paris. http://www.oecd.org/tax/forum-on-tax-administration/publications-and-products/ tax-administration-3-0-the-digital-transformation-of-tax-administration.htm, p 3
[58] OECD (2022) Tax Administration 3.0 and the Digital Identification of Taxpayers: Initial Findings, OECD Forum on Tax Administration, OECD, Paris, https://doi.org/10.1787/3ab1789a-en
[59] OECD (2022) Tax Administration 3.0 and Electronic Invoicing: Initial Findings, OECD Forum on Tax Administration, OECD, Paris, https://doi.org/10.1787/2ffc88ed-en
[60] ICC, Scarcella L, *Digitalisation of tax administrations ICC DSI/CTC principles, presentation*.
[61] World Bank Global Tax Program 2022, Global Tax Program FY22 Annual Progress Report Fiscal Policy and Sustainable Growth Unit Macroeconomics, Trade and Investment Global Practice, July 2021 – June 2022

mostly remain separate. Thus T&T provides the capability for the revenue agency to verify an excisable product in real time as to its authenticity and tax status, and where the agency is investigating possible fraud or non-compliance, to be able to trace the route of the product from import or manufacture to the point where the breach of the law occurred. The main components of a T&T system include the following:

- Printing of stamps with sophisticated security features
- Printing of a unique identifier (UID) on a stamp or directly on a product;
- Production line equipment to affix stamps and/or apply the UID;
- Manufacturers and importers ordering stamps consistent with expected inventories;
- Data on production, tax status, customers captured in the UID;
- Stamps/UIDs 'activated' after affixing but before entering home consumption;
- Various level of aggregation when UIDs from packs, to cartons, to master cases are linked for the ease of multiple UIDs capturing by scanning a UID higher in the packaging hierarchy;
- Secure central system storing UIDs;
- UIDs read on delivery and receipt, status of a product updated accordingly;
- UIDs used to verify the status of a product at any point in in the supply chain in real time;
- Central system generates management reports for reconciliation with excise tax paid, risk, statistics, planning, forecasting, etc.

As one example, tobacco track and trace systems are part of the regulatory environment for the sale of tobacco products in many countries and support the health objectives of the World Health Organization's Framework Convention on Tobacco Control (FCTC) by better monitoring the tobacco supply chain.

In fact, T&T is a requirement for parties under the WHO's Protocol to Eliminate the Illicit Trade in Tobacco Products[62] with the relevant extract from Article 8 reproduced in Box x, with the anticipation that parties will expand national systems to connect with regional and possibly global systems to track entire supply chains, and the minimum data sets to be incorporated into each fiscal marking or stamp applied to tobacco products on the packaging line.

Box x Protocol to Eliminate the Illicit Trade in Tobacco Products

ARTICLE 8

Tracking and tracing

1. For the purposes of further securing the supply chain and to assist in the investigation of illicit trade in tobacco products, the Parties agree to establish within five years of entry into force of this Protocol a global tracking and tracing regime, comprising national and/or regional tracking and tracing systems and a global information-sharing focal point located at the Convention Secretariat of the WHO Framework Convention on Tobacco Control and accessible to all Parties, enabling Parties to make enquiries and receive relevant information.

2. Each Party shall establish, in accordance with this Article, a tracking and tracing system, controlled by the Party for all tobacco products that are manufactured in or imported onto its territory taking into account their own national or regional specific needs and available best practice
…

4.1 …. require that the following information be available, either directly or accessible by means of a link, to

[62] WHO see 9789241505246_eng.pdf (who.int)

assist Parties in determining the origin of tobacco products, the point of diversion where applicable, and to monitor and control the movement of tobacco products and their legal status:
(a) date and location of manufacture;
(b) manufacturing facility;
(c) machine used to manufacture tobacco products;
(d) production shift or time of manufacture;
(e) the name, invoice, order number and payment records of the first customer who is not affiliated with the manufacturer;
(f) the intended market of retail sale;
(g) product description;
(h) any warehousing and shipping;
(i) the identity of any known subsequent purchaser; and
(j) intended shipment route, the shipment date, shipment destination, point of departure, consignee.

However, depending on the system established in the country concerned, there may be opportunities to use data from track and trace system to complement that available to the tax administration.

Some countries have adapted the implementation of track and trace and integrated it with tax control and collection procedures. For example, in Kenya, the track and trace system includes multiple security features on each stamp including a QR code, holograms and invisible UV markings that allows KRA to monitor the entire supply chain, from production/import to retail sale, thereby enhancing tax assessment accuracy.

c) Remote product monitoring

Technology is now readily accessible for remote monitoring of production lines and flow meters, in some cases, manufacturers already have such technology in place for internal quality and assurance monitoring processes, with data transferred in real time to a headquarters or administrative centre tasked with monitoring production and which can also be sent in real time to the revenue agency. The application can be utilised for liquid form excisable goods such as alcoholic beverages and SSBs, as well as cigarette packs and other tobacco product packaging.[63]

The technology works by sending production data, usually through a web-based platform, where it is captured in a system utilised by the revenue agency for those purposes. In some cases, there may be several layers of data for example between storage tanks, between storage tanks and mixing tanks, and/or between storage or mixing tanks and the packaging lines, providing a full picture of excisable goods movement at the licensed manufacturing premises.

Tax administrations generally assign control officers to supervise tax warehouses, where excise products are produced, processed, held or stored. In the past, these were often permanently situated on-site; in some countries this continues to be the case for high-value tax warehouses. However, generally, control officers now carry out their tasks by examining stock returns submitted by the company for accuracy and any deviations from normal activity and carrying out supervisory control visits, including physical inspections and stocktakes.

As the resource cost of placing a full-time control officer within a tax warehouse became prohibitively high and as a low degree of transparency creates the opportunity for corruption by companies or their employees or tax officials, including control officers, tax administrations can leverage technology to lessen the opportunity for false reporting by designing impersonal procedures augmented by automated data processing.

Remote production monitoring allows for the use of tools which enable the remote accessing and control of certain systems in the tax warehouse. Such tools involve both software and hardware solutions and allow

[63] In use for beer and SSBs in Thailand for some manufacturers.

for either an interactive or automated control of the premises. Such tools provide an objective and a verifiable audit trail of the excise goods produced within the tax warehouse.

d) Blockchain

Whilst still in pilot form,[64] the potential for utilising blockchain technology in administering excise tax is significant. Many aspects, if not all, of the building block controls and product specific controls listed in this chapter can be put onto the blockchain, and the technology in many cases has the potential to greatly improve efficiencies and effectiveness of those controls.

Blockchain has the potential to increase traceability of excise goods without the need to physically attach tax stamps or other fiscal marks. By using existing business practice and systems to create traceability and incorporating data within current barcodes/QR codes, not only do regulators have an enhanced ability to monitor compliance, but those in the supply chain and consumers will also have visibility over the integrity, authenticity, and tax status of products they wish to purchase and in real time.

Although it will vary somewhat country by country depending upon the rules and blockchain technology chosen, Box x is a simplistic summary of how blockchain works with excise tax administration.

Box x How blockchain can apply to excise administration

- Excise goods upon manufacture are 'digitised' or 'tokenised';
- Upon packaging, each packaged unit is established as a non-fungible token (NFT) which can be traced;
- Rules are created which identify the treatment of attempted transactions such as:
    - sale into the domestic market (product digitised, NFT created)
    - tax suspended sale (permission in place)
    - export sale (export declaration lodged, permission in place)
    - remission application (goods digitised, circumstance eligible);
- Transactions are 'approved' after checks against rules in the system;
- Subsequent transactions in the 'excise supply chain' are then linked to the previous transaction relating and building on the initial transaction;
- Excise payment relating to sales to home consumption of 'digitised' inventory is made from digital wallets (which also provide for refunds); and in many cases
- Automated reporting to the blockchain from an excise manufacturer and/or excise payers own information management system.

The current and emerging technology-based options discussed in other sections of this chapter also work with the blockchain and together will form part of modern or future digitised excise administration. These options may include at some point:

- Digital excise stamp management linking the provider, the manufacturers and the revenue agency, perhaps recording the number and type of stamps provided to the industry, with manufacturers and importers uploading the number and types of stamps activated, linking those to production runs and excise payments;
- T&T system management providing for any perceived 'gaps' in reporting for example an ability

[64] Excise on the blockchain is the subject of a pilot study in the EU (3 members) for excise suspended movements see SEED-on-Blockchain | Netcompany-Intrasoft, and was piloted in Australia in 2022 for distilled spirits see ConvergenceTech_fullreport.pdf (anz.com)

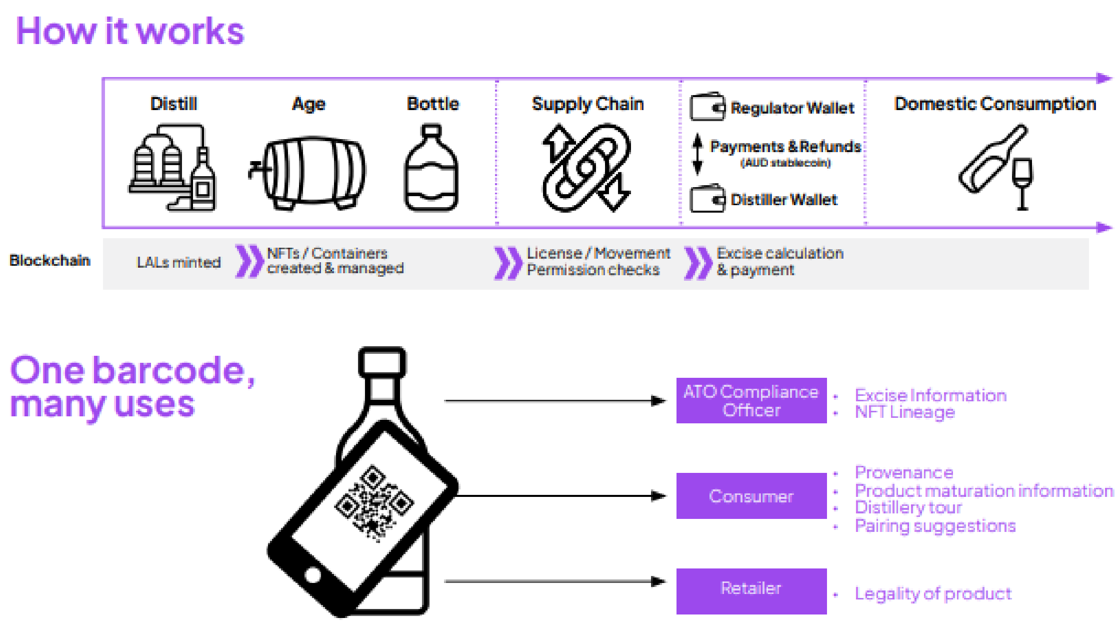
for those excise licensees, wholesalers or retailers to upload what excise goods they have received;
- Flow meters, counters, scales etc. with remote reporting capabilities uploading to a blockchain platform.

In addition, other uses of blockchain could include:

- Due diligence in the supply chain through automated licensing confirmation by those looking to acquire excisable goods;
- Ability to establish the legality of sending to, or receiving excisable goods from another entity;
- Establish the tax status of excise goods an entity has acquired;
- Establish excise tax liability of excisable good an entity has acquired;
- Improved reconciliation of excise payments and deliveries into home consumption;
- Management of excise tax liabilities, refunds, credits through a digital wallet; and
- Connection with customs and port authorities to track movements of excise goods being imported or exported.

A snapshot of the Australian pilot study of excise tax administration over domestic distilled spirts production, has been included in figure x.[65]

Figure x. Australian Blockchain Excise Pilot – Distilled Spirits



[65] From ConvergenceTech_fullreport.pdf (anz.com)

7. Other considerations

a) Country-level considerations

Special measures for free zones.

Free Zones are Customs areas where goods on which taxes have not yet been paid are stored[66]. Though regularly inspected by Customs officials, there are a number of ways in which high risk goods that are stored in free zones could find themselves on the market with understated taxes or without any taxes paid. These could be goods that were manufactured in the free zones or stored in the free zones. The Colon free trade zone of Panama is one of the most recognisable free zones where cigarettes are smuggled[67]. The countries of origin for these illicit cigarettes include China, India, the United Arab Emirates and Paraguay and these enter the local markets or are shipped to other destinations in the South American region[68]. The Economist Intelligence Unit[69] further reported that Maicao Special Customs Regime Zone has turned into a refuge for smugglers, especially those trafficking in illegal cigarettes with studies showing that lucrative profits in the vice. Moreover, the problem seems to be escalating, with a 2018 Colombian government report indicating a significant rise in cigarette smuggling in 2018 in the free zone. Despite the illegal activities being perpetrated by the firms in the free zones, theft is one problem that could happen for risk goods stored in the free zones. A case in point is the 2024 incident at a warehouse at Brussels Airport was burgled and thieves mainly went away with over 269,000 cigarettes and 1,400 Kgs of hookah tobacco[70]. The Brussels times further stated that there were similar incidences in 2023 where warehouses were targeted and thieves mainly made away with tobacco and cigarettes. It is evident that these products end up being offloaded and sold either online or through informal business setup where tax authorities have difficulties to regulate and monitor the transactions.

In some cases, alcohols that are stored in free zones could appreciate in value. However, for tax purposes the value that is used is the value at the time of importation and this leads to under-declarations of taxes[71].

***Online sales*.**

The sale of goods online has opened up the sale of illegal and counterfeit goods. According to the European Union Intellectual Property[72], more than 50% of counterfeit goods that were seized at the European Union borders were traded through online commerce[73]. For products that require tax stamps like cigarettes and alcohol, the use of online sales across the country borders could circumvent this measure. Tax administrations need to design adequate mechanisms to mitigate the possible revenue loss resulting from illegal products being sold online. Such mechanisms may include increased inspections by Customs

[66] Ron Korver. (2018). Money Laundering and Tax Evasion Risks in free Ports. Brussels: European Parliamentary Research Service.
[67] The Economist Intelligence Unit. (2018). The Global Illicit Trade Environment Index. London: The Economist Intelligence Unit Limited.
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[71] Ron Korver. (2018). Money Laundering and Tax Evasion Risks in free Ports. Brussels: European Parliamentary Research Service.
[72] European Union Intellectual Property Office. (2021). Online commerce has become a major distribution channel for fake goods. Brussel: European Union Intellectual Property Office.
[73] European Union Intellectual Property Office. (2021). Online commerce has become a major distribution channel for fake goods. Brussel: European Union Intellectual Property Office.

officials on imported goods coming through post, random inspections and local market surveillance of online sales platforms. In extreme cases, legislative provisions can be used which prohibit online advertising and/or sale of products that have a negative effect on health.

Informal markets.

The Informal sector accounted for about two-thirds of economic activity in low- and middle-income countries as at year 2020. It comprises both individuals and firms who are not in formal employment or trading and have disregard for tax and trading regulations. The firms operating in the informal sector contribute greatly to non-compliance with tax obligations. In most cases, the firms operating in the informal sector smuggle goods into the countries and sell the smuggled goods at very low prices compared to locally manufactured goods and goods that have been imported legally. In some instances, the firms manufacture goods that are subject to excise illegally and undetected.

Box x Example of Illicit Trade in the Informal Sector

In Zambia, one of the markets commonly referred to as COMESA Market, is one of the areas where smuggled alcohol and cigarettes have been found to be traded. These products are mainly imported alcohols and cigarettes concealed through the borders in various ways. In 2023, the Tax Authorities intercepted the offloading of a consignment of 2,000 cases of imported alcoholic beverages valued at over USD 165,000 in taxes and the consignment was covered with bags of maize bran used as chicken feed at importation and was at importation misclassified.

In similar circumstances, the tax authorities had also intercepted various consignments of ethanol that was misclassified as goods that do not attract excise duties such as liquid fertiliser and also some consignment of alcohol that was covered with coal. If these attempts had been successful, the product would have been sold by traders in the informal sector.

The market for illegally produced beverages and cigarettes is substantial. In most cases, the production of these products does not require mechanised or complicated equipment to produce. For example, the production of umqombothi beer in South Africa requires yeast, maize, malt and sorghum which are mixed in a drum and allowed to ferment for a certain period[74]. The production of this beer makes it a challenge to enforce tax compliance and other statutory regulatory measures. In Indonesia, 95% of the cigarettes demand is for Kerek which is a machine rolled or hand-rolled domestically made cigarettes which contain tobacco and some cloves[75]. Though Indonesia has put up some measure to curb the illicit production of kereks, there have been a number of ways in which illegal kereks have entered the market. The ways include "unpacked cigarettes, cigarettes packed without excise stamps, cigarettes packed with forged or otherwise counterfeit excise stamps, cigarettes packed with excise stamps with incorrect business excise identification numbers, cigarettes packed with wrong designations, and cigarettes packed with used excise stamps"[76]. These

[74] Xolo, T., Keyser, Z., & Jideani, V. A. (2024). Physicochemical and microbiological changes during two-stage fermentation production of umqombothi. Heliyon, 1 - 14.
[75] Ahsan, A. (2019). A Global Review of Country Experiences - Indonesia: Tackling Illicit Cigarettes. Java: World Bank Group.
[76] Ahsan, A. (2019). A Global Review of Country Experiences - Indonesia: Tackling Illicit Cigarettes. Java: World Bank Group.

challenges, may not only be prevalent in Indonesia, but is most countries. Thus, it is important to implement stringent measures that are able to tackle the identified challenges in any illegal production, including supporting regional coordination to help stem illicit trade.

A study by Euromonitor[77] suggests that an increase in excise duties on alcohol is likely to lead to an increase in the consumption of illicit alcohol. In countries where border controls are not too effective, cheaper substitute products from neighbouring countries or illegally locally manufactured products may find themselves on the local markets. While it is advocated that increases in excise duties reduce consumption of alcohol or cigarettes, the contrary was true for Zambia[78] in 2015 and Botswana[79] in 2008. Thus, a balanced taxation system is cardinal to ensure that increases in taxes on alcohol and cigarettes are sufficient to deter excessive consumption of the products and also does not encourage illicit trade especially in the informal sector. In addition, regional coordination among countries especially those within regional bodies like European Union and Southern African Development Community (SADC). The exchange of information on exports to other countries with details such as importer names, quantities and value would help reduce the illicit product on the markets.

To deal with smuggling, undervaluation and misclassification that can occur in the informal sector, Revenue Authorities are faced with multiple challenges and need to put in place a number of measures as illustrated herein. The elimination of illicit trade in tobacco products can only be achieved through the control of imported and locally produced cigarettes, for instance by using track and trace on cigarettes[80]. Further the fight against illicit tobacco can also be advanced by creating health reforms that support and promote tobacco cessation. The track and trace approach could also be used on alcohol to control the illicit product on the market. However, track and trace needs to be complimented by market surveillance and physical inspections. Other measures that would assist in the dealing of illicit products include customs to customs data exchange, use of scanners at point of importation to assist detect concealments, mobile enforcement teams operating 24/7 conducting road patrols and collaborations with other security and regulatory agencies. In support, the World Health Organisation[81] reported that police investigations, complaint systems and case by case reporting were the most common methods reported to be used by member countries in tracking informal and illicit alcohol.

b) Regional coordination

Regional coordination and cooperation among states are indispensable elements in ensuring the successful implementation of health taxes or excise duties, particularly when applied to products like alcohol, tobacco, and sugar-sweetened beverages. This collaborative effort necessitates the creation of regional operating procedures that are founded on principles of consistency and harmonization. Key aspects of this cooperation include adopting standardized valuation methods for excisable products, setting minimum pricing thresholds to prevent undercutting, and facilitating information exchange on the cross-border movement of such products. By fostering alignment and cooperation among neighboring states, regional coordination not only strengthens the effectiveness of health tax policies but also helps mitigate tax evasion, illicit trade, and unhealthy consumption patterns, ultimately working towards a common goal of improving public health outcomes on a broader scale.

[77] Euromonitor International (2015), Analysis of Illicit alcohol in Zambia.
[78] Euromonitor International (2015), Analysis of Illicit alcohol in Zambia.
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8. Conclusions

Effective tax policy is contingent not just on how well the policies are designed, but on how strong the capacities of tax administrators are to implement them. To this end, tax administration authorities should focus on the following elements:

- Ensure effective governance and institutional arrangements to support implementation, including modern risk management processes
- Understand your starting point in terms of existing capacities across the tax administration building blocks: Emerging tools can help to diagnose issues and present pathways for reform.[82] These building blocks include:
    - Licencing
    - Production controls
    - Inventory controls
    - Reporting and payment
    - Refunds, rebates, remissions, drawbacks and adjustments
    - Certainty and transparency for taxpayers
    - Audit and compliance
    - Enforcement and sanctioning
    - Product specific controls
- Leverage technology such as track and trace to improve implementation
- Support efforts to enhance regional coordination

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WCO (2024) *Revenue Program* accessed 26 April 2024 World Customs Organization (wcoomd.org)

WHO (2021) *Technical Manual on Tobacco Tax Policy and Administration* WHO Geneva accessed 13 April 2024 from Health Promotion (who.int)

WHO (2022) WHO Manual on Sugar Sweetened Beverage Taxation Policies to promote Healthy Diets WHO Geneva accessed 18 April 2023 from WHO manual on sugar-sweetened beverage taxation policies to promote healthy diets

WHO (2023) *Technical Manual on Alcohol Tax Policy and Administration* (2023) WHO Geneva accessed 10 April 2024 from WHO technical manual on alcohol tax policy and administration

Chapter 9: Ensuring Coherence Between Policy Instruments

1. Introduction: Setting the Scene

a) Health taxes in the context of widening fiscal policy goals

Tax systems have evolved over time, following major social, economic and institutional developments over several centuries. The basic function of collecting revenues for financing the state machinery and public expenditure has been progressively enriched and expanded, adapting to emerging challenges in market economies, a changing tax base and new needs for public expenditure. Many tax systems have had, for a long time, a prominent role in the redistribution of income and wealth, but a more recent and no less important development in the goals of tax systems is linked with addressing market failures. Increasingly complex and interconnected economies have seen a proliferation of instances of market failure, which create inefficiencies for a multitude of economic actors, but also confer significant economic advantages to a more restricted group of actors. Externalities, of course, have long been a target of taxation policies, since economist Arthur Pigou theorised at the start of the 20th century the use of indirect taxes to redress imbalances between private and social costs of economic activities and consumption.[83] But in recent years new, and perhaps more subtle, forms of market failure have emerged and have become common in market economies, often corresponding to increased market power concentrations and asymmetric markets in which consumer behaviour is increasingly manipulated (e.g. through new, powerful, digital marketing techniques) generating larger internalities. However, as the rationale for taxation is widened, as well as the range of fiscal policies goals that governments use, the question of policy coherence becomes increasingly pressing. There is potential for trade-offs between different goals of fiscal policies, each of which may be legitimate in its own right, and there is a need for coherence in addressing such trade-offs when they emerge.

Among new uses of taxes, improving health has been one of the key areas in which the rationale for taxation has been expanded, following increasing recognition that several forms of unhealthy consumption are associated with large, and growing, externalities and internalities. What makes a tax a ‘health tax’ is not merely the product it targets; it is the ability to create incentives that can lead to health improvements, which requires a careful design. Taxation has become a key element in policy strategies to curb the consumption of products contributing to poor health, along with various forms of regulation, such as marketing restrictions, as well as information, education and ‘nudging policies’. In a market economy, prices play a key role in shaping the behaviour of both demand and supply, and taxes can influence prices in different directions, depending on their design. Additionally, in some settings, the rationale for health taxes is strengthened by the prospect of generating new revenues to finance economic development or addressing the health consequences of taxed products, whose consumption may be reduced by taxation, but not eliminated.

b) Fiscal policy interactions and potential synergies

In many instances, health taxes co-exist with other indirect taxes, levied on the same products at different levels of the supply chain. This may create interactions between health taxes and other taxes, with the latter possibly weakening or magnifying the effects of health taxes. The direction and strength of the interaction effect depends on tax rates on target products, their complements and substitutes, but also on the detailed design of the different taxes at play. A health tax must be designed in a way that creates incentives for

[83] Pigou A. The economics of welfare. 1932

health improvement. Combining that tax with one that is designed differently or pursuing other objectives may result in the dilution of the incentives the health tax was designed to create. In Section II, we explore some of the potential interactions of health taxes with other indirect taxes on goods and services, direct taxes, and other fiscal and price regulation policies. Box 1 provides an illustration focusing on food and non-alcoholic beverages taxes.

c) Interactions with trade and commercial agreements and potential constraints

Policy interactions are not limited to the fiscal policy domain. In Section III, we explore the complex interplay between health taxes and customs and monetary unions, as well as non-tax agreements, such as trade and commercial agreements, as potential constraints to the use and design of health taxes. There are often tensions between international trade objectives, corporate strategies, and the imperative to safeguard public health. Some agreements set mutual obligations between the parties involved, designed to create the conditions for reaping mutual benefits down the line. However, potential external (unwarranted) effects of the obligations underwritten by a government are not always assessed, transparent, or taken into consideration in the decision to engage in an agreement. Among the possible effects of non-tax agreements, for instance, are limitations to a government's ability to apply taxes. The sometimes complex policy dynamics triggered by these agreements require careful consideration, in view of ensuring coherence between policy instruments.

d) Wider policy interactions and potential synergies

A further type of policy interaction is in connection with policies that typically form part of a public health strategy alongside health taxes. It is well established that health taxes must be viewed as one element in a wider strategy and should be combined with policy measures that are complementary, and possibly synergistic, such as packaging and marketing regulations, education campaigns, and policies to curb the illicit trade of taxed products. In Section IV, we explore several public health policies that may interact with health taxes in the context of the prevention of non-communicable diseases.

2. Health taxes within the wider fiscal system

Taxes on goods and services represent a significant portion of total tax revenue, ranging from 58% of tax revenues and 6.8% of GDP, on average, in low-income countries to 34% of tax revenues and 9.5% of GDP in high income countries. However, health taxes represent only a fraction of such revenues. As of 2019, revenues from health taxes on tobacco and alcoholic beverages represented on average less than 1% of GDP globally (0.6% for tobacco and 0.3% for alcohol). These represent on average 4.1% of total tax revenues in high-income countries and 5.5% in low- and middle-income countries, with significant differences across individual countries. SSB taxes generate significantly less revenue.[84] Although the number of excise taxes applied on SSBs has increased in recent years, and a large potential still exists in countries not yet taxing SSBs, such taxes have a smaller tax revenue potential for reasons including a more elastic demand for those products.[85]

There is scope for increasing existing health tax rates and raising additional tax revenues, particularly in low- and middle-income countries. While the impact on revenue resulting from increases in health taxes depends on multiple factors, including the rate of pass-through to prices, the elasticity of demand for the

[84] World Bank. Unpacking the empirics behind health tax revenue. Global Tax Programme Health Taxes Knowledge Note Series. Washington D.C.: World Bank; 2023. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099755211022314276/idu1ce8d42c01ed701496c18b6317a0118352541
[85] Andreyeva T, Marple K, Moore TE, Powell LM. Evaluation of economic and health outcomes associated with food taxes and subsidies: a systematic review and meta-analysis. JAMA network open. 2022 Jun 1;5(6):e2214371-.

taxed goods, and available tax avoidance strategies, one can expect revenue to increase as current health tax rates and structures in most countries are likely not set at their tax revenue maximising point.[86] Countries could also broaden the scope of health taxes by taxing further unhealthy products. For example, many countries still do not apply health taxes on SSBs, while some countries only apply SSB taxes to a narrow range of beverages (e.g., excluding fruit juices, sugar-sweetened milk products, etc.), and relatively few countries apply health taxes on foods high in fat, salt, or sugar.

As discussed in Chapter 3 on the role of health taxes in national budgets and in the Addis Ababa Action Agenda,[87] revenue raised from such taxes can contribute to funding sustainable development. This is particularly true for low- and middle-income countries seeking to ensure financial stability in the current context of growing public debt.

a) Health taxes' interactions with other consumption taxes: opportunities and risks

It must be emphasised that interactions between health taxes and other indirect taxes on goods and services will depend on the design and purposes of existing taxes in each country. It is entirely the privilege and responsibility of individual governments to determine how different goals can co-exist in the fiscal system, the order of priority between those goals, and how possible interactions and trade-offs should be addressed. The aim of this chapter is merely to raise awareness of potential interactions and trade-offs that might lead to policy incoherence.

Shaping consumption

All taxes generate incentives that influence consumer and supplier behaviour. When a government determines that the consumption of a certain category of products exceeds socially desirable levels, and therefore must be reduced, including by using taxes, they may find that existing general consumption taxes (e.g., VAT or sales taxes) may provide incentives that are not conducive to reducing the externalities and internalities associated with that consumption. There are at least two ways in which the incentives provided by general consumption taxes and health taxes may not be well aligned. The first is the ad valorem nature of general consumption taxes, which in some instances might weaken the effects of health taxes, especially in certain population groups. The second is the differentiation of general consumption tax rates, which is common and may or may not be aligned with the health impacts of different taxed products. These two issues are discussed briefly in the following paragraphs.

A common argument highlighting the potential misalignment of general consumption taxes and health objectives is that these, as ad valorem taxes, target value rather than quantity of a potentially unhealthy product (although the two are at least broadly correlated, as a larger quantity corresponds to a larger value). This may have practical implications when there is a negative correlation (e.g., fast food), or no correlation, between price and health impact, as some consumers may decide to purchase cheaper products to mitigate the impact of a tax on their finances, thus offsetting the intended effect of the health tax. This risk has been discussed widely in the context of tobacco taxation, in which 'trading down' (consumers responding to taxation by shifting to cheaper products) is a strong possibility. In the case of tobacco products there is no correlation between price and health impact, as all cigarettes are equally harmful. This also causes an equity

[86] Colin C, de Melo G, Brys B. The Place for Health Taxes in the Wider Fiscal System. Chapter II. Health Taxes: Policy and Practice. Editors: Lauer A, Sassi F, Soucat A, Vigo A. Issuing body: World Health Organization. Singapore: World Scientific; 2022. https://doi.org/10.1142/9781800612396_0002
[87] United Nations. Addis Ababa Action Agenda. New York: UN; 2015. https://sustainabledevelopment.un.org/index.php?menu=35&nr=2051&page=view&type=400

concern, as low-income consumers are at the same time the most responsive to price changes and the most vulnerable to health harms from taxed products. The relationship between value and health impacts is more complex in the case of alcoholic beverages, and even more so in the case of food and non-alcoholic beverages (for instance, foods high in fat, salt or sugar are often more expensive than healthier foods by weight, but the opposite is true by calorie, so the correlation between value and health impact can be positive or negative, depending on what drives consumer choices in a particular setting). Therefore, governments must assess the incentives from existing ad valorem general consumption taxes on a case-by-case basis in designing health taxes. For example, introducing a specific excise tax - based on quantity or volume - may contribute to reducing the relative price difference between cheaper and more expensive products.

A second area which requires attention is the differentiation of general consumption tax rates, which creates incentives for consumer and supplier behaviour that need to be taken into consideration in the design of health taxes. VAT or sales tax rate differentiation is very common in the case of food and non-alcoholic beverages, while it is more limited in the case of alcoholic beverages and tobacco products. Rate differentiation is often a response to distributional concerns, but it may be used to address other types of objectives (e.g. industrial policy objectives) in the short as well as in the long term. Health goals do not need to take priority over other legitimate goals, but fiscal policy makers should consider ways in which the different goals can be best pursued with a set of appropriately designed tax measures.

Revenue generation

From a revenue generation perspective, health taxes, in the form of excise taxes, are most often part of the tax base value on which VAT or sales taxes apply. Introducing or increasing excise taxes on a specific product may thus in turn increase the total VAT or sales tax revenue raised on this product. However, a wide range of factors determine such a relationship. First, a higher tax base value results in higher VAT or sales tax revenue per unit sold. Second, the price effect likely induces a drop in demand which reduces total VAT or sales tax revenue. The resulting net impact on VAT revenue from the price effect and the quantity effect depends on the elasticity of the demand for the taxed good. A third factor is the extent to which consumers may adopt tax avoidance strategies. A tax increase may induce consumers to shift to other untaxed or more lightly taxed goods. The impact on VAT or sales tax revenue thus depends on cross-price effects and the tax rates applied to close substitutes. Illicit trade and opportunities for cross-border shopping may also represent tax avoidance strategies that may impact tax revenue. Finally, as for the impact on excise tax revenue, VAT or sales tax revenue is influenced by the tax passthrough, i.e., the extent to which the excise tax increase is passed onto consumers through higher retail prices.

While trade liberalization has led to a general reduction of tariffs and broadening regional free trade areas are eliminating tariffs with subregions of the globe, customs and other import duties still represent a significant proportion of tax revenue in low- and middle-income countries.[88] Health taxes may reduce the consumption of health harming products, and thus may reduce the import of such products. The impact of health taxes on the revenue from customs and other import duties is mostly driven by this quantity effect given that the base value for customs and other import duties most often does not include health taxes and is only made of the import or CIF[89] value. However, specific excise taxes on tobacco or alcohol, which

[88] Lawrence RZ. The unappreciated trend toward unilateral trade liberalization. 2021. Peterson Institute for International Economics Policy Briefs, March 2021. https://www.piie.com/sites/default/files/documents/pb21-6.pdf; World Bank. Customs and other import duties (% of tax revenue). Washington, D.C: World Bank; 2024. https://data.worldbank.org/indicator/GC.TAX.IMPT.ZS

[89] Cost, Insurance and Freight (CIF) value is the value of unloaded consignment paid by a seller to cover the costs, insurance, and freight against the possibility of loss or damage to a buyer's order while it is in transit. The CIF value is used in most countries as the base for import duties and ad valorem excise taxes on imported products.

particularly increase the price of low-cost or lower-quality products (relative to higher-cost or high-quality products), may lead consumers to perceive higher-priced cigarettes or alcoholic beverages as higher quality and create a shift in consumer preference towards the perceived higher-quality products.[90] The latter being often imported, the value of imports could rise, offsetting part of the aforementioned quantity effect on customs and other import duties revenue.

Some countries apply additional special levies to specific products in addition to excise taxes. This is the case, for example, in Costa Rica with the INDER levy on tobacco products as well as alcoholic and non-alcoholic beverages aimed at funding education and other needs of rural development (it takes the name of the Institute of Rural Development, which receives the revenue).[91] If such additional levies follow a specific tax structure, health taxes may reduce their revenue through the quantity effect. If they follow an ad valorem tax structure, including health taxes in their base value, the impact of health taxes on their revenue will additionally depend on the price effect.

Governments should consider these individual interactions between health taxes and other indirect taxes in designing fiscal policies. However, from a revenue generation perspective, any potential decline in revenue from other indirect taxes should be considered against increased revenue from health taxes as well as increased revenue for household spending shifts (i.e., substitution from goods targeted by a health tax to other goods and services) as a net combined effect on total indirect tax revenue.

b) Interactions with other fiscal and regulatory policies

Direct taxes

Direct taxes are characterized by the fact that their burden cannot be shifted or passed on to others. They include, among others, personal income tax, inheritance tax, capital gains tax, and corporate income tax which is imposed on companies' profits. In this subsection, we focus on interactions between health taxes and personal income and corporate income taxes, as most other forms of direct taxes apply to capital or wealth.

Corporate income tax

Health taxes may impact corporate income tax revenue although their net effect depends on various factors. First, as any other indirect tax or policy targeted at reducing the consumption specific products, a health tax may decrease sales thus reducing the base for corporate income tax, being total corporate profits. This quantity effect may be balanced by a substitution effect for large companies producing close substitutes. For example, a company producing soft drinks may decrease its sales of regular carbonated soft drinks but increase its sales of diet carbonated soft drinks or bottled waters following the introduction or increase of SSB taxes. Similarly, following an increase in alcohol taxes, a beer producer may incur decreases in the sales of beers with alcohol but increase its sales of non-alcoholic beers. Consumer substitutions from goods targeted by a health tax to other goods and services may also increase corporate income tax revenue from other sectors.

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[90] Delipalla S, Keen MJ. Product quality and the optimal structure of commodity taxes. J Public Econ Theory. 2006;8:547–54; Sornpaisarn B, Shield KD, Österberg E, Rehm J. Resource tool on alcohol taxation and pricing policies. Geneva: World Health Organization; 2017. https://iris.who.int/handle/10665/255795

[91] See: https://www.tobaccofreekids.org/what-we-do/global/taxation-price/tax-gap-costa-rica#:~:text=Costa%20Rica%20also%20imposes%20a,development%20(Law%20No%205792).

On the other hand, health taxes may improve employees' health through a reduced risk of negative health conditions associated with the consumption of health-harming products. For example, smokers in China, the US, and five European countries have been found to experience 22% more work-related impairments due to health problems compared to non-smokers.[92] Smokers also take more breaks throughout the workday than non-smokers.[93] Increased productivity (e.g., less presenteeism or smoking breaks) may in turn increase profits and lead to higher corporate income tax revenue. Reducing work absenteeism linked with unhealthy lifestyles may also reduce corporate costs,[94] increasing profits and may lead to higher corporate income tax revenue.

Personal income tax

As health taxes reduce the consumption of health-harming products, it may improve health outcomes. As previously mentioned, this may translate into less work absenteeism, improved productivity at work (i.e., reduced presenteeism), and averted early retirement or exit from the labour force due to morbidity or premature mortality. For example, the frequency of heavy episodic drinking in the previous month[95] is associated with higher recorded absence days at work.[96] Extremely and moderately obese workers may also be less productive.[97] Increasing life expectancy through improved health outcomes may delay exit from the labour force. Additional working years result in additional personal income tax revenue for the government and a reduced burden on pension systems and other social benefits. Increased firm productivity may also trickle down to increased household income and thus increased personal income tax revenue.

On the other hand, health taxes, as any other policy targeted at reducing the consumption specific products, may negatively impact targeted industries through reduced sales and increased costs. This largely depends on pass-through rates, price elasticities, and substitution effects within the industry. One may expect declines in sales to negatively impact employment and thus reduce personal income tax revenue for the government. However, the evidence shows that health taxes have a non-significant impact or even a net positive effect on overall employment, especially when taking into account the job-creation that accompanies public spending projects that use the tax revenue raised (see Chapter 8 for more details on the macroeconomic impact of health taxes).[98] Substitute sales can also lead to increased sales and employment in alternative industries.

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[92] Baker CL, Flores NM, Zou KH, Bruno M, Harrison VJ. Benefits of quitting smoking on work productivity and activity impairment in the United States, the European Union and China. International journal of clinical practice. 2017 Jan;71(1):e12900.

[93] Berman M, Crane R, Seiber E, Munur M. Estimating the cost of a smoking employee. Tobacco control. 2013 May 25.

[94] Pidd KJ, Berry JG, Roche AM, Harrison JE. Estimating the cost of alcohol-related absenteeism in the Australian workforce: the importance of consumption patterns. Medical Journal of Australia. 2006 Dec;185(11-12):637-41.

[95] Defined by WHO as having at least 60 grams or more of pure alcohol on at least one occasion in the past 30 days.

[96] Bacharach SB, Bamberger P, Biron M. Alcohol consumption and workplace absenteeism: the moderating effect of social support. Journal of Applied Psychology. 2010 Mar;95(2):334.

[97] Gates DM, Succop P, Brehm BJ, Gillespie GL, Sommers BD. Obesity and presenteeism: the impact of body mass index on workplace productivity. Journal of occupational and environmental medicine. 2008 Jan 1:39-45.

[98] World Bank. Tobacco Tax Reform at the Crossroads of Health and Development. Washington, D.C.: World Bank; 2017. https://elibrary.worldbank.org/doi/abs/10.1596/28494; Mounsey S, Veerman L, Jan S, Thow AM. The macroeconomic impacts of diet-related fiscal policy for NCD prevention: a systematic review. Economics & Human Biology. 2020 May 1;37:100854.

Welfare expenditures

From a fiscal balance perspective, the size of public expenditure is just as important as tax revenue, and health taxes will influence the former in several ways. Analysing the distributional and equity effects of shifts in tax composition should occur in conjunction with an examination of the mix of public spending. A regressive tax system could enhance overall redistribution through the transfer of tax revenue if the associated spending has larger progressive effects.

While limited, some health-harming product industry workers may lose employment and income as the demand for these products falls. Governments should assist such vulnerable workers - who may lack the skills to adapt - to access equal or better livelihoods; for example, helping tobacco farmers to transition to alternative crops.[99] This may lead to increased government expenditure, which could be covered using health tax revenue.

On the other hand, a growing incidence of NCDs associated with the consumption of health-harming products such as tobacco, alcohol, and unhealthy foods and beverages lead to higher health expenditure, both from public sources and out-of-pocket. Such expenditure may lead some individuals to fall into poverty.[100] Health taxes can improve health outcomes and reduce government health expenditures as well as households' need for welfare transfers.

Subsidies (agricultural, industry-specific)

Production subsidies sometimes exist on health-harming products or their inputs, affecting the fiscal balance but also representing incoherences with public health objectives. For example, while 21% of Ugandans engage in binge drinking and alcohol use is the leading risk factor for years of life lost in the country, the government of Uganda has heavily subsidized low-cost local sorghum-based beer production for the past two decades to support jobs in the industry.[101]

Production supports, such as agricultural subsidies or other price supports, often apply on crops which are key ingredients in ultra-processed foods (e.g., corn for high-fructose corn syrup) and raise health concerns.[102] Evidence from the United States show that current government-issued agricultural subsidies are worsening the obesity epidemic.[103] Policy coherence could be improved by performing an assessment of measures supporting production for alignment with nutrition and health goals. For example, the government of Malaysia in 2013 removed subsidies on sugar because of the high incidence of diabetes.[104]

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[99] World Bank. Tobacco Tax Reform at the Crossroads of Health and Development. Washington, D.C.: World Bank; 2017. https://elibrary.worldbank.org/doi/abs/10.1596/28494

[100] Ciapponi A, World Health Organization. Systematic review of the link between tobacco and poverty. Geneva: WHI; 2014. https://iris.who.int/bitstream/handle/10665/136001/9789241507820_eng.pdf

[101] Vital Strategies. The sobering truth: Incentivizing alcohol death and disability. An NCD Policy Report. New York: Vital Strategies; 2021. https://www.vitalstrategies.org/resources/the-sobering-truth-incentivizing-alcohol-death-and-disability/

[102] Do WL, Bullard KM, Stein AD, Ali MK, Narayan KV, Siegel KR. Consumption of foods derived from subsidized crops remains associated with cardiometabolic risk: an update on the evidence using the national health and nutrition examination survey 2009–2014. Nutrients. 2020; 12:3244.

[103] Franck C, Grandi SM, Eisenberg MJ. Agricultural subsidies and the American obesity epidemic. American journal of preventive medicine. 2013 Sep 1;45(3):327-33.

[104] Bridel A, Lontoh L. Lessons Learned: Malaysia's 2013 Fuel Subsidy Reform. Winnipeg, Canada: International Institute for Sustainable Development; 2014. https://www.iisd.org/gsi/sites/default/files/ffs_malaysia_lessonslearned.pdf

Argentina's a Special Tobacco Fund (FET) tax on tobacco products represent another example of incoherence with public health objectives. Revenue from this tax - applied in addition to excises - is used by the government to subsidise producers of the main tobacco producing provinces.[105] This means that while the excise tax is looking to raise prices and reduce consumption, the FET presumably places downward pressure on the price of loose tobacco.

Price regulation policies

Pricing measures, such as price controls, aimed at ensuring food affordability, enhancing food security, and protecting consumers are implemented in many low- and middle-income countries. In the Pacific Islands region, for instance, price controls on unhealthy foods like sugar, fats, and oils have raised concerns about their negative impact on promoting healthier food environments.[106] From a nutritional perspective, greater policy coherence regarding overall price incentives to consumers could be achieved through the revision of price control measures to account for nutritional impact.[107]

Free trade zones and duty-free retailers are also examples of policy incoherence, incentivising bulk sales of harmful products (e.g. tobacco products, alcoholic beverages, sweets, etc.) at reduced prices. Free trade zones may also have negative impacts on illicit trade, as discussed in Chapter 8.

On the other hand, other pricing measures, such as minimum pricing on alcoholic beverages or bans on price promotions on health-harming products may strengthen the potential health benefits of a health tax. Minimum pricing policies set a fixed price level below which a specific volume (or volume of ethanol for minimum unit pricing policies) cannot be sold. It has been shown to reduce alcohol consumption and harms and to be particularly effective to target heavier drinkers.[108] The WHO Framework Convention on Tobacco Control (FCTC) includes a comprehensive band on price promotions (Art. 13).[109] Recently, the UK has passed a legislation to restrict the use of multi-buy price promotions on products high in fat, sugar, or salt to promote healthier diets. However, the implementation of the measure has been delayed.[110] Such policies should be considered as a complement to taxation.

c) Overall consumption tax burden faced by consumers and equity concerns

In the short run, and from a financial perspective, consumption taxes are often regressive, as the poorest tend to spend a higher proportion of their income on most taxed goods.[111] However, the poorest often bear

[105] González-Rozada M. Impact of a recent tobacco tax reform in Argentina. Tobacco Control. 2020 Nov 1;29(Suppl 5):s300-3.
[106] Snowdon W, Lawrence M, Schultz J, Vivili P, Swinburn B. Evidence-informed process to identify policies that will promote a healthy food environment in the Pacific Islands. Public health nutrition. 2010; 13:886-92
[107] Asfaw A. Do Government Food Price Policies Affect the Prevalence of Obesity? Empirical Evidence from Egypt. World Development. 2007; 35:687-701.
[108] World Health Organization. Regional Office for Europe. No place for cheap alcohol: the potential value of minimum pricing for protecting lives. Copenhagen: WHO EURO; 2022. https://iris.who.int/bitstream/handle/10665/356597/9789289058094-eng.pdf?sequence=1
[109] World Health Organization. Framework Convention on Tobacco Control. Geneva: WHO; 2003. https://iris.who.int/bitstream/handle/10665/42811/9241591013.pdf?sequence=1
[110] The Guardian. Ban on two-for-one junk food deals to be delayed for two more years. 16 June 2023. https://www.theguardian.com/society/2023/jun/17/ban-two-for-one-junk-food-deals-delayed-two-years
[111] This may not hold when evaluating consumption tax spending as a proportion of current expenditure. Organisation for Economic Co-operation and Development, Korea Institute of Public Finance. The Distributional Effects of Consumption Taxes in OECD Countries, OECD Tax Policy Studies, No. 22, OECD Publishing, Paris; 2014. https://www.oecd.org/en/publications/the-distributional-effects-of-consumption-taxes-in-oecd-countries_9789264224520-en.html

a larger health burden from NCDs and from the consumption of health-harming products,[112] and tend to be more responsive to price changes.[113] Thus, even if they bear a greater tax burden, they are likely to be the ones to experience larger improvements in health outcomes in the long-run. Extended cost-benefit analysis studies have shown that these long-run positive health effects may translate into reductions in out-of-pocket healthcare spending and averted labour productivity losses. Accounting for these progressive downstream effects can overcome the short-run regressive nature of the overall package of consumption taxes.[114] Finally, a pro-poor use of generated revenue could mitigate the potential short-term regressive nature of consumption taxes,[115] for example by subsidising fruits and vegetables and access to safe drinking water or health care, particularly for low-income households.

d) Tax administration and compliance costs

As most other taxes, health taxes generate revenue as well as administrative and compliance costs for governments. Some trade-offs exist between keeping such costs as low as possible and designing an effective tax to reduce the use of harmful products. For example, while specific excise taxes based on alcohol or nutrient content may perform better at targeting unhealthy commodities, they require detailed product information and may involve higher monitoring and more complex enforcement than quantity/volume based specific taxes. Also, specific taxes necessitate regular updates for inflation to avoid base erosion.

Excise taxes on health-harming products may share the same tax base with other consumption taxes (e.g., VAT), thereby necessitating a coordinated approach to administration between often siloed indirect tax departments. The inclusion of the excise tax amount in the tax base of other consumption taxes participates in increasing the overall tax burden applied to these products and thus disincentivizes their consumption. Some countries do not include excise taxes as part of the VAT tax base value. For example, the VAT tax base value for tobacco products in Costa Rica does not include the specific excise tax applied on such products.[116] While this does not lower the excise tax burden applied to tobacco products, it reduces the overall tax burden imposed on such products and is thus not coherent from a public health perspective. It may also add administrative complexity and compliance costs as it creates an exception only for some products.

[112] Engelgau M, Rosenhouse S, El-Saharty S, Mahal A. The economic effect of noncommunicable diseases on households and nations: a review of existing evidence. Journal of health communication. 2011 Aug 31;16(sup2):75-81; Guindon GE, Abbas U, Trivedi R, Garasia S, Johnson S, John RM. Socioeconomic differences in the impact of prices and taxes on tobacco use in low-and middle-income countries–A systematic review. PLOS Global Public Health. 2023 Sep 27;3(9):e0002342.

[113] Green R, Cornelsen L, Dangour AD, Turner R, Shankar B, Mazzocchi M, Smith RD. The effect of rising food prices on food consumption: systematic review with meta-regression. Bmj. 2013 Jun 17;346.

[114] Fuchs A, Pierola D. The Distributional Impacts of Health Taxes. Washington, D.C.: World Bank; 2022. https://documents1.worldbank.org/curated/en/099428212132220794/pdf/IDU056d507be09c3b046030a906088bfbd3bccde.pdf; Fuchs, Alan and Gonzalez Icaza, Maria Fernanda and Paz, Daniela Paula, Distributional Effects of Tobacco Taxation: A Comparative Analysis (April 8, 2019). World Bank Policy Research Working Paper No. 8805. https://ssrn.com/abstract=3368579

[115] Sassi F, Belloni A, Mirelman AJ, Suhrcke M, Thomas A, Salti N, Vellakkal S, Visaruthvong C, Popkin BM, Nugent R. Equity impacts of price policies to promote healthy behaviours. The Lancet. 2018 May 19;391(10134):2059-70.

[116] Art. 12, Law 9635, December 2018. The specific excise tax component is not included in the VAT tax base, but the ad valorem excise tax component is included. Portilla Navarro A. Productos de tabaco logran esquivar parte del IVA, aDiarioCR.com; 19 June 2019.

While not optimal from a tax policy efficiency and revenue generation perspective, many countries differentiate their VAT rates across consumer goods.[117] Some countries take advantage of such differentiation and apply higher VAT rates on harmful products, in addition to excise taxes. This is the case in Panama, where the general VAT rate of 7% is applied on most goods and services but higher rates of 10% and 15% apply to alcoholic beverages and tobacco products, respectively. In addition, the country applies an excise tax on such products.

Box 1. Interactions with existing indirect taxes: the case of food and non-alcoholic beverages

We use the example of health taxes on food and non-alcoholic beverages to illustrate the importance of interactions between health taxes and other taxes, particularly VAT or sales taxes. More details on health taxes on food and non-alcoholic beverages can be found in Chapter 13.

While the policy goal for most health taxes is to reduce consumption, the main policy goal for health taxes on food is to shift consumption from less healthy to healthier foods. Most households have relatively stable food expenditures, overall, but when the relative prices of different foods change, households tend to respond strongly – especially strongly when the relative prices of close substitutes change – and adapt their consumption to the new price structure.[118] Any taxes differentiating rates between food products can shift relative prices and incentivise certain food choices over others. Most countries do apply indirect taxes to food. Among them, many differentiate VAT or sales tax rates across food products, applying reduced rates or even zero-rating VAT or sales tax for selected food groups. This means that consumer food choices are different from what they would be without taxes, or with uniform taxes, and incentives may not go in the direction of improved nutrition.

In countries that apply indirect taxes at different rates on different foods, a starting point in designing health taxes is to assess the scope for an improved alignment of tax rates with the nutritional quality of different foods. An improved alignment can take several forms, including increasing rates on less healthy foods when there is scope to do so, and using reduced and zero rates on healthier foods when these are taxed at higher rates. This approach may not be sufficient to create effective incentives, because (a) few indirect tax rates are usually available; (b) existing taxes (VAT or sales taxes) tend to be ad valorem, which may not be ideal in the design of health taxes; (c) highest rates tend to be low; (d) measures may be required to ensure a high pass-through of both rate increases and decreases; (e) fiscal policy makers may be reluctant to use a general purpose tax in the pursuit of a specific policy goal; and (f) administrative and compliance costs may be associated with the differentiation of consumption tax rates according to nutritional quality criteria. On the other hand, removing inconsistencies and aligning existing indirect taxes to health goals would not require new taxes, which would simplify the policy process, and would reduce administrative and compliance costs relative to a scenario in which a new tax was added to existing ones. Countries currently using differentiated VAT or sales tax systems for poverty alleviation, economic growth, or the support of specific industries do so despite the aforementioned concerns around tax pass-through, revenue generation inefficiency, and administrative costs. Countries that wish to apply health taxes separately from general consumption taxes, as it typically happens with tobacco and alcohol

[117] EY (2024). Worldwide VAT, GST and Sales Tax Guide 2024. https://www.ey.com/en_gl/tax-guides/worldwide-vat-gst-and-sales-tax-guide

[118] Green R, Cornelsen L, Dangour AD, Turner R, Shankar B, Mazzocchi M, Smith RD. The effect of rising food prices on food consumption: systematic review with meta-regression. Bmj. 2013 Jun 17;346; Cornelsen L, Green R, Turner R, Dangour AD, Shankar B, Mazzocchi M, Smith RD. What happens to patterns of food consumption when food prices change? Evidence from a systematic review and meta-analysis of food price elasticities globally. Health economics. 2015 Dec;24(12):1548-59.

products, and with sugar-sweetened beverages, may differentiate the taxation of food products by applying a new excise tax selectively on certain products, additional to existing VAT or sales taxes (as several countries using health taxes on food have done, e.g., Colombia). However, they should still be aware of the incentives embedded in the underlying differentiated VAT or sales tax rates, and they should be aware of the overall increase in the cost of food to consumers that adding a new tax to existing ones entails.

3. Health taxes and trade and investment agreements

a) Trade obligations and the right to impose domestic health taxes

Trade and international investment agreements play a crucial role in shaping economic relations, yet they also introduce limitations on the use of domestic taxation. The World Trade Organization (WTO) imposes constraints on the application of customs duties and establishes principles of non-discrimination. Disputes may arise when there are allegations that a tax discriminates against imported products in comparison to their domestic counterparts. Any differential treatment of product categories needs to be justified by differences in the risk they pose to health. Ensuring a health rationale is therefore key when designing health taxes. While there have been relatively few trade disputes concerning health taxes, the industries producing health-harming products may invoke trade laws, or the threat of legal action based on trade law, to oppose taxation policies.[119]

Although customs duties and tariffs are not the preferred tax instrument to target unhealthy commodities, they are used in lieu of excise taxes in some countries, particularly small island states (e.g., Bermuda). They may represent an adequate form of taxation for health-harming products when no domestically produced substitutes are available, or able to be produced. However, their use is limited by trade agreements establishing upper limits or the phasing out of customs duties and tariffs through increased liberalisation.

Trade agreements can limit excise taxes through the principle of non-discrimination. The WTO General Agreement on Tariffs and Trade (GATT) is the overarching governing agreement regulating trade. The WTO GATT prohibits domestic tax discrimination both in form - i.e., explicitly taxing an imported product more than a ‘like’ domestic product - and in effect - i.e., the tax rates are the same between substitutable imported and domestic products but a relatively higher tax burden is imposed on imported products (WTO GATT Article III:2). The latter is less quantifiable and necessitates assessing the degree of competitiveness or substitutability between imported and domestic products. For example, a tiered alcohol-content-based specific excise tax on alcoholic beverages could be found discriminatory under WTO GATT if a significantly higher proportion of imported spirits are taxed at a higher rate than similar domestically produced spirits. This was the case in Chile in the late 1990s.[120]

[119] McGrady B, Khanijo K. Health taxes and trade law. Chapter XI. Health Taxes: Policy and Practice. Editors: Lauer A, Sassi F, Soucat A, Vigo A. Issuing body: World Health Organization. Singapore: World Scientific; 2022. https://doi.org/10.1142/9781800612396_0014; Eckhardt J, Holden C, Callard CD. Tobacco control and the World Trade Organization: mapping member states’ positions after the framework convention on tobacco control. Tobacco control. 2016 Nov 1;25(6):692-8.

[120] Appellate Body Report, Chile – Taxes on Alcoholic Beverages, WT/DS87/AB/R, AT/DS110/AB/R, adopted 12 January 2000. https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds87_e.htm

The GATT's principle of non-discrimination is not incongruent with good practices in health taxes that argue in favour of taxing domestic and imported products similarly (e.g., a domestic cigarette is not healthier than an imported cigarette). Nevertheless, discriminatory taxation can be justified on health grounds. In particular, WTO GATT Article XX states: "[…] nothing in this Agreement shall be construed to prevent the adoption or enforcement by any Member of measures: […] (b) necessary to protect human, animal or plant life or health; […]". Taxation to promote healthier behaviour (reducing smoking or alcohol consumption) or diets may thus be considered a measure to protect human health. Nevertheless, any differential tax treatment must be justifiable by reference to a health goal and the positive contributions to public health must outweigh the degree to which the tax restricts international trade. The Appellate Body of the WTO may consider, for example, whether another tax structure or non-tax less restrictive alternative regulation could achieve the pursued public health objectives.[121]

The Harmonized System (HS) codes developed by the World Customs Organization (WCO) to classify traded products have been used extensively as criteria to define products subject to consumption taxes. HS codes are agreed as part of custom/monetary unions or trade agreements. Such classification is based on characteristics other than health or nutritional content. This creates challenges for the introduction of health taxes on products and product types that lack their own HS code. For example, HS code 2202 does not differentiate between sugar-sweetened and non-sugar sweetened beverages (e.g., artificially sweetened beverages). However, HS codes can be adapted by countries or customs and monetary unions, notably for regulatory purposes, for example, by further extending the 6-digit HS codes to more detailed 8-digit or more specific codes. Also, the WCO often revise HS codes and can amend the classification to better classify some products. For example, following proposals from the WHO FCTC Secretariat, the WCO has adopted new customs subheadings relevant to the classification of novel and emerging tobacco products and nicotine products in its 2022 HS code nomenclature.[122]

b) Customs and monetary unions

Agreements governing customs and monetary unions may establish minimum or maximum levels of excise or sales taxes for specific product categories. Additionally, these agreements might seek to harmonize rules in order to ease tax administration. Stipulating maximum tax rates may limit the potential of health taxes. This was the case for tobacco taxes until 2017 in the Economic Community of West African States and the Western African Economic and Monetary Union.[123] Conversely, the European Union has a common framework for excise taxation on tobacco and alcohol, which sets out the tax base, structure, and minimum rates.[124] It has led the EU to be the region with the highest tobacco taxes and generated significant positive externalities in the use of tobacco taxes globally.[125] A similar approach is followed by the Gulf Cooperation Council countries - Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates - for tobacco

[121] McGrady B, Khanijo K. Health taxes and trade law. Chapter XI. Health Taxes: Policy and Practice. Editors: Lauer A, Sassi F, Soucat A, Vigo A. Issuing body: World Health Organization. Singapore: World Scientific; 2022. https://doi.org/10.1142/9781800612396_0014
[122] FCTC/COP/9/10. See: https://iris.who.int/bitstream/handle/10665/368642/fctc-cop9-10-en.pdf?sequence=1
[123] Tesche J, Van Walbeek C. Measuring the effects of the new ECOWAS and WAEMU tobacco excise tax directives. Tobacco control. 2020 Sep 28.
[124] Except for wine in effect, as the minimum excise tax rate is set to EUR 0 in the European Union. See: https://taxation-customs.ec.europa.eu/taxation-1/excise-duties/excise-duty-alcohol_en. Blecher E, Ross H, Leon ME. Cigarette affordability in Europe. Tobacco control. 2012 Oct 1; Angus C, Holmes J, Meier PS. Comparing alcohol taxation throughout the European Union. Addiction. 2019 Aug;114(8):1489-94.
[125] World Health Organization. WHO report on the global tobacco epidemic, 2023: protect people from tobacco smoke. Geneva: 2023; WHO. https://www.who.int/publications/i/item/9789240077164

and alcohol, as well as for SSBs.[126] Member countries of these unions must abide by these rules which participate in protecting public health. Overall, while customs and monetary unions may at times impose limitations on the use of health taxes, when well-designed, they also have the potential to significantly expand their use.

c) Public-private partnerships and investment agreements

Public-private partnerships and investment agreements may limit the ability to implement and increase health taxes, impeding policy coherence across government sectors. Two critical aspects are the potential conflicts of interest between the profit-driven motives of private entities and the broader objectives of governments which include public health and wellbeing as well as the lack of coherence across government with some sectors pursuing foreign investment and economic growth in detriment of public health. Investment agreements between governments and private entities often involve negotiations that influence regulatory frameworks, potentially hindering the imposition of higher taxes on products detrimental to public health. These types of agreement can also include other kinds of tax benefits, like corporate tax holidays clauses or customs exemptions on the import of input materials. Their intricacies can limit the flexibility of governments to adopt health taxes, enforce existing ones, or weaken their potential health benefits by putting a downward pressure on the price of health-harming products. Any such agreements, often signed by non-health sectors of governments, should be in line with the national laws enacted to protect public health, as well as obligations under international treaties, such as the WHO FCTC. In Box 2, we present the experience of the Lao People's Democratic Republic which signed an investment license agreement as part of a public-private partnership with a tobacco company providing preferential tax treatment and placing a moratorium on tobacco tax increases.[127]

[126] Delipalla S, Koronaiou K, Al-Lawati JA, Sayed M, Alwadey A, AlAlawi EF, Almutawaa K, Hussain AH, Al-Maidoor W, Al-Farsi YM. The introduction of tobacco excise taxation in the Gulf Cooperation Council Countries: a step in the right direction of advancing public health. BMC Public Health. 2022 Apr 13;22(1):737; Alsukait R, Bleich S, Wilde P, Singh G, Folta S. Sugary drink excise tax policy process and implementation: Case study from Saudi Arabia. Food Policy. 2020 Jan 1;90:101789.

[127] Southeast Asia Tobacco Control Alliance. Tobacco Industry Monitor. Lao Tobacco Limited (LTL). Bangkok: SEATCA; 2020. https://timonitor.seatca.org/lao-tobacco-limited-ltl/; Ross, H. Lost Funds: A Study on the Tobacco Tax Revenue Gap in selected ASEAN countries. Bangkok: SEATCA; 2021. https://seatca.org/dmdocuments/SEATCA%20LOST%20FUND%20FINAL.pdf; Doward, J., UK cigarette firm criticised over Laos tobacco tax deal, in The Guardian. 2014. https://www.theguardian.com/world/2014/oct/05/imperial-tobacco-laos-cigarette-tax-deal; Ministry of Health Lao PDR, RTI International, UN Development Programme, Secretariat of the WHO FCTC, and World Health Organization. Investment Case for Tobacco Control in LAO PDR: The case for scaling up WHO FCTC implementation. Bangkok: UNDP; 2022. https://www.undp.org/laopdr/publications/investment-case-tobacco-control-lao-pdr-case-scaling-who-fctc-implementation; UNDP Laos. Creating a Tobacco-Free Future for Laos. Vientiane, Lao PDR: UNDP; 2024. https://laopdr.un.org/en/270235-creating-tobacco-free-future-laos

Box 2. The Lao People's Democratic Republic 25-year Investment License Agreement with Imperial Tobacco

On 23 November 2001, the government of the Lao People's Democratic Republic (Lao PDR) signed a 25-year (2001-2026) Investment License Agreement (ILA) with local subsidiaries of Imperial Tobacco, a British multinational tobacco company. This agreement provides preferential tax treatment to Lao Tobacco Company Ltd, a joint venture between the subsidiaries of Imperial Tobacco and the government of Lao PDR, which retains 47% ownership, accounting for approximately 80% of the market in Lao PDR. Specifically, it stipulates a freeze of the ad valorem excise tax rate on tobacco at a rate of 15% below a certain level of production cost (LAK 1,500 per pack, approximately USD 0.07) and 30% above such production level while the official statutory ad valorem excise tax rate was 50%, as defined under the national tax law in 2020. In addition to this lower rate, the tobacco industry is not complying with the national Tobacco Control Fund contributions (2% tax on tobacco company profits tax and a specific tax of LAK 200 per pack), which is meant to finance the National Tobacco Control Programme. While the government of Lao PDR intended to boost foreign investment and economic activity in the country through this ILA, it is estimated that it lost LAK 1,429 billion (USD 142.9 million) in excise tax revenue from 2002-2019 because of it. UNDP estimated that these funds could have, for example, helped build 30 hospitals. The ILA is up for renewal for another 25 years in 2026. According to Article 5.3 of the WHO FTCT, of which Lao PDR is a member, governments should protect tobacco control policies from the commercial interests of the tobacco industry.

4. Health taxes and other cost-effective NCD prevention policies

Health taxes are among the most cost-effective policies to prevent NCDs. Taxes on tobacco products and alcoholic beverages are listed among the WHO 'best-buys' interventions for the prevention and control of NCDs, i.e., the most cost-effective and feasible for implementation. SSB taxes were included in the WHO list of recommended cost-effective interventions following the 70th World Health Assembly in 2017.[128] More recent evidence has highlighted their effectiveness in increasing the price of SSBs and reducing purchases.[129]

However, health taxes should be viewed as a standalone policy option, but rather as one component of a comprehensive strategy for preventing NCDs, alongside other evidence-based interventions. Combining policies into coherent policy packages may yield better outcomes than implementing individual interventions in isolation.[130] Some policies, such as packaging and marketing regulations, are coherent by

[128] World Health Organization. Tackling NCDs: 'best buys' and other recommended interventions for the prevention and control of noncommunicable diseases. Geneva: WHO; 2017. https://www.who.int/publications/i/item/WHO-NMH-NVI-17.9

[129] Andreyeva T, Marple K, Marinello S, Moore TE, Powell LM. Outcomes following taxation of sugar-sweetened beverages: a systematic review and meta-analysis. JAMA Network Open. 2022 Jun 1;5(6):e2215276-.

[130] U.S. National Cancer Institute and World Health Organization. The Economics of Tobacco and Tobacco Control. National Cancer Institute Tobacco Control Monograph 21. NIH Publication No. 16-CA-8029A. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute; and Geneva, CH: World Health Organization; 2016. https://cancercontrol.cancer.gov/brp/tcrb/monographs/monograph-21; Organisation for Economic Co-operation and Development. Preventing Harmful Alcohol Use. Paris: OECD; 2021.

design. This section considers policy coherence as maximizing the potential effectiveness of health taxes and discusses the introduction of other population-level policy options that may provide complementary incentives that could work synergistically with health taxes to promote healthier behaviours and prevent NCDs. Emphasis is placed on the most cost-effective non-fiscal policies, such as those included in the WHO 'best-buys'.

a) Packaging regulations

Graphic warnings and other standardized labelling policies aim to inform consumers about the content of health-harming products and associated health consequences. Recently, Ireland introduced the first comprehensive health labelling law for alcohol products, including alcohol content as well as warnings about some of the health risks associated with alcohol consumption.[131] While the evidence for alcohol labelling is limited it remains relatively favourable.[132] Front-of-pack nutrition labelling and warnings are increasingly implemented and have been found to lead to reduced purchases of unhealthy products while promoting healthier alternatives and industry reformulation.[133] The WHO FCTC recommends the use of large graphic warnings on all tobacco packages (Art. 11).[134] It represents the most widely implemented tobacco control policy of the MPOWER[135] package.[136] Following the example of Australia in 2012, an increasing number of countries have gone further and implemented plain packaging laws. Evaluations have shown that such policies increase knowledge and reduce smoking.[137]

The categorization of foods based on their nutrient composition is required for both health taxes and front-of-pack nutrition labelling and warnings. The use of nutrient profile modelling to identify products with excessive amounts of unhealthy nutrients, such as sugar, sodium or saturated fat is widely recommended.[138]

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https://www.oecd.org/health/preventing-harmful-alcohol-use-6e4b4ffb-en.htm; Organisation for Economic Co-operation and Development. The Heavy Burden of Obesity: The Economics of Prevention. Paris: OECD; 2019. https://www.oecd-ilibrary.org/social-issues-migration-health/the-heavy-burden-of-obesity_67450d67-en

131 https://www.who.int/europe/news/item/26-05-2023-what-s-in-the-bottle--ireland-leads-the-way-as-the-first-country-in-the-eu-to-introduce-comprehensive-health-labelling-of-alcohol-products

132 Jané-Llopis E, Kokole D, Neufeld M, Hasan OS, Rehm J. What is the current alcohol labelling practice in the WHO European Region and what are barriers and facilitators to development and implementation of alcohol labelling policy?. World Health Organization. Regional Office for Europe; 2020. https://iris.who.int/handle/10665/332129

133 Shangguan S, Afshin A, Shulkin M, Ma W, Marsden D, Smith J, Saheb-Kashaf M, Shi P, Micha R, Imamura F, Mozaffarian D. A meta-analysis of food labeling effects on consumer diet behaviors and industry practices. American journal of preventive medicine. 2019 Feb 1;56(2):300-14; Barahona N, Otero C, Otero S. Equilibrium effects of food labeling policies. Econometrica. 2023 May;91(3):839-68.; Barahona C, Otero C, Otero S, Kim J. Single-Threshold Food Labeling Policies. 2023. https://sebotero.github.io/papers/foodlabels_policy.pdf

134 World Health Organization. WHO Framework Convention on Tobacco Control. Geneva: WHO; 2003. https://iris.who.int/bitstream/handle/10665/42811/9241591013.pdf?sequence=1

135 The MPOWER policy package stands for: Monitor tobacco use and prevention policies; Protect people from tobacco smoke; Offer help to quit tobacco use; Warn about the dangers of tobacco; Enforce bans on tobacco advertising, promotion and sponsorship; Raise taxes on tobacco.

136 World Health Organization. WHO report on the global tobacco epidemic, 2023: protect people from tobacco smoke. Geneva: WHO; 2023. https://www.who.int/publications/i/item/9789240077164

137 Noar SM, Francis DB, Bridges C, Sontag JM, Ribisl KM, Brewer NT. The impact of strengthening cigarette pack warnings: Systematic review of longitudinal observational studies. Social science & medicine. 2016 Sep 1;164:118-29; Moodie C, Hoek J, Hammond D, Gallopel-Morvan K, Sendoya D, Rosen L, Özcan BM, van der Eijk Y. Plain tobacco packaging: progress, challenges, learning and opportunities. Tobacco Control. 2022 Mar 3;31(2):263-71.

138 Roberto CA, Ng SW, Ganderats-Fuentes M, Hammond D, Barquera S, Jauregui A, Taillie LS. The influence of front-of-package nutrition labeling on consumer behavior and product reformulation. Annual review of nutrition.

This approach has also been suggested as a way to identify HFSS foods for taxation and adopted by Colombia in 2023.[139] Applying health taxes on products bearing nutrition or other health warning labels may simplify the definition of the tax base or tax tiers (for non-uniform tax structures). However, research on the interaction between front-of-pack nutrition labelling and HFSS food taxation remains limited.[140]

By improving consumer information, packaging regulations can increase health literacy and public support for more stringent policies, such as taxation. The health signalling effect of health taxes may also be strengthened by health warnings on product packages.[141] Finally, overall administrative and compliance costs for regulators and manufacturers related to the introduction of a health tax may be reduced if product information is already collected and displayed under labelling regulations. For example, mandatory alcohol by volume or sugar content display on packages can be used for taxation based on alcohol and nutrient content.

b) Marketing regulations

Marketing restrictions or bans are highly cost-effective policies aimed at reducing the appeal of health-harming products, addressing information asymmetry, and encouraging healthier consumption choices.[142] The WHO FCTC recommends banning tobacco advertising, promotion and sponsorship (Art. 13).[143] Comprehensive tobacco advertising bans reduce tobacco consumption with stronger effects in low- and middle-income countries.[144] Evaluations have also found alcohol advertising bans to be effective in reducing consumption.[145] Regarding dietary behaviour, food marketing predominantly promotes HFSS foods. The public health community is particularly concerned about targeted marketing towards children, influencing the development of taste preferences and dietary habits.[146] Many nutrient profile models are designed to support the identification of food products not suitable for advertising to children.[147] While

2021 Oct 11;41:529-50; World Health Organization. Guiding principles and framework manual for front-of-pack labelling for promoting healthier diets. Geneva: WHO; 2019. https://www.who.int/publications/m/item/guidingprinciples-labelling-promoting-healthydiet

139 Daniels JP. Colombia introduces junk food tax. The Lancet. 2023 Dec 2;402(10417):2062.

140 Acton RB, Jones AC, Kirkpatrick SI, Roberto CA, Hammond D. Taxes and front-of-package labels improve the healthiness of beverage and snack purchases: a randomized experimental marketplace. International Journal of Behavioral Nutrition and Physical Activity. 2019 Dec;16(1):1-5.

141 Alvarado M, Penney TL, Unwin N, Murphy MM, Adams J. Evidence of a health risk ‘signalling effect’ following the introduction of a sugar-sweetened beverage tax. Food Policy. 2021 Jul 1;102:102104.

142 World Health Organization. Tackling NCDs: 'best buys' and other recommended interventions for the prevention and control of noncommunicable diseases. Geneva: WHO; 2017. https://www.who.int/publications/i/item/WHO-NMH-NVI-17.9

143 World Health Organization. WHO Framework Convention on Tobacco Control. Geneva: WHO; 2003. https://iris.who.int/bitstream/handle/10665/42811/9241591013.pdf?sequence=1

144 Saffer H, Chaloupka F. The effect of tobacco advertising bans on tobacco consumption. Journal of health economics. 2000 Nov 1;19(6):1117-37; Blecher E. The impact of tobacco advertising bans on consumption in developing countries. Journal of health economics. 2008 Jul 1;27(4):930-42.

145 Saffer H. Alcohol consumption and alcohol advertising bans. NBER working paper. 2000. https://www.nber.org/papers/w7758

146 World Health Organization. Policies to protect children from the harmful impact of food marketing: WHO guideline. Geneva: WHO; 2023. https://www.who.int/publications/i/item/9789240075412

147 Labonté MÈ, Poon T, Gladanac B, Ahmed M, Franco-Arellano B, Rayner M, L'Abbé MR. Nutrient profile models with applications in government-led nutrition policies aimed at health promotion and noncommunicable disease prevention: a systematic review. Advances in Nutrition. 2018 Nov 1;9(6):741-88; World Health Organization. Policies to protect children from the harmful impact of food marketing: WHO guideline. Geneva: WHO; 2023. https://www.who.int/publications/i/item/9789240075412

limited, the evidence suggests that food marketing policies may result in reduced purchases of unhealthy food items.[148]

Marketing regulations can signal a health risk to consumers and may increase public awareness and support for a tax. Coherence between the list of taxable products and products with marketing regulations may increase transparency and facilitate compliance.

c) Prevention campaigns

Prevention campaigns include mass media and other behavioural change communication campaigns. Mass media campaigns are effective in increasing awareness and changing attitudes and beliefs about smoking or alcohol. The evidence is more limited on their impact on actual consumption.[149] Media campaigns to promote healthier diets are generally considered less effective than food labelling interventions.[150]

Mass media or other communication campaigns may increase public awareness and support for a tax (see Chapter 10 for an in-depth discussion on generating public acceptability for health taxes). This was the case in Mexico before the implementation of an SSB tax in 2014. Various civil society organizations disseminated messages through billboards, expert discussions on radio and TV, and coverage in major national newspapers emphasizing the detrimental effects of SSB consumption and the imperative for proactive measures, with lasting impact on public perceptions.[151] This may have in turn reinforced the health-signalling effect of taxation. Clear communication about allocating tax revenue to fund social programmes was key in Mexico.[152] While awareness campaigns may enhance the impact of health taxes by addressing knowledge of health risks as a factor influencing consumption,[153] alongside the price incentive induced by taxes, they can be costly.

d) Measures to minimize the illicit trade of taxed products

Opponents of health taxes, especially on tobacco and alcohol, commonly argue that raising taxes would inevitably lead to a surge in illicit trade. However, evidence from the tobacco control literature indicates that taxes and prices exert only a limited impact on illicit trade, with other factors—especially those pertaining to the governance and control of the tobacco product supply chain—emerging as primary

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[148] Boyland E, McGale L, Maden M, Hounsome J, Boland A, Jones A. Systematic review of the effect of policies to restrict the marketing of foods and non-alcoholic beverages to which children are exposed. Obesity reviews. 2022 Aug;23(8):e13447.

[149] Allen JA, Duke JC, Davis KC, Kim AE, Nonnemaker JM, Farrelly MC. Using mass media campaigns to reduce youth tobacco use: a review. American Journal of Health Promotion. 2015 Nov;30(2):e71-82; Young B, Lewis S, Katikireddi SV, Bauld L, Stead M, Angus K, Campbell M, Hilton S, Thomas J, Hinds K, Ashie A. Effectiveness of mass media campaigns to reduce alcohol consumption and harm: a systematic review. Alcohol and alcoholism. 2018 May 1;53(3):302-16.

[150] Hyseni L, Elliot-Green A, Lloyd-Williams F, Kypridemos C, O'Flaherty M, McGill R, Orton L, Bromley H, Cappuccio FP, Capewell S. Systematic review of dietary salt reduction policies: Evidence for an effectiveness hierarchy?. PloS one. 2017 May 18;12(5):e0177535.

[151] Pan American Health Organization. Taxes on Sugar-sweetened Beverages as a Public Health Strategy: The Experience of Mexico. Mexico City: PAHO; 2015. https://iris.paho.org/bitstream/handle/10665.2/18391/9789275118719_eng.pdf?sequence=1&isAllowed=y; James E, Lajous M, Reich MR. The politics of taxes for health: an analysis of the passage of the sugar-sweetened beverage tax in Mexico. Health Systems & Reform. 2020 Dec 1;6(1):e1669122.

[152] James E, Lajous M, Reich MR. The politics of taxes for health: an analysis of the passage of the sugar-sweetened beverage tax in Mexico. Health Systems & Reform. 2020 Dec 1;6(1):e1669122.

[153] Colombo L, Galmarini U. Taxation and anti-smoking campaigns: Complementary policies in tobacco control. Journal of Policy Modeling. 2023 Jan 1;45(1):31-57.

determinants of illicit trade (refer to Chapter 4 and Chapter 8 for discussions on tax evasion and the unintended consequences of health taxes).[154] Independent rigorous studies have also revealed that the size of the illicit trade market tends to be exaggerated by the tobacco industry.[155] Measures exist to combat illicit trade, like licensing, record-keeping, or tracking and tracing. They can improve tax enforcement and reduce opportunities for tax evasion through substitutions to cheaper illicit products as well as dampen the perceived or real effect of higher taxes on rising illicit trade.[156] Many are highlighted in the WHO Protocol to Eliminate Illicit Trade in Tobacco Products, an international treaty.[157]

5. Conclusion

Tax systems have evolved to address new fiscal policy goals, including addressing market failures and redistributing wealth, alongside their traditional functions of revenue generation. In this context health taxes have emerged as a key tool in the pursuit of public health goals. Their effectiveness in reducing the consumption of harmful products is influenced by their interplay with the broader fiscal system and particularly other consumption taxes, such as VAT and sales taxes. Policy coherence in tax design that considers the cumulative tax burden and the incentives created by different taxes is crucial for equity and may amplify health benefits. Coherence in fiscal and regulatory price policies is also important. For example, production subsidies for health-harming products can counteract the benefits of health taxes, while supportive measures like subsidies for fruits and vegetables can enhance health objectives and create a more favourable environment for healthier choices.

Health taxes may influence corporate income tax and personal income tax revenue by affecting their tax base through their impact on profits, income, productivity, and employment. By improving public health, they may also lead to reduced government health expenditures and a lower need for welfare transfers. Expanding health taxes to more unhealthy commodities and ensuring alignment with broader fiscal policies can enhance their effectiveness in promoting public health and funding sustainable development initiatives.

The complexities of international trade and investment agreements as well as monetary or customs unions may either facilitate or hinder the implementation of health taxes. Monetary or customs unions may establish minimum or maximum levels of excise or sales taxes for specific product categories. Trade agreements often impose constraints on domestic tax policies, requiring careful navigation to ensure that health taxes comply with international obligations, like the principle of non-discrimination, while achieving their public health goals. Investment agreements, particularly those that offer preferential tax treatments, can further complicate the landscape.

[154] U.S. National Cancer Institute and World Health Organization. The Economics of Tobacco and Tobacco Control. National Cancer Institute Tobacco Control Monograph 21. NIH Publication No. 16-CA-8029A. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute; and Geneva, CH: World Health Organization; 2016. https://cancercontrol.cancer.gov/brp/tcrb/monographs/monograph-21

[155] World Bank. Confronting illicit tobacco trade: a global review of country experiences. Washington, D.C.: World Bank; 2019. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/677451548260528135/confronting-illicit-tobacco-trade-a-global-review-of-country-experiences

[156] Divino, J. A., Ehrl, P., Candido, O., Valadão, M., & Rodriguez-Iglesias, G. Tobacco Tax Reform and Demand-Switching Effects Between the Licit and Illicit Markets in Brazil [Working Paper]. UCB; 2022. https://tobacconomics.org/research/tobacco-tax-reform-and-demand-switching-effects-between-the-licit-and-illicit-markets-in-brazil-working-paper-series/

[157] World Health Organization. Protocol to Eliminate Illicit Trade in Tobacco Products. Geneva: WHO; 2013. https://iris.who.int/bitstream/handle/10665/80873/9789241505246_eng.pdf?sequence=1

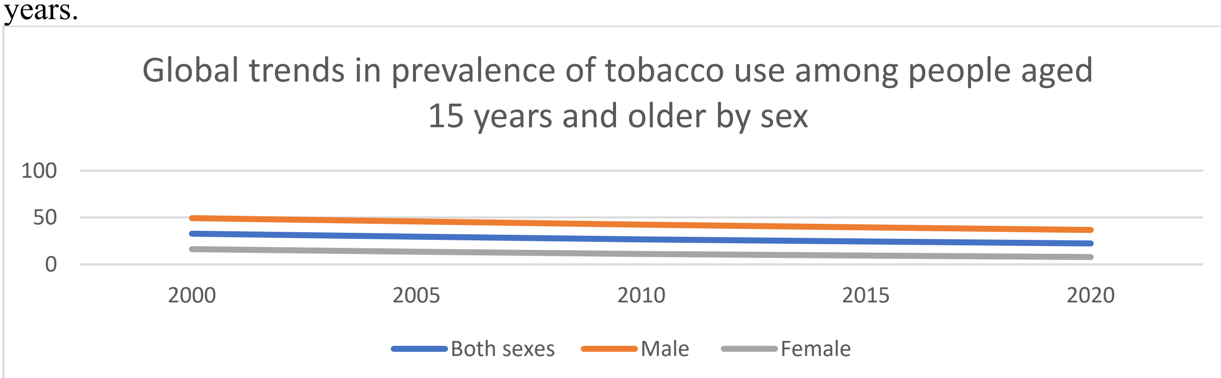
Finally, there is a need for comprehensive and coherent overall policy frameworks that integrate health taxes with other NCD prevention strategies. This holistic approach can maximize public health benefits.

Chapter 11: Specific Issues with Respect to Tobacco Taxation

1. Introduction

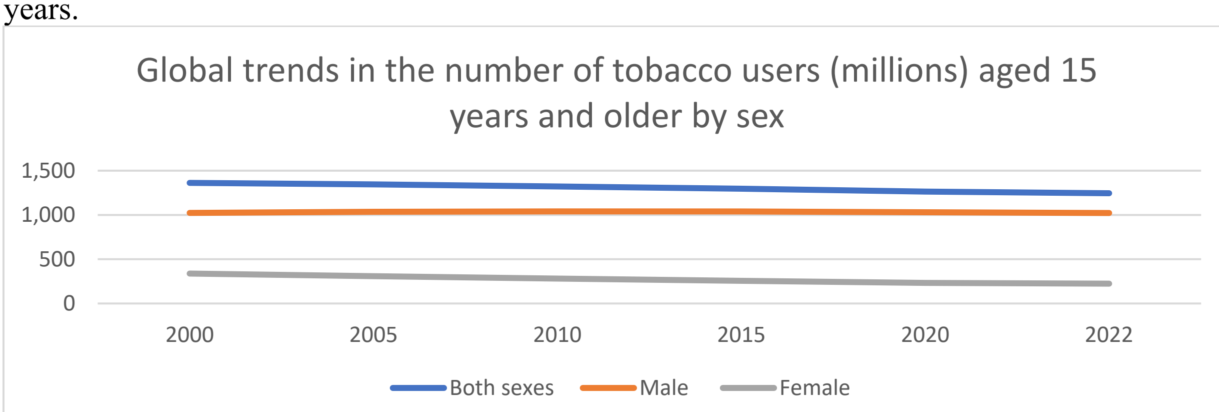
Tobacco use is an independent risk factor for noncommunicable diseases (NCDs) such as cardiovascular disease, respiratory disease, cancer, and diabetes. NCDs cause 71% of mortality globally, most of which is premature and disproportionately occurs in low- and middle-income countries (WHO 2013). Although global smoking prevalence has decreased by 7.2 percentage points over the past 20 years (Figure 1) and the total number of smokers has declined by 117 million people over the past 22 years (Figure 2), the number of smokers has increased in half of the WHO regions (Figure 3). In 2000, 32.7% of the world's adult population used tobacco: 49.3% among males, and 16.2% among females. In 2020, 22.3% of the world's population used tobacco: 36.7% among males and 7.8% among females (WHO 2024).

Figure 1. Global smoking prevalence has declined by 7.2 percentage points over the past 20 years.



Source: WHO global report on trends in prevalence of tobacco use 2000-2030 (2024).

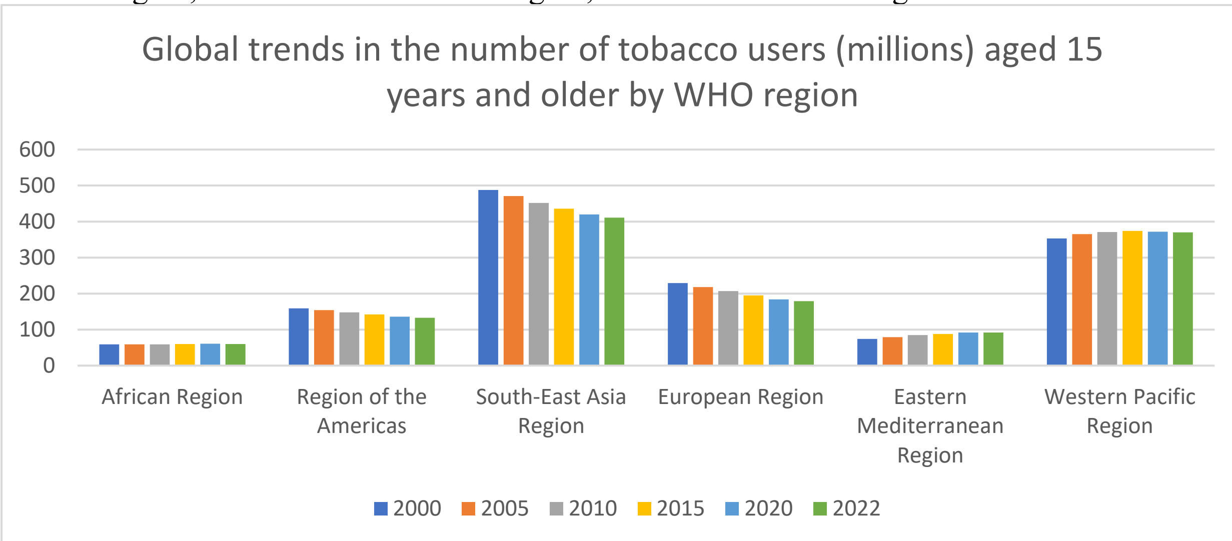
Figure 2. The total number of smokers has declined by 117 million people over the past 22 years.



Source: WHO global report on trends in prevalence of tobacco use 2000-2030 (2024).

Figure 3. Over the past 22 years, the number of smokers has declined in the Region of the Americas, the South-East Asia region, and the European region, while it has increased in the

African region, Eastern Mediterranean region, and Western Pacific region.



Source: WHO global report on trends in prevalence of tobacco use 2000-2030 (2024).

Harms of tobacco production and use not only include health harms (Sujoso et al. 2020), but also secondary harms to the environment (see chapter 8) as well as immense economic costs. The global economic cost of health expenditure and lost productivity from tobacco use is significant (Goodchild et al. 2017), and households with NCDs bear a higher risk of impoverishment (Murphy et al. 2020). The economic costs of tobacco for low- and middle-income countries is especially significant. For example, in Pakistan the combined public and private costs of tobacco-related diseases and deaths in 2019 amounted to 1.6% of GDP, mostly through healthcare costs and lost productivity (Nayab et al. 2021). This cost is five times the total tax revenue collected from the tobacco industry in the same year (Nayab et al. 2021). The total economic burden of smoking in Bosnia and Herzegovina was estimated at 2.36% of GDP in 2019 (Gligorić et al. 2022). A study conducted in Indonesia found that the total burden of tobacco use on the economy ranged from 1.16% to 2.59% of GDP (Meilissa et al. 2022).

Recognizing the widespread evidence of harm from tobacco and the need for international cooperation to address its negative effects, in 2003, the World Health Assembly adopted the World Health Organization Framework Convention on Tobacco Control (WHO FCTC 2003), which entered into force in 2005. Designed to reduce tobacco consumption and control tobacco supply, the WHO FCTC is one of the most rapidly and widely embraced treaties in United Nations history.

2. Tobacco use prevalence is declining modestly, but it remains a persistent problem

Why does tobacco use persist despite the global consensus on its harms and the measures needed to combat it? And why does progress on taxation remain checkered with small steps forward and sometimes steps back? Shortly after adoption of the WHO FCTC in 2003, the WHO developed the MPOWER measures[158] to help countries implement effective policies to reduce the demand for tobacco. The last MPOWER measure, "Raise Taxes" recommends price increases on tobacco products through tax increases to discourage their use. Although taxation is the most effective and cost-effective MPOWER measure, it remains the least employed to date (2022) according to the WHO (2023). In further sections, we analyse

[158] The MPOWER measures comprise: (M) monitor tobacco use and prevention policies; (P) protect people from tobacco smoke; (O) offer help to quit tobacco use; (W) warn about the dangers of tobacco; (E) enforce bans on tobacco advertising, promotion and sponsorship; and (R) raise taxes on tobacco.

this measure alongside other indicators of tobacco tax policy performance through the Tobacconomics Cigarette Tax Scorecard (Drope et al. 2024). The most recent edition of the Scorecard finds that although the global average cigarette tax score (created by the Scorecard authors and described in more detail below) rose modestly from 1.89 (out of 5.00) in 2014 to 2.25 in 2020, it dropped back down to 1.99 in 2022. Overall, the Scorecard concludes that "global progress on tobacco taxation is uneven at best, and very disappointing at worst. Many governments are still failing to effectively employ tobacco taxes as a public health instrument." (Drope et al. 2024). The sections below explore how better tobacco tax policy design, effective engagement with the tobacco industry, and regulation of new and emerging products can make progress in reducing tobacco use worldwide.

a) Tobacco Tax Policy Design:

Governments typically levy a variety of taxes on tobacco products. These taxes include excise taxes, value added taxes or sales taxes, import or customs duties in some cases and other indirect taxes (that can sometimes be earmarked to fund particular programs). However, these taxes may be directed to competing goals, such as revenue generation, protection of domestic producers, and more recently, as a public health instrument. Historically, revenue generation has been the primary aim of tobacco taxes. From an economic perspective, manufactured cigarettes are appropriate objects of taxation, given that they are produced in the formal sector by a small number of tobacco manufacturers, have relatively few substitutes and significant externalities, and inelastic demand. Given this relative inelasticity of demand, tobacco taxes can generate steady revenues with fewer market distortions compared to taxes on goods and services with more elastic demand.

In addition to revenue raising, and despite tariff discrimination prohibitions (GATT 1994), some governments have used taxation as a protectionist measure for domestic tobacco producers. Those approaches include high customs duties or applying excise taxes that vary based on the source or type of tobacco contained in a product, the price of the product (where foreign brands are expensive relative to those produced domestically), or other product characteristics. The use of ad valorem taxes also tends to protect local products if they are cheaper, by widening the price differential with imported products.

In more recent years, however, governments have begun to use excise taxes as a public heath tool to discourage the use of harmful products. However, progress in adopting well-designed health taxes has been hampered, in part, by different conceptualizations of key issues by the ministries involved in designing health taxes. Health promotion is the purview of health policymakers, while taxation is the mandate of finance ministries. Bringing these two ministries together on tax design is essential, especially in targeting the specific health-harming product or group of products (Elliott et al. 2020).

Once the object of taxation is identified, taxes (ideally excises) should be well-designed and constitute a substantial share of the price. Uniform specific taxes that keep pace with inflation and income growth are more effective instruments at raising prices, reducing affordability, and thus, decreasing consumption than ad valorem and tiered designs. The following subsections examine four characteristics of tobacco taxes, make recommendations, and present the latest results of the Tobacconomics Cigarette Tax Scorecard (Scorecard) (Drope et al. 2024) for each.

The Scorecard assesses cigarette tax policy performance in 170 countries on a five-point scale with respect to consistency with the widely accepted best practices articulated in the WHO FCTC Article 6 Guidelines (WHO 2014), the 2021 WHO Technical Manual on Tobacco Tax Policy and Administration (WHO 2021), the NCI-WHO Monograph 21: The Economics of Tobacco and Tobacco Control (US NCI and WHO 2016), the World Bank Tobacco Tax Reform (World Bank 2017) and Curbing the Epidemic reports (Jha et al.1999), and other seminal research on effective tobacco taxation. The Scorecard uses biennially-released data on tobacco taxes from the WHO Report on the Global Tobacco Epidemic (WHO RGTE) (WHO 2023) to evaluate each country's tax policy on a five-point rating system by showing specific areas of improvement for each country's tax policy. The Scorecard examines four components of cigarette tax policy: cigarette price, changes in cigarette affordability, tax structure, and tax share of price. Since data on only cigarettes is available on a global basis through the WHO RGTE, the Scorecard does not evaluate tax policy on all tobacco products, but only on cigarettes.

Price

How effective are price increases at reducing tobacco use? The estimated impact of price on tobacco consumption varies from country to country, but most studies show that increases in the price of cigarettes reduces smoking (Tauras et al. 2016). However, cigarettes are relatively price inelastic, meaning that an increase in price will result in a less-than-proportional decline in consumption. Consumption is more responsive to price in low- and middle-income countries (LMICs)—where elasticity estimates cluster around -0.5—than in high-income countries where it is closer to -0.4. Therefore, a 10% increase in price will result in a 5% decrease in consumption in LMICs and a 4% decrease in high-income countries. (US NCI and WHO 2016).

In addition, not all population groups within countries respond to changes in price in the same way. Importantly, youth are two to three times more responsive to tobacco price increases than the general population, which is explained by various factors including limited income, lower addiction levels, and peer effects (Bader et al. 2011). For example, in a three-country study in Argentina, Brazil, and Mexico, where the reported average age of daily smoking initiation is similar (and between 17 and 18 years old), researchers found that a 10% price increase would delay smoking initiation by five months in Argentina, nearly 2.5 years in Brazil, and one year and four months in Mexico (Franco-Churruarin and González-Rozada 2023).

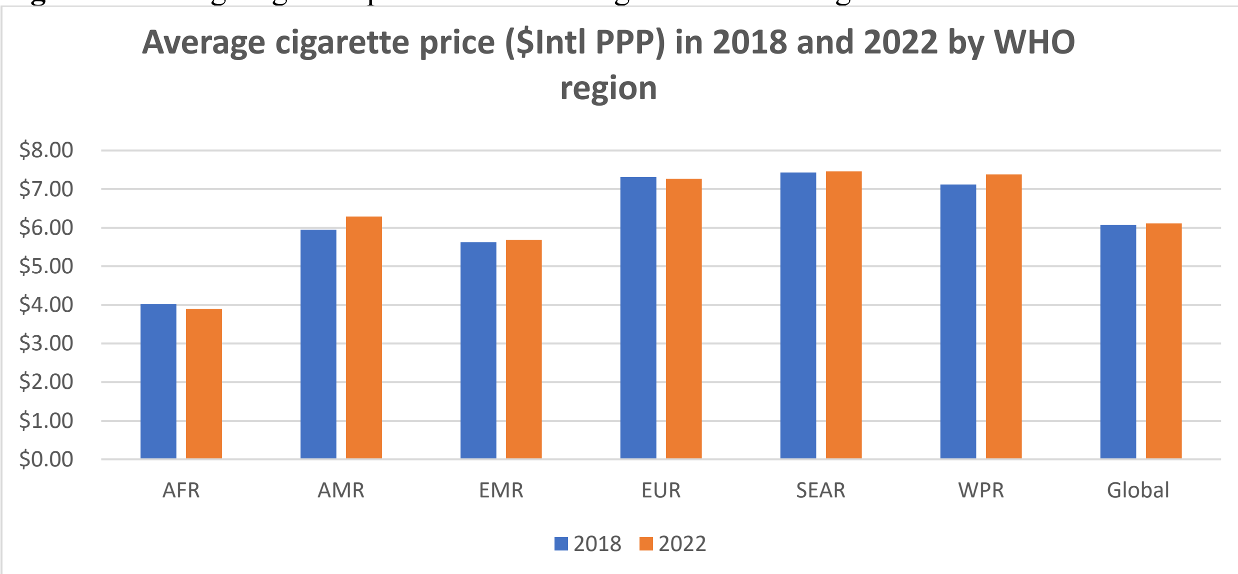
There is also evidence that lower-income groups are more sensitive to price increases relative to higher-income groups, which is explained primarily by limited income (Vulovic and Chaloupka 2021; Smith et al. 2020; Parks et al. 2017). For example, in a study of seven countries in Southeast Europe (Bosnia and Herzegovina, Croatia, Albania, Kosovo, Macedonia, Montenegro, and Serbia), researchers found that most of the countries would experience a positive redistributive effect due to higher excise taxes on cigarettes (Zubović et al. 2019). Low-income households in all countries studied were more responsive to price increases compared to their high-income counterparts (Zubović et al. 2019). The share of the budget dedicated to cigarettes even decreased among low-income households after the simulated tax increase in some of the countries (Zubović et al. 2019).

The latest edition of the Scorecard shows that despite the evidence that cigarette price increases lead to decreases in cigarette consumption, cigarette prices[159] have declined in all regions and in most income-groups[160] from 2020 to 2022. Moreover, from 2018 to 2022, cigarette prices remained largely stagnant in most regions and income groups (figure 6 and 7). As of 2022, average cigarette prices were highest in the

[159] This Scorecard component is based on the price of a 20-cigarette pack of the most-sold brand in international dollars, adjusted for purchasing power parity (PPP), which is a common metric used to compare countries' currencies based on an exchange that allows one to buy the same amount of goods and services in each country.
[160] Data presented by region reflect the six regional groupings defined by WHO (African region – AFR; Region of the Americas – AMR; Eastern Mediterranean region – EMR; European region – EUR; South-East Asia region – SEAR; and Western Pacific region – WPR), while data presented by income level reflect the country income categories defined by the World Bank.

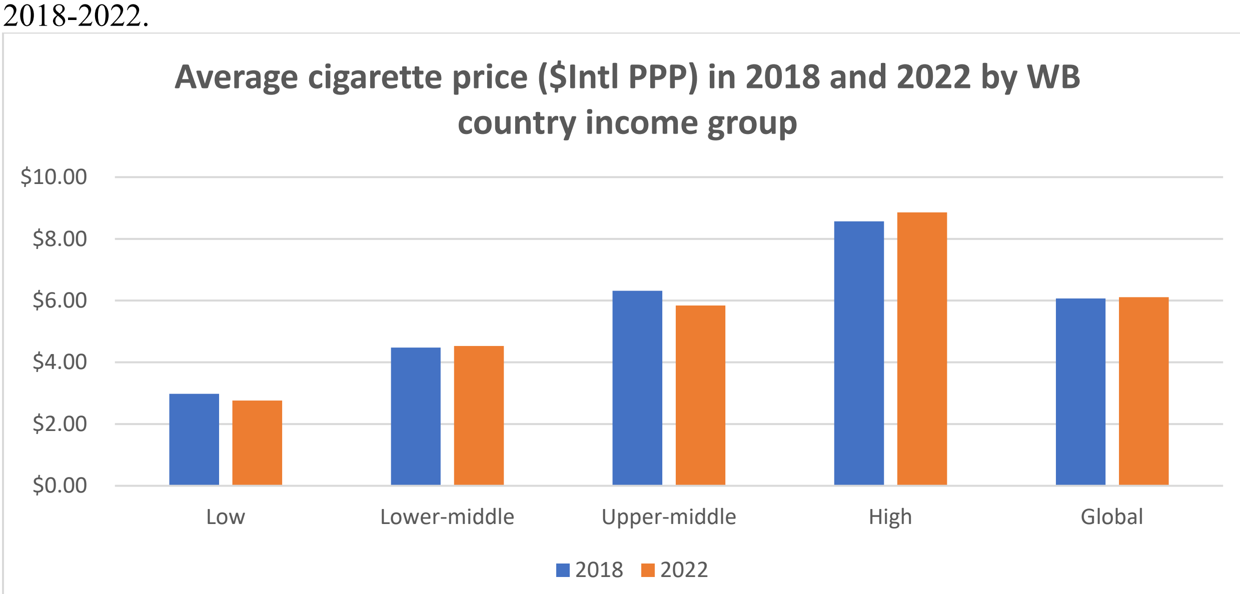
South-East Asia region and among high-income countries and lowest in the African region and among low-income countries.

Figure 4. Average cigarette prices remained stagnant in WHO regions between 2018-2022.



Sources: Tobacconomics Scorecard, 3rd ed. (2024); Tobacconomics Scorecard, 1st ed. (2020).

Figure 5. Average cigarette prices remained stagnant within country income groups between 2018-2022.



Sources: Tobacconomics Scorecard, 3rd ed. (2024); Tobacconomics Scorecard, 1st ed. (2020).

Affordability

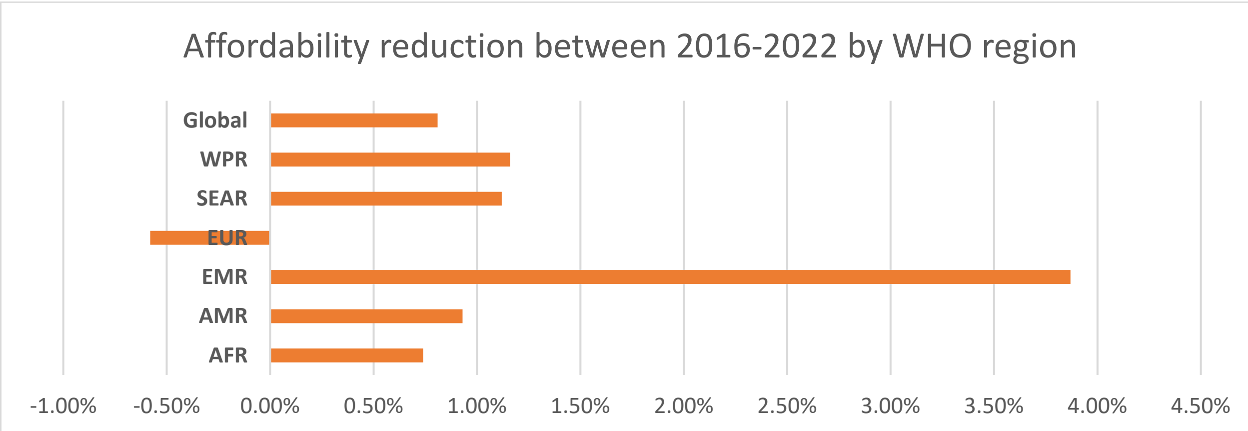
Changes in income affect smoking behaviour, with increases in income of smokers often resulting in greater consumption. Cigarette affordability addresses both price and income by reflecting an individual's ability to purchase cigarettes. (US NCI and WHO 2016). Over the past few years, most countries around the world have experienced rapid inflation, and over the past few decades, many low- and middle-income countries in particular have seen rapid growth in incomes and inflation. Depending on the type of tax (which will be detailed in the section below) these increases in inflation and purchasing power can erode the impact of tax and resulting price increases on consumption (Blecher 2020). As a result, income growth and inflation should be taken into consideration when raising tobacco taxes. Tax increases should be large enough to make tobacco products less affordable over time.

The latest edition of the Scorecard finds that 156 of the 188 countries evaluated received a score of zero in the area of change in affordability of cigarettes between the years 2016-2022 (figures 8 and 9)[161]. This low score is attributable to four distinct sets of circumstances: (1) 25 countries had no statutory tax increase increases and cigarettes became more affordable; (2) 16 countries had a statutory tax increase, but it was too small, and cigarettes still became more affordable; (3) 56 countries had no statutory tax increase and no change in affordability; (4) 59 countries had a statutory tax increase but no change in affordability (Drope et al. 2024). Important to note from these results is that even with tax increases, cigarettes may become more affordable (and thus lead to increases in consumption) if the resulting price change does not outpace inflation or income growth. Therefore, if the aim of the tax is to curb demand of cigarettes and protect public health, the tax increase must be large enough to significantly affect the price of the product.

Although cigarettes became more affordable in the European region over the past six years, in most regions and income groups, cigarettes became modestly less affordable on average globally by around 1% from 2016-2022. Notably, the Eastern Mediterranean region experienced the greatest reduction in cigarette affordability among the WHO regions. In addition, the evidence on affordability over the decade spanning 2012-2022 shows that cigarettes are becoming less affordable over the long term in many countries. From 2012-2022, cigarettes became less affordable in 64 countries, did not significantly change in 88 countries, and became more affordable in 25 countries, 17 of which were low- and middle-income countries (WHO 2023).

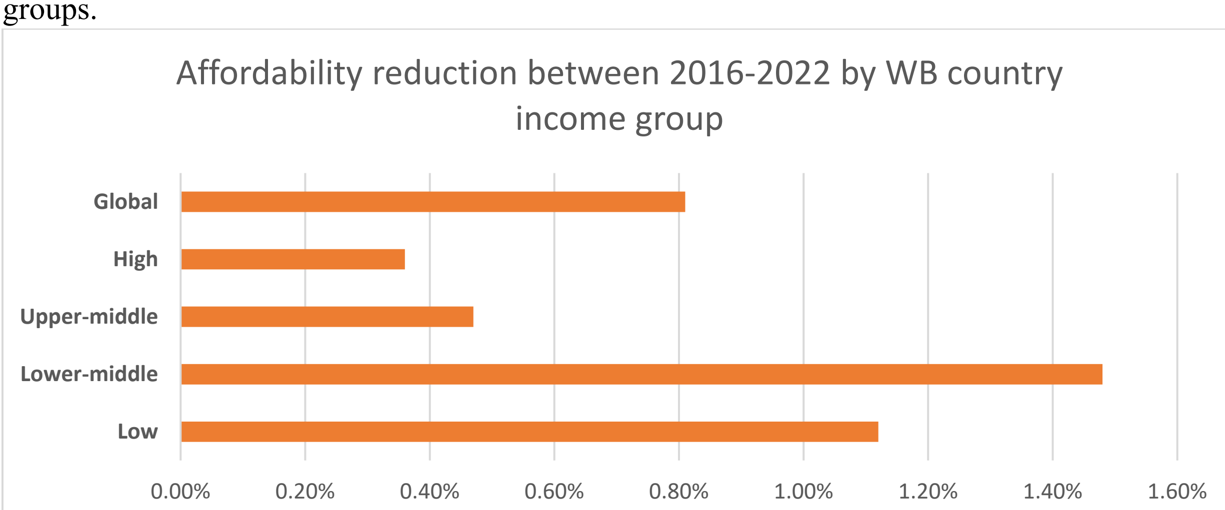
[161] This scoring component assesses changes in cigarette affordability over a six-year period (2016-2022). Affordability is defined as the percentage of per capita GDP required to purchase 2,000 cigarettes of the most-sold brand, with an increase in this measure implying that cigarettes are becoming less affordable over time.

Figure 6. Cigarettes became less affordable from 2016-2022, except in the European region.



Source: Tobacconomics Scorecard, 3rd ed. (2024). Note: A positive change means that cigarettes became less affordable and a negative change means that cigarettes became more affordable.

Figure 7. Cigarettes became slightly less affordable from 2016-2022 among country income groups.



Source: Tobacconomics Scorecard, 3rd ed. (2024).

Although it is illegal to sell single-stick cigarettes in many countries, single sticks are more affordable relative to cigarette packs due to their divisibility (for some people a whole cigarette pack may be too expensive to purchase). A recent study of 42 countries representing all WHO regions found the sale of single sticks in 33 of them (Brown et al. 2023). In 17 of these 33 countries, the sale of single sticks is prohibited by law (Brown et al. 2023). In another study in Pakistan, researchers conducted two national surveys before and after a tobacco excise increase of 150% in February of 2023 (SPDC 2024). Although cigarette consumption decreased by 19.2% after the tax increase, 35% of smokers surveyed reported buying loose cigarettes despite their prohibition (SPDC 2024).

Although effective enforcement of point-of-sale regulations on packs is the most targeted remedy to the problem of single stick consumption, there is evidence that higher prices as a result of tax increases do increase the price of single sticks (Maldonado et al. 2020). In Colombia, where the sale of single sticks is banned, researchers conducting a five-city survey of illicit cigarettes before and after a 100% specific excise tax increase in Colombia in 2016 found that the average real price of single sticks increased by 23.1% while the real increase in price for packs was 28.2% (Maldonado et al. 2020). At the same time, however, the proportion of smokers who bought single sticks increased by 11 percentage points (from 57.8% in 2016 to 68.8% in 2017) (Maldonado et al. 2020). Overall, the researchers observed a modest increase in illicit cigarette consumption (from 3.35% to 4.23%) following the tax increase (Maldonado et al. 2020).

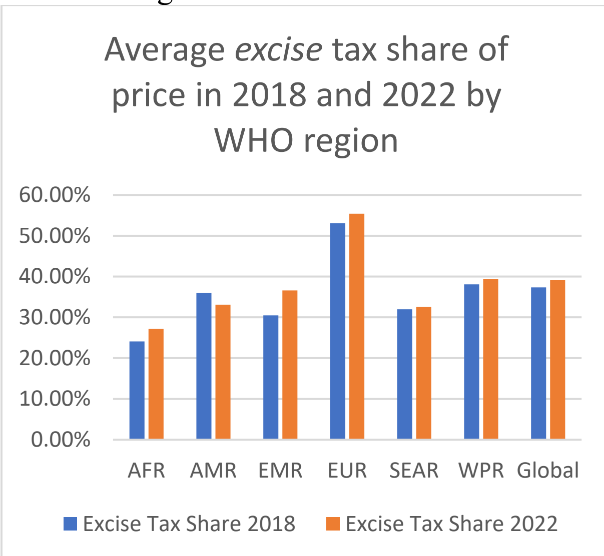
Tax Share

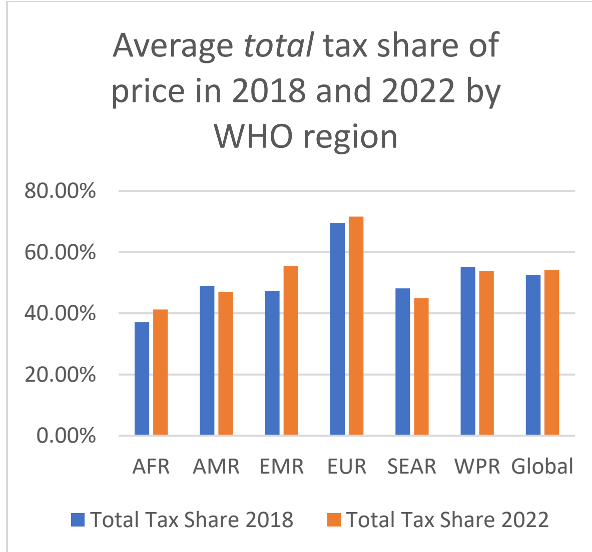
There are two common and related benchmarks of tobacco tax performance: The first benchmark is whether the sum of all taxes is greater than 75% or more of the retail price of the most popular brand of cigarettes, and the second benchmark is whether excise taxes account for at least 70% of tobacco product retail prices. When taxes are increased to these levels—provided prices are sufficiently high—they lead to significant price increases, motivating many users to quit and deterring large numbers of youth from starting to use tobacco. However, where prices are very low, the tax share measure cannot be used alone as an indicator of tax policy performance and must be interpreted with caution. A higher tax share of price is also a good measure of a government's ability to affect the retail prices of tobacco products more directly and generate significant revenue from these excise taxes.

In 2022, only 12% of the world's population living in 41 countries were protected by tax rates at 75% or more of the price of the most popular brand of cigarettes (WHO 2023).

Comparing the results from the first and third editions of the Scorecard, total tax shares and excise tax shares increased modestly from 2018-2022 (figures 10, 11, 12 and 13). Notable exceptions are the Americas region and the lower-middle income country group for both total tax share and excise tax share, as well as the South-East Asia and Western Pacific regions for the total tax share of price measure. The largest increases in tax shares (both total tax shares and excise tax shares) occurred in the African and Eastern Mediterranean regions as well as the low-income country group, though it must be noted that the prices in the African region and the low-income country group decreased and the prices in the Eastern Mediterranean region remained largely stagnant in the same period. These declining or stagnant prices likely play a role in the tax share increases. Although the European region and the high-income country group has the highest average tax shares (both total tax shares and excise tax shares) neither group meets the recommended minimum tax share percentages of 70% (excise) and 75% (total).

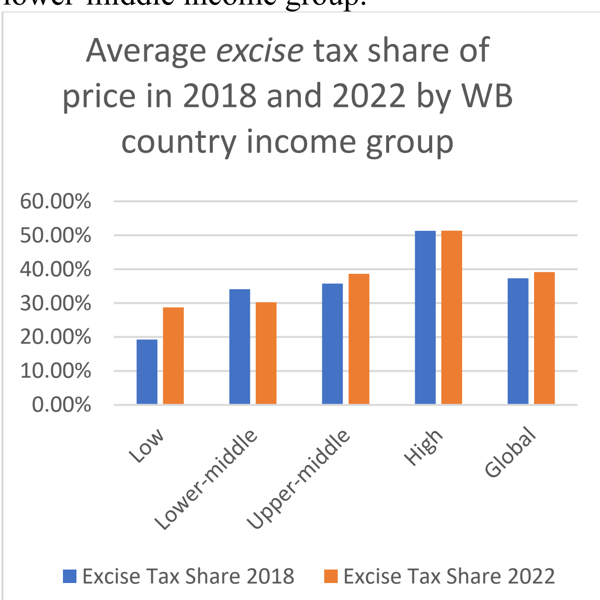
Figures 8 & 9. Average tax shares increased modestly from 2018 to 2022 except for the Americas region.

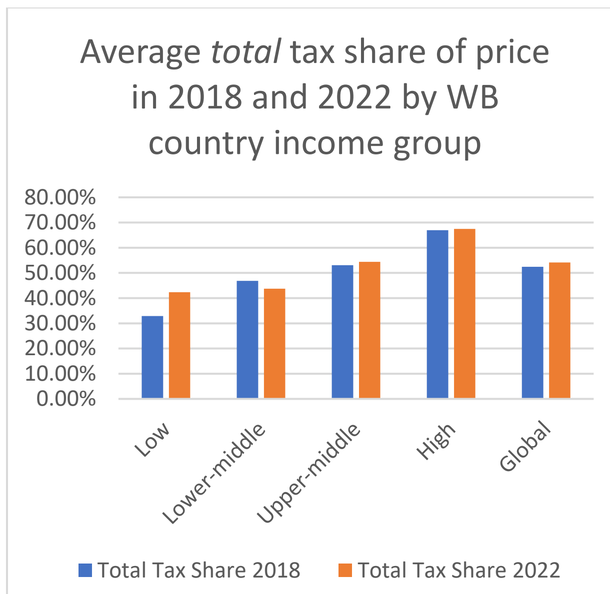




Sources: Tobacconomics Scorecard, 3rd ed. (2024); Tobacconomics Scorecard, 1st ed. (2020).

Figures 10 & 12. Average tax shares increased modestly from 2018 to 2022 except for the lower-middle income group.





Sources: Tobacconomics Scorecard, 3rd ed. (2024); Tobacconomics Scorecard, 1st ed. (2020).

Structure

Tobacco products are typically subject to excise taxes, which are either specific or ad valorem, or both, known as hybrid or mixed structures. Specific taxes are assessed as a fixed amount per unit of the product (for example, a stick or a pack), while an ad valorem excise tax is a tax that is assessed as a percentage of value (for example manufacturer price or retail price).

Uniform specific excise taxes reduce price variability, while the immediate impact of ad valorem excises and tiered tobacco tax structures result in greater variability in prices, which creates more opportunities for substitution that occurs when tobacco users trade down to cheaper brands in response to tax and price increases, rather than quitting or cutting back on consumption (Chaloupka et al. 2010, 2014; Shang et al. 2014). Specific excise taxes are therefore more effective in raising consumer prices compared to ad valorem taxes and, thus, result in greater reductions in cigarette consumption (Delipalla & Keen 1992; Delipalla & O'Donnell 2001) while complicated tax structures, such as tiered tax structures and systems with a greater share of ad valorem taxes, are generally associated with higher cigarette consumption compared to uniform specific tax structures (Shang et al. 2019). Linking specific tax rates to inflation rates and income growth can help maintain the impact of the tax and thus keep the affordability of tobacco products from increasing over time (WHO 2021).

Uniform specific taxes are generally easier to administer relative to more complex tax structures (WHO 2014; 2021). Ad valorem taxes and/or tiered tax structures are more difficult to administer: the product price can be undervalued to minimize ad valorem taxes, and tiered tax structures create more opportunities for tobacco manufacturers to avoid tax by manipulating the features of their products, making tax revenues more difficult to forecast and less stable (WHO, 2014). If an ad valorem tax is used, the tax base should be retail price given that it is the most transparent (as long as a reference retail price is applied). A retail price tax base not only tends to be higher relative to other types of tax bases, it is also more effective at preventing tax evasion and avoidance. In contrast, where the ad valorem tax is based on the manufacturer's (ex-factory) price; the cost, insurance, and freight (CIF) price; or the wholesale price, manufacturers can simply evade the tax by artificially lowering the product price at the earlier stages of the value chain where the tax is assessed and move some of the costs further up the chain (WHO 2021) or through abuse of transfer pricing practices.

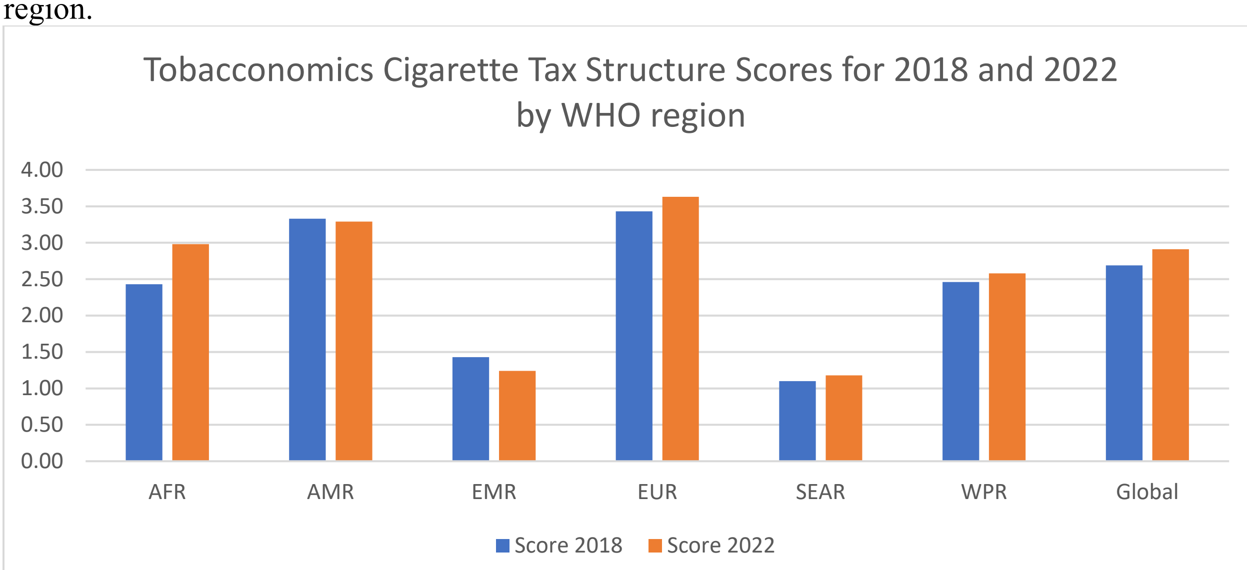
A minimum tax in combination with an ad valorem tax creates a price floor below which cigarettes cannot be sold, pushing up the prices of economy brands and reducing the relative price variation between brands. Governments will not only gain more revenue from the higher priced brands, but a minimum tax guarantees that amount of revenue from lower-priced brands (WHO 2021). While minimum pricing policies can also set a price floor, the revenues from these policies go to the industry rather than to the government.

Some jurisdictions have tiered structures with different tax levels depending on the product features, such as the type of cigarette (e.g., Indonesia has eight tiers based on whether they are machine-made or hand-rolled, among other production features) or the pack's price category (e.g., Bangladesh has a low-price and high-price category). However, these product classifications add complexity to the administration of the tax and may result in trading down (or substitution) to lower-priced cigarettes, instead of reducing consumption. For example, researchers in Bangladesh found that increasing the price of high-price cigarettes by 10% would increase consumption of low-price cigarettes by 2.64%, suggesting that some smokers will switch to cheaper brands when faced with price increases. The study goes on to recommend "increases in cigarette prices in the low-price tier that are faster than increases in the high-price tier to achieve a gradual convergence of prices" (Shimul & Hussain 2022). Tiered structures also motivate price and product manipulation by producers to fit into lower tiers.

On a broader level, excise taxes should also tax all tobacco products similarly to avoid substitution between types of products, e.g., fine-cut or loose tobacco, smokeless tobacco, etc. These other types of tobacco products often avoid taxation altogether when they are sold illicitly. For example, hand-rolled or roll-your-own tobacco, often sold in outdoor markets in the Southeastern Europe region is largely sold illicitly. A 2019 survey of six countries (Albania, Bosnia & Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia) found that 88.5% of the loose tobacco consumption was illicit (Vladisavljević et al. 2021). Tax administration efforts, which are discussed in Chapter 7, are critical to curb illicit trade of all tobacco products. An important example is the European Union's Track and Trace system introduced in May 2019 for both cigarettes and roll-your-own tobacco. This system requires all tobacco retail packages to be marked with a unique identifier and security feature that allows for traceability throughout the tobacco supply chain to point of sale.

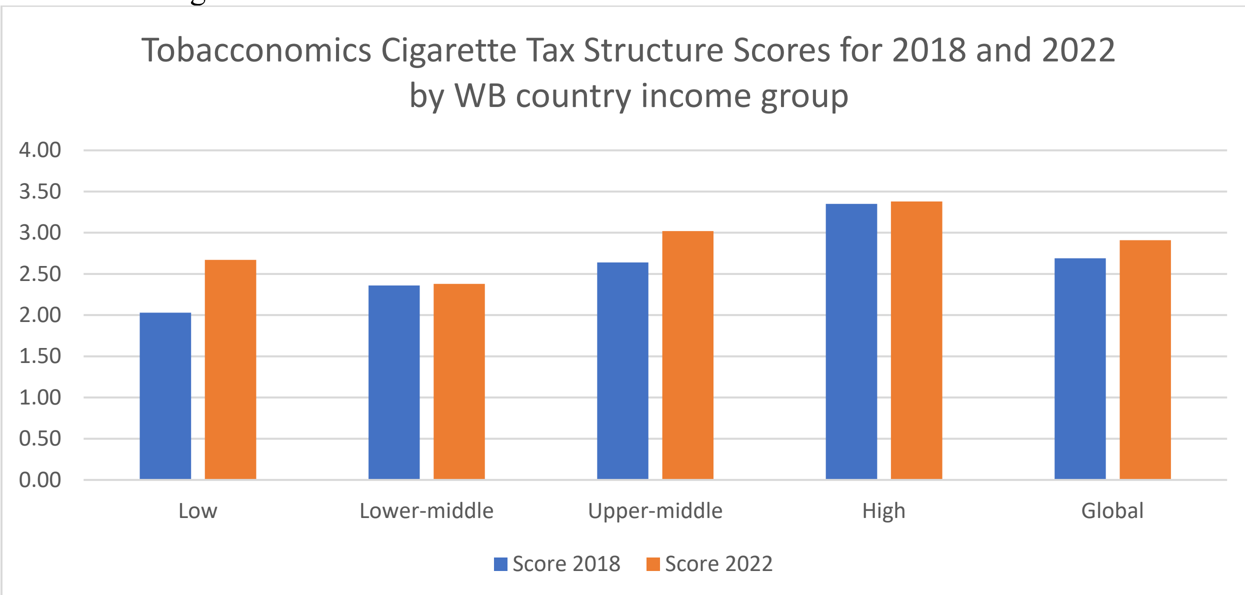
The Scorecard gives the highest score of 5.00 to two types of cigarette excise structures: (1) uniform specific taxes with an automatic inflation-indexation or other adjustments; or (2) uniform mixed tax structures (for example, those with both a specific and an ad valorem component) with greater share of specific tax, with an automatic adjustment for the specific component, the retail price as the base for the ad valorem component, and a minimum specific tax. At the opposite end of the scoring scale, countries without an excise tax on cigarettes receive a score of 0. Tiered taxes receive scores of 1.00 point and uniform ad valorem taxes or mixed systems with a greater share of ad valorem taxes receive a score of 2.00. Uniform specific taxes and mixed systems with a greater share of specific tax but without inflation adjustments and a retail price base for ad valorem taxes receive a score of 3.00.

Figure 12. Tax Structure scores increased modestly from 2018 to 2022 except for the Eastern Mediterranean region, where they decreased. Tax structures improved the most in the African region.



Sources: Tobacconomics Scorecard, 3rd ed. (2024); Tobacconomics Scorecard, 1st ed. (2020).

Figure 13. Tax Structure scores increased modestly from 2018 to 2022. Tax structures improved the most among low-income countries.



Sources: Tobacconomics Scorecard, 3rd ed. (2024); Tobacconomics Scorecard, 1st ed. (2020).

Comparing the country tax structure scores from 2018 and 2022, overall, there was modest improvement (figures 14 and 15). The most improvement in tax structures took place in the African region and among low-income countries (where tax shares also increased during the same period). However, cigarette prices in both the African region and among low-income countries decreased at the same time, providing a partial explanation for the higher tax share of price. At the same time smoking prevalence as well as the absolute number of smokers declined slightly during these years.

The latest globally available data on cigarette tax policies indicates that progress on reducing the consumption of traditional cigarettes through taxation is to date an underemployed policy. While substantial progress has been made to reduce tobacco use through non-price policies, such as those regulating cigarette advertising, access to minors, smoke-free public spaces, etc., taxation has yet to realize its full potential as a public health instrument. Countries should strengthen international and regional cooperation efforts to implement the WHO FCTC obligations and MPOWER measures to reduce tobacco consumption and control tobacco supply. In doing so, countries should understand the historic role of the tobacco industry in blocking tobacco control efforts as well as incorporate new and emerging tobacco products into their regulatory regimes. These challenges will be discussed in the sections below.

b) The Role of the Tobacco Industry: blocking efforts for strengthened tobacco control, including taxation

The tobacco industry has historically played a significant role in obstructing efforts to strengthen tobacco control measures, particularly in the realm of taxation. This section explores the tactics employed by the tobacco industry to impede effective tobacco control, and the importance of implementing Article 5.3 of the WHO Framework Convention on Tobacco Control (WHO FCTC 2003) to counteract industry interference.

Industry efforts to weaken, delay or avoid the implementation of tobacco control policies

Industry interference has been identified as the most significant barrier to the implementation of evidence-based tobacco control measures, including tobacco taxation (WHO FCTC 2014). From influencing research through financial support to spreading disinformation, engaging in and supporting illicit trade, using front groups, and lobbying, the tobacco industry uses a multifaceted approach to protect its interests and block effective tobacco control (and tax) policies. The tactics used within this multifaceted approach can be broadly categorized into two groups: discursive tactics, which involve shaping narratives and arguments, and instrumental tactics or approaches, which encompass the direct actions taken by the tobacco industry to influence policy making and markets (Ulucanlar et al. 2016). By understanding these tactics, policy makers can better navigate the complexities of tobacco control policies, including taxation, and develop evidence-based policies that prioritize public health over the interests of the tobacco industry. This section examines the various tactics employed by the tobacco industry to influence tobacco control polices.

Shaping the narrative – the discursive tactics

The tobacco industry's main discursive strategy is to overstate the potential costs of proposed tobacco control policies while at the same time downplaying or completely denying their potential public health benefits. Using disinformation, distorting independent evidence, and influencing research through financial support, the industry creates detailed yet believable narratives that exploit policy makers' fears by portraying proposed public health policies as harmful to the economy (US NCI and WHO 2016).

In the 1950s and 1960s, despite mounting scientific evidence linking smoking to lung cancer and other health risks, the industry vigorously denied these claims, promoting narratives suggesting that smoking was safe and even beneficial to health (Cummings et al. 2002). As evidence of the harms of smoking became irrefutable, the tobacco industry shifted its strategy to creating doubt and confusion: they influenced research through financial support, misrepresented data and hired scientists to cast doubt on the scientific consensus linking smoking to cancer and other diseases (Bates and Rowell 1999, USA 2006).

The tobacco industry has continued to employ similar tactics of disinformation surrounding the science behind several tobacco control policies, including smoke-free environments. In the early 2000's, studies documented industry efforts globally to undermine and discredit the scientific evidence linking secondhand smoke (SHS) to diseases—underscoring the industry's efforts to undermine smoke-free policies (US NCI and WHO 2016). The 2006 United States v. Philip Morris USA, Inc. case confirmed that tobacco companies distorted SHS health risks to deceive the public, manipulate scientific findings, evade regulations, and prevent indoor smoking restrictions (USA 2017).

Today, the tobacco industry uses similar tactics to promote novel and emerging nicotine tobacco products, like electronic cigarettes and heated tobacco, as safer alternatives to traditional cigarettes—even promoting them as cessation tools despite insufficient evidence supporting these claims (see next section).

In addition to sowing doubt and confusion about the scientific basis of tobacco control policies, the industry employs similar disinformation tactics to portray dire social and economic consequences of tobacco control policies. The industry's narrative exploits fear of job losses and economic downturns—presenting tobacco control policies as a threat to the economy and vulnerable populations in society (US NCI and WHO 2016). For example, the tobacco industry consistently obstructs the implementation of comprehensive smoke-free policies falsely claiming that such policies harm businesses and in particular the hospitality sector, despite overwhelming independently produced evidence to the contrary: independent evidence indicates that smoke-free policies not only do not have negative economic consequences for businesses, also bring economic benefits to businesses, including increased worker productivity and reduced costs (IARC 2009, NCI and WHO 2016).

Direct actions – the instrumental Tactics

The tobacco industry employs a variety of instrumental tactics, some legal while others are not, to actively undermine tobacco control efforts. These tactics range from lobbying of government officials, using front groups and corporate social responsibility initiatives, to bribing, smuggling, and intimidation (legal and economic threats) (US NCI and WHO 2016, World Bank 2019, WHO 2008, WHO 2012).

Globally, the tobacco industry extensively lobbies policymakers to influence legislation and regulations directly. Beyond traditional methods like financial contributions to political parties, communities, and individual politicians, the industry often employs individuals with close ties to government agencies to establish relationships with policy makers, providing them with industry-funded research and information that supports the industry's agenda and even drafting and distributing sample legislation that is favorable to the tobacco industry (WHO 2008, WHO 2012). In the 1990s it was established that the industry tried to influence the work of the WHO in tobacco control by placing their own consultants in positions at WHO and by using other UN agencies to influence or resist WHO's tobacco control policies (WHO 2000). WHO now requires staff, consultants and experts to disclose any ties to the tobacco industry before considering hiring them to work or engage with the organization with the disclosure being reviewed by an ethics committee that assesses whether the individual can be hired or not.[162]

Additionally, the industry often hires front groups, including tobacco growers' associations and restaurant or bar organizations, to lobby on its behalf, which appear to be independent but are secretly funded and controlled by the industry (WHO 2008, STOP 2022, Gannon et al. 2023). This tactic creates the illusion of public support for industry-friendly policies. The Foundation for a Smoke-Free World, for instance, portrays itself as an independent organization advocating for smoke-free initiatives by eliminating the use of cigarettes and other forms of combustible tobacco, but is closely tied financially to the tobacco industry, particularly to Philip Morris International; it cannot be regarded as independent (Truth Initiative 2019, van der Eijk et al. 2019).

Litigation threats, alongside its associated costs, are another common tactic used by the tobacco industry to intimidate governments and deter them from implementing strict tobacco control measures—particularly in low-and middle-income countries (US NCI and WHO 2016, WHO 2008, WHO 2012). High-profile cases such as Philip Morris vs. Uruguay, where PMI took the government of Uruguay to court at the International Centre for Settlement of Investment Disputes (ICSID) over stringent anti-smoking regulations, which PMI argued violated investment agreements demonstrate the industry's attempts to use litigation to undermine public health policies aimed at reducing tobacco consumption (ICSD 2016). Similar legal challenges have been observed in other developing countries, such as the Philippines, Thailand, Uganda, and India, where tobacco companies have challenged tobacco control measures on grounds such as alleged violations of trade agreements and intellectual property rights related to packaging and labelling——as well as in high-income countries such as Australia and Norway (Moodie et al. 2022, Tobacco Control Laws).[163] Despite numerous losses in court, the tobacco industry continues to employ

[162] See example of a declaration of interest for IARC/WHO experts: https://asbest-study.iarc.who.int/quality-assurance/conflicts-of-interest/annex-a-doi-formcirc-56.pdf
[163] See examples of tobacco control litigation victories in countries worldwide: https://www.tobaccocontrollaws.org/litigation/major-litigation-decisions

legal challenges or threats of challenges, contributing to a "regulatory chill" which can result in delaying or preventing governments from implementing specific tobacco control policies (US NCI and WHO 2016).

The industry also uses corporate social responsibility (CSR) as a tool to portray itself as socially responsible, aiming to weaken public health policies and regulations in its favor (Friedman 2009). Tobacco companies fund philanthropic projects, make donations to health facilities, and support community programs, all while continuing to market products that cause significant harm. For example, during the COVID-19 pandemic, the tobacco industry engaged in CSR efforts, including donations to relief efforts and funding research into coronavirus vaccines, while promoting the idea of a protective effect of nicotine or smoking for COVID-19, despite evidence demonstrating increased disease severity in smokers with SARS-CoV-2 infection (Burki 2021, UNDP and WHO FCTC 2023).

In addition to lobbying, threatening with litigation, and CSR, the tobacco industry utilizes other covert influence tactics to sway policy makers and obstruct tobacco control measures, such as bribery in exchange for favorable treatment (WHO 2008, US SEC 2010, Jackson et al. 2021). For example, a recent analysis of whistleblower documents from former British American Tobacco (BAT) employees in the Africa region revealed a total of 236 payments made between 2008 and 2013, totaling over US $600,000. These payments targeted national and local politicians, journalists, civil servants, farmers, and individuals associated with parliamentary committees, indicating a systematic attempt by BAT to secure favorable policies and gain a competitive advantage. This analysis suggests that these practices were not limited to East Africa but may be part of a broader strategy within the BAT Group (STOP 2021).

Lastly, there is substantial evidence indicating that major multinational tobacco companies engage in illicit trade to undermine tobacco control efforts(WHO 2008, Gilmore et al. 2019, World Bank 2019). For example, during the 1990s, tobacco company documents revealed their significant involvement in global cigarette smuggling, with approximately one-third of global cigarette exports ending up on the illicit market, and in some cases, tobacco companies supplied entire markets through illicit channels (Gilmore et al. 2019). The continued involvement of the industry has been further exposed in various countries, including Canada, Colombia, Ecuador, and the EU (US NCI and WHO 2016). In these legal cases, multinational tobacco companies were accused of supplying illicit cigarettes or knowingly facilitating the illegal distribution of their products, demonstrating a deliberate effort to circumvent tobacco control regulations, avoid taxes, and undermine tobacco control initiatives. There are several reasons why multinational tobacco companies may engage in illicit trade of cigarettes, such as to evade taxes and increase profits; to maintain market share by offering cheaper, untaxed products; to circumvent regulations designed to reduce smoking rates; and to exploit weak law enforcement and regulatory frameworks that allow them to operate in markets where they might otherwise face significant legal repercussions.

Article 5.3 of the WHO Framework Convention on Tobacco Control

Recognizing the threats and harms of industry interference, the WHO Framework Convention on Tobacco Control (WHO FCTC 2003)–an international legally binding treaty with 182 Parties—includes Article 5.3, which states: “In setting and implementing their public health policies with respect to tobacco control, Parties shall act to protect these policies from commercial and other vested interests of the tobacco industry in accordance with national law” (WHO FCTC 2003). The Guidelines for implementation of Article 5.3 recognize the inherent conflict between the tobacco industry's interests and public health policy, and emphasize that all government branches responsible for creating, implementing, and enforcing tobacco control policies must also protect these policies from tobacco industry influence and be held accountable for doing so. This includes that government officials always act in a transparent manner when it comes with interacting with the tobacco industry and avoid, for example, providing the industry incentives or preferential treatment to run their business, as this would conflict with tobacco control policy (WHO FCTC 2013).

Unfortunately, in many countries there seems to be a limited understanding of obligations stipulated in Article 5.3 beyond the health sector (Barry et al. 2022, WHO FCTC 2014). Evidence suggests that the tobacco industry has attempted to undermine the implementation of the WHO FCTC in various countries by engaging with and inciting controversy between financial, trade, and health ministries, using business associations and front groups to lobby on its behalf, and even gained access to WHO FCTC negotiations (WHO 2012). Evidence also suggests that the tobacco industry forms partnerships with different branches of government to fund joint projects. These partnerships, which involve projects like supporting border patrols to prevent illicit trade and sponsoring sports programs for children, not only allow the tobacco industry to influence government policies and actions but also present significant conflicts of interest and violations to Article 5.3 of the treaty (WHO 2008, WHO 2012). As such, it is vital to recognize that all government sectors are bound by Article 5.3 of the WHO FCTC. Parties should follow their obligation more strictly, utilizing the available resources to practically implement frameworks that safeguard public health policies effectively (WHO FCTC 2003).Practical steps include establishing clear policies that explicitly reject partnerships or non-binding agreements with the tobacco industry, thereby preventing any form of collaboration that could undermine public health objectives; establishing comprehensive transparency measures, requiring all interactions between public officials and the tobacco industry to be fully documented and publicly accessible; and establishing strong conflict of interest regulations and ensuring strict enforcement can further protect public health policies from undue influence (WHO 2012b, The Union 2020).

c) Product Innovation: New and emerging nicotine and tobacco products creating confusion in tobacco control implementation, including taxation

Another important development in the regulation of tobacco consumption has been the introduction of new and emerging nicotine and tobacco products, which has created a new challenge for policy makers to identify the best way to address them.

New and emerging nicotine and tobacco products typically refer to four main types of products, including heated tobacco products (HTPs), electronic nicotine delivery systems (ENDS), electronic non-nicotine delivery systems (ENNDS), and nicotine pouches. Such products are usually presented in shapes and forms that resemble tobacco products. HTPs are products that contain tobacco in sticks, pods or plugs which are heated by a device that releases aerosols inhaled by the user (WHO 2020). ENDS and ENNDS products are systems that heat a liquid (called e-liquid) that creates aerosols inhaled by the user. Those e-liquids do not contain tobacco but may contain nicotine (ENDS products) or not (ENNDS) (WHO 2024). The most common type of ENDS/ENNDS products are electronic cigarettes (or e-cigarettes), which often resemble their conventional counterpart (WHO 2021). Finally, a product that appeared just recently (in 2018), nicotine pouches are similar to smokeless tobacco, in particular snus (placed in the mouth between the gum and the lip), but without tobacco, containing nicotine and other substances (WHO 2023a).

HTPs, ENDS and ENNDS products are heated at lower temperatures compared to cigarettes or other combusted tobacco products, seemingly releasing fewer toxic substances. They are therefore advertised as safe alternatives to conventional tobacco smoked products. However, their long-term impact is unknown and mounting evidence has been showing they are not harmless. In particular, in the case of ENDS and ENNDS products, the debate has been much more fierce because, unlike HTPs, those products do not contain tobacco, a substance that contains many known carcinogenic and toxic substances. ENDS and ENNDS products contain many additives, flavours and chemicals in addition to nicotine for ENDS products. A recent study looking at health outcomes odds ratios for electronic cigarettes or e-cigarettes (a subset of ENDS products and the most popular product) compared to cigarettes show no detectable difference for cardiovascular disease, stroke and metabolic dysfunction and just a marginally lower risk for asthma, chronic obstructive pulmonary disease and oral disease (Glantz et al. 2024). In addition, populations consuming both e-cigarettes and cigarettes (called dual users, a new type of consumer that is on the rise) show higher risk for all the covered adverse health outcomes compared to cigarette-only users (Glantz et al. 2024).

Consumption and product characteristics

Those novel and emerging products are still a small fraction of global consumption of conventional and new and emerging nicotine and tobacco products – 5% in 2020 (Perucic et al. 2022) -- but their growth has been extremely fast, with HTPs growing more than seven thousand times in sales value in just over a decade (2013-2020) and ENDS and ENNDS products growing more than 40 times in sales value between 2008 and 2020. The sales value of nicotine pouches increased more than 100 times in just a four-year period (2018-2022) (Euromonitor 2024). Aggressive marketing often targeted at youth and loose regulation from countries still grappling with the best approach to control their use has left markets flooded with those products, leading to concerningly high prevalence of youth consumption of those products in many countries, especially in Europe. For example, in Lithuania adolescent current e-cigarette use was estimated to be 31% compared to 7.7% for adult current e-cigarette use in 2021, and in Poland adolescent current e-cigarette use was estimated to be 30% in 2019 compared to 0.9% for adult current e-cigarette use in 2021 (WHO 2023b).

While HTPs have been relatively more stable in terms of variability of features (tobacco heated in sticks, but also the presence of hybrid products containing tobacco sticks and liquid cartridges) and while nicotine pouches are relatively new to the market, the evolution of ENDS and ENNDs products has been very fast and challenging to follow (WHO 2021). ENDS and ENNDS products have gone through different iterations of “generations” of the product with different designs and types of liquids used.

The most common types of ENDS and ENNDs products available in the market, with varying popularity depending on countries and regions, include open systems (which have e-liquid refillable tanks where consumers make the mixes they like), rechargeable closed systems (which have tanks containing e-liquids that are already pre-filled and cannot be modified but can be replaced once the liquid is consumed) and disposable closed systems (pre-filled tanks and devices that are disposed of when consumed). Three main types of e-liquids are also available; non-nicotine containing e-liquids, freebase nicotine (nicotine in its purest form, with a method of extraction used since the 1960s; when heated, it can be absorbed fast in the lungs and in the brain) and nicotine salts (a more recent technology, compared to freebase nicotine e-liquids; those with nicotine salts deliver higher levels of nicotine to the user while masking its harshness) (Perucic et al. 2022, WHO 2021). For ENDS e-liquids, the electrical power of devices heating the liquid has evolved over time to increase the power of the battery delivering increasing amounts of nicotine to the body, sometimes higher than what even conventional cigarettes can deliver.

Around 16,000 different flavours have been identified to be sold with ENDS and ENNDs products, many of them appealing to children and, hiding the harshness of nicotine -- which could play a role in a person’s decision to try those products for the first time (WHO 2021). Other developments in the production of nicotine and which make regulation more challenging if nicotine is defined narrowly, is the production of synthetic nicotine, which is not produced from the tobacco plant (WHO 2023a). Just recently, a new molecule, metatine[164], is available in the market that is a non-nicotine compound but which is structurally similar to nicotine and which can function like nicotine. Additionally, ENDS/ENNDS devices, which hold the e-liquids that are vaped by consumers, also vary greatly in shapes and sizes with new designs that are constantly produced, some of which come in shapes that are appealing to youth (e.g. in the shape of toys or containing cartoon characters) (WHO 2021, WHO 2024).

Regulatory approaches

For ENDS and ENNDS products and for nicotine pouches, manufacturers have been attempting to convince regulators not to treat them as tobacco products so that they fall into grey areas and escape tobacco regulation. And in general, manufacturers of those novel products, including HTPs, have been pressing governments to exempt them from the common regulatory approaches imposed on tobacco products, using the claims of being safer alternative and, in the case of ENDS/ENNDS products, that they are cessation tools to help quit tobacco use (WHO 2023a).

However, to date, according to WHO, evidence on the effectiveness of ENDS products as a cessation tool has been inconclusive (WHO 2021) -- but this subject has split public health advocates from within. In particular, the Cochrane Living Systematic review of the effectiveness of electronic cigarettes for smoking cessation concluded that people using nicotine containing e-cigarettes were more likely to quit cigarette use compared to those using other conventional nicotine replacement therapies (Lindson et al. 2024). One main criticism of this work is the definition of cessation, which considers a successful quitting as cessation of tobacco use but not of e-cigarettes. In the case of the traditional nicotine replacement therapy approaches, cessation meant full quitting of tobacco but also of nicotine use, meaning the use of the cessation therapy is supposed to be temporary to help tobacco users fully quit their addiction to nicotine overall. Considering those who continue using e-cigarettes as quitters disregards the continued addiction to nicotine and the continued exposure to the health dangers of ENDS products consumption (WHO 2021).

Approaches in regulation have been diverse and inconsistent at times. Part of the challenge was the classification of those products. As of 31 December 2022, 19 countries banned the sale of HTPs (including large countries like India, Iran or Türkiye), while 69 countries had some form of regulation with diverse approaches in their classification, where 16 treat them as a conventional tobacco product, 29 as a novel product, 5 as ENDS products and 10 as smokeless tobacco and the rest as other products. Another 86 countries seem to implicitly regulate HTPs (tobacco sticks) under conventional tobacco product regulations (WHO FCTC 2023).

For ENDS and ENNDS products, the approach can be different because of their nicotine content. A review of ENDS regulation in 2022 showed that 34 countries banned their sale (including large countries like Brazil, India, Iran, Thailand or Türkiye), while 87 allowed their sales with one or more regulation, such as imposing age restriction, banning or restricting their consumption in public places, banning or restricting their advertising, promotion and sponsorship and banning or restricting flavours. A remaining large number of 74 countries do not have any regulation in place addressing ENDS products (WHO 2023b).

It is worth mentioning here the example of two countries that have approached regulation of ENDS in a less common way. The United Kingdom, who consider that vapes (e-cigarettes) are less harmful than smoking, considered applying their regulation to encourage their use to support smoking cessation, making it easily available as a consumer product. While regulation of tobacco products is very strong in the UK, for ENDS and ENNDs products it is more lax, with an absence of bans on use of the products in indoor

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public places, partial bans on advertising and absence of regulation of flavours (WHO 2023c). However, the sharp increase in vape use among children and youth in recent years has led the government to reconsider some of its regulatory approaches to address those concerns (United Kingdom Gov. 2023). New and strengthened regulations include, for example, the introduction of an excise tax, taking effect in 2026 (United Kingdom Gov. 2024). Australia, on the other hand, recognizing the health risks of e-cigarette consumption but bearing in mind that some tobacco users may wish to use this product as a tool for cessation, decided that nicotine and non-nicotine products could be sold only in pharmacies and under prescription (Australian Gov. 2024)

For nicotine pouches, 12 countries were banning the sale of the product in 2022 (including Australia and the Russian Federation). WHO identified 22 countries where those products were regulated. Most of the countries regulating those products do it through laws on pharmaceutical products, food and general consumer protection. In a small number of countries, e.g. Estonia or the Republic of Moldova, nicotine pouches fall under the countries' tobacco control laws (WHO 2023a).

In relation to taxation, as of 2022, 64 countries were identified as applying an excise on HTPs with varied approaches. While the majority of countries applied a specific excise on those products, taxation based on the weight of tobacco rather than on the number of sticks was more common. Taxing the product based on the number of sticks is easier to determine, since the tobacco content in each stick cannot be ascertained without laboratory analysis.

As of 2022, 45 countries were identified as taxing ENDS or ENNDS e-liquids. Most also apply a specific excise tax per volume (millilitres) and more than half tax both nicotine and non-nicotine containing liquids (i.e. both ENDS and ENNDS e-liquids). For nicotine pouches, less information is readily available on their taxation but two countries in Europe, Greece and Ukraine, just introduced an excise on those products -- specific excise taxes per weight in kilograms (ECigIntelligence 2024). As indicated earlier, manufacturers have been trying to influence policymakers to tax novel products at lower rates than cigarettes on the grounds that they are less harmful, and evidence shows that they have been successful in doing so. A compilation of price and tax share estimates, for 31 countries in 2020 for which data was available for all three cigarettes, HTPS and ENDS e-liquids, showed that, while price levels may have been similar for HTPs and ENDS e-liquids for closed systems, compared with cigarettes the tax burden was significantly lower among HTPs and ENDS e-liquids (Perucic et al. 2022).

Based on an expert meeting held in 2018, WHO developed a set of recommendations for the taxation of HTPs, ENDS and ENNDs products and published them in the WHO technical manual on tobacco tax policy and administration (WHO 2021). No recommendations are so far available for nicotine pouches as they are a very new product. With regards to HTPs, given that they are tobacco products and similar in shape and price to cigarettes, the recommendation is to tax them at the same rate as cigarettes with a specific tax on a per stick basis. This is reinforced by the fact that the Conference of the Parties, the governing body of the WHO FCTC, recognised in its Decision 22 in 2018 that "*heated tobacco products are tobacco products and are therefore subject to the provisions of the WHO FCTC*" (WHO FCTC 2018), meaning that all tobacco control measures, including taxation, should be similarly applied to conventional tobacco products and HTPs. The WHO technical manual also suggests that countries can consider taxing the devices used for HTP consumption, but they need to adequately assess their administrative capacity to do so.

In relation to ENDS and ENNDS products, the constant evolution of those products makes it difficult to identify best practices in taxation. However, based on some evidence and experience of countries, some emerging recommendations were summarized in the WHO technical manual, including the importance of first targeting the taxation of e-liquids, given that they are a key input to ENDS and ENNDS consumption.

The manual also recommends taxing both nicotine and non-nicotine containing e-liquids. This is based on evidence that some non-nicotine labelled products were found to contain nicotine following lab tests. Additionally, the tax should not vary based on nicotine concentration because, as briefly mentioned earlier, the delivery of nicotine in the body could be independently controlled by the battery power of the heating device regardless of initial content of nicotine in the product. A flat rate applicable to all types of e-liquids is also easier to administer. Similar to the recommendation for HTPs, countries are also invited to consider taxing devices used for ENDS and ENNDS consumption, if their administrative capacity permits them to do so (WHO 2021).

Despite the scattered and varying approaches in regulating those products, a recent systematic review of effectiveness of regulatory policies on electronic nicotine products concluded that flavour restrictions and taxation were most effective in reducing the use of those products (Yan et al. 2023).

Table 1: Summary of regulatory approaches to HTPS, ENDS/ENNDS products and nicotine pouches:

Product	Regulatory approach	Number of countries
HTPS	Banned	19
	Classified as conventional tobacco product	16
	Classified as novel product	29
	Classified as ENDS product	5
	Classified as smokeless product	10
	Classified as other product	9
	Implicitly classified as conventional tobacco product	86
	Taxed	64
	Specific excise	48
	Base: sticks	16
	Base: kg of tobacco	32
	Ad valorem	5
	Mixed	11
	Specific excise component base: sticks	5
	Specific excise component base: kg of tobacco	6
ENDS products	Banned	34
	Legally sold with one or more regulation in place (not accounting for taxation)	87
	Unregulated	74
	Taxed (e-liquids)	45
	Specific excise	35
	Ad valorem excise	9
	Mixed system	1
	Tax all e-liquids	18
	Tax nicotine containing e-liquids	27
Nicotine pouches	Banned	12
	Subject to some regulation	22

3. Conclusion: Tobacco use has been a persistent problem, but it doesn't have to be a forever problem

Although tobacco use is a persistent health problem leading to more than 8 million annual deaths globally, prevalence has slowly declined over the past two decades and there have been substantial advances to curb its use and prevent its harmful consequences. Adoption of the WHO FCTC was a major step in establishing a global agreement on the need for control of tobacco as a harmful substance. This global treaty led the way for the development of evidence-based measures, most of which have been implemented in countries worldwide. The primary measure, however, that has not reached its full potential is taxation. The third edition of the Tobacconomics Scorecard, which uses standard data on cigarette tax policies and prices in over 170 countries, shows the very modest progress in the use of taxation as a public health instrument, despite evidence on its effectiveness in countries across the globe.

Historically, the primary obstacle for effective tobacco taxation and tobacco control overall has been the result of pressure from the tobacco industry, as taxation has a direct effect on the industry's profitability. Governments need to be aware of industry’s tactics that block effective tobacco control and taxation policies, and, for those who are Parties to the WHO FCTC, to abide by the Article 5.3 commitments to protect their national policies from undue industry interference.

However, the rise in consumption of novel and emerging nicotine and tobacco products, especially among the youth, along with the mounting evidence of their health harm and their yet unknown long-term health effects, is a new and growing threat. These products call for strong regulations to be implemented by countries to control their use. Given the fast change in technology affecting the design and features of these products, those regulations need to be flexible enough to facilitate adjustments when needed. Novel products are presented as less harmful but at the same time using designs that are look-a-like to tobacco products, and they run the risk of re-normalizing tobacco use, bringing in new tobacco users who would have not consumed those products otherwise. Indeed, a recent systematic review and meta-analysis showed that use of e-cigarettes was associated with initiation of cigarette use among teenagers in Europe and North America (O’Brien et al. 2021). This accumulating evidence raises concerns over the possible erosion of decades of efforts to tackle tobacco use in many countries around the world.

Yet there are other promising signs that tobacco will not be a forever problem. Regulatory work is being increasingly sought by governments, pushing towards substantial reductions in tobacco consumption, looking towards reaching tobacco-free generations in some countries of the European Union and New Zealand (Lancet 2024). A tobacco-free generation is indeed possible in countries worldwide, and taxation has the potential to play a leading role in making it a reality.

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Acknowledgments

The authors would like to thank Jeff Drope and the Tobacconomics team for sharing early versions of the third edition of the Tobacconomics Cigarette Tax Scorecard to inform this chapter. For country-specific and more in-depth information on the latest Scorecard, go to www.tobacconomics.org.