

# DESIGNING TAXATION AND PRICING POLICIES

Background paper 4



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# **DESIGNING TAXATION AND PRICING POLICIES**

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## INTRODUCTION

This fourth background paper for the *Strategy meeting on the use of fiscal policies for health (4-5 December 2017, Geneva, Switzerland)* focuses on tax design. This paper summarizes the initial review of the following:

- Official WHO publications (HQ and regions) from 2010 to 2017; A draft for implementing SSB taxes was also included;
- Reports from government agencies and NGOs;
- Publications from other international organizations (World Bank, IMF, OECD) from 2013-2017;
- Journal articles and news articles from 2016-2017 which were obtained via searches in PubMed, Google, and recommended articles from WHO colleagues.

## DETERMINING TAX BASE AND RATE

### SSB tax

Designing a tax involves consideration of the tax base (what should be taxed?), the type of tax used, the tax rate and tax structure. The health impact of a tax is determined by the impact on prices and how consumers respond to price increases for the targeted products.<sup>1</sup>

Deciding what to tax is challenging for a number of reasons, including the interplay of administrative capacity, the potential impact of the tax and – fundamentally – the difficulty in setting appropriate boundaries between “healthy” and “unhealthy” foods. Poor health is caused by unhealthy diets, not unhealthy foods or single nutrients. The lack of standard criteria for determining what to tax was highlighted at the WHO Technical Meeting as a concern of many countries. This issue remains a challenge for proponents of health-related food taxes.<sup>2</sup>

A WHO draft manual on implementing taxes on food and drinks suggests the use of situational analysis to identify the foods that contribute most to health problems. The process identifies specific products (e.g. sugar-sweetened beverages, palm oil, fatty cuts of meat etc.) and seeks to quantify their health impact (e.g. Box 1). This process may be technically and politically easier than profiling all foods and setting boundaries to determine which foods are “healthy” and which are “unhealthy” have their strengths and weaknesses and are outlined below.<sup>3</sup>

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<sup>1</sup> Fiscal policies for diet and prevention of noncommunicable diseases: technical meeting report, 5-6 May 2015, Geneva, Switzerland

<sup>2</sup> WHO Implementation manual on food and drink taxation to promote healthy diets (unpublished draft)

<sup>3</sup> WHO Implementation manual on food and drink taxation to promote healthy diets (unpublished draft)

	<b>Strengths</b>	<b>Weaknesses</b>
Taxing specific food and drink products	<p>The tax is indexed to inflation.</p> <p>Once the product is defined, these taxes are relatively easy to administer</p>	<p>Defining the target product can be technically and politically difficult.</p> <p>While there is a lot of evidence for taxes on sugar-sweetened beverages, there is a paucity of research on other beverages sweetened by other means</p>
Taxing specific nutrients	<p>Defining the target nutrient is relatively straightforward.</p> <p>There is good evidence that these taxes reduce consumption of target nutrients.</p> <p>Taxing the amount of a specific nutrient in a given product (e.g. free sugars in sugar-sweetened beverages) incentivizes reformulation.</p> <p>There may be less adverse substitution compared with a products tax (because, for instance, all fatty food is more expensive); however, it can lead to substitution between nutrients (e.g. a compensatory increase in salt intake).</p>	<p>There is a large administrative burden, especially if taxes are levied on nutrients used in the production process rather than those present in the finished product for consumption. Levying taxes on producers may reduce the administrative burden and mitigate distortionary effects.</p> <p>Compared with taxes on specific food and drink products, nutrient taxes are more likely to apply to core foods (i.e. those recommended by dietary guidelines) because many healthy items contain some amount of trans/saturated fat, salt and free sugars. Setting thresholds and exceptions can help but adds to the administrative complexity.</p>

The report of the **2015 WHO Technical Meeting on Fiscal Policies on Diet** recommends targeting non-core foods and drinks, and those for which healthier alternatives are available to the poor. Well-defined boundaries between healthy and less-healthy foods improve administrative feasibility and help to prevent tax evasion. The best candidate items are those that are already identifiable within the existing tax system. Low-resource settings may struggle in targeting multiple nutrients across a range of different foods.

Research to date suggests that excise taxes levied on less-healthy foods lead to a decrease in consumption roughly proportional to the increase in price, although the decrease in consumption is usually slightly smaller than the price increase (e.g. a 10% price increase might lead to an 8% reduction in consumption). Low tax rates are susceptible to the signal-to-noise problem – i.e. they can lead to changes that are too small to detect or are confidently attributed

to the new tax. In the USA, soft drink taxes in the range of 1–8% have not led to detectable changes in body mass index (BMI), leading to accusations that the taxes do not work at all. Modellers tend to suggest that taxes of 17.5–20% would be detectable and the WHO Technical Meeting recommended at least 20%.<sup>4</sup>

Several types of excise taxation methods are employed by countries worldwide. Excise taxation methods can be divided into two main groups: uniform taxation and combination taxation. Uniform taxation may be specific taxation, ad valorem taxation or unitary taxation. Combination taxation can be any combination of the three uniform taxations.

## Alcohol tax

In a competitive market, any type of taxation can reduce alcohol consumption because alcohol consumption has a negative demand slope and producers cannot influence market prices; taxation, the cost of production and consumer affordability influence the price of alcoholic beverages. However, in oligopoly and monopoly markets, different excise taxation methods yield different market reactions.

The recently published **WHO Resource Tool on Alcohol Taxation** compared the attributes of the various methods as follows:

	Specific	Ad valorem	Unitary
<b>Tax base</b>	Volume of ethanol	Beverage price	Volume of beverage
<b>Tax function</b>	Ethanol has a tax cost; perceived qualities have no tax cost	Everything has a tax cost	Container size has a tax cost, both alcohol and perceived qualities have no tax cost
<b>Effect of taxation on producers' adjustment in the long run</b>	Encourages production of low ethanol content beverages and high perceived alcoholic quality beverages	Encourages production of high ethanol content beverages and low perceived quality alcoholic beverages	Encourages production of high ethanol content beverages with a wide variety of perceived qualities

<sup>4</sup> WHO Implementation manual on food and drink taxation to promote healthy diets (unpublished draft)

<b>Effect on beverage price per unit of alcohol (BPPE)</b>	BPPE increase	BPPE decrease	BPPE may decrease
	Total consumption decreases	Total consumption increases when compared to the immediate post-taxed alcohol consumption situation	Total consumption may increase as compared to the immediate post-taxed alcohol consumption situation
<b>Effect on tax revenue generation</b>	Alcohol tax revenue increases	Alcohol tax revenue increases (to a greater extent than under specific taxation)	Alcohol tax revenue may increase

### Tobacco tax

According to the **WHO Manual on Tobacco Tax Administration**, when the tax is uniform, the tax base can be:

**Quantity:** The most common base for a specific excise is a pack of 20 cigarettes or a tax per 1,000 cigarettes, but there are exceptions such as a pack of 25 cigarettes (e.g. Australia), a carton, 5 packs of 25 cigarettes (e.g. Canada), a stick (e.g. Indonesia), a meter (e.g. Nepal) or the weight (e.g. New Zealand).

**Price:** The ad valorem excise may be applied based on the manufacturer's price (e.g. China) or the retail price (e.g. Bangladesh, Turkey, Russia, Ukraine, EU). In Indonesia, up until 2009, the ad valorem excise was based on the banderol price, which is based not only on firm production costs but also on a modification administered by the Ministry of Finance.

When the tax rate is not uniform, the tax is usually based on:

Price category and other brand characteristics (e.g. retail or manufacturer's price level, sales volume, length, filter, packaging, tobacco origin): In some countries, the specific excise varies by tiers, typically depending on the characteristics of brands. For example, in Egypt the specific excises vary by the ex-factory price of cigarettes, ranging from EGP 1.08 per pack for low-priced brands to EGP 3.25 per pack for high-priced brands in 2009. India, Nepal and Sri Lanka impose different specific tax rates depending on the length of cigarettes. Kazakhstan, Russia and Ukraine apply different specific excises for filtered and non-filtered cigarettes. In Turkey the specific excise system was originally multi-tiered, based on the value of the cigarettes, was later based on the tobacco origin (oriental versus non-oriental leaf), and, in 2009, became a uniform ad valorem tax at a rate of 58% of the retail price with a minimum specific excise of 2.05 TRY per

pack. Some countries levy tiered or differential ad valorem excises based on cigarette characteristics, however this is less frequent compared to specific excises. A total of 6 countries apply differential ad valorem rates on cigarettes. Different tiers mainly depend upon the retail price but can also depend on the producer price or sales volume.

## REGRESSIVITY

Regressivity is a central concern in the design of a taxation policy and should be a specific consideration when the introduction of consumption taxes is explored. As the tax levied is the same regardless of an individual's income, if a rich person and a poor person both purchased the same amount of a product subject to the tax, the poorer individual would spend a relatively higher share of his/her income on the tax. The effect on poorer consumers is, therefore, an important consideration.<sup>5</sup>

### SSB tax

People in the lower socioeconomic groups typically spend more of their disposable income on food than those in high-income groups and are thus more affected by price increases. Studies of the effect of food taxes report varied levels of regressivity: the greatest potential for regressivity occurs when taxes target entire food groups containing core items (such as dairy products) rather than specific non-core food items (such as sugar-sweetened beverages).

### Alcohol tax

Countries must consider the effect of a taxation method on tax incidence distribution across the population of alcohol consumers. The recently published WHO tool on alcohol taxation explained the distributional impact of the various forms of alcohol taxation:

**Specific taxation-** considered a regressive tax because the wealthy and the poor pay the same amount of excise tax under specific taxation if they consume a cheap or expensive alcoholic beverage with similar alcohol content. This implies that the poor pay tax at a greater proportion of income than do the rich.

**Ad valorem taxation** is considered a progressive tax because the wealthy pay more excise tax if they consume more expensive alcoholic beverages compared to the preferences of the poor. Combination taxes have both regressive and progressive attributes . Combination tax methods are considered regressive because their specific taxation component is more effective on inexpensive beverages, resulting in a higher tax burden on the poor.

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<sup>5</sup> Using price policies to promote healthier diets, 2015: Copenhagen: WHO Regional Office for Europe; 2015

Combination tax methods are still considered progressive because their ad valorem component is more effective on expensive beverages that impose a greater tax burden on the rich. There is no literature that explains clearly the progressivity attribute of unitary taxation.

### **Tobacco tax**

Tobacco taxation is often misconceived as being regressive, disproportionately affecting vulnerable populations such as young people and poor people. On the contrary, all the evidence shows that poorer tobacco consumers are far more responsive to increases in price than higher income consumers, and therefore benefit the most in terms of avoiding death and disease associated with tobacco use. This makes it a pro-poor policy. The monetary burden of higher tobacco taxes will therefore fall more heavily on wealthier users whose habits are less influenced by price increases, while most of the health and economic benefits from reducing tobacco use accrue to the most disadvantaged social groups. In Canada, for example, aggressive tobacco control and use of higher taxes has led to greater absolute declines in tobacco deaths among the lowest income group of men than in the highest income group of men.

## **TAX EVASION / AVOIDANCE**

Commodity taxes inevitably generate tax avoidance behaviours, such as cross-border trade within legal limits, as well as illegal phenomena like smuggling and illicit trade (e.g. of informally produced or counterfeit commodities). These phenomena thrive on the wide differences in taxation systems and rates across and within countries. They deprive governments of tax revenues and reinforce criminal organizations and corruption, in addition to exposing the population to health threats when the commodities illegally traded are produced in ways that escape statutory public health controls.<sup>6</sup>

### **SSB tax**

According to a 2016 WHO report on fiscal policies for diet and prevention of NCDs, there is likely to be little tax avoidance and evasion in response to an SSB tax. The strength of governance and presence of informal distribution networks have a greater effect than tax and price levels in driving tax avoidance and evasion.

### **Alcohol tax**

Tax avoidance is performed by both consumers and producers. Tax avoidance by consumers involves legal activities, such as the purchase of goods for personal consumption from duty-free shops or lower tax jurisdictions and transporting them across borders under an allowance quota. Tax avoidance by producers is more complex, and is largely unexplored in the literature, even with respect to tobacco. Tax avoidance involves legal activities, such as manipulating the characteristics of the product (such as the alcohol concentration of the beverages, the mixture of

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<sup>6</sup> Sassi, F., A. Belloni and C. Capobianco (2013), "The Role of Fiscal Policies in Health Promotion", OECD Health Working Papers, No. 66, OECD Publishing, Paris. <http://dx.doi.org/10.1787/5k3twr94kvzx-en>

the beverages, or the packaging) and a pricing policy that reduces the tax burden on the products. For example, Thailand's largest alcohol company increased its production of the least-taxed alcoholic beverage type and decreased its production of the most-taxed alcoholic beverage type during 2005-2009. There is also evidence of a production shift toward the least-taxed alcoholic beverage in each tax tier in New Zealand. Opportunities for tax avoidance tend to increase if the tax structure is too complex; simplifying the structure of alcohol excise taxation will help reduce these opportunities and will facilitate monitoring of the costs per unit of tax revenue raised.

## **Tobacco tax**

The tobacco industry and its allies perpetuate the myth that tobacco tax increases automatically lead to rampant smuggling hoping to deter governments from adopting significant tax increases. However, this claim has been debunked as experiences from around the world show that even in the presence of illicit trade, tax increases still lead to higher tax revenues and real reductions in tobacco use.

Illicit trade is a complex and diverse phenomenon affected by more than tobacco taxes alone. Tax increases that widen gaps in prices between jurisdictions create incentives for individuals to cross borders to purchase tobacco products at lower prices, as well as for bootleggers to buy products in low-tax/price jurisdictions for resale in high tax/price jurisdictions. However, the largescale smuggling that accounts for most illicit trade aims to avoid all taxes. Growing evidence shows that although these largescale efforts are often most problematic in countries with relatively low taxes and prices, other factors including weak governance and corruption, ineffective tax administration, and the presence of criminal networks and informal distribution networks are the most important determinants of illicit trade.

The **2016 WHO-NCI monograph on the economics of tobacco control** found that more research is needed to better understand the extent of tax avoidance and evasion, and the effectiveness of interventions to curb them. Generating adequate data on the extent of tax avoidance and evasion is challenging when illicit activities are involved. Developing reliable measures to determine the magnitude of the problem is essential, particularly in low- and middle-income countries, given that much of the existing data on tax avoidance and evasion come from North America and Europe. There is also a need to understand transfer pricing activities of multinational tobacco companies. A better understanding of the determinants of illicit trade—including the supply of illicit tobacco products—is needed in order to maximize the effectiveness of interventions to limit illicit trade. Systematic evaluations that examine the effectiveness of interventions to reduce illicit trade would contribute to the evidence base. Lastly, while much of the research to date has focused on cigarettes, illicit trade in other tobacco products is an area that would benefit from further research.

## **EFFECT ON EMPLOYMENT**

Opponents of these taxes often claim that implementing these measures will destroy jobs and impede economic growth. This argument has been used by critics of: the proposed SSB tax in South Africa and the United Kingdom; as well as the Philippine sin tax .

### **SSB tax**

Claims that new taxes on food and drinks reduce overall employment are largely unsubstantiated as job losses are offset by reciprocal job creation in other sectors. No consistent, significant impacts on the wider economy have been detected to date, partly because the effects of relatively small changes to prices are dwarfed by the more significant drivers of employment and industry performance.

### **Alcohol tax**

Few global statistics are available for levels of employment or the contribution to GDP associated with alcoholic drinks production, although scattered figures are available for individual countries. United Nations Industrial Development Organization (UNIDO) figures from the late 1990s showed that the alcohol industry generated 3% of total manufacturing value added in Argentina and the Netherlands, yet only 0.07% in the Islamic Republic of Iran; the figures also suggested that the growth rate was much higher in low-income countries (5.3%) compared to high-income ones (1.3%). The Brewers of Europe estimated that beer production generated €12 billion of value added in the EU, which is approximately 0.1% of GDP. The RAND Corporation's economic impact assessment for the European Commission has further extended this to wine and, more speculatively, spirits, finding that the combination of the two produce a similar contribution to EU GDP as beer (€9 billion for wine, €4 billion for spirits) and providing over 0.2% of GDP in total.

### **Tobacco tax**

Tobacco-dependent jobs such as tobacco growing, manufacturing, and distribution—is low and has been falling in most countries. This is mostly attributed to the adoption of new production technologies and improved production techniques, together with the shift from state to private ownership in many countries. In nearly all countries, national tobacco control policies will have either no effect or a net positive effect on overall employment because any tobacco-related job losses will be offset by job gains in other sectors.

In the few countries that depend heavily on tobacco leaf exports, global tobacco control policies could lead to job losses, but these losses are expected to be small, gradual, and unlikely to affect the current generation of tobacco farmers in these countries.

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