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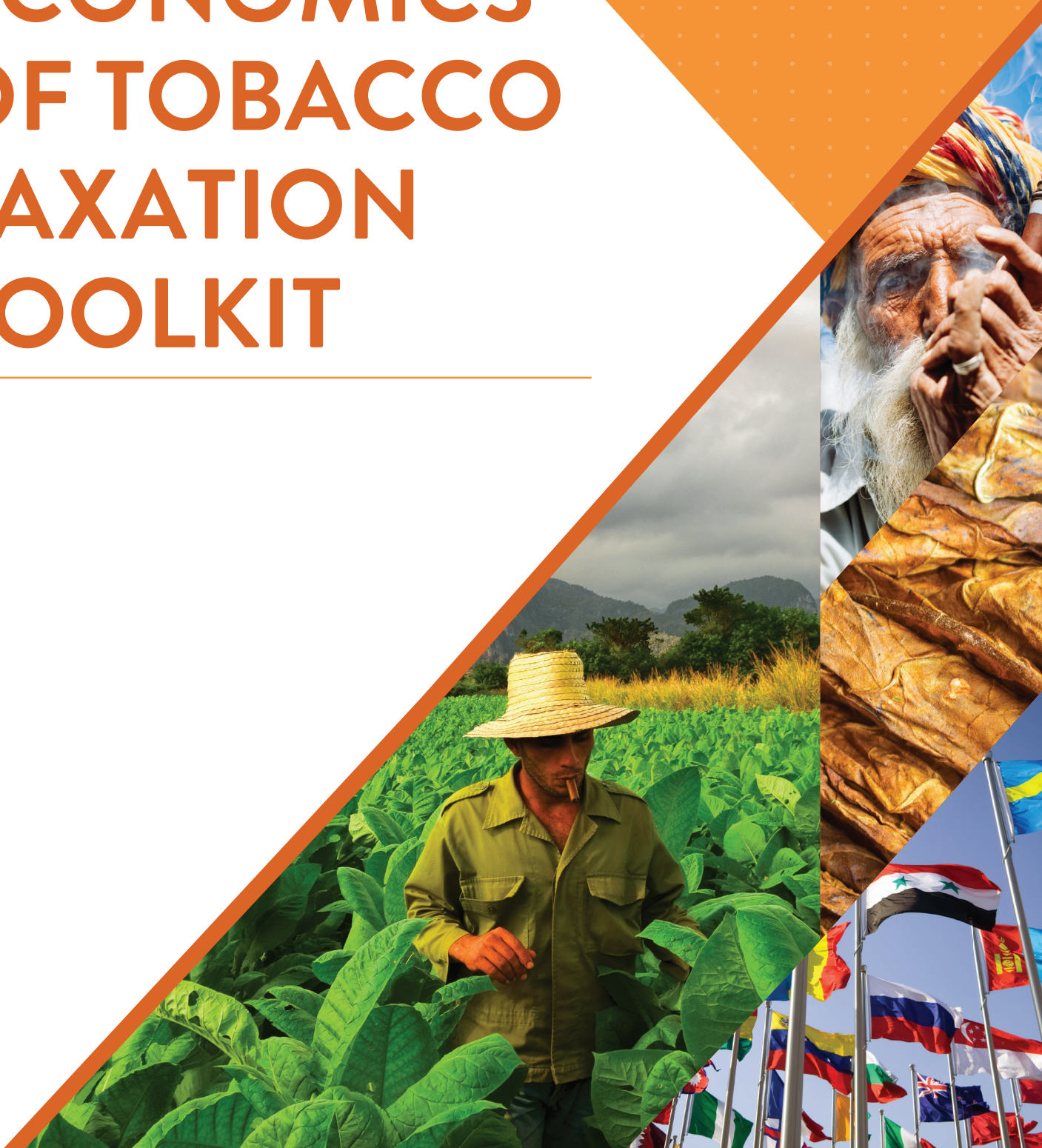
ECONOMICS OF TOBACCO TAXATION TOOLKIT



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Abbreviations

Abbreviation	Description	Abbreviation	Description
ASEAN	Association of Southeast Asian Nations	MENA	Middle East North Africa Region
BAT	British American Tobacco	MERCOSUR	Southern Cone Common Market
BES	Best Excise System	MFN	Most-Favored Nation
CAI	Cigarette Affordability Index	MI	Middle-Income
CAN	Andean Community	MTCs	Multinational tobacco companies
CDC	Centers for Disease Control	MOF	Ministry of Finance
COMESA	Common Market for Eastern and Southern Africa	MPB	Most Popular Brand
COMTRADE	UN Commodity Trade	MPPC	Most Popular Price Category
CPI	Consumer Price Index	MRP	Maximum Retail Price
CNTC	China National Tobacco Corporation	MTC	Multinational Tobacco Company
EAC	East African Community	NAFTA	North America Free Trade Agreement
EAP	WB East Asia and Pacific Region	NBR	National Board of Revenue
ECA	WB Europe and Central Asia Region	NCI	National Cancer Institute
EEC	Eurasian Economic Community	PMI	Philip Morris International
ENDS	Electronic Nicotine Delivery System	RYO	Roll Your Own tobacco
EU	European Union	PPP	Purchasing Power Parity
EU15	European union 15	SA	WB South Asia Region
EU28	European Union 28	SACU	Southern African Customs Union
FBR	Federal Bureau of Revenue	SES	Socioeconomic Status
FY	Fiscal Year	SOE	State Owned Enterprises
GCC	Gulf Cooperation Council	SSA	WB Sub Saharan Africa Region
GDP	Gross Domestic Product	UAE	United Arab Emirates
GST	General Sales Tax	UK	United Kingdom
HH	Households	UMI	Upper-middle-income
HI	High-Income	US	United States
HRMC	Her Majesty's Revenue and Customs	UTM	Unidad Tributaria Mensual (Monthly Tax Index)
IARC	International Agency for Research on Cancer	VAT	Value-Added Tax
IMF	International Monetary Fund	WAEMU	West African Economic and Monetary Union
IPC	Income Purchasing Capacity	WAP	Weighted Average Price
JT	Japan Tobacco	WEO	World Economic Outlook
LAC	WB Latin America and Caribbean Region	WCO	World Customs Organization
LI	Low-Income	WHO	World Health Organization
LMI	Low-Middle Income	WHO FCTC	WHO Framework Convention on Tobacco Control
NCCD	National Calamity Contingent Duty	WTO	World Trade Organization
RIP	Relative Income Price		

Currency Abbreviations

Abbreviation	Country	Abbreviation	Country
AMD	Armenia	Mex$	Mexico
$A	Australia	Leu	Moldova
BD	Bahrain	OR	Oman
Taka	Bangladesh	PRs	Pakistan
Rbl	Belarus	₱	Philippines
R$	Brazil	QR	Qatar
CPL$	Chile	RUB	Russian Federation
RMB	China	R	SACU
CFA	WAEMU	SR	Saudi Arabia
EGP- E£	Egypt	T Sh	Tanzania
€	EU	Baht	Thailand
Rs	India	TL	Turkey
Tenge	Kazakhstan	DH	UAE
K Shs	Kenya	UHA	Ukraine
KD	Kuwait	£	United Kingdom
Kip	Lao PDR	US$	United States
RM	Malaysia		

ECONOMICS OF TOBACCO TAXATION

World Bank Group Global Tobacco Control Program

The World Bank Group Global Tobacco Control Program helps countries design tax reforms that (a) achieve public health goals of preventing premature death and severe disease by reducing tobacco use, and (b) raise more domestic resources and investments that benefit the entire population. In addition, it supports countries in fighting the illicit tobacco trade by strengthening customs systems.

Introduction

This tobacco taxation toolkit is geared towards helping economists, public health specialists, researchers, and others to analyze the economic and public health issues surrounding tobacco taxation in order that they can provide direct information and recommendations to policy makers, especially in developing countries.

To this end, the toolkit aims to build knowledge and a good understanding of excise tax policies as they relate to tobacco products (specifically cigarettes), and how excise taxes have been designed and implemented around the globe.

The toolkit draws on lessons learned in developing and implementing excise tax on tobacco to achieve two key objectives: (a) the public health objective of reducing demand for tobacco products (in particular, consumption among current smokers), and reducing the number of new smokers via higher prices induced by taxes; and (b) achieving higher overall tax revenues by efficient excise tax systems. The toolkit provides step-by-step guidance and refers to existing tools and methodologies to help researchers conducting in-country analyses.

The toolkit examines how to assess tax policies in light of the known "trade-offs" that are made between helping governments' meet their twin health and economic objectives, and the vested interests of certain groups in excise tax policies. For example, while tobacco's addictive nature can help satisfy both the efficiency (generating higher revenues with little distortion to the market) and effectiveness (encouraging users to reduce or quit smoking through tax-induced higher prices) of an

excise tax on cigarettes and other tobacco products, cigarette tax excises face criticism on the grounds of equity, as low-income and vulnerable groups spend a significant share of their income on cigarettes compared to smokers in higher-income groups. In assessing this apparent trade-off, the module draws on the increasing evidence that once health benefits and their economic implications for smokers and their families are included, tobacco taxes are highly progressive overall.

In addition, this toolkit addresses the argument that excise tax on tobacco products can fuel their illicit trade. Some governments try to reduce the risk of illicit trade through less stringent excise policies – policies that go against their public health and revenue mobilization objectives – but there is no evidence that such tax policies reduce illicit trade.

Through exploring these issues, the toolkit provides research evidence, notes, examples of analysis, and data graphics on country experiences. It is intended to provide clear, comprehensive information to analysts to help them understand excise tax on cigarettes. It also provides analysts with the tools to analyze excise systems, to assess how to improve excise system efficiency, and to make progress towards achieving expected public health and economic outcomes. It also helps prepare analysts for policy dialogue.

Rationale for Excise Taxes on Tobacco Products

Return to: Assessing Tax and Price to Inform Policy Dialogue

In 1776 economist Adam Smith wrote: “Sugar, rum, and tobacco are commodities which are nowhere necessaries of life, which are become objects of almost universal consumption, and which are, therefore, extremely proper subjects of taxation” (Smith 1776, 775). He went on to say that by taxing these commodities, “the people might be relieved from some of the most burdensome taxes; from those which are imposed either upon the necessaries of life, or upon the materials of manufacture” (Smith 1776, 777).

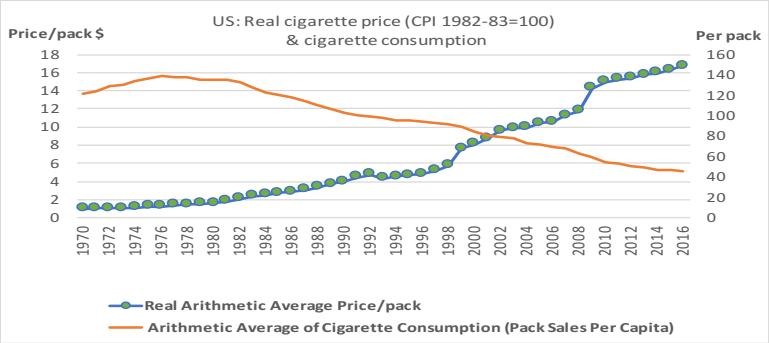
Today, tobacco use is a leading global disease risk factor and underlying cause of ill health, preventable death, and disability. It is estimated that tobacco kills more than 7 million people each year (WHO 2017) and that by 2030, the number of tobacco-attributable deaths will increase to 8 million each year, with 80 percent of those deaths in low- and middle-income countries (WHO 2011).

A growing evidence base from a wide variety of countries shows that higher tobacco prices (of which tobacco taxes are a key driver) and

taxes are effective and important means to reduce tobacco-attributable premature mortality and serious diseases through reduced tobacco consumption by existing users and prevention of taking up tobacco use. In many countries higher tobacco prices and taxes represent a significant revenue stream for financing for development (IARC 2011; NCI and WHO 2016; WHO Framework Convention for Tobacco Control; World Bank 1999; World Bank 2017).

The clear link between cigarette prices and demand in the case of the United States is shown in figure 1.

Figure 1: Relationship between price and cigarette demand, 1970–2016, United States



Sources: US Department of Labor, Bureau of Labor Statistics; Centres for Disease Control.

In 1995, a group of economists and public health experts articulated for the first time a broader set of reasons for introducing or raising tobacco taxes (Warner et al 1995). These were to:

- improve public health by reducing tobacco consumption and so the mortality and morbidity caused by tobacco use;
- make smokers pay for the burden imposed on others (family and society) through their tobacco use (the externality argument). This burden includes the adverse health effects on children and nonsmokers due to secondhand smoking, and the costs to publicly funded health care of treating tobacco-related diseases;
- protect children and young adults from becoming addicted to a harmful substance at an age when they do not have the capacity to make an informed choice;
- generate higher tax revenues to be used for the benefit of the entire population.

While the primary objective of levying higher tobacco excises was (in the past) often to generate higher revenue, there is growing recognition

of the importance of health objectives. Tobacco excise taxes are a uniquely strong and cost-effective means to prevent and reduce tobacco use, and so to prevent tobacco-attributable premature deaths and serious disease (NCI and WHO 2016; Warner et al 1995). Tobacco excises are crucial to achieving the SDG targets on reducing premature mortality from noncommunicable diseases and on strengthening implementation of the WHO Framework Convention on Tobacco Control. The striking efficacy and cost-effectiveness of tobacco excises means that greater priority should be given in their design to maximizing public health than to revenue objectives.

Tobacco Tax Reform: At the Crossroads of Health and Development (World Bank 2017) provides evidence for the points made above and throughout this module, as well as its policy recommendations. Given the close links between this module and *Tobacco Tax Reform*, a description of the report and links to its executive summary can be found in Appendix A.

Section 1: Background to Excise Taxes and Systems

Excise Taxes

Return to: Understanding Excise Tax Policies and Tobacco Pricing, Conducting a Pre-Policy Dialogue Analysis, Excise Tax Application for Tobacco Products

Excise taxes are those levied on selected goods produced for sale in a country, or imported and sold in that country. They are imposed by the government mainly as specific excise taxes or ad valorem taxes, and are collected from the producer or manufacturer within a certain time frame (e.g., 20–30 days) after the product has left the factory.

Specific excise is a set monetary amount (e.g., US$1, US$2.50) levied on a unit of tobacco products – e.g., per single cigarette (as in Chile); a pack of 10 cigarettes (as in Pakistan); a box of 1,000 pieces; and/or a particular weight (e.g., net weight in kilograms, as is the case for most smokeless or smoking tobacco products) (see Excise Application for Other Tobacco Products and WHO 2015 for cigarettes).

Ad valorem excise is levied as a percentage (e.g., 25 percent, 50 percent) of a price point in the supply chain, for example the factory price (which is exclusive of all taxes); the wholesale price (definition of which differs by country, and can be either inclusive or exclusive of taxes, though all wholesale prices are exclusive of value added tax – VAT); or the retail price (which is inclusive of all excise and VAT).

Excise Systems

Return to: Understanding Excise Tax Policies and Tobacco Pricing

Excise taxes can be levied at a uniform rate. However, in several countries, specific and ad valorem excise rates may vary, based on the differing characteristics of cigarettes (length, quality, filtered, etc), and which results in a tiered system (see Excise Tax Base for Cigarettes). The following excise systems provide a general overview of the way excise taxes are imposed, and how tax bases are defined.

Specific excise system (uniform)

Specific excise systems can apply either uniform or differential rates to tobacco products. The uniform rate is often levied on cigarettes, either by unit (e.g., per cigarette, per pack, per 1,000 pieces, or per kilogram), or one or more characteristics of the products (e.g., length, quality, filtered, etc.). In the majority of countries, differential rates are applied to other types of tobacco products.

Ad valorem excise system (uniform)

A uniform tax rate is often based on the value of the tobacco product, while differential rates are based on one or more characteristics of the tobacco product. Like specific excise, uniform or differential rates are imposed within types of cigarettes and among tobacco products.

One of the complexities of an ad valorem excise system is deciding its tax base, which can be the manufacturers' price; the wholesale price (including or excluding all excise taxes); or the consumer price, including or excluding either (or both) excise taxes and value added tax). The tax base selected will affect government tax revenues and retail prices. Such complexity can result tax avoidance, inefficiency in tax compliance (administrative costs) and loss of expected revenues when taxes rise. To overcome these complexities, governments (e.g., Russian Federation) use the maximum retail price of brands as a tax base (see Minimum and Maximum Price Policies) and ensure compliance through legal penalties.

Relatively few countries now rely on ad valorem excises only, and those that do are mainly to low- and middle-income countries. Based on available data, in 2016 only two high-income countries (San Marino and St. Kitts and Nevis) rely on ad valorem excise only (see Appendix D: Types of Excise Tax Levied on Cigarettes).

Ad valorem excise system with minimum specific floor tax (uniform)

Return to: Understanding Excise Tax Policies and Tobacco Pricing

Countries with an ad valorem excise system may set up a minimum specific floor excise tax so that when the ad valorem rate produces a tax value lower than the minimum specific floor excise value, then the minimum specific floor excise rate becomes their tax liability.

The reason for the minimum specific floor tax is to achieve both public health and revenue objectives.

A mixed specific system has both a uniform specific excise rate and an ad valorem rate applied to tobacco product(s). It is the official excise system in the EU, and is increasingly used in many countries.

Under the uniform mixed system, countries often impose a minimum specific excise floor tax, under which the tax liability of both excises cannot fall. The minimum excise floor tax is especially important in assuring adequate taxation at lower price points. Most high-income countries rely heavily on the specific excise component of the taxes, while both upper-middle-income and middle-income countries often rely more on the ad valorem component. Low-income countries on the other hand tend to balance the two.

A differential (tiered) mixed system (non-uniform)

Differential excise rates are applied based on one of the characteristics (e.g., price, length, filter) of the cigarettes. A differential (tiered) mixed system may include a differential minimum specific floor tax.

Tier specific and ad valorem excises (non-uniform)

Under this system, differential excise rates for both specific and ad valorem excises are applied. The tiers are specified based on the characteristics of the cigarettes, which often includes a tier minimum specific floor tax (e.g., in Ukraine).

Uniform ad valorem with tiers (non-uniform)

A uniform ad valorem excise applies to a price in the supply chain for all cigarettes but the specific excise component may differ according to the characteristics of the cigarettes (e.g., in Egypt).

No excise application

For countries with no excise system (by income and region), see

Countries Without Excises on Cigarettes . In general these countries:

- are net importers of cigarettes (with few exceptions such as Iraq and Islamic Republic of Iran) who have no significant local production capacity;

- rely only on import duties (e.g., Kuwait, the Maldives, Oman, Qatar, United Arab Emirates); VAT and other surcharges (Angola, Antigua and Barbuda, Belize); or on import duties and VAT (e.g., Federated States of Micronesia), Marshall Islands, and Niue).

Compared to the corresponding income groups that have an excise system, they have the lower price and tax share.

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Section 2: Preparing for a Policy Dialogue on Tobacco Taxes

Most countries levy excise taxes on tobacco products. The key challenge is how to increase the uniquely strong and cost-effective role excise tax systems can play in preventing tobacco-related premature mortality and morbidity, while raising more domestic resources.

An effective dialogue with key decision makers (e.g., in the Ministry of Finance) requires a solid understanding of the country's excise tax system (its design and rates) and its administration, so that the consequences of suggested changes to potential revenue and compliance can be better evaluated. Diagram 1 provides guidance on how to approach and assess a country's excise tax system and policies for tobacco products, specifically cigarettes. Cigarettes are given special attention because they:

- are the main tobacco products consumed by a majority of tobacco users across countries;
- often have a relatively more complex excise system compared to other tobacco products (see
- Excise Application for Other Tobacco Products);
- generate the highest excise revenue and have the biggest public health impact among tobacco products.

This section helps practitioners understand and analyze the excise tax system. (Links are made with other sections to provide further information.) Once the excise system is understood and analyzed, the next step is to assess the health objectives, economic conditions, and political environment of the country that have shaped the current tobacco taxation system, and that will drive decisions on excise reform.

These decisions rest not only with the Ministry of Finance, but are often formed by feedback from or collaboration with others, including ministries of Economy, Treasury, Customs and Health. In many cases, decisions are also discussed with the major suppliers of the product in the country. Therefore, before engaging an effective dialogue with the Ministry of Finance, it is imperative to have firm understanding of the broader economic and development context (development programs, poverty reduction strategies, the tobacco sector, direct and indirect tax revenues generated by the sector); sectoral factors (e.g., health, employment, poverty, illicit trade); and political economy issues (e.g., likely opposition from historical constituencies, or policies for attracting and keeping foreign investors).

Specifically, the policy dialogue may need to concentrate on the consequences of tax reform for:

- society as a whole, with respect to an environment that promotes public health (e.g., saving lives, preventing youth addiction, reducing private (out of pocket) and public health care expenditure and loss of income from tobacco attributable diseases);
- competition as well as complementarity among the government's many competing priorities (e.g., poverty reduction programs, such as providing national health insurance coverage, noncommunicable disease prevention and control, improving education, sanitation and housing, job creation, higher productivity, reduced risk of economic catastrophe from serious illness or death of income earners, and links between revenue mobilization and pro-poor development programs);
- tax administration (e.g., tax policy implementation, compliance and revenue collection) and government tax revenues;
- employment in the tobacco sector. Special attention needs to be given to countries that have a large raw tobacco production sector, and to countries where any type of tobacco product manufacturing involves a large number of employees. The module provides some evidence on countries where employment still shapes their excise tax systems – in spite of public health and the revenue objectives of the government. Furthermore, such systems are also prone to tax avoidance, evasion, and corruption.

A road map on background preparation for excise tax dialogue from broader perspective can be found in Diagram 2.

This section also provides supporting arguments for improving the excise system and making tax rate increases. For this, the macro, micro and health-related issues in Diagram 2 are discussed, using cross-references to corresponding sections in the module for further details.

Understanding Excise Tax Policies and Tobacco Pricing

Return to: Assessing the Economic Environment

Improving excise systems and increasing tax rates start with analyzing the current excise tax system and assessing its performance in relation to expected outcomes for stakeholders (e.g., the public health sector). These analyses provide a good understanding of whether a tax reform is needed to enhance tax system performance, and can shed light on how to best to achieve it.

IMPROVING EXCISE SYSTEMS AND INCREASING TAX RATES: **UNDERSTANDING EXCISE TAX POLICIES, SYSTEMS AND PRICES**	
What are the country's most common tobacco products requiring the application of excise taxes?	Types of Tobacco Products Subject to Taxation
Does the country levy excise tax on tobacco products?	☐ Yes Excise Taxes ☐ No Appendix D
If the answer to the previous question is yes, is it specific or ad valorem excise, or both?	☐ Specific Excise Taxes ☐ Ad valorem ☐ Both
Does the country impose minimum specific floor excise tax?	☐ Yes ☐ No Ad valorem Excise System with Minimum Specific Floor Tax
Does the country have one of these excise tax systems?	☐ Uniform specific Excise Systems ☐ Uniform ad valorem ☐ Tier specific ☐ Tier Ad valorem ☐ Other
If the country has a tier excise system, what is the tax base?	☐ Price Excise Tax Base and Rates ☐ Length ☐ Packaging ☐ Other
What are the other taxes levied on cigarettes?	☐ VAT or sales tax ☐ Import duties ☐ Surcharges and fees
What are the rates or bases for surcharges or fees?	If ad valorem application RATE BASE % Value ☐ Ex-factory or CIF ☐ ☐ ☐ Price-excise inclusive ☐ ☐ ☐ Price-all taxes inclusive ☐ ☐ ☐ Based on excise value ☐ ☐ ☐ A specific value per ☐ piece ☐ ☐ pack of (e.g, 10, 20, 25) ☐ ☐ per 1,000 ☐ ☐ Other

How often does the country change its excise taxes?	☐ Annually (each fiscal year) ☐ Biannually within financial years ☐ Determined by a 5-year plan
Does the country have floor tax legislation or apply floor tax collection?	☐ Yes ☐ No
Is the country part of a trade or economic union that may influence its excise tax system?	☐ Yes ☐ No Tax Harmonization
Are they obliged to adopt the tax directives of the trade or economic union?	Tax Harmonization
Are there any tax exemptions on cigarettes or other tobacco products?	☐ Yes ☐ No Tax Exemptions on Tobacco Products
Are there any legal constraints on excise policy?	☐ Yes ☐ No Legal Constraints on Excise Policies
Are all tobacco products subject to same excise tax policy (rates, design)?	☐ Yes ☐ No
If the answer to the previous question is no, how does excise application differ among tobacco products?	Appendix F: Excise Application for ENDS and Other Tobacco Products in Selected Countries
What is the current effective excise and total tax rates on cigarettes?	Excise Total Absolute value/unit ☐ ☐ % of retail price ☐ ☐
How do you calculate average price?	Estimating Average Price and the Tax Incidence
What is the market share and average price of cigarettes by price band?	Market share Average Price Super premium ☐ ☐ Premium ☐ ☐ High price ☐ ☐ Mid-price ☐ ☐ Low price ☐ ☐ Country-level Excise Tax Analysis: Why is it important?

What is the average tax (excise and total) incidence by price band of cigarettes?	Determining Price Bands
If an excise system does not exist, do the following taxes apply?	☐ VAT or sales tax ☐ Import duties ☐ Surcharges and fees
Does the government wish to set up an excise system on cigarettes and other tobacco products?	The Best Excise System (BES)
If, NO, then what are the main concerns for the government about setting up an excise system?	☐ Administrative ☐ Legislative – no indirect tax system Tax Liability

Assessing Tax and Price to Inform Policy Dialogue

Once the current excise tax policy and the price level of cigarettes have been examined, the next step is to assess these points for policy dialogue preparation. The following questions may help the assessment.

IMPROVING EXCISE SYSTEMS AND INCREASING TAX RATES: **ASSESSING TAX AND PRICE TO INFORM POLICY DIALOGUE**	
For the policy dialogue, should average price level be a starting point for the higher tax argument?	Rationale for Excise Taxes on Tobacco Products
What is the relationship between health and the higher tax argument?	Assessing Potential Benefits to Public Health
How do the country's average retail price and the excise share in retail price compare regionally; with countries of similar income; globally?	Average Price / Rank / Excise % / Rank Country ☐ ☐ ☐ ☐ Region ☐ ☐ ☐ ☐ Income Group ☐ ☐ ☐ ☐ Global ☐ ☐ ☐ ☐
What is the trajectory of real (inflation-adjusted) prices during the past 5 to 10 years?	Within: 2 years / 5 years / 10 years Average price ☐ ☐ ☐ Premium ☐ ☐ ☐ Mid price ☐ ☐ ☐

	Low price ☐ ☐ ☐
How has the affordability of cigarettes changed in the past 5 years? Appendix I	Within 5 years 10 years Average price ☐ Yes ☐ No ☐ Yes ☐ No Premium ☐ Yes ☐ No ☐ Yes ☐ No Mid price ☐ Yes ☐ No ☐ Yes ☐ No Low price ☐ Yes ☐ No ☐ Yes ☐ No
Is the level of tax share in retail prices a good indicator of price levels? Country-level Excise Tax Analysis: Why is it important?	Average Price / Excise (%) / Total Tax (%) Country ☐ ☐ ☐ Region ☐ ☐ ☐ Income group ☐ ☐ ☐ Global ☐ ☐ ☐
Is the average retail price low despite a higher share of excise tax in the average price, in comparison to other countries in the same income group, and with similar tax incidences?	☐ Yes ☐ No
Is the average retail price higher despite the low share of excise tax in the average price, in comparison with other countries in the same income group, and with similar tax incidences?	☐ Yes ☐ No
What is the best alternative excise system for influencing price level and expected higher tax revenues?	The Best Excise System (BES)
How much is the retail price expected to change in response to tax increases under the best alternative excise system? Appendix C	Average price ☐ Premium – Mid price ☐ Mid price – Low price ☐
What is the trajectory of the price gap among cigarette price bands in the past 5 years?	Reduced by / Increased by Premium – Mid price ☐ ☐ Mid price – Low price ☐ ☐
What are the economic and political motivations for wider price gaps between price bands?	Equity, Appendix M: Excise Increases and Fiscal Options
How does this information support the argument for excise tax reform?	Illicit Trade, Assessing the Political Environment, Appendix I Assessing Potential Benefits to Public Health

Are equity issues among the government's top concerns in response to higher tax increases?	☐ Yes ☐ No	
How much of an extra burden do higher excise taxes place on lower-income smokers?	Equity, Appendix M: Excise Increases and Fiscal Options	
What is the expected affordability of cigarettes, especially among the lower-income groups? Affordability	% change in: Income ☐ Retail price ☐ Ratio (price/income) ☐ — Past 2 years / Past 5 years	
How can arguments against regressivity be prepared?	Regressivity: A Broader Approach Appendix M: Excise Increases and Fiscal Options Breaking the Vicious Cycle	
HEALTH OBJECTIVES FOR HIGHER TAXES		
What is the current and estimated prevalence of cigarette smoking? *Check: Prevalence rates and consumption level by socioeconomic status (SES) (e.g., poor, uneducated, unemployed) by CDC and WHO websites; GYTS, GATS*	Current excise system Overall ☐ By age group ☐ By income group ☐ By education ☐	Alternative excise system Overall ☐ By age group ☐ By income group ☐ By education ☐
What is the share of current and estimated cigarette expenditure in household income (i.e. the opportunity cost of smoking)?	Current excise system Overall ☐ By rich ☐ By middle-income ☐ By poor ☐	Alternative excise system Overall ☐ By rich ☐ By middle-income ☐ By poor ☐
What are the current and expected reductions in tobacco-attributable (TA) morbidity and mortality?	Current excise system Morbidity ☐ Mortality ☐	Alternative excise system Morbidity ☐ Mortality ☐
What are the current and estimated health care costs associated with TA morbidity?	Current excise system Total ☐ Per capita ☐	Alternative excise system Total ☐ Per capita ☐
What is the current out-of-pocket health care expenditure among low-income and poor people?	Current excise system Low-income ☐ Poor ☐	Alternative excise system Low-income ☐ Poor ☐
What is the public and private (out-of-pocket) health care expenditure associated with TA morbidity?	Current excise system Public expenditure ☐ Private expenditure ☐	Alternative excise system Public expenditure ☐ Private expenditure ☐

What are the current poverty alleviation programs and financing mechanisms? Tobacco Tax Revenues and Allocation	Programs Universal Health Insurance ☐ Education ☐ Housing ☐ Sanitation ☐ Job creation ☐ Tobacco control ☐	Financing through General budget ☐ Soft earmarking ☐ Earmarking ☐
How much does the tax revenue generated under the alternative excise system support the financing of these programs?	Programs Universal Health Insurance ☐ Education ☐ Housing ☐ Sanitation ☐ Job creation ☐ Tobacco control ☐	
Who currently pays the most excise tax revenues, and how would that change under the alternative excise system? Do higher excise taxes reduce inequality? Regressivity: A Broader Approach, Breaking the Vicious Cycle, Appendix	% share in total consumption By rich ☐ By middle-income ☐ By poor ☐	% share in total excise revenue By rich ☐ By middle-income ☐ By poor ☐
Has the country's effective excise tax rate reached a revenue-maximizing level? What is the revenue-maximizing tax rate?	Excise Tax Application in Settings with Historically Low Tobacco Product Prices and Taxes	
What is the price elasticity of demand for cigarettes? What would be the expected reduction on cigarette consumption and the smoking prevalence rate under the best alternative system? *Check: Price and prevalence elasticity (IARC)*[a]	Elasticity: Price / Prevalence Overall ☐ ☐ SES ☐ ☐ Youth	Change (%): Consumption / Prevalence[b] ☐ ☐ ☐ ☐

What is the current excise share in retail price?	Rate as % of retail price ☐
What would be the expected share of excise on retail price under the alternative excise system and tax rise?	% share ☐
What is the proposed annual rate of excise tax increases under the alternative excise system?	First year (%) ☐ Consecutive years (%) ☐
What would be the estimated change in retail price in response to excise increases?	% change ☐
What would be the revenue effect (excise) in the short and medium term? Who is paying these taxes? Appendix	Local currency (million) US$ (million) ☐Premium ☐ ☐ ☐Low price ☐ ☐
Administration of excise system	If the following questions can be answered with a YES, this signals good tax policy and competent administration
What is the annual trajectory of the nominal and real excise revenues from cigarettes in the past 5 to 10 years?	Increasing (%) Decreasing (%) Nominal ☐ ☐ Real ☐ ☐
Does the government receive the expected tax revenue after the tax increases?	☐ Yes ☐ No ☐ partial
Does the government increase the tax rate on an annual base?	☐ Yes ☐ No
Does the rate of excise rise higher than the rate of inflation?	☐ Yes ☐ No
Has the government applied a minimum floor to its tax system?	☐ Yes ☐ No
Are specific excise rates regularly adjusted by the inflation rate?	☐Yes ☐ No
Has the illicit trade issue been part of the higher tax argument?	☐Yes ☐ No
Are there any estimates of the level of illicit trade?	Yes ☐ By manufacturers No ☐ ☐ Government or customs ☐ Research organizations

What is the price range of cigarettes smuggled into country?	Premium ☐ Cheap ☐ Other ☐
How prevalent is illicit trade (% of total sales) and what is the estimated cost (excise tax revenue) of illicit trade into country?	% of legal market ☐ US$ ☐
What is the trajectory of illicit trade?	Stable ☐ Falling ☐ Rising ☐
Are there any illicit control programs in place? Strengthening Customs Authorities	Yes ☐ No ☐
If the answer to the previous question is yes, does the illicit control program put forward any cost estimates for tackling the problem of illicit trade? Cost of Tackling Illicit Trade	Yes ☐ No ☐
What are the costs of running effective illicit control programs?	
What are the financing options for such a program?	
Has the country ratified the international treaty on the illicit trade of tobacco products? International Treaty: The Protocol to Eliminate Illicit Trade in Tobacco Products	Yes ☐ No ☐

Notes:

[a] IARC 2011 provides estimates from many countries where studies exist. For countries where estimates do not exist, information on countries with a similar income level and/or in the same region may provide guidance.

[b] WHO 2016 (Section 3).

Tax and price analyses lay the foundations for tax reform and shed light on how tax reform can address government health and revenue objectives while taking into consideration concerns such as the impact of tax reform on equity, employment, and economic growth. The need for excise reform can be assessed by examining the excise system's performance from various perspectives, as examined in the next section. It is recognized that sufficient data may not be available to address the comprehensive list of questions above (or those that follow). But it is important to make the best use possible of available data in order to formulate improved policies and to indicate needs for further data and analysis.

Assessing Potential Benefits to Public Health

Return to: Assessing Tax and Price to Inform Policy Dialogue, Conducting a Pre-Policy Dialogue Analysis

Evidence of the tobacco epidemic and the impact of taxes on preventing and controlling tobacco use is extremely useful when debating the level of tax increase and potential tax reforms.

Evidence includes prevalence and consumption per capita by socioeconomic group (e.g., people on low-incomes, women, youth); morbidity and mortality associated with tobacco-related noncommunicable diseases (NCDs); costs associated with the tobacco epidemic itself; and the economic and health benefits of excise tax increases to economies and public health.

This module does not cover prevalence, consumption levels by socioeconomic groups, tobacco-attributable morbidity and mortality and associated economic and health care costs, or different countries' tobacco control policies.

However, a wealth of evidence dealing with the crucial issues of tobacco taxation and its health consequences can be found in WHO (2015) and WHO (2017), World Bank 2017, and on the International Agency for Research on Cancer (IARC) and US Centers for Disease Control (CDC) websites.

IMPROVING EXCISE SYSTEMS AND INCREASING TAX RATES: **NEED FOR EXCISE REFORM – SUMMARY**	
Does the country need an excise tax reform? *Does the current excise system fully support both public health and the revenue objectives?* *Are current prices, tax values and rates in line with the economic and health objectives of the government?* *Are there initiatives with different or conflicting rates and means of tobacco taxation?*	
Has the country implemented comprehensive tobacco control measures?	Reinforcement by Other Tobacco Control Policies on Tax Increases
Has the country adopted an NCD control and prevention program? If so, what is its budget?	Check with the Ministry of Health
ISSUES WITH EXCISE SYSTEMS AND REVENUE	
If an excise system does not exist, does the government wish to set up an excise system for cigarettes and other tobacco products?	
What are the main concerns for the government in setting up an excise system? Administrative? Legislative?	Tax liability, administrative issues on tax collection
If the government has set up an excise system, what is its focus or priority?	Performance Indicators
Has the government been facing administrative and compliance difficulties due to the complexity of its excise system? Specifically, are there issues with expected revenue stream in response to tax increases?	Tax avoidance: ☐ Yes ☐ No
	Suppliers' response: ☐ Yes ☐ No
	Administrative difficulty: ☐ Yes ☐ No
	Illicit trade: ☐ Yes ☐ No
Has the government been trying to simplify its excise system?	☐ Yes ☐ No
Have there been any short- to mid-term transition strategies for reducing the complexity of the excise tax system?	Assessing Potential Benefits to Public Health: ☐ Yes ☐ No

Assessing the Economic Environment

The economic climate in a country can determine the type of tobacco tax policy implemented. Governments implementing low-tax systems may show reluctance, often influenced by the tobacco industry, to raise taxes for a variety of reasons. Recommendations for tax increases therefore need to take into account:

- reductions in purchasing power from the performance of major revenue streams upon which the economy depends (e.g. oil in Russia and Kazakhstan), currency devaluation, or economic turmoil;
- apparent (if not real) regressivity of taxes;
- risk of illicit trade from higher taxes;
- limitations in tax administration (e.g., tax avoidance and evasion, weak tax compliance);
- protecting local, domestic or small-scale producers against multinationals;
- fear of inability to generate offsetting job opportunities if demand for tobacco declines;
- concern about inconsistency with a development agenda that focuses on foreign direct investment – e.g. through tax provisions granted for foreign investors as part of an FDI package;
- development agenda that focuses on
    - foreign direct investment – i.e. that also includes previous tax provisions granted for foreign investors as part of an FDI package.
    - generating higher revenues from domestic resources (e.g., higher demand for cigarettes).
- relatively low weight of MoH in tax policy decisions,
- insufficient evidence based convincing arguments and pressure for tax increases from the public health community and civil society;
- conflict of interest – as a producer of tobacco products and decision maker on protecting public health (i.e. China);
- political pressure from the tobacco industry or from other major interest groups influenced by it.

In recent years, health objectives have gained priority over revenue objectives. An increasing number of governments in low- and middle-income countries are raising excise rates on tobacco products in order to reduce preventable mortality and morbidity, and to reduce the economic and health care costs associated with tobacco use. That is partly the result of 180 countries becoming a Party to the WHO Framework Convention on Tobacco Control (WHO FCTC) since it entered into force on 2005. WHO FCTC requires governments to use

higher tax and price policies to protect public health from tobacco use. Evidence also consistently shows that the majority of nonsmokers and a substantial percentage of smokers support higher cigarette taxes (WHO 2015).

IMPROVING EXCISE SYSTEMS AND INCREASING TAX RATES: **ASSESSING THE ECONOMIC ENVIRONMENT**		
Development pace: What is the nominal and real trajectory of gross domestic product (GDP), GDP per capita, and government revenue (e.g., tax revenue, direct and indirect)?		MF World Economic Outlook Database
What are the other tax revenues that the government generates from tobacco sales? Does reduced demand jeopardize those revenue streams?		Links to Other Taxes in the System
Has the government faced recent economic turmoil (e.g., currency devaluation, fiscal crisis, debt-related high risk), or experienced high inflation?		Appendix I
Reduced revenue stream from a major taxable product (e.g., oil in Russia and Kazakhstan)	Implications of Excise Tax Systems on Tobacco Market	
High inflation and unemployment levels?	The Unemployment in Tobacco Sector Tax-induced Inflation Rates	
What is the share of excise revenue by tobacco product in total excise and total tax revenues?		
Does government excise revenue vary depending on the tobacco product?	Revenue Generation (Buoyancy) Potential of Excise Taxes Floor Tax Application	
Does the country have floor-stock tax provision? If not, how should it be designed and implemented?	Understanding Current Excise Tax Policy and Price Tier Excise System and Consequences	
What is the share of imported cigarettes in the total tax paid on cigarette sales in the country?		
Are imported cigarettes subject to preferential (or discriminatory) tax	http://tariffdata.wto.org https://comtrade.un.org/data	

treatment? If so, what is the tax treatment? Import Duty Application for Cigarettes and Other Tobacco Products, Tax Harmonization		
What is the overall trend of import tax revenues from tobacco products in the past 10 years?		
What is the net trade balance (exports minus imports) from tobacco trade in the past 10 years?		
What is the trade balance from tobacco trade if country relies on import duties (i.e. no excise system)?	Countries Without Excise Duties	

Assessing the Political Environment

Return to: Assessing Tax and Price to Inform Policy Dialogue, Assessing the Economic Environment

A country's political economic environment influences the "why, how to and how much" when it comes to changing tobacco tax policy. This is because tax policy affects many stakeholders in the tobacco supply chain, including farmers, manufacturers, distributors, and traders. It also affects governments' development and poverty alleviation strategies – including those related to economic growth, employment, foreign direct investment, revenue flow, socioeconomic conditions and health systems.

A tax policy argument needs to take account of relevant broader questions of government development strategies, including, for example, poverty reduction, employment and foreign investment.

From the political economy perspective, it is important to keep in mind that the current excise system may be in part a product of the government's development agenda – e.g., attracting and keeping foreign direct investment via tax policies, or promoting state-owned enterprises, and in part a product of special interests that may conflict with raising tobacco taxes. Conflicts of interests exist where:

- a government is still heavily involved in the supply side of the tobacco chain – either partially (e.g., Cambodia, Egypt, Vietnam) or fully (e.g., Belarus, China, Lebanon, Thailand);

- national tobacco industries have been privatized and receive tax incentives and provisions, thereby affecting current excise policies (e.g., Laos, Uzbekistan);
- the tobacco sector still has a large share in the economy and is one of the largest manufacturers in the world (e.g., Brazil, China, India, Indonesia, Russia, Thailand, Turkey). Governments may not wish to jeopardize revenues with higher tax policies (Allaying Government Concerns about Raising Taxes).
- a protectionist tax policy has been applied to a country's own production facility (e.g., China, Belarus, Egypt); small, local production facilities (e.g., Jordan, Thailand, India, Indonesia, Nepal); hand-made production facilities (e.g., India, Indonesia); and multinational tobacco companies via import restrictions or higher import duties (e.g., Uzbekistan, Kyrgyz Republic, part of foreign direct investment package).
- local manufacturing facilities and farming are dependent on the tobacco sector. Bangladesh, Brazil, India, Indonesia, the Philippines, Vietnam and Thailand are major tobacco-producing countries and still have significant local domestic cigarette manufacturing facilities. Farming and the employment in tobacco manufacturing are influential factors for government excise tax policy in Bangladesh, Belarus, India, Indonesia, Nepal, Vietnam and Thailand.
- the tobacco industry weighs in, openly or otherwise, to minimize tax increases or encourage a tax structure that reduces their effect on smoking.[1]

Assessing the Local Tobacco Market

It is helpful to have a full picture of **tobacco suppliers** in the market and their potential influence on policy making (as well as their added value to the economy) when preparing a policy discussion around higher tobacco taxation. This includes understanding the current:

- tax revenue from tobacco products (excise, import, VAT);
- trade surplus or deficit from tobacco and tobacco products;

[1] Lobbying against increases in tobacco excise taxes may appear not to come from the tobacco industry. See, for example, https://www.nytimes.com/2015/07/01/business/international/us-chamber-works-globally-to-fight-antismoking-measures.html?action=click&contentCollection=Business Day&module=RelatedCoverage&region=Marginalia&pgtype=article for efforts by the US Chamber of Commerce to weaken tobacco control programs, including through taxation, in developing countries.

- fringe benefits and income tax from tobacco employment;
- corporate income (profit) tax revenue from manufacturers, wholesalers, and retailers;
- value of intermediate inputs (e.g., raw materials, other materials for production);
- value of tobacco products.

A clear picture of the factors that influence **tobacco farmers'** livelihoods is also helpful in advance of a tobacco tax dialogue (e.g., Thailand, India, Tanzania). Evidence shows that the value of raw tobacco production as part of total agricultural output and GDP (gross domestic product) is fading in many countries.

Understanding factors such as agricultural production technology to increase yield per hectare, elasticities of substitution with other relevant crops, changing employment patterns in the farming sector in general and in tobacco leaf production in particular, and how excise tax reform can address those concerns are useful for the tax dialogue and in designing the most efficient tax reform.

In recent years, employment in the tobacco manufacturing sector has become more of a political than an economic issue. Employment objectives are used to influence the design of excise systems, lowering tax levels and making them more complex and tiered. This is especially the case in Southeast Asia (e.g., Bangladesh, India, Indonesia), where hand-made tobacco production is prominent, especially in rural areas.

Therefore, understanding way in which excise tax reform supports government job creation initiatives is helpful for the policy dialogue.

IMPROVING EXCISE SYSTEMS AND INCREASING TAX RATES: **ASSESSING TOBACCO MARKETS, SUPPLIERS AND THEIR ADDED VALUE TO ECONOMY**	
Who are the major cigarette producers and importers (e.g., multinational companies, local or national companies)? Assessing the Political Environment	Market share of companies (%) Multinational ☐ Local ☐
Does the government provide financial incentives for multinational tobacco companies as part of foreign direct investment (FDI) packages (e.g., tax incentives, excise provisions)?[a]	☐ Yes ☐ No
Are there any joint venture arrangements with multinationals?	☐ Yes ☐ No

Are there any conflicts of interest that reduce the power of the country's tobacco excise tax in achieving public health objectives?	Protectionist Excise Policies with differential tax system	☐ Yes ☐ No
	Tobacco Farmers and Workers	☐ Yes ☐ No
	Assessing the Political Environment	☐ Yes ☐ No
What has been the trend of employment in the tobacco sector compared to total employment in the past 10 years?		% Increasing ☐ Decreasing ☐
What is the number of cigarette and other tobacco production facilities and their location (rural vs urban)?		Number Urban ☐ Rural ☐
Is there a regional concentration of factories that may have implications for local employment and spatial targeting for government support? Factors that have Potential Effects on Unemployment in the Tobacco Sector		Yes ☐ No ☐
What is the share of imported cigarettes in total tax paid on cigarette sales in the country?		
Who are the main trade partners and what is the preferential tax treatment?	https://comtrade.un.org/data http://tarffdata.wto.org	and Other Tobacco Products Tax Harmonization

Note:
[a] See NCI and WHO 2016.

Excise Tax Application for Tobacco Products: Country-level Information

Cigarettes

In addition to excise taxes, cigarettes are subject to number of other taxes (see

Types of Taxes Levied on Tobacco Products). However, excise tax usually constitutes a significant share of retail prices compared to the share of other taxes (see
Global Overview on Excise Incidence).

Evidence shows that excise tax application differs significantly among countries. Some countries have already achieved relatively simple excise systems while most maintain complex systems. In recent years, tobacco

excise policy has seen an increasing number of governments continuously trying to improve their excise tax system to fit their needs and achieve better health and revenue outcomes including improved health, higher revenues, and strengthened tax administration (with improved tax compliance and reduced tax avoidance and evasion).

While higher excise taxes generate higher revenues, in many countries rapid economic growth along with improved overall tax administration and increases in the tax base for both direct and indirect taxes have reduced the share of tobacco excise revenue in total excise and tax revenues. Furthermore, GDP per capita growth since the late 1990s has outstripped excise tax rates and the retail prices of tobacco products in most low- and middle-income countries – i.e. tobacco products have become more affordable there. As a result, these tax policies fall short of both protecting public health and achieving higher revenues. These policies should be changed so that cigarettes become as unaffordable as possible.

In Appendix E, selected countries' excise systems and their evolution are discussed and briefly analyzed to provide a short introduction to both excise evaluation and potential ways forward.

Other Tobacco Products

Many countries give too little attention to excise treatment for other (non-cigarette) tobacco products. In many cases this is because they do not have a large share in the total tobacco market. In certain instances, other tobacco products may involve "labor intensive" production process involving poor and vulnerable populations; and governments may have protectionist policies on particular segments of the tobacco sector. Excise tax application and the rates of other tobacco products are provided in Excise Application for Other Tobacco Products for select countries.

Electronic Nicotine Delivery Systems (ENDS)

Return to: Background to Excise Taxes and Systems

Electronic nicotine delivery systems (ENDS) – or e-cigarettes – are a very diverse commodity with no standardized products or contents. These realities present challenges for developing e-cigarette tax policies (NCI and WHO 2016). Several governments have begun to apply taxes to these products, and others are considering doing so.

As of 2016, about 68 countries in the world regulate e-cigarettes, and only a few (Italy, Kenya, Latvia, Portugal, Republic of Korea, Togo, the United Kingdom, and several US states and jurisdictions) levy excise taxes on them (Kennedy et al 2016). Evidence shows that excise application varies.

In the US, for example, the excise tax is applied either as a specific amount per ml of the e-cigarette, or based on a percentage of either its wholesale or retail purchase price (see Excise Application for ENDS in the United States). In Kenya, a specific excise on e-cigarettes has been levied since 2015 with the rate set at K Shs 3,000 per e-cigarette. In addition, a specific excise of K Shs 2,000 is levied per e-cigarette cartridge (the replaceable part of an e-cigarette).

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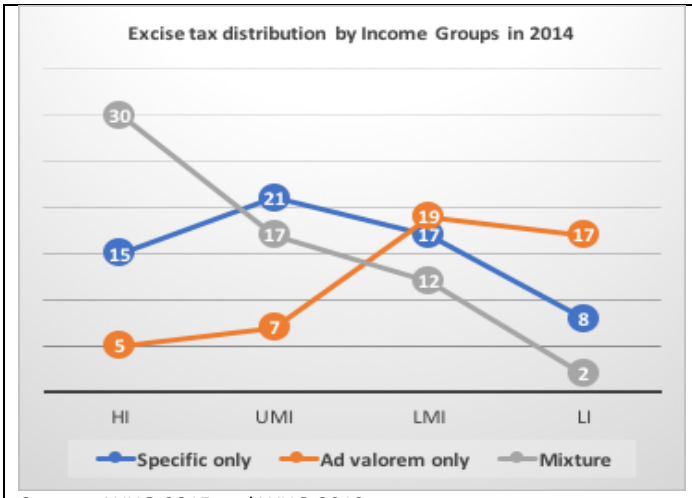
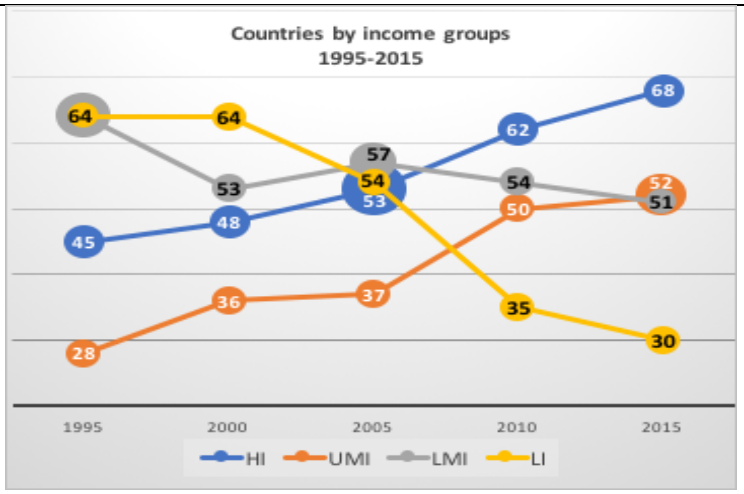
Analysis of excise tax types favored most by the different country income groups reveals that mixed excise tax systems are preferred more by high-income countries, while low-income countries tend not to use mixed systems at all. By contrast, ad valorem-only excise systems are favored more by low- and lower-middle-income groups, and only a handful of high-income and upper middle income countries. In 2014, specific excise alone was favored by almost all income groups except the low-income group (see figure 2).

Between 1995 and 2015 an increasing number of countries moved to higher-income categories (low to mid, and mid to high, see figure 2). It is important that as incomes increase, lower- and middle-income countries move as rapidly as possible to substantial reliance on well-structured specific excise systems that will reduce demand for tobacco as well as reducing downward substitution to cheaper brands and products. Uniform excise systems best serve the interests of government finances, public health, and tax administration.

Figure 2: Excise tax distribution and income country level



Sources: WHO 2015 and WHO 2013.



Source: World Bank Income Group data based on World Bank country and lending groups.

Applying Tax Excise Systems

Uniform Specific Excise

Return to: Background to Excise Taxes and Systems

A uniform specific excise system maximizes the impact of retail prices overall, reducing the gap between price tiers (as well as brands) and thereby generating higher revenues for government, at least over the short and mid term.

When implemented, the base should be on a unit (e.g., a piece, a pack of x number of cigarettes, or 1,000 pieces etc.) rather than weight or one of the characteristics of the tobacco products (e.g., quality, or length), as such characteristics can be manipulated by the industry to avoid or lower the applicable tax or to encourage downward substitution.

Indexing Specific Excise with Inflation

Return to: Background to Excise Taxes and Systems

There should be at least occasional sharp increases in specific excises, as this has a more dramatic impact on current behavior. In between these major increases, governments should index specific excise to exceed, or at least keep pace with, affordability – i.e. with nominal (current price) per capita income. This means taking account both of the inflation rate (monthly or biannually if the inflation rate changes dramatically), and of the annual income growth rate to ensure that cigarettes and other tobacco products become increasingly less affordable

At a global level, several countries that levy a specific excise have started indexing the specific rate to the inflation rate, either annually or biannually (e.g., Brazil[2] in 2012, Chile in 2011, Australia, Kenya[3] and Tanzania in 2015, Turkey in 2016); and, consistent with the recommendation to keep pace with per capita income in current prices, based on average weekly ordinary time earnings (e.g., Australia).[4]

Before the specific excise is fixed with the inflation rates, countries should consider one time significant increases in specific excise, if the original tax level is well below than that of other countries with the similar economic development status. From both a health and revenue perspective, adjusting specific excises only for inflation would not be sufficient. From a health perspective, it would not prevent increasing

[2] See http://global.tobaccofreekids.org/files/pdfs/en/success_Brazil_en.pdf
[3] Kenya excise duty act 2015. http://www.kra.go.ke/notices/pdf/excise%20duty%20act%202015.pdf
[4] See https://www.ato.gov.au/business/excise-and-excise-equivalent-goods/tobacco-excise/excise-rates-for-tobacco/

affordability of tobacco products. And from a revenue perspective, revenues would decline as a share of GDP.

Therefore, as recommended in WHO 2010, specific components need to be adjusted by inflation and increases in per capita income, combined. In sum, as the World Bank's 2017 policy brief on tobacco control puts it:[5] "Go big, go fast… Attack affordability… Change expectations… Tax by quantity."

Uniform ad valorem excise

Ad valorem excise taxes, at least on their own, may carry more cons than pros for the achievement of public health and revenue objectives. However, in the short term, adopting a uniform specific excise may not be a politically feasible option if the country has had high inflation in the past or if maintaining indexation to current per capita incomes (or even inflation) would not be feasible. There are a few measures that can be taken to reduce the disadvantages associated with an ad valorem excise tax as discussed below.

The first is, in countries with only ad valorem excises, to introduce a mixed system. This means adding (a) a specific excise tax indexed to the inflation rate and income growth; and (b) a high, and similarly indexed, specific excise floor tax, also indexed to both the inflation rate and income growth. Reliance on ad valorem excises can then be reduced while the total excise incidence increases through specific excises. Chile is a good example of this.

The second is to base the statutory ad valorem rate on the tobacco product's "maximum retail price". However, in some economies with weak tax administration, this approach can create inefficiency in tax collection[6] and may weaken compliance by the supplier (increasing risks of tax avoidance and evasion). In such cases, there is all the more reason to move rapidly toward reliance on specific excise and the minimum excise floor (e.g., in Russia).

Specific excise floor tax

The specific floor tax needs to be indexed to current per capita incomes, especially in countries where:

- cheap cigarettes have a higher share in the total cigarette market; and

[5] See http://www.worldbank.org/en/topic/health/brief/tobacco.

[6] This is because, while manufacturers provide the government with their supposed maximum price, and the government levies ad valorem excise based on that price, manufacturers can still sell the cigarettes for a higher price on the market. The additional profit made in this way (retail price minus maximum price) is not taxed. Finding out which brands are charging a higher than stated maximum price in the market is costly for governments, and creates inefficiency.

- manufacturers have relatively less tendency to increase retail prices, so reducing health benefits.

Mixed excise system

For those countries that levy a mixed of specific and ad valorem excise, it is desirable to increase the importance of the specific excise component.

For those countries that have a mixed system but rely heavily on ad valorem excises, a specific excise floor is advisable to ensure better health and revenue results.

Tier Excise System and Consequences

Return to: Assessing the Economic Environment

The driver for setting up a complex excise system is mainly political. It is important to point out negative health and revenue implications, as well as implications of the weakening of tax administration.

Complex systems are prone to generating tax avoidance in many countries. This is because cigarette manufacturers can modify the tax base (e.g., they can make cigarettes shorter or of lower quality to qualify them for a lower tax bracket, thereby reducing their tax liabilities and the governments' tax revenue). The complexity similarly provides incentives for tax evasion, since it is more difficult for governments to track what taxes are due and paid. Furthermore, the system undermines the potential public health outcomes associated with higher tax rate policies, as complex systems are in general designed to reduce tax increases at the lowest price tier – where they would have the biggest health impact.

If the government has a tier excise tax system, then the best course of action is to reduce and then eliminate the tier system completely within three to five years (e.g., Russia, Kazakhstan, the Philippines, Uzbekistan).

Excise Tax Application in Settings with Historically Low Tobacco Product Prices and Taxes

Return to: Assessing Tax and Price to Inform Policy Dialogue

From a public health perspective, as discussed, affordability influences adult and youth smoking behavior and the costs associated with tobacco-attributable morbidity and mortality, as well as growth and the risk of family impoverishment.

For these reasons, countries in all income groups and regions should combine occasional big increases in specific excises, interim indexation to current per capita incomes, and simplification of excise tax systems. It is this combination that maximizes health benefits.

In countries with historically low tobacco prices and tax rates it is particularly important to frame tobacco taxes in the context of the importance of health as a priority development issue. This then provides political support for occasional big increases in specific tobacco excises as well as for indexation to current per capita incomes. These both wake smokers up to the health and financial consequences of smoking and set expectations of future reductions of affordability.

How Will Countries Know They Have Reached the Optimal Excise Level?

Return to: Background to Excise Taxes and Systems

There are number of studies examining the applicability of the Laffer Curve – where a further tax increase will yield relatively less revenue than the previous one.

The evidence is clear, however: even countries that have the highest tax incidence through annual tax increases (e.g., the UK and Turkey) still experience increased excise revenues. That is, the average price elasticity of cigarette demand is still relatively low in almost all countries, ensuring higher tax revenues are highly likely to be generated by tax increases.

Experience shows, though, that in practice, raising tobacco excise tax rates will generally provide increased tax revenues (in addition to their health benefits) over a fairly long period. Governments need to be aware that tobacco taxes may not assure higher revenues in the long term. Eventually, as countries implement and enforce compliance with comprehensive tobacco control measures (e.g., smoke-free environments; bans on sponsorship; help for smokers to quit), the demand for cigarettes will fall enough so that cigarette tax revenues begin to decrease.

However, it is important to distinguish between the effect on tobacco consumption and revenues of a comprehensive tobacco control program and of its tobacco tax component. It would be a fallacy to conclude that where tobacco tax revenues are declining, raising tobacco taxes would cause a further decline. Raising tobacco taxes will still have a positive *marginal* impact on tobacco tax revenues even when they have begun to decline, except in the unlikely case that demand for tobacco becomes elastic rather than inelastic.

It is important to remember that the primary objective of tobacco taxes is to prevent premature death and disease, not to indefinitely maintain revenue increases.

Tax on Other Tobacco Products and Electronic Nicotine Delivery Systems (ENDS)

In many countries, not enough attention is given to excise taxes on tobacco products other than cigarettes. In many cases this is because such products do not, at least before the tax increase, have a high share of the total tobacco market. In certain instances, other tobacco products may involve "labor intensive" production process that employ poor and vulnerable population; and the government may have a protectionist policy on one segment of the tobacco sector (as discussed below).

In consequence, from the public health and revenue objectives of excise policies, differential excise treatment of different tobacco products defeats the purposes of tax increases for public health objectives and tax revenue objectives.

As tax and price gaps widen while the excise incidence on demand reaches higher levels, sensitive smokers who respond more to higher prices (e.g., youth and young adults, and poor smokers) shift their demand from cigarettes to other, relatively cheaper, tobacco products. The EU and Thailand provide good examples of this relationship.

Tax on Electronic Nicotine Delivery Systems (ENDS)

As e-cigarettes have a relatively lower negative health impact than cigarettes, an argument can be made for them to be taxed at a lower rate – thereby encouraging a switch from cigarettes to e-cigarettes. However lower excise will likely promote initiation of e-cigarettes among youth, and to some extent encourage dual use.

A better approach is to impose high excise tax on e-cigarettes while increasing excise rates on cigarettes and other tobacco to maintain or increase the relatively higher price of cigarettes. This would:

- discourage dual use and initiation of e-cigarettes;
- maximize the switch from cigarettes to e-cigarettes; and
- discourage cigarette demand.

More on this can be found at http://www.trdrp.org/files/e-cigarettes/frank-e-cigs.pdf.

Countries without Excise Duties but with Import Duties

Return to: Understanding Current Excise Tax Policy and Price

Import duties on cigarettes are generally not a significant revenue source or a good public health fiscal measure. However, some countries with relatively weak tax administration and a high share of imported cigarettes prefer to ask customs authorities to collect excises as well as import duties until excise tax capacity can be strengthened.

Floor Tax Application

Return to: Assessing the Economic Environment

A floor-stock tax is when a new tax rate is introduced and has to be applied to products already in stock. It helps deter overstocking by wholesalers and retailers in order to pre-empt and avoid an imminent tax rise. Floor-stock tax is particularly important when the tax rate increase is significant. It can exempt a minimum, "necessary" level of inventory.

The main argument against floor-stock taxation is the administrative cost involved in tracking down the extent of overstocking of tobacco products at retail or distributor level. The administration costs of floor stock tax collection may well exceed the potential revenues it may generate.

Additionally, there would still need to be legislation or regulation that applies tax increases to overstocking. However, this may be an option for those countries that have very few manufacturing facilities and distributors (and often they are one and the same) that would need to be checked.

Justifying Higher Tobacco Excise Tax Despite Apparent Regressivity

Return to: Background to Excise Taxes and Systems

Given the health hazards associated with tobacco use and exposure to tobacco smoke, the apparent regressivity of a tobacco excise increase should be assessed from a broader economic and health perspective. Once account is taken of the high progressivity of health benefits and of other benefits – particularly reduced risks of family financial crisis due to severe disease or premature death – higher tobacco taxes are progressive (World Bank 2017, Chapter 6).

In addition, governments can intensify the progressivity of tobacco tax increases by allocating part of the resultant increased revenues for poverty reduction and other programs that benefit the poorest people the most (Önder and Yürelki 2014) (see Appendix M for a case study of the Philippines).

Strengthening Customs Authorities

Return to: Assessing Tax and Price to Inform Policy Dialogue

The routes and methods of illicit trade are usually well known to government tax and customs authorities. Countries should consider ratifying trade treaties concerning international illicit trade in order to show and strengthen their commitment to tackling it.

WHO Framework Convention on Tobacco Control, Article 6 Guidelines

- ✓ Parties should implement the simplest and most efficient system that meets their public health and fiscal needs, and considering their national circumstances.
- ✓ Parties should consider implementing specific or mixed excise systems with a minimum specific tax floor, as these systems have considerable advantages over purely ad valorem

Strengthening customs entities, including vigorous steps to address corruption, is a cost-effective measure as it provides high returns for government and for public health. Furthermore, strengthening customs entities has a spillover effect in terms of controlling other smuggled goods.

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Section 4: Allaying Government Concerns About Raising Excise Taxes

Return to: Assessing the Economic Environment

Governments take economic, political and public health concerns into consideration when increasing excise taxes or eliminating inefficiencies in existing excise systems. This section discusses the most important considerations when increasing tobacco excise taxes, including illicit trade, equity, employment, inflation, multinational tobacco companies' potential consolidation of their businesses, and improving the progressiveness of excise increases. The section also includes examples of the response to such concerns worldwide are also included.

Illicit Trade

Return to: Background to Excise Taxes and Systems

Illicit trade[7] in all its forms is perhaps the most widely used argument against raising tobacco taxes, as governments are keenly concerned about the revenue loss and criminal activity that raising excise taxes is perceived to create.

Governments considering increasing and reforming tobacco excise taxes are often interested in global, regional and country-level evidence on the rates, types, and mode of illicit inflow into countries that already have higher excise tax rates. In the past, some mistakenly thought that higher tobacco tax was the single driving factor for illicit trade, and consequently reduced tobacco excise tax rates in the hope of curbing it. This exercise did not achieve the expected reduction in illicit activities, but rather lowered excise revenue for governments and increased tobacco consumption, with negative effects on health (e.g., Canada, Sweden, and recently India).

Evidence suggests that there are many factors affecting the level of smuggling and illicit trade worldwide. Weak governance and relatively weak tax and customs enforcement agencies are more important factors for illicit trade than excise tax increases. In recent years, the

[7] The term "Illicit trade" is defined under the WHO Framework Convention on Tobacco Control (Article 1) and the Protocol on Elimination of Illicit Trade in Tobacco Products (Article 1.6) as: "Any practice or conduct prohibited by law & which relates to production, shipment, receipt, possession, distribution, sale or purchase including any practice or conduct intended to facilitate such activity." This is a broad definition and includes a wide array of means of illicit trade including smuggling, counterfeit products, illicit manufacturing, illicit importation etc. Terms such as illicit trade, smuggling, and bootlegging are often used interchangeably, but in reality they all have their own meanings (WHO 2010; NCI and WHO 2016, IARC 2011) and are summarized in
Appendix .

costs of strengthening enforcement agencies to deal with the illicit tobacco trade have also emerged as a concern for governments attempting to tackle the issue.

The *World Bank Toolkit on Smuggling*[8] provides a number of techniques for estimating the types of illicit trade activities, all of which have been used by researchers in many countries to provide invaluable evidence to policy makers. Other resources set out the illicit trade experience of selected countries and their responses (Ross and Teche 2015), provide a literature review of research into illicit trade in tobacco products (specifically cigarettes), and outline potential beneficiaries and losers of illicit trade activities (NCI and WHO 2016). Technical support, including from the IMF and World Bank, can be helpful to countries seeking to strengthen the effectiveness of enforcement.

Does Higher Tax Mean More Illicit Trade?

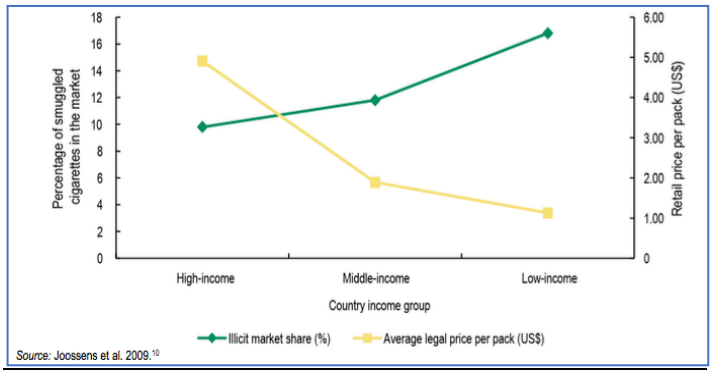
Return to: Background to Excise Taxes and Systems

The relationship between excise tax rates and illicit trade (e.g., bootlegging or organized smuggling) have been examined and summarized (IARC 2011, NCI and WHO 2016) and the findings show a weak positive association between the average cigarette price and the share of illicit trade in the market.

For example, figure 3 demonstrates the weakness of the widely held belief that higher prices are a primary cause of high illicit trade. In fact, the percentage of smuggled cigarettes in low- and middle-income countries is higher than that of high-income countries, despite their relatively higher retail prices. This is consistent with other evidence that it is the quality of tax administration (and to some extent geographic factors) that is the prime determinant of high levels of illicit trade, not high taxes. This strengthens arguments for vigorous efforts to increase the effectiveness and accountability of tax administration.

[8] World Bank Tooklit on Smuggling can be obtained from: http://documents.worldbank.org/curated/en/418961468163740317/Understand-measure-and-combat-tobacco-smuggling.

Figure 3: Illicit trade versus retail price for most popular brands by income group, 2007

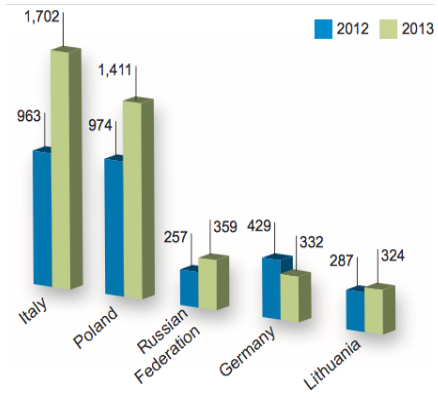
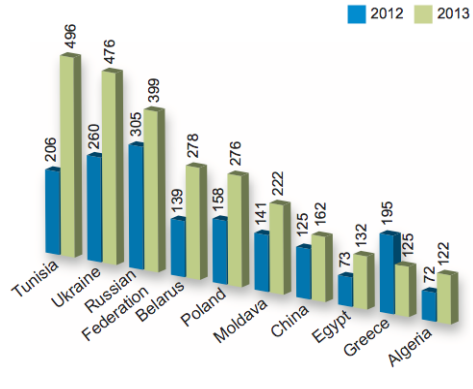


Illicit Trade: Top Reporting and Departure Countries

Return to: Background to Excise Taxes and Systems

A report by the World Custom Organization indicates that Germany, Italy, Lithuania, Poland, and Russia reported the largest seizures of illicitly traded cigarettes in 2013 (World Customs Organization 2013). Among reporting countries, Algeria, Belarus, China, Egypt, Russia, Moldova, Tunisia and Ukraine are the top 10 countries for transiting illicit cigarettes to other countries (see figure 4).

Figure 4: Top five reporting and top 10 departure countries for illicit trade, 2013

Top 5 reporting countries: number of seizures	Top 10 departure countries (number of seizures)
	

Source: World Customs Organization, 2013.
Note: Reporting countries are those that sent data to the World Customs Organization.

Of the top countries in which transit occurs, five have governments that are the sole owners of the country's cigarette production (Algeria, Belarus, China, Egypt, and Moldova) (see table 1).

Table 1: Retail price, excise, and ownership of cigarette facilities in top illicit cigarette departure countries, 2014

2014	Retail price MPPC[a] US$ per pack	Total tax %	Excise %	State ownership of cigarette production?
Algeria	1.08	50.8	38.1	Yes
Belarus	1.41	51.2	34.5	Yes
China	1.88	44.4	29.9	Yes
Egypt	1.21	73.1	73.1	Yes
Moldova	1.08	50.7	34	Yes
Ukraine	0.74	74.8	58.1	No
Russia	1.88	47.6	32.4	No
Tunisia	1.48	74.6	66.4	No

Source: WHO 2015.

Note: [a] Most popular price category (MPPC).

Given the lower prices (not higher than US$2 per pack) and the associated tax liability on packs, there is less financial incentive to smuggle cigarettes into those countries. Therefore, it is highly likely that these cigarettes are either seized in transit or originate from these low-tax countries.

Some countries may be benefiting from outward illicit trade (cheap or counterfeit brands) either originating from their own countries or transiting through them (based on NCI, WHO 2016).

Legally established production facilities, especially in low-tax settings, may produce counterfeit brand cigarettes for illicit trade elsewhere. These facilities appear to continue to pay local taxes in order to reduce the risk of being prosecuted by local authorities.

Illicit Trade: Experience and Control

Return to: Background to Excise Taxes and Systems

The UK invests heavily on illicit trade control, and has seen an interesting trajectory of illicit cigarette trade since 2000.

In the late 1990s the UK faced significant inward-smuggling of both cigarettes and hand-rolling tobacco. In 2000, illicit cigarettes accounted for 22 percent of the total cigarette market and illicit hand-rolling tobacco accounted for 61 percent of the hand-rolling tobacco market. In

addition, 12 percent of the hand-rolling tobacco market was supplied by cross-border shopping. Experience and Control: An example from the United Kingdom demonstrates the illicit trade experience and the effectiveness of control efforts from the United Kingdom. Other countries' experiences of illicit trade are provided by NCI and WHO 2016, and Ross and Teche 2015.

Cost of Tackling Illicit Trade

Return to: Assessing Tax and Price to Inform Policy Dialogue

Tackling illicit tobacco trade comes with its costs. Some low- and middle-income countries facing significant illicit trade problems are concerned about the costs of tackling it – especially those that believe illicit trade could proliferate in response to a tax increase. Indeed a few countries have tried to solve their illicit trade problem by reducing excise taxes on cigarettes, with highly negative results for both consumption and revenues (e.g., Canada and Sweden). Others tackle smuggling by increasing excise taxes and funding enhanced control measures, as in the UK (see Appendix K: Illicit Trade).[9]

In the UK, tax revenues recovered by smuggling control (approximately £1.3 billion[10] a year (HMRC 2015) seems likely to cover the full cost of this control (e.g., salaries, technology, and other administrative costs), and still leave funding for tobacco control measures.

Illicit Trade Control: A Way Forward

Illicit trade is a concern for public health. Not only does it reduce government revenue, it also weakens the impact of other tobacco control measures including taxation, warning labels on tobacco packaging, and restrictions of sales to minors (IARC 2011).

Government willingness to prevent smuggling is perhaps the most important component of tackling illicit trade. Adopting the Protocol to eliminate illicit trade in tobacco shows a commitment to strengthen control of illicit trade control, as does investment in programs and projects that specifically aims to:

- reduce inward smuggling;

[9] UK efforts on tackling illicit trade, some of costs associated with illicit trade control, and the public health as well as revenue consequences are discussed in Appendix K.
[10] Billion in this instance is 1,000 million.

- reduce smuggling that either originates or transits from the home country to others (outward smuggling);
- strengthen enforcement through customs with technology and human resources enhancements (Anthony 2004; Yurekli and Sayginsoy 2010).

Evidence from many countries and sources demonstrate that factors such as weak governance (e.g., corruption), lack of government commitment or willingness to control inward our outward illicit activities, and poor infrastructure and weak communication among customs entities have an overall greater role in illicit trade than excise taxes or high tobacco prices.

Illicit trade can be successfully addressed even when tobacco taxes and prices are raised, resulting in increased tax revenues and reduced tobacco use. Implementing and enforcing strong measures to control illicit trade enhance the effectiveness of significantly increased tobacco taxes and prices, and of other strong tobacco control policies in reducing tobacco use and its health and economic consequences (NCI,WHO 2016 537).

International Treaty: The Protocol to Eliminate the Illicit Trade in Tobacco Products

Return to: Assessing Tax and Price to Inform Policy Dialogue

The illicit trade of tobacco products is now the subject of an international treaty. The WHO FCTC Protocol to Eliminate the Illicit Trade in Tobacco Products (ITP) aims to eliminate all forms of illicit trade in tobacco products by using a combination of national measures and international cooperation.

Protocol to eliminate illicit trade in tobacco products aims to eliminate all forms of illicit trade in tobacco products.

It provides tools for preventing illicit trade by securing the supply chain, including by establishing an international tracking and tracing system, by countering illicit trade through dissuasive law enforcement measures and a suite of measures to enable international cooperation.
Source: WHO Framework Convention on Tobacco Control, http://www.who.int/fctc/protocol/about/en/.

In 2012, at the fifth session of the Conference of Parties to WHO FCTC, the Protocol was signed by 54 parties, 25 of which also ratified it. The Protocol enters into effect 90 days after a country has acceded to or ratified it. More information about the Protocol can be accessed at

WHO FCTC website.[11] Strong collaboration and coordination are key to international treaties that aim to control illicit tobacco trade, which should be considered a gateway to tackling the problem.

Equity

Return to: Assessing Tax and Price to Inform Policy Dialogue, Assessing the Economic Environment

"Using [fiscal] regressivity as a criterion to judge a tax only makes sense if the tax is primarily aimed at raising revenues. But the primary purpose of a tobacco tax is to prevent unnecessary deaths by reducing smoking."
Masood Ahmed[12]

One of the tobacco industry's most insidious arguments against raising tobacco taxes is that these taxes disproportionately hurt poor people. This is because the direct financial effect of tobacco taxes is regressive, meaning that they account for a higher share of income from the poor than from the rich. This is borne out by studies in low- and middle-income countries (IARC 2011). But it is very far from the whole truth.

There are many economic studies that examine the demand for cigarettes by different socioeconomic and demographic groups (e.g., rich vs poor, female vs male, adult vs youth, urban vs rural, educated vs less educated (IARC 2011)). The great majority of studies find that price-responsiveness varies between socioeconomic groups. In particular, poor socioeconomic groups are significantly more likely to reduce their tobacco consumption in response to changes in price than high socioeconomic groups.).[13] These studies include results from low- and middle-income countries such as Bangladesh (Nargis et al 2010), China (Mao et al 2003), Indonesia (Adioetomo et al 2007), South Africa (van Walbeek 2005), and Vietnam (van Kinh 2006).

In addition, Global Adult Tobacco Surveys from numerous countries reveal that smoking prevalence is higher among people in lower socioeconomic groups. Both the higher sensitivity to tobacco prices and the higher smoking prevalence mean that increases in tobacco prices resulting from increases in tobacco taxes have much bigger health benefits for lower socioeconomic groups. In other words, the health effects of increases in tobacco taxes are highly progressive. This evidence is synthesized in World Bank 2017, Chapter 2.

A recent study from Ukraine explored the effects of a one-time tobacco tax increase on the future burden of four smoking-related diseases

[11] WHO FCTC information is available from: http://www.who.int/fctc/protocol/about/en/.
[12] Available from: https://www.cgdev.org/blog/tobacco-taxes-need-be-much-bigger-part-fiscal-policy-discussion.
[13] There are though some exceptions. Some earlier studies find the lowest socioeconomic groups less responsive to price changes than higher-income groups, including in Myanmar (Kyaing 2003), Nepal (Kariki 2003), ,and Turkey (Önder 2002).

through 2035. The study revealed that small changes in smoking prevalence in one year can have large impacts in terms of disease incidence and premature mortality avoided (WB 2017).

Due to the addictive nature of tobacco products, many smokers may not able to quit even if they want to – which studies in the US and elsewhere have shown generally to be the case – and face higher tax burdens due to their limited income.

Regressivity: A Broader Approach

Return to: Understanding Excise Tax Policies and Tobacco Pricing

More specifically, research suggests that lower-income smokers who reduce the amount they smoke as a result of tax-induced higher prices live and work longer and avoid ruinous costs – out of pocket and income foregone – of severe disease, with resultant benefits to them and their families. So the regressivity of higher taxes should be evaluated from a broader perspective – by comparing the financial costs of higher taxes to family budgets with the health and financial benefits of quitting or reduced consumption. These benefits (discussed in World Bank 2017, Chapter 6) include:

- living much longer – over a decade longer in the case of young people who do not become addicted to tobacco or who stop while still young.
- redirecting funds from smoking (which kills half of confirmed smokers) to the basket of other family expenditures, including, for example, food, shelter, clothing and education;
- increasing productivity and higher incomes;
- reducing both passive smoking and chances that children will also smoke;
- reducing the ruinous out-of-pocket costs of treating tobacco-related disease, as well as from foregone earnings from disease and premature mortality (see Breaking the Vicious Cycle);
- reducing the probability of families falling into abject poverty from those costs of treatment and income foregone.

Do Higher Excise Taxes Reduce Inequality? Research Evidence

Return to: Background to Excise Taxes and Systems

Several studies from developed and developing countries show that higher taxes help reduce tobacco-related inequities among adults (Hill

et al 2014) and young people (Brown et al 2014).

In Bulgaria, a 72 percent increase in excise tax on cigarettes would lower the amount of taxes paid by low- and lower middle-income smokers by 3.5 percent, while raising the tax payment for upper-middle income and high-income smokers by 10.5 percent and 24.9 percent respectively (Sayginsoy et al 2002).

Similarly, a recent study from Turkey by Önder and Yürekli (2014) demonstrated that before a tax increase, households in the poorest income-third of the population in Turkey paid 23.8 percent of total cigarette taxes, while the middle third paid 33.9 percent, and the richest third paid 42.2 percent. A simulation analysis showed that a 50 percent excise tax increase would shift the burden of tax to higher-income households, with the share falling to 18.9 percent for the poorest third and rising to 35.5 percent and 45.7 percent for the middle and richest thirds respectively

In Sri Lanka, a study by Arunatilake and Opatha (2002) found that despite (fiscal) regressivity in the current excise tax on cigarettes, price increases meant that the difference in the share of household income spent on tobacco would be reduced between the poorest and richest groups.

A 2017 study by Fuchs and Meneses estimated the impact of tobacco taxes in Chile using a social welfare framework. The authors estimated the way in which tobacco taxes would change household income by considering three income scenarios.

The first income effect was the increase in tobacco expenditure in response to tax increases; the second was the reduction in medical expenditure as consumers quit or reduced cigarette consumption; and the third was the changes in income as premature mortality had been avoided due to reduced smoking. As a result, smokers would live longer and continue earning income, which would have been foregone if the consumption pattern had not changed.

The results show that, although tax-induced higher prices initially generate negative income variations across all income deciles, under a more comprehensive scenario (by taking into account income effects), the overall monetary effect of taxation policy becomes positive. The authors estimated that the reduction in medical expenses is the main driver of the increase in net incomes.

These studies confirm that lower-income smokers respond more to the change in price and therefore are more likely to quit smoking. They are thus more likely to benefit from the reduction in tobacco-attributable medical costs and experience higher future earnings as they avoid premature mortality.

Moreover, since higher-income tobacco users are relatively less price-sensitive, their continued higher levels of smoking mean that they pay

an increasing share of tobacco tax revenue after the tax-induced price increases.

Note that the studies showing progressivity of tobacco tax increases did not attempt to take account of the highly progressive distribution of health benefits per se from the higher price responsiveness of low-income groups. One study that did so showed that in Thailand the poor paid only 6 percent of increased tobacco taxes but got 58 percent of the health benefits (Jha et al 2012).

Affordability

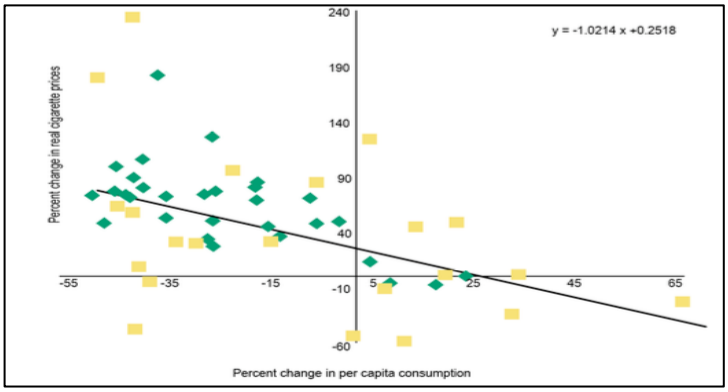
Return to: Assessing Tax and Price to Inform Policy Dialogue, Assessing the Economic Environment

Affordability is an important concept for public health. As income increases, and all else is constant, cigarettes become affordable and the demand for cigarettes increases – usually by a smaller percentage than the percentage change in average income (inelastic income elasticity of demand for cigarettes).

Increasing numbers of studies have examined the affordability of cigarettes by the amount of resources required to buy a pack of cigarettes. Consequently, a common and valid measure of affordability is the price of cigarettes relative to average per capita income. For the concept of affordability, a number of issues need special attention.

- It is not possible to compare the affordability of cigarettes among countries by comparing cigarette prices alone, because cigarettes will be more affordable, holding quality and/or brand constant, in countries with higher per capita income.
- Affordability needs to be measured over time. When the percentage increase in income (in current prices) is higher than the percentage increase in tobacco prices, then the cigarettes become affordable. Evidence show that since the 2000s, many low- and middle-income countries experienced periods of rapid economic growth during which cigarette taxes and prices have not kept up with the growth in income (NCI and WHO 2016 118) (see figure 5).

Figure 5: Percentage change in real cigarette prices versus percentage change in per capita consumption of cigarettes, 1996–2011

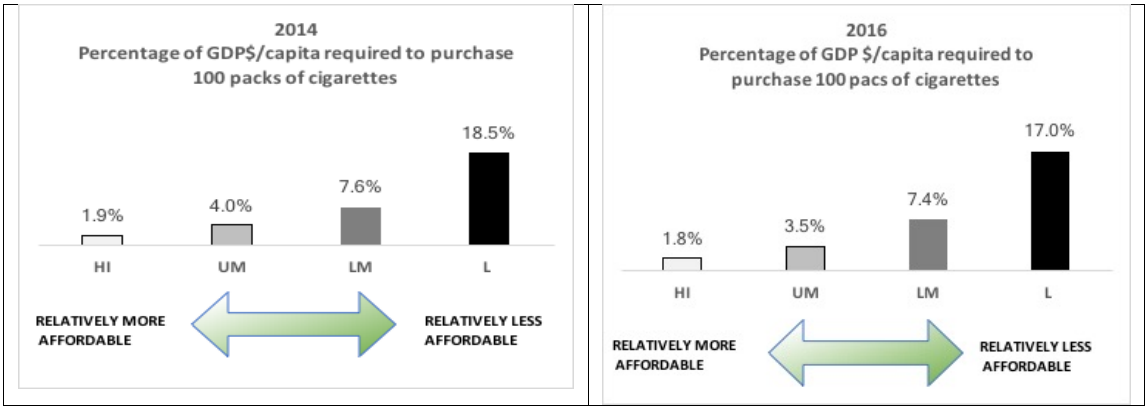


Source: NCI and WHO 2016.

Return to: Background to Excise Taxes and Systems

Research for this module examined the affordability using the retail index price (RIP) method – purchasing 100 packs of cigarettes as a percentage of per capita income (GDP) by income group. The research used data on cigarette prices for the most popular brands in over 180 countries in 2016. Its results are summarized in figure 6, which strongly supports the point that the affordability of cigarettes goes up as average per capita incomes rise. On average, low-income groups spent 17 percent of per capita income on 100 packs of cigarettes, whereas high-income countries spent only 1.8 percent of income on 100 packs of cigarettes. However, the level of affordability slightly increased between 2014 and 2016 across all income groups.

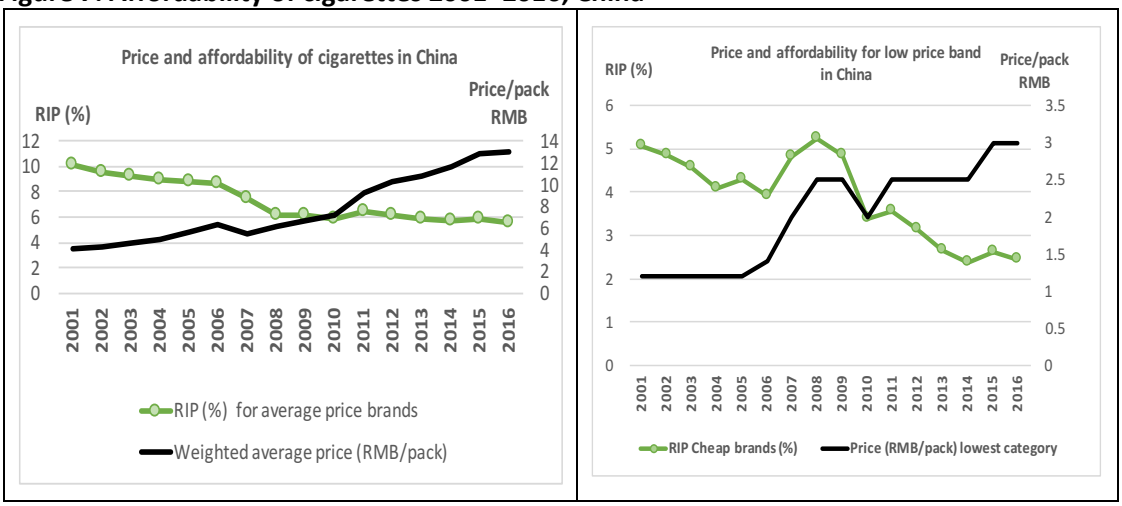
Figure 6: Affordability of most popular brand by income groups, 2014 and 2016



Source: Estimated based on data by WHO 2015, WHO 2017 and IMF WEO 2017.

Although these results provide a comparable picture of the affordability of cigarettes by country-income group, it is important to evaluate affordability within countries too. For this it is best to use either disposable income or wages to get a better sense on how affordability changes in more realistic terms. For example, when the disposable income is used for average households and rural households in China, tobacco product affordability increases in general and in particular for rural households (see figure 7).

Figure 7: Affordability of cigarettes 2001–2016, China



Source: Created by author using data provided by Zheng et al 2017.

Evaluating tobacco excise taxes only from an immediate fiscal standpoint, and relegating the economic and health benefits of making tobacco products more expensive, wrongly labels such taxes as “regressive”.

Tax-induced Inflation

Return to: Assessing the Economic Environment

An argument against tobacco tax increases is their potential inflationary impact. Two factors related to excise taxes have an important impact on inflation: the share of excise tax in price, and the weight cigarette prices are given in calculating the consumer price index (CPI).

CPI measures the inflation rate, and any increase in the CPI directly affects factors linked to the key economic variables such as domestic interest and foreign exchange rates. Furthermore, increases in the CPI also increase other economic indicators (e.g., wages, social security benefits) tied to the CPI. Therefore, governments may be concerned about the excise tax-induced higher prices on inflation rates, particularly those countries with relatively high tax rates (e.g., above 65 percent) and whose tobacco prices constitute a high share (e.g., 5 percent and higher) in consumer price index.

Box 1: Inflationary impact of excise tax increases

Assume: Retail Price (Rp) = US$2.00 per pack Excise share (Ex) is = 50% of Rp VAT (Vt) constitutes 15% of Rp.

1. Total tax share (Tx) as % of Rp is:

$$Tx = Ex + Vt = \\ = 50\% + 15\% \\ = 65\%$$

2. Excise tax (E_T) per pack is:

$$E_T = Rp * Ex \\ = \$2.00 * 50\% \\ = 1.00/pack$$

3. VAT (V_T) per pack is:

$$V_T = Rp * Vt \\ = \$2.00 * 15\% \\ = \$0.30/pack$$

4. Total tax (T_T) per pack is:

$$T_T = E_T + V_T \\ = \$1.00 + \$0.30 \\ = \$1.30/pack$$

5. Producer price (*Pp*) per pack (ignoring wholesalers' and retailers' margin for the sake of computation) is:

$$Pp = Rp - T_T \\ = \$2.00 - \$1.30 \\ = \$0.70/pack$$

6. Assume excise tax per pack increased by 50%. The new excise tax per pack (NE_T) is:

$$NE_T = E_T * (1 + 50\%) \\ = \$1.50/pack$$

7. Assuming producers' price increases by 10%. The new producer price (NP_p) is:

$$NP_p = P_p * (1 + 10\%)$$
$$= \$0.77/pack$$

8. New Retail Price (NR_p) is:

$$NR_p = NP_p + NE_T + NV_T$$
$$NV_T = NR_p * 15\%$$
$$NR_p = \$0.77 + \$1.50 + NR_p * 15\%$$
$$NR_p = \frac{\$1.50 + \$0.77}{1 - 15\%}$$
$$= \$2.67/pack$$

New retail price is $\rho = 33\%$ higher than the old retail price.

9. Assuming that cigarette price has a high weight on the CPI of (for example), $\omega = 8\%$, then the inflation rate (I_R) will increase by:

$$I_R = \rho * \omega$$
$$= 33\% * 8\%$$
$$= 2.7\% \, point$$

In most countries the price of cigarettes features only minimally in the CPI, and as shown by the example in box 1, even if the weight of cigarette prices in the CPI is high, the inflationary impact of modest cigarette tax increases will be relatively small. In that example, if the rate of inflation before the tax increase was say, 5%, then the rate would rise only to 5.1% (i.e. to 5%*1.027).

However, if a country with higher excise rates on the retail price and a higher weight for cigarette prices in its CPI also has a high inflation rate (e.g., 10 percent or above) and wishes to avoid excise tax-induced inflation, it could use a version of the CPI that excludes tobacco and alcohol for any indexing of wages, pensions or other benefits.

According to WHO,[14] this practice has been used by: Luxembourg (since 1 January 1991); France (since 1 January 1992); Belgium (since 1 January 1994). The "health index" used specifically excludes alcohol, tobacco and fuel and is mainly used for indexing rents, pensions, social benefits and some salaries. New Zealand has used the CPI since April 2010 removed tobacco prices from the CPI indexing formula for social assistance payments in April 2010. This was part of the plan to regularly increase tobacco excise by 10 percent and make sure this would not affect the CPI.

[14] More information at http://www.who.int/tobacco/economics/4_tobaccotaxincreasesandcpi.pdf.

Tobacco Employment

Tobacco Farmers and Workers

Return to: Assessing the Economic Environment

The apparent negative consequences of higher taxes on tobacco-related employment are among the main economic concerns raised by governments considering increases in tobacco excises (World Bank 1999; World Bank 2017, Chapters 7 and 8). This is because, as demand for cigarettes or other tobacco products decreases in response to tax increases, demand for employment in tobacco manufacturing and related supply industries will fall. This would cause unemployment and harm the livelihoods of people engaged in the tobacco supply chain.

However, the number of people engaged in tobacco product manufacturing generally does not constitute a large portion of the economy.[15] See NCI and WHO 2016 for employment in tobacco manufacturing by regions. There are, though, some exceptions in the hand-made cigarette sectors (e.g., in India and Indonesia).

Although tobacco manufacturing does not generate significant employment in the manufacturing sector, it may generate strong political pressure against tax increases, especially when the majority of manufacturing facilities are in rural areas with limited job opportunities, as in the cases above, and in Bangladesh, India, Indonesia, and Nepal (table 2 for employment in the tobacco industry in Nepal).

Table 2: Tobacco manufacturing and employment 2011–2012, Nepal

	Number of Establishments	Number of persons engaged	No of employment
Total tobacco manufacturing	30	1,637	1,585
Rural areas	19	1,054	1,024
Urban areas	11	583	561
Total manufacturing	4,076	204,360	194,989

Source: Nepal Statistical Yearbook 2015.

As a result, tobacco excise tax policies may have been designed to protect tobacco employment and tobacco farmers in countries with a

[15] In contrast, cigarette manufacturing – the higher value phase of the chain – is highly mechanized and dominated by a few large multinational corporations (NCI, WHO 2016).

large number of labor-intensive manufacturing facilities (e.g., India, Indonesia).

India's excise tax policy has been designed to protect tobacco-related employment, specifically in relation to production of *bidis* (small, hand-made cigarettes). It was estimated in 2004–2005 that 7 million people were engaged in tobacco-related employment, of which 4 million were engaged in bidi production (Sunley 2008). More than two-thirds of those employed in tobacco production live in rural areas, many of whom are engaged in small-scale household production or "cottage industry" (John et al 2009).

Bidis in general are subject to significantly lower excise tax than cigarettes. They are produced by manufacturers producing less than 2 million sticks a year without machinery, and who were exempted from the excise in 2008 (Sunley 2008). The 2017 budget announcement indicated that there would be no changes to hand-made bidi excise taxes, especially for those wrapped in low-cost *tendu* leaves.

Unemployment in Tobacco Manufacturing as a Result of Tax Excise Rate Increases

Return to: Assessing the Economic Environment

Industry-sponsored research habitually predicts major job losses as a result of higher tobacco taxes, making policy makers understandably sensitive to the employment issue. However, not only is employment in tobacco already low in most countries but losses in tobacco employment come mostly from industry practices (mechanization, sometimes accompanied by shifting and consolidating factories among countries) rather than tobacco taxes (World Bank 2017, Chapter 7).

More importantly, numerous country studies demonstrate that the net employment impact of tobacco tax increases is generally positive, the opposite of industry forecasts (World Bank 2017, Chapter 7). Higher tobacco taxes lead to a redistribution of consumer spending that generally creates more jobs in other sectors than those lost in the tobacco sector – i.e. there is usually a modest net gain in employment for the economy as a whole. In addition, while growth in this substitute employment would be gradual, so would be any declines in tobacco employment caused by higher taxes. Meanwhile, by cutting smoking rates, higher tobacco taxes will increase overall worker productivity across the economy by reducing work time lost to smoking breaks and tobacco-related illness.

In general, the vast majority of workers in the tobacco production chain are in farming rather than manufacturing, doing highly labor-intensive work on small family farms in low- and middle-income countries. However, while dependence on tobacco for farm employment is a real issue, it is often exaggerated, particularly by the tobacco industry. Even Malawi, the country with the highest relative tobacco farming employment, has only 2.3 percent of its agricultural labor involved in tobacco farming (World Bank 2017, Chapter 7). In addition, tobacco farming poses negative health consequences for farmers, including exposure to pesticides and green tobacco sickness (US CDC 2017). Tobacco farming also has detrimental effects on the environment, such as soil depletion and deforestation (NCI and WHO 2016; Lecours et al 2012).

Chapter 8 of World Bank 2017 addresses employment in tobacco farming in detail. It shows, first, that any effects of tobacco taxes on farm livelihoods will be gradual and initially very small, providing ample time for farmers to adjust if they are given appropriate support. Equally important, contrary to industry claims, tobacco is generally not the most profitable crop these farmers could be growing. And in most cases, tobacco farmers are already also growing other crops and adjusting tobacco acreage on the basis of relative prices and needs for rotation for soil conservation. However, there remain many tobacco farmers who are not well informed about the risks they run, and unaware of their other options. Even those farmers who may already want to shift away from tobacco to alternative crops often find themselves caught in a cycle of dependence on tobacco firms for loans, inputs, and marketing their tobacco, effectively making it impossible for many of them to undertake otherwise profitable crop substitution. National policy makers and international partners can work together to protect and empower farmers, and to assist them to transition from tobacco to other, better livelihoods.

The World Bank's *Understand and evaluate the impact of tobacco control policies on employment* toolkit[16] provides guidance on conducting analyses to estimate the number of jobs directly related to the tobacco industry and the potential impact on employment of reducing tobacco use.

Tobacco tax plans should incorporate support for affected workers – those in farming, marketing, and to some extent distribution – especially those with low skills. Though the numbers as a share of total employment are generally small, some workers will, as noted, either lose employment or have reduced incomes as tobacco demand falls. And even though the net employment effect of shifting consumer expenditures from tobacco to other items in the family consumption

[16] Available from http://documents.worldbank.org/curated/en/345461468176336150/Understand-and-evaluate-the-impact-of-tobacco-control-policies-on-employment.

basket is more likely to be positive rather than negative, those who lose employment or incomes in tobacco are far more visible than those who gain in other sectors. Governments must anticipate this challenge and be ready with substantively and politically relevant responses.

Successful transitions can be achieved, helping farmers to substitute other crops and other workers to access equal or better livelihoods outside tobacco. Policy makers should tackle this issue head-on: on equity grounds, to assist vulnerable workers and their families; and on strategic grounds, to prevent the tobacco industry from successfully using exaggerated claims of reduced employment as a political weapon against tax rate increases or reform.

Factors Affecting Employment in the Tobacco Sector

Return to: Assessing the Economic Environment

Data from high-income countries reveal that between 2000 and 2013, cigarette consumption fell from 2,040 billion sticks to 1,514 billion sticks respectively, but increased in lower-income countries as follows:

- upper-middle-income countries: from 2,381 billion sticks to 3,165 billion sticks;
- lower-middle-income countries: from 670 billion sticks to 820 billion sticks; and
- low-income countries: from 113 billion sticks to 143 billion sticks respectively (NCI and WHO 2016).

Tobacco manufacturing jobs, on the other hand, declined by 5.5 percent globally between 1980 and 2014, from 1,317,314 jobs in 1980 to 1,245,469 between 2010 and 2014 (NCI and WHO 2016).

Technology, Production Efficiency and Employment

Cigarette manufacturing used to be labor-intensive, with the cigarette sector accounting for a significant share of total manufacturing employment. Evidence reveals that employment in the manufacturing sector has been affected by technologies that emerged in the early 1990s. These changed cigarette production from a labor-intensive process to capital-intensive and mechanized one, and demand for labor in cigarette manufacturing has been dramatically decreasing ever since.

The same argument also holds true for the agriculture sector. As new technology has improved tobacco yields per hectare (FAOSTAT 2011), it

has also dramatically reduced the agricultural labor requirement (Capehart 2004).

Concerns Associated with Multinational Tobacco Companies (MTCs)

Return to: Background to Excise Taxes and Systems

Since the 1980s, increasing globalization has led to a number of tobacco companies – British American Tobacco (BAT), Philip Morris International (PMI), and Japan Tobacco (JT) – purchasing or establishing joint ventures with state-owned facilities around the world, transforming them into multinational tobacco companies (MTCs). To attract foreign direct investment, many governments provided tax incentives (e.g., tax holidays, import restrictions for cigarettes, keeping excise rates constant for multiple years) for MTCs (NCI and WHO 2016).

The increasing number of regional, economic, monetary or trading unions and markets established since 2000 has created regional economies of scale for MTCs' operations, and reduced their costs for restructuring regional production facilities.

Concentration of MTCs' power

As a consequence, some MTCs have consolidated their production facilities in individual countries and set up centralized production and distribution hubs, from which other countries in the region can be supplied with tobacco products.

Such developments have given these companies a competitive edge against competitors, as has been the case in Central America (Holden and Lee 2011). BAT consolidated six independent companies in Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama into one large factory in Honduras in mid 1990s. This regional restructuring continued worldwide as:

- BAT closed its facility in Ghana and started supplying cigarettes from its Nigeria facility in 2006.
- Kenya became a sub-regional hub as BAT closed its facility in Uganda in 2006 and Mauritius in 2007, and supplied cigarettes from Kenya to these countries.

- South Africa became a sub-regional hub as BAT closed its facilities in Angola in the 1990s and Cameroon in 2007. Cigarettes were exported from South Africa to these countries.
- Czech Republic: BAT closed its facilities in 2004 and started supplying cigarettes from Germany.
- Canada: BAT closed its production facility and moved it to Mexico in 2006.
- Hungary: Imperial Tobacco and PMI closed production facilities in Hungary and started supplying cigarettes from Poland and Germany in 2004.

Influencing Countries' Internal Trade and Tax Policies

As MTCs attempted to increase the efficiency in their production by cutting costs through regional restructuring, they also relied on changing internal policies (e.g., excise tax levels) and/or trade barriers (import duties for cigarettes and inputs for cigarette production) to work to their own advantage. They also used regional restructuring as a negotiation point to influence internal excise polices elsewhere.

For example, MTCs discussed regional restructuring ideas with authorities in Russia and Kazakhstan, saying they would relocate their business operation to only one of those countries.

Many low-income countries use costly tax holidays and income tax exemptions to attract investment, but evidence shows that tax incentives are often likely to be redundant – that is, investment would have been undertaken even without them. Their fiscal cost of tax incentives can be high, reducing opportunities for much-needed public spending on infrastructure, public services or social support, or requiring higher taxes on other activities (World Bank 2015, 1).

MTCs' influence on nation states may pressure governments to restructure parts of their overall tax systems to make up for a part of foregone tax revenues and corporate tax remittances from tax incentives. Governments should examine the transfer pricing practices of MTCs and refrain from offering tax incentives in the first place.

Earmarking/Revenue Allocation: Global Application

Return to: Background to Excise Taxes and Systems

Several countries provide dedicated revenues for social programs or other government programs. They raise revenue by either levying additional (surcharges) on tobacco products, or dedicate a fraction of tobacco excise revenues (WHO 2010).

Earmarking tax revenues through legislation ("hard earmarking") is criticized by fiscal experts as contributing to rigidities, fragmentation, and eventual distortions in public expenditures. However, "soft" earmarking of funds – for example linking increased taxes to increased health spending through policy rather than through mandatory allocations in legislation – has in many countries helped generate grassroots support for tobacco tax hikes. This has also been demonstrated in other sectors (e.g. to get political support for reductions in energy subsidies).

For example, Egypt uses tobacco taxes for children's health care insurance, as has the United States. Ghana finances a portion of its national insurance health care program; India levies a National Calamity Contingent Duty (NCCD) on cigarettes; while Nepal uses tobacco taxes for a special cancer control program.

Other countries such as Cambodia levy an ad valorem lighting tax on the VAT-exclusive wholesale price. Thailand levies a specific surcharge or "local tax"[17] to support local governments. Benin (Mane, Nana, and Diagne 2014) and Gambia levy an environmental "eco tax" on tobacco.

In addition to the "local tax" mentioned above, a small percentage of tobacco and alcohol excise revenues in Thailand goes towards a "health tax"[18,19] In Indonesia, 10 percent of tobacco excise revenue is dedicated to support tobacco farmers. Similarly, in the Philippines, 15 percent of tobacco revenues are dedicated to tobacco farmers' livelihoods. Of the remaining incremental revenues, 80 percent goes to financing health insurance coverage for poor households and senior citizens, and programs supporting work toward the health-related Sustainable Development Goals and health awareness; and 20 percent goes to the Medical Assistance Program and the Health Facilities Enhancement Program at the Department of Health in the Philippines (Kaiser et al 2016). See Appendix M for a case study of the Philippines.) Earmarking of tobacco tax revenues has also been used by OECD countries such as Australia and the United States.

[17] A local specific tax on cigarette retail prices. It became effective in 1999 under the Provincial Local Authority (Aor Bor Jor) Act B.E. 2540. The revenue is directly transferred to the Provincial Local Authorities to support its operations.
[18] Health tax is a surcharge tax at 2% of tobacco and alcohol excise tax, established in 2001 by the Thai Health Promotion Foundation Act B.E. 2544 (November 8 2001). It is earmarked for the Thai Health Promotion Foundation ("ThaiHealth").
[19] Thai TV tax is a surcharge tax at 1.5% of tobacco and alcohol excise tax, which became effective in 2008. The tax remittance is transferred to the Thai Public Broadcasting Service to support the station's public television operation. Its revenue is capped at 2 billion baht per year.

Tobacco Tax Revenues and Allocation

Return to: Understanding Excise Policies and Tobacco Pricing

Many governments earn relatively significant revenue from tobacco excises. However only a few countries allocate enough funds to support implementation of tobacco control measures (WHO 2013). Countries that adopt strong and comprehensive tobacco control measures also need the necessary financial means to implement them. Soft earmarking part of tobacco excise revenues could serve that purpose (e.g., support for smoking cessation, and smoke-free public spaces and work places).

As noted, a number of countries allocate funding for a variety of programs through tobacco taxes. Many other developing countries have relevant development and poverty-reduction strategies that tobacco tax revenues could be used to finance. Such programs aim to raise the economic status of all poor households by reducing the costs and inequities of major household expenditures – including health services, education, water and sanitation, housing, and road safety.

The reallocation of tobacco revenues for development and poverty reduction programs can help reduce the direct fiscal burden of higher taxes on poor smokers and make tobacco taxes more progressive (on a net basis). This is before taking account of the disproportionately high benefits to the poor of improvements in morbidity and mortality, increased productivity and reduced risk of falling into poverty that can result from effective tobacco taxes (see Appendix for a case study in the Philippines).

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Return to: Understanding Current Excise Tax Policy and Price, Conducting a Pre-Policy Dialogue Analysis

This section discusses the potential influence of different types of excise system on the interests and goals of major stakeholders (be it the public health sector, manufacturers, or tax authorities). It also examines the relationship between excise taxes and their:

- revenue generating potential (buoyancy), the factors affecting expected revenues in response to excise increases, and global evidence of the links between excise tax changes and revenue;
- reinforcement by other tobacco control policies; and their
- administrative impact on revenue collection (special attention is given to floor taxation issues).

Implications of Excise Tax Systems on the Tobacco Market

Return to: Assessing Tax and Price to Inform Policy Dialogue, Assessing the Economic Environment

The Best Excise System (BES)

The Best Excise System (BES) at any point in time during a country's development should preferably focus on public health objectives while balancing other competing objectives. The BES depends, though, on the political preferences of the government and is set up through the political decision-making process.

For countries that impose excise tax on tobacco products, the best excise system is the simplest form of excise application where:

- the effective tax base is easily defined;
- tax avoidance[20] and evasion by suppliers is dramatically eliminated or reduced;
- expected levels of price and revenue (at least in the short to mid-term) increases are achieved in response to tax changes;

[20] Here, tax avoidance refers to the way suppliers lower the amount of full excise tax liability legally using loopholes in tax directives. For example, under the ad valorem excise system, when the tax base is set on the manufacturer's price, manufacturers can keep their prices low in order to avoid full excise tax liability. Similarly when the specific excise is levied on weight or length of cigarettes, manufacturers can reduce the weight or the length of cigarettes to avoid full tax liability. Tax avoidance often occurs in products where the producers can modify the taxable base.

- cigarette price gaps (and hence consumers swapping from higher to lower price brands) are reduced.

The BES also applies to countries without an excise system but who are in the process of introducing one. For these countries, the BES should incorporate import duties,[21] other surcharges and fees. The BES can then be administered by those countries' customs entities (see Appendix C, which outlines the potential implications of different types of excises for the selected excise tax systems).

Uniform specific system

Price gap: Uniform specific systems place a (proportionately) higher tax burden on low-price brands than for higher-price bands. This maximizes health benefits, including by reducing the price gap among price bands, and as a consequence reducing the substitution of higher- with lower-priced brands.

Price impact: As tax increases, manufacturers tend to increase the consumer price by more than the amount of the tax increase, even though they may initially absorb part of the tax increase to avoid a shock effect on consumer behavior.

Brand diversification and profit: The system encourages product upgrade and variety (brand diversification), and ensures relatively higher profit for the manufacturers.

Revenues: Tax administration of uniform specific excise taxes is comparatively easy since the tax base is easy to determine. It is important to assure, for health as well as revenue reasons, that specific excise tax rates rise at least as rapidly as growth in nominal per capita income (i.e. income per capita at current prices).

Uniform ad valorem system

Price gap: The tax burden is distributed uniformly among price bands and tends to increase the price gap among price bands.

Price impact*:* As the tax rate increases, the amount of tax paid automatically rises as it is linked to the price of the product. Due to this "multiplier" impact, manufacturers usually attempt, at least initially, to dampen the increase retail prices in response to a tax increases (Keen 1998). The extent to which they are able to do this depends in part on how big the tax increase is relative to their profit margins. In the case of the UK discussed below, where there were large tax increases, producers in fact increased retail prices by more than the tax increases.

Brand diversification and profit: Ad valorem excise generates relatively lower profits for manufacturers compared to profit levels under a uniform specific excise system. This is partly because, under the ad valorem system, manufacturers have little incentive to increase the

[21] This is especially the case for countries that are in the process of reducing their import duties as part of trade agreements or the tax harmonization directives of trade, economic or monetary unions.

price of cigarettes through product upgrading or introducing more varieties.[22]

Revenues: The cost of generating expected revenue in response to tax increases is relatively higher because:

- tax administrators need to monitor the tax-base (prices) in the market;
- if the declared tax base is lower than expected (due to avoidance or evasion), governments will generate lower than anticipated revenue from a tax increase. This may create tension between the tax authority and the tax payers (e.g., manufacturers, importers).

Ad valorem with specific floor tax

Ad valorem with a specific floor tax can use uniform rates (as was the case in Turkey, Egypt and Kenya), or differential (tiered) rates.

Revenue: The main purposes of this system are both to increase health benefits and to protect expected revenue from low-price cigarettes. The system works better in countries where low-price brands have a relatively higher share in the market.

The specific floor excise creates a higher tax on low-price brands when the ad valorem tax does not generate a higher revenue than the specific excise floor. The system aims to reduce consumption by poorer, more price-responsive smokers, who tend to smoke more and buy cheaper brands. It also aims to reduce downward substitution by other smokers when taxes are raised.

For higher-price products, revenue buoyancy depends on how manufacturers respond to tax increases. As noted, producers tend to try initially to keep price increases low when taxes go up. This means that tax revenues may be initially higher than they would be with full price pass-through and so with resultant reductions in consumption. The net revenue increase also depends, for example, on whether existing stocks are subject to the new tax as well. Producers' attempts to delay or dampen the impact of taxes on retail prices is another reason, from a health perspective, for imposing big increases in taxes that would be prohibitively expensive for manufacturers to absorb.

Mixed specific and ad valorem

The effects associated with specific and ad valorem excises also apply when the two systems are combined, but the magnitude of these effects depends on which type of excise is more predominant. A mixed system can also include a minimum specific excise floor tax.

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[22] The multiplier effect is calculated as $1/(1-t)$ where *t* is the ad valorem tax rate. If the ad valorem tax rate is 58%, the multiplier would be 1/(1-0.58)= 2.38. When a producer increases the wholesale price by US$0.05, then the retail price increase must increase by US$0.05* 2.38 = US$0.12.

The mixed system provides tax authorities with the opportunity to get health and revenue advantages from adjusting both specific and ad valorem excises. These adjustments can help to do many things: reduce consumption by increasing prices; ensure the expected increase in tax revenues; reduce product diversification and substitution; and reduce the gap between price bands. And in situations where it is politically not feasible to have annual adjustments in specific excises, ad valorem taxes can be used to keep pace with increases in purchasing power.

For example, when the market has an abundance of cheap cigarettes, a significant increase in the specific excise (while holding constant or reducing the ad valorem level) would reduce the price range of cigarettes on the market and reduce downward substitution.

However, there are important advantages of full reliance on specific excises, including floor taxes, where annual adjustments to keep pace with purchasing power (growth in nominal per capita income) are feasible. The higher the reliance on specific excises, the greater the prevention of avoidable disease and death. This applies particularly at the lower end of the market, where prevalence and price responsiveness tend to be highest. There are also institutional advantages of specific excises over mixed systems, which complicate policy making and tax administration.

Implications of Excise Taxes on Major Stakeholders' Interests

There is a wealth of information on the implications of excise tax systems from the point of view of the primary objectives of major stakeholders (World Bank 1999; WHO 2010; IARC 2011; NCI and WHO 2016; World Bank 2017). Stakeholders include smokers and their families; health ministries and health-related CSOs; tax authorities; workers in the tobacco supply chain who might lose employment or incomes as well as those elsewhere who might gain; and society as a whole, which would benefit from improved public health, faster growth, and programs financed by higher tobacco excises.

Higher Prices for Public Health and Higher Profit for Producers

Tobacco producers, as well as the public health community, favor specific excises over ad valorem taxes. Producers do not like ad valorem excises since they go up pari passu (the multiplier effect) with increases in prices. In contrast, any increase in price beyond the amount of specific excises represent increases in income and to a large extent profits.

Specific excises narrow the price gap between cigarette price-bands and therefore:

- reduce current consumption levels (public health objective);
- reduce smokers' financial incentives for downward substitution, i.e. for buying cheaper brands when tobacco taxes go up (public health objective);
- increase smokers' incentives to trade up to relatively more expensive brands (producers' objective).

Since any net increases in producers' gross prices are translated as income for the producer, producers are incentivized by specific excise taxes to:

- differentiate their products towards more appealing (higher-price brands) and then meet the demand for those higher priced brands as demand shifts upwards;
- produce more varieties for different price bands to capture price- and upgraded-product sensitive smokers' demand (Barzel 1976; Kay and Keen 1983; Kay and Keen 1987; Kay and Keen 1991; Keen 1998; Cremer and Thisse 1994).

Under the specific excise system, producers may also:

1. increase the prices for more premium products at a higher than expected rate in order to subsidize not passing through the full amount of tax increases for lower priced brands;
2. or alternatively, at least for a time, increase the prices of more premium products less than expected to capture and create demand for those "quality-sensitive" smokers.

Producers' pricing decisions depend, especially over time, on market conditions (e.g., competitive environment, market shares of their brands in price bands, current and expected purchasing power of smokers, magnitude of current and future tax increases).

While both producers and public policy favour specific excise, this does not by any means mean that the interests of producers and governments coincide. Producers favor small increases over big ones, and they favor complex multi-tiered specific excises over uniform ones. So they are likely to try to use their economic and political influence to avoid the package of big, well-structured excises indexed to affordability that are recommended in this module and in *Tobacco Tax Reform: At the Crossroads of Health and Development.*

Price Competition and Reduced Prices

For producers that have already established higher market shares for high-price (premium) or mid-price products, specific excise will likely provide economic advantage against competitors, particularly if there

are strict tobacco control regulations that discourage producers from introducing new brands through mass media.

Under the ad valorem excise, firms may engage "price wars", or milder forms of price competition, in order to capture competitors' market share within and between price bands. This may cause prices to fall – at least temporarily.

Meanwhile, governments that rely heavily on ad valorem excises based on price may also face lower than the expected revenue in response to tax increases (as was the case in Egypt, Senegal, Jordan and Turkey).[23] This may be due to underestimating declines in consumption, tax avoidance or evasion, or lower than expected growth.

Reinforcement by Other Tobacco Control Policies on Tax Increases

Return to: Conducting a Pre-Policy Dialogue Analysis

WHO MPOWER measures[24] assist countries in reducing the demand for tobacco products.

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

R Raise taxes on tobacco products

Non-price measures such as advertising bans reinforce the impact of tax increases regardless of types of excise tax. For example, specific excise encourages more variety and appealing products that might work against public health objectives. That is, the consumers' willingness to pay for those products may increase, especially by those less price sensitive smokers who value the upgraded products and those (potential) smokers who value the "image" of appealing products.

However, as an increasing number of countries impose strict bans on tobacco advertising and promotion, the cost and effort required to

[23] Tax analysis with tax authorities in those countries.
[24] More information on MPOWER available from http://www.who.int/tobacco/mpower/en/.

introduce and establish a new brand increase, making those efforts economically less appealing.

Furthermore, as more countries impose plain packaging rules, this will likely reduce influence the impact of product variety and the brand diversification impact by reducing the "appealing image" of smoking for young and potential smokers in the future.

The effects on government excise tax revenues are relatively complicated in both excise systems in the short and medium term. In the following section, the revenue potential of excise taxes is discussed.

Revenue Generating Potential (Buoyancy) of Excise Taxes

Return to: Assessing the Economic Environment

Although the primary objective of increasing tobacco taxes is to improve health at the individual, family and societal level, increased revenue from tobacco taxes is a key additional reason – particularly important for fiscal authorities – for dialogue on tobacco tax reform. In the medium to long run, there will also be increased productivity and income, as well as reduction in preventable disease and death.

An example of an advanced economy where this has happened is the United States, which significantly increased federal taxes on cigarettes from US$0.39 to US$1.01 per pack in 2009. This increased prices by 22 percent within a couple months and reduced consumption by 11.1 percent. Despite this reduced consumption, federal tobacco tax revenues increased by 129 percent in the year after the reform (from US$6.8 billion in 2009 to US$15.5 in 2010) (CDC 2012).

Experience from various developed and developing countries shows that even though tobacco consumption decreases as a behavioral reaction to higher tobacco taxes, the percentage increase in excise tax revenue per unit is greater than the percentage decrease in tobacco consumption. In other words, demand for tobacco is relatively inelastic, in large part because tobacco consumption is highly addictive.

However, revenue effects will be determined by factors including:

- the percentage increase in the excise tax on tobacco products;
- the initial tax share relative to retail prices;
- income and price elasticities of tobacco demand (see IARC 2011);
- the overall levels of consumption in the country; and
- the quality of tax administration.

The 2013 Sin Tax reform in the Philippines, which simplified the system (from four to two tax tiers) and significanlty increased tax rates (e.g., the lowest tax tier increased by 400 percent), led to an increase of more than 86 percent in tax revenues within one year of implementation (Kaiser 2016) (see World Bank toolkit "Design and Administer Tobacco Taxes"[25] which presents useful discussions, advice and evidence on a number of "best practices" to follow when and how best to implement and administer tobacco taxes. WHO 2010 "Tobacco Tax Administration" also covers both theoretical and practical application of different types of excise taxes and their potential impact on various stakeholders, and their main objectives).

In terms of revenue volatility, over time, different types of taxes respond differently to economic upturns and downturns. For example, while capital gains taxes can be very volatile due to fluctuations of the stock market, consumption taxes are more stable, depending on the type of products. The volatility of tobacco excise collection tends to be lower in comparison to other taxes, including other excise taxes (Felix 2008), primarily because of the relatively price inelastic nature of cigarette consumption. Volatitlity by country also depends on volatility in income and the income elasticity of cigarette consumption, which can vary significantly across and within income and across income groups. (See IARC 2011 for the estimated income elasticities of cigarette demand in the globe.)

Buoyancy of Excise Taxes on Tobacco Products

Cigarettes

Excise taxes on cigarettes are one of the most efficient tax instruments in relation to administration and revenue. This is mainly due to the following characteristics of cigarettes:

- Large sales volumes and few producers (with some exceptions) enable government to supervise and monitor closely the production, distribution and sales.
    - Almost no close substitutes, and easy definability of tax base.
    - Relatively easy collection (tax administration).
    - Relatively limited opportunities for tax avoidance and evasion when designed and administered carefully (e.g., simple system with close monitoring).

[25] Toolkit available from http://documents.worldbank.org/curated/en/698461468163741169/Design-and-administer-tobacco-taxes.

- Inelastic demand: an increase in price will lead to a less than proportional decrease in consumption.
- Inelastic but positive income elasticity of demand for cigarettes. As income increases, demand for cigarettes increases. In part, smoking goes up overall, and in part there is a shift towards higher-price brands. (This would lead to higher revenues for government in cases of ad valorem or multi-tiered excise taxes, although these are not recommended here.)

Excise tax revenues and their shares in total excise and tax revenues are examined and illustrated for select countries in Appendix E.

Other Tobacco Products

The buoyancy of excise taxes for other tobacco products may not be the same as cigarettes, as other tobacco products do not carry the same properties as cigarettes.

Given the wide variety of tobacco products and the significant small scale-cottage industry in the production process in some countries (e.g., Bangladesh, India, Indonesia, Thailand, Vietnam), excise collection for such products is relatively less efficient and creates the opportunity for tax evasion and avoidance.

Furthermore, due to the nature of manufacturing certain tobacco products, determining the tax liability and how to collect the tax also creates monitoring and compliance challenges as discussed in box 2 for India's smokeless tobacco products.

Box 2: The excise tax collection for smokeless tobacco products in India.

India levies excise tax based on the retail selling price of packs of pan masala, gutkha and chewing tobacco.

However, the tax liability of the manufacturer is determined based on the maximum production capacity of each machine and on the sale prices of packages produced.

Accordingly, the production capacity and the duty payable per machine is notified each month to tax authorities according to the category into which the maximum speed of a packing machine for packages of various retail sale prices falls.

Manufacturers are obliged to declare the maximum packing speed of each machine to the tax authority in order for them to determine and confirm its maximum production capacity, and therefore the monthly or weekly tax liability.

Source: Ministry of Finance, India.

Factors Affecting Expected Revenues in Response to Excise Increases

Return to: Background to Excise Taxes and Systems

The level of expected revenue (as well as health benefits) in response to excise tax increases for a given country depends on the following factors and conditions (which can interact and affect the magnitude of the others):

- The types of excise taxes governments impose and the way the excise tax systems are designed. These factors will have biggest effect on reducing demand for the quantity of tobacco consumed when they have least effect on the characteristics of brands, and the highest effect on the price and on reducing price gaps among price bands.
- The initial percentage share of excise in retail price.
- The initial retail price of cigarettes and their affordability levels in relation to income (e.g., disposable income).
- The percentage increase in excise tax per pack.
- The producers' response to tax increases (reflecting part or all of a tax increase in the new retail price).
- The price and income elasticity of demand for cigarettes (both briefly discussed in the next section).
- The extent and effectiveness of non-tax tobacco control measures.
- The quality of tax administration.

The price and income elasticity of demand for tobacco is particularly important when increasing revenue remains the priority following excise tax rises (both elasticities are briefly discussed in the next section). However, when a country-level analysis takes place, the factors and conditions listed above need to be taken into consideration when determining the level of excise increases and the potential tax revenue.

If the objective is to achieve higher revenues – at least in the short to mid-term – the level of excise tax increases need to capture the potential loss of revenue due to reduced demand.

Price Elasticity of Demand for Tobacco

Policy makers want to know how sensitive a change in demand is to changes in price: this is the price elasticity of demand, and is measured by the percentage change in quantity demanded divided by the percentage change in price.

The less elastic the demand, the less effective the tax in reducing cigarette consumption and so in health benefits, but the greater the gain in tax revenues.

Price elasticity is either zero or negative value. That reflects to the percentage change in demand in response to a 1 percent increase in the real (inflation-adjusted) price (i.e. price elasticity of -0.4 will reduce the demand for cigarettes by 0.4 percent in response to a 1 percent increase in real price). If the elasticity is less than -1 (e.g. -1.5), then the demand is relatively sensitive to price changes, or "elastic." If the elasticity is between zero and minus one, then the demand relatively insensitive to price changes, or "inelastic."

In the case of tobacco, studies show consistently that demand for tobacco is price inelastic ranging between -0.2 and -0.7. Most estimations are gathered around -0.4. In other words, a 1 percent increase in taxes (passed through to price) leads to 0.4 percent decrease in quantity. With all else constant, the more inelastic the demand, the higher the increase in tax revenues from increases in tax rates.

Price elasticity and revenue stream

If demand is inelastic (higher than -1), raising the ad valorem and specific tax rate by modest amounts will always raise government tax revenue. If demand is elastic (less than -1), there is a tax rate that maximizes government tax revenue, which depends on the level of producers' own price increases. As demand becomes more elastic, the revenue-maximizing tax rate falls. In any event, though, demand for tobacco is price inelastic.

Any increases in excise tax will still result in a net gain in excise revenue if:

- the percentage increase in excise tax per pack exceeds the absolute percentage reduction in quantity of cigarettes smoked (demand) in the market – i.e. if demand is price-inelastic.
- the rate of excise tax increase is far larger than the price increases it generates;
- there is a relatively low share of excise tax in the retail selling price.

Any revenue estimation needs to consider the producers' price decision, which is determined by their goal of maximizing profit in the short to long term.

Excise tax buoyancy depends on how producers adjust their own prices to take account of excise tax increases. As the number of countries adopting and implementing strong tobacco control measures grows, including regular excise increases, producers' profits become more constrained. They have generally but (as the UK case shows) not always shown a preference for at least initially absorbing tax increases rather than passing them on fully to consumers and suffer declines in sales or market share.

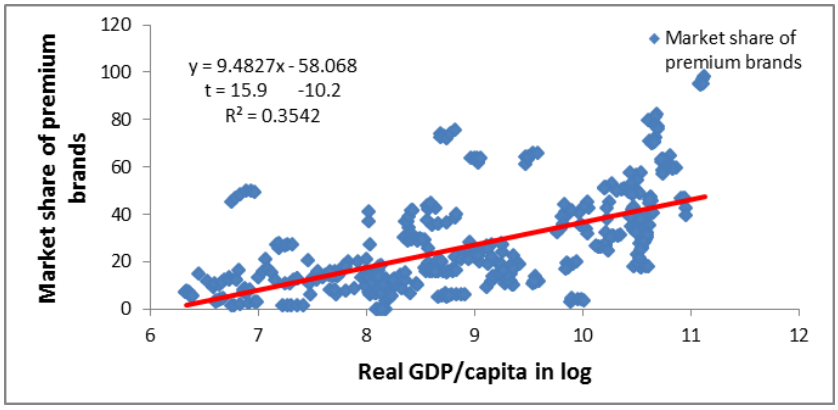
Income Elasticity of Demand for Tobacco

While the excise tax is an important factor affecting demand for cigarettes, there are other factors that may counter the influence of tax increases on demand. For example, economic studies in all low-, middle- and high-income countries (with the exception of a few studies from the United States and other high-income countries) found that there is a positive and significant relationship between increases in income and demand (the "affordability" factor). This is why it is important for tobacco taxes to grow fast enough to reduce, or at a bare minimum keep pace with, affordability.

The higher incomes rise, the higher the demand for cigarettes – and/or the higher the demand for high-priced cigarettes (IARC 2011, WHO and NCI 2016; Yurekli et al 2016).

As illustrated in figure 8, a positive and significant relationship is found between increases in GDP per capita and the market share of premium cigarettes worldwide.

Figure 8: High price cigarette demand and per capita income, 2007–2012



Source: Yurekli et al 2016.

Floor Stock Taxation

By definition, "a floor stocks tax is a one-time excise tax placed on a commodity undergoing a tax increase. The amount of the floor stocks tax is equal to the difference between the new tax rate and the immediately prior tax rate".[26]

[26] Definition by the US Department of the Treasury, Alcohol and Tobacco Tax and Trade Bureau, available from https://www.ttb.gov/tax_audit/floor-stocks-tax-faqs-answer.shtml.

Political and economic consequences of not imposing floor taxation for potential tax payers (e.g., cigarette manufacturers) were discussed in detail by WHO tax administration manuals in 2010 and by Ross and Tesche 2015.

The application of a floor tax limits downstream windfalls. This is because a floor tax puts pressure to raise prices immediately (or at least faster), even when manufacturers, distributors and retailers are holding taxed inventory at the previous lower rate.

The main arguments against floor stock taxation involve the administration costs in tracking down overstocked tobacco products at retail or distributor level. The administration costs of floor stock tax collection may exceed potential revenues they may generate. However, for cigarettes, this may not be the case.

In many countries, cigarettes are the main source of tobacco excise revenue, and constitute a significant share in the governments' indirect and total tax revenues. Furthermore, many countries have few manufacturing facilities and distributors (in some countries manufacturers are also the distributors of their brands) for cigarettes. This is an issue for the tax administration that involves monitoring cigarette production and supply chain.

The absence of a floor tax would both reduce revenues from tax increases, varying according to the amount of stockpiling, and provide incentives for increased stockpiling before tax increases are approved and come into force. Loss of potential excise tax payments can be either one-time (e.g. the Philippines) or continuing (e.g., Turkey, UK). (See Appendix J for stockpiling issues in selected countries.)

When the government is in a process of a tax reform and manufacturers anticipate significant changes in the excise system and the rates, the likelihood of stockpiling (beyond normal inventory requirements) increases in the absence of a floor tax. This was the case in the Philippines in 2012 and results in a one-time loss in tax revenues.

When governments regularly increase their excises, increased stockpiling and loss of tax revenues will most likely become a regular practice in the absence of a floor tax (as in the cases of Turkey and the UK) in the absence of a floor tax.

Country-level Excise Tax Analysis: Why is it important?

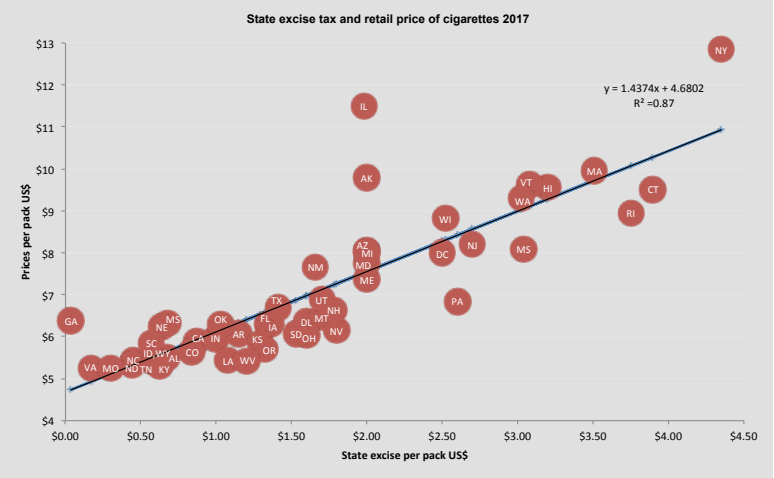
Return to: Assessing Tax and Price to Inform Policy Dialogue

The global landscape provides an overview of the tax and price status of cigarettes by income group or region. It also sets a reference point for the tax and price status of individual countries.

Country-specific analysis provides a more detailed picture of where the price and tax shares of a country fit within the global market. However, in some countries, excise tax application varies between states or provinces. For example, two large cigarette-producing and consuming high-income countries, the Russia and the United States**,** have excise tax shares located in the 30 percent to 40 percent excise bracket (country averages). In Russia, tobacco products are subject to a uniform excise (ad valorem and specific) tax, and VAT. The ad valorem excise tax uses firms' maximum retail price as a base. As a result, the maximum price base limits the price variation of the same brand across the country.

However, this is not the case in the United States, where a general sales tax is applied. Cigarettes are subject to several excise duties at federal (a uniform value for all states) and state level (varying by state) levels. Furthermore, some cities and localities also levy excise on cigarettes on top of federal and state excises. Cigarette prices and the total tax burden vary by state are shown in figure 9.

Figure 9: States cigarette prices and excise tax values per pack of cigarettes (exclusive of federal and local excises) in 2017



Sources: Compiled using data from Fair Reporters 2017 and Federation of Tax Administrators 2018.[27,28]

Note: Abbreviations: AL: Alabama, AK: Alaska, AZ: Arizona, AR: Arkansas, CA: California, CO: Colorado, CT: Connecticut, DE: Delaware, DC: District of Colombia, FL: Florida, GA: Georgia, HI: Hawaii, ID: Idaho, IL: Illinois, IN: Indiana, IA: Iowa, KS: Kansas, KY: Kentucky, LA: Louisiana, ME: Maine, MD: Maryland, MA: Massachusetts, MI: Michigan, MN: Minnesota, MS: Mississippi, MO: Missouri, MT: Montana, NE: Nebraska, NV: Nevada, NH: New Hampshire, NJ: New Jersey, NM: New Mexico, NY: New York, NC: North Carolina, ND: North Dakota, OH: Ohio, OK: Oklahoma, OR: Oregon, PA: Pennsylvania, RI: Rhode Island, SC: South Carolina, SD: South Dakota, TN: Tennessee, TX: Texas, UT: Utah, VT: Vermont, VA: Virginia, WA: Washington, WV: West Virginia, WI: Wisconsin, WY: Wyoming.

[27] See http://fairreporters.net/health/prices-of-cigarettes-by-state/.

[28] See https://www.taxadmin.org/assets/docs/Research/Rates/cigarette.pdf.

Furthermore**,** country-level analysis of the excise tax system provides useful analysis on countries' economic, fiscal, and political environments that can influence the performance of excise systems. When the objective is to examine how the excise system behaves in response to tax rate increases, country-level analysis needs to consider legal exemptions, and other legal provisions imposed on tax payers, including the existence of a "floor tax".

Estimating price elasticity

Price elasticity of demand for tobacco can be estimated using different datasets (macro and sectoral level) and by applying different demand functions (see the World Bank Tobacco Toolkit on Dataset[29] and the Toolkit on Demand Estimation[30]).

Studies that estimate price elasticity of cigarette demand using aggregate annual data or individual household datasets from low- to high-income countries worldwide are also available (IARC 2011).

There are some differences in price elasticity among different socioeconomic groups. In particular, low-income and youth are more responsive than the average. Overall, price elasticity of demand for cigarettes is clustered around -0.2 and -0.7, where youth and low-income smokers have relatively higher price sensitivity (closer to -0.70) than adults and higher-income smokers respectively.

Estimating Average Price and the Tax Incidence

Return to: Understanding Current Excise Tax Policy and Price

Country-level information on average retail price and tax shares provides a good assessment of a country's tax and price status by income group and at regional level. However, tax policy discussions require in-depth knowledge of the tobacco market with respect to price level and the market shares of tobacco products (specifically cigarettes) in different price bands at country level. As a result, from a policy perspective as well as from that of credibility with national authorities, excise taxes and retail prices should be assessed at the country level.

Assessing the Average Price of a Cigarette Price Band

The price band is the classification of retail prices according to the level of their value (e.g., premium, mid-price, economy). The market share of

[29] More information can be found at http://documents.worldbank.org/curated/en/642251468176685152/Data-for-economic-analysis.

[30] More information can be found at http://documents.worldbank.org/curated/en/390251468322463134/Economic-analysis-of-tobacco-demand.

price bands affects the level of average retail selling price in any country.

Determining Price Bands

Return to: Understanding Current Excise Tax Policy and Price

Determining price bands depends on available data. In many countries, information on retail prices is available and easily accessible at retail outlets. However, the market shares of brands are not officially available to the public.

Information can be obtained from industry sources and/or retail market research, based on the most popularly sold brands and their prices where the majority of retail purchases take place. Depending on the country, this might include tobacco outlets or supermarkets. It is neither practical nor necessary to have the information on all brands. Depending on the availability of funds, this information can be obtained by randomly selecting a limited number of locations.

In low- and middle-income countries, the price gap among price bands is relatively wider than in high-income countries. The analyst can determine at what percentage point, above or below the average price, brands can be categorized as expensive or cheap.

It is common practice to associate the brand names for the price bands based on smokers' perception of their price status (premium, mid-price or economy brands), though this may bias the average price of price bands. This is due to market competition among cigarette firms, which can cause the price of brands to move up or down from their initial price bands. Furthermore, firms often differentiate the appearances of brands with the same name and market them in different price band categories in order to diversify their market concentration in price segments, and increase their profits.

Statutory versus Effective Tax Base

Return to: Background to Excise Taxes and Systems

The statutory excise tax rate is defined in tax law and is legally imposed on cigarettes and the other tobacco products. The effective excise tax rate is the rate that determines the final tax burden on the consumption of the tobacco products.

The effective excise tax requires the legal definition of the statutory rate, which specifies the tax base and the tax rates of the tobacco products. However, exemptions or exonerations may negate the tax base. The effective tax rate provides a platform for the comparability of

the tax burden on tobacco products among countries. Based on the types of excise application, analysts estimate the effective tax rate on a comparable tax base.

The most common comparable tax base is a pack of 20 cigarettes and the comparable effective tax rate is the percentage of total excise tax liability on the average retail price of a pack of 20 cigarettes (WHO 2017 for tax and price measures for the effective excise calculation). Estimating the effective rate can be simple, or as in the case of Thailand, complex (see Thailand and table 10).

The VAT rate on tobacco products is almost always a "statutory rate", unless there are exemptions. The base for the statutory rate is often the wholesale price, inclusive of excise taxes. When this is the case, then the statutory rate of VAT can be converted to effective rate on the retail price as follows:

$$VAT\ rate\ on\ retail\ price = \frac{Statutory\ VAT\ rate}{1 + Statutory\ VAT\ rate}$$

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Section 6: Legal Framework

This section covers the types of tobacco products that are subject to tax rules and regulations in different countries. It introduces the different types of tobacco products and the types of taxes that are levied on them. It also briefly discusses the legal provisions that restrict tax policies, or legally exempt products from tax liability.

Types of Tobacco Products Subject to Taxation

Return to: Understanding Current Excise Tax Policy and Price

There are several types of tobacco products in the global market. The main products subject to taxation include the following (see the definition of these products in Appendix B):

- Cigarettes
- Kreteks (machine and hand-made)
- Bidis (e.g., machine-made (Bangladesh), hand-made (India), filtered (Bangladesh, India), unfiltered (India)
- Smoking or fine cut tobacco
- Cigarettes and cigarillos
- Cigars
- Smokeless or chewing tobacco

In recent years, Electronic Nicotine Delivery Systems (ENDS) have emerged as the new vapor product delivery mechanism (see box 3). These devices are powered by a battery that heats a nicotine-containing liquid for inhalation (NCI and WHO 2016).

Box 3: Vapor Product Definition

"Any non-lighted, noncombustible product that employs a mechanical heating element, battery, or electronic circuit regardless of shape or size and that can be used to produce vapor from nicotine in a solution. The term includes any vapor cartridge or other container or nicotine in a solution or other form that is intended to be used with or in an electronic cigarette, electronic cigar, electronic cigarillo, electronic pipe, or similar product or device."

Source: North Carolina Department of Revenue (March 16, 2017)

Types of Taxes Levied on Tobacco Products

Return to: Understanding Current Excise Tax Policy and Price, Excise Tax Application for Tobacco Products

Tobacco products, especially cigarettes, are subject to three types of indirect taxes: excise taxes; import duties; and consumption taxes (e.g., VAT or general sales tax). In addition, governments also levy other surcharges and fees on tobacco products.

Value Added Taxes (VAT)

Value added taxes are, in general, broadly based consumption taxes applied to the value "added" at each step of the tobacco production and distribution chain for products and related services. See VAT[31] module for details.

Import Duties

Import duties are also referred to as import tariffs or customs duties. They are taxes imposed on imported products and are collected by the designated customs authority upon the product's entry into the country.

Box 4: Excise and surcharges on packs exceeding its legal size

Washington DC, USA levies a specific excise value (US$0.125) a piece of cigarettes and charges an additional surtax of US$0.36 on per pack of 20 or fewer cigarettes.
If the pack contains more than 20 cigarettes, the surtax per pack is incrementally increased by US$0.018 for each cigarette above 20.

Other Surcharges and Fees

Tobacco products may be subject to other taxes or fees (surcharges) levied specifically for tobacco or other selected, excisable goods, or all goods and services (see box 4 for surcharges on packs containing more than 20 cigarettes in the United States). In the former case, these surcharges and fees can be considered as an excise tax, and in the latter case, they need to be included in total tax incidence. See Countries with other surcharges and fees.

Countries levy other surcharges on tobacco products that are earmarked for specific organizations, purposes, or programs.[32] In a number of cases, additional surcharges and fees complicate determining

[31] Countries that have a general sales tax (as opposed to a VAT) also apply it to tobacco products.
[32] In 2014, about 31 countries were levying other surcharges on cigarettes and select tobacco products (WHO 2015).

the effective tax rate and base. For example, Thailand has one of the more complicated methods in the Eastern Pacific Asia (EAP) Region for calculating the excise liability on cigarettes due to the number of surcharges that the country's excise taxes use as a base (see Thailand's Excise System).

Tax Liability

Return to: Understanding Excise Tax Policies and Tobacco Pricing

Tobacco manufacturers and/or distributors are legally liable to remit excise taxes to governments. This tax liability must be yielded within a legally defined period after the cigarettes or other tobacco products have left the production facility for retail.

In most low- and middle-income countries, VAT is also collected from retailers by manufacturers and/or distributors when they deliver the tobacco products. Retailers are legally responsible for remitting VAT payments to the government. Alternatively, VAT on tobacco products is collected when the purchase is completed at the retail level and retailers are responsible for declaring and remitting the VAT or sales tax on tobacco products (e.g., US, Canada).

Tax Exemptions on Tobacco Products

Return to: Understanding Current Excise Tax Policy and Price

Excise Tax

Some tobacco leaves and tobacco products other than cigarettes are also exempted from excise tax in countries that have a protectionist excise policy. A few examples are:

- native tobacco (e.g., Thailand's "roll your own" tobacco is native tobacco) (Thailand, Excise tax law 2013/14);
- small cottage industries producing bidis in India where consumption and production mainly involves low-income or poor households (Sunley 2008);
- products that are not legally recognized as tobacco and thus are not included in the tax law (e.g., nasway – which is home-produced and untaxed tobacco – products in Uzbekistan (Usmanova 2007), Kyrgyz Republic and other parts of Central Asia).

Import Duties

Import duties are levied on tobacco products (mainly cigarettes) that are destined for export (see export regulations on tobacco products on countries' trade websites, e.g., Malaysia[33]).

[33] More information available at http://www.customs.gov.my/en/ip/Pages/ip_tep.aspx.

Tax Refund

An increasing number of countries refund excise and VAT taxes for tax-paid damaged and stolen tobacco products.

Governments either provide a tax credit (e.g., Turkey) or allow manufacturers and distributors to deduct the tax payment from their income tax filing (e.g., US). However, this application is not common practice in many countries.

Floor Stock Taxation

Floor stock taxation for tobacco products is a tax levied on tobacco products in stock post-excise tax increase, and on which suppliers have only paid the pre-excise tax increase rate to the government and not released for consumption.

A good example of floor stock taxation on tobacco products that of the State of California (see box 5).

Box 5: California Healthcare, Research and Prevention Tobacco Tax Act of 2016, Cigarette Floor Taxes

- In addition to any other tax, every dealer and wholesaler, for the privilege of holding or storing cigarettes for sale, use, or consumption, shall pay a floor stock tax for each cigarette in its possession or under its control in this state at:
  - 12:01 a.m. on the first day of the first calendar quarter commencing more than 90 days after the effective date of this act at
  - the rate of one hundred mills (US$0.100) for each cigarette.
- Every dealer and wholesaler shall:
  - file a return with the board on or before the first day of the first calendar quarter commencing more than 180 days after the effective date of this act on a form, showing the number of cigarettes in its possession or under its control in this state at 12:01 a.m. on the first day of the first calendar quarter commencing more than 90 days after the effective date of this act.
- The amount of tax shall be computed and shown on the return.
  - The taxes required to be paid by this section are due and payable on or before the first day of the first calendar quarter commencing 180 days after the effective date of this act.
- Payments shall be made by remittances payable to the board and the payments shall accompany the return and forms required to be filed by this section.
  - Any amount required to be paid by this section that is not timely paid shall bear interest at the rate and by the method established pursuant to Section 30202 from the first day of the first calendar quarter commencing 180 days after the effective date of this act, until paid, and shall be subject to determination, and redetermination, and any penalties provided with respect to determinations and redeterminations.

Source: California Law website, California Legislative Information (accessed February 8, 2018), http://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=RTC&division=2.&title=&part=13.&chapter=2.&article=2.5

Legal Constraints on Excise Policies

Return to: Understanding Current Excise Tax Policy and Price

Countries' excise tax law may define legal constraints on countries' excise tax policies, including on:

- minimum and maximum tax rates;
- the time-frame for any change in tax rates (e.g., annually, biannually, which month of year); and
- the tax base, including minimum or maximum price levels.

Legal restrictions on excise policies are imposed unilaterally by a country or the Directives of the trade or economic unions of which the country is a member. The details of these countries' constraints are discussed in the next section.

Legally Binding with the Manufacturer(s)

LAO PDR

In 1998, Lao People's Democratic Republic excise system changed to a two-tier, ad valorem excise where cigarettes were subject to 15 percent or 30 percent ad valorem excise based on their ex-factory price.

In 2000, the government adopted a uniform specific excise for domestic cigarettes at Kip 800 (US$ 0.096) per pack, and a uniform specific excise at Kip 1500 (US$0.18) per pack for imported cigarettes.

In 2001 the government signed a 25-year investment license agreement contract with foreign manufacturers. Based on this agreement, the excise tax system reverted to the pre-2000 level: 15 percent ad valorem was charged for cigarettes with an ex-factory price of less than Kip 1,500 (US$ 0.18) per pack, or 30 percent otherwise.

Cigarettes will be subject these ex-factory price ad valorem rates for the next 25 years, and from 2002 to 2006, foreign manufacturers were allowed a five-year tax-holiday.

In 2005 the excise rate was increased from 30 percent to 55 percent (Tax Law 2005), but due to contract provision, the 30% excise applied to cigarettes.

In 2010, a specific excise rate of Kip 100 (US$0.012) per pack was applied to increase excise revenue and retail prices, and in 2011, specific excise tax was increased to Kip 500 (US$0.060) per pack while keeping the official ad valorem excise rate at 55 percent of ex-factory price. however this applied to only 30 percent, as specified in the

contract (Lao PDR Ministry of Finance presentation for 2012 Southeast Asia Meeting in Thailand and SEATCA Laos document).[34,35]

Minimum Excise Requirement

Minimum excise requirement is implemented by trade or economic unions (e.g., EU, ECOWAS and WEAMU) to ensure that the tax value and minimum tax revenue do not fall below a certain threshold. Price differences between price bands are reduced within and among Member States, and tax administration is also made easier among Member States.

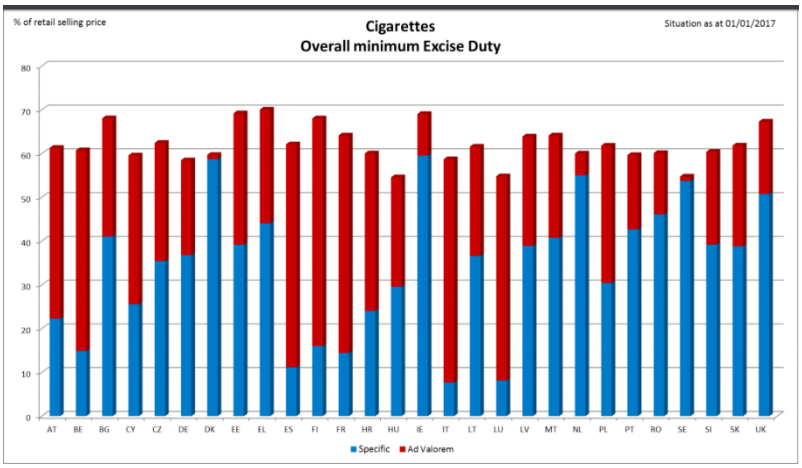
EU Excise Directive and Member States Excise Application

Cigarettes are subject to minimum specific and ad valorem excises that should meet a minimum excise value of at least €90 per 1,000 cigarettes, and at least 60 percent of the weighted average retail selling price, though members applying €115 per 1,000 do not need to comply with the 60 percent criterion.

In order to reach at least €90 per 1,000 pieces, members can levy the specific component of the excise tax between 7.5 percent and 76.5 percent of the total tax burden (TTB) – expressed as a fixed amount per 1,000 cigarettes.

As shown in figure 10, Member States complying with the minimum specific directive levied both excises at different rates on cigarettes. As a result there is some variation in total excise share in the weighted average retail prices.

Figure 10: EU Minimum excise duty by Member States 2017



[34] See http://tobaccotax.seatca.org/country/lao-pdr/.
[35] See http://seatca.org/dmdocuments/SITT%20Lao%20PDR%20Affordability%20Policy%20Paper_Final%20(1).pdf.

Source: EU excise duty tables for manufactured tobacco, European Commission (accessed February 8, 2018), http://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/excise_duties/tobacco_products/tobacco_products_releases-consumption.pdf.

The Directive for the excise application on fine-cut smoking tobacco, on the other hand, differs from that of cigarettes. Members are free to choose either ad valorem taxes, specific or a mixture of both, as long as they meet the minimum criteria (see table 3). As a result, Member States' applications of the Directive vary.

Table 3: EU minimum excise directive for other tobacco products 2017

Product category	**Minimum rate**
Fine-cut smoking tobacco	46% of the weighted average retail selling price* Or €54 per kilogram*

In 2017, some members only applied specific excise taxes, with the duty varying between €86.4 per kilogram in Romania and €310 per kilogram in Ireland. Two members, Austria and Italy, rely on ad valorem excise taxes only, with the minimum excise duty between €90 per kilogram and €115 per kilogram respectively. About eight members rely on both excises, with the minimum excise duty varying between €43.95 in Luxembourg and €135 in Portugal.

Maximum Excise Requirement

A maximum cap on excise tax was also imposed by the economic unions ECOWAS and WAEMU, and legislated in Thailand for manufactured cigarettes as of 2016.

Thailand Maximum ad valorem rate is a 90 percent.

WAEMU WAEMU limits the excise rate to a minimum 15 percent and a maximum 45 percent of ex-factory price and requires members to choose only one rate that can be applied to all cigarettes. Despite this, some still levy tiered ad valorem and some levy well below the directive rate (e.g. Guinea Bissau applies 10 percent excise on tobacco products (CRES 2014).

ECOWAS ECOWAS Member States can choose the rates freely within a range of between a minimum 15 percent and a maximum 100 percent.

In its application, some ECOWAS Member States apply excises well above ECOWAS' Directives. For example, Ghana levies a 150 percent

excise on the ex-factory price on cigarettes (Government of Ghana 2015).[36]

Minimum and Maximum Price Policies

Return to: Background to Excise Taxes and Systems

The EU case law of the Court of Justice of the European Communities has clearly settled that minimum prices infringe Community law.

Minimum Price

Setting a minimum price to reduce tobacco consumption has been discussed among the public health community. A minimum retail price policy is currently applied by Brazil, set at R$5.00 per pack in 2016.

A minimum price level can be ensured by an inflation-adjusted minimum specific tax floor application, where the adjustment can include changes in real GDP per capita growth. This ensures any tax-induced higher retail prices will still ensure price higher tax revenues in real terms.

And higher taxes generate higher revenues that can create financial room for government expenditures for social programs that serve the poor (e.g., smoking cessation programs, tobacco control programs, health insurance coverage).

Setting up a minimum price with a significantly lower tax share falls short of achieving both public health and revenue objectives. Minimum price policy may hamper price-competition in the market and tends to increase manufacturers' profit margins.

Maximum Price

Maximum prices have been used by several countries as a tax base for the ad valorem tax system.

Thailand and Russia, for example, used maximum retail prices as a base for VAT and ad valorem excise respectively. Companies face penalties if their brands sell for higher prices in the market in Russia than their stated maximum prices. In Thailand, if companies fail to announce the maximum price, the government determines a value to use for the tax calculation.

[36] See http://www.ghana.gov.gh/index.php/media-center/news/1687-ghana-to-increase-prices-of-tobacco-products.

A maximum price policy is important if the country relies on ad valorem excise, and excise revenues have a significant share in indirect tax revenues. However, a maximum price policy also creates burden on tax administrators and weakens tax compliance and trust between businesses and government.

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Section 7: Tobacco Product Tax Excises – Where They Are Applied and How

This section provides an overview of the types of excise tax applied to cigarettes according to World Bank income group and region. Excise and import duty application for other tobacco products is provided for selected countries in Appendix G. This section also examines why countries may need to re-adjust tax payments for tax-paid cigarettes after post-tax increases.

Global Excise Tax Coverage

Return to: Excise Taxes

Excluding the few exemptions mentioned above, almost all tobacco products are subject to excise taxes in countries with an excise tax system. For example, of the 188 countries for which data exist, roughly 90 percent (or 173 countries) levy some form of excise tax on cigarette products (WHO 2017). Of those, 126 countries levy at least one specific excise on cigarettes and 107 countries levy at least one ad valorem excise tax. The distribution of countries with the types of excise taxation on cigarettes by income group and by World Bank region are listed in table 4 and in Appendix D.

Table 4: Types of excise taxation on cigarettes by World Bank Region and income group, 2016

	Specific ONLY	Ad-valorem ONLY	Mixed System	No Excise	Total Countries
High-income	19	2	28	6	58
Upper and middle-income	19	13	19	4	54
Lower and middle-income	21	16	11	1	49
Low-income	7	16	2	4	28
Total	66	47	60	15	189

	Specific ONLY	Ad-valorem ONLY	Mixed System	No Excise	Total Countries
Africa	12	27	4	1	47
Europe and Central Asia	12	2	39	0	52
East Asia and Pacific	20	4	5	4	31
Middle East and North Africa	5	2*	4	9	18
Latin America and the Caribbean	15	9	7	2	33
South Asia	3	1	2	3	8
Total	67	45	61	19	189

Source: WHO 2017.

Federal, Provincial or Sub-National Tax Application

Worldwide, excise taxes are generally set and collected by central or federal government. A few countries, including Brazil, Canada and the US (Federation of Tax Administrators 2018) allow provinces or states – and the cities within those provinces or states – to levy and collect additional excise taxes on cigarettes.

Similar to excise taxes, VAT rates are also generally set by the central or federal government. Tobacco products are usually subject to the same VAT rates as other products.

VAT rates in India are set and collected (including for tobacco products) by individual states.[37]

Import Duties

Import tax coverage for cigarettes varies by countries based on their bilateral, regional and global trade agreements. In recent years, many countries have unified import duties for all tobacco products (WTO Import duty database – last version dated May 2017). (See Appendix G for import duty application for cigarettes and other tobacco products in selected countries.)

Reference

WHO (World Health Organization). 2017. Report on the Global Tobacco Epidemic 2017. Maldives country profile. Geneva: WHO. http://www.who.int/tobacco/surveillance/policy/country_profile/mdv.pdf.

[37] More information can be found at https://www.bankbazaar.com/tax/value-added-tax.html.

Section 8: Tax Base and Rates

This section discusses the tax base for excise and import duties on cigarettes and other tobacco products, focusing on:

- how cigarette retail prices and tax shares vary according to excise application by income group and regional level;
- the difference between a statutory and effective tax rate;
- how tax bases differ by country and types of tobacco products (including electronic cigarettes – ENDS);
- the insights offered by global versus country-specific tax analysis.

Excise Tax Base for Cigarettes

Return to: Background to Excise Taxes and Systems, Understanding Excise Tax Policies and Tobacco Pricing

The tax base is the measure upon which the assessment or determination of tax liability is based. For tobacco products, as discussed, the excise base is either a specific unit or a monetary value (see table 5 for a tax base determined by the characteristics of cigarettes). The tax base (to which the excise tax rate applies) is essential for determining the effective excise tax rate at which the tobacco products are taxed.

Table 5: Excise tax base by characteristics of cigarettes, 2014

Taxable base[a]	Country[a]	Excise type
Retail price	Belarus, Indonesia, Mozambique,[c] Philippines	Specific
	Bangladesh	Ad valorem
Wholesale price	Pakistan	Specific
Quality range (low, standard, high)	Burkina Faso[b]	Ad valorem
Producer price	China	Specific
Production volume of manufacturing facility	Indonesia	Specific
Filter and non-filter	Armenia, Belarus, Georgia, India, Kyrgyz Republic, Moldova, Nepal, Papua New Guinea, Tajikistan, Ukraine, Uzbekistan	Specific
Mode of production (hand-made or machine)	Indonesia, India	Specific
Tobacco content	Algeria and Andorra (dark/light vs dark/blonde), India (bidis vs tobacco),	Specific

	Indonesia (white vs kreteks), Fiji and Tanzania (local vs imported)	
Packaging (soft, hard)	Brazil, Mozambique, Uganda	Specific
Length	India, Nepal, Sri Lanka	Specific
Domestic vs imported	Uzbekistan	Specific
Weight	New Zealand	Specific

Sources: WHO 2015; excise type from various government and other data sources.
Notes:
[a] Information on taxable base and countries from WHO 2015.
[b] Burkina Faso information from CRES (policy brief) available from http://www.otaf.info/sites/default/files/documents/Notes%20de%20politiques%20du%20Burkina%20Faso%20english.pdf
[c] Mozambique levies differential specific excise by retail prices on soft package cigarettes. As of 2017, Armenia, Georgia, Ukraine have all unified their tax base for all types of cigarettes.

Tax Base for Import Duties

Import duties can be a ratio applied on the customs value of either the FOB (product price) or the CIF (product price pus cost of shipping, plus cost of insurance). Some countries also levy a specific value on a unit of measure (e.g., weight or dimension of a shipment).

In some cases, countries also set import duties as a combination of a ratio and a specific value. They set a minimum floor value as a threshold and take whichever is higher (value generated by the import duty or the minimum floor value). The taxable base for import duty varies per type of duty levied on imports from most-favored nations or the rest of the world (see Appendix G).

Tax Rates and Retail Prices of Cigarettes

In this section, the distribution of countries by share of total excise tax in the retail price by income groups are discussed (see figure 11). Weighted average retail prices and the excise shares as a percentage of retail prices by countries' regions and income groups are provided in By Income Group and Region).

Global Overview on Excise Incidence

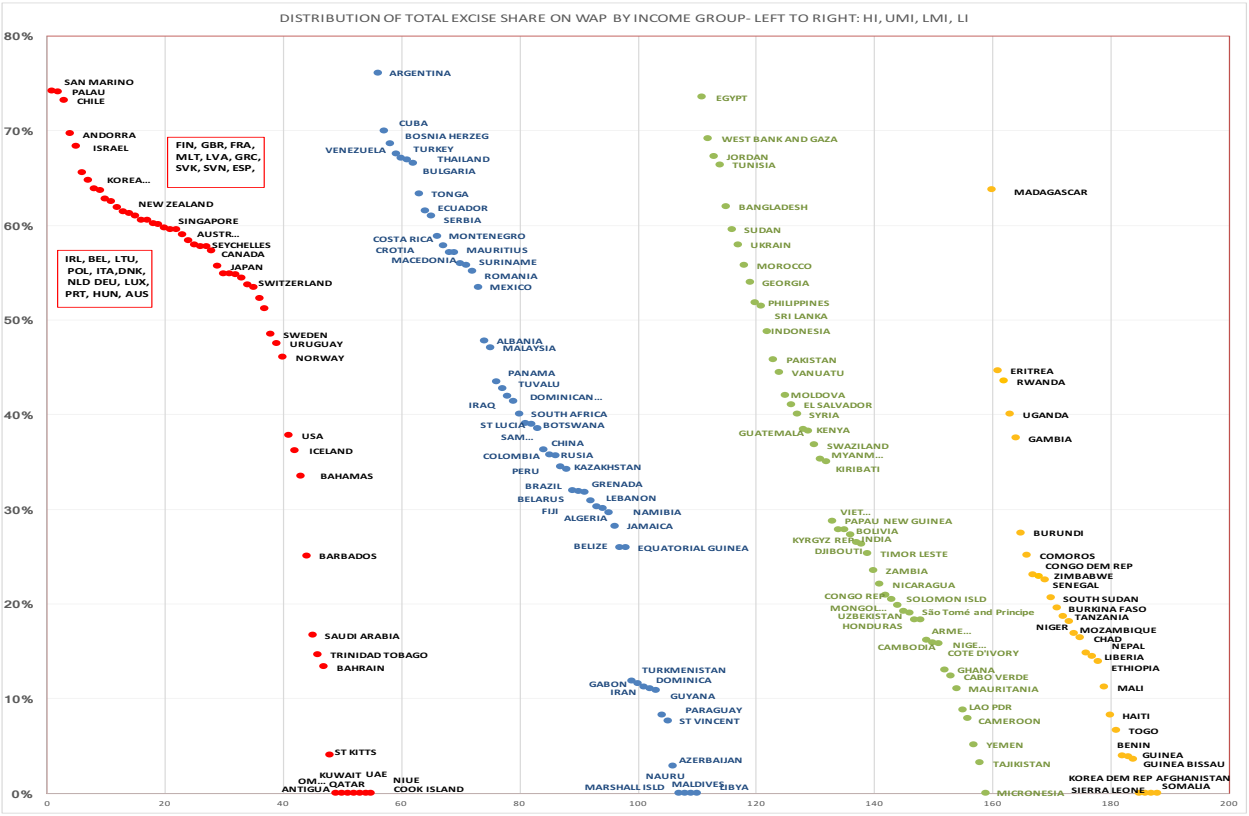
Return to: Excise Tax Application for Tobacco Products

Excise incidence is the percentage share of total excise tax in the average retail price of the product (for the purposes of this module, the product is cigarettes). Figure 11 shows the distribution of countries by the share of the total excise tax in retail price, by income group.

Most high-income countries are clustered within the 50 percent to 70 percent excise rate bracket while middle-income and low-income countries are clustered within the 20 percent to 50 percent tax bracket.

However, a significant number of lower- and upper-middle-income countries are clustered above the 50 percent tax bracket and few have a higher tax share compared to high-income group countries. The high excise share in middle-income countries does not generate comparable higher prices.

Figure 11: Global overview on the distribution of excise incidence (% of retail price) by income group, 2017



Sources: WHO 2017; World Bank 2016.
Note: Graph is developed based on WHO data from 2017, and income categories are based on data from World Bank, 2016.

Tax Harmonization

Return to: Improving Excise Systems and Rate Increases, Understanding Excise Tax Policies and Tobacco Pricing, Assessing the Economic Environment

This section provides an overview of excise tax harmonization efforts around the globe.

Countries' tax bases and tax rates for tobacco products can be influenced by the tax directives of the economic, monetary, and trading unions to which they belong, as part of ongoing efforts towards tax harmonization among Member States.

Indeed, tax harmonization has been an ongoing process in many parts of the world as economic, trade and monetary unions create, or are in the process of creating, common markets. Tax harmonization aims to reduce the barriers for free movement of economic entities (e.g., goods, services and investments), and enable easy administration among Member States. It also provides an incentive (in most cases) for tax reform, including in relation to tobacco taxes.

Definition

There is no consensus in the literature on the definition of tax harmonization (Velayos et al). However, harmonization is associated with the concept of adopting a common tax rate (e.g., Krugman and Baldwin 2004). Nonetheless, in practice, tax harmonization does not necessarily mean applying the exact tax rates and may come in the form of tax coordination or tax cooperation.

Harmonization has been defined as the elimination of differences or inconsistencies between the tax systems of different jurisdictions, or making such differences or inconsistencies compatible with each other (Larkin 2005).

The process of adjusting national fiscal systems to conform with a set of common economic aims (Musgrave 1991) can also result in tax coordination and tax cooperation, and be less demanding than tax rate harmonization.

Global Application

Evidence shows that the tax harmonization process usually starts with import duties (zero import duty on trade within the common market), and then follows with indirect taxes (e.g., VAT and excise duties).

Harmonization of Import Duties

Most trade, economic and monetary unions have already eliminated import duties for tobacco products in common markets (see Appendix G).

Excise Tax Harmonization on Tobacco Products

The application of tobacco tax harmonization varies around the world (see Appendix H for detailed information on selected harmonization cases).

For example, excise tax rates and their bases are completely standardized in the **Southern African Customs Union (SACU)**,[38] but the regulation has no upper limit should a Member State wish to levy tax above the standardized rate; in other words, it is a floor and not a ceiling, and any excess revenue stays in the country.

On the other hand, the **European Union (EU)**[39] does not standardize the existing tax systems of all its Member States, but rather attempts to make national tax systems congruent with EU objectives. As a result, the EU Directive requires Member States to levy both specific excise taxes and determine a minimum excise rate, below which the total excise liability cannot fall.

The **West African Economic and Monetary Union (WAEMU**)[40] limits excise tax rates to a strictly defined tax bracket, within which Member States are free to set their own rate (thought the rate needs to be uniform for all cigarettes). Furthermore, the WAEMU Directive limits the types of excise application (ad valorem only) for its Member States.[41] Among the **Andean Community,** decisions for excise tax application and corresponding rates are left to Member States, though the Community has a provision to impose a minimum excise duty.

The East African Community (EAC)[42] and the **Southern Cone Common Market (MERCOSUR)**[43] in **Latin America** plan to harmonize tax, but currently the excise tax application rests with the authority of National Legislations (for MERCOSUR see Rezende 2008 for details).

The Eurasian Economic Community (EEC)[44] is a relatively new customs union in Central Asia, which became effective in 2015. A draft tax policy on excise duty for tobacco products in the EEC was prepared in 2015 and has been circulated among Member States for their agreement.[45]

[38] SACU consists of five countries: Botswana, Lesotho, Namibia, South Africa, and Swaziland.
[39] The EU consists of 28 countries in West and Central Europe.
[40] WAEMU consists of eight countries: Benin, Burkina Faso, Côte D'Ivoire, Guinea Bissau, Mali, Niger, Togo, and Senegal.
[41] However, all WAEMU countries are part of the larger West Africa regional economic community ECOWAS, which enforces higher maximum rates, creating distortions in the region.
[42] EAC consists of Burundi, Kenya, Uganda, and Tanzania.
[43] As of 2017, MERCOSUR includes Argentina, Brazil, Uruguay, and Paraguay.
[44] The EEC currently has five members, including Armenia, Belarus, Kazakhstan, Kyrgyz Republic, and Russia.
[45] This draft policy can be found at https://docs.eaeunion.org/docs/ru-ru/0118912/clco_16112015_126_doc.pdf.

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Section 9: Links to Other Taxes in the System

Return to: Assessing the Economic Environment

In addition to excise tax, governments can collect revenues through direct taxes (e.g., income tax, corporate profit tax) on the manufacturing sector. In addition, revenue collection can use indirect taxes such as VAT and import duties. This section discusses the consequences of reduced demand for tobacco products on other indirect and direct tax revenues, including:

- whether reduced demand for tobacco means reduced VAT and income tax revenue from tobacco-related employment (e.g., manufacturing, retailing);
- whether globalization (e.g., reduced trade restrictions, new technologies) can affect governments' tax revenue streams.

Other Tax Revenues from the Tobacco Sector

In addition to excise taxes, the tobacco sector generates other direct and indirect taxes for government. Direct tax revenues can be generated by tobacco and tobacco products through:

- **personal income taxes** paid by employees in the supply chain (be they in the wholesale, manufacturing or retail sector) who earn either all or part of their income from their involvement in the production or trade of tobacco products;
- **corporate income (profit) taxes,** generated throughout the chain of supply – wholesalers, producers, importers and retailers;
- **other indirect tax revenues, which,** as discussed in previous sections, include revenue from VAT and import duties.

Import duties have lost their importance as a revenue-generating fiscal instrument with trade reforms leading to reductions in import duties in all income groups of countries. Consequently, an increasing number of common markets and trade agreements have either lifted import duties completely or reduced them significantly among trade partners (see Countries without Excise Duties but with Import Duties).

Does Changing Demand Affect Other Revenues from Tobacco Products?

Value Added Tax Revenue

Reductions in demand for cigarettes due to overall tobacco control programs will also eventually reduce VAT revenue from cigarettes – i.e. when the percentage increase in VAT per pack is lower than the percentage reduction in the quantity of cigarettes smoked, then the potential VAT revenue from cigarettes will fall.

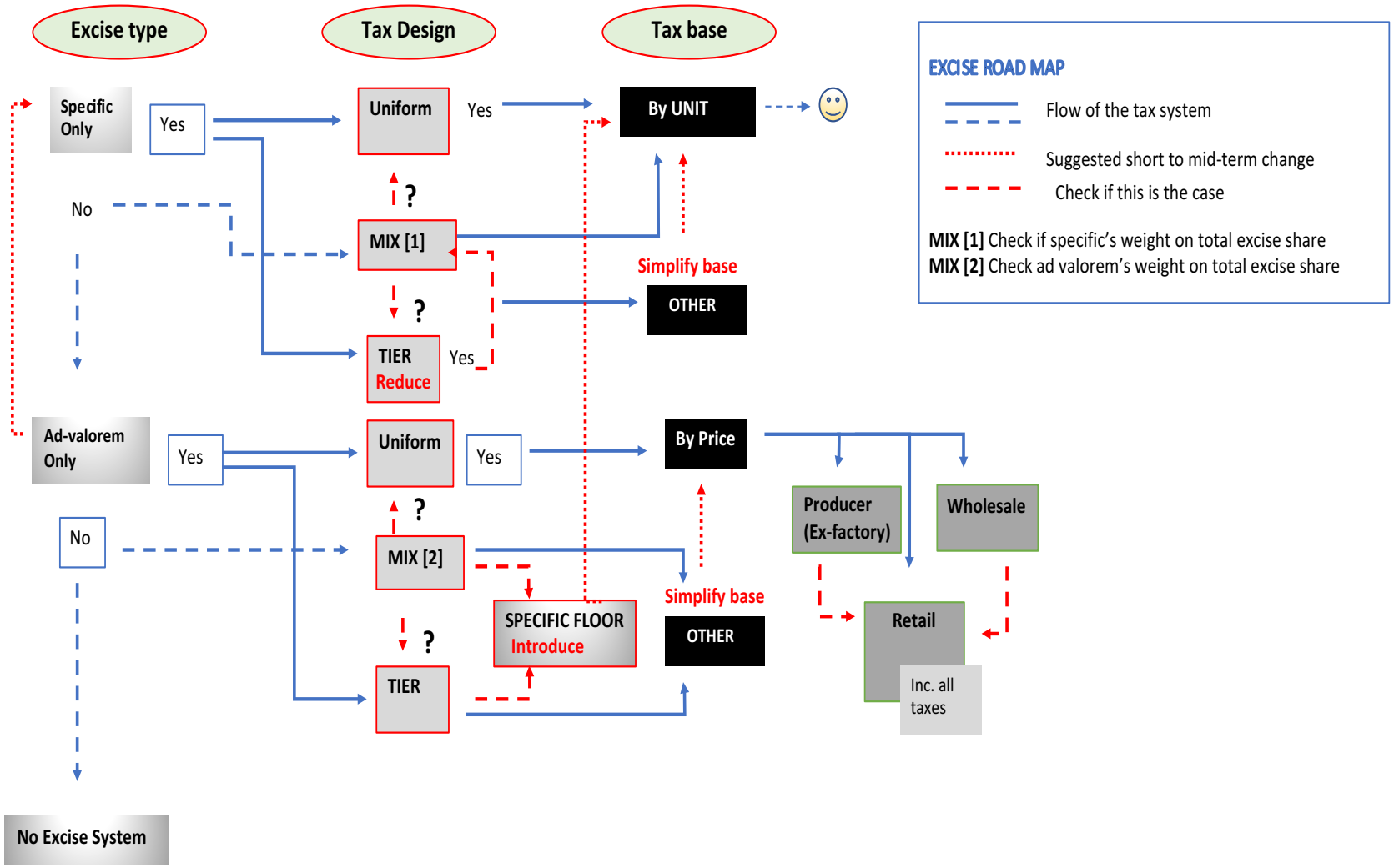
However, a reduction of VAT revenue from cigarettes on their own will less likely affect the total VAT revenue since VAT has a broad coverage on goods and services in the market. As demand is reduced by smokers' quitting or significantly reducing consumption, additional disposable income (previously spent on tobacco) will be re-allocated to other goods and services likely to be subject to VAT. As a result, total VAT revenue will unlikely be affected in the short term and is likely to start increasing in the short to medium term.

Income Revenue from Tobacco-Related Employment

This is an under-researched topic, with many studies concentrating only on potential negative effects on employment of tobacco tax increases. Recent studies have shown that the potential losses are exaggerated and that other factors, including mechanization and consolidation of cigarette production, have led to recent declines in tobacco-related employment. For example, it is likely that shifts in expenditures from tobacco to other goods and services will, if anything, lead to an increase in net employment).

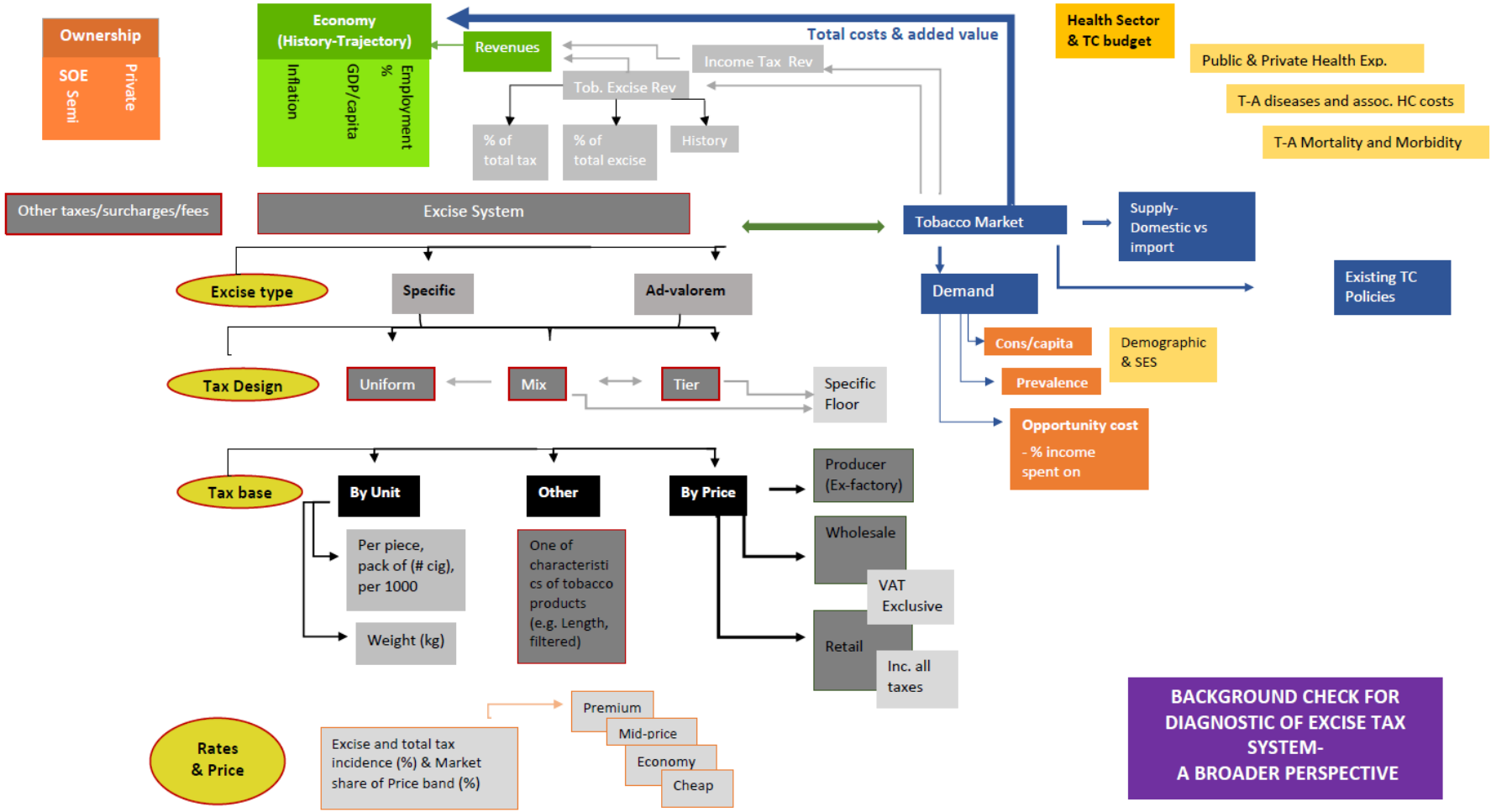
Governments have worried more about the potential unemployment risk from increased tobacco taxes than the data would justify. This is in part due to lack of analysis of net employment impact, including from shifting expenditures from tobacco to other goods and services. At the same time the tobacco industry exaggerates the risk of employment loss, knowing that because unemployment is a highly contentious and powerful political issue, in an effort to fend off or minimize tobacco tax increases.

Diagram 1: Excise Road Map



Return to: Section 2: Preparing for a Policy Dialogue on Tobacco Taxes

Diagram 2: Diagnostic Graph



Return to: Section 2: Preparing for a Policy Dialogue on Tobacco Taxes

Appendices

Appendix A: Tobacco Tax Reform – At the Crossroads of Health and Development

Return to: Rationale for Excise Taxes on Tobacco Products

This toolkit complements the recently published World Bank report *Tobacco Tax Reform: At the Crossroads of Health and Development* (2017).

The report, prepared collaboratively by a multisectoral team from different institutions, shows that by implementing tobacco tax policy reforms, policy makers can take fast track countries towards healthier, more prosperous societies. Indeed, country evidence indicates that higher tobacco tax rates could save millions of lives each decade, reduce poverty, and boost public resources for development investment.

Achieving this cannot be done in isolation, but rather requires a global coalition uniting governments, multilateral agencies, civil society, researchers, the private sector, and communities – a coalition dedicated to ensuring that the life-saving impact of tobacco tax reform reaches the largest possible number of people in the shortest possible time.

However, tobacco taxation remains one of the world's least-used tobacco control measures. To change this, and to make progress on tobacco excise taxation, there are key steps to take, and known pitfalls to avoid. This report distils a large body of evidence on successful practice in tobacco taxation and the decision-making process.

Key lessons

• **Go big, go fast**. Tax strategies should focus on health gains first, then on fiscal benefits. This means going for big tobacco excise tax rate increases early in the process. Adopting a slow, cautious timeline may sound prudent, but it means condemning large numbers of people to avoidable illness and premature death. In tobacco taxation, the rewards go to those who act boldly.

• **Attack affordability**. Tobacco taxes only reduce tobacco consumption if they reduce cigarette affordability. In most low- and middle-income countries, wages are rising. Thus, cigarettes will become more affordable for consumers – thereby increasing consumption – unless tobacco taxes rise even faster. Effective strategies generally involve combining big initial tax increases with recurrent hikes over time, to keep cigarette prices climbing more steeply than per capita real income growth (including inflation).

• **Change expectations**. Communication with the public is also critical. Governments must make sure consumers know that a tax-rate hike is not just a one-off, but that cigarette prices will keep going up. This is a motivator for current smokers to quit and young people not to start.

• **Tax by quantity**. Tobacco tax rates should be simplified and based on the quantity of cigarettes, not their price. This is done in two ways, both of which pre-empt smokers' switching to cheaper cigarette brands after a tax-rate hike on the brands they previously smoked (a response called "downward substitution"). The first key move is to use specific excises, as opposed to ad valorem (value-based) excises or other taxes. A key factor that needs to be considered is that specific rates need to be adjusted over time to at least keep pace with inflation and, preferably, at a faster rate so that affordability is reduced over time. Any strategy for adopting them should be therefore accompanied by a framework/instrument to allow for annual increases over time (such as the United Kingdom's tobacco duty escalator). The second is to merge the multiple tobacco tax "tiers" used by most developing countries. This way, tax hikes raise prices by the same large amount on all brands and types of cigarette at once, pushing smokers to quit completely, rather than switch.

• **"Soft earmarks"** can win support. Earmarking tax revenues through legislation is criticized by fiscal experts as contributing to rigidities, fragmentation, and eventual distortions in public expenditures. However, "soft" earmarking of funds — for example, linking increased taxes to increased health spending — has helped generate grassroots support for the tax hikes. This experience has been borne out in other sectors, and has worked for tobacco taxes in countries like Australia, the Philippines, and the United States.

• **Regional collaboration can boost results**. Momentum for ambitious tobacco tax reform can be enhanced, and cross-border threats like cigarette smuggling minimized, when countries work together in a regional structure. The European Union (EU) experience shows that regional cooperation can help countries achieve the dual goals of reducing tobacco consumption while increasing government revenues. Lessons have also been learned about the pace of reforms. EU lawmakers faced early political pressure to "go slow" by setting a low initial minimum tobacco excise rate to apply to all Member States. However, the EU accelerated progress by convincing Member States to agree up front to relatively high minimum tobacco excise rates, with longer transition periods authorized for some countries.

• **Build broad alliances**. Country leaders face sharp resistance to tax rate increases and other tobacco control measures from the tobacco industry. The industry is both financially powerful and politically astute. Tobacco industry advice to governments promotes the most ineffective

interventions and seeks to undercut and weaken tax measures. Countering these pressures requires robust scientific and economic analysis, as well as multisectoral policy development. It also demands the mobilization of civil society and opinion leaders. Support from international partners is also required, particularly in low-income countries, to strengthen country capacity for lining up and coordinating all parts of government, while engaging a wide set of stakeholders outside of government.

Tobacco Tax Reform – At the Crossroads of Health and Development (both the full report and an Executive Summary, available in French, Spanish, Portuguese, Chinese, Russian, Japanese, Arabic) are available from http://documents.worldbank.org/curated/en/docsearch/report/119792.

Appendix B: Definition of Types of Tobacco Products

Return to: Types of Tobacco Products Subject to Taxation, Appendix E

Tobacco products are classified in two broad categories: smoke and smokeless tobacco (ST). The most common types of **smoked tobacco products** include:

- manufactured cigarettes (machine and hand-made);
- roll your own (RYO) – fine or shredded tobacco wrapped in cigarette paper;
- pipe – device specifically made to smoke fine or shredded tobacco;
- cigars – tobacco wrapped in tobacco leaf or tobacco-containing paper and produced either by hand or machine;
- cigarillos, "little cigars" the size of cigarettes;
- bidis, small cigarettes produced by machine or hand, and wrapped in either cigarette papers (e.g., Southeast Asia) or in tendu leaves (e.g., India);
- kreteks – cloves added to cigarettes with tobacco: and
- water-pipes (shisha or hookah) – tobacco is smoked in a device using coal to burn the tobacco, then the smoke is inhaled through a water basin. Most common in the Middle East but can be found other parts of the world.

Smokeless tobacco products are either chewed or sniffed.

- **Chewed tobacco** (includes flavored tobacco) is made of damp and finely ground or shredded tobacco, and is sucked by placing tobacco between the lips and the gum. Chewing tobacco is very common in Sweden and Southeast Asia, especially in India.

- **Snuff** is a smokeless tobacco that is inhaled or snuffed into the nasal cavity.

Electronic tobacco products or vapor products are recently emerged nicotine delivery devices, called Electronic Nicotine Delivery Systems (ENDS). These devices are powered by a battery, which heats a nicotine-contained liquid that is then inhaled.

Appendix C: Comparison of (Uniform) Excise Systems

Return to: Assessing Tax and Price to Inform Policy Dialogue

Table 6: Comparison of excise tax systems

	Specific excise (uniform)	Ad valorem excise	Ad valorem with specific floor	Mixed specific and ad valorem excise	Mixed specific and ad valorem excise with a minimum specific tax floor
Tax base	The unit of product (e.g., 1,000 cigarettes)	The value of the product. (e.g., retail, wholesale or manufacturer price).	The excise is calculated on an ad valorem basis; however, if the calculated tax falls below a specified minimum floor, a specific tax rate applies.	Unit and value of product.	Both unit and value, unless tax is below specified minimum, in which case the tax base is the unit.
Administrative requirements	Tax should be collected at the point of manufacturing and at the time of importation				
	Low, as only the volume of the products must be ascertained.	Requires strong tax administration with technical capacity. Otherwise, the administrative burden can be high.	Requires strong tax administration with technical capacity. Otherwise, the administrative burden can be high, as with a pure ad valorem regime.	Requires strong tax administration with technical capacity. Otherwise, the administrative burden can be high as it requires assessing and collecting both ad valorem and specific excises.	Requires strong tax administration with technical capacity. Otherwise, the administrative burden can be high as it requires assessing and collecting both ad valorem and specific excises, as well as minimum floor compliance.
Undervaluation (in all cases tax receipts are higher if there is a floor-stock tax)	Not an issue.	Susceptible to undervaluation, but this can be overcome by establishing a minimum retail sale price.	This provides an easy tool to prevent undervaluation of low-price brands subject to the specific floor.	The ad valorem part of the excise collection may be susceptible to undervaluation depending on the choice of tax base.	The specific tax floor prevents possible ad valorem tax base undervaluation of low-price brands.
Impact on product "quality" and brand diversification	Upgrading "quality "tends to reduce the relative tax on higher-price brands.	Multiplier effect (i.e. taxes increases proportionately to prices) provides a disincentive to costly "quality" improvement.	No incentive to upgrade higher-price brands.	No incentive to upgrade higher-price brands.	Eliminates incentive to upgrade higher-price brands while at the same time provides this an incentive for lower priced brands.
Impact on price (other things equal)	Tends to lead to relatively higher prices, particularly for low-price cigarettes.	Tends to lead to relatively lower prices; price reductions will be "subsidized" if the multiplier effect is strong.	Tends to lead to relatively higher prices for low-price cigarettes.	An increase in the specific tax will increase the ad valorem payment as well.	An increase in the specific tax will increase the ad valorem tax amount as well. Increases in the ad valorem and/or specific tax will raise the minimum tax paid, if floor is a percentage of total tax on e.g., WAP. It will reduce price gaps given impact on "quality".
Affordability (in relation to rates of inflation and growth in per capita incomes)	The value of the excise in relation to GDP and its health impact (herein "value") will be eroded unless adjusted in line with affordability.	The real value of the excise will be preserved as prices increase – at least, to the extent that tobacco product prices follow affordability.	The real value of the specific floor will be eroded over time unless adjusted in line with affordability.	The real value of the specific excise will be eroded unless adjusted in line with affordability.	The real value of the specific excise tax and floor will be eroded unless adjusted in line with affordability.

	Specific excise (uniform)	Ad valorem excise	Ad valorem with specific floor	Mixed specific and ad valorem excise	Mixed specific and ad valorem excise with a minimum specific tax floor
Health benefits	The tax will discourage consumption of tobacco products irrespective of the price.	The tax may encourage more "trading down" in favour of cheaper cigarettes, reducing health benefits.	Specific floor reduces incentives for trading down.	May reduce trading down.	Reduces trading down.

Source: WHO 2010, adjusted to substitute affordability for inflation.

Reference

WHO (World Health Organization). 2010. *Tobacco Tax Administration Manual*. Geneva: WHO.

Appendix D: Types of Excise Taxes Levied on Cigarettes, Prices and Rates, by Region and Income

Return to: Excise Taxes, Preparing for Policy Dialogue, Understanding Excise Tax Policies and Tobacco Pricing, Tobacco product tax excises – where they are applied and how

Data for this appendix relate to the period 2010–2017, and have been gathered from various sources including WHO 2011, WHO 2017, websites of various ministries of finance (accessed in 2017), and various Mondaq Newsletters (available from http://www.mondaq.com).

Types of Excise Taxes Levied on Cigarettes by Countries

Specific excise ONLY (in total, 66 countries)				
	High-income (19)	**Upper-middle-income (19)**	**Lower-middle-income (21)**	**Low-income(7)**
Europe and Central Asia	Andorra, Iceland, Norway	Albania, Azerbaijan, Belarus, Kazakhstan	Armenia, Kyrgz Republic, Tajikistan, Ukraine, Uzbekistan	
South Asia			Pakistan, India	Nepal
Sub-Saharan Africa	Seychelles	Mauritius, Namibia, South Africa	Kenya, Swaziland	Burundi, Gambia, Mozambique, Uganda, Tanzania, Zimbabwe
Middle East and North Africa	Bahrain, Saudi Arabia	Iran	Jordan, Yemen Republic	
East Asia and Pacific	Australia, Cook Islands, Japan, Korea Republic, New Zealand, Palau, Singapore	Fiji, Malaysia, Samoa, Tonga	Kiribati, Mongolia, Myanmar, Papua New Guinea, the Philippines, Solomon Islands, Timor-Leste, Vanuatu	
Latin America and the Caribbean	Bahamas, Barbados, Canada, Trinidad & Tobago, USA, Uruguay	Belize, Dominica, Ecuador, Jamaica, Peru, St. Lucia, Suriname	Honduras, Nicaragua	

Ad valorem excise ONLY (in total, 47 countries)				
	High-income (2)	**Upper-middle-income (13)**	**Lower-middle-income (16)**	**Low-income (16)**
Central Asia		Turkmenistan		
South Asia			Bangladesh	
Sub-Saharan Africa		Equatorial Guinea, Gabon	Cabo Verde, Cameroon, Côte d'Ivoire, Djibouti, Ghana, Mauritania, Nigeria, São Tomé & Principe, Sudan, Zambia	Benin, Burkina Faso, Chad, Comoros, Eritrea, Ethiopia, Guinea Bissau, Guinea, Liberia, Madagascar, Mali, Niger, Senegal, South Sudan, Togo
Middle East and North Africa		Iraq, Lebanon	Syrian Arab Republic	
East Asia and Pacific		Tuvalu	Cambodia, Vietnam	
Latin America and the Caribbean	St Kitts & Nevis	Argentina, Cuba, Grenada, Guyana, Panamá, Paraguay, Venezuela RB	Bolivia, Guatemala	Haiti

A mixture of both excises (in total, 61 countries)				
	High-income (29)	**Upper-middle-income (19)**	**Lower-middle-income (11)**	**Low-income (2)**
Europe and Central Asia	EU(26), Israel, Switzerland	Bosnia & Herzegovina, Bulgaria, Croatia, Macedonia FYR, Montenegro, Romania, Russian Fed, Serbia, Turkey	Georgia, Moldova	
South Asia			Sri Lanka	
Sub-Saharan Africa		Botswana	Republic of Congo	Democratic Republic of Congo, Zimbabwe

Middle East and North Africa		Algeria	Egypt, Morocco, Tunisia, West Bank and Gaza	
East Asia and Pacific		China, Thailand	Indonesia, Lao PDR	
Latin America and the Caribbean	Chile	Brazil, Colombia, Costa Rica, Dominican Republic, Mexico, St. Vincent & the Grenadines	El Salvador	

Countries Without Excises on Cigarettes

Return to: Background to Excise Taxes and Systems

Of 193 countries, 19 countries have no excise tax on cigarettes				
	High-income (6)	**Upper-middle-income (6)**	**Lower-middle-income (2)**	**Low-income (5)**
Europe and Central Asia				
South Asia		Maldives		Afghanistan
Sub-Saharan Africa			Angola	Sierra Leona, Somalia
Middle East and North Africa	Kuwait, Oman, United Arab Emirates, Qatar	Libya, Iraq		
East Asia and Pacific	Niue	Marshall Islands, Nauru	Micronesia	Bhutan, Democratic People's Republic of Korea
North America	Canada, United States			

Latin America and the Caribbean	Antigua and Barbuda	Belize		

Countries with other surcharges and fees

Return to: Types of Taxes Levied on Tobacco Products

Traditionally, many countries levy only a few surcharges and fees on cigarettes, but many have consolidated these surcharges into their excise tax system. For example, in 2015, India incorporated an education levy into its tobacco excise duty; a health cess on cigars, cigarillos and cheroots had already been incorporated into the excise system in 2010.[46] Gambia is another good example of surcharges and fees on cigarettes and tobacco products. In addition to excise taxes, Gambia – a net importer of cigarettes and other tobacco products – also levies import duties, plus a VAT tax, customs processing fee on CIF value, a specific environmental tax based on per kg, and ECOWAS levy on CIF value of imported tobacco products.

In 2016, approximately 39 countries levied other surcharges on cigarettes including:

- **High-income**: three countries in **Latin America and the Caribbean** (Antigua and Barbuda, and St. Kitts and Nevis); **East Asia and the Pacific** (Niue)
- **Upper-middle-income**: 14 countries in **Africa** (Equatorial Guinea, Gabon,); **East Asia and the Pacific** (Marshall Island, Tuvalu); **Middle East and North Africa** (Libya, Islamic Republic of Iran); **Latin America and the Caribbean** (Brazil, Cuba, Grenada, Jamaica, St. Lucia, Suriname, Venezuela); **East and Central Asia** (Turkmenistan).
- **Lower-middle-income**: nine countries in **Africa** (Cabo Verde, Cameroon, Republic of Congo, Ghana, Mauritania); **East Asia and the Pacific** (Lao PDR); **East and Central Asia** (Kyrgyz Republic, Ukraine); **Middle East and North Africa** (Syrian AR).
- **Low-income:** 13 countries in **Africa** (Benin, Chad, Comoros, Gambia, Guinea, Guinea Bissau, Liberia, Mali, Niger, Sierra Leone, South Sudan, Togo); **Latin America and the Caribbean** (Haiti).

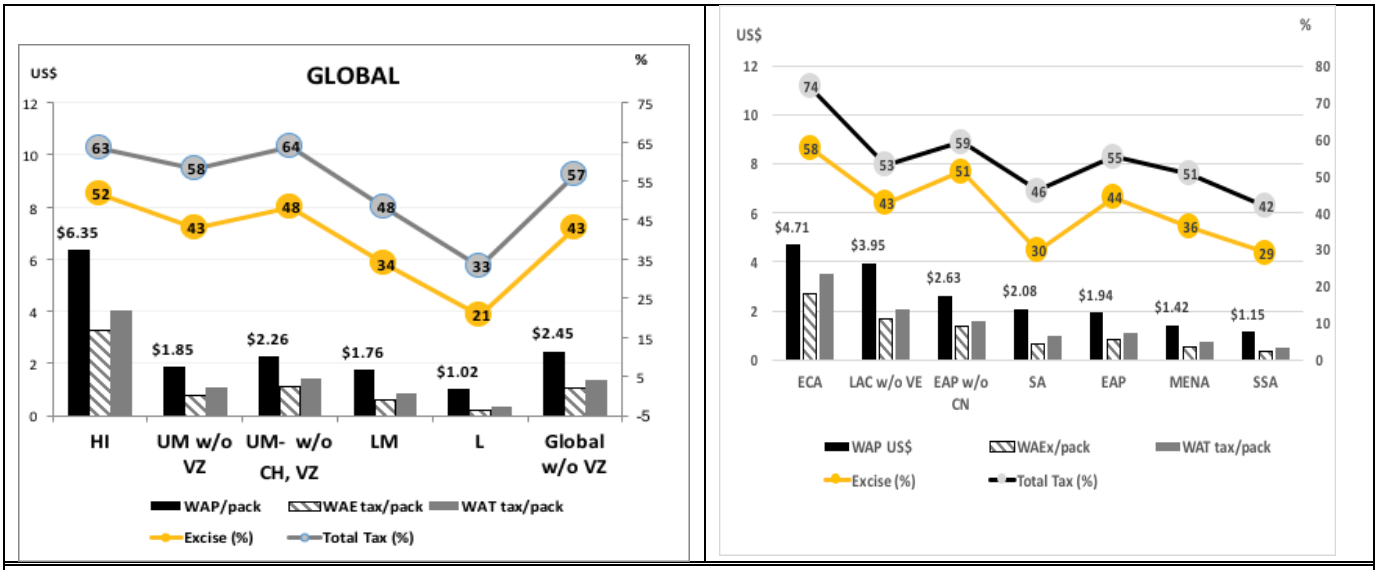
[46] More information can be found at http://centralexciseguwahati.gov.in/pdf_files/trade_notice_5_2010.pdf.

By Income Group and Region

Return to: Tobacco Product Tax Excises – Where They Are Applied and How, Tax Rates and Retail Prices of Cigarettes

The weighted global average of total tax, excise tax per pack, the corresponding shares on retail selling price, and the retail selling price (based on most popular brand) for a pack of 20 pieces are illustrated in US$) by income group and World Bank regional groups in figure 12.

Figure 12: Weighted average price and taxes (% excise and total) on cigarettes, by income group and region, 2016



Source: WHO 2017.

Note: Total population is used as a measure in estimations of the weighted average price (WAP), weighted excise (WAEx) per pack, and weighted total tax (WAT tax) per pack. There are two calculations for the upper-middle-income group, one including and one excluding China (CN) data; Venezuela (VZ) was excluded from these calculations.[47] As well as for income groups, similar calculations were done for estimations of regions: calculations for the Latin America and Carribean region excludes Venezula, while the East Asia and Pacific region includes and excludes data from China.

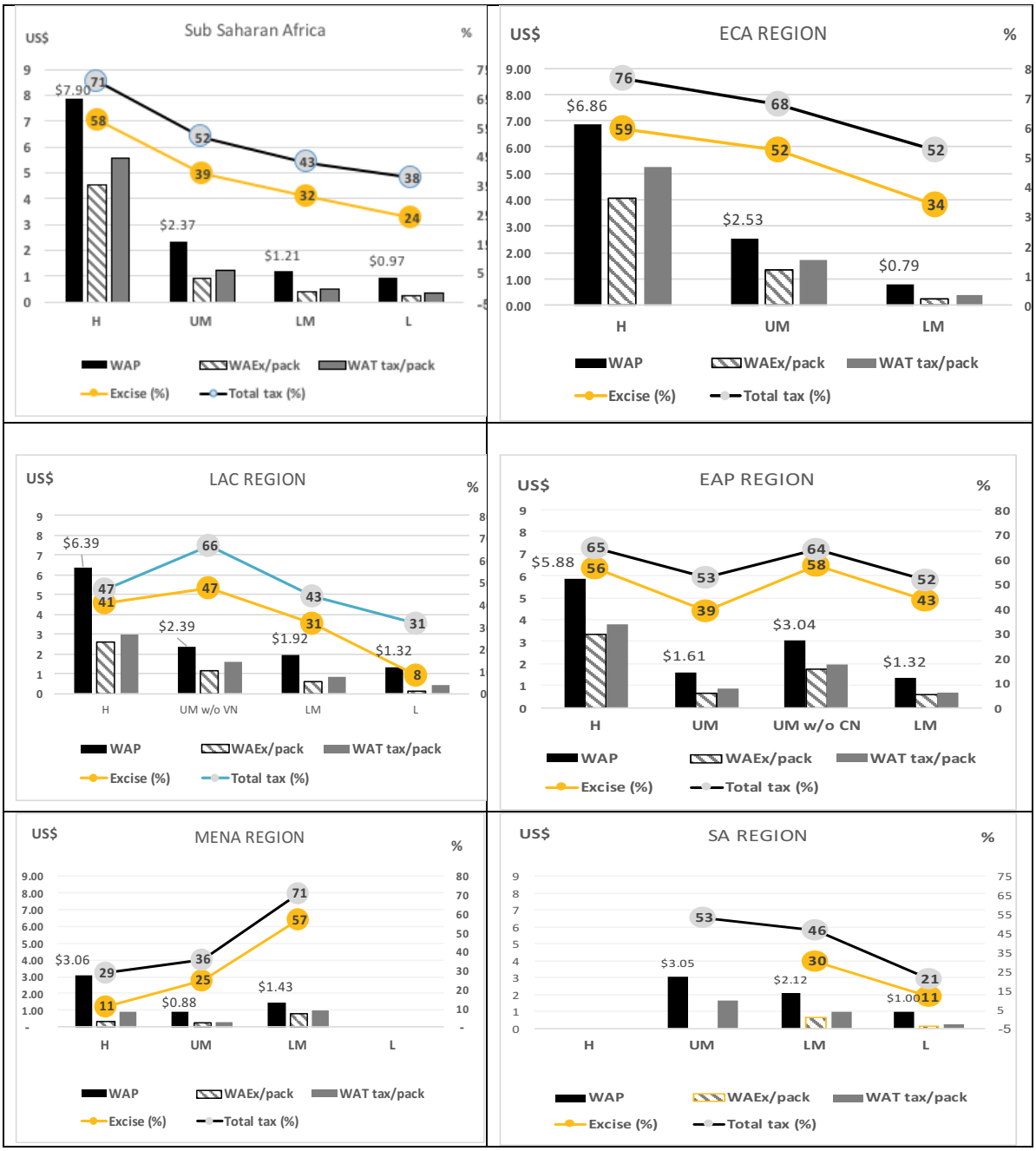
In 2016, 57 percent of weighted average price per pack of cigarettes was taxed where the excise share was 43 percent at the global level. The data reveal that the low-income group of countries and countries in Sub-Saharan Africa have the lowest weighted average price per pack in US$. In respect to tax share, the low-income group and Sub-Saharan Africa has the lowest excise and total tax on retail price, both among

[47] As the economic crises continue in Venezuela, prices of many goods have increased dramatically due to market shortages. This may explain the price for the most popular brand as US$140 per pack.

their own income groups and the other regions. They also have the lowest share of total and excise on retail prices.

Figure 13 illustrates the weighted average price (WAP), weighted average excise tax (WAE), weighted average total tax (WAT tax) per pack and the tax shares on WAP by income groups within regions.

Figure 13: Price and tax on cigarettes by income group of countries, by region in 2017



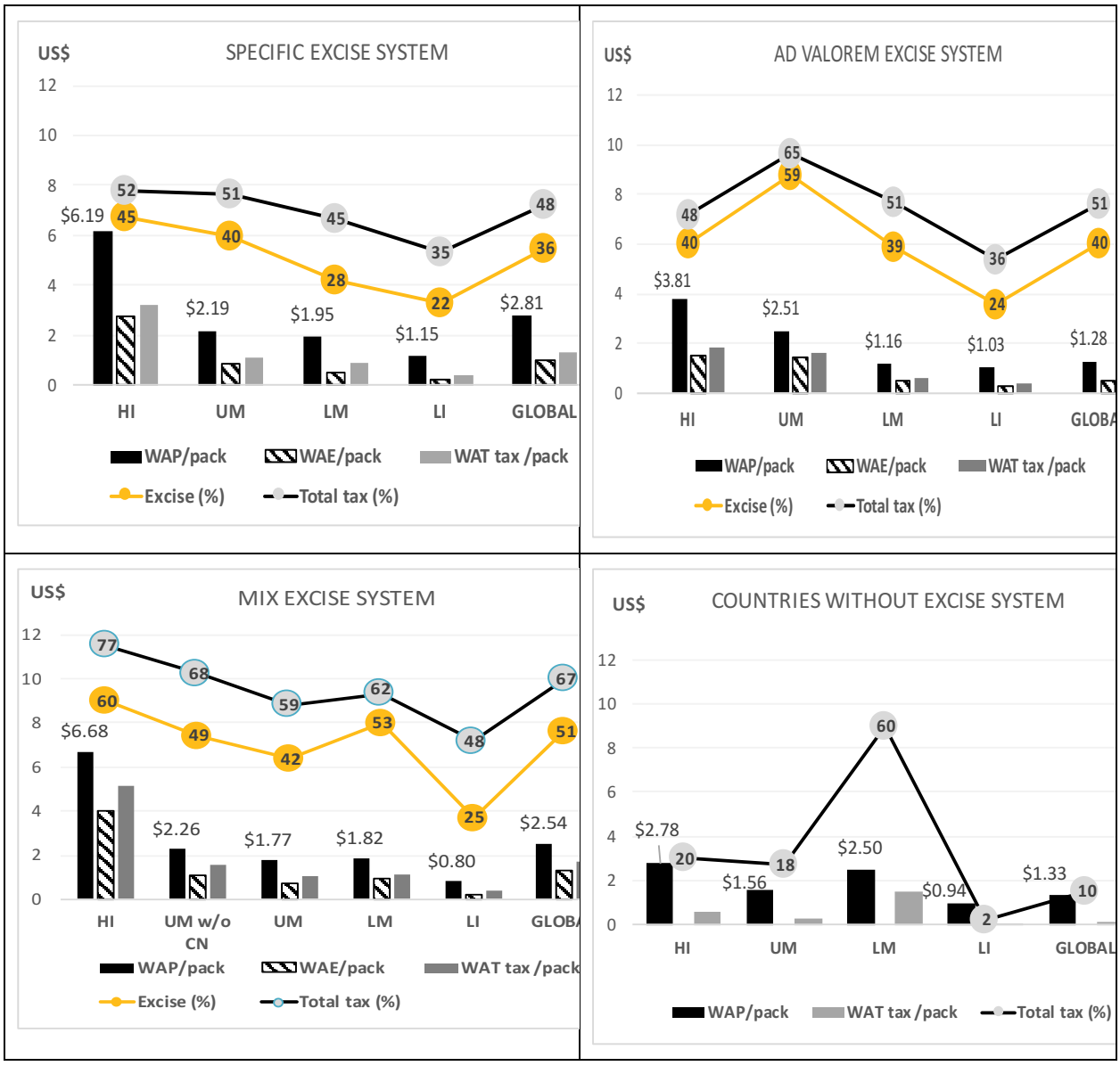
Source: WHO 2017.

By Types of Excise System

Return to: Tobacco product tax excises – where they are applied and how

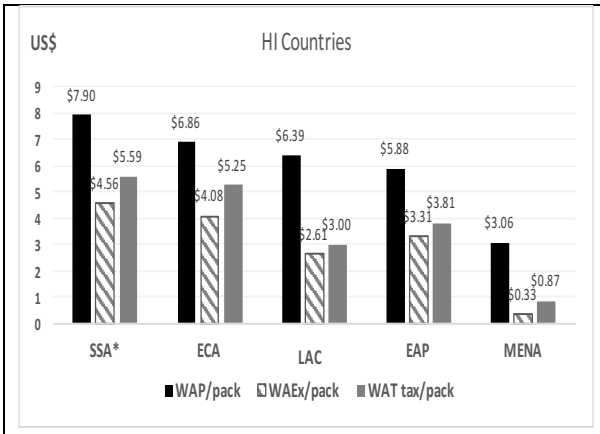
The weighted average price, excise and total tax per pack, and the tax shares (excise and total) according to the type of excise applied on cigarettes by income groups in 2016 are illustrated in figure 14, and by regions in income group countries in figure 15.

Figure 14: Global types of excise tax application on cigarettes by income group, 2016

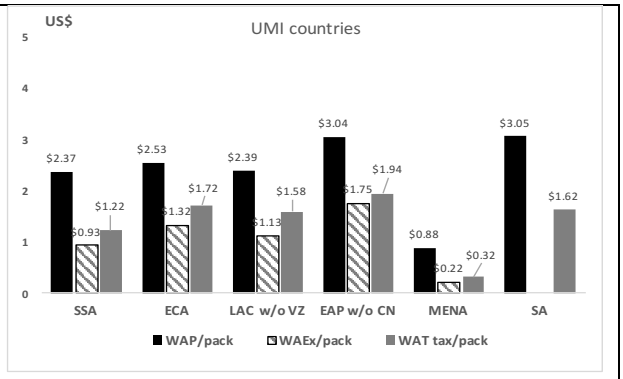


Note: Data include countries that levy both uniform and differential (tier) specific or ad valorem excise rates respectively. The price, excise and total tax is a pack of 20 cigarettes in US$.

Figure 15: Weighted average price, excise and total tax per pack by regions in income group countries 2016



*SSA is the Seychelles only



Latin America and the Caribbean and East Asia and Pacific excludes data from Venezuela and China respectively

Source: WHO 2017.

Reference

WHO (World Health Organization). 2015. *WHO Report on the Global Tobacco Epidemic, 2015*: Raising Taxes on Tobacco. Geneva: WHO.

Appendix E: Excise Tax Systems on Tobacco Products

Return to: Background to Excise Taxes and Systems, Excise Tax Application for Tobacco Products, Buoyancy of Excise Taxes on Tobacco Revenues

East Asia and Pacific Region

China

China's tobacco industry is an extremely profitable and powerful government monopoly, able to influence tobacco tax policy and therefore challenge the implementation and effectiveness of WHO FCTC Article 6 in China.

China's tobacco products are subject to tobacco leaf tax, excise tax, VAT, urban maintenance and construction tax, and extra charges of educational fee (C&E) tax (see table 7). Cigarette excise tax is the main tax on tobacco products, and aims to have direct and significant impacts on the tobacco industry.

Table 7: Tobacco tax structure (since May 2015), China

Type of Tax	Tax Level	Tax Base	Tax Rate	Revenue Beneficiary
Tobacco leaf tax	Agriculture	Value of tobacco leaf	20%	100% Local Government
Value-added tax at cigarette manufacture (VAT)	Produce wholesale and retail	Added value at each level	17%	50% Central Government
				50% Local Government[a]
Specific excise tax	Produce	per pack	0.06 RMB	100% Central Government
	Wholesale		0.10 RMB	
Ad valorem excise tax	Produce, wholesale	Allocation price (without vat)		
	≥ 70 RMB per carton		56%	
	< 70 RMB per carton		36%	
	Wholesale		11%	

Urban maintenance and construction tax and extra charges of educational fee (C&E) tax	Produce, wholesale, retail	Tax amount of vat and excise tax	12%	100% Local Government

Source: Table created by author based on The Chinese Institute of Certified Public Accounts, 2016.

Note:

[a] Before 2016, VAT was distributed at a rate of 75% and 25% respectively to central and provincial governments.

The most recent tobacco tax adjustment (2015) was an important departure from previous practice and proves that raising tobacco tax and price is a win-win strategy when it comes to tobacco control. The tax adjustment in 2015 mainly included: (a) a rise in the excise tax rate for the wholesale segment from 5 percent to 11 percent; (b) an additional specific tax of 0.1RMB (0.015USD) per pack (with 20 sticks) applied to wholesale prices. The 2015 tobacco tax adjustment increased government revenue, decreased cigarette consumption, and had a positive impact on public health. However, it is also notable that the price of cigarettes is still extremely low, and they are becoming increasingly affordable over time; tax as a percentage of retail price is still far behind the WHO recommended standard; the mixed tiered tax structure provides incentives for price manipulation, to the extent that manufacturers can alter their pricing or production to avoid higher tax liabilities.

Cigarette Price Trend

Figure 16 and figure 17 display the cigarette nominal weighted average retail price and cigarette real weighted average retail price between 2001 and 2016.

Figure 16: Cigarette nominal weighted average retail price (2001–2016), China

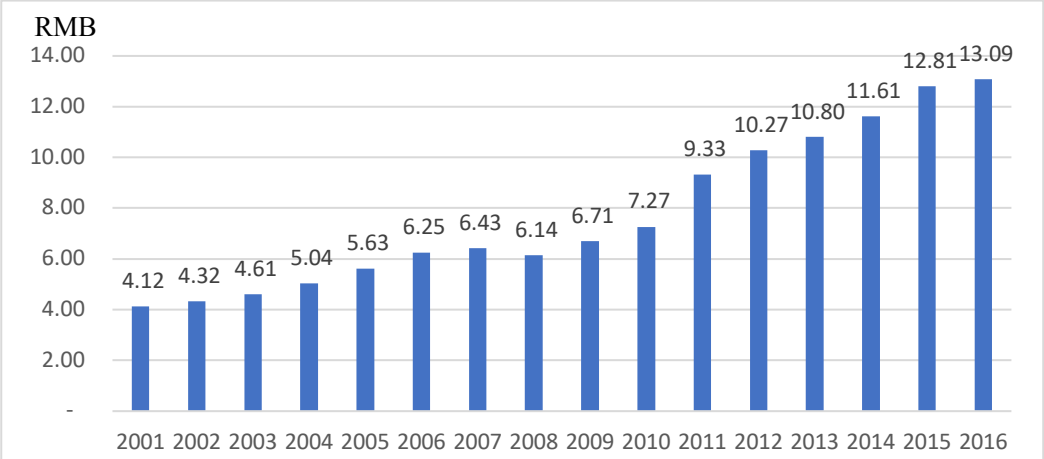
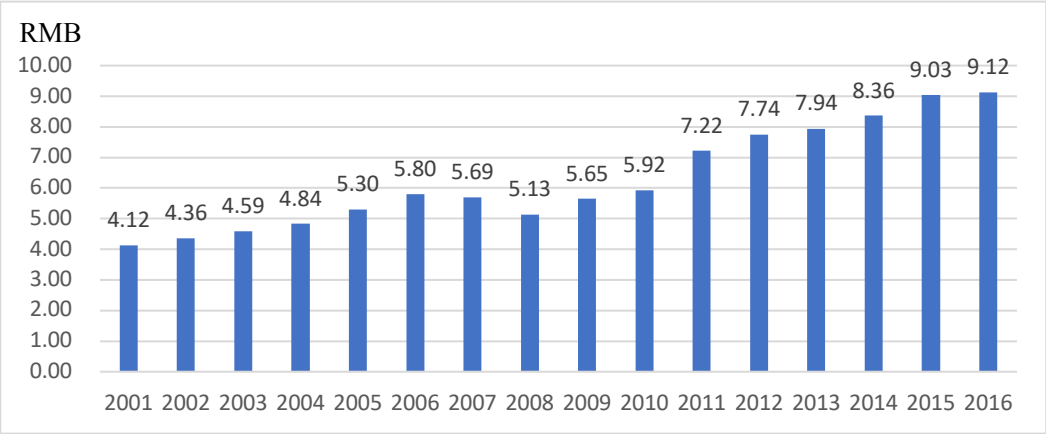


Figure 17: Cigarette real weighted average retail price (2001–2016), China



Tobacco Tax Trends

Figure 18 and figure 19 display the trend of total tax as a percentage of retail price and excise as percentage of retail price between 2001 and 2016.

Figure 18: Tax as % of retail price (2001–2016), China

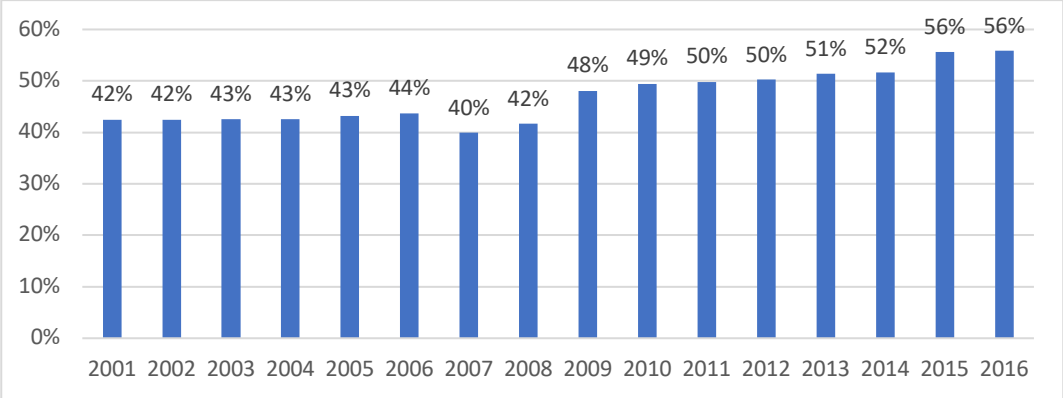
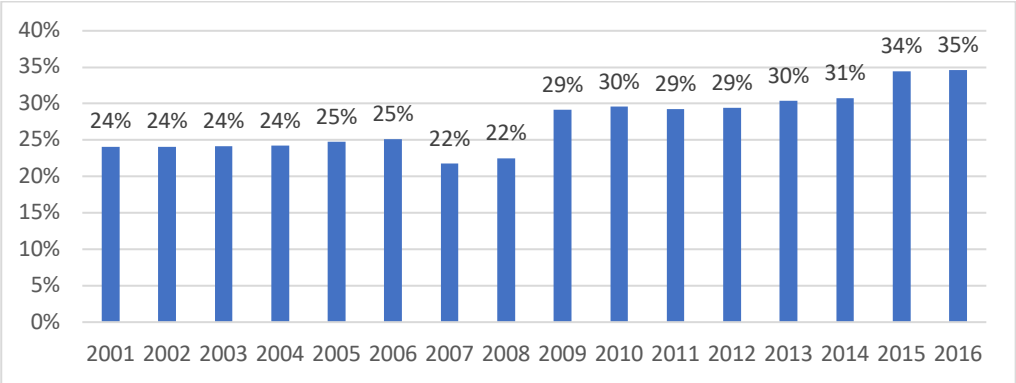


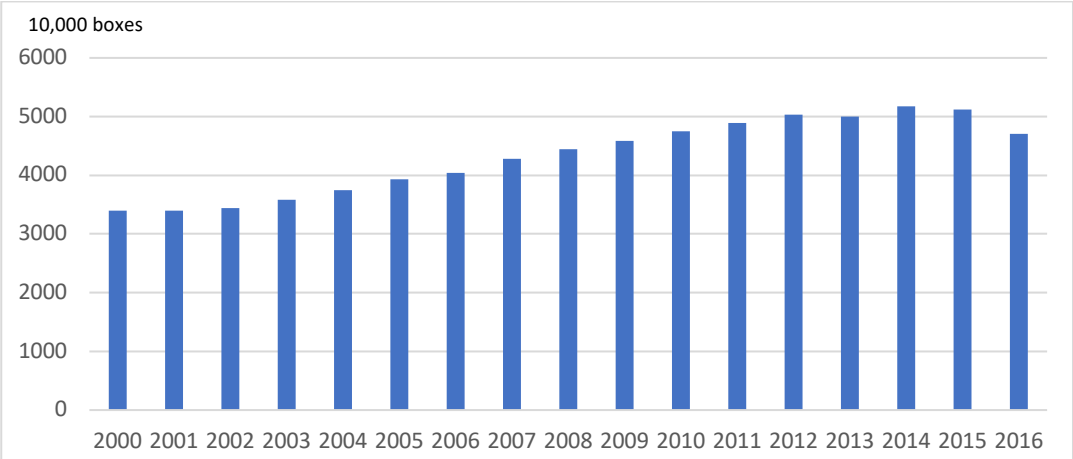
Figure 19: Excise as % of retail price (2001–2016), China



Production and Sales Trend

China is the world's biggest tobacco producer and consumer, producing and consuming one third of the world's cigarettes. The China National Tobacco Corporation's (CNTC) customer base of 350 million smokers consumed 2.3 trillion cigarettes in 2016. Currently there are about 31 cigarette factories producing 89 brands of cigarettes in China. In 2016, China produced 47,1078 million boxes of cigarettes (50,000 individual pieces per box), and sold 46,992 million boxes of cigarettes (50,000 individual pieces per box). Figure 20 and figure 21 display cigarette production and consumption between 2000 and 2016. Before 2015, both cigarette production and consumption steadily rose, but after 2015 both production and consumption started to decline.

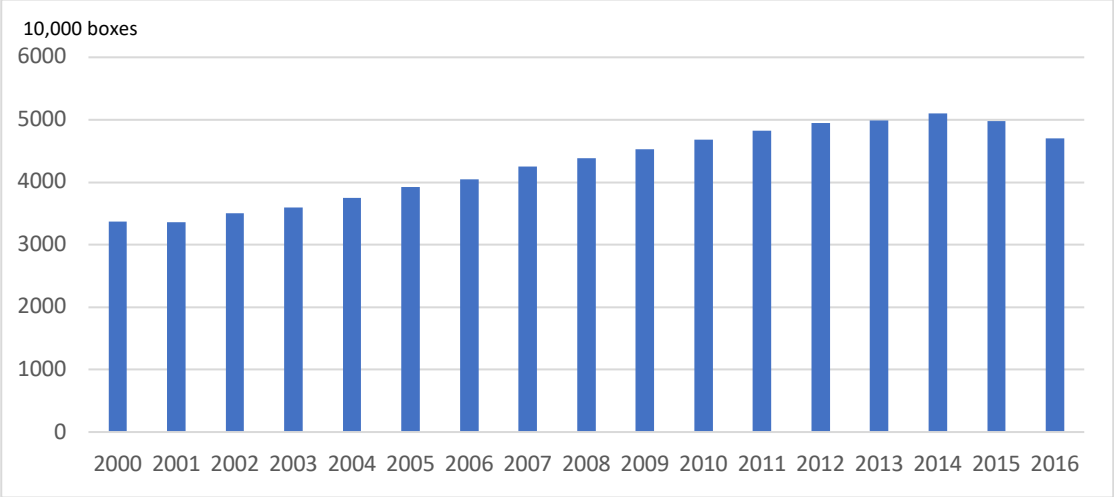
Figure 20: Cigarette production volume (2000–2016), China



Source: China Tobacco Year Book and National Bureau of Statistics of China[48]

[48] National Bureau of Statistics of China: http://www.stats.gov.cn/.

Figure 21: Cigarette Sales Volume (2000-2016), China

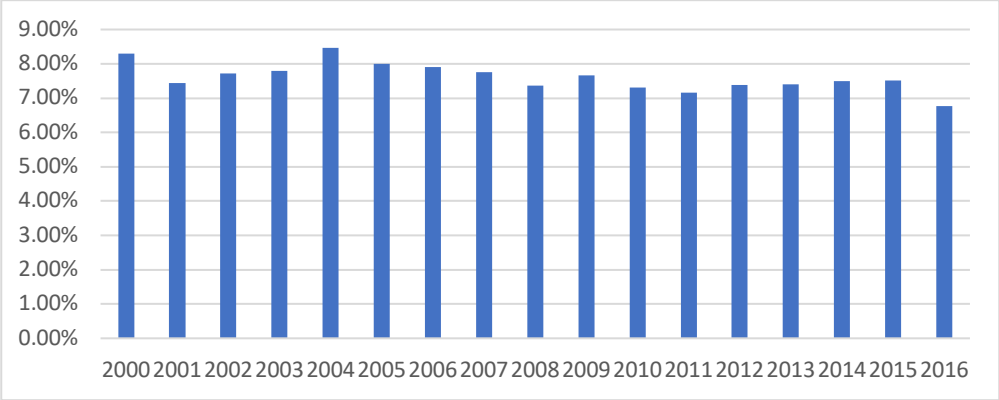


Source: China Tobacco Year Book and Report of National Annual Meeting on Tobacco[49]

Tobacco Tax Revenue Trend

CNTC provides around 7% of government revenue, making tobacco China's main revenue-contributing industry in the past two decades. In 2016, CNTC contributed 1000.6 billion RMB tax and profit which accounts to 6.8% of fiscal revenue. Figure 22 illustrates tobacco tax and tobacco profit contribution as a percentage of the government's fiscal revenue between 2000 and 2016.

Figure 22: Tobacco tax and tobacco profit contribution as % of fiscal revenue (2000-2016), China



Source: Reproduced from the National Bureau of Statistics of China and the report of National Annual Meeting on Tobacco.

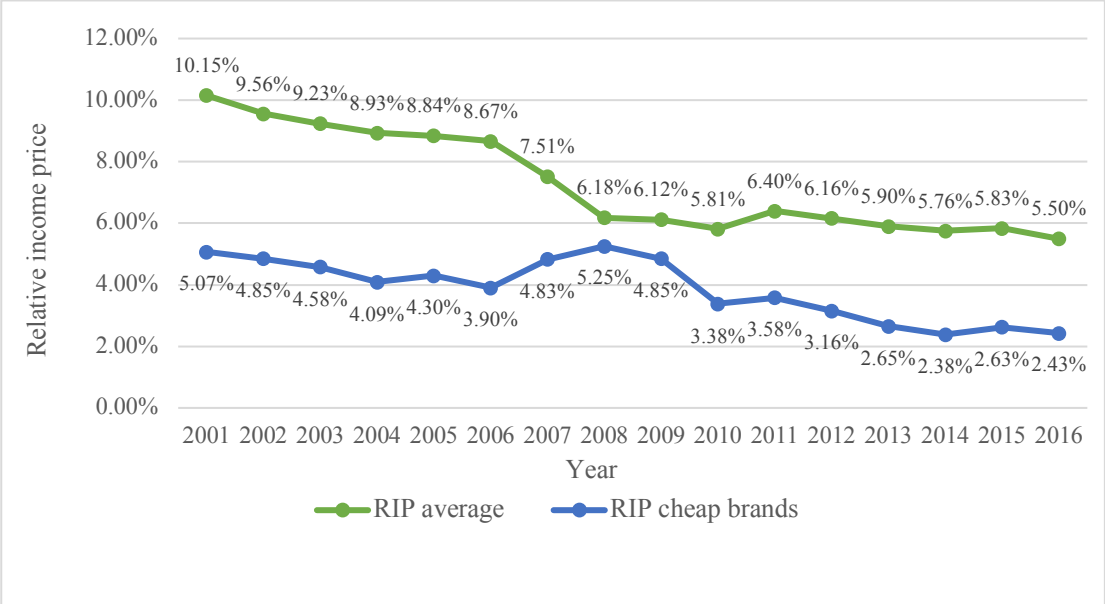
[49] Report of National Annual Meeting on Tobacco: http://www.tobacco.gov.cn/history_filesystem/2017ycgzh/index.html.

Cigarette Affordability Trend

Figure 23 presents the levels of cigarette affordability of the average and cheap brands in each year between 2001-2016, expressed by the RIP method. For example, using the RIP method, the cost of 100 packs of weighted average-price cigarettes as a percentage of nationwide per capita disposable income was 5.5 percent in 2016.

Cigarettes have become more affordable between 2001 and 2016, the cheap cigarette brands had a higher level of affordability than did average-price cigarettes throughout the whole period, which means cheap-brand cigarettes are more affordable for low-income consumers than other cigarette price categories for average-income groups.

Figure 23: Trend of RIP average and RIP cheap brands, China



Tax Analysis: Public Health and Revenue Perspective

Levy et al (2014) projected the potential impact of tobacco control measures on smoking in China by carrying out a computer simulation (as recommended by the WHO FCTC). Compared to the status quo scenario, increasing cigarette taxes to 75% of the overall price was projected to decrease smoking prevalence in relative terms by almost 10% for both sexes by 2015, and by 13% for men and 12% for women by 2050.

Under a 75% tax rate, by the year 2050 about 134,000 lives and 1,644,000 life years would have been gained annually. Summing up the years 2015 to 2050, approximately 3.5 million deaths would be avoided (3,333,000 for men and 143,000 for women) and 44,315,000 life years gained (42,882,000 for men and 1,433,000 for women) thanks to the tax policy.

It is too soon to see the impact of the 2015 increase in tax, but China's newly released Healthy China 2030 strategy sets a target for policy makers to reduce the adult rate of smoking in China by 7.7% in absolute terms, from 27.7% in 2015 to 20% by 2030. There is little doubt that further increases in tobacco taxation will be necessary to achieve this target.

Besides tobacco tax, CNTC should turn over a regulated profit contribution after paying the enterprise income tax. Tobacco tax generated by the industry has been rising since the 2015 tax adjustment, even during the year of 2015 and 2016 when sales volume decreased.

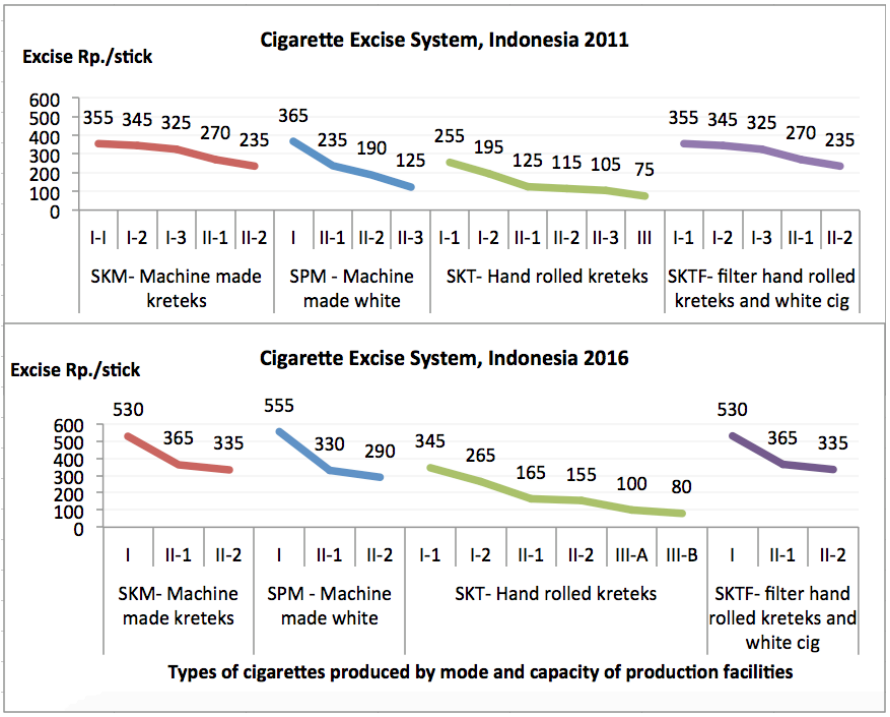
Indonesia

The cigarette excise system in Indonesia is designed based on the types of cigarettes (kreteks versus white cigarettes), means of production (hand-made versus machine-made), and the production capacity of the factories where they have been produced.

Prior to 2010, Indonesia levied ad valorem excise on the retail selling price where the retail price level was modified by the government after manufacturers submitted their retail prices to tax authorities.

The excise system then became tier specific within the same classifications. For illustrative purposes, figure 24 shows the types of cigarettes and their excise liabilities.

Figure 24: Excise tax system for tobacco products 2011–2016, Indonesia



Source: Ministry of Finance, Indonesia.
Note: the horizontal line (I, I-1, I2, II-1, II-2 etc) represents the production capacity of facilities.

As noticed, the number of tiers within types and mode of production has been reduced to where machine-made (SKM), filter-rolled kreteks and white (SKTF) cigarette excises have been unified by associated production facilities. The number of tiers in hand-rolled kreteks has increased for facilities with the lowest production capacity in 2016. Their tax liabilities increased slightly during 2011–2016.

Tax Analysis: Public health perspective

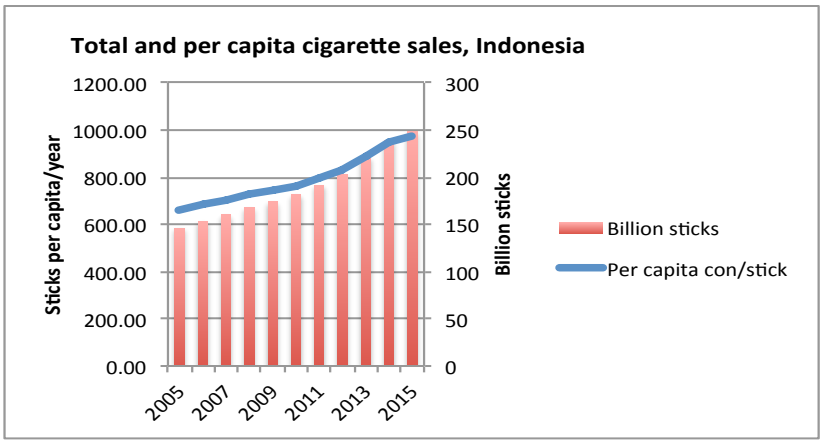
Indonesia could reduce its number of tiers (in 2016, its excise system had 11). The tax differences between machine-made white and kretek cigarettes can be eliminated while unifying the tax rates within machine-made kreteks and white cigarettes.

The hand-rolled kreteks sector has been protected due to employment issues, with the government creating more tiers at the lowest production capacity of this sector due to the number of very small private facilities (e.g., less than 10 employees) (personal communication with Ministry of Finance officials). However, keeping a low excise liability in lower production facilities may encourage more small-scale facilities to go into business. Although the Indonesian Ministry of

Finance restricted the start-up of new cigarette facilities, authorities in local areas with limited job opportunities may allow such facilities to flourish. These may create further costs for tax administration and conflict between customs[50] entities and local authorities.

There are no data that show the changing price level in the types of cigarettes by mode and production capacity of facilities. However, the increases in total and per capita cigarette sales (figure 25) suggest that Indonesian tax policy falls short of achieving higher prices to reduce consumption and achieve public health goals.

Figure 25: Cigarette sales 2005–2015, Indonesia



Sources: Euromonitor 2016; IMF WEO 2017.

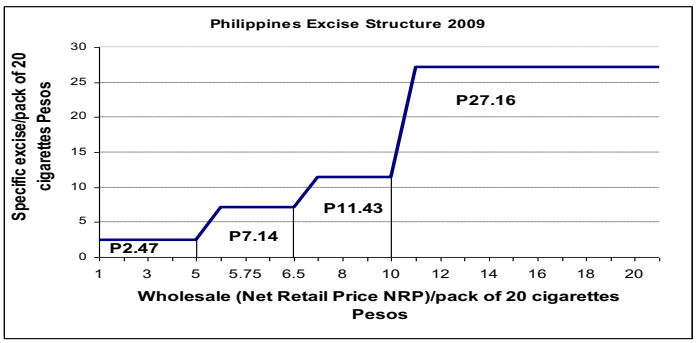
The Philippines

Historically the Philippines has levied specific excise on cigarettes. However, excise was levied in tiers, where the lowest rate applied to hand-made cigarettes and higher rates to machine-made cigarettes (see figure 26 for 2009).

The Philippines also had a tax law that granted the excise rate for cigarette brands that are produced before the law becomes effective. In consequence, as the excise rates increased, those brands were exempted from the new rates. However, brands introduced after the law was passed are subject to the new excise rates.

[50] In Indonesia, the customs authority oversees the collection of excise tax revenue from domestic producers.

Figure 26: Excise structure 2009, Philippines



Source: Ministry of Finance, the Philippines, 2009.

The Philippines' excise tax system was simplified and reduced to a two-tier specific system in 2012, becoming a unified specific system in 2017 (see table 8).

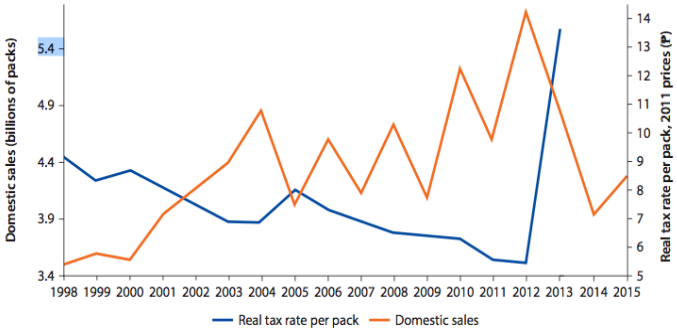
Table 8: Cigarette excise system in 2012, and under the Sin Tax Reform Act (per pack), Philippines

Old system		System under Sin Tax Reform Act					
Tiers	2012	2 Tiers	2013	2014	2015	2016	2017
Very high	28.3	High	25	27	28	29	30
High	12.0						
Mid	7.6	Low[a]	12	17	21	25	
Low	2.7						

Note:

[a] Brands with net retail prices of < ₱11.5 per pack in 2012.

Figure 27: Real tax rates and domestic sales 1998–2015, Philippines



Source: Kaiser et al 2016.

Tax Analysis: Public health perspective

The Philippines has achieved significant excise tax increases and also started to simplify its excise tax system in 2013. In 2014, the average retail price per pack of cigarettes was ₱48.28 – equivalent to US$1.11 (PPP$ 1.86) (WHO 2015). This means that the average retail price for a pack of cigarettes was lower than the global weighted average price in low-income (PPP$2.36) and lower-middle-income (PPP$ 3.26) countries. (see Section on tax rates).

The corresponding excise share on the average retail price doubled from 23.5 percent in 2012 to 42.3 percent in 2014 – almost equivalent to average share of excise for lower-middle-income countries in 2014. In 2017, the Philippines will have a uniform specific excise system for cigarettes where the rate will be indexed per annum with the inflation rate to protect the real value of the tax.

However, indexing for inflation would not be enough for the Philippines, or for any other country experiencing growth in per capita income. In the case of the Philippines, annual inflation is predicted to be about 3 percent per annum and the PPP$ GDP per capita is predicted to increase by 7 percent per annum between 2017 and 2022 (IMF WEO 2017). So cigarettes would become rapidly more affordable unless the level of retail prices increases to take account of that rapid growth in per capita income as well as the more modest rate of inflation. So it is not surprising that in 2015, demand for cigarettes (especially lower-priced ones) increased in the Philippines (Kaiser et al 2016).

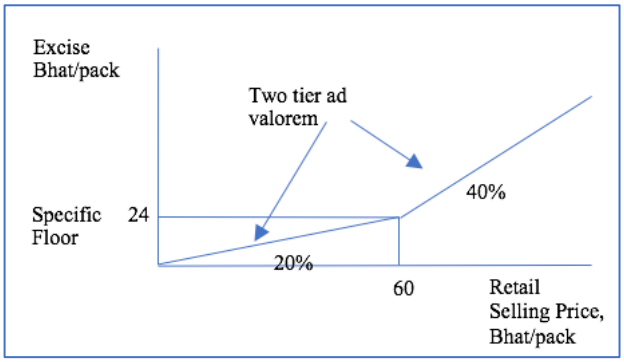
Thailand

Return to: Tax on Other Tobacco Products and Electronic Nicotine Delivery Systems (ENDS), Statutory versus Effective Tax Base

In 2017 Thailand made changes to its excise tax policy on tobacco and alcohol products. The cigarette excise tax base has changed from the ex-factory price to the retail selling price, and a two-tier ad valorem excise system with a minimum specific excise floor tax has been adopted. The breakdown is as such (see figure 28):

- Retail price Baht ≤ 60 per pack of 20 sticks: 20 percent of retail selling price or Baht 1.20 per stick, whichever is higher
- Retail price Baht > 60 per pack of 20 sticks: 40 percent of retail selling price

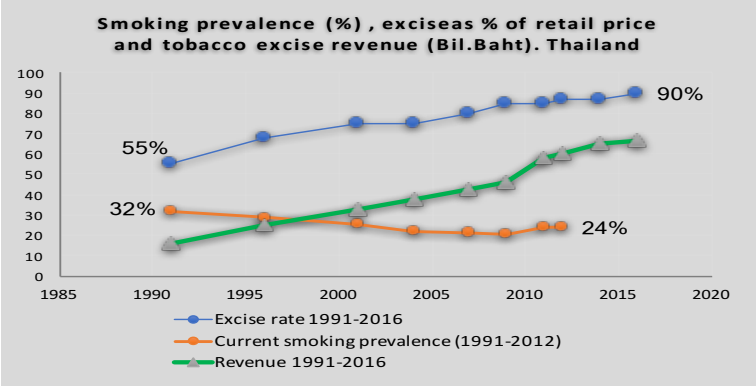
Figure 28: Excise tax system (2017), Thailand



Source: World Bank data.

Thailand is one of the few countries with an excise tax policy that proactively seeks to achieve development objectives, including protecting public health and protecting native tobacco growers and the state-owned cigarette facility (Thai Tobacco Monopoly) from imported brands. Until 2016 the current system served the purpose of fulfilling public health and higher revenue objectives. Smoking prevalence has been declining in Thailand as revenues from cigarettes have been steadily increasing (see figure 29).

Figure 29: Smoking prevalence, excise (%) and cigarette revenue, Thailand

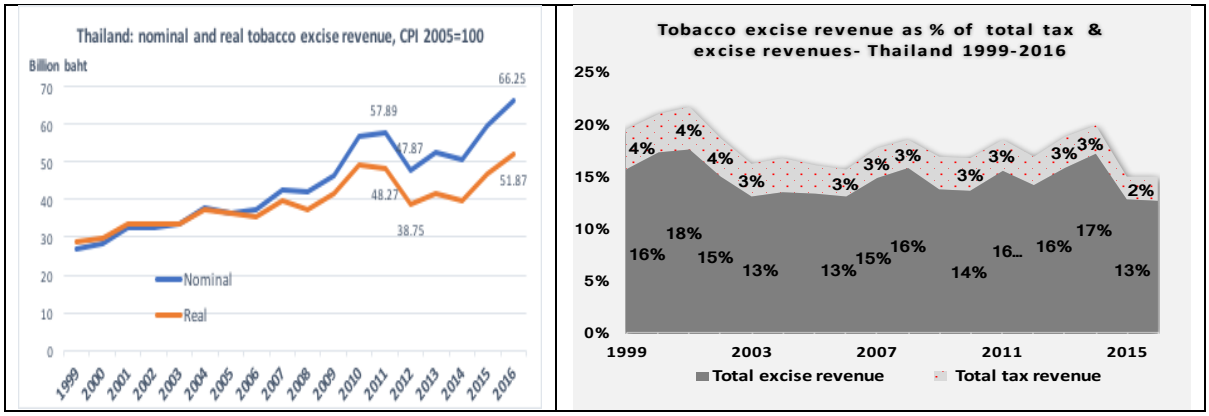


Sources: Ministry of Finance, Thailand, and SEATCA.
Note: The factory price is the excise tax base. Tobacco revenue and excise tax rates derived from the Ministry of Finance Thailand database (accessed February 9, 2018), http://dataservices.mof.go.th/Dataservices/GovernmentRevenue?language=EN; smoking prevalence data derived from SEATCA tobacco tax database (accessed February 9, 2018), http://tobaccotax.seatca.org/country/thailand/.

In 2015, smoking prevalence reduced further in both men (41.4 percent) and women (2.3 percent) and fell overall to 21.2 percent in comparison to 24 percent in 2014 (World Bank 2017).

Thailand had steady growth in excise revenues from tobacco products between 1999 and 2012. The tax revenue fell by 20 percent in real terms in 2012, but has been recovering since then, as the real excise revenue reached Baht 52 billion in 2016. Tobacco excise revenues represent a relatively higher share in total excise remittance, but less than 4 percent of total tax revenues in Thailand (see figure 30).

Figure 30: Thailand excise revenue and its share in government revenues



Sources: Ministry of Finance, Thailand and IMF WEO 2017.

Note: Thai CPI value derived from Ministry of Finance Thailand database (accessed February 9, 2018), http://dataservices.mof.go.th/Dataservices/GovernmentRevenue?language=EN; revenue statistics.

Thailand levies a wide range of differential excise taxes on different tobacco products. As cigarettes are heavily taxed, excise on roll-your-own or shredder tobacco receives lower excise rates while native tobacco gets a tax exemption. The 2017 excise tax policy has not been clearly published to examine whether the roll-your-own tobacco by the native tobacco leaves are brought into the excise system. The tax analysis below is carried out based on 2016 tax policy.

Tax Analysis: Public health and revenue perspective

Consequences of protectionist excise system on revenues and public health in Thailand

Thailand has seen a shift in demand from manufactured cigarettes to RYO cigarettes significant tax differences between the two types. The

data show that manufactured cigarette consumption decreased around 14 percent between 2007 and 2010, from 1,981 million packs to 1,700 million packs. During this time, the quantity of "shredded" tobacco sold increased from 17 million kilograms in 2007 to 22 million kilograms in 2010 – a 29 percent increase. However, as consumption of roll-your own tobacco increased, the expected tax remittance from it fell, indicating growing tax avoidance.

Falling tax remittances are not the only problem resulting from Thailand's cigarette excise system. It also creates a burden for its tax administration as it cannot identify whether the RYO tobacco contains native or non-tobacco leaves (producers claim their products contain native tobacco).

Thailand's 2011 Global Adult Tobacco Survey (GATS 2011) revealed a minimal significance of smoking prevalence for the manufactured and the hand-rolled cigarettes for men and women (see table 9). It also showed that in 2011, prevalence rates for both types of cigarettes increased, with increases in hand-rolled tobacco slightly higher than those of manufactured cigarettes.

Table 9: Prevalence of tobacco products in Thailand, 2009–2011

	%	2009	2011
	Overall cigarettes	23.5	23.8
	Manufactured	15	15.2
	Hand-rolled	14	14.4
	%	2009	2011
Men	Manufactured	29.6	30.1
	Hand-rolled	27	28.1
Women	Manufactured	1.1	1.1
	Hand-rolled	1.8	1.4

Source: GATS Thailand 2011.

As cigarettes become more expensive, price-sensitive smokers shift to cheaper substitutes. Due to the extremely low tax burdens on fine cut tobacco in Thailand, revenue and public health objectives have been undermined.

Thailand's excise system in 2016 and 2017

Thailand levies number of surcharges either as a specific value per pack or an ad valorem rate, which is applied on the excise tax value.

Until 2016, the statutory excise rate was 85 percent levied the ex-factory price for domestic cigarettes, and the CIF value for imported cigarettes. The government also levied a specific excise floor tax of Bhat 1 (US$0.03) per piece or gram if the excise value per pack fell below

Bhat 20 (US$0.60) per pack of cigarettes. If this happens, the specific tax floor value would be charged. In 2017, the specific excise floor was increased to Bhat 1.20 (US$0.036) per piece or Bhat 24 (US$0.72) per pack (see table 10).

The statutory ad valorem rate excise was capped at 90 percent. The effective rate was calculated by dividing the statutory rate after subtracting from 100 percent. That is 90 percent / (100 percent – 90 percent) = 900 percent. The effective excise tax on computed excise value a pack of cigarettes was 85 percent in 2016. The effective VAT rate is applied on the maximum retail price either declared by manufacturers or importers, or determined by the tax authority.

For this report, the tax liability and the incidence on cigarettes were compared based on the 2016–2017 tax system (see table 10). For 2017, it was assumed that the additional surcharge rates had not changed. Prices were gathered for premium cigarettes from Internet sources as of September 2017. It was also assumed that the most popular locally produced brand price (which was Bhat 68 (US$2.04) in 2016) increased to Bhat 75 (US$2.25) in 2017, and cheaper, imported brands would keep the price as Bhat 60 (US$1.80) per pack and pay the specific excise floor tax.

Table 10: Tobacco tax computation (excise and total tax liabilities) 2016–2017, Thailand

Item	Domestic cigarettes[a]	Provisional tax system in 2017[b]			
	2016	Changes	Cheap	Mid price	Premium
1. Excise base No.1 - Cost + Profit (Baht per pack) - CIF + Import tariff	6				
2. Ad valorem rate = [85% / (100% -85%)] = or Bhat 1 per piece specific floor	566.7% or Bhat 1 per stick, whichever is higher				
3. Excise base No.2 [6]*[2]	6 * 566.7% = 34				
4. Excise base (Final) = [1]+[3]	6 + 34 = 40	Maximum retail price			
5. Excise rate applicable on tax base	85%		20% of MRP or 1.25 per piece	40% on MRP	40% on MRP
6. Statutory VAT	7%				
7. Effective VAT (as % of maximum retail price) [9/(1+9)]	6.54%				

8. Maximum retail price per pack	60		60	75	140
9. Excise Tax per pack [4]*[5%]	40 * 85 % = 34	[5] * [6]	60 * 20% < 24 – Specific Floor	40% * 75 = 30	40% * 140 = 56
10. Local Tax (1.86 Baht/Pack)	1.86		1.86	1.86	1.86
11. Thai Health Tax (2% of Excise tax)	2% * 34 = 0.68		2% *24 = 0.48	2% * 30 = 0.60	2% * 56 = 1.12
12. TV Tax (1.5% of Excise Tax)	1.5% * 34 = 0.51		0.36	0.45	0.84
13. VAT/pack = [7]* [8]	3.93		3.93	4.91	9.16
14. Total Tax (9+10+11+12+13)/Pack	40.98		30.6	37.8	69
15. Excise Tax as % of MRP [9/8]	56.67%		40%	40%	40%
16. Total Tax as % of MRP price [14/9]	68.29%		51%	50%	49%

Source: Visaruthvong 2009.

Note:

[a] Data on domestic cigarettes derived from Visaruthvong 2009.

[b] Authors' estimation.

The preliminary estimation suggests that in 2017, as the government aimed to reduce the price for cheap, imported cigarettes, it reduced the tax liability and the incidence on both cheap and mid-price price bands, and kept the premium brands unchanged.

2016 excise liability of a per pack of cheap cigarettes costing Bhat 60 (US$1.80) was reduced in 2017 by 30 percent from Baht 34 (US$1.02) to Baht 24 per pack and the total tax liability by 25 percent from Baht 40.98 (US$1.23) to Baht 30.6 (US$.93) per pack. Excise incidence fell from 57 percent to 40 percent respectively. Similarly, tax liability for a mid-priced cigarette of Baht 75 (US$2.25)/pack would fall by 34 percent from Baht 45.3 (US$1.36)/pack to Baht 30 (US$0.90)/pack. The total tax liability would be lowered by 30 percent from Baht 54 (US$1.62)/pack to Baht 38 (US$1.18 US$)/pack.

From a public health perspective, cheap imported cigarettes which is assumed to be sold less than Baht 60/pack (US$1.80) had to increase their prices at least to Baht 60/pack to reduce the tax burden which is born by the specific excise floor tax.

In 2016, the cost of low-price cigarettes (39 percent of the market share in 2015) in will more likely to increase to around Baht 60/pack in 2017 However, existing low price segment brands at price Baht 60 (brands belonging to Thai Monopoly) do not need to change their prices since their tax liability will be lower in 2017 compared with 2016. Furthermore, the price for mid-priced (53.5 percent market share in 2015) and premium (7.2 percent market share in 2015) will not increase in 2017.

It appears that the 2017 tax policy has a trade-off. As the revenue for Thai-Monopoly increases, the government will most likely lose excise and total tax revenue from cigarettes in 2017 unless demand for cigarettes increases. Similarly, tax revenue for the other surcharges will also decline, especially on Thai Health where tobacco control efforts have been financed.

Limited available information about the excise tax policy in 2017 and preliminary analysis suggests that both public health objectives and tax revenues will suffer tremendously.

Latin America and the Caribbean Region

Chile

Return to: Applying Tax Excise Systems

Since 2010, the Chilean government has imposed a mix of both specific and ad valorem taxes on cigarettes. However, up until 2014, the main excise was the ad valorem tax with a small specific excise value.

In 2010, the ad valorem excise levied was 60.5 percent on retail prices plus a specific excise of CPL$ 0.0000675 per stick. However, unlike many countries, the specific liability of a cigarette was estimated by multiplying the specific amount with a UTM (*unidad tributaria mensual*), or monthly tax unit. A UTM is an inflation-tracking currency unit used by the Chilean government and determined on a monthly base by the Ministry of Finance. For a pack of 20 cigarettes, specific excise liability was therefore CPL$ 0.0000675 x 20 x UTM.

As the government kept the ad valorem component unchanged, specific components increased. For example, between 2010 and 2013, the specific component increased by 91 percent to CPL$ 0.000128803 per stick due to a steady increase of the UTM, while keeping the ad valorem rate at 60.5 percent.

In 2014, the specific component of the excise value increased by 700 percent to CPL$0.0010304 per stick. As a result, the ad valorem component of the excise was reduced to 30 percent of retail price. In May 2017, the specific liability of a pack of cigarettes stood at: specific excise CPL$ 0.0010304240 per piece; UTM 46,646; specific excise per pack = CPL$ 961[51] (CPL$ 0.0010304240 x 20 x 46,646). Total excise liability was therefore CPL$ 961 + 30 percent ad valorem on retail selling price, inclusive of all taxes.

Comparing Chile's excise taxes using data from the World Health Organization (WHO 2013 and WHO 2015), Chile has reduced its reliance on ad valorem excise and now relies more on inflation-adjusted specific

[51] See: http://www.brokering.cl/tobacco-taxation-in-chile/?utm_source=Mondaq&utm_medium=syndication&utm_campaign=View-Original.

excise. Retail prices have risen faster than in previous years (see table 11).

Table 11: Cigarette excise application 2012-2015, Chile

	Most popular brand price/pack CLP$	Specific rate as % of price	Specific per pack	Ad valorem as % of price	Ad valorem per pack	Total excise per pack	Excise share on Price
2012	1,800	3%	54	62.3%	1,121.4	1,175	65.3%
2014[a]	2,500	4.4%	110	60.5%	1,512	1,622	64.88%
2015	2,500[a]	35.64%	891	30%	750	1,641	65.64%
	3,000[b]	29.7%	891	30%	900	1,791	59.7%

Note:

[a] It is assumed that the 2014 excise value was the pre-increase of specific component and reduced ad valorem rate.

[b] Two different prices were applied for the sake of calculation purposes, as the price for most popular brand was not available.

Mexico

In 2009, Mexico levied an ad valorem excise rate of 160 percent on the factory price of cigarettes. In 2010, a specific excise of Mex$0.80 per pack of 20 cigarettes was introduced, legislated to increase to Mex$2 per pack by 2013. However, in 2011, specific excise was raised to Mex$0.35/stick or Mex$7 per pack, while the ad valorem excise remained unchanged at 160 percent.

As a result, cigarette sales declined by 30 percent, from 1.81 billion packs in 2009 to 1.27 billion in 2011 (see figure 31). Meanwhile, government revenue from tobacco taxes increased 38 percent from Mex$22 billion in 2009 to Mex$30 billion in 2011.

Figure 31: Cigarette prices, sales and revenue 2007–2011, Mexico

Source: Campaign for Tobacco Free Kids, National Institute of Public Health, 2012.

Tax Analysis: Public Health and Revenue Perspective

Following the impressive excise tax reform in 2011, the excise tax policy fell short of achieving its revenue and public health objectives for the following years. As illustrated in figure 32, per capita cigarette consumption declined by 18 percent between 2010 and 2011, followed by annual decreases of 4 percent, 3 percent and 2 percent on the following years between 2011 and 2015.

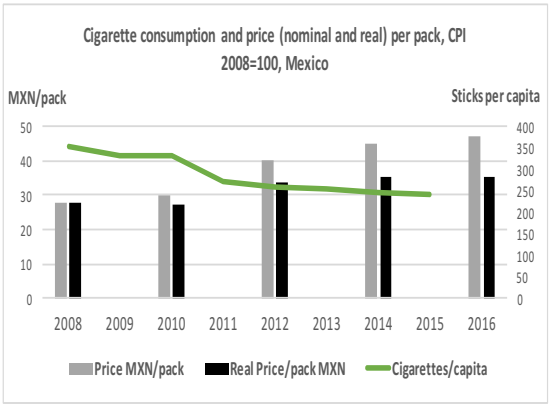
The shortfalls show that between 2010 and 2016, real per capita income increased by 7.4 percent while increases in the real cigarette price per pack was 28.7 percent at 2008 prices. Higher price increases compared to the relatively lower increases in income made cigarettes less affordable in 2016 compared to 2010. As a result, cigarette consumption per capita fell by 28 percent between 2010 and 2015 (Euromonitor 2016 – latest available consumption data). From a public health perspective this is a significant win.

However, since the significant excise tax increase in 2011, the government has not adjusted the specific value. The specific excise value per pack subsequently fell by 53.6 percent, from Mex$7.00 in 2011 to Mex$3.34[52] in 2017, based on 2011. Consequently, the real price per pack has been almost constant since 2011 (see figure 32).

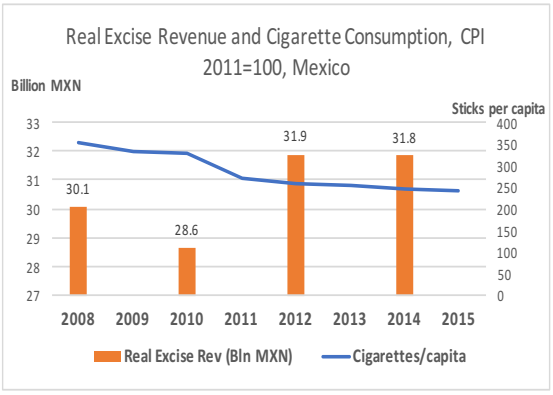
And although cigarette consumption decreased slightly between 2012 and 2016, the impact of current excise policy goes against the revenue-generating objective of the government (see figure 32).

[52] IMF World Economic Outlook data for Mexico inflation index (the average consumer prices index) where CPI is converted 2011=100.

Figure 32: Cigarette consumption, price and excise revenue in Mexico.



Source: Euromonitor 2017, IMF WEO 2017, WHO 2017.



Source: Revenue estimated by data from Euromonitor 2017 and WHO 2017.

Given expected modest inflation increases up to 2020, and an excise system that remains unchanged, the retail price of cigarettes will likely also increase at modest levels – presumably around expected inflation rates of 2 percent to 4.5 percent (IMF WEO 2017). This is because producers will be less eager to increase their own prices at a higher rate (ex-factory price) due to the ad valorem component of the excise taxes (which constituted about 39 percent of retail prices in 2016). Consequently, per capita consumption and real excise tax revenues are expected to stay almost constant or slightly decrease.

Brazil

Before 2012, Brazil had a tiered specific excise tax system with the tax based on package and the length of cigarettes (see table 12 for 2009 tax rates).

Table 12: Excise system pre-2012, Brazil

	Length	Rate/1,000
Soft packs	Less than 88 mm	R$30.95
	88 mm or more	R$36.45
Soft pack version of hard pack	Less than 88 mm	R$40.65
	88 mm or more	R$51.25
Hard pack	Less than 88 mm	R$45.95
	88 mm or more	R$56.55

Source: Ministry of Finance, Brazil.

In 2012[53] Brazil adopted a federal-level mixed excise tax system, with two specific excise rates and an ad valorem rate. The government planed to unify the specific rates into a single rate in 2015. Decree 8656/06[54] gave businesses two tax options:

- A 300 percent ad valorem rate, levied on 15 percent of retail price (that is 45 percent of retail price).

Or

- A mixture of both excises where the specific rate is set no less than R$0.80 per pack and the ad valorem rate cannot be higher than one-third of the 45 percent as specified in the first option.
- An ad valorem rate not higher than 15 percent of the retail price. For the following years, as the ad valorem increases, the applicable rate is estimated based on 15 percent of retail price.

In 2015, the ad valorem rate increased to 60 percent on 15 percent of the retail price, plus R$1.30 per pack; and in early 2016 the ad valorem increased to 65.3 percent on 15 percent of retail price and R$1.30 per pack for the specific excise. By the end of 2016, ad valorem increased again to 66.7 percent on 15 percent of retail price, and R$1.50 per pack for the specific excise. The increase in cigarette excise tax was thus accompanied by simplification of tax structure. In addition to federal excise tax (IPI), cigarettes are also subject to a few surcharges, including:

Contribution for Social Security Financing (COFINS) – a state tax whose base is the gross revenue of private legal entities. The rate varies depending on the tax regime under which the company operates. The COFINS rate is set as ad valorem (3 percent) and the tax base is defined as 2.9169 times the retail price. This tax supports health and social programs.

CMS – a state tax on circulation of goods and services. The tax is payable at all stages of sale, from manufacture to consumer. The tax rate varies between 7 percent and 25 percent, depending on the state. In addition, Federal Districts have the power to institute their own rules.

PIS[55] is a federal tax that applies to gross revenues earned by all types of legal entities, including non-profit makers and government organizations. The rate is set 0.65 percent of 3.42 times the retail price.

[53] Brazil data sources were compiled by Roberta Iglesias (2012), unpublished internal documents on Brazil's tax system, and various websites on Brazil taxes.
[54] The Decree can be found at http://www.internationaltaxreview.com/Article/3532828/Brazil-establishes-new-tax-treatment-for-chocolate-ice-cream-tobacco-and-cigarettes.html.
[55] More on the PIS can be found at http://thebrazilbusiness.com/article/taxes-on-tobacco-products-in-brazil.

Between 2006 and 2013, changes in Brazil's excise revenue, rates and cigarette prices were as follows (TobaccoFree Kids 2014):

- Total tax share in retail price increased from 55.6 percent in 2006 to 60.4 percent in 2013.
- The real average retail price for a pack of 20 cigarettes increased from R$2.19 in 2006 to R$5.5 in 2013.
- Cigarette sales declined from 5.56 billion packs in 2006 to 3.8 billion packs in 2013.
- The real excise revenue from cigarettes increased 48 percent from R$3.3 billion in 2006 to R$5.1 billion in 2013 (see figure 33).

Figure 33: Cigarette prices, sales and revenues, Brazil, 2000–2013

Source: Tobacco Free Kids, 2014.

South Asia Region

Bangladesh

Bangladesh's tobacco tax system for cigarettes is based on tiered ad valorem supplementary duties, where the base of the tax is the retail selling price of brands. In addition to supplementary duty (SD), cigarettes are subject to a VAT of 15 percent, and health development surcharge of 1 percent tax on excise inclusive retail price. Bangladesh's cigarette excise systems for 2015–2016 and 2017–2018 are illustrated in table 13.

Table 13: Cigarette excise system 2015–2018, Bangladesh

Tier	Retail price of 10 sticks (Taka)	Supplementary duty	Retail price of 10 sticks (Taka)	Supplementary duty	Tier	Retail price of 10 sticks (Taka)	Supplementary duty
	2015–2016		2016–2017		2017–2018		
Low	18	48%	23+	50%	Low (local brand)	27	52%
					Low (international brand)	35	56%
Medium	21–42	60%					
High	44–69	61%	45 +	62%	High	45	63%
Premium	70 +	63%	70 +	64%	Premium	70+	65%

Source: National Bureau of Revenue, Ministry of Bangladesh.
Note: Data provided by Nigar Nargis and Mark Goodchild.

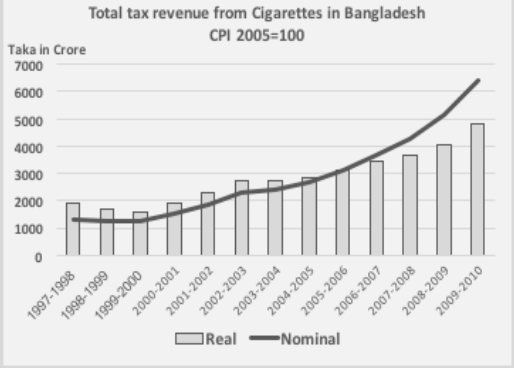
Bangladesh increases its supplementary duty for tobacco products annually. Based on available data, it has been generating positive increases in tax revenues on cigarettes (excise plus VAT) in nominal and real terms (see figure 34).

Supplementary tobacco duty (cigarettes and bidis) in 2009–2010 was approximately Taka 5,145.74 crore or US$630,000 (NBR 2011) or 48 percent of total supplementary duties and 6.8 percent of total tax revenues (US$9,259,652.333.03).[56]

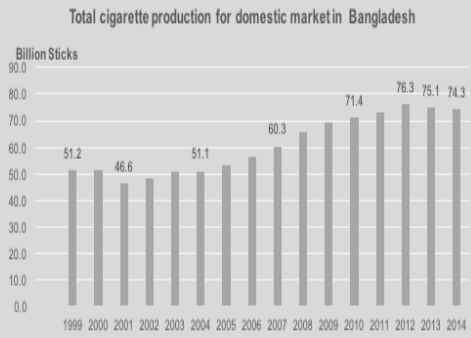
This increase in revenue is partly due to higher supplementary tax duties and partly to the increases in cigarette production in the domestic market.

[56] https://mof.gov.bd/en/index.php?option=com_content&view=article&id=184&Itemid=1.

Figure 34: Cigarette production and the total tax revenues of cigarettes, Bangladesh



Source: NBR 2011.



Source: Euromonitor 2014.

Tax Analysis: Public health and revenue perspectives

Tobacco use is prevalent among both women and men in Bangladesh, but differs by type of tobacco products and gender (see table 14). Cigarettes and bidis are more frequently consumed by men than women, but prevalence of smokeless tobacco use is much higher among women.

Table 14: Prevalence of tobacco use 2011, Bangladesh

Indicator	Overall	Sex		Residence	
		Male	Female	Urban	Rural
Current tobacco (smoking or smokeless) use	43.3	58.0	28.7	38.1	45.1
Current tobacco smokers [a]	23.0	44.7	1.5	21.3	23.6
Current cigarette smokers [a, b]	14.1	28.3	0.2	18.4	12.6
Current bidi[57] smokers [a]	11.2	21.4	1.1	4.7	13.5
Current smokeless tobacco use [c]	27.2	26.4	27.9	22.5	28.8

Source: GATS Bangladesh 2011.
Note:
[a] Current use includes both daily and occasional (less than daily) use.
[b] Cigarette use includes both manufactured and hand-rolled cigarettes.
[c] 24.3 percent *betel quid* with tobacco, 1.8 percent *sada paata*, 5.3 percent *gul*, 1.5 percent *khoinee* and 1.4 percent others.

In 2015–2017, the government reduced the number of tiers in its system from four to three by merging the low and medium price bands

[57] In Bangladesh, bidis are called *biris*.

(see table 15). From a public health perspective, this was a good move, but it fell short of achieving both revenue and public health objectives.

To reduce the tiers, the government compromised the excise rate for the medium price band by reducing it from 60 percent to 50 percent. As the tax liability increased by 33 percent for the low-price segment, the tax liability for mid-price segment decreased between 8.7 percent and 12.7 percent[58] (table 15).

Table 15: Changes excise tax liability on price band 2015–2017, Bangladesh

Excise liability					
		Low-price band		Medium-price band	
Fiscal Year	Minimum Price	Excise/pack	% change	Excise/pack	% change
2015-2016	18	8.64			
	21			12.6	
	42			25.2	
2016-2017	23	12.5	33%	11.5	-8.70%
	44			22.0	-12.7%

S

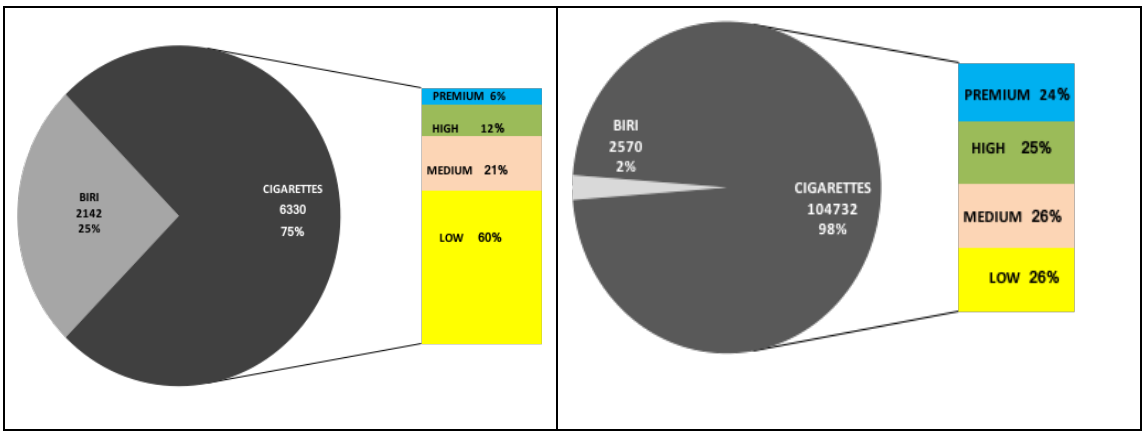
Source: National Bureau of Revenue, Ministry of Finance, Bangladesh.
Note: Data provided by Dr Nigar Nargis.

In 2013–2014, medium-price brands constituted 21 percent of the cigarette market, generating 26 percent of tobacco excise revenue (see figure 35). The government therefore compromised its revenue and public health objectives in 2016–2017.

Figure 35: Tax-paid sales and revenue by price band of cigarettes, Bangladesh

Tax-paid sales volume (million packs of 20), and market share of price band	Revenue (million Taka) 2013–2014, and share cigarettes by price band

[58] Depends on current retail price levels.



Source: NBR, Bangladesh 2015.

In 2017–2018, the government split the low-price segment into two tiers – one for locally produced, low-price products, and another for low-price international brands. Both segments have a relatively higher tax base (retail price) than in 2016–2017, and face relatively higher percentage increases in the tax base and rates than high-price and premium brands.

Although the government has been trying to reduce the gap in the tax base and excise rates among tiers, the low-price (local) sector has been protected from competition from large multinationals (tobacco manufacturers claim that illicit trade is insignificant in Bangladesh. Unlike India where the lower tier was created with the intention of deterring illicit tobacco products, Bangladesh aims to protect local producers in the lower tier).

Bangladesh has many small-scale local cigarette producers that supply cigarettes for low-income and bidi smokers. In recent years, multinationals started supplying low-price cigarettes, creating pressure on local producers. During the budget speech for financial year 2017–2018, Bangladesh's Finance Minister indicated that the government aimed to protect local producers by splitting the tax base and distinguishing rates between these two types of cigarettes.

In respect to bidis, the government also applied a protectionist tax policy, keeping the excise tax and the tax base significantly lower than that of the low-price cigarette segment. Furthermore, unlike cigarettes, the tax base for bidis is not the retail selling price but a randomly determined (and lower) "tariff value" set by the Ministry of Finance. Despite the 25 percent of market share in 2013 and 2014, bidis generated 2 percent of tax revenues from smoking tobacco (e.g., cigarettes and bidis).

In the budget speech for financial year 2017–2018, the Finance Minister indicated that the government would be abolishing the existing tariff value on bidis (presumably the tax base "tariff value"). However, the

government has kept the supplementary duty for non-filter bidi and filter bidi unchanged at between 30 percent and 35 percent respectively. These rates will be imposed on the retail selling price of bidis, where the Finance Minister indicated that the tax base would be on the tax inclusive price of 25 sticks of non-filter bidi at 15 Taka (US$0.18) and 20 sticks of filter bidi at 15 Taka. These rates are set to be effective from June 1 2017.

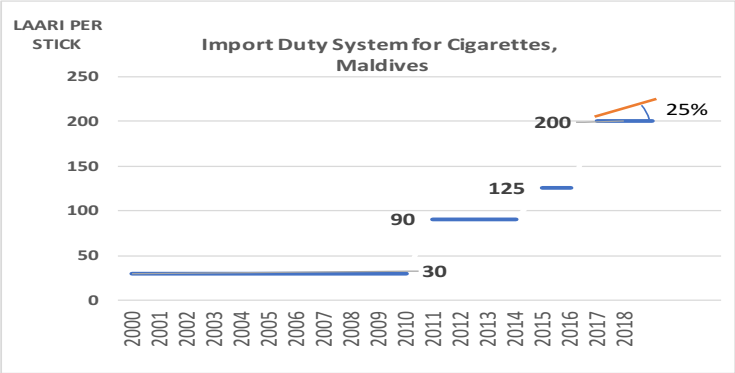
Although the Finance Minister uses public health objective as a justification for the changing the tax policy on tobacco products in financial year 2017–2018, these policies fall short of achieving public health objectives. It is predicted that nominal per capita income will increase by about 8.3 percent, while inflation will run at around 8 percent in 2018. The slight increase in real GDP per capita would likely slightly increase consumption.

Maldives

The Maldives is the only upper-middle-income country in the South Asian region, and among the few countries around the globe, that does not apply excise tax on tobacco and tobacco products. The Maldives depends on imports for cigarettes and only imposes import duties.

Prior to May 2000, the Maldives imposed ad valorem import tax on cigarettes at 50 percent of CIF. After 2000 the government eliminated ad valorem import tax and imposed a specific import duty of Rf 0.30 per stick. In 2011–2012 the specific import duty changed from Rf 0.30 to Rf 0.90 per stick, and in 2015–2016 the specific duty was increased to Rf 1.25 per stick (see figure 36) – a quadrupling in four years. In addition, in 2017–2018, the Maldives introduced a 25 percent ad valorem import duty on the CIF value of cigarettes, and increased the specific component of the import duty to Rf.2.00 per stick.

Figure 36: Import duty system on cigarettes 2000–2017, Maldives

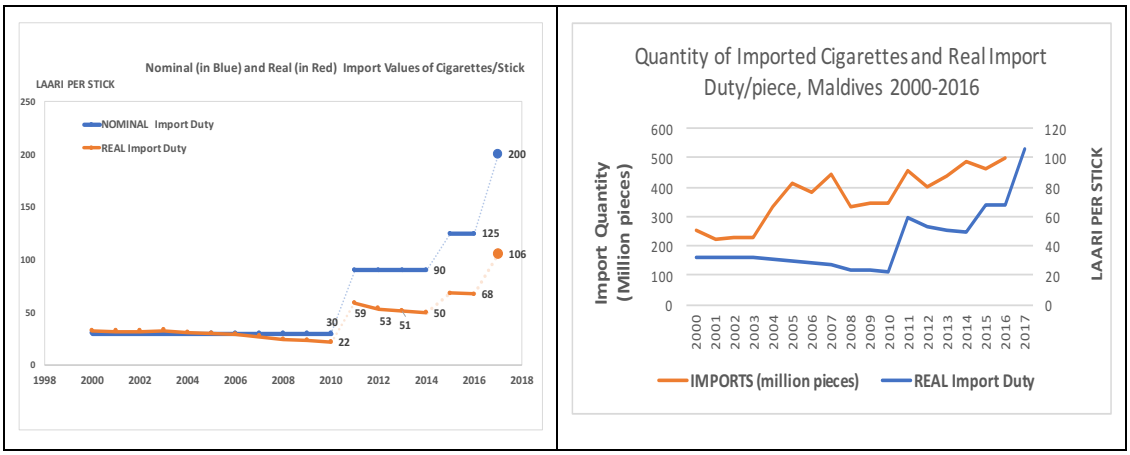


Source: Maldives Customs Statistics
Note: Statistics derived from various years from the Maldives Custom Service's database, (accessed February 9, 2018), https://www.customs.gov.mv/statistics.

Between 2013 and 2017 the Maldives started to increase the import duty values for tobacco products more frequently than prior to 2013. Protecting public health was the main reason for those increases in import duties (Finance Minister Budget Speech 2017).[59]

When the real import value per stick and the quantity of cigarettes imported into Maldives is analyzed, the tax policy on cigarettes has shown no negative impact on demand for cigarettes (see figure 37). Taking into consideration that the Maldives receives a significant number of tourists each year (triple the size of its own population)[60] it is not clear how the fluctuating population responds to the tax changes, or how that affects demand for cigarettes in the country.

Figure 37: Cigarette imports and duties, Maldives



Source: Maldives Customs Statistics.
Note: Statistics derived from various years from the Maldives Custom Service's database, (accessed February 9, 2018), https://www.customs.gov.mv/statistics.

Maldives National Bureau of Statistics indicated that between March 2016 and 2017 the Consumer Price Index (CPI) for tobacco increased by 30 percent, due to 38 percent increases in cigarette prices (see Maldives Customs Service's statistics database for 2017). With a 38 percent price increase applied to the the 2016 most popular brand price, (Rf 47 per pack) (WHO 2017), the estimated cost in 2017 would be Rf 65 per pack – approximately US$4.2 per pack.[61]

Using CIF values for the most popular brand in 2016 (Maldives Customs 2017), the estimated tax liability will increase by 71.3 percent from Rf

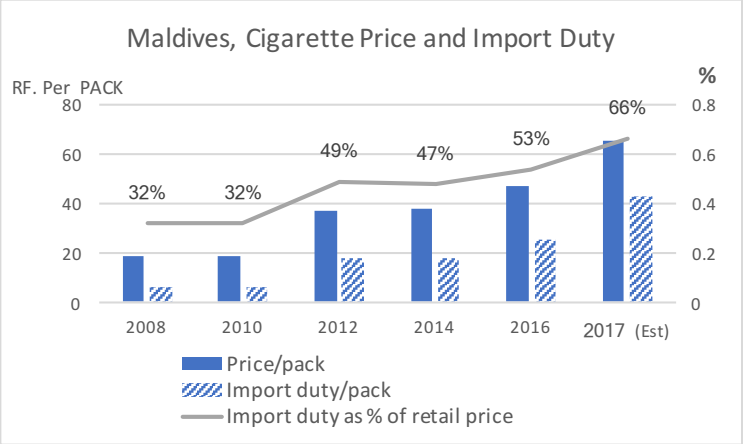
[59] Text of speech available from http://www.finance.gov.mv/v2/postview?act=12&category=Data%20and%20Statistics.

[60] More information available from http://statisticsmaldives.gov.mv/yearbook/2016/tourism/.

[61] Based on September exchange rate of Rf 1= US$0.065, http://www.mma.gov.mv/#/statistics/exchangerates.

25 per pack to Rf 43 per pack. As a result, the tax incidence are set tp increase from 53 percent in 2016 to 66 percent in 2017 (see figure 38).

Figure 38: Cigarette prices and tax 2008–2017, Maldives



Source: WHO 2017; Maldives Customs Service; and Maldives National Bureau of Statistics.

Note: Data were derived from the Maldives Customs Services imports statistics data, 2017.

For an upper-middle-income country, the Maldives' 66 percent tax share on a pack of cigarettes is a good tax incidence. However, this rate neither meets the total tax incidence nor curbs the tobacco epidemic. There are a few reasons for this:

1. Cigarette imports have been increasing. Despite receiving a significant number of tourists, which affects tobacco consumption, the Maldives already has a very high prevalence rate of current cigarette and tobacco use among adults – 53.4 percent male and 8.9 percent female – and youth (15.8 percent male and 6.8 percent female in 2016) (WHO 2017).

2. Specific import value has not been indexed to income and inflation rates in the country and the tax policy does not provide for annual increases.

3. Maldives should consider imposing a floor tax policy on importers from a public health perspective, to see the tax-induced price hike immediately. In financial year 2015–16, 45 percent of total cigarettes were imported before the new tax became effective.

Nepal

Nepal has a tiered specific excise tax system for cigarettes, with the tax base defined by filtered and unfiltered cigarettes. For filtered cigarettes, tiers are also determined by the length of cigarettes (see table 16). Since 2013–2014 (based on available data), the Nepalese government increased the tax rate at around 8 percent to 10 percent per year.

Table 16: Excise system on cigarettes per 1,000 pieces 2013–2019, Nepal

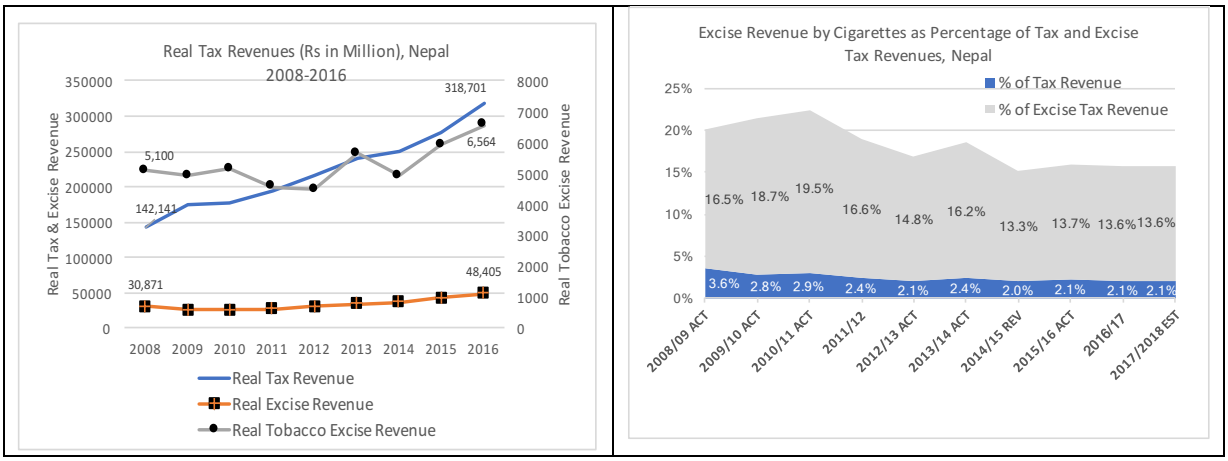
Cigarettes without filter									
	2013–2014	2014–2014		2015–2016		2016–2017		2017–2018	
All length	272	294	8%	320	9%	346	8%	374	8%
Cigarettes with filter by length									
	2013–2014	2014–2014		2015–2016		2016–2017		2017–2018	
Up to 70 mm	597	657	10%	723	10%	795	10%	859	8%
70–75 mm	763	839	10%	931	11%	1024	10%	1116	9%
75–85 mm	977	1075	10%	1193	11%	1336	12%	1456	9%

Source: Nepal Inland Revenue 2017;[62] Nepal Ministry of Finance budget speeches and various sources[63,64,65]

Between 2008 and 2016 Nepal received revenue from increasing real tax and excise taxes. However, the excise tax revenue from tobacco has fluctuated, steadily increasing between 2014 and 2016. Excise revenue from cigarettes constituted between 13.6 percent and 19.5 percent of the total excise tax revenue, and only 3.6 percent to 2.1 percent of total tax revenue, between 2008 and 2018[66] (see figure 39).

[62] See https://ird.gov.np/Content/Tax,LawsRules/Directives/Excise.
[63] See https://www.crowehorwath.net/uploadedfiles/np/news/nepal%20budget%202014-15%20final.pdf.
[64] See http://worldcustomsjournal.org/Archives/Volume%209%2C%20Number%202%20(Sep%202015)/1784%2001%20WCJ%20v9n2%20Prasad.pdf.
[65] See http://ldsaa.com/wp-content/uploads/2016/06/Amendments-Highlights_FY-207374.pdf.
[66] Estimated for 2018.

Figure 39: Real tax revenues and Excise Revenue from Cigarettes as Percentage of Tax and Excise Tax Revenues, Nepal



Source: CPI 2010=100 by World Bank,[67] Nepal Inland Revenue 2017,[68] Nepal Ministry of Finance budget speeches and various sources [69] [70] [71]

Tax Analysis: Public health and revenue perspective

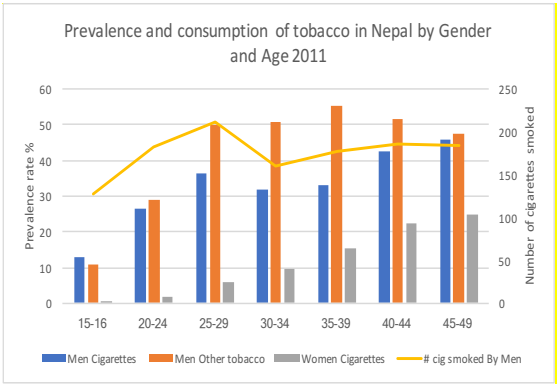
Tobacco use is prevalent among women and men in Nepal. In 2011, 53 percent of adult males and 13 percent adult females were consuming some form of tobacco product (see figure 40). In addition to cigarettes, smokeless tobacco, locally known as *khaini, gutcha* or *zarda* is also common. The consumption of these products is especially common among males.

Nepal is a low-income country that experienced higher increases in real GDP per capita (between 2 percent and 4 percent per annum) between

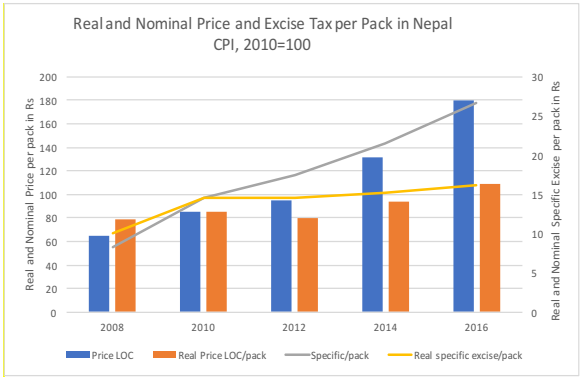
[67] See https://data.worldbank.org/indicator/FP.CPI.TOTL?end=2016&locations=NP&start=1964&view=chart
[68] See https://ird.gov.np/Content/Tax,LawsRules/Directives/Excise.
[69] See https://ird.gov.np/Content/Tax,LawsRules/Directives/Excise.
[70] See http://worldcustomsjournal.org/Archives/Volume%209%2C%20Number%202%20(Sep%202015)/1784%2001%20WCJ%20v9n2%20Prasad.pdf.
[71] See http://ldsaa.com/wp-content/uploads/2016/06/Amendments-Highlights_FY-207374.pdf.

2006 and 2015. Although specific excise rates have increased around 8 percent to 10 percent per annum, due to a high inflation rate (around 10 percent per annum) (IMF World Economic Outlook 2017), in real terms, the specific excise value was almost constant during that period.

Figure 40: Tobacco prevalence, consumption, price and excise tax, Nepal



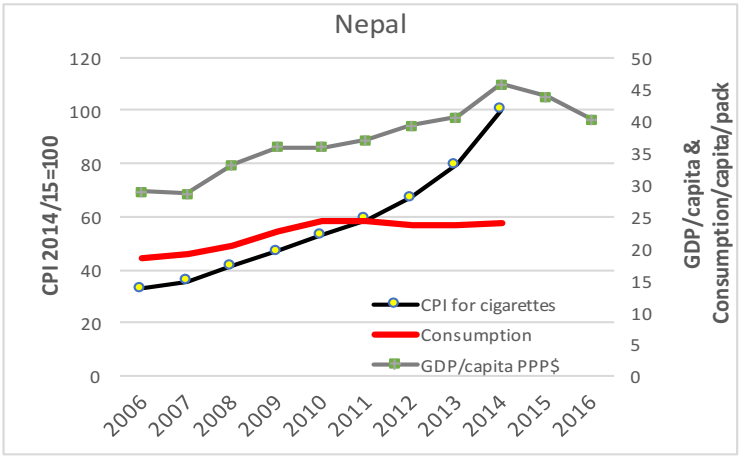
Source: Nepal Demographic and Health Survey 2011.



Source: WHO 2017.
Note: Price for most popular brand and corresponding excise level from WHO 2017; CPI 2010 = 100 (estimate of Ministry of Finance, Nepal).

Despite this, affordability was clearly affected by price increases that were higher than increases in GDP per capita, stabilizing the consumption level between 2010 and 2014 (see figure 41).

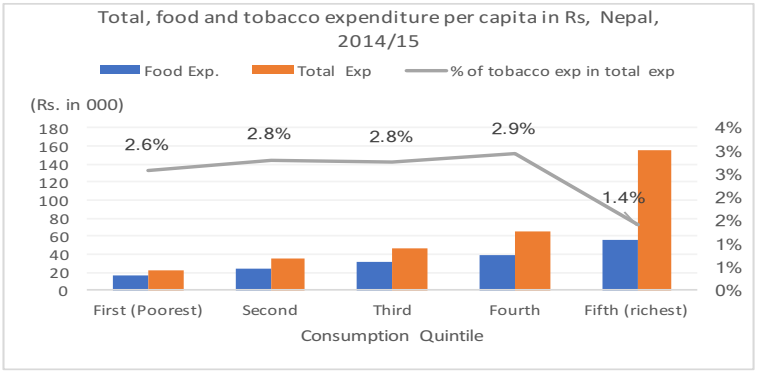
Figure 41: Cigarette consumption, income and cigarettes CPI, Nepal



Source: IMF WEO 2017; Euromonitor 2016; CPI, Ministry of Finance, Nepal.

The 2014–2015 Nepal Household Survey indicates that, on average, the lowest income Nepalese consumer spent 2.6 percent on tobacco, while the highest income Nepalese consumer spent close to 1.4 percent of total per capita expenditure on tobacco products (see figure 42). This clearly demonstrates a significant opportunity cost for low-income smokers.

Figure 42: Total, food, and tobacco expenditure 2014–2015, Nepal



Source: Nepal household survey 2014–2015.

Since excise increases failed to consider real GDP per capita and the inflation rates when determining the specific excise increases, Nepalese tax increases have been falling short in achieving public health objectives. Furthermore, the current excise system does not support the government's fiscal objectives.

The level of excise increases suggests that the Nepalese government has not explored the cost-effectiveness of the reduction of tobacco use or the revenue-generating potential of tobacco excises.

Sri Lanka

Sri Lanka has a five-tier specific excise tax system (see table 17). The tiers are based on the length of cigarettes. Unlike India and Nepal, Sri Lanka does not differentiate excise rates by filtered and unfiltered.

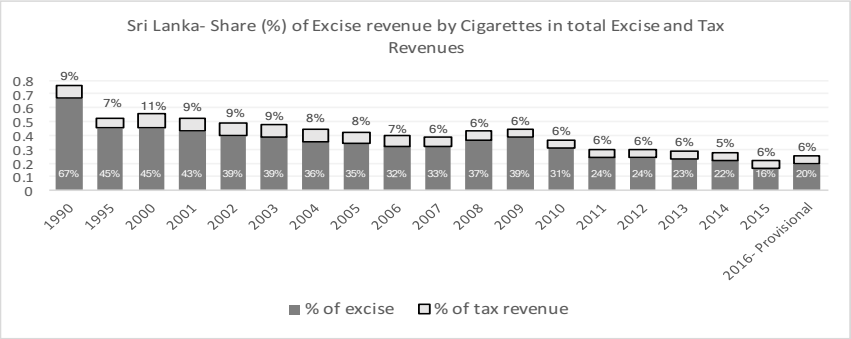
Table 17: Excise tax application 2010–2016, Sri Lanka

Cigarette excise per 1,000 in SL Re by length	2010	2012	2013	2014	2015	2016
Below 60 mm	3,465	4,037	5,722	6,975	6,975	11,675
60–67 mm	6,973	8,112	10,355	12,675	12,675	17,375
67–72 mm	9,811	10,953	12,100	14,660	14,660	20,500
72–84 mm	12,108	13,815	16,610	21,610	23,750	30,500
84 mm+	15,000	17,100		25,100	27,240	34,250
Exchange rate	113.1	110.6	129.1	130.6	135.9	149.8
Inflation % annual average	6.2%	6.7%	4.4%	3.3%	0.9%	3.7%
GDP growth (annual)	8%	6.4%	7.3%	7.4%	4.8%	4.4%
GDP per capita (SL Re)	310,214	373,001	423,467	473,261	533,398	558,363
GDP per capita (US$)	2,744	2,923	3,280	3,625	3,925	3,835

Sources: Sri Lanka Ministry of Finance Annual Reports; Sri Lanka Department of Census and Statistics; Federal Reserve Bank of St Louis.

Sri Lanka's reliance on cigarette excise tax has diminished over the years (see figure 43). In 1990 it was 67 percent of total excise revenues and in 2015 it was 20 percent. This is because Sri Lanka achieved higher revenues from other excisable goods and services while generating higher revenues from tobacco products.

Figure 43: Share (%) of excise revenue by cigarettes in total excise and Tax Revenue 1990–2016, Sri Lanka



Source: Sri Lanka Ministry of Finance Annual Reports.

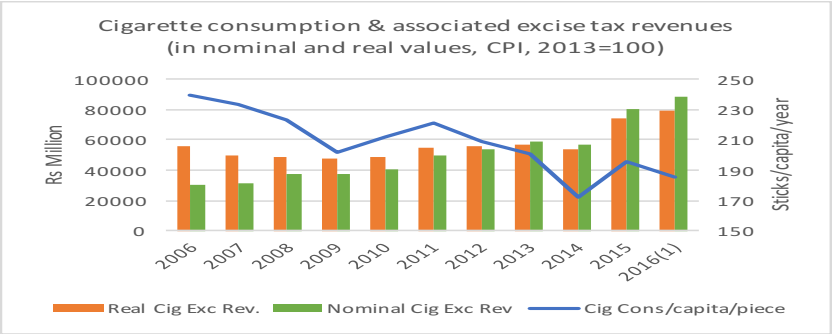
In fact, Sri Lanka managed to increase its excise revenues from cigarettes while reducing per capita consumption over the years.

Tax Analysis: Public health and revenue perspective

Overall, per capita consumption in Sri Lanka decreased by 22 percent from 240 sticks in 2006 to 186 sticks in 2016 (see figure 44). Excise increases in all tier groups of cigarettes raised excise tax revenue by 194 percent in nominal and 43 percent in real terms during that period. This mitigated the effects of a downward trend in sales.

Despite facing high inflation rates between 2000 and 2008, the excise tax increases were adjusted at a higher rate than the inflation. After controlling the rate of inflation, the government continued increasing excises much higher than the inflation rate and the GDP per capita growth between 2009 and 2016.

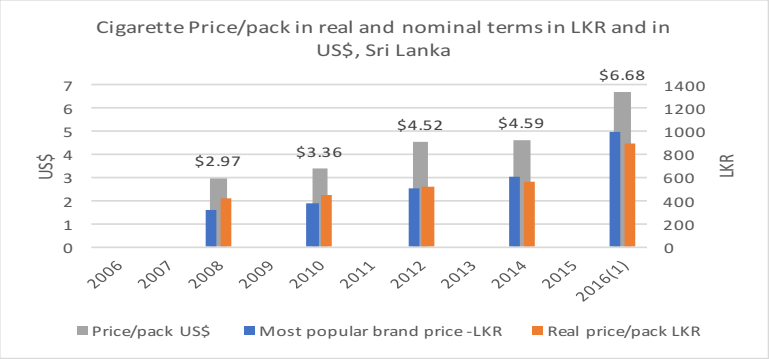
Figure 44: Cigarette consumption and excise revenues 2006–2016, Sri Lanka



Source: Sri Lanka Ministry of Finance Annual Reports.
Note: Consumption was estimated using the production data set out in Sri Lanka's Ministry of Finance Annual Reports and the traded (exported and imported) quantity of cigarettes was derived from statistics from the UNCOMTRADE database.

Increasing the excise rates generated higher retail prices in nominal and real terms, (CPI 2013 = 100). By 2016, the most popular cigarettes reached a price of US$6.68 per pack (see figure 45).

Figure 45: Cigarette price per pack in real and nominal terms in Sri Lankan rupees (SL Re) and US$, Sri Lanka



Sources: WHO 2008–2017; Government of Sri Lanka, Department of Census and Statistics;[72] IMF WEO 2017; Federal Reserve Bank of St Louis.
Note: (1) 2016 production data are provisional.

While Sri Lanka's government did adopt an excise tax policy that made public health a priority, the tier system undermined the full impact of tax increases by allowing low-income smokers to switch to cheaper brands. Despite increases in tax and prices on cigarettes, in 2015:

- 45.7 percent of men, 5.3 percent of women and 25.8 percent overall were current users of tobacco, in any form;

[72] See http://www.statistics.gov.lk/page.asp?page=Inflation%20and%20Prices.

- 29.4 percent of men, 0.1 percent of women, and 15 percent overall were current smokers of tobacco;
- 26 percent of men, 5.3 percent of women and 15.8 percent overall were current users of smokeless tobacco (WHO STEPS 2015).

Pakistan

Pakistan defines retail prices as wholesale prices without VAT (so all mentions of retail prices in this section refer to wholesale prices). Since 1989 its excise system has evolved as such:

- 1989–1991: two tiers, ad valorem system
- 1992–1993: three tiers, specific and composite
- 1993–1994: two tiers, specific and ad valorem
- 1995–2012: three tiers, specific, composite and ad valorem
- 2013—2016: two tiers, specific only
- 2017 to present: three tiers, specific only

Between 1995 and 2012, Pakistan's excise system had a structure whereby the highest priced tier was subject to ad valorem tax; the lowest priced tier was subject to specific tax; and the mid-price tier was subject to a mix of both. However, unlike other mixed systems, the middle tier was structured in such a way that the ad valorem rate was not applied directly to the retail price. First, the minimum price floor of the tier (for example PRe 8.29 in 2009, as shown in table 18, was deducted from the retail price, with the remainder multiplied by the ad valorem rate.

Since the two most popular brands, which account for almost 75 percent of the market, are in the mid-tier band, such a system had no effect, according to the Ministry of Finance. On the contrary, the economic disadvantage that it created for brands in the lower and higher tiers fuelled tax avoidance by those brands that cost the government significant revenue over the years. Between 2013 and 2016, Pakistan adopted a two-tier specific excise rate that was based on the retail price of cigarettes. In 2017, Pakistan introduced a lower tier for its cigarette excise system (see table 18).

Table 18: Excise duty structure 2012–2017 (rupees, PRe), Pakistan

	2012		2016		2017	
Tier	**Base = RP per pack of 10**	**Rate (%) on RP**	**Per 1,000**	**Rate in PRe**	**Per 1,000**	**Rate in PRe**
Upper	RP ≥ 21	65%	RP ≥ 4,000	3,436	RP ≥ 4,500	3,740
Middle	11.5 ≤ RP< 21	6.04 + 70% per incremental RP	Eliminated		2,925 ≤ RP < 4,500	1,670
Lower	RP < 11.50	6.04	RP < 4,000	1,534	RP < 2,925	800

Source: Ministry of Finance, Pakistan.[73]

In his budget announcement in May 2017, the Minister of Finance announced that the government would change from a two-tier system to a three-tier system, in order to eliminate low-price, illicit cigarettes in the market (Finance Minister's budget speech 2017).

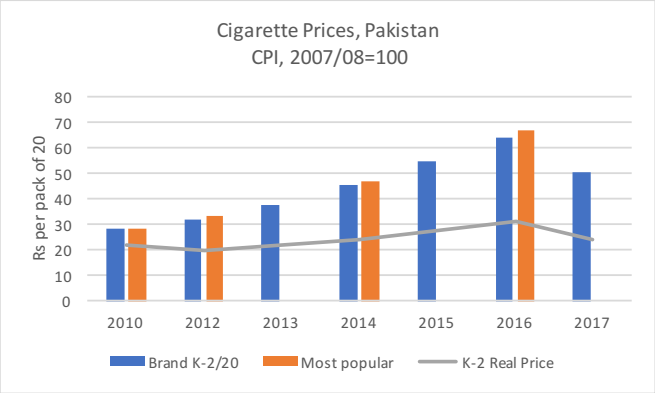
Tax Analysis: Public health and revenue perspectives

In 2013, Pakistan's excise tax policy appeared to be fit for purpose as it eliminated the complexities of a cigarette excise system and adopted a two-tier specific excise. Reverting to a three-tier excise system, as was done in 2017, will not solve the illicit cigarette issue.[74] Furthermore, the creation of a lower tax tier in 2017 has resulted in negative impacts on public health, with the retail price of one of the brands in the lower segment (K-2) falling by 20 percent (see figure 46).

Figure 46*:* Cigarette prices 2010–2017, Pakistan

[73] See http://www.pkrevenue.com/tag/federal-board-of-revenue/.

[74] India's Ministry of Finance used argument that it would tackle illicit trade when it introduced a new tier for a lower-priced segment in 2010. However, that move reduced expected revenues and did not solve the illicit trade problem (conversation with Ministry of Finance officials).

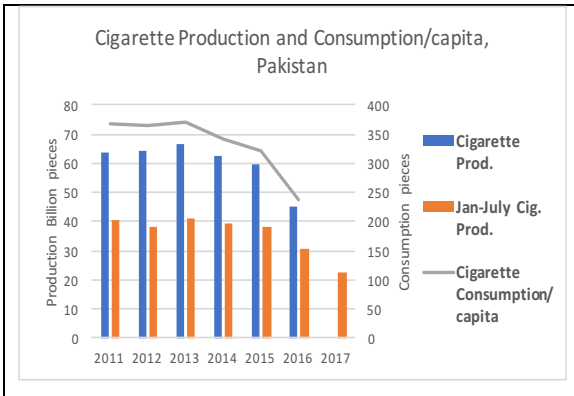


Sources: Price data for Brand K-2 were obtained from the Pakistan Bureau of Statistics Price database; most popular brand price was obtained from WHO 2008–2017 MPOWER data; CPI was obtained from IMF WEO 2017.

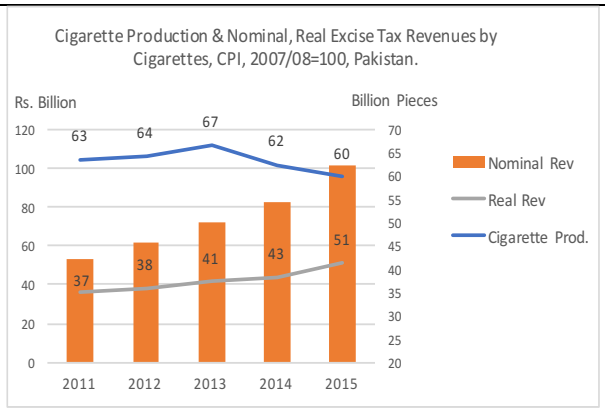
Based on available data, retail prices increased between 2010 and 2016, but in real terms, the price almost stayed constant or only displayed a slight increase to affect consumption level. As a lower-middle-income country, Pakistan has one of the lowest cigarette prices in the world (US$0.64 per pack in most popular brand price).

Nevertheless, cigarette production and per capita cigarette consumption have been falling since 2013, but despite this, excise tax revenues have risen (see figure 47).

Figure 47: Cigarette production, consumption and excise revenues 2011–2015, Pakistan



Source: Pakistan Bureau of Statistics.



Source: Pakistan Ministry of Finance Federal Board of Revenue yearbooks.

Pakistan's tobacco excise system seems inconsistent with objectives both of increasing government revenues and of public health. Furthermore, the tobacco market requires a careful analysis on why reported sales have fallen slightly despite very low prices. Allegations of higher levels of illicit trade due to higher prices do not hold true, since Pakistan has very low prices in the region. Increasing the tiers on the excise system will make cigarettes more affordable in the lower price segment and may increase demand for cigarettes in that segment. Both public health objectives and the higher revenue objectives will be jeopardized further.

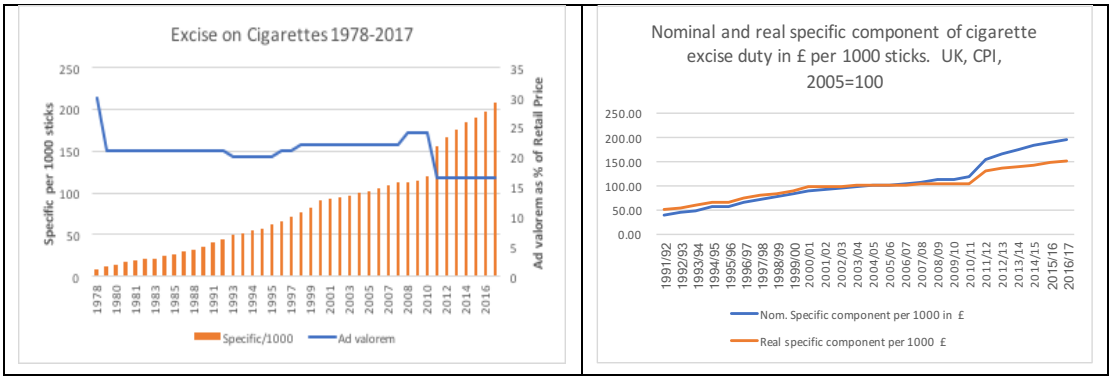
Europe and Central Asia Region

United Kingdom (UK)

The UK has one of the highest excise tax rates in the world and relies heavily on specific duty. As demonstrated in figure 48, the UK reduced its ad valorem tax on retail price from 24 percent in 2010 to 16.5 percent in 2011, while increasing the specific component by 30 percent, from £119.03 per 1,000 pieces in 2010 to £154.95 per 1,000 pieces in 2011.

By keeping the ad valorem excise unchanged since 2011, and gradually increasing the specific excise component by between 3 percent and 8 percent since 2010, the UK has raised both nominal and real specific values (see figure 48).

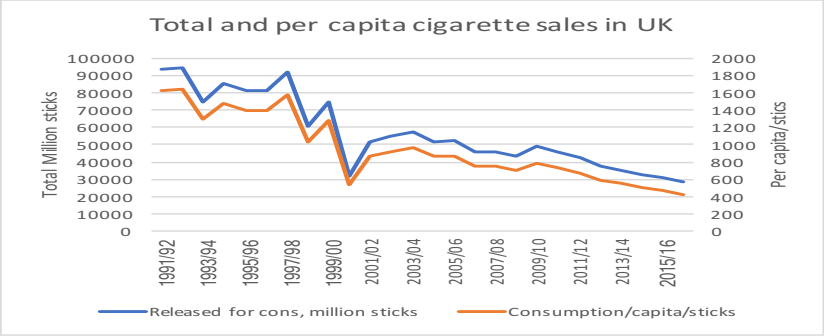
Figure 48: Types of excise application to cigarettes and specific excise value 1978–2017, UK



Source: UK *Sources:* HRMC database; Tobacco Bulletin publications.[75]

Between 1991 and 1992, and 2015 and 2016, both total and per capita cigarette consumption reduced significantly (see figure 49).

Figure 49: Total and per capita cigarette sales in the UK

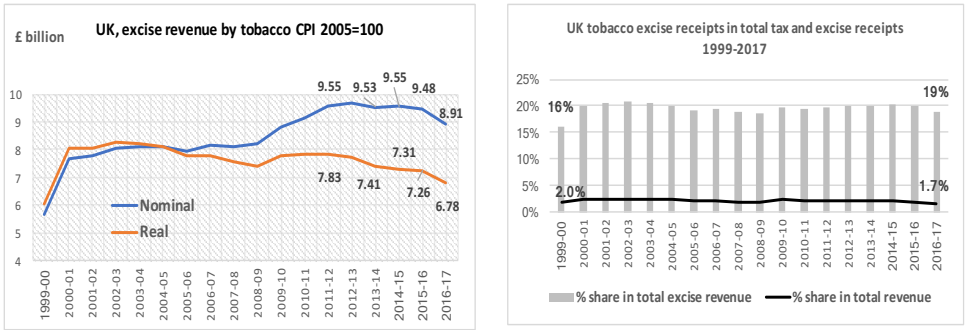


Source: UK Tobacco Bulletin publications.[76]

Tax Analysis: Public health and revenue perspectives

In the UK, excise from tobacco products constitutes around 2 percent of total tax revenues and a little less than 20 percent of total excise tax revenues (see figure 50).

Figure 50: Cigarette excise revenue and its share in tax and excise tax revenue, UK



Sources: UK HRMC database,[77]IMF World Economic Outlook 2017.

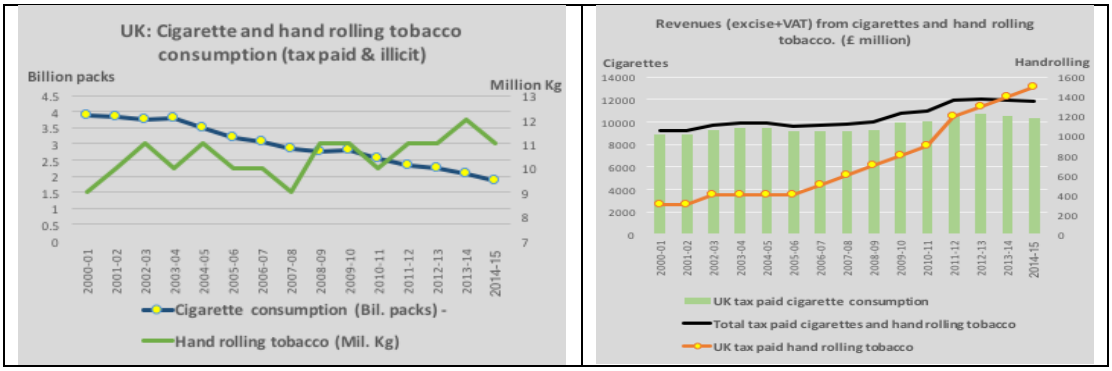
[75] See https://www.uktradeinfo.com/Statistics/StatisticalBulletins/Pages/BulletinArchive.aspx?viewname=Tobacco%20Duties%20Archive.

[76] See https://www.uktradeinfo.com/Statistics/StatisticalBulletins/Pages/BulletinArchive.aspx?viewname=Tobacco%20Duties%20Archive.

[77] See https://www.uktradeinfo.com/Statistics/Pages/TaxAndDutybulletins.aspx and https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/615089/Apr17_Receipts_Table_Final.pdf.

During 2015 and 2016, and 2016 and 2017, excise tax remittance from cigarettes fell by 1 percent, 6 percent to 7 percent respectively, both in nominal and real terms. The annual 3.7 percent and 3.8 percent increases in excise yield per pack were lower than 5 percent and 9 percent reduction in cigarette sales, respectively. However, annual increases in excise taxes contributed to the public health objective of reducing the consumption of both cigarettes and hand-rolling tobacco (see figure 51).

Figure 51: Tobacco consumption (legal and illegal) and excise revenues, UK



Sources: HMRC UK measuring tax gaps 2016[78] and excise yield by the EU excise tax tables for cigarettes various years. Tobacco Bulletin.[79]

There are number of reasons for reduced tobacco revenue. There are number of reasons for reduced tobacco revenue. First, the UK's multi-faceted program of tobacco control, going far beyond tobacco taxes alone, made good progress in its stated public health objective of decreasing tobacco consumption.

Second, producers increased their prices[80] far higher than the increases in excise tax per pack (26 percent and 11 percent respectively) (see

[78] See https://www.gov.uk/government/statistics/measuring-tax-gaps-tables.
[79] See https://data.gov.uk/dataset/tobacco_duties_statistical_bulletin.
[80] For the sake of computation and the unavailability of relevant data, wholesalers and retailers' margins have been included in the producers' price.

table 19) given the inelasticity of demand, to increase revenues and profits. Note that the increase in price beyond those of excise taxes contributed to declines in consumption and so to increases in health benefits even they did not add further to government revenues.

Table 19: Cigarette market and changes 2014–2017, UK

							% Annual changes in		
	WAP per pack (£)	Excise (%)	Total tax (%)	Producer price per pack (£)	Excise per pack (£)	Sales (million sticks)	Sales	Excise per pack	Producer price per pack
2014–2015	7.01	69.02	85.69	1.00	4.84	32,661			
2015–2016	7.44	67.44	84.10	1.18	5.02	30,971	-5%	3.7%	18%
2016–2017	7.73	67.32	83.99	1.24	5.21	28,246	-9%	3.8%	5%

Source: EU excise database;[81] UK Tobacco Bulletin 2017.

Third, stockpiling prior to excise increases may be another reason for the revenue decline. Significant variations in data on the monthly excise payments and cigarette releases suggest that the UK government has been facing rather significant tax avoidance due to floor stockpiling by suppliers (e.g., producers, wholesalers, importers). As the government increases its excise taxes annually, implementing a floor-stock tax provision may help it collect revenues legally avoided by suppliers (see Appendix K for UK stockpiling evidence).

Turkey

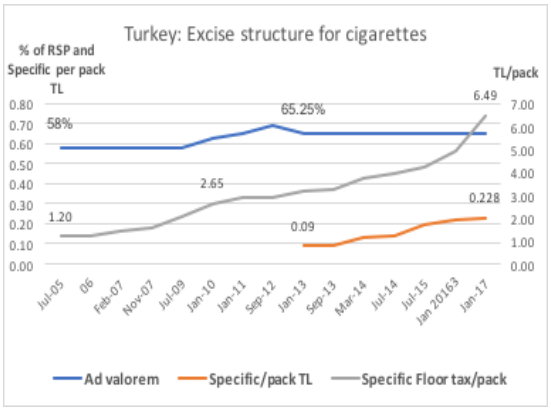
The excise tax system on tobacco products in Turkey was restructured in the mid-1990s and again in 2017. Tobacco products used to have a variety of dedicated, mostly ad valorem taxes applied at points in the distribution chain (Yurekli et al 2010, Cetinkaya and Marquez 2017). But in 2002, all these taxes were aggregated as a "special consumption tax" to be applied to all tobacco products equally and with a uniform ad valorem rate. In 2005, the government introduced a specific excise floor tax. When the ad valorem rate was applied to the retail price (inclusive of all taxes), the tax value fell below the specific floor.

Since 2013, Turkey has imposed a mixed excise tax with a minimum specific floor excise system, but relies heavily on the ad valorem component as illustrated in figure 52. As of 2016, the specific excise and the specific excise floor have been index-linked to the inflation rate and

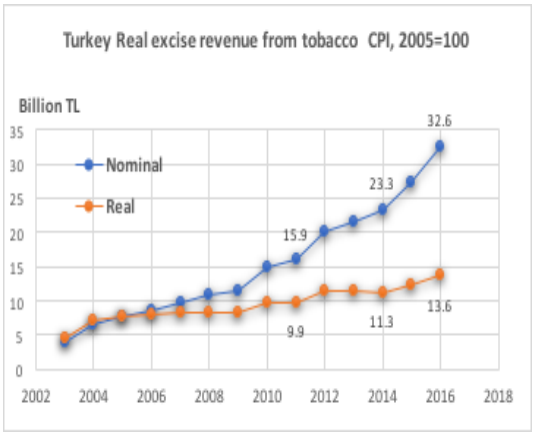
[81] See http://ec.europa.eu/taxation_customs/taxation/excise_duties/index_en.htm.

adjusted every 6 months.[82] Since 2003, the revenue stream from tobacco excise taxes has been positive in both nominal and real terms. Although the real excise revenue from cigarettes has risen, the rate of increase in excise revenue is much slower in real than in nominal terms (see figure 52).

Figure 52: Cigarette excise application and revenue, Turkey



Source: Ministry of Finance, Turkey. Last accessed May 2017 and official national gazette.[83]
Note: Ad valorem is levied on retail selling price inclusive of all taxes.



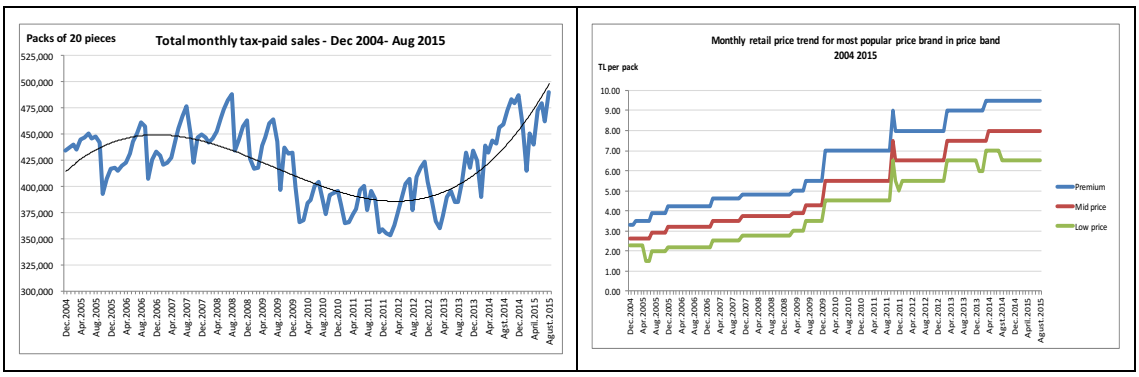
Source: Ministry of Finance, Revenue Department, Turkey.

Tax analysis: Public health and revenue perspectives

Despite increases in excise taxes and retail prices, total tax-paid sales have also been increasing since early 2012 as illustrated in figure 53.

Figure 53: Monthly cigarette sales and retail price trends by price bands, Turkey

[82] See http://www.gib.gov.tr/sites/default/files/fileadmin/mevzuatek/01012016bkk.pdf.
[83] See http://www.resmigazete.gov.tr/eskiler/2015/08/20150808-15.htm.



Source: Graph prepared using data from the Ministry of Finance, Turkey.

One explanation for the increases is that, between 2002 and 2015, per capita income increased by 66 percent in real terms (Çetinkaya and Marquez 2017), making cigarettes increasingly affordable since 2013 despite retail price rises.

Turkey experienced hyperinflation from the late 1970s to the early 2000s – rates that fluctuated between 45 percent in 1977 and 120 percent in 1994 and 30 percent in 2002.[84] As a result, the government has relied heavily on ad valorem excise tax, and is now facing adverse outcomes as a result, with expected price increases falling short of government projections and jeopardizing government revenue expectations. Furthermore, tobacco constitutes about 5.8 percent of the CPI, so further increases in tobacco excise pose risk for higher inflation.

Turkey has been able keep its inflation rate below 10 percent since the early 2000s and is an economy that has achieved significant growth in recent years. Therefore, Turkey needs to increase the specific excise component in excise system by reducing the ad valorem share. The Chilean excise system may provide a good model for Turkey in terms of adjusting excises in an inflation-prone economy (see Chilean excise system).

Commonwealth of Independent States (CIS)

Among the Commonwealth of Independent States (CIS), Armenia, Belarus, Kazakhstan, Kyrgyz Republic, Russia, and Tajikistan formed the Eurasian Economic Community (EEC) in 2015. Uzbekistan was a member but later withdrew its membership. In 2016, the EEC became the Eurasian Economic Union (EEU), which included Armenia, Belarus, Kazakhstan, Kyrgyz Republic, and Russia.

In 2016, the EEU Member States were all middle-income countries. Belarus, Kazakhstan, and Russia were classified as upper-middle-

[84] See http://www.inflation.eu/inflation-rates/turkey/historic-inflation/cpi-inflation-turkey.aspx.

income, while Armenia, Kyrgyz Republic, and Uzbekistan (a non-EEU member) were considered lower-middle-income countries.

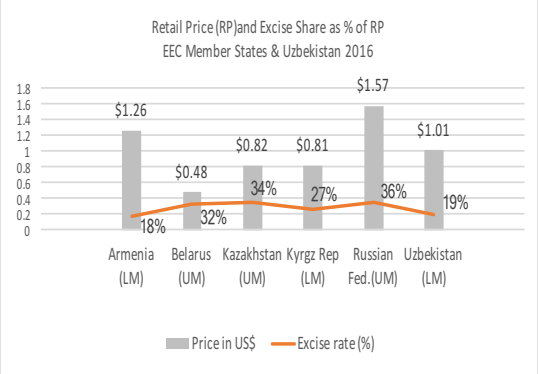
However, in 2016 the cigarette prices in Belarus, Kazakhstan, and Kyrgyz Republic were lower than the global average price for low-income countries. Prices in Russia (an upper-middle-income country), and Armenia (a lower-middle-income county) are in line with the global average for low-and-middle income countries (see figure 54).

Excise incidence in retail prices is also in line with that of low- and lower-middle-income countries' averages. Interestingly, the level of excise incidence does not reflect the price level in the region. For example, in 2016 the excise tax share of retail price was 34 percent in Kazakhstan and 36 percent in Russia. However, the retail price for the most popular brand was US$0.82 per pack in Kazakhstan, and US$1.57 per pack in Russia.

In Armenia (a lower-middle-income country), the most popular brand cost US$1.26 per pack while only 18 percent of the price was excise tax. In Belarus and Kazakhstan (upper-middle-income countries), the most popular brand cost US$0.48 and US$0.82 per pack respectively. The excise share of the price was 32 percent in Belarus and 34 percent in Kazakhstan.

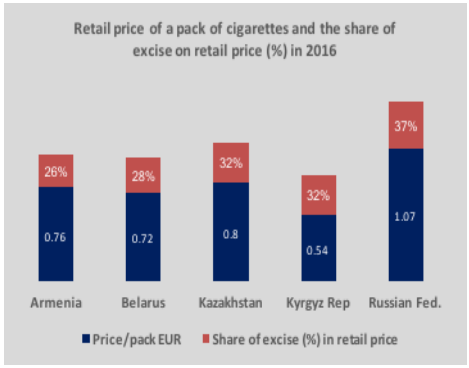
The retail price of the most popular brand, the average price, and the share of excise tax on retail prices for 2016 are shown in figure 54 and figure 55.

Figure 54: Most popular price and excise rate (%) in 2016, EEU and Uzbekistan



Source: WHO 2017.

Figure 55: Average price and excise rate (%) in 2016, EEU



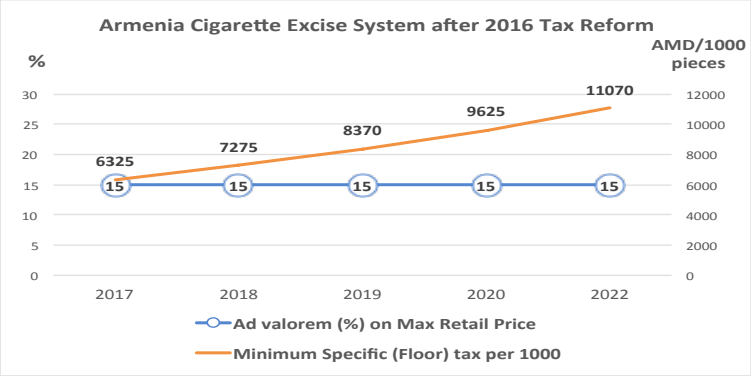
Source: Kunetsova 2016.

Specific Excise Systems for Selected Central Asian countries

Armenia

In 2016, Armenia had the lowest cigarette excise incidence (18 percent), but the second highest price per pack (US$1.26) in comparison to other EEU Member States and Uzbekistan. Armenia levied specific excise on cigarettes but changed to an ad valorem system with a minimum specific excise floor, as illustrated in figure 56. The ad valorem rate will be levied on maximum retail price inclusive of all taxes and the specific excise floor tax will be increased by 15 percent annually.

Figure 56: Cigarette excise system after 2016 tax reform, Armenia



Source: World Bank Group 2016.

Tax Analysis: Public health and revenue perspective

An ad valorem system with a minimum specific floor tax would push up the price of cigarettes in the lower price band and likely reduce the price gap between the lowest and the next highest price segment.

In the first year, a significant increase (higher than 15 percent of retail price) could be expected in both price and tax values in the low-price segment. For consequent years, price increases would be limited to 15 percent as producers would meet minimum specific excise value.

For the higher price segment, there would be no tax pressure to increase prices further for the following years. Any increases in retail prices would yield higher tax liability than the minimum specific value due to ad valorem excise.

However, given the low price elasticity and initial low prices for the premium band of cigarettes, any increase in retail price that would generate excise liability just above the specific excise floor will produce increasing revenue per pack for the manufacturers and also for the government.

For the most popular category, the brand priced at 600 Armenian dram (AMD) per pack paid only 18 percent excise duty in 2016. The excise liability was scheduled to increase to 21 percent – and would be liable to minimum specific excise duty.

For the low-price segment, assuming their prices are less than AMD 600 per pack, manufacturers will face a higher tax burden and would need to increase their prices to maintain their current level of profitability.

Clearly, the excise system has been designed to reduce prices in the lowest price segment in the mid-term by pushing up prices in higher price bands.

The predicted increases in GDP per capita from 6 percent in 2017 to 8 percent in 2021, and a predicted inflation rise from 3 percent in 2017 to 4 percent in 2021 (IMF WEO 2017), suggest that real income per capita will increase between 2017 and 2021.

However, increases in retail prices will be higher than those in per capita income. As a consequence, producers will have an incentive to avoid additional price increases to maintain their market shares. Regardless, demand for cigarettes in low- and mid-price segments will likely decrease relative to the premium segment as incomes increase. Given the low price sensitivity of smokers in higher-income groups, who favor brands in the premium segment, increases in retail price would be less likely to reduce demand in that sector.

The new tax policy will increase the retail prices in all price segments, but the increases will likely reduce demand for cigarettes in the mid- to low-price segments, so increasing benefits for lower-income smokers and overall.

From a revenue perspective, the World Bank conducted a simulation analysis on excise increases in Armenia. The results suggest that as demand falls, excise tax revenue will increase by an additional AMD 4.86 billion in 2017, where the additional tax increases will follow as AMD 4.67 billion in 2018, AMD 4.52 billion in 2019, AMD 5.84 billion in 2020, and AMD 6.53 billion in 2022.

Belarus

Belarus imposes tiered specific excise tax between filtered and unfiltered cigarettes. There is also a tier-specific excise tax imposed upon filtered cigarettes based on retail prices. Excise rates for 2016 are shown in table 20.

Table 20: Excise system for cigarettes 2016, Belarus

Excise taxes per 1,000 sticks	In new Rbl

Pack of 20 cigarettes: Filtered cigarette price	July 1 – December 31, 2016
< 1.23 Rbl	15.30
Between 1.23 Rbl and 1.70 Rbl	37.35
> 1.70 Rbl	42.25
Non-filter cigarettes	11.48
VAT = 18%	

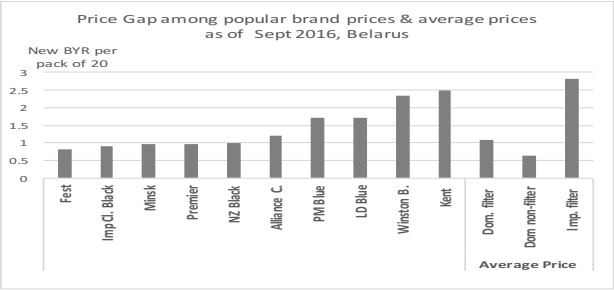
Source: Author's illustration.

Note: Rbl = ruble; 1 new ruble = 1,000,000 old rubles.

Tax Analysis: Public health and revenue perspective

Belarus has one of the lowest retail prices (US$0.48 per pack) and excise incidence on retail prices (31.9 percent) of all upper-middle-income countries in 2016. Furthermore, the tiered excise system creates a significant price gap among popular brands, as shown in figure 57. As a result, the current excise system does not support public health objectives of the government.

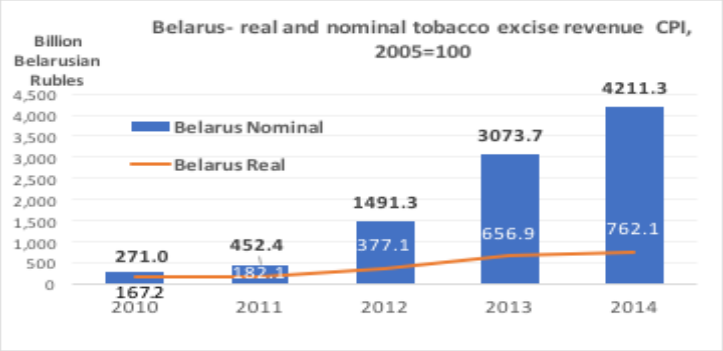
Figure 57: Price gaps among popular cigarettes, 2016, Belarus



Source: Data by Konstantin Krakovsky 2017.

Belarus' increased revenue from cigarettes results largely from an approximately 4 percent increase in sales – from 25,510 million sticks in 2010 to 26,520 million sticks in 2016 (Euromonitor 2016). Nominal and real excise revenues from 2010 and 2014 are shown in figure 58.

Figure 58: Real and nominal tobacco excise revenue, Belarus



Source: Eurasian Economic Community Database.[85]

As expected, excise revenues by tobacco products constitute a small fraction of Belarus' total tax revenues see table 21).

Table 21: Tobacco excise revenue as % of federal government revenue 2010–14, Belarus

	2010	2011	2012	2013	2014
Belarus	0.9%	0.8%	1.5%	2.8%	3.1%

Source: Eurasian Economic Community Database 2017.[86]

Russian Federation

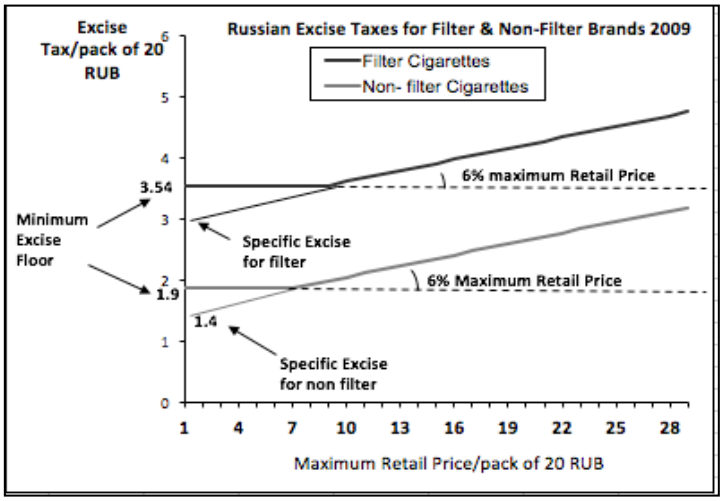
Russia's excise tax system has been evolving since 2001 (according to available data). In 2001–2002, differential specific excise rates were levied on filtered and unfiltered cigarettes per 1,000 pieces.

Between 2003 and 2006, a differential ad valorem excise was introduced in addition the differential specific excise. The base for the ad valorem excise tax was the wholesale price, exclusive of excise and VAT. Between 2007 and 2011, a specific excise floor tax was introduced, again differentiating by filtered and unfiltered cigarettes (see figure 59). In addition, the base for ad valorem was changed from wholesale price to maximum retail selling price.

In 2012, a single, unified rate for all cigarettes was introduced, and since then excise rates have increased annually (see table 22).

Figure 59: Excise taxes for filter and non-filter brands 2009, Russia

[85] See http://www.eurasiancommission.org/en/act/integr_i_makroec/dep_stat/finstat/Pages/gos_fin.aspx.
[86] See http://www.eurasiancommission.org/en/act/integr_i_makroec/dep_stat/finstat/Pages/gos_fin.aspx.



Source: Ministry of Finance Russia; WHO 2010.

Table 22: Cigarette excise tax 2012–2016, Russian Federation

Cigarettes per 1,000 sticks (Rubles)	January–June 2012[b]	July – December 2012	2013	2014	2015	2016
Specific excise	360	390	550	800	960	1200
Ad valorem[a]	7.5%	7.5%	8%	8.5%	9%	9.5%
Specific excise floor tax	460	510	730	1,040	1,250	1,600

Source: Mr Konstantin Krakovsky based on information gathered from the website of Russia's Ministry of Finance.

[a] Based on maximum retail selling price per pack of cigarettes

[b] Ad valorem was based on wholesale price, exclusive of all taxes.

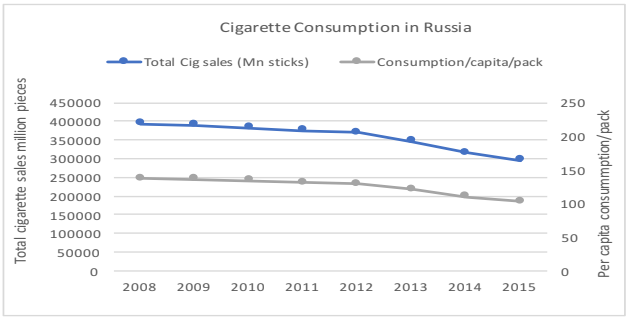
Tax Analysis: Public health and revenue perspective

Russia has progressively and significantly increased its tobacco excise taxes. Specific excise increased by 41 percent between July and December 2012, and 60 percent between July and December 2014. This was followed by more modest increases of 20 percent and 25 percent per annum in 2014 and 2016 respectively. For the lowest priced segment, the minimum specific excise floor tax also increased, by 43 percent between July and December 2012 and July and December 2014, then more modest increases of 20 percent and 28 percent respectively in 2014 and 2016.

These increases have been higher than inflation plus the per capita increases in real GDP at 2011 prices. The inflation rate varied between 5 percent and 7 percent between 2012 and 2016 (though it hit 15 percent in 2015). Growth in real GDP per capita was very low during that period, ranging between negative growth of 2.9 percent to 1.2 percent (IMF WEO 2017).

Total and per capita cigarette consumption in Russia declined gradually between 2008 and 2015 (see figure 60). For example, per capita consumption decreased by 12 percent between 2008 and 2013, and 14.6 percent between 2013 and 2015.

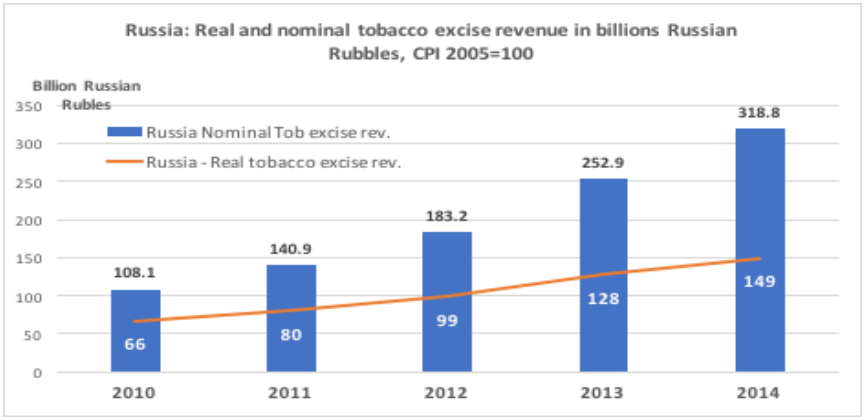
Figure 60: Total and per capita cigarettes sales, Russia



Source: Euromonitor and Ministry of Finance, Russia 2010; IMF WEO 2017.

Despite declining consumption, Russia has generated positive increases in both nominal and real revenues from cigarette excises (see figure 61). This suggests that higher revenues are the result of increases in excise tax rates, capturing potential lost revenue from declining market sales.

Figure 61: Real and nominal tobacco excise revenue, Russia



Source: Eurasian Economic Community.[87]

[87] See http://www.eurasiancommission.org/en/act/integr_i_makroec/dep_stat/finstat/Pages/gos_fin.aspx.

However, tobacco excise constituted a small proportion (1.3 percent to 2.2 percent) of total tax revenues in Russia between 2010 and 2014.

Despite gradual decline in consumption, Russia still has high per capita cigarette consumption – about 2,000 sticks per capita in 2016. The average cigarette price in Russia has traditionally been very low – lower than other upper-middle-income country averages in 2016. The recent excise system generates a relatively higher price level of US$1.57 with respect to its excise share (36 percent) as compared to similar excise incidence in other countries in the region (e.g., Kazakhstan). This suggests that, unlike other developed European countries, the Russia's government does not earn high revenues from cigarette prices (only 36 percent of the price).

Russia started with a very low excise taxes after the privatization of its national tobacco industry in 1995. However, its excise tax and average price level did not keep pace with the country's rapid development. As a result, and despite progressive increases in excise tax levels, the level of tax increases still falls short of bringing excise incidence and the retail price of cigarettes to an upper-middle-income level.

Kazakhstan

Kazakhstan has had a uniform specific excise for all cigarettes since 2009 (see table 23). In 2009 a tier-specific excise system is introduced. It is based on cigarette characteristics (filtered vs unfiltered) and has a protective excise system towards domestic brands. Imported cigarettes were subject to higher excise tax compared with the excise duty on domestic cigarettes. In 2011, differential (tier) excise duties between imported and domestic cigarettes were eliminated. In 2014, Uniform excise system was adopted for all cigarette brands.

Tax analysis: Public health and revenue perspectives

Between 2009 and 2016, the Kazakhstan's government implemented a progressive and simplified excise policy under which annual increases in excise rates were higher than inflation rate increases and per capita (PPP$) combined (see table 23 and figure 62). However, as in Russia, excise rate increases fell short of bringing both excise tax incidence[88]and the weighted average retail price[89] up to the average levels for upper-middle-income countries in 2016 (see figure 62 for upper-middle-income country weighted average price and excise incidence in 2016).

[88] 24.9% in 2014 and 26.8% in 2015 and 34.48% in 2016.

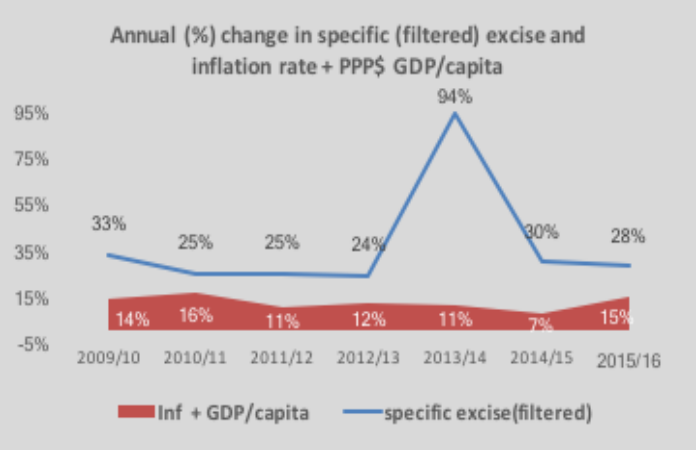
[89] Tenge 241.2/pack (US$1.34) in 2014 and Tenge 290/pack in 2015and 2016 (US$1.07 &US0.89 respectively).

Table 23: Excise system on cigarettes and other tobacco products 2009–2016, Kazakhstan

Kazakhstan excise rates (tenge)										
Per 1,000 sticks	2009		2010		2011	2012	2013	2014	2015	2016
Cigarettes	Local	Imported	Local + Eurasia	Imported						
Filter	600	750	800	950	1,000	1,250	1,550	3,000	3,900	5,000
Non-filter	350	570	500	570	600	750	950	3,000	3,900	5,000
Cigarillos	1,040	1,220	1,140	1,220	1,220	1,530	1,930	3,700	4,800	6,225
Cigars (piece)	85	95	85	95	95	120	150	475	620	750
Smoking and other tobacco (kg)	1,000	1,220	1,140	1,220	1,220	1,550	1,940	3,800	4,900	7,345

Source: WHO 2017[90] and http://online.zakon.kz/Document/?doc_id=31481968#pos=593;-151.

Figure 62: Excise tax increases on cigarettes, Kazakhstan

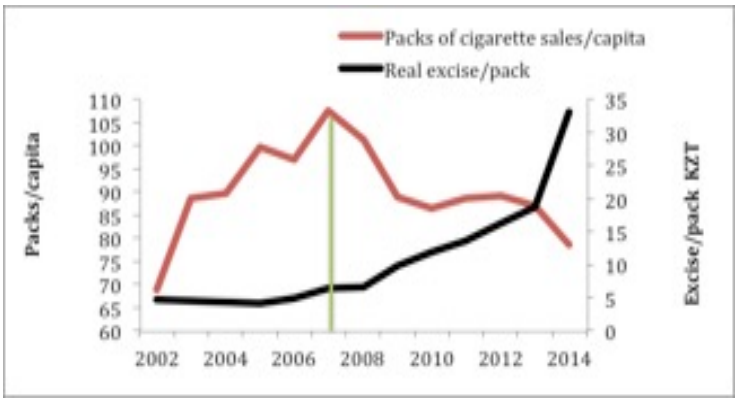


Source: Excise by the Table 6 and IMF World Economic Outlook database 2017 for inflation rate (annual percentage change of average consumer prices) and per capita GDP in PPP$.

Cigarette consumption started to decline in 2007, falling to 78.6 packs per capita in 2014 – the lowest level since 2003 (see figure 63). Increases in excise taxes played significant role on this decline.

[90] Krakovsky K, Tobacco taxation policy in Kazakhstan 2017. See http://www.euro.who.int/__data/assets/pdf_file/0007/339226/20170418_WHO-TaxationpolicyinKazakhstan-DRAFT04.pdf.

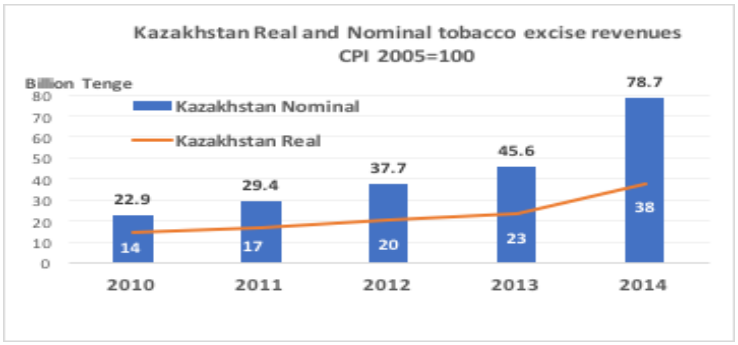
Figure 63: Changes in excise and cigarette sales, 2002–2014, Kazakhstan



Source: Constructed by using Euromonitor and official government.

Kazakhstan achieved higher revenues despite sales of cigarettes declining by 17 percent between 2010 and 2015 – from 28,327 million sticks to 23,580 million sticks (see figure 64).

Figure 64: Real and nominal tobacco excise revenues, Kazakhstan



Source: Eurasian Economic Community. Last accessed on May 2017.[91]

As in Russia, excise revenues from tobacco products constitute a small fraction of total tax revenues (see table 24) compared to other upper-middle-income countries. It has one of the lowest retail prices ($0.82 per pack in 2016) and excise incidences (34.5 percent in 2016) in the region and among upper-middle-income countries.

[91] See http://www.eurasiancommission.org/en/act/integr_i_makroec/dep_stat/finstat/Pages/gos_fin.aspx.

Table 24: Tobacco excise revenue as percentage of federal government revenue 2010–2014, Kazakhstan

	2010	2011	2012	2013	2014
Kazakhstan	0.6%	0.7%	0.8%	1.0%	1.3%

Source: Eurasian Economic Community Database 2017.

Sub-Saharan Africa Region

Kenya

Since 2003 Kenya has had perhaps the world's most volatile tobacco excise tax system – one that the government has attempted to restructure several times. Prior to 2003, an ad valorem excise was levied on ex-factory price, after which a tiered specific excise system was implemented, using different tax-bases depending on the characteristics of cigarettes

Between 2011 and 2014, Kenya simplified its excise system, eliminating the tiers and introducing an ad valorem excise with a minimum specific floor tax and a uniform specific excise of K Shs 1,200 per 1,000 pieces (or 35 percent ad valorem on retail selling price, whichever was higher) (Finance Bill 2011 and Excise Duty Bill 2014)[92] (see table 25).

[92] See file:///Users/ayda/Downloads/The%20Excise%20Duty%20Bill%202014%20(1).pdf.

Table 25*:* Tiered specific excise systems 2003–2010, Kenya

Based on mix of retail selling price and packaging (K Sh)		
Band	**Description**	**2008**
A	Plain cigarettes or retail price of up to K Sh 1,500	700
B	Soft cap I or retail price of K Sh 1,501–2,500	1,200
C	Soft cap II or retail price of K Sh 2,501–3,500	1,500
D	Hinge lid cigarettes or retail price of over K Sh 3,500	2,500

Based on mix of retail selling price and packaging, with emphasis on retail selling price (K Sh)		
Band	**Description**	**2010**
A	Plain, or plain with retail price of up to K Sh 2,500	700
B	Soft cap of 72 mm, or soft cap of 72 mm with a retail price of K Sh 2,501–3,500	1,200
C	Soft cap over 72 mm, or soft cap over 72 mm with a retail price of K Sh 3,501–4,500	1,500
D	Hinge lid packs, or hinge lid packs with a retail price over K Sh 4,500	2,500

Based on retail selling price (K Sh)		
Band	**Description**	**2008**
A	Plain cigarettes or plain cigarettes of RSP of up to K Sh 2500	700
B	Soft cap 72 mm or less or soft cap 72 mm or less with RSP of K Sh 2501–3500	1,200
C	Soft cap >72 mm or soft cap >72 mm of RSP of K Sh 3,501–4,500	1,500
D	Hinge lid packs or hinge lid packs of RSP >K Sh 4,500	2,500

Based on mix of retail selling price and packaging, with emphasis on packaging (K Sh)						
Band	**Retail selling price (K Sh)**	**2003**	**2004**	**2005**	**2006**	**2007**
A	≤1,500	450	450	495	495	500
B	1,501-2,500	650	650	715	715	800
C	2,501-3,500	900	900	990	990	1,200
D	>3,500	1,400	1,400	1,540	1,690	2,000

Source: Nargis et al, 2015.
Note: Also can be accessed for 2010 at http://admin.theiguides.org/Media/Documents/customs-act-2010.pdf.

In 2015, ad valorem excise was dropped and Kenya started levying a uniform specific excise on cigarettes containing tobacco or tobacco substitutes at K Sh 2,500 per 1,000 pieces.

In 2017, Kenya's Ministry of Finance proposed plans to eliminate the uniform excise system and introduce a two-tier specific excise tax system for cigarettes, differentiating the rate by filter or unfiltered cigarettes.

The rate for filtered cigarettes will remain as K Sh 2,500 per 1,000 sticks but for unfiltered cigarettes will reduced from K Sh 2,500 to K Sh 1,800 per 1,000 sticks (Kenya Budget Highlights 2017).[93]

Excise tax and revenue: An analysis

Kenya has generated positive revenue from cigarettes in nominal terms but not in real terms – real revenue has fallen by 28 percent based on 2000 prices.

Between 2010 and 2015, cigarette sales increased by 16 percent from 1,803 million sticks to 2,089 million sticks (Euromonitor 2016). Between 2008 and 2011, Kenya has not changed its specific tier excise tax rates as they were facing a 10 percent inflation rate per annum. The changes in excise system from tier to ad valorem with a specific floor between 2011 and 2014 fell short of generating previous excise rates.

As a consequence, retail prices have changed little between 2011 and 2014, which explains increases in cigarette sales. Despite higher demand, reduced tax liability in cigarettes (except unfiltered ones), accompanied by the 10 percent inflation rate, have reduced real excise tax revenue. These results suggest that Kenya's efforts to restructure its excise system fell short of accompanying higher excise rates. In 2017, when the excise tax system changes again to a two-tier specific excise between unfiltered and filtered cigarettes, it is very likely that real revenues will also fall again. That is, under a relatively high inflation rate, eliminating ad valorem rate or not adjusting specific rate with the inflation rate will ensure lower revenues for the government compared to suggested rates.

Uganda

Uganda's cigarette excise system is specific and tier based. Historically, tiers were based on packaging characteristics, primarily soft cup packs[94] versus hinge-lid packs.[95] However,

[93] See https://www2.deloitte.com/content/dam/Deloitte/ke/Documents/tax/Budget%20highlights%20KE%202017.pdf.
[94] Soft pack is a characteristic of cigarette packages made of paper.
[95] A hinge lid is a characteristic whereby packaging is constructed from rigid cardboard.

cigarettes that fell into the soft cup category used to face two different specific excises based on the content of their tobacco (local leaves).

In 2014–2015, Uganda applied only two specific tiers for cigarettes, one for soft cup packages and the other for hinge lid packages. In 2017–2018, Uganda revised its excise system and applied a protectionist policy for its local manufacturing facilities by imposing higher excise tax rates for imported and locally produced soft cup and hinge lid cigarettes (see table 26).

Table 26: Excise tax system of cigarettes 2004–2005 to 2017–2018, Uganda

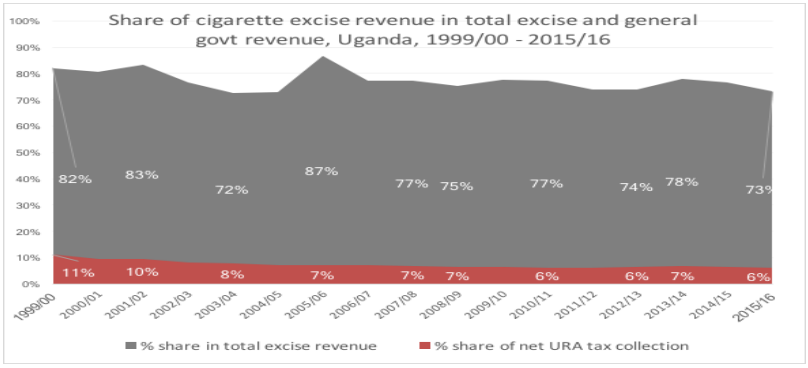
		Excise per 1,000 sticks, Uganda shillings							
Description	By tobacco content	2004–2005	2012–2013	2013–2014	2014-2015	2015–2016	2016-2017	2017–2018	
Soft cup	Content is more than 70% of its constituents	19,000	22,000	32,000	35,000	45,000	50,000	Locally manufactured	55,000
	Other soft cup brands	25,000	25,000	35,000				Imported	75,000
Hinge lid		48,000	55,000	69,000	69,000	75,000	80,000	Locally manufactured	80,000
								Imported	100,000

Source: Government of Uganda Finance bill 2005–2005 and Ministry of Finance Revenue Authority, Uganda.[96]

Excise revenue from cigarettes has a significant share in total excise tax revenue, and a 6 percent to 11 percent share in total tax revenues (see figure 65).

[96] 2016 Excise duty amendment act: https://www.ura.go.ug/Resources/webuploads/GNRART/EXCISE%20DUTY%20AMENDMENT%20ACT%202016.pdf , https://www.ura.go.ug/header/headerMain.jsp?viewPageNo=7 , https://www.ura.go.ug/Resources/webuploads/GNRART/The%20Excise%20Duty%20Act%202014%20.pdf

Figure 65: Share of cigarette excise revenue in total excise and general government revenue, Uganda

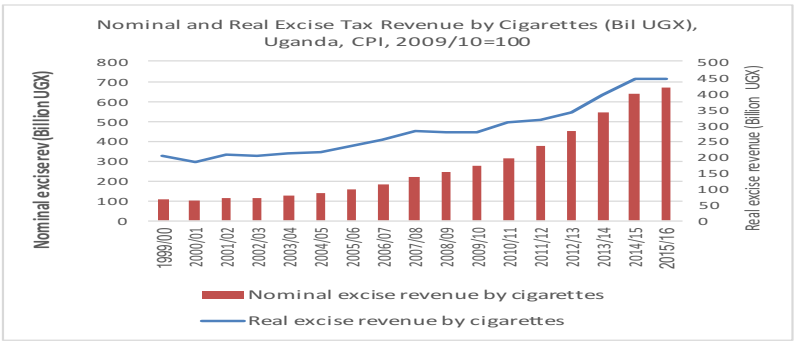


Source: Uganda Tax Authority 2017.

Tax Analysis: Public health and revenue perspective

Government data reveal that Uganda received higher excise tax revenues from cigarettes in nominal and real terms (see figure 66).

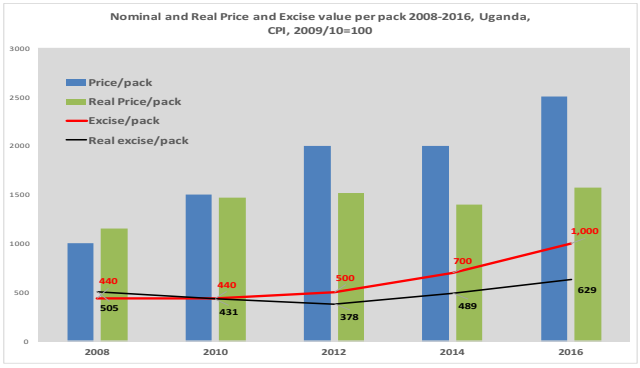
Figure 66: Excise tax remittance by cigarettes, Uganda



Source: Uganda Tax Authority 2017.

Based on data on the most popular brand prices and excise tax rates, real excise tax per pack has been increasing. However, it has been increasing slower than the annual increases in nominal excise value between 2012 and 2016. Nonetheless, both nominal and real retail price values per pack fluctuated between 2010 and 2016 (see figure 67).

Figure 67: Nominal, real, and excise value per pack 2008–2016, Uganda



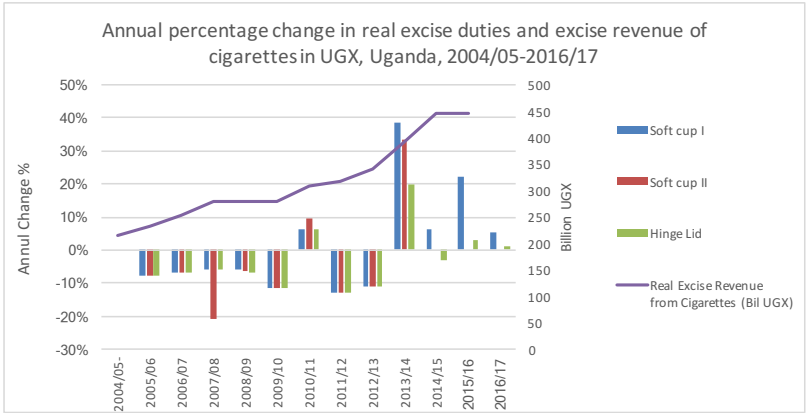
Source: Created using data from WHO 2017; IMF WEO 2017.

There are several reasons for significantly lower, real-price levels compared to nominal ones, despite increases in real excise values per pack. Perhaps the most important factor is that following implementation of its specific excise system, Uganda increased rates only for the 4 or 5 subsequent years, and not at all since 2013–2014. As a result, nominal increases in excise taxes have been eroded by inflation. Furthermore, the tax liability on the price per pack is low in Uganda, 29 percent in 2010, rising to 40 percent in 2016. As a result, producers have kept nominal price increases at a minimal level, leaving real prices almost unchanged between 2010 and 2016, and thereby keeping cigarettes affordable.

Although there are no reliable data on the total tax paid on cigarette consumption in Uganda, the annual percentage changes in real excise tax duties by tiers suggest that higher excise revenues from cigarettes were obtained from an increase in cigarette demand. As illustrated in figure 68, the real excise duty had negative growth in all three tiers, except in 2010–2011 and 2013–2014.

The high increases in real excise duty for soft cup cigarettes – 39 percent between 2012–2013 and 2013–2014, and 22 percent between 2014 and 2015, and 2015 and 2016 – has more likely reduced the consumption. At the same time, these increases kept the real excise revenue constant during 2014–2015 and 2015–2016. That is, increases in excise duties by tiers were not sufficient to recoup the revenue loss from tax-induced reduction and shifts among tiers in demand for cigarettes.

Figure 68: Annual percentage change in real excise duties and excise revenue of cigarettes, Uganda



Source: Uganda Tax Authority excise duty documents[97]

These analyses suggest that government was satisfied with tax increases that increased revenues even when not sufficient to reduce demand and so generate health benefits. The negative real growth in Uganda's excise taxes system does not support public health objectives, in fact, it works against them. A protectionist tax policy for 2017–2018 may generate higher revenues in the short term for the government, but this could be better achieved by adopting tax policies that prioritize public health objectives.

WAEMU

The West African Economic and Monetary Union (WAEMU) has eight Member States: Benin, Cote D'Ivoire, Guinea Bissau, Mali, Niger, Senegal and Togo. Apart from the Ivory Coast, which is considered a lower-middle-income country, All Member States were classified as low-income countries in 2016.

WAEMU is a monetary union in which excise duty rates are set by the WAEMU Directive, with Member States setting their rates freely within a minimum and maximum band – currently between 10 percent and 45 percent of ex-factory price (see table 27). Member States that have already reached the maximum level cannot increase their rates unless current WAEMU Directives[98] change.

Although the Directive requires Member States to impose a uniform excise tax, a few Member States still apply differential ad valorem rates.

[97] https://www.ura.go.ug/Resources/webuploads/GNRART/The%20Excise%20Duty%20Act%202014%20.pdf.
[98] Directives refer to rules and regulations.

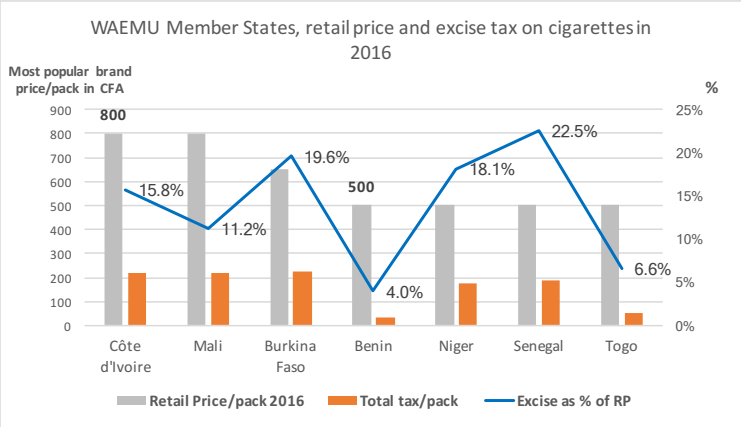
Table 27: Tax application for cigarettes by WAEMU members, 2017

Benin	Burkina Faso	Cote D'Ivoire	Guinea Bissau	Mali	Niger	Togo	Senegal
45%	30%	35%	25%	22%	45%	45%	45%
	40%		10%	32%			

Source: Ministry of Finance, Senegal.

The most popular brand prices, total tax levels per pack and share of excise tax on retail prices for 2016 for WEAMU Members are shown in figure 69.

Figure 69: Retail price and excise tax on cigarettes in 2016, WAEMU Member States

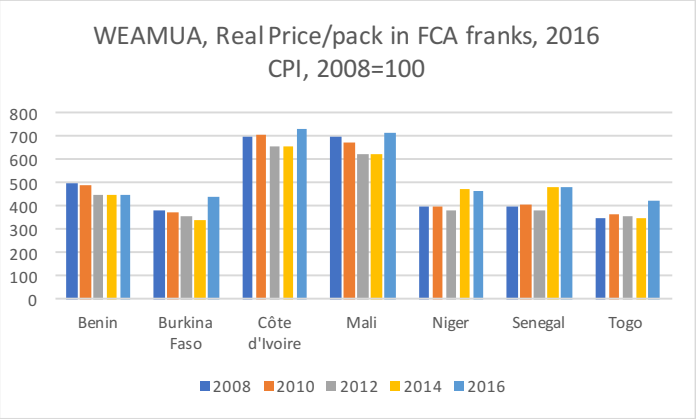


Source: WHO 2017.
Note: CFA franc is WEAMU's currency.

WAEMU rates create an "excise heaven" for cigarette producers. Figure 70 indicates that the excise system is ineffective in relation to manufacturers' pricing policies – i.e., 4 percent and 22 percent excise rates on retail prices in Benin and Senegal respectively induced the same level of retail prices of cigarettes (CFA 500 per pack). This means WEAMU's excise system prevents members maximizing the revenue-generating potential of excise taxes.

Trends in the real price per pack vary among WAEMU members – e.g., while the price has declined in Benin, it has fluctuated in Cote D'Ivoire and Mali. Despite an increase in Niger and Senegal in 2014, the price level stayed constant in 2016 (see figure 70).

Figure 70: Real price per pack 2016, WAEMU Member States



Sources: WHO 2017, IMF WEO 2017.

Africa is considered the "next frontier" for the cigarette market since other regions have already high prevalence and consumption levels. WAEMU's excise system is outdated and not designed to achieve either revenue or public health objectives.

WAEMU could achieve much better health as well as fiscal results by eliminating its maximum restrictions and increasing the minimum excise requirement, as the European Union has done. Furthermore, the current tax base (CIF for imported, and ex-factory price for domestic brands) needs to be changed to retail prices (e.g., maximum retail price). From a public health perspective and easier administration, WAEMU should introduce a uniform minimum specific excise system where the tax base should be per stick, per pack, or per 1,000 units.

ECOWAS

The Economic Community of West African States (ECOWAS) comprises 15 member states (including members of WAEMU): Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo.

Some ECOWAS Member States apply excises well above those of the ECOWAS directives (e.g., Ghana[99] levies an 150 percent excise on the ex-factory price on cigarettes) while others levy tiered ad valorem rates;

[99] See http://www.ghana.gov.gh/index.php/media-center/news/1687-ghana-to-increase-prices-of-tobacco-products.

others apply levies well below the Directive rate (e.g. Guinea Bissau applies 10 percent excise on tobacco products (CRES 2014)).[100]

In 2017, ECOWAS Member States agreed to raise excise duties on tobacco and other unhealthy products in order to increase revenue and reduce consumption of such products. They have begun to draft a directive to harmonize excise duties on tobacco products, which will include legislative and regulatory provisions for Member States to track and trace tobacco products. The aim is to facilitate smooth running of the domestic market of tobacco products and ensure Member States comply with their obligations of under WHO's Framework Convention on Tobacco Control, and the Protocol to Eliminate Illicit Trade in tobacco products.[101]

The Gambia

As a net importer of cigarettes, The Gambia levies a 20 percent import duty on cigarettes based on CIF cigarette value. A sales tax of 15 percent is also levied on imported cigarettes, based on a tax-inclusive (excise and import duty) price. The Gambia also levies an environmental tax on cigarettes, where the base has changed from per kilogram in 2012 to per pack of cigarettes in 2015–2016.

Imports are also subject to an ECOWAS fee and a Customs Duty Fee, which are 0.5 percent and 1.55 percent of the CIF value, respectively. Excise and environmental excise taxes levied on cigarettes are shown in table 28.

- In 2012, the excise tax on cigarettes was D 165 (US$1.35) per kg.[102]
- In 2013, the excise base was changed to per pack of 20 cigarettes and the rate changed to D 5 (US$0.11) per pack.
- In 2015,[103] the excise levy rose to D 7 (US$0.15) per pack.
- In 2016 and 2017, excise and environmental tax rates on cigarettes increased as shown in table 28.

[100] See http://dspace.africaportal.org/jspui/bitstream/123456789/36493/1/tobacco_taxation_vale_re%20(1).pdf?1.
[101] See https://theeagleonline.com.ng/ecowas-to-increase-duties-on-tobacco-unhealthy-products/.
[102] Gambia tax authority- tax workshop in Burkina Faso, 2013.
[103] See http://www.who.int/fctc/implementation/news/news_gmb/en/.

Table 28: Tobacco taxes 2012–2017, The Gambia

	2012[1]	2013[2]	2015	2016[3]	2017[3]
Excise tax (GMD)	165 per kg	D 5 per pack	D 7 per pack	D 15 per pack	D 20 per pack
Import duty	20%	20%	20%	20%	20%
Import sales tax/VAT duty)	15%	15%	15%	15%	15%
Environmental tax (GMD)	10 per kg	10 per kg	10 per kg	D 2.42 per pack	D 2.66 per pack
Customs processing fee	1.55%	1.55%	1.55%	1.55%	1.55%
ECOWAS levy	0.5%	0.5%	0.5%	0.5%	0.5%

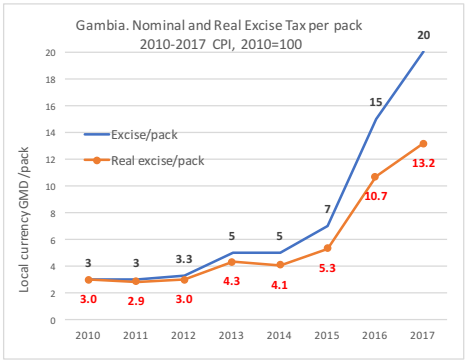
Sources: 2012 data by Gambia tax authority; 2013 tax rates obtained by Nargis N et al 2013; 2016 and 2017 rates are by WHO AFRO 2017.[104]
Note: GMD = Gambian dalasi.

Tax Analysis: Public health and revenue perspective

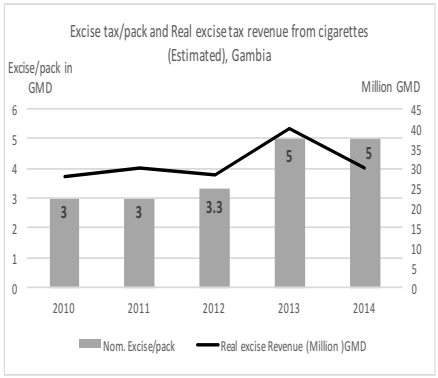
Between 2008 and 2016, the retail price of cigarettes in Gambia increased by 174 percent, from US$0.35 to US$0.96. The retail price is still below the world average. However, from public health perspective, this increase is a win since these price increases occurred in the low-price segment. It is clear that the excise tax increases, especially since 2015, have affected increases on retail prices in the low-price segment. As illustrated in figure 71, both nominal and real excise taxes per pack increased in Gambia in 2013, but significant increases occurred between 2015 and 2016, and 2016 and 2017.

Figure 71: Cigarettes excise duty and revenue, The Gambia

[104] See http://www.afro.who.int/en/gambia/press-materials/item/9485-the-gambia-introduces-new-three-year-tobacco-taxation-policy.html.



Source: IMF WEO 2017.



Sources: UN COMTRADE 2017, IMF WEO 2017.

Based on the available import quantities by the UN COMTRADE database, it is estimated that Gambia increased its excise revenue from cigarettes between 2013 and 2014.

For Gambia to achieve both public health and revenue objectives, it needs to increase its excise tax rates on an annual basis and at a rate higher than the inflation rate and the per capita income combined.

Middle East and North Africa Region

Jordan

Jordan's excise tax law indicates that cigarettes are subject to specific excise and ad valorem taxes, applied to the wholesale price (retail price exclusive of all taxes).

However, excise application is much complex than the law might indicate because the government has created a Jadwal, which is a list of wholesale prices determined by the retail prices of various cigarette brands.

In consequence, companies have an option of declaring their wholesale price and paying the ad valorem excise plus the specific rate, or accepting the wholesale price corresponding to the retail price of their brand in the Jadwal, and pay that amount with the specific component (Ministry of Finance, Jordan).

An analysis: Public health and revenue perspectives

The system is not transparent to tax payers, it is difficult to administer and has weak governance and institutional characteristics that make it prone to corruption. The system can result in lower revenues than expected due to potential risks for tax avoidance and evasion.

Egypt

Egypt has no excise tax system, thought its current general sales tax (GST) acts like one. Foreign brands produced in Egypt are also subject to a very minimal "manufacturing and printing" tax, and all cigarettes are subject to an earmark tax of 10 piasters per pack, which supports medical insurance for students.

The Egyptian excise tax on cigarettes (table 29) evolved from a multi-tier specific excise based on the net price per pack of cigarettes in 2009, to a unified rate mixed excise system between 2011 and 2014. Since 2014 it has been a three-tier mixed excise system.

Table 29: Excise (General Sales Tax, GST) evolution on cigarettes 2009–2017, Egypt

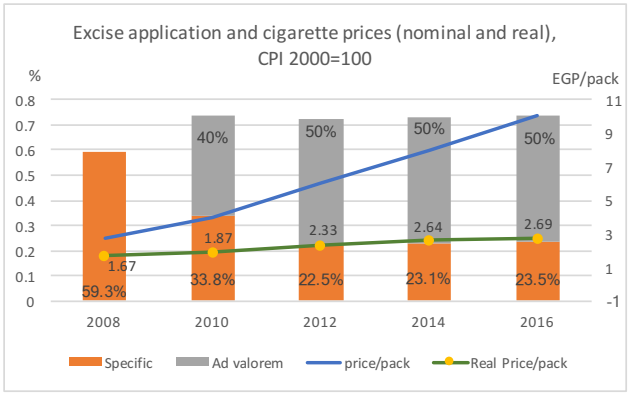
<table>
<tr><td colspan="2">2009</td><td>2010–2011</td><td>2011–2014</td><td colspan="2">2014–2015</td><td colspan="2">2015–2016</td><td colspan="2">2016–2017</td></tr>
<tr><td colspan="2">TIERED SPECIFIC SYSTEM</td><td colspan="2">MIXED SYSTEM</td><td colspan="6">TIERED MIX SYSTEM</td></tr>
<tr><td>Net of tax price</td><td></td><td>2010–2011</td><td>2011–2014</td><td colspan="6">50% ad valorem on retail selling price</td></tr>
<tr><td>PT per pack of:</td><td>GST per pack of:</td><td></td><td></td><td>Retail price per pack</td><td>Specific</td><td>Retail price per pack</td><td>Specific</td><td>Retail price per pack</td><td>Specific</td></tr>
<tr><td>< 65</td><td>108 PT</td><td rowspan="8">40% on retail price and LE 1.25</td><td rowspan="8">50% on retail price and LE 1.25</td><td rowspan="3">> LE 16</td><td rowspan="3">LE 3.25</td><td rowspan="3">>16 LE</td><td rowspan="3">LE 4.25</td><td rowspan="3">> LE 23</td><td rowspan="3">LE 5.25</td></tr>
<tr><td>> 65 to 73</td><td>112 PT</td></tr>
<tr><td>> 73 to 84</td><td>125 PT</td></tr>
<tr><td>> 84 to 95</td><td>140 PT</td><td rowspan="3">Between LE 10–16</td><td rowspan="3">LE 2.25</td><td rowspan="3">Between LE 10–16</td><td rowspan="3">LE 3.25</td><td rowspan="3">Between LE 13–23</td><td rowspan="3">LE 4.25</td></tr>
<tr><td>> 95 to 106</td><td>153 PT</td></tr>
<tr><td>> 106 to 300</td><td>175 PT</td></tr>
<tr><td>> 300 to 425</td><td>315 PT</td><td rowspan="2">< LE 10</td><td rowspan="2">LE 1.75</td><td rowspan="2">< LE 10</td><td rowspan="2">2.25 LE</td><td rowspan="2">< LE 13</td><td rowspan="2">LE 2.75</td></tr>
<tr><td>> 425</td><td>325 PT</td></tr>
</table>

Source: Ministry of Finance, www.mof.gov.eg.
Note: LE = Egyptian pound; 100 piastres (PT) = LE1.

Tax analysis: Public health and revenue perspectives

Egypt has faced economic and political turmoil since 2011. Between 2011 and 2017, the inflation rate in the country has ranged between 7 percent in 2013 and 22 percent in 2017 (IMF WEO 2017). As a result, despite relatively high increases in nominal retail prices, real price increases are very low (see figure 72).

Figure 72: Excise application and cigarette prices 2008–2016, Egypt



In a high-inflation economy such as Egypt's, it is advisable to keep the ad valorem excise at a higher rate, as is the case. However, during the turmoil, Egypt faced significant imports of low price cigarettes (conversation with Ministry of Finance officials). As a result, the tax authority was worried that mid-price brands produced by the national tobacco company would lose their market share. The government owns little more than half of the only cigarette-producing production facility and still promotes a protectionist tax policy for the national company against international competitors.

As the foreign brands were mainly in the premium cigarette band, the tax authority aimed to protect the national brand's market share in the mid- and low-price segments by changing the unified mixed excise system to tier mix system in 2014.

As the ad valorem rate, has been kept constant, while the specific component of the excise has increased in all tiers (see table 30). The increases in excise in all tiers are higher than the increases in inflation and the per capita income combined.

Table 30: Increases in specific component of excise taxes, 2014–2017, Egypt

	Specific rate per pack			% change in		
Tiers	2014–2015	2015–2016	2016–2017	2013–2014 – 2014–2015	2014–2015 – 2015–2016	2015–2016 – 2016–2017
Premium	3.25	4.25	5.25	160%	24%	24%
Mid price	2.25	3.25	4.25	80%	31%	31%
Low price	1.75	2.25	2.75	40%	22%	22%

Source: Author's illustration.

From a public health perspective, excise increases in all tiers are higher than inflation and per capita income combined. However, changes in real prices are minimal compared with prices in 2000. As the price gap increases between price tiers, the tier system will encourage substitution from higher to lower price segments.

Eliminating tier systems in favor of uniform mixed system with a higher specific floor tax would push the prices for cheap imports (as well as local brands) higher. This would be better for public health objectives and might protect the market share of mid-price national brands.

Gulf Council Countries (GCC)

Return to: Background to Excise Taxes and Systems

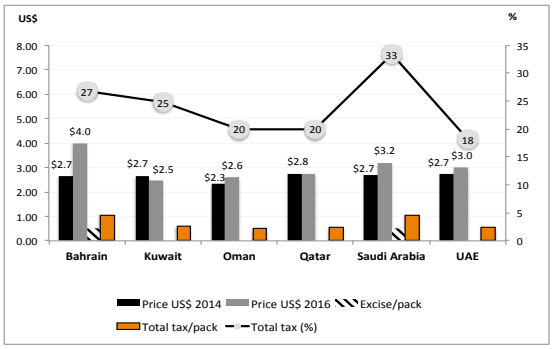
The GCC Member States are among the countries with the highest per capita income in the world. Until 2016, all members relied only on import duties. However, in 2016, two GCC Members (Saudi Arabia and Bahrain) introduced a specific excise duty on tobacco products. The average price in US$ for MPBP in 2014 and 2016, excise and total tax value and the share of total tax on average price in 2016 are illustrated in figure 65.

Tax Analysis: Public health and revenue perspectives

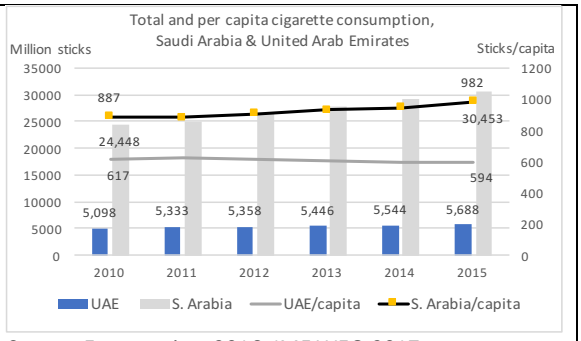
As illustrated in figure 73, cigarette prices are much lower in GCC Member States than the average price in other high-income countries. Furthermore, the total tax (import or import + excise) shares in retail prices are well below the excise tax share of other high-income countries. Despite this, cigarette consumption per capita shows a different trend in GCC countries, as shown in figure 73 for Saudi Arabia and United Arab Emirates.

Figure 73: Cigarette price and tax (2014–2016) and per capita consumption (2010–2015), Gulf Council Countries

GCC Member States Price and Tax Status 2014–2016



Source: Created using data from WHO 2015 and 2017.



Source: Euromonitor 2016; IMF WEO 2017.

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Appendix F: Excise Application for ENDS and Other Tobacco Products in Selected Countries

Return to: Understanding Excise Tax Policies and Tobacco Pricing

Excise application for ENDS in the United States

Return to: Tax on other tobacco products and ENDS, Excise Tax Application for Tobacco Products

Since March 2017, the definitions of electronic vaporized products and their excise tax applications in the United States have been gathered by the Public Health and Tobacco Policy Center, and can be accessed at http://www.publichealthlawcenter.org/sites/default/files/E-Cigarette-Legal-Landscape-50-State-Review-March-2017.pdf. Excise application for ENDS products in selected states in the United States are provided in box 6.

Box 6: Selected excise tax application on electronic tobacco products, United States

1. Based on percentage of purchase price
   - California: 27.30% of wholesale price
   - Washington DC: 70% of wholesale price
   - Minnesota: 95% of wholesale price
   - Pennsylvania: 40% of retail price
   - Montgomery County, Maryland: 30% wholesale price
2. Based on milliliters of consumable product
   - Kansas US$0.20/ml
   - Louisiana: US$0.05/ml
   - North Carolina: US$0.05/ml
   - West Virginia: US$0.075/ml
3. Based on unit and milliliters
   - Chicago, Illinois: US$0.80/unit + US$0.55/ml

Source: Tax Foundation. Last accessed on May 7, 2017. https://taxfoundation.org/vapor-products-and-tax-policy/.

Excise Application for Other Tobacco Products

Return to: Excise Taxes, Section 2: Preparing for a Policy Dialogue on Tobacco Taxes

Australia

Australia levies specific excise tax based on the weight of tobacco contents and has harmonized the rate for all tobacco products within the weight category (see table 31).

Table 31: Excise Application for tobacco products 2017, Australia

Product Category	Description	Rate
Tobacco, cigars, cigarettes	In stick form not exceeding the weight 0.8 grams per stick actual tobacco content	$A 0.61726 per stick
Others	Weight higher than 0.8 grams per stick (actual tobacco content)	$A 771.6 per kg of tobacco content

Source: Australian Government taxation office last accessed May 2017.[105]

European Union (EU)

Table 32: EU: Minimum rates for three distinct categories of "other tobacco"

Product Category	Minimum rate
Fine-cut smoking tobacco	46% of the weighted average retail selling price[a] Or €54 per kilogram[a]

[105] See https://www.ato.gov.au/business/excise-and-excise-equivalent-goods/tobacco-excise/excise-rates-for-tobacco/.

Cigars and cigarillos	5% of the retail selling price Or €12per 1,000 or per kilogram
Other smoking tobaccos	20% of the retail selling price Or €22 per kilogram

[a] To gradually increase, by 2020, to 50% or €60.

Pakistan

Table 33: Excise tax application on other tobacco products 2017, Pakistan

Product category	Excise rate and base 2017
Un-manufactured tobacco	PRe 10 per kilogram
Cigars, cheroots, cigarillos and cigarettes, of tobacco substitutes	65% of retail price (exclusive of VAT).

Source: Ministry of Finance, Internal Revenue, Finance Act, 2016.
Note: PRe =Pakistan rupee

Turkey

Table 34: Excise tax application on other tobacco products 2017, Turkey

Product category	Excise rates and bases		
	Ad valorem excise as % of retail selling price (inclusive of all taxes)	Specific Excise/ pack or package (Turkish Lira, TL)	Specific Floor/piece (TL)
Cigars, cigarillos,	40%	0.221	0.2468
chewing and snuff tobacco,	65.15%	0.221	0.2468
Smoked tobacco leaves	65.15%	0.0577	0.2468

Source: https://www.muhasebat.gov.tr/content/genel-yonetim-mali-istatistik-detayi?tabId=1&pageId=5.

Egypt

Table 35: Excise tax application for other tobacco products 2017, Egypt

Product category	Excise rates and bases
Unprocessed tobacco (tombak)	100% min of EGP40 per kg (net weight)
Other unprocessed tobacco	75% min of EGP16 per kg (net weight)
Cigar	200% min of EGP50 per processed kg
Toscana cigar	200% or min of EGP35 per processed kg
Sweetened, snuffed and chewed, mixed and non-mixed with tobacco	100%
Other tobacco	50% min of EGP15 per net kg of raw tobacco used in manufacturing such item.

Bangladesh

With respect to tax policy on bidis, Bangladesh has a two-tier ad valorem system where the excise is called supplementary duty (SD). The

government also has minimum price policy, which is called “tariff value” and used is as a base for the ad valorem excise tax.

Minimum price levels are determined by the tax authority and vary by filtered versus unfiltered bidis, and the number of sticks a pack of bidis contains. Bidis are also subject to 15 percent VAT and the base is the excise value (SD multiplied by the tariff value) plus the tariff value, and a health development surcharge (HDS) of 1 percent of the tariff value.

Table 36: Excise (supplementary) duty on bidis 2015–2016 and 2016–2017, Bangladesh

	2015–16		2016–17		
	Tariff value (Taka)	SD[a]	Tariff value (Taka)	SD	HDS[b]
Unfiltered, pack of:					
25 sticks	4.91	25%	7.10	30%	**1%**
12 sticks	2.36		3.40		
8 sticks	1.58		2.25		
Filtered, pack of:					
20 sticks	5.34	30%	**7.75**	35%	
10 sticks	2.69		3.85		

Source: National Bureau of Revenue, Ministry of Finance, Bangladesh via Dr Nigar Nargis.
Notes: [a] SD is the supplementary duty
[b] HDS is the health development surcharge

Smokeless tobacco products tobacco (e.g., zarda and gul) are subject to the same VAT and health development surcharges as bidis, but the excise (supplementary) application differs (see table 37). Both smokeless tobacco products are subject to uniform ad valorem tax and the ad valorem excise is levied on the ex-factory price.

Table 37: Bangladesh smokeless tobacco tax application in 2015–2016 and 2016–2017

	Tax base	2015–2016	2016–2017		
		Supplementary duty		VAT	HDS
Zarda	Ex-factory price	60%	100%	15%	1%
Gul	Ex-factory price	60%	100%		

Source: National Bureau of Revenue, Ministry of Finance, Bangladesh data provided by Dr Nigar Nargis.

India

Like Bangladesh, India has many different types of tobacco products and some are consumed more widely than cigarettes (e.g., bidis). Bidis and smokeless tobacco (e.g., pan masala, snuff, cut, extract, jarda) are widely available and consumed, especially among lower income groups. WHO's South-East Asia office prepared a document that illustrates types of taxes levied on all tobacco products in the region including India (WHO 2014).[106] Tobacco products in India were subject to several taxes including basic excise duty (BED), a health cess (tax), except bidis, and VAT (see table 38). Central government collects excise taxes, while state governments collect sales tax or VAT.

Table 38: Taxes levied on other tobacco products in 2017, India

Product	Description	Taxes levied on other tobacco products		
		BED rates (INR and %) 2017	Health Cess	NCCD[a]
Bidis	Non-machine and non-paper-rolled	Rs 28 per 1,000	N/A	1
	Others	Rs 78 per 1,000		2
Cigars	Including cheroots	Rs 4,006 per 1,000 or 12.5%	N/A	N/A
Cigarillos	Using tobacco	Rs 4,006 per 1,000 or 12.5%	10%	N/A
	Containing tobacco substitutes	Rs 4,006 per 1,000 or 12.5%	N/A	

Source: Finance Minister's budget announcement for 2017.[107]
Note: [a] Data are for the year 2013 (WHO 2014); Sarit Kumar Rout et al (2012)[108] Cut tobacco subject to INR per kg. [2] Pan Masala. [3] Chewing tobacco, snuff, jarda and others.

United States

Tobacco products are subject to excise taxes by federal and state level (see table 39).[109]

Table 39: Selected states' excise tax application for other tobacco products 2017, US

Tobacco products	Cigars	Moist snuff

[106] See http://www.searo.who.int/tobacco/wntd/wntd_2014_regional_profile.pdf?ua=1.
[107] See http://howtoexportimport.com/UserFiles/Windows-Live-Writer/Notification-on-excise-tax-tariff-rate-c_E60D/Excise,%20Budget%202017-18%20changes.pdf.
[108] See Rout SK, Kumar R, Srivastava S. Tobacco taxation in India: discussion paper presented at the National Consultation on Economics of Tobacco, 20-21, Dec 2012. New Delhi.
[109] See https://www.tobaccofreekids.org/research/factsheets/pdf/0169.pdf.

Federal excise	Chewing: US$0.031 per ounce; Pipe: US$0.171 per ounce; roll your own: US$1.55 per ounce	52.75% manufacturer's retail price, or maximum US$0.4026 per piece	US$0.094 per ounce
Maine[110]	95% on WPR	95% WPR or US$3.50 per cigar, whichever is less	95% on WPR or US$3.04 per container, whichever is higher
Wisconsin[111]	71% on MPR	71% on MPR or max US$0.50 /=per cigar, whichever is less	100% MPR
California[112]	65.08% on WPR	65.08% on WPR	65.08% on WPR
Oregon	65% on WPR	65% WPR or max US$0.50 per cigar	US$1.78 per ounce with minimum US$2.14 per container
New York[113]	75% on WPR	75% on WPR For cigarillos -4.35 pack of 20	US$2 per ounce or less, for any fractional amount for containers with more than one ounce (e.g., 1.24 ounce = excise US$2.50

Select Commonwealth of Independent States (CIS) countries

Table 40: Type of excise tax application for other tobacco products, CIS countries

	Smokeless tobacco (kg)	Cigarillos (1,000 pieces)	Cigars (piece)	Smoking tobacco (kg)	Pipe tobacco (kg)
Belarus (BYR) 2014		294,900	19,700	339,000	
Kazakhstan (Tenge) 2016		6,225	750	7,345	
Kyrgyz Republic (Soms) 2014		500	4,000 per 1,000	368	
Russian Federation (Rubles) 2017[114]	2,520	2428[a]	171	4,800[b]	2,520
Ukraine (Hrvnias) 2014	217.6			217.6	
Uzbekistan (US$)[115] **2017**		US$0.42 per piece	US$0.42 per piece		

Source: Konstantine Krakovsky and Ministry of Finance, or Treasury announcements of select countries.
Note:
[a] Includes bidis and kreteks.
[b] Tobacco intended for consumption by heating.

East African Community

Kenya

[110] See http://www.revenue.state.mn.us/businesses/tobacco/Pages/Tob_Tax_Info.aspx.
[111] See https://www.revenue.wi.gov/pages/faqs/ise-tobacco.aspx#tbcc2.
[112] See https://www.boe.ca.gov/sptaxprog/tax_rates_stfd.htm.
[113] See https://www.tax.ny.gov/bus/cig/cigidx.htm.
[114] See http://nalog.garant.ru/fns/inf/
[115] See http://fmc.uz/legisl.php?id2=pp_2099_12_2

Until 2015, Kenya levied an ad valorem excise on the ex-factory or manufacturers' price. When the excise system changed from a unified ad valorem to tier-specific excise, however, there was an exception for smoking tobacco, snuff and tobacco extract. In addition, since 2015, Kenya has also had annual inflationary adjustments for specific excises (see table 41).

	2012–2014	2015
Cigars, cheroots, cigarillos	130% manufacturers' retail price[a]	K Sh 10,000 per kg
Other manufactured tobacco[b]		K Sh 7,000 per kg
Smoking tobacco, snuff, tobacco extract		120% manufacturers' retail price[a] [116]

Table 41: Excise tax application for other tobacco products, Kenya

	Excise rates	
Other tobacco products	2015	2017
Cigars, cheroots cigarillos (containing tobacco)	160% of manufacturers' price	200%
Smoking tobacco, whether or not containing tobacco substitutes in any proportion		
Homogenized or reconstituted tobacco		
Other	60%	

Source: Kenya's Excise Duty Bill, 2012, 2014, 2015.
Note:
[a] Manufacturers price (MPR) or ex-factory price without VAT, without cost of excise stamps and the cost of returnable container.
[b] "Homogenous" and "Reconstructed tobacco"; tobacco extracts and essences.

Uganda

Before 2017 Uganda relied on a two-tier ad valorem excise system, after which it changed to a unified ad valorem. The base for the tax is the ex-factory price, or manufacturers' price (see table 42).

Table 42: Excise application for other tobacco products 2015 and 2017, Uganda

[116] See https://www.icpak.com/wp-content/uploads/2015/09/Excise-Tax-Presentation.pdf

Source: Uganda Revenue Authority.[117,118]

Tanzania

Tanzania requires a general 5 percent adjustment for inflation on items that are subject to specific excise duties (see table 43).

Table 43: Excise application for other tobacco products, Tanzania

		2008[119]	2011	2012[120]	2013	2014[121]	2015	2016
Cigars, cheroots, cigarillos (Tanzania shillings)	Per 1,000	22,915	29,264	35,117	38,628	48,285	48,285	50,700
Smoking tobacco: Cut rag or cut filler (Tanzania shillings)	Per kg	11,572	14,780	17,736		24,288	24,388	25,608
		2014–2015						
Cigar		130%						

Source: Finance act of government documents and other sources: https://www2.deloitte.com/content/dam/Deloitte/tz/Documents/tax/Budget%20Insight%202016%20TZ_.pdf.

Differential Excise Treatment of Tobacco Products

Example from the European Union

Excise yield per 1,000 cigarettes and the fine-cut tobacco per kg are presented by Member States as of January 2017, in figure 74. In general, rates between cigarettes and fine-cut tobacco vary. Most Member States have a wider gap while few have a relatively narrower gap.

Figure 74: Excise yield (€) on cigarettes and fine cut tobacco 2017, European Union[122]

[117] See https://www.ura.go.ug/Resources/webuploads/INLB/TAXATION%20HANDBOOK%20.pdf.

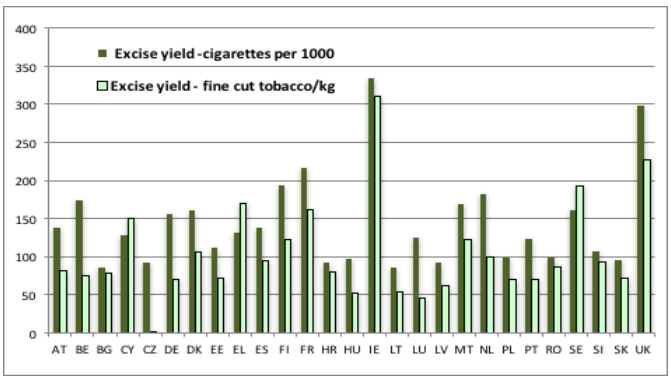
[118] See https://www.ura.go.ug/openFile.do?path=//webupload//upload//download//staticContent//TOPMENU//9219//9444_Domestic_taxes_amendments.pdf.

[119] See http://www.tra.go.tz/tax%20laws/Excise_Management_and_Tariff_Act.pdf.

[120] See http://www.tra.go.tz/tax%20laws/Finance%20Act%202012.pdf.

[121] See http://www.tra.go.tz/tax%20laws/Finance%20Act%202014.pdf.

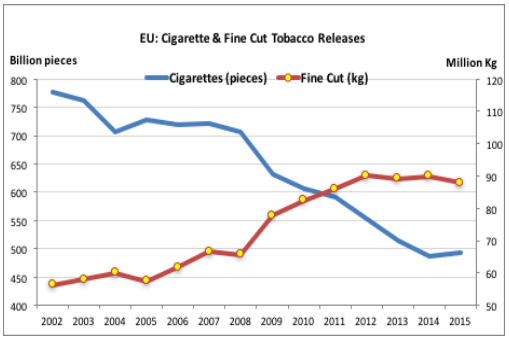
[122] AT: Austria, BE: Belgium, BG: Bulgaria, CY: Cyprus, CZ: Czech Rep., DE: Germany, DK: Denmark, EE: Estonia, EL: Greece, ES: Spain FI: Finland, FR: France, HR: Croatia, HU: Hungary, IE: Ireland, IT: Italy, LT: Lithuania, LU: Luxembourg, LV: Latvia, MT: Malta, NL: Netherland, PL: Poland, PT: Portugal, RO: Romania, SE: Sweden, SI: Slovenia, SK: Slovakia, UK: United Kingdom.

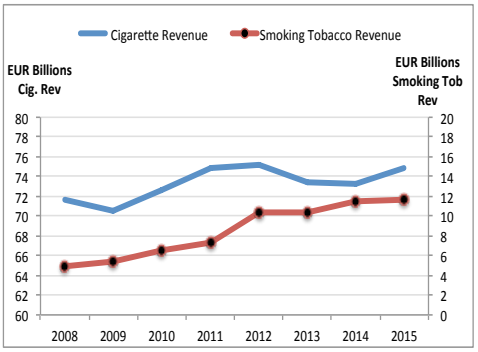


Source: EU excise tax database for tobacco products.

Based on available data, there is a negative relationship (substitution) between the quantity of cigarettes and that of fine-cut (smoking) tobacco for "roll your own" cigarettes (figure 75). Thus, as the price for cigarettes increases, the demand for fine-cut, roll your own tobacco increases.

Figure 75: Cigarettes and fine cut tobacco releases for consumption and revenues, European Union





Source: EU database on releases of tobacco products.[123]

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[123] See https://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/excise_duties/tobacco_products/rates/excise_duties_tobacco_en.pdf.

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Appendix G: Import Duty Application for Cigarettes and Other Tobacco Products

Return to: Assessing the Economic Environment, Tobacco Product Tax Excises – Where They Are Applied and How, Global Application

Countries without excise duties

Return to: Assessing the Economic Environment

There are a handful of countries that still do not have excise tax systems (see Appendix B). This is partly because they have no indirect tax departments, are net importers of tobacco products with no domestic production and/or rely on import duties or other surcharges collected by customs entities. As import duties are often levied on CIF values, they are often declared at a low value by the importer.

Based on the UN COMTRADE[124] database, 143 countries reported the value and the quantity of cigarettes imported in 2015.

- About US$20.2 billion worth of cigarettes, approximately 61.7 billion packs of 20 cigarettes,[125] (1,233 million kilograms) were imported in 2015.
- It is estimated that the approximate CIF value for a pack of imported cigarettes was US$0.37, while based on WHO 2015 data the global average was about US$2.8 per pack in 2014.

  Consequently, import revenue fell short and import duties had little impact on retail prices. Since countries cannot increase import duties as part of global, regional and bilateral trade agreements, import duties are not a desirable fiscal policy for influencing market prices. As a result, retail prices are often lower in those countries than their counterparts in corresponding income groups.

[124] See https://comtrade.un.org/data.

[125] Assuming one cigarette weighs 1 g, and 1 kg of cigarettes contains 1,000 pieces. Although in recent years, the weight of a single cigarette has reduced to about 0.7 g.

Box 7: Import duties and retail prices of cigarettes: An example from GCC Member States

Gulf Council Countries have the highest import duties (100%) globally, levied on CIF value of cigarettes. In 2015 they imported 107.4 million kg – about 5.4 billion packs – of cigarettes, valued at US$2.4 billion. GCC is bound by WTO trade rules and cannot increase its import duties further. However, some members have unilaterally modified their import duty structure and some introduced fees on import values of cigarettes. For example Saudi Arabia introduced a minimum specific duty as a base for the import duty application and when the import duty generates a tax value less than that of specific duty, then the specific duty value is levied on cigarettes; otherwise CIF multiplied import duty value is taken; Bahrain, on the other hand introduced a fee that is 100% of CIF value.

Table 44: GCC minimum specific duty rates on cigarettes import duties, 2016

Country	Rate per 1,000 cigarettes U$	Imported cigarettes Net weight (,000 kg)	Trade value (Mil U$)	Import revenue + fees (Mil U$)	Tax inclusive trade value (per pack U$)	MPB price/pack USD
	2015	2015	2015		2015	2014
	[1]	[2]	[3]	[4] = [1]*[2]	[5]= [4]/[2]*50	[6]
Bahrain	26.95[a]	16825	194	907	1.31	1.33
Kuwait	28.4	6152	190	174	1.19	2.65
Oman	26.05	12323	250	338	0.95	2.34
Qatar	27.46	3541	79	92	0.97	2.75
Saudi Arabia	53.2	43325	1140	2,305	1.59	2.67
UAE	27.2	25220	548	686	0.98	2.72
	[a]Bahrain has introduced in addition to this, a fee equivalent to a 100% of CIF					

Source: Tax rates by Nasser Saidi & Associates 2016 (p.3),[126] trade values and quantities by UN COMTRADE database, MPPC per pack in US$ by WHO 2015.

Member States by Selected Trading, Economic, or Monetary Union

Gulf Council Countries (GCC)

Import duties for all most-favored nations and others subject to same rates, except bilateral agreements with third countries (see table 45).

Table 45: Import duty application for cigarettes and other tobacco products, GCC Member States

	Cigarettes	Other tobacco products
Bahrain (2013), (2014)	100% + BD10 per 1,000 pieces	100% +BD15 per kg
Kuwait (2014)	100% + KD8 per 1,000 pieces	100% +KD 12 per kg
Oman (2014)	100% OR10 per 1,000 pieces	100% + OR 15 per kg
Qatar (2016)	100% +QR 100 per 1,000 pieces	100% + QR 150 per kg
Saudi Arabia (2015)	100% OR SR100 per 1,000 pieces	100% or SR150 per kg
UAE (2015)	100% + DH 100 per 1,000 pieces	100% + DH150 per kg

Source: WTO. Last accessed May 2017.

Notes: BD = Bahrain dinar; KD = Kuwait dinar; OR = Oman rial; QR = Qatar riyal; SR = Saudi Arabian riyal; DH = dirham (United Arab Emirates).

[126] Saidi N, Prasad A. 2016. Excise taxation for GCC revenue diversification. http://nassersaidi.com/wp-content/uploads/2016/05/Excise-Taxation-for-GCC-Revenue-Diversification-Apr-2016-FINAL.pdf.

Association of South East Asian Nations (ASEAN)

Table 46: Import duty application for cigarettes and other tobacco products, ASEAN Member States

	Cigarettes		Other tobacco	
	Most-favored nations	Others	Most-favored nations	Others
Brunei (2016)	0%	–	0%	
Cambodia (2014)	7%	–	35%	
Indonesia (2015)	10% to 33.3%	US$22.8 per kg	10%	US$13 per kg
Laos (2014)	40%	–	40%	–
Malaysia (2013)	RM 20 per stick to 5% + RMO 14.5 per kg	–	RM 200 per kg	–
Myanmar (2013)	30%	–	30%	–
Philippines (2016)	10%	–	10%	–
Singapore (2016)	0%	–	0%	–
Thailand (2015)	60%		60%	–
Vietnam (2016)	135%	–	100%	–

Source: WTO. Last accessed May 2017.
Note: RM = Malaysian ringgit.

MERCOSUR

MERCOSUR, the Southern Common Market (Brazil, Argentina, Uruguay, Paraguay) is a free trade zone whose members have eliminated all tariff and non-tariff barriers when goods are traded between members. However, when goods come from a third, non-member country, a common external tariff of between 0 percent to 20 percent applies. Associate members of MERCOSUR – Bolivia, Chile, Colombia, Ecuador, Peru – have preferential trade access (see table 47).[127]

Table 47: Import duty application for cigarettes and other tobacco products, MERCOSUR Member States

	Cigarettes		Other tobacco	
	Most-favored nations	Others	Most-favored nations	Others
Argentina (2016)	20%	–	20%	–
Brazil (2016)	20%	–	20%	–
Paraguay (2015)	20%	–	20%	–
Uruguay (2014)	20%	–	20%	–

Source: WTO and other sources.[128]

[127] http://www.as-coa.org/articles/explainer-what-mercosur-0
[128] http://thebrazilbusiness.com/article/mercosul-customs-advantages

Andean Community

The Andean Community consists of Bolivia, Colombia, Ecuador and Peru. There are no import duties among members, and there is no common external duty among members when trading with third-party countries (see table 48).

Table 48: Andean Community members' import duty application for cigarettes and other tobacco products

	Cigarettes		Other tobacco	
	Most-favored nations	Others	Most-favored nations	Others
Bolivia (2014)	10%	–	10%	–
Colombia (2016)	15%	–	15%	–
Ecuador (2014)	30%	–	30%	–
Peru (2015)	6%	US$15.8 per kg	6%	+US$33.2 per kg

Source: WTO 2017.

Economic Community of West African States (ECOWAS)

It is not clear whether ECOWAS has reached a uniform import duty policy among members.

As of 2015–2016, WEAMU members and ECOWAS members Benin, Côte d'Ivoire, Ghana, Guinea Bissau, Mali, Niger and Togo, levy a 20 percent import duty on CIF for cigarettes imported from MFNs and third-party countries.

Latest data from Gambia in 2013, and Cabo Verde in 2015, show that import duties varied between MFNs (20 percent of CIF) and third-party countries (based on a specific value per kg).

West African Economic and Monetary Union (WAEMU)

West African Economic and Monetary Union (WAEMU) includes Benin, Burkina Faso, Cote d'Ivoire, Guinea Bissau, Mali, Niger, Senegal, and Togo. WAEMU harmonized its import duty for intermediary countries

without jeopardizing MFNs status. Both cigarettes and other tobacco products were subject to 20 percent CIF duty in 2016.

East African Community (EAC)

In 2016, EAC Member States, Burundi, Kenya, Rwanda, Uganda, Tanzania, harmonized their import duties at 35 percent for cigarettes and 24 percent for cigars, cheroots and cigarillos containing tobacco imported either from MFNs or the third countries**.**

South African Customs Union (SACU)

SACU is one of the oldest customs unions in the world and consists Botswana, Lesotho, Namibia, South Africa and Swaziland. SACU imposes zero duties among Member States and a unified external duty for the third-party nations**.** SACU imposes different import duty for cigarettes and other tobacco products where:

- imported cigarettes are subject to an ad valorem duty of 45 percent;
- other tobacco products are subject to specific duty of 110 c per kilogram net weight.

European Union (EU)

The European Union (EU) consists of 28 Member States. It is a customs union with a single external trade policy and tariff.[129] As of 2016, EU import duties varied by Member State, where the imports originated at a minimum of 10 percent and maximum of 57.6 percent, averaging 33.8 percent.[130]

CIS or EEC

Eurasian Economic Community (EEC) is a newly formed Customs Union that became effective in 2015. Currently it has five members – Armenia, Belarus, Kazakhstan, Kyrgyz Republic and Russia. EEC Member States harmonized their import duties for third-party countries (or MFNs) in 2016:

- Cigarettes: €2 per 1,000 cigarettes containing tobacco and 20 percent CIF value but no less than €2 per 1,000 pieces for cigarettes containing clove in 2016. [131]
- Cigars, cheroots and cigarillos containing tobacco: 22.2 percent but not less than 2.22 per 1,000 pieces.

[129] See https://www.wto.org/english/thewto_e/whatis_e/tif_e/org3_e.htm.
[130] See http://madb.europa.eu/madb/euTariffs.htm.
[131] See http://www.eurasiancommission.org/ru/act/trade/catr/ett/Documents/ru.cct.eaeu.24.pdf.

NAFTA

Member States of the North America Free Trade Agreement (NAFTA) apply no import duty among themselves (USA, Canada and Mexico) but import duties for the third countries or MFNs vary by Member States.

Canada[132] levies a 12.5 percent duty for cigarettes and 8 percent for cigarillos, machine-made cigars, and cheroots for MFNs. The US[133] levies various import duties based on the characteristics of cigarettes and consist of specific and ad valorem tax:

- 41.7¢ per kg + 0.9 percent – cigarettes containing cloves
- US$1.5 per kg +3.2 percent – other cigarettes
- US$1.05 per kg +2.3 percent – paper-wrapped cigarettes

Free trade agreements with 20 countries specify what is subject to either no or reduced customs duty rates. These countries include: Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Jordan, Korea, Mexico Morocco, Nicaragua, Oman, Panama, Peru, and Singapore.[134]

For other nations, a differential mixture of ad valorem and specific rates is applied – for MFN and others.[135] Mexico levies 67 percent import duty on cigarettes and 45 percent for other tobacco products as of 2016 for imports from MFNs.

COMESA[136]

Of the 19 Member States of the Common Market for Eastern and Southern Africa (COMESA),[137] 11 have eliminated import duties between members: Burundi, Djibouti, Egypt, Kenya, Madagascar, Malawi, Mauritius, Rwanda, Sudan, Zambia, and Zimbabwe.

Ad valorem import duty applies to cigarettes and other tobacco products (except Egypt, which levies specific import duty) where the rates are unified for cigarettes and other tobacco products.

[132] See http://customscalculator.com/CUSTOMSCAWeb/CUSTOMSCAWeb.aspx.
[133] See https://www.cbp.gov/travel/international-visitors/kbyg/customs-duty-info.
[134] See https://ustr.gov/trade-agreements/free-trade-agreements.
[135] See https://dataweb.usitc.gov/scripts/tariff_current.asp.
[136] See http://www.comesa.int/overview-of-comesa/.
[137] Burundi, Comoros, Democratic Republic of Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan , Swaziland, Uganda, Zambia, Zimbabwe.

Appendix H: Tobacco Tax Harmonization: Global Application

Return to: Preparation for Policy Dialogue for Tobacco Taxes

Selected Trade, Economic, and Customs Unions

SACU

SACU[138] (with the exception of Botswana) formed a currency union which is part of the South African Rand Monetary Area, a de facto monetary union. It also formed a full, standardized excise tax system among Member States, under which, domestic excise taxes on tobacco and alcohol are set by South Africa and matched by all other Member States (see table 49).

Unlike other customs unions, SACU set up a common revenue pool where all customs, excise and additional duties are collected by a common customs. Taxes are allocated to the common revenue pool, which is then shared among members

The custom's component is allocated on the basis of intra SACU imports. The excise component is allocated based on each country's share of SACU's gross domestic product (GDP).

The development component – that is 15 percent of total excise revenue – is shared according to the reverse of each country's GDP per capita (WTO 2015).[139]

Despite the standardized excise system, Member States can still levy excise taxes above the South African excise tax levels, independently of the customs union. However, these "extra" excise taxes are termed levies so that they do not form part of the common revenue pool.

Table 49: Excise duties on tobacco 2015, SACU

Tariff heading	Product description	Rate
2402	Cigars, cheroots, cigarillos and cigarettes, of tobacco or of tobacco substitutes	
	Cigars, cheroots and cigarillos, containing tobacco	R 2,824.55 per kg net
	Cigarettes containing tobacco or tobacco substitutes	R 6.21 per 10
	Cigars, cheroots and cigarillos of tobacco substitutes	R 2824.55 per kg net

[138] See https://www.tralac.org/images/docs/8427/wto-trade-policy-review-report-by-the-secretariat-sacu-30-september-2015.pdf

[139] See https://www.tralac.org/images/docs/8427/wto-trade-policy-review-report-by-the-secretariat-sacu-30-september-2015.pdf

2403	Other manufactured tobacco and manufactured tobacco substitutes; "homogenized" or "reconstituted" tobacco; tobacco extracts and essences.	
	Smoking tobacco, whether or not containing tobacco substitutes in any proportions	R 155.54 per kg net
	Cigarette tobacco	R 278.82 per kg
	Other	
	Other cigarette tobacco substitutes	R 278.82 per kg
	Other pipe tobacco substitutes	R 155.54 per kg net

Source: WTO 2015.
Note: R = Rand.

EU

Return to: Tax on Other Tobacco Products and Electronic Nicotine Delivery Systems (ENDS), Excise Taxes

The EU tax harmonization process started with the adoption of the legal act on taxation in 1972. Harmonization applied only to excise duties on energy products, alcoholic beverages and manufactured tobacco products, and the objective was to create a framework that would not distort competition or hinder the free movement of goods within the internal market. In recent years, health concerns were added into the objectives.

The EU does not intend to standardize existing tax systems of all EU Member States, but rather to make national tax systems congruent with EU objectives. As a result, instead of seeking the same tax base, structure and rate in all Member States, the EU decided to implement harmonization in stages (Directive 72/464/EEC, 19 December 1972). Up until 2017, harmonization involved in three stages:

Stage one: Harmonizing structure and tax bases only.

Stage two: Harmonized tax structure on different categories of manufactured tobacco products only.

Stage 3: Adoption of minimum excise duty level in 1992 for each category of tobacco products to achieve a greater convergence between tax levels in Member States.

No Maximum Price

Article 15 of Council Directive 2011/64/EU, June 21 2011, stated that importers or manufacturers of tobacco products should not be restricted in setting a maximum retail price. Therefore, the legislation does not directly interfere with manufactured tobacco prices. However, based on the excise rate, taxation can be a major if indirect influence on price (Bouw 2017).

The current legal act, Council Directive 2011/64/EU, requires the excise

duty on cigarettes to comprise a specific component of between 7.5 percent and 76.5 percent of the total tax burden. This is expressed as a fixed amount per 1,000 cigarettes, an ad valorem component, which is expressed as a percentage of the maximum retail selling price.

A minimum excise rate

The Directive sets a minimum excise rate of €90 per 1,000 cigarettes; at least 60 percent of the weighted average retail selling price; and sets out that Member States applying an excise duty of €115 or more, however, do not need to comply with the 60 percent criterion.

WAEMU

WAEMU, like the EU, has established an economic and currency union among Member States. According to Directive No. 3/98/CM/UEMOA, excise duty rates are set freely by each Member State within the established ranges at an ad valorem rate of minimum 10 percent to maximum 45 percent of the ex-factory price.

Currently the tax range is between 15 percent and 45 percent of the ex-factory price (see Appendix D, WAEMU for details). Member States have no legal authority to exceed the maximum excise duty.

EAC

Under a program called "Support to the EAC integration process", EAC and German development agency Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) prepared a document entitled Tax systems and tax harmonization in the East African Community (EAC) October 2009, which recommended a harmonized legal basis for excise taxation and to define lower and upper ceilings for national tax rates. The EAC has agreed on common external duties for imports, but has not reached a deal on the harmonization of various taxes including VAT, income, or excise taxes.

Andean Community (CAN)

After six years of negotiations, on July 12, 2004 the Andean Community approved Decision 599 and Decision 600 on, respectively, the harmonization of value added tax and excise type taxes (Arias et al, 2005; Organization of American States).[140] Decision 600 specifies the excise application as: "The excise type taxes can include 'ad valorem taxes' on the final price, or 'specific taxes' that apply to physical units of the product, fixed money amounts periodically indexed to the inflation rate."

Article 7 – **Tax base or magnitude**:

> *The excise tax base shall be defined in the national legislation of the Member Countries, ensuring that no discriminatory*

[140] For more information see http://www.sice.oas.org/Trade/Junac/Decisiones/DEC600E.asp.

treatment may exist between domestic and imported products. Added value or excise type taxes should not be included in the ad valorem tariffs.

Article 8 – **Tax burden**:

The total tax burden should be harmonized considering added value, and excise tax imposed at a national or regional level, to fix minimum rates in the Andean Community, three (3) years after this Decision enters effect.

There is no information whether the fixed minimum rates have been implemented since 2005.

Article 9 **– Determination of the tax**:

Excise taxes (ISC) shall be determined by directly applying the rate or fixed amount indicated for the taxable good or service in question to the tax base, or magnitude or reference physical unit, as provided for in the national legislation of each Member Country.

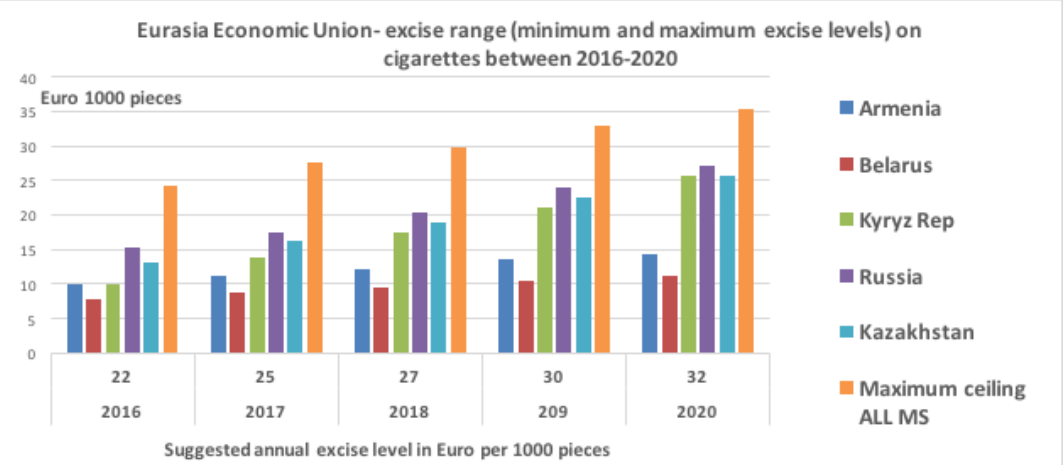
EEC

As part of the Community's objectives, the EEC has been trying to harmonize indirect taxes (e.g., excise taxes) among Member States. A draft document on the tax policy principles in respect to excise duties on tobacco products was prepared in 2015 and circulated among Member States for agreement.[141] The document index linked the excise tax with the Euro, and suggested a fixed annual excise level for the period 2016 to 2020.

The draft document defined minimum and maximum excise levels for the annual excise level that Member States can levy on cigarettes. Based on the suggested level, Member States' minimum and maximum excise per 1,000 pieces during 2016 and 2020 are illustrated in figure 76. The draft document was not effective as of May 2017.

Figure 76: Suggested excise tax range for members, 2016–2020, EEC

[141] See https://docs.eaeunion.org/docs/ru-ru/0118912/clco_16112015_126_doc.pdf.



Source: Figure created using EEC suggested rates in 2015.[142]

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Appendix I: Affordability

Return to: Preparing for Policy Dialogue, Assessing Tax and Price to Inform Policy Dialogue, Affordability

Analysis and Global Evidence

Studies often measure affordability by the percentage of per capita income required to buy 100 packs of cigarettes – the Relative Income Price (RIP) method.

$$RIP = \frac{RP\ x\ 100}{Disposable\ Income_{per\ capita}}$$

RP: Retail Price.

One study (Zheng et al 2017) defined the reverse of RIP method and called "Income Purchasing Capacity (IPC) as the following:

$$IPC = \frac{Disposable\ Income_{per\ capita}}{RP}$$

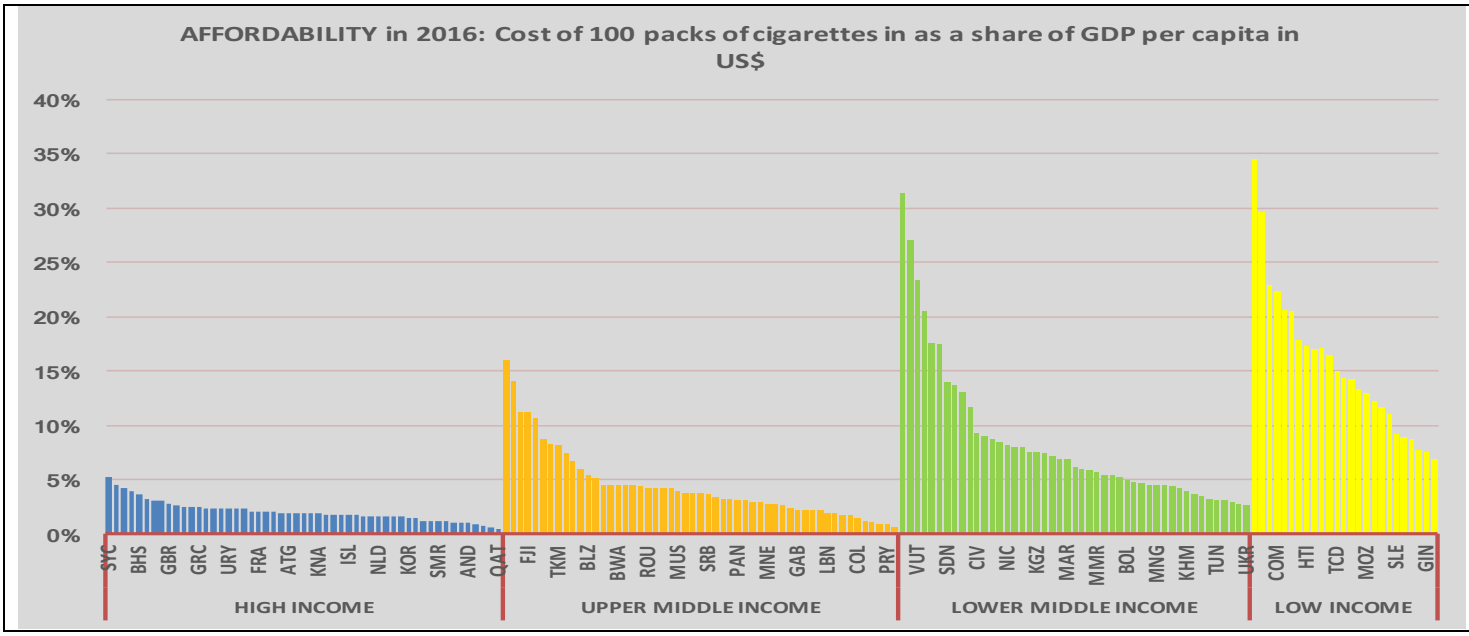
[142] See https://docs.eaeunion.org/docs/ru-ru/0118912/clco_16112015_126_doc.pdf.

The higher the RIP the lower the IPC, and the less affordable cigarettes are. Furthermore, Zheng et al also introduced the Cigarette Affordability Index (CAI) that measures the magnitude of cigarette-affordability change from the base year ($t_{0)}$ over time t= t_1 , t_2 , t_3 , …..n. as the following.

$$CAI_t = \frac{RIP_{t_0}}{RIP_t} \, , CAI_t = \frac{IPC_t}{IPC_{t_0}}$$

Affordability by individual countries by income groups is illustrated in figure 77. As noticed, cigarettes are less affordable for low-income groups and a significant number of lower-middle-income countries as compared to most countries in upper-middle-income and high-income countries.

Figure 77: Affordability in 2016 – cost of 100 packs of cigarettes as a share of GDP per capita, US$



Source: Based on WHO 2017 and IMF WEO.

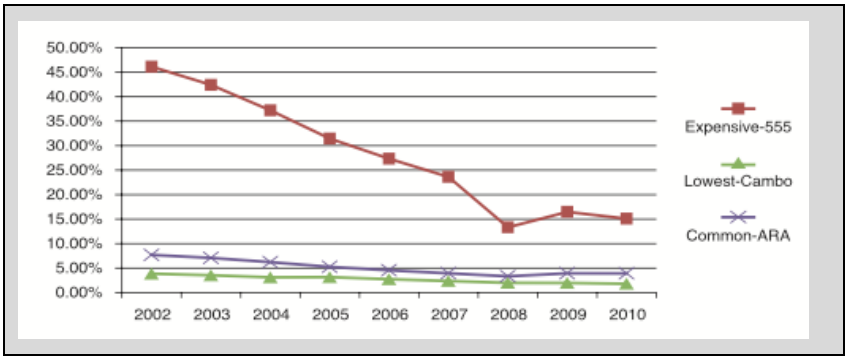
Affordability of Cigarettes: Graphic Illustration by Selected Countries

A number of studies examining trends in affordability of cigarettes in low- and middle-income countries suggest that cigarettes for all income groups have become affordable as many low- and middle-income countries experienced rapid economic (including per capita) growth in the 2000s, outpacing increases in cigarette prices.

Cambodia

During the 2000s, per capita GDP grew faster than the increases in cigarette prices, making them more affordable. The RIP for the expensive 555 brand dropped from 45 percent in 2002 to 15 percent in 2010; the common and economic cigarette brands (ARA and Cambo) became twice as affordable during this period, their relative prices dropping from 8 percent to 4 percent for common and from 4 percent to 2 percent for lowest priced brands (see figure 78).

Figure 78: Relative income price (RIP) affordability of cigarettes 2002–2010, Cambodia

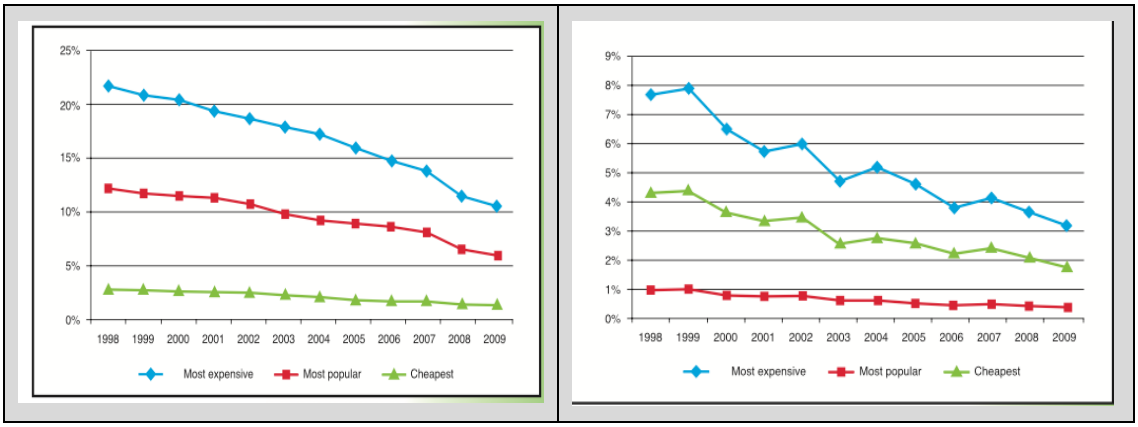


Source: Southeast Asia Initiative on Tobacco Tax 2011.

Vietnam

Figure 79: Increasing affordability trend, Vietnam

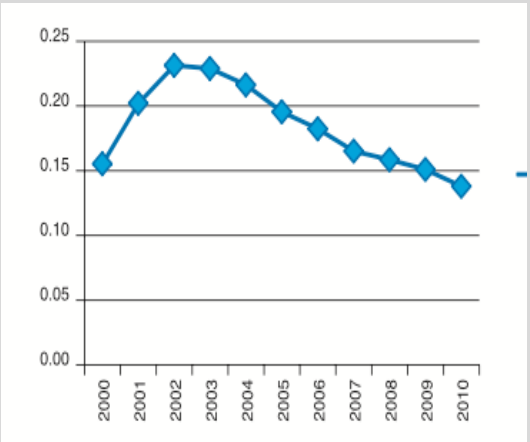
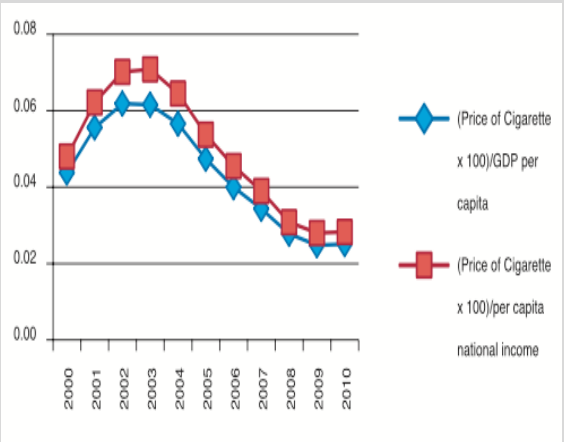
Relative income price (RIP) of three price bands 1988–2009	Cigarette prices as percentage of minimum wage 1998–2009



Source: Southeast Asia Initiative on Tobacco Tax 2011.
Note:
[a] Most expensive brand, 555 (from 7.7 percent to 3.2 percent); most popular brand, VINATABA (from 4.5 percent to 1.5 percent); cheapest brand, Thang Long (from 1 percent to 0.5 percent).
[b] RIP is defined by the percentage of per capita GDP required to purchase 100 packs of cigarettes.

Indonesia

Figure 80: Increasing affordability 200–2010, Indonesia

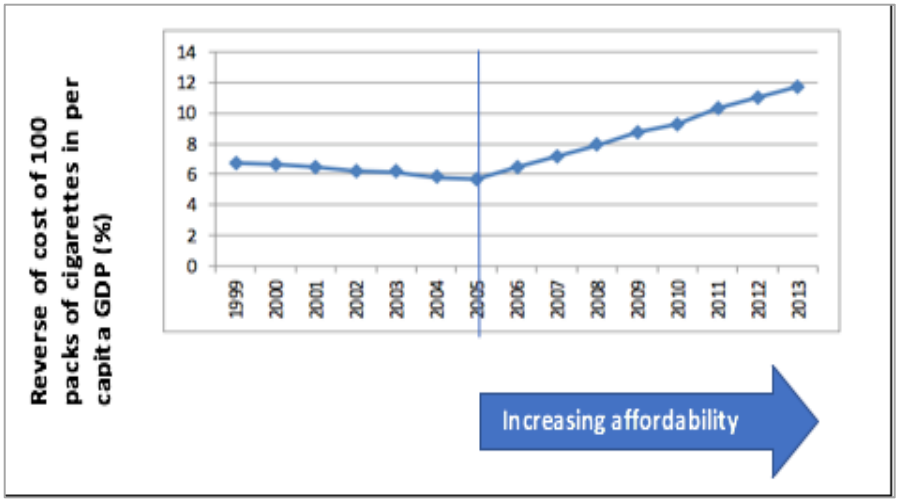
Price as percentage of nominal national average wage (daily) 2000–2010	Relative income price 2000–2010
	

Source: Southeast Asia Initiative on Tobacco Tax, 2011.

Kenya

Cigarettes became slightly less affordable in Kenya between 1999 and 2005, but affordability started to increase in 2005 – a trend that contributed to increased cigarette consumption (see figure 81).

Figure 81: Affordability of cigarettes 1999–2013, Kenya



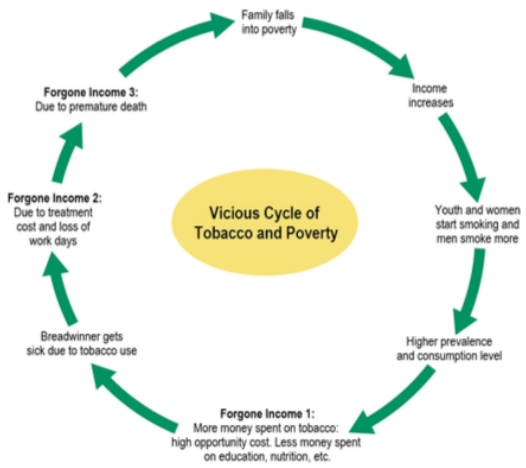
Source: Nargis et al 2015.

Breaking the Vicious Cycle

Return to: Understanding Excise Tax Policies and Tobacco Pricing, Regressivity: A Broader Approach

Tobacco use in poor households exacerbates poverty and traps them in a cycle of poverty (see figure 82).

Figure 82: Cycle of poverty exacerbated by tobacco



Source: NCI, WHO 2016.

As tax increases, poorer smokers reduce their consumption relatively more than the rich smokers. Tax-induced changes in smoking pattern (quitting or reducing the quantity of tobacco consumed) benefit the poor in at least two ways: first, higher economic welfare through improved health status leads to higher productivity and income; second, the opportunity cost of tobacco expenditure is reduced by increasing the financial resources that can be allocated for other goods and services.

In China, expenditure for every five packs of cigarettes per month reduces household spending on education by 17 Yuan per capita a year and medical spending by 11 Yuan per capita per year (Xin et al 2008).

In Vietnam, if poorer households dedicate a portion of their tobacco expenditures to food, 11.2 percent of food deficient smoking households could have adequate financial resources to access the basic minimum amount of food (Guindon et al 2010).

In Java, Indonesia, tobacco spending in household expenditures attributed to household food insecurity and consequently child malnutrition (Block and Webb 2001).

In Bangladesh, the average male smoker spent more than twice as much on cigarettes per capita than on clothing, housing, health and education combined from 1992 to 1996 (Efroymson et al 2001). Also in Bangladesh, parental smoking is associated with an increased risk of stunting, underweight, and wasting among children younger than 5 years (Best et al 2007).

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Appendix J: Stockpiling Prior to Tax Increase: Evidence

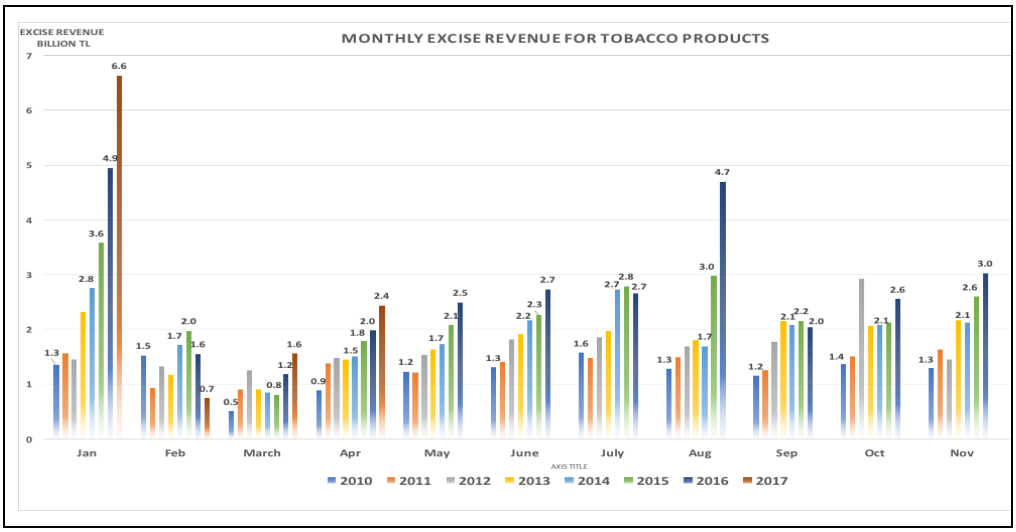
Return to: Preparation for Policy Dialogue for Tobacco Taxes, Floor Stock Taxation, Europe and Central Asia Region

Turkey

The Turkish government does not apply a minimum floor tax. The data reveal that the government faces significant tax avoidance, especially since 2010.

- Since 2009, the total tax on cigarettes reached a 80 percent threshold (65.25 percent excise on retail price (inclusive of all taxes) plus 15.25 percent VAT on retail selling price (18 percent statutory rate on wholesale price).
- The government regularly increases excise rates in January or/and middle of the year (as discussed below).
- Turkey has an electronic monitoring system that detects the production level of manufacturers as the cigarettes are being produced on a daily, weekly and monthly basis. As demonstrated in figure 83, the government faces increasing fluctuation in excise receipts from December to March, and sometimes July to September, most likely because:
    - excise payments on cigarettes stocked during the prior three or four months prior to are at the old excise rates;
    - since 2009 there have significantly high excise payments in the month of January, followed by significantly low excise payments during the following few months; a similar trend has been observed each July since 2015, when stocks are cleared in August with the old tax rate (see figure 83);
    - manufacturers and the media have argued that illicit trade is to blame for the low excise receipts, citing excise tax increases in 2011 as the driver for the illicit trade. An analysis by the tax authority in Turkey showed that stockpiling was the reason for low tax receipts in February and March of 2012.

Figure 83: Monthly excise revenue for tobacco products, Turkey



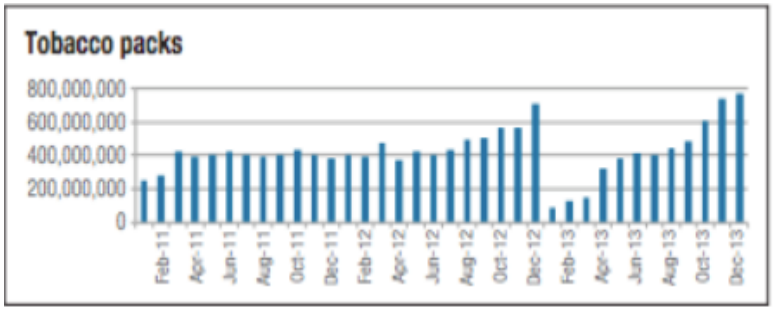
Source: Graph developed based on data at https://www.muhasebat.gov.tr/content/genel-yonetim-mali-istatistik-detayi?tabId=1&pageId=5.

The Philippines

As the Philippines adopted a new excise tax system in 2013, tobacco manufacturers stockpiled a substantial number of cigarettes before the new system became effective in January 2014 – applying old tax rates to their stocks.

Within four months, manufacturers had reduced their tax-paid production substantially, waiting for the market to absorb the oversupplied cigarettes (see figure 84). As well as trying to increase their short-term profit, manufacturers also attempted to argue that increases in illicit trade were due to the new, higher taxes (the Philippines' stockpiling problems are detailed in Ross and Tesche 2015).

Figure 84: Monthly cigarette production surrounding tax reform 2011–2013, Philippines



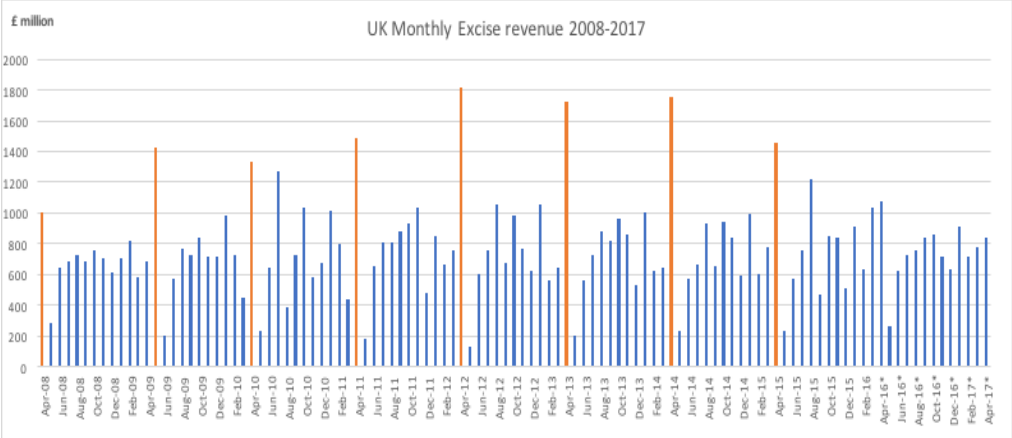
Source: Ross and Tesche 2015.

United Kingdom

The United Kingdom adjusts its excise taxes on cigarettes annually, and has one of the world's highest excise tax rates and share of excise in

tobacco retail prices. Since 1999, new rates have become effective in March/April each year. As shown in figure 85, monthly tax remittances in the month following the tax declaration are significantly higher than the other months of the year. Furthermore, the tax payment following April falls significantly. These trends suggest that there is a significant floor stock piling issue in the United Kingdom that may cost government significant tax revenue.

Figure 85: Monthly cigarette excise remittance, UK



Source: UK HMRC database, Arp17 receipts Table. Last accessed on May 2017.[143]

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Ross H and Tesche J. 2016. *Undermining Government Tax Policies: Common strategies employed by the tobacco industry in response to increases in tobacco taxes*. Cape Town: Economics of Tobacco Control Project, School of Economics, University of Cape Town, and Tobacconomics, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago.

[143] See https://www.uktradeinfo.com/Statistics/Pages/TaxAndDutybulletins.aspx.

Appendix K: Illicit Trade

Return to: Cost of Tackling Illicit Trade

Definition of Activities that Causes Tax Avoidance and Evasion Activities

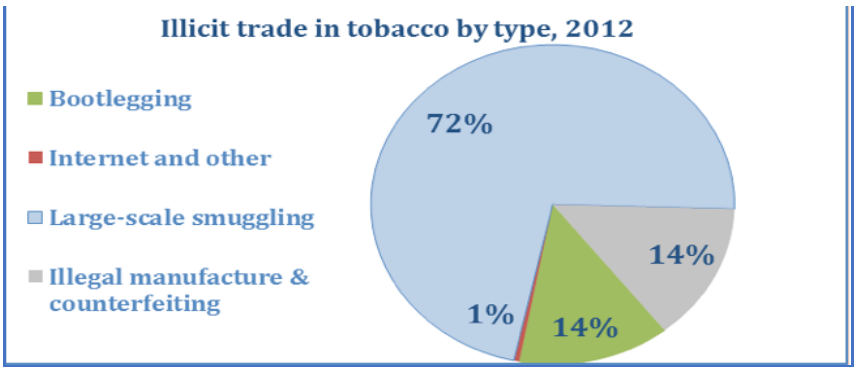
Return to: Background to Excise Taxes and Systems, Illicit Trade

Tax avoidance	Legal methods of circumventing tobacco taxes (e.g., complex and tier tax systems create the opportunity for suppliers to avoid taxes. Duty-free purchases are also a method of tax avoidance).
Tax evasion	Illegal ways of circumventing tobacco taxes. The major aim of tax evasion is to avoid all taxes on tobacco products.
Illicit trade	Any practice or conduct prohibited by law, which relates to production, shipment, receipt, possession, distribution, sale, or purchase, including any practice or conduct intended to facilitate such activity (as defined by Article 1 of the World Health Organization Framework Convention on Tobacco Control).
Smuggling	The illegal trading of products across borders.

Tax Evasion Methods

From the public health and revenue perspectives, it is the large-scale illicit trade that is of concern since this effort involves organized networks and is responsible for about three-quarters of global illicit trade, as illustrated in figure 86.

Figure 86: Illicit trade in tobacco by type, 2012



Source: Yurekli et al (2016).

Large-scale organized smuggling:	The illegal transportation, distribution, and sale of large consignments of cigarettes and other tobacco products (72 percent of illicit trade in 2012).
Bootlegging	The purchase, by individuals or small groups, of tobacco products in low-tax jurisdictions in amounts that exceed the limits set by customs regulations, for resale in high-tax jurisdictions (14 percent of illicit trade in 2012).
Ant smuggling	The organized and frequent crossing of borders by large number of individuals with relatively small amounts of low-taxed or untaxed tobacco products.
Illicit manufacturing	The production of tobacco products contrary to law. Laws in question may be taxation or other laws such as licensing or monopoly-related laws that restrict the manufacture of tobacco products (14 percent in 2012, including counterfeit production).
Counterfeit tobacco production	A form of illicit manufacturing in which the manufactured products bear a trademark without the consent of the owner of the trademark. Illegally manufactured products may be sold on the domestic market or smuggled into another jurisdiction.
Illicit whites (Cheap whites)	Cigarettes manufactured by legitimate business enterprises, but for which a large share of production is illegally sold outside of the jurisdiction in which they are produced (NCI and WHO 2016).

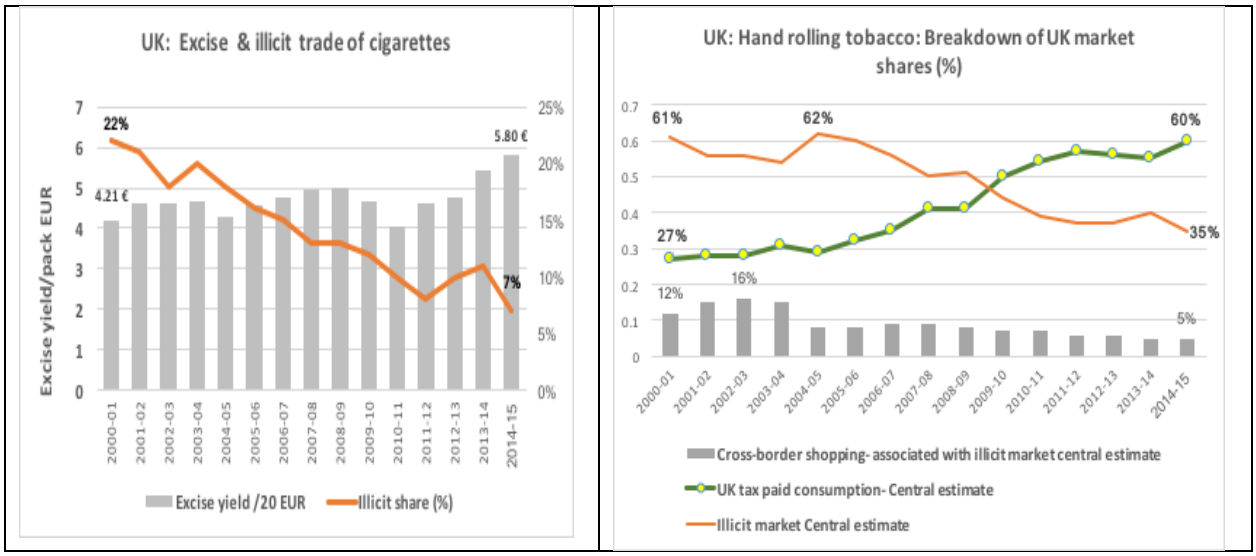
Experience and Control: An Example from the United Kingdom

Return to: Illicit Trade – Experience and Control

Due to strong efforts by the United Kingdom government, as demonstrated in figure 87, the United Kingdom has controlled the illicit cigarette trade and brought it down to 7 percent of their cigarette market in 2014–2015.

However, despite significant reduction in the share of illicit roll-your-own tobacco, 35 percent of the market still consists of illicit hand-rolled tobacco. Cross-border shopping, on the other hand, has been controlled and its share dropped to 5 percent in 2014–2015.

Figure 87: Excise, illicit trade and the market share of tobacco products, UK

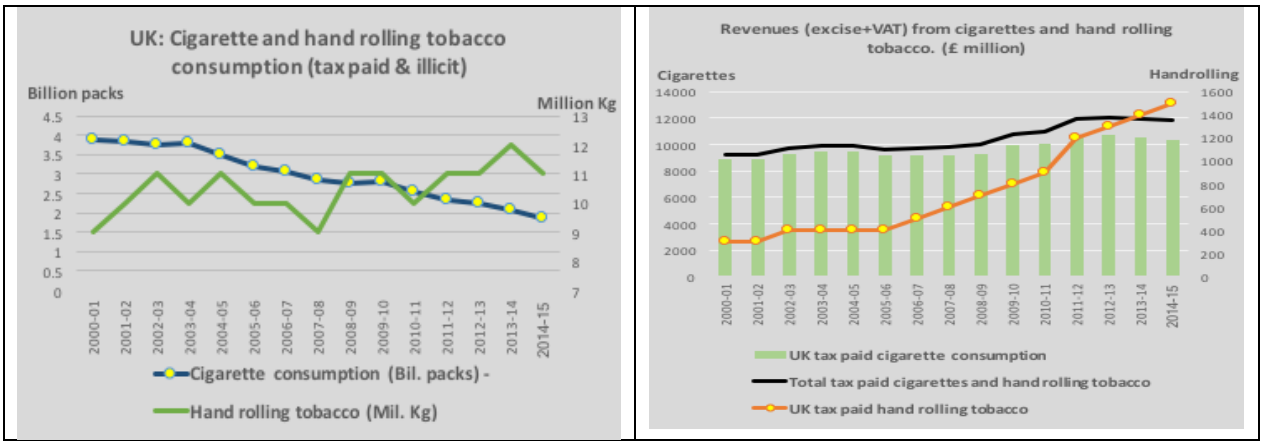


Source: HMRC UK measuring tax gaps 2016[144] and excise yield by the EU excise tax tables for various years.

From the public health perspective

In recent years, total tax revenues from tobacco products have slightly decreased. However, annual increases in excise taxes helped reduce consumption in both cigarettes and hand rolled tobacco as illustrated in figure 88.

Figure 88: Tobacco consumption (legal and illegal) and excise revenues, UK



Source: HMRC UK measuring tax gaps 2016[145] and excise yield by the EU excise tax tables for cigarettes various years.

[144] See https://www.gov.uk/government/statistics/measuring-tax-gaps-tables.
[145] See https://www.gov.uk/government/statistics/measuring-tax-gaps-tables.

Return to: Background to Excise Taxes and Systems

In 2000, the UK government allocated £209 million to an initiative to tackle illicit tobacco trade for the following three years (ASH UK 2016, and HMCE 2000).[146] As a consequence, illicit market share fell from 21 percent to 22 percent to 15 percent in 2003–04 (ASH 2016).[147] Between 2000 and 2013–2014, revenue losses were reduced from £3.4bn to £2.1bn a year (HRMC 2015).[148]

ASH UK[149] estimated the expenditure incurred on salaries for full-time equivalent staff was re-allocated from the revenue from tobacco smuggling between 2006 and 2012, as illustrated in table 51.

Table 51: Cost of illicit trade control efforts, UK

	HMRC			UKBA	Total
Year	Detection	Investigation	Intelligence	Detection & Intelligence	
2006/07	£61,351,790.69	£13,246,434.95	£12,246,665.35	n/a	£86,844,890
2007/08	£65,037,870.02	£14,243,597.55	£11,271,899.07	n/a	£90,553,366
2008/09	£64,257,196.50	£19,998,544.53	£12,244,642.47	n/a	£96,500,383
2009/10	£ 5,362,740	£20,840,605	£ 7,946,658	£61,100,000	£95,250,003
2010/11	£ 5,504,241	£20,270,831	£ 6,152,047	£58,735,712	£90,662,831
2011/12	n/a separately	£25,636,005*	£ 8,143,109		

Source: ASH Briefing – UK Tobacco Control Policy and Expenditure, 2016.
Note: * Includes detection, criminal investigation and specialist civil investigation. The total expenditure by HMRC on salaries for 2011/12 was £36,881,681. Data from UK Border Agency (UKBA) are not currently available

In addition to staff costs, strengthening smuggling control using technology led the United Kingdom government to invest in 14 X-ray scanners (total cost £29,663,005; maintenance cost £183,000 per annum). In 2009 five new scanners were added, at a total cost of £4,210,000 (annual maintenance cost of £180,000 per scanner over a 10-year contract). During 2010–2011 and 2011–2012 maintenance costs

[146] Tackling tobacco smuggling: http://webarchive.nationalarchives.gov.uk/20130129110402/http://www.hm-treasury.gov.uk/d/433.pdf.
[147] The key publications are: Tackling tobacco smuggling. March 2000; New responses to new challenges - Reinforcing the tobacco smuggling strategy. HMRC 2006; Tackling Tobacco Smuggling Together. HMRC & UKBA 2008.
[148] Tackling illicit tobacco from leaf to light https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/418732/Tackling_illicit_tobacco_-_From_leaf_to_light__2015_.pdf.
[149] See http://ash.org.uk/information-and-resources/briefings/uk-tobacco-control-policy-and-expenditure-an-overview/.

for this equipment totaled £1,487,000 and £1,133,000 respectively.

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Yurekli A, Sayginsoy O. 2010. "Worldwide Organized Cigarette Smuggling: an Empirical Analysis." Applied Economics. 42(5):545–61. doi: 10.1080/00036840701720721.

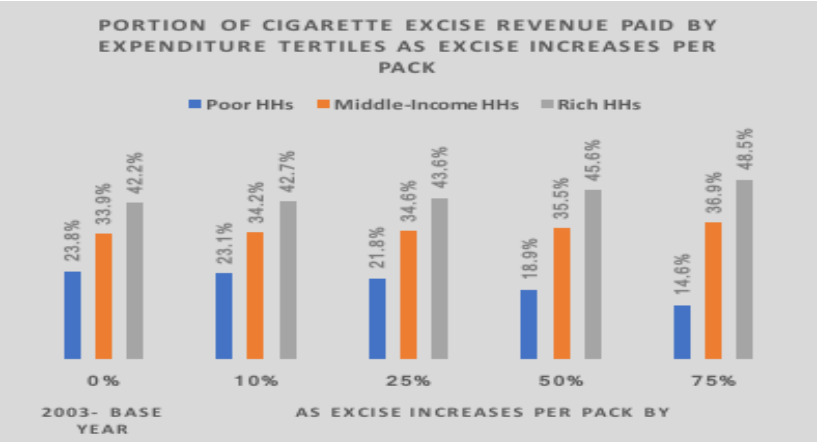
Appendix L: Who is Paying the Excise Tax Revenue for Cigarettes?

Return to: Assessing Tax and Price to Inform Policy Dialogue

As excise taxes increase, the share of tax expenditure in household income among poor smokers who continue smoking also increases. However, a number of smokers would also either quit all together, reduce their level of smoking, or switch to cheaper alternatives. Given their limited income, poor and low-income smokers are more likely to smoke cigarettes at lower price bands.

Önder and Yürekli examined demand for cigarettes in Turkey and estimated the share of excise revenue paid by households in expenditure tertiles in 2003. The study revealed that about 75 percent of total excise revenue from cigarettes was paid by upper-middle-income households and middle-income households, and – as excise tax increases – lower-income households' share in total cigarettes excise revenue falls. The shares of and middle-income and high-income households would continue to increase as illustrated in figure 89.

Figure 89: Who pays excise revenue on cigarettes (household income level), Turkey



Source: Önder and Yürekli 2014.

Reference

Önder Z, Yürelki A. 2014. "Who pays the most cigarette tax in Turkey?" *Tobacco Control*. 25:39–45. doi: 10.1136/tobaccocontrol-2014-051639.

Appendix M: Excise Increases and Fiscal Options

Return to: Rationale for Excise Taxes on Tobacco Products, Assessing Tax and Price to Inform Policy Dialogue, Tax on Other Tobacco Products and Electronic Nicotine Delivery Systems (ENDS), Tobacco Tax Revenues and Allocation, Types of Taxes Levied on Tobacco Products

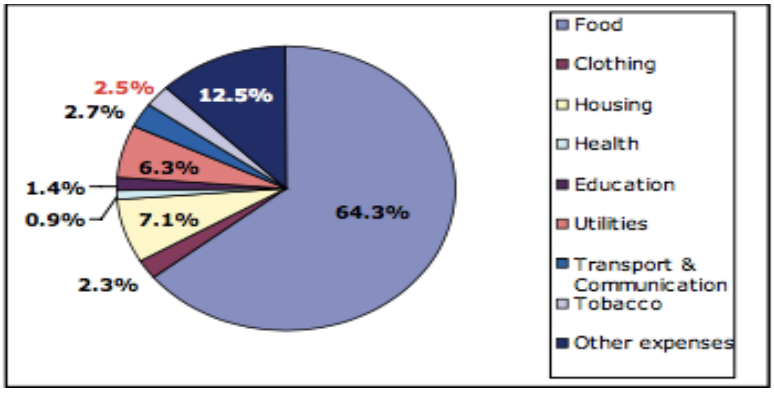
The Philippines

Based on an analysis of tobacco and poverty in the Philippines by WHO in 2008 (WHO 2008), in the early to mid-2000s a quarter of all households in the Philippines were poor. This indicates that close to 4 million families subsisted on incomes that left them below the poverty line. In 2003, nearly 80 percent of the household population in the poorest quintile had at least one member who smoked tobacco.

It also found that poor households in the Philippines spent on average about ₱92 (around US$2) per month on tobacco – almost four times as much on cigarettes as per capita monthly expenditure on clothing, six times as much as for education, and eight times as much as for health.

When only those households with tobacco expenditure were included, the average per capita tobacco spending became almost 11 times as much as for health, nine times as much for education and five times as much as for clothing, as illustrated in figure 90.

Figure 90: Distribution of monthly expenditure on basic needs, by poorest households, 2003



Source: WHO 2008.

Box 8: The Philippines' Sin Tax reform and budget allocation

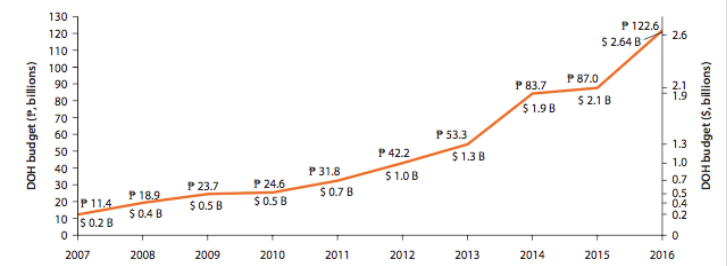
The Philippines had a sin tax reform in 2013 by restructuring its excise system on tobacco and alcohol products. The reform helped finance the extension of fully subsidized health insurance to the poorest 40 percent of the population. In its first year of implementation, the reform doubled the Department of Health's budget (see figure 91), and by the end of 2016, the budget had tripled its 2012 level (in nominal terms), reaching ₱122.6 billion.

- Between 2013 and 2014: National health insurance coverage increased from 5.2 million to 14.7 million poor and near poor families.
- By the end of 2015, health insurance covered 15.3 million poor and near-poor people.

Sin tax revenues were also subsequently used to subsidize insurance coverage for senior citizens, and further expand access to care among vulnerable people.

Source: World Bank 2016.

Figure 91: Department of Health Budget 2007–2016, after Sin Tax reform 2013–2016, Philippines



Source: Graph developed by Kaiser et al 2016 using data from the Phillippines' General Appropriations Act (GAA).

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Kaiser K, Bredenkamp C. and Iglesias, R. 2016. "Sin Tax Reform in the Philippines: Transforming Public Finance, Health, and Governance for More Inclusive Development." *Directions in Development – Countries and Regions*. Washington, DC: World Bank.

WHO 2008 Philippines. http://apps.who.int/iris/bitstream/10665/75153/3/9789241596565_eng.pdf

Appendix N: Global Tobacco Taxation: World Bank Group Reports, Blogs, Videos

World Bank Group Global Tobacco Control Program blogs, videos, reports available at: http://www.worldbank.org/en/topic/health/brief/tobacco. All reports prepared with the support of the Bill and Melinda Gates Foundation, and Bloomberg Philanthropies.

"Tobacco tax programs are a win-win both for public health and domestic revenue generation." WBG President Remarks@ UHC Forum in Japan: at Opening Session with Japan's Prime Minister Shinzō Abe and UN Secretary General and WHO Director General and others, Tokyo, Japan, December 13, 2017.

1. **Reports**

Tobacco Taxation: At the Crossroads of Health and Development (2017): MainReport: http://documents.worldbank.org/curated/en/docsearch/report/119792. Executive Summary has been translated into French, Spanish, Portuguese, Chinese, Russian, Japanese, Arabic and posted at the WBG Global Tobacco Control Program site: (http://www.worldbank.org/en/topic/health/brief/tobacco)

Progressive or Regressive: The Impact of Tobacco Taxation in Ukraine (2017): http://documents.worldbank.org/curated/en/28024185

The Distributional Consequences of Increasing Tobacco Taxes on Colombia's Health and Finances (2017): http://documents.worldbank.org/curated/en/463121507058748037/The-distributional-consequences-of-increasing-tobacco-taxes-on-Colombia-s-health-and-finances-An-extended-cost-effectiveness-analysis

The Political Economy of the 2016 Tobacco and Proposed Sugar-Sweetened Beverage Tax Increases in Colombia (2017): http://documents.worldbank.org/curated/en/157441507059518543/The-political-economy-of-the-2016-tobacco-and-proposed-sugar-sweetened-beverage-tax-increases-in-Colombia

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Economics of Clove Farming in Indonesia
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