

Executive Summary

Excise taxes are consumption taxes applied to a specific good, such as alcohol, gasoline, or tobacco, for example. Such taxes may be a mechanism to generate revenues for the overall government budget, be intended to curb consumption (e.g., “sin” taxes on alcohol and tobacco), act as an “earmarked tax” to fund a public good (e.g., gasoline taxes often fund road maintenance and repair), or correct for a negative externality of consumption (e.g., fat taxes on fatty foods)—or any combination of the four.

Adam Smith laid the groundwork for taxing consumable goods, with an excise tax on such goods seen as the most market-neutral tax—guaranteeing government revenue without increasing the natural wage rate of laborers. The premise of this assertion is that if goods like tobacco, rum, or sugar become too expensive, then consumers can simply cut them out of their budget, as they are not necessities.

Over the subsequent centuries, a number of economists have expanded upon Smith’s theories. The additional research, along with years of practical experience, has cemented tobacco as one of the most frequent targets of tax increases, on both public health and public finance grounds. While the levying of excise taxes is theoretically substantiated for generating government tax revenues with minimum market distortions, as well as correcting for externalities, there are numerous theoretical and practical issues to consider when introducing or increasing excise taxes.

In addition to the traditional theoretical considerations for excise taxation, there is also a growing political push for international tobacco taxation (i.e., additional tobacco taxes administered globally by an international body), as well as international tobacco tax harmonization (i.e., international guidelines for structuring tobacco taxation). While there may be mounting pressure for international taxation or harmonization, at present there is scant theoretical rationale for either. As the theory and practical experiences make clear, countries need to retain control of their own fiscal policy because one size does not fit all. There are vast differences in policy objectives and priorities, social and economic circumstances, and existing industry and excise tax structures across the globe. Because there are upper limits to the size of tax increases and how high the tax levels on tobacco products can be at the national level, countries need to retain their fiscal sovereignty to determine the optimal excise tax structure and level on tobacco products to meet their national government objectives.

Given recent discussions on international tobacco taxation, it remains of interest to find a way to objectively compare tax levels across countries. Broadly three approaches exist: comparing tax incidence, expressing taxes as a percentage of the retail consumer price; comparing monetary tax levels, in a common currency per pack of cigarettes; or comparing tax levels taking into account domestic income levels. Our study shows that this last approach, which takes into account the domestic affordability of tobacco products, is the most sensible for public policy benchmarking purposes.

In general, governments levy excise taxes on tobacco to achieve fiscal and public health objectives. In order to evaluate both objectives, it is first necessary to review the elasticity of tobacco demand. From there, fiscal revenue and public health goals will be discussed in context of the Laffer Curve (fiscal) and the Bhagwati Theorems (public health). Other theoretical concerns, such as affordability, regressivity, illicit trade, and the excise tax structure are also considered in this book. Of course, no analysis would be complete without an overview of the practical aspects of excise taxation—each of these topics are highlighted below.

I. ELASTICITY OF DEMAND

In order for policymakers to assess the impact of tax policy on various government objectives—raising tax revenues, public health, employment, and so on—it is critical to have a working understanding of several relevant micro-economic concepts, such as price elasticity of demand, cross-price elasticity of demand, and income elasticity of demand. Each form of elasticity plays a crucial role for identifying the demand characteristics of tobacco consumption, which in turn will help policymakers to formulate the best system of taxation on tobacco products.

Many publications on tobacco taxes are based on the conventional wisdom that the price elasticity of tobacco products is between -0.3 and -0.5 , which implies that tax increases can generate the double dividend of increasing tax revenues and reducing smoking incidence at the same time. Although this appears to be a correct assessment in many cases, there are also increasingly examples of much higher price elasticities, indicating that tax policies may need to be adjusted to achieve the desired policy outcome.

For these reasons, it is vital for policymakers to understand how demand is measured in order to interpret the precise meaning of the price elasticity. First, governments need to properly measure the number of smokers and the amount that those smokers smoke. Next, four separate price elasticity measurements should be estimated: the elasticity of aggregate tax-paid demand (to assess the impact of tax and price changes on tax revenues), the elasticity of aggregate consumption (to assess the impact on illicit trade and cross-border sales), and the elasticity of both smoking prevalence and smoking intensity (to understand the impact of tax and price changes on individual smoking behavior). Based on our research, in general, countries don't have in place a systematic survey to measure all relevant elasticities and how they evolve over time, even though these are fundamental parameters to establish a well-founded tax policy for public health and tax revenue purposes.

II. LAFFER CURVE

The Laffer Curve illustrates the relationship between tax rates and government tax revenues, and provides an explanation for why this relationship is not always positive. Broadly speaking, changes in tax rates have two effects on revenues: arithmetic and economic. Arithmetically, if tax rates increase, tax revenues per dollar of tax base will similarly increase. Economically, however, higher tax rates will discourage consumption and encourage switching to lower taxed substitute products or illicit tobacco products—thereby *decreasing* the tax base. The arithmetic effect and economic effect are opposing forces—therefore, when the two are combined, the consequences of the change in tax rates on total tax revenues are no longer quite so obvious.

The price elasticity of tobacco demand will impact the shape of the Laffer Curve and the revenue maximizing tax rate: the more elastic, the lower the revenue maximizing tax rate will be, as consumers will be more sensitive to price increases. Most of the time, when tobacco tax rates are increased, government tax revenues increase, as well. However, there are increasingly examples of countries whose tax rates have entered the so-called “prohibitive range” of the Laffer Curve. Within the EU Cyprus, Denmark, Germany, Greece, Ireland, Latvia, Portugal, Sweden and the United Kingdom have experienced multiple yearly declines in tobacco tax revenue over the decade to 2012, while Malaysia, Norway and Singapore have reached the upper limits on tobacco tax increases. A number of states within the United States have at times found themselves in or bumping up against the prohibitive range of the Laffer Curve, meaning tax revenue would only fall with further tax increases and tax revenues could actually increase by lowering tax rates.

Additionally, it is important to bear in mind that the tax rate at which government revenues are *maximized* (the highest point on the Laffer Curve) is not automatically the point at which tax policy is *optimized*. If for instance the illicit tobacco trade and its impact on crime, or the regressive impact of excise taxes on lower income individuals are serious concerns, these may be reasons to enact tax rates below the revenue-maximizing level. Conversely, if the objective of reducing tobacco consumption for public health reasons is seen as

the primary objective, tax rates may correspondingly need to be above the revenue-maximizing point (constrained by the illicit trade potential). The optimal tax rate from a revenue perspective is thus not automatically equal to the optimal tax rate from a broader policy perspective.

III. UNINTENDED CONSEQUENCES OF TOBACCO TAXATION—BHAGWATI THEOREMS

In many instances, governments use economic policies in order to achieve non-economic outcomes that are welfare improving rather than technically efficient. The taxation of tobacco is an example of this—governments typically intervene in the Pareto-optimal free market in order to pursue their non-economic objective of reducing tobacco consumption.

Jagdish Bhagwati is a world-renowned international trade theorist whose work on the optimization of economic policy while accounting for non-economic objectives, such as reducing consumption of certain products (e.g., for health reasons), is particularly relevant to tobacco taxation. Bhagwati addresses three potential policies in order to constrain consumption levels—a production or factor tax-cum-subsidy, a tariff, or a consumption tax-cum-subsidy. Although policy interventions are rarely economically efficient, when the policymaker has non-economic objectives, the Bhagwati Theorems can be used to analyze and rank different policy decisions in order to minimize the cost to the overall economy and reduce the distortionary impacts on the market.

The consequences of choosing a sub-optimal policy can be dire—Bhagwati notes that pursuing the wrong economic policy can result in a peculiar situation where economic growth can potentially lead to a country being worse off than it was prior to growth, a situation he coined as “immiserizing growth”. Therefore, if the economic target is to constrain consumption, then the available policy options are to: a) tax the targeted behavior, b) subsidize desirable behavior, or c) spend money to reduce the targeted behavior in some way. Any other policy response has the potential

of creating unintended consequences far worse than the problem that needs to be solved.

Bhagwati concludes that the optimal government intervention policy in order to curb consumption of a particular good is a tax policy, as consumption taxes directly impact consumption levels, which is the non-economic objective. Accordingly tobacco taxation is, in principle, a good policy instrument to reduce tobacco consumption, but it has to be managed and structured carefully.

IV. TAX AND INCOME DISTRIBUTION

As one of Adam Smith's four maxims of taxation, equity continues to be a crucial consideration for policymakers to ensure that tobacco taxes are not regressive—that is that the tax burden does not disproportionately fall onto individuals in lower income brackets. For tobacco excise tax policy, this especially becomes a concern if the prevalence of smoking is higher for lower income individuals and if the price elasticity of tobacco demand is less elastic for lower income individuals. Such a case is particularly problematic since increases in excise taxes can further diminish the standards of living for individuals in lower income brackets—the choice may come down to forgoing proper nutrition in order to maintain current tobacco consumption.

For a comprehensive evaluation of taxes on income distribution, one should look at the overall impact of all taxes and subsidies on individual consumers. Domestic structures of direct and indirect taxes, as well as social security systems, are further examples of unique, country specific characteristics, as a result of which tobacco tax policy will need to be tailored to individual country circumstances. An internationally harmonized tax approach is likely to exacerbate issues of equity and regressivity in individual countries.

V. EXCISE TAX AND ILLICIT TRADE IN TOBACCO PRODUCTS

When a good becomes too expensive, consumers may discontinue or reduce its consumption, reduce the consumption of other goods in order to continue consuming the highly taxed product, or turn to illicit tobacco products. Taxes thus create a financial opportunity for illicit trade, but this is not a sufficient condition in and of itself. The potential profits for smugglers (and savings for consumers) from illicit trade must be weighed against other factors. Consequently, it isn't just high tax rates that indicate whether illicit trade activity will be a problem, but rather high tax rates coupled with other factors such as affordability, level of corruption, effectiveness of enforcement, and cultural and societal reasons.

VI. TAX STRUCTURE

Excise taxes come in two main forms—specific and *ad valorem*. A specific excise tax is a fixed monetary amount per unit of tobacco product (e.g. pack, weight, carton, piece), whereas an *ad valorem* excise tax is a percentage tax on the price of each unit. In both instances, however, there is a wedge created between the amount paid by consumers and received by producers. The consumer will face prices that are higher than what the producer will receive for the good, and the government collects this difference as tax revenue.

Around the world, there is a remarkable variation of excise tax structures in place for cigarettes and other tobacco products. Governments tailor these systems to meet certain domestic policy objectives, but clearly some of these objectives evolve over time, and will be different from country to country. Many countries design their excise structure to primarily reduce smoking prevalence, and implement a fully specific structure that does not encourage consumers to shift consumption to lower taxed products, thus maximizing the impact of tax increases on the average consumer price. Other countries want to balance their objectives, and also give priority to protecting employment, for instance, by applying lower taxes to hand-made tobacco products to promote this goal. Still other nations are concerned about the regressive impact of tobacco taxes on low income

smokers and therefore see a policy need for lower taxed fine-cut tobacco. These are just some of the examples of how domestic policy considerations translate into a certain type of excise tax structure.

On the more general discussion of specific versus *ad valorem* taxes, there is a global trend towards more specific systems, as tax revenue and public health objectives have started to dominate other public policy considerations (e.g., income distribution, employment, protecting domestic producers). From a public finance and public health perspective, specific taxes are clearly preferred over *ad valorem* taxes. Specific taxes offer a more stable and controllable source of tax revenue, for instance because government income does not depend on consumer brand choice trends. If public health is an important objective for policymakers, then a specific excise is also highly encouraged since it is based on the number of units sold, which implies that the tax burden is equal per unit (i.e., if all cigarettes are equally bad, tax them all the same). Given that a specific excise tax equalizes the tax burden across all cigarettes, it is more likely that the consumption of cigarettes will fall following a tax increase because consumers will not be able to offset a tax increase by down-trading to lower taxed cigarettes.

VII. TOBACCO TAX SYSTEM: PRACTICALITIES

At the individual country level, there are four key elements that must be correctly in place for an efficient and effective tobacco excise tax system. Firstly, clear and precise tobacco product category definitions are required, in particular if countries wish to apply different tax levels to different tobacco products. Without proper product definitions government tax revenue will be lost as “loophole products” are likely to be launched—products that technically fall in a lower-taxed category, but are seen by consumers as adequate substitutes of a higher-taxed category. Moreover, these product definitions need be amended and updated over time in response to new product developments.

Secondly, correct excise tax structures are required to ensure that similar tobacco products are treated on an equal basis. From a government tax revenue standpoint, the excise tax structure should sup-

port stable and predictable collections and ensure, as much as realistically possible, that excise tax increases translate into government tax revenue increases. While there are a vast array of tax structures applied across the globe, from a pure tax revenue point of view, specific tax structures ensure that all similar tobacco products will pay the same amount of excise tax, while at the same time specific taxes reduce the incentive for consumers to down trade to lower taxed products—as well as reduce the tax revenue losses if they do trade down.

Thirdly, the correct excise tax level must be applied to each tobacco category. While on average the price elasticities for cigarettes and other tobacco products are low, this can change over time, particularly in response to relatively large tax increases or changes in macroeconomic factors. As many countries have experienced, the Laffer Curve also applies to tobacco taxation. When tax levels become too high, consumers will reduce consumption, down-trade to lower-taxed products, and switch to non-taxed, illicit tobacco products. Accordingly, after a certain point, further tax increases will not result in commensurate increases in government tax revenues. Governments must also keep in mind that the tax bearing capacity of tobacco products will vary from one tobacco category to the next, for instance because of production cost differences, and the tax levels applied on each category need to be calibrated accordingly.

Finally, the excise tax system needs to be supported by good tax administration and collection systems. The tax administration and collection systems should facilitate the efficient collection of the excise tax revenue by the customs and excise officials and should not be unnecessarily burdensome on the manufacturers or importers. A proper legal framework that provides a balance between the rights of taxpayers and the powers of the tax agency should be in place. Overall, the tax administration system should be as simple as possible to expedite efficient payment of tobacco taxes by all manufacturers and importers.