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The Effectiveness of Excise Taxes in Discouraging Harmful Consumption

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- **Abstract:**

This research aims to evaluate the effectiveness of excise taxes as a tool to reduce harmful consumption, focusing on a case study of Egypt and comparing it with international experiences. The research raises a fundamental problem: the extent to which these taxes succeed in achieving their health targets, including sub-questions about the types of excise taxes and their impact on consumer behavior. The research is based on several hypotheses, including that increasing excise taxes lead to a decrease in the consumption of harmful goods, that these taxes contribute to raising health awareness, and that directing their revenues towards health awareness programs enhances their effectiveness. The research relies on a combination of research methodologies, including the descriptive analytical method to analyze the concept of excise taxes, their types, features, and impacts, and the comparative method to compare the experiences of different countries and extract best practices and challenges. The research is divided into three main sections, covering an overview of excise taxes, their role in preserving public health, and global best practices in excise tax implementation. The research concludes by providing practical recommendations for policymakers in Egypt and other countries, aiming to improve the effectiveness of excise taxes as a tool to reduce harmful consumption and promote public health.

- **Keywords:** Excise Taxes, Harmful Consumption, Public Health, Tax Policies, Behavioral Economics, Egypt, International Experiences, Health Taxes.

- **Introduction:**

The consumption of harmful goods, such as alcohol, tobacco, and sugary drinks, poses a substantial threat to public health. These goods significantly contribute to a range of chronic diseases, such as cancer, cardiovascular disease, and diabetes, placing an immense burden on the healthcare systems of each country. The resulting costs, involving increased medical expenditures, decreased workforce productivity, and premature mortality, underscore the urgent need for effective government interventions to curb harmful consumption.

Fiscal levers for improving health cover a broad array of options and are gaining popularity worldwide. For governments, these levers are typically either tax-based policies to discourage unhealthy behaviours or expenditure policies (such as subsidies) to incentivise healthy behaviours.

While Excise taxes can increase prices to discourage unhealthy behaviors, subsidies can also be used to decrease prices or offer incentives for healthy behaviors. Government could offer direct subsidies (for example cash transfers or vouchers) or indirect subsidies in the form of tax relief to achieve its aims.

Governments worldwide use fiscal policy instruments, and notably excise taxes, to regulate consumption patterns and reduce the adverse effects of harmful products. Excise taxes, levied on specific goods, lead to increasing their market price, thus influencing consumer behaviour. This approach is rooted in the principle that fiscal measures can efficiently discourage the consumption of goods that create negative externalities.

From a behavioural economics perspective, the effectiveness of excise taxes stems from their ability to change price signals, which deeply influence consumer choices. The concept of price

elasticity of demand suggests that as the price of a good increases, its demand decreases. By increasing the cost of harmful products, excise taxes leverage this principle to discourage consumption, especially among price-sensitive populations.

The implementation and effectiveness of excise taxes remain subjects of ongoing debate within policy circles. As governments deal with the rising costs of healthcare and the social impact of harmful consumption, the need for evidence-based policies becomes increasingly critical.

Although, excise taxes aim to discourage the consumption of goods harmful to health or the environment, but at the same time, they are a significant source of government revenue. The use of excise taxation in contemporary societies is marked by the curious coexistence of the state's fiscal objective of raising revenue with often-articulated behavioural objectives relating to lowering or altering public consumption of certain commodities.

This research aims to analyse the efficiency of excise taxes in discouraging harmful consumption and provide a comprehensive assessment of the impact of excise taxes on consumption patterns in Egypt and different countries. Moreover, this research will provide data to help policy makers make informed decisions.

A main concept in understanding the rationale for excise taxes lies in the recognition of negative externalities. The consumption of harmful goods, like tobacco and alcohol generates costs that exceed the individual consumer, imposing burdens on society. These externalities, such as increased healthcare expenditures and reduced productivity, are not reflected in the market price of these goods. Excise taxes are designed to internalize these externalities, efficiently making consumers pay for the broader social costs related to their consumption.

- **Research Problem:**

Given the documented public health burden of harmful consumption and the policy reliance on excise taxes, however, the actual degree of these taxes' success remains uncertain. Therefore, the observed variations in impact across goods and populations require deeper analysis. Therefore, this research quantifies how effectively excise taxes discourage harmful consumption, addressing the gap between intended policy and real-world results. Based on all the above, we can formulate the research problem in the following main question:

- To what extent do excise taxes successfully discourage harmful consumption?

- **Research Questions:**

1. What is the meaning of excise taxes?
2. What are the different types of excise taxes and their respective applications?
3. What are the main features of an Excise tax?
4. What is the historical development of excise taxes?
5. What is the base of the Excise Tax?
6. What is the rate structure of the Excise Tax?
7. Where do excise taxes revenues go?
8. What is the role of excise taxes in preserving health?
9. What are the best practises in excise policy?

- **Research hypotheses:**

This research is based on a number of fundamental hypotheses, namely:

1. Excise taxes lead to a significant decrease in the consumption of harmful goods.
2. The effectiveness of excise taxes in discouraging harmful consumption increases with higher tax rates.
3. Excise taxes contribute to increasing public awareness of the harms of the targeted goods, which enhances their effect in discouraging harmful consumption.
4. Consumption of harmful goods decreases when their prices increase because of excise taxes.
5. Directing Excise taxes revenues towards health awareness programs contributes to enhancing their effect in discouraging harmful consumption.

- **Research Objectives:**

Based on the research questions, this research aims to:

1. Define and clarify the meaning of excise taxes.
2. Categorize and describe the different types of excise taxes and their practical applications.
3. Delineate and explain the main features of an excise tax.
4. Trace and document the historical development and evolution of excise taxes.
5. Determine and explain the base upon which excise taxes are levied.
6. Examine and describe the various rate structures employed in excise taxation.
7. Investigate and determine the allocation and utilization of excise tax revenues.

8. Evaluate and assess the role of excise taxes in promoting and preserving public health.
9. Identify and analyze best practices in excise tax policy design and implementation.

- **Research Importance:**

The importance of this research is shown in the following:

1. The research provides a valuable contribution to the field of selective taxes by providing a deeper understanding of the mechanisms and effects and providing practical evidence and recommendations to improve their effectiveness in achieving their objectives, taking into account the multiple economic and social impacts.
2. The research does not only describe selective taxes but rather delves into understanding how they affect the behaviour of consumers and producers.
3. The research explores the mechanisms that lead to changing consumption patterns, such as the impact of prices, the availability of alternatives, advertising, and psychological factors.
4. The research goes beyond direct economic impacts (such as government revenues) to include broader social impacts, such as public health, social inequality, and harmful consumption.
5. The research studies the unintended effects of selective taxes, such as increased smuggling or shifting to more harmful alternatives.
6. The research benefits from the experiences of different countries to understand best practice in implementing selective taxes.

- **Research Methodology:**

Given the nature of the research questions raised by the research, which address economic and social aspects related to selective taxes, the appropriate research methods include the descriptive analytical method and the comparative method, as follows:

1. **The descriptive analytical method:** to understand the nature of selective taxes, their characteristics, types, and effects.
2. **The comparative method:** to compare international experiences in implementing selective taxes, and to identify best practices and lessons learned.

- **Research Plan:**

This research is organized into three distinct sections to thoroughly address the research question, evaluate the hypotheses, and achieve the stated goals:

- Section I: An Overview of Excise Taxes.
- Section II: The Role of Excise Taxes in Preserving Health.
- Section III: Global Best Practices in Excise Tax Implementation.

Section I : An Overview of Excise Taxes :

1.1. Meaning of Excise Taxes:

Excise taxes are selective consumption taxes (1) levied on particular products or activities. The excise tax is added on top of other broad-based taxes like value-added taxes (VATs) or sales taxes (2). The selective nature of the excise taxes provides a narrow tax base. That narrow base must be justified by unique costs or considerations related to the taxed activity (3).

Excise taxes are a type of what have been traditionally referred to as indirect taxes: taxes that are levied on a transaction rather than directly on an individual or corporation. Excise taxes are narrow-based consumption taxes, in contrast to broad-based taxes like value-added taxes or sales taxes. Excise taxes can be gathered at different stages, including the production stage, the wholesale stage, or the retail stage (4). However, an excise tax that is levied at earlier stages in the production process has lower administrative costs and fewer opportunities for tax evasion (5).

(1) The form of taxation that is most common around the globe is the consumption tax, which is paid onindividual or household consumption of goods (and sometimes on services as well). Consumption taxes are frequently levied in the form of value-added tax, excise duty, and an import surcharge. Consumption taxes are the largest source of government revenue across the Organization for Economic Co-operation and Development (OECD). For more details see: Jonathan Gruber, "Public Finance and Public Policy", Worth Publishers, 4th Edition, 2021, p.525.

(2) Sales tax and Value-Added Tax (VAT) are both consumption taxes, but they differ significantly in their application. Sales tax is a single-stage tax imposed only at the final point of sale, meaning the end consumer pays it to the retailer. In contrast, VAT is a multi-stage tax collected at each phase of the supply chain, from production to distribution. Here, "value added" refers to the increase in the value of a product or service at each phase of production or distribution. For instance, if a fabric factory buys raw materials for $100 and sells the manufactured fabrics for $150, the added value here is $50. While businesses collect and remit VAT, they can reclaim the VAT they've paid on their own purchases, thus transferring the tax burden to the final consumer. Therefore, sales tax impacts the consumer once, while VAT is applied incrementally throughout the product's phases, resulting in a different collection and revenue flow for tax administrations.

(3) Adam Hoffer, "Global Excise Tax Application and Trends", Tax Foundation, Washington, Fiscal Fact,No. 810, Apr. 2023, p.2,

(4) J. Fred Giertz, "Excise taxes", The Encyclopedia of Taxation & Tax Policy. The Urban Institute Press, Washington D.C., 2005, p.125.

(5)Congressional Research Service, "Federal Excise Taxes: An Introduction and General Ana ysis", R43189, August 26, 2013, P.7. https://www.congress.gov/crs_external_products/R/PDF/R43189/R43189.4.pdf#:~:text=There%20are%20four%20common%20types%20of%20excise%20taxes%3A,taxes%20%28or%20user%20charges%29%2C%20and%20%284%29%20luxury%20taxes.

Excise taxes have been around for ages and are widely utilized by governments nowadays. The expansion of income tax and value-added tax in the twentieth century reduced the importance of excise tax as a revenue source for governments, yet most governments still gather substantial taxes on petroleum products, tobacco products, and alcohol [(1)].

There are four common types of excise taxes [(2)]:

1. Sumptuary taxes (or "Sin") [(3)]: They were traditionally applied for moral reasons, but are now rationalized, in part, to discourage a particular activity that is thought to have negative spillover effects (or "externalities") on society.
2. Regulatory or environmental taxes: they are levied to offset external costs related to regulating public safety or to discourage the consumption of a specific good that is thought to have commodity externalities in society.
3. Benefit-based taxes: they are imposed to charge users of a specific public good for financing and maintenance of that public good.
4. Luxury taxes: they are mainly imposed as a method to raise revenue, especially from higher-income households.

The most common kind of excise tax found in most countries is a tax imposed to modify the price of particular goods or services, so that the price more correctly reflects the true social cost of consumption. The pre-tax cost of tobacco products, for instance, reflects the cost of inputs, but does not reflect the social costs that

(1) James R. Hines Jr., "Excise Taxes", University of Michigan Ross School of Business, Office of Tax Policy Research, Product Number WP 2007-2, May 31, 2007, p.1.

(2) Congressional Research Service, Op. cit., p.1.

(3) Because "Sin taxes" are levied on activities like gambling, tobacco, and alcohol consumption, and are colloquially known as such because they are designed to punish consumers for what are perceived as "transgressions.".

result from diseases caused using tobacco. Likewise, alcohol, petroleum products and activities like gambling. An additional tax helps to modify the price of consuming these products, so that it reflects the social costs as well as actual inputs, arguably leading to more rationale consumption choices that take into account, by way of the tax, the wider implications of consumption (1).

Apart from the social good of discouraging consumption with negative externalities, excise taxes are often very important sources of public revenue because of the inelasticity of demand for the main goods subject to these taxes, alcohol, tobacco products and petroleum products (2).

Even though excise taxes are imposed on particular goods and services, the businesses that sell these products are typically the ones responsible for paying them. Nevertheless, businesses frequently pass the excise tax to the consumer by incorporating it into the product's final cost. For instance, when buying fuel, the price at the pump usually includes the excise tax (3).

To better understand this type of tax, we will review a set of definitions below that highlight its various aspects:

- Excise taxes are selective taxes on the sale or use of specific goods and services (4), such as alcohol and gasoline (5).
- Excise taxes are selective taxes on specific forms of consumption or behavior compared to general sales taxes which tend to apply to all forms of consumption, with some exceptions (6).

(1) Tax Policy Assessment Framework (TPAF), "Excises – TPAF". https://documents1.worldbank.org curated/en/650401625811200187/pdf/Excises-Tax-Policy-Assessment-Framework.pdf

(2) Ibid.

(3) Julia Kagan, "Excise Tax: What It Is and How It Works, With Examples", Investopedia, updated February 09, 2025, https://www.investopedia.com/terms/e/excisetax.asp

(4) In practice, excise tax is imposed on a limited range of goods, rarely on services.

(5) Ibid.

(6) Congressional Research Service, Op. cit., p.1.

- Excise taxes are taxes levied on specific goods such as alcohol, tobacco, fuel and luxury goods, and on activities such as gambling. They are indirect (collected by someone other than the government), often levied at the point of sale and included in the price of a product or activity. They can be applied to either domestically produced or imported goods.
- Imposed on the sale of specific goods or services, or on certain uses.

It is clear from the previous definitions that most of them limit the excise tax base to goods without services, despite the possibility of imposing them on some services. They also did not include the objectives of imposing excise taxes. Therefore, we can define Excises tax as an indirect tax [1] imposed on specific goods or services that are considered harmful to public health or the environment, or luxury goods, and are used by governments to achieve economic, financial, social and health goals.

1.2. Main Features of Excise Taxes:

Excise taxes have some unique features in comparison with other types of taxation. They are [2]:

1. Excise Tax is a tax on consumption. However, it is collected by businesses on behalf of the Tax Authority.
2. Excise tax is reported on a self-assessment basis, i.e. businesses submit Excise Tax returns periodically to the Tax Authority.

(1) Most taxation to improve health tends to be applied to goods and services called "indirect taxes" rather than on individuals, businesses, or households "direct taxes".

(2) Tax Policy Assessment Framework (TPAF), Op. cit. Tax and Legal Services PwC Middle East, Excise Tax - Frequently Asked Questions, https://www.pwc.com/m1/en/tax/documents/2017/excise_faqs.pdf

3. Excise tax is applied only to products and services rather than having broad coverage such as with a Value Added Tax (VAT) or a sales tax. As such they are discriminatory in intent and regressive in that the cost of goods or services bearing an excise tax bears more heavily on the poor citizens than on the rich citizens.
4. Excise tax is applied to products that are easy to identify, with a high volume of sales and with few substitutes for what are addictive or indispensable goods or services.
5. Excise tax is relatively inexpensive to administer as the taxes are collected early in the supply chain – usually from producers, at import or from service suppliers. In other words, it is a single-phased tax, imposed once at import or at production stage within the country.
6. Over recent decades, excise tax has been used to impact consumption behavior or to compensate for the negative impacts of their consumption.

Excise taxes on products are typically also subject to very close administrative controls, including [1]:

1. Registration/licensing as an excise operator before the production, operation on or storage of excise products tax unpaid. In many cases, the transporters of goods under bond are also required to be licensed by the revenue authority.
2. Manufacturing premises, machinery, other equipment and storage facilities should be approved by the revenue authority.

(1) Tax Policy Assessment Framework (TPAF), "Excises – TPAF". https://documents1.worldbank.org curated/en/650401625811200187/pdf/Excises-Tax-Policy-Assessment-Framework.pdf

3. Bonds or financial security are required as a condition of being granted approval to produce, operate on or store excisable goods tax unpaid.

1.3. History of Excise Taxes:

The history of excise taxes dates back at least 5000 years. The earliest documented tax was in ancient Egypt around 3000 B.C. The primary focus of Egyptian tax collection was an excise tax on the quantity of grain produced, but taxes were also imposed on heads of cattle and liquid measures of oil and beer (1).

Thousands of years later, in his famous book "An Inquiry into the Nature and Causes of the Wealth of Nations," *Adam Smith* gave favorable mention to excise taxation: "Sugar, alcohol, and tobacco are commodities which are nowhere necessities of life, which became objects of almost universal consumption, and which are therefore extremely proper subjects of taxation." This quote might seem like a recommendation to use excise taxes to raise general revenue, and *Adam Smith* is often invoked to support that argument, but it is not that simple. The book was written at a time when countability and measurability were essential, a quality these products shared with other tax bases. Moreover, Smith highlights that these products are suitable for taxation because they are of almost universal consumption (2).

Excise taxes first appeared in Western Europe in the early 17th century. The British Empire depended on land taxes, customs duties, stamp duties, and excise taxes- not income taxes, general sales taxes, or many of the other taxes we are familiar with today (3).

The Frist excise tax imposed in the U.S. was on the production of whiskey in 1791. The tax was unpopular, famously sparking

(1) Adam Hoffer, Op. cit., p.3-5.

(2) Adam Smith, "An Inquiry into the Nature and Causes of The Wealth of Nations" Cambridge, MA: Harvard University Press, Mar. 9, 1776, P. 399.

(3) Ulrik Boesen, "Excise Tax Application and Trends" Tax Foundation, March 16, 2021, https://ta foundation.org/research/all/federal/excise-taxes-excise-tax-trends/

insurrectionary activities among farmers in Western Pennsylvania, and only lasted until 1802. In the early years of the Republic, excise taxes served as a revenue tool related to wars and economic recessions. As late as 1934, during the Great Depression, excise tax revenues constituted almost half of the federal government's total tax revenue and generated three times more than the individual income tax. Today, there are federal excise taxes on alcohol, tobacco, and motor fuel, among other products, services, and activities, in addition to a broad array of state excise taxes, although their contribution to overall federal revenue is significantly reduced (1).

Finally, the application of excise taxes can be examined through the perspective of British economist *Arthur Cecil Pigou* who, in his famous book "The Economics of Welfare (1920)," argued that taxes on certain externality-causing goods or activities could be a means to internalize those negative externalities, meaning that their cost would be borne by those responsible for them. In contemporary times, at least 170 countries around the globe impose some form of excise tax. Modern excise taxes appear in various forms (2).

1.4. Excise Taxes Base:

The first question in tax design (3) should be what will be taxed. The total amount of income, property, assets, consumption, transactions, or other economic activities subject to taxation is known as the tax base. For excise taxes that target harm-generating products, the tax base should focus on the harm or external cost-causing components. Focusing on the harm-causing component allows market participants to "internalize the externality" or

(1) Ulrik Boesen, "Excise Tax Application and Trends" Tax Foundation, March 16, 2021, https://ta foundation.org/research/all/federal/excise-taxes-excise-tax-trends/

(2) Adam Hoffer, Op. cit., p.3.

(3) Tax design refers to the process of structuring a tax system to achieve a particular fiscal, economic, and social objectives. It includes determine the base, rate, and structure of taxes, making sure they are efficient, equitable, and administratively feasible.

incorporate any external effects into their decision-making. For example, a tax on carbon emissions can price in external damages from pollution and climate change into energy consumption and production decisions (1).

Quantity-based specific taxes also help better align the tax base to the tax's objective than ad valorem taxes do for both user fees and externalities. The number of gallons of gasoline consumed better approximates road usage and emissions produced than the price paid per gallon. Similarly, the number of cigarettes smoked, or the amount of alcohol consumed has a much clearer connection to any harm caused by this consumption than the retail sales price of the products. Specific taxation is often simpler because the tax can be calculated based on weight, volume, or quantity instead of an estimated value (2).

Historically, excise taxes have focused on a limited range of goods, often known as "sin taxes"(3) or necessities. These traditional categories mainly include alcohol, tobacco, and fuel. These items were targeted due to their potential negative effects on public health or the environment, as well as their relatively inelastic demand, making them dependable sources of government revenue.

However, the modern economic and social landscape has required the expansion of excise tax categories. Emerging concerns

(1) Adam Hoffer, Op. cit., p.8-9.

(2) Adam Hoffer, Op. cit., p. 9.

(3) Some economists refer to 'excise tax' as a 'health tax' because it is imposed on commodities that are harmful to health and the environment. The aim is to discourage consumption of these commodities, thus promoting healthier consumption patterns and reducing the burden on healthcare systems. Moreover, the revenue generated can be used to fund public health initiatives. See, for example: Jake Beech, et al., "What role do taxes and regulation play in promoting better health? The King›s Fund, March 2020. https://assets.kingsfund.org.uk/f/256914/x/5016d2a134/what_role_do_taxes_regulation_play_better_health_2020.pdf and Tedros Adhanom Ghebreyesus, "Health taxes for healthier lives: an opportunity for all governments" Health taxes for healthier lives: an opportunity for all governments | BMJ Global Health

like climate change, public health crises related to high sugar consumption, and the rise of new consumer products have led to the introduction of new excise taxes. These modern categories include items such as carbon emissions, sugar-sweetened beverages, carbonated and energy drinks, cannabis, single-use plastics, vaping products, ride-sharing services, and digital services. This evolution reflects a shift towards using excise taxes to address wider societal problems and to capture revenue from rapidly growing sectors.

1.5. Excise Taxes Rate:

After a suitable tax base has been established, the next element of tax design is choosing the tax rate, which can be defined as the percentage applied to a specific value to calculate the sum of tax due. The tax rate can vary depending on the type of tax (1), and the level of income or the value of goods or services.

Ramsey (1927) (2) initiated the modern theory of optimal taxation with his analysis of excise tax in a model with identical consumers, finding that, far from being uniform, optimal excise tax rates vary inversely with elasticities of demand for taxed products. Ramsey's setup restricts the government from raising a particular amount of revenue exclusively with excise taxes, and the resulting optimal tax model reflects that the excess burden of a tax increases with its behavioral effect (3).

In general, an excise tax rate can be applied in one of two ways (4):

(1) Such as income tax, sales tax, value added tax, or corporate tax.

(2) Frank Plumpton Ramsey (1903 –1930) was a British philosopher, mathematician, and economist who made major contributions to all three fields (Philosophy - Mathematics - Economics) before his death at the age of 26.

(3) Ramsey, Frank P., "A contribution to the theory of taxation", Economic Journal, Vol. 37, No. 145 (March 1927), pp. 47-61.

(4)United Nations Development Programme (UNDP), "Policy Brief: Pro-poor Taxes for Sustainable D velopment Financing", November 15, 2022, p. 2 and J. Fred Giertz, Op. cit., p.125. James R. Hines Jr., Op.cit., p.1.

1. Per unit excises (also known as specific excises) are based on quantity, such as per cigarette stick or pack regardless of the price, tax is expressed in terms of money per physical unit produced or sold.
2. Ad valorem excises are based on a percentage of the value of the product or service sold, such as a percentage of the manufacturer's price.

Economists believe that per-unit excise taxes are more suitable when marginal consumption of the targeted good is thought to be harmful. For instance, taxes on cigarettes are imposed per unit sold due to the alleged spillover effects of smoking (such as second-hand smoke) that occur with every pack consumed. The excise tax on gasoline is imposed per gallon sold because the quantity of gasoline used serves as a rough estimate of how much driving a person does, and consequently, how much wear and tear a driver would levy on governmentally managed highways. However, there are counterarguments to these rationales for per unit taxes. Per-unit taxes can lead to issues regarding both vertical and horizontal equity. Additionally, since per-unit taxes are frequently set at static rates in statute, these rates often fall in inflation adjusted (or "real") terms [(1)].

On the other hand, ad valorem tax rates mainly avoid an actual decrease in value as they are applied according to the price of goods or activity rather than the amount consumed or produced. Ad valorem rates can also be more progressive than per-unit rates, especially if the goods taxed are luxury commodities (whereby demand rises more than proportionally as income rises). However, ad valorem rates also have the capability to be regressive if the consumers of the goods are not limited to those in the higher end of the income distribution [(2)].

(1) Congressional Research Service, Op. cit., p.5.
(2) Congressional Research Service, Op. cit., p.5.

The excise tax rate should be determined by several factors [1]:

1. The negative externalities or costs the tax aims to internalize or recoup. Accurate individual-specific estimates of social costs are difficult, so we often rely on estimates of average social costs. Economic theory suggests that the excise tax rate should be set at a level that offsets the negative costs of that consumption to society.
2. Market conditions play a specifically important role for goods that compete with the illicit market. For instance, tobacco retailers not only compete with each other, but also with illegal operators.
3. Available economic substitutes are important because a tax that has a narrow base will not be neutral and simple consumer substitution might negate the intended benefits of the tax. For instance, excise taxes applied on soda [2] with the aim of decreasing total caloric consumption and reducing public health expenses related to obesity. However, Academic studies find that after a soda tax, people consume less soda but switch to other options, not reducing their overall caloric consumption.
4. As lawmakers decide on tax rates, they should take into consideration the total tax burden for their citizens. Excise taxes are usually levied in addition to individual taxes and corporate income taxes, general sales taxes, property taxes, and other types of taxes. Due to the narrow base, excise taxes make poor tools for funding broad government expenditures. Even

(1) Adam Hoffer, Op. cit., p.10-11, Congressional Research Service, Op. cit., p.5-6, and Tax Pol cy Assessment Framework (TPAF), "Excises – TPAF". https://documents1.worldbank.org/cura eden/650401625811200187/pdf/Excises-Tax-Policy-Assessment-Framework.pdf

(2) A soda tax is an excise tax on sugary drinks. This tax is added to the price of sugary drinks, and it is d signed to make these drinks more expensive, thereby encouraging people to choose healthier altern tives.

where an excise tax is economically rationalized, excessive taxes on businesses can impair economic growth, job creation, and wages. However, excise tax policies on goods should be designed Considering that high tax rates lead to evasion either through undeclared production or illegal imports and ghost exports. High tax rates need to be countered with strong enforcement to maintain the credibility of the tax and guarantee an acceptable proportion of revenue due is collected.

1.6. Allocation of Excise Taxes Revenue:

The dual aims of excise taxes are, in a way, fundamentally contradictory: one target, raised revenue, is more likely to be accomplished if the consumption of taxed products rises, while the other, improved health outcomes, necessitates that consumption be decreased (1).

One of the key principles of public finance is the non-allocation of public revenues, including tax revenues. However, practical reality sometimes involves deviations from this rule, leading to the earmarking of specific revenues for certain purposes. This can be observed with excise taxes.

Earmarking is the practice of dedicating tax or other revenues to a particular program or purpose. This approach typically involves depositing tax or other revenues into a special account from which the legislature appropriates money for the specified purpose (2). In other words, the earmarking of taxes refers to the assignment of funds—either from a single tax base or from a broader pool of revenues—to a specific end use. This approach may be compared

(1) Richard M. Bird, "Tobacco and Alcohol Excise Taxes for Improving Public Health and Revenue Ou comes: Marrying Sin and Virtue? ", World Bank Group, Governance Global Practice Group & Health Ntrition and Population Global Practice Group November 2015, Policy Research Working Paper 7500 p.19. file:///C:/Dr.Ahmed/English%20research/2%20The%20Effectiveness%20of%20Excise%20Taxes%2in%2Discouraging%20Harmful%20Consumption/2-%20References/38-%20WPS7500.pdf

(2) Joel Michael, "Earmarking State Tax Revenues", Minnesota House of Representatives, Research Deparment, August 2015, p.1-2. https://www.house.mn.gov/hrd/pubs/earmarking.pdf

with general fund financing, whereby expenditure is covered from consolidated receipts (1). This can be achieved by statute or in the constitution.

Earmarking provisions are a widespread fiscal phenomenon in both developed and developing countries and are even written into several constitutions.

There are proponents and opponents earmarking excise taxes. Personally, I support the opposing viewpoint, which rejects earmarking and respects the principle of non-allocation of revenues. This principle is vital to sound financial management, as it guarantees budget flexibility and the government's capacity to respond to changing priorities. Moreover, earmarking revenues can result in a distortion of spending priorities, where funds are directed to specific areas regardless of actual need. Additionally, earmarking revenues can create a false sense of accountability, where the public assumes that funds are being spent effectively simply assigned to a particular purpose, and this may not always be the case. Instead of earmarking revenues, accountability and transparency can be achieved through strong oversight and control mechanisms for the entire budget (2).

Some suggest that earmarking is suspected in the case of tobacco, alcohol, or sugar excise tax. It would be challenging to isolate health expenditures on tobacco-, alcohol-, and obesity-related diseases and finance them by excise taxes because moderate smokers, drinkers, and sugar consumers would be asked to cover the health and other social costs attributable to abusive consumers (3).

(1) Ranjit S. Teja, "Earmarking State Tax Revenues", Staff Papers (International Monetary Fund), Vol. 35, No. 3 (Sep. 1988), pp. 523-533, Published By: Palgrave Macmillan Journals, p.523. https://www.jstor orgstable/3867185

(2) For further details, see e.g. Ranjit S. Teja, "Op. Cit, p.523-524. Joel Michael, Op. Cit. p.2.and Sijbren Cnossen, "Excise Taxation to Preserve Health and To Protect the Environment: A Review", canadian tax journal / revue fiscale canadienne (2022) 70 (supp.), 84-159, P.169- 170. https://doi.org/10.32721 ctj.2022.70.supp.cnossen

(3) Sijbren Cnossen, "Excise Taxation for Domestic Resource Mobilization" CESifo Working Paper, No. 8442, Center for Economic Studies and Ifo Institute (CESifo), Munich, 2020, p.16.

As for those who support increasing excise taxes on harmful goods on health grounds, they often argue that the proceeds of such taxes should be earmarked to finance health expenditures, especially for the poor, who are usually most affected by such taxes, or perhaps other health-focused activities such as anti-tobacco education and advertising. While many countries with high excises do not earmark the revenues from these taxes [1].

(1) Richard M. Bird, Op. cit., p.19.

Section II : Role of Excise Taxes in Preserving Health .

Excise taxes are increasingly utilized as a tool to protect and promote public health. This section will explore their role in discouraging the consumption of harmful products. We'll examine both traditional targets like alcohol, tobacco, and fuel, and the emergence of new categories, including carbon emissions, sugar-sweetened beverages, single-use plastics, and digital services, reflecting evolving societal concerns:

1. Traditional Excise Categories:

1.1. Alcoholic beverages:

Taxes on alcohol are among the oldest taxes on record. Beer was listed as a taxable commodity in ancient Egyptian tax records. British excise taxes on tables beer and brewing hops date back to 1643, where the tax on beer was typically notable because these policies were a direct reversal of statutory price controls in the earlier medieval and early modern times (1). United States can trace its beer taxes back to colonial times when New Amsterdam (now New York) governors began to impose taxes on beer. In 1644, the tax amounted to 80 cents on each half barrel of beer consumed; half was paid by the brewer and half by the retailer (2).

In countries where alcoholic beverages are not prohibited on religious grounds, alcohol tends to permeate the entire culture, it is consumed before, during, and after meals, when celebrating a birth and when mourning, to socialize or unwind, or to just get drunk (3).

(1)Henry Yeomans, "Taxation, State Formation, and Governmentality: The Historical Development of Alcohol Excise Duties in England and Wales," Cambridge University Press, Social Science History, Vol. 42, No. 2 (Summer 2018), pp. 269-293, https://www.jstor.org/stable/90020349

(2)The Oxford Companion to Beer definition of Manhattan, New York," Craft Beer&Brewing, https:/beerandbrewing.com/dictionary/aSv1o5A40M/

(3) Sijbren Cnossen, Op. cit., p.13.

In Arab nations, the religious principles (1) and cultural values are reflected in policies related to alcohol consumption as well as the prevailing tax rates on alcoholic drinks. Alcohol consumption is forbidden and illegal in Saudi Arabia and Kuwait, and there are restrictive policies to limit consumption in Egypt, the UAE, Qatar, Bahrain, and Oman. Alcohol consumption in the Arab nations is significantly lower than the global average (2). Given the unique context in the region, there is limited information available on alcohol consumption within the population. However, the health and societal consequences of the harmful use of alcohol are a public health concern (3).

Heavy drinking can lead to aggressive behavior, accidents, and harmful health effects (such as organ damage and birth defects). Globally, the harmful consumption of alcohol results in the deaths of 5 million people each year, including 320,000 young people aged 15 to 29 (4). Alcohol is the third leading risk factor for poor health (as mental health issues and liver cirrhosis, for instance), contributing up to 5.1 percent of the worldwide burden of disease and injury (5).

(1) The ruling on drinking alcohol in Islamic Sharia is prohibition. This prohibition is based on several reasons and pieces of evidence from the Holy Quran and the Sunnah (teachings and practices) of the Prophet Muhammad, peace be upon him. Among the most prominent of these reasons are preserving intellect, preventing health harms, averting social evils, and safeguarding money. Explicit texts in the Holy Quran prohibit drinking alcohol, such as Surah Al-Maaida (90) the meaning of the verse is: "O you who have believed, indeed, intoxicants, gambling, [sacrificing on] stone alters [to other than A lah], and divining arrows are but defilement from the work of Satan, so avoid it that you may be su cessful,. Additionally, numerous prophetic hadiths (sayings of the Prophet Muhammad) prohibit alc hol and consider it one of the major sins."

(2) United Nations Development Programme and the World Health Organization, "Strengthening taxes on unhealthy products in the Gulf States", A synthesis of six Gulf Cooperation Council country r ports., 2024, p.12.https://www.undp.org/sites/g/files/zskgke326/files/2024-09/ghc_health_tax_synth sis_report.pdf

(3) United Nations Development Programme and the World Health Organization, Op. cit., p.13.

(4) World Health Organization, "Alcohol—Key Facts" May 9, 2022. https://www.who.int/news-room/fact sheets/detail/alcohol

(5) Sijbren Cnossen, "Excise Taxation to Preserve Health and To Protect the Environment: A Review" c nadian tax journal / revue fiscale canadienne (2022) 70 (supp.), p.173. Excise Taxation To Preserve Healthand To Protect the Environment: A Review

Certain studies document the effect of increased taxes and prices on reducing damage from heavy drinking, including motor vehicle accidents and fatalities; deaths from liver cirrhosis, alcohol addiction, and other diseases caused by heavy drinking; incidence of sexually transmitted infections; crime and violence; and workplace accidents (1).

Several studies find an inverse relationship between prices and drinking rates, frequency, and intensity. One review found an average elasticity of -0.28 for excessive drinking. Another study linked higher taxes and prices with reductions in binge drinking and other forms of heavy drinking. Heavier drinkers seem to be less sensitive to price changes than light or moderate drinkers. Regarding heavy drinking, studies show that young men are more responsive to price changes than young women. We lack evidence of differences in alcohol price elasticity by socioeconomic status (2).

Finally, health benefits may indirectly stem from the role potentially played by taxes as incentives for product reformulation. For example, in 2012, several beer manufacturers in the United Kingdom reduced the alcohol content of their brands sold in the UK by 0.2% to avoid a rise in duties (3).

(1) Alexander C Wagenaar 1, Amy L Tobler, Kelli A Komro, "Effects of Alcohol Tax and Price Policies on Morbidity and Mortality: A Systematic Review", Am J Public Health. 2010 Nov;100(11):2270–2278.

(2) Elder RW, Lawrence B, Ferguson A, Naimi TS, Brewer RD, et al. 2010. The effectiveness of tax policy interventions for reducing excessive alcohol consumption and related harms. Am. J Prev.Med.38(2):217 29, and Wagenaar AC, Salois MJ, Komro KA. 2009.Effects of beverage alcohol price and tax levels on drinking: a meta-analysis of 1003 estimates from 112 studies. Addiction 104:179–90.

(3) Franco Sassi, Annalisa Belloni and Chiara Capobianco, "The Role of Fiscal Policies in Health Pr motion", OECD Health Working Papers No. 66, 11-Dec-2013, p.17. file:///C:/Users/AHMED%20PC Downloads/5k3twr94kvzx-en.pdf

1.2. Tobacco products:

The Islamic Sharia's stance on smoking is prohibition, due to the health, financial, and social harms it involves. Scholars have based their prohibition of smoking on a set of Sharia evidence, including health harm, financial harm, and social harm [1].

The World Health Organization (2019-2020) considers smoking as a deadly disease, that ranks among the five primary health risk factors. Globally, tobacco kills over 8 million individuals every year, with one in six fatalities resulting from exposure to second-hand smoke. Four out of five smokers live in low- and middle-income countries. Cigarette smoking is the most prevalent form of tobacco use, but other tobacco products are also harmful, including waterpipe tobacco, pipe tobacco, various smokeless tobacco items, cigarillos, cigars, roll-your-own tobacco, bidis, and kreteks [2].

Smoking is a major cause of numerous serious health problems, including lung cancer, emphysema, chronic bronchitis, heart disease, and stroke, and presents significant risks during pregnancy, such as low birth weight and infant mortality. These health impacts result in significant economic costs, covering both the direct costs of treating smoking-related diseases and the indirect costs of lost productivity and earnings due to illness and premature death.

(1) See:
Surah Al-Baqarah:195, the meaning of the verse is: "And spend in the way of Allah and do not throw [yourselves] with your [own] hands into destruction [by refraining]. And do good; indeed, Allah loves the doers of good."
Surah Al-Isra: 26-27, the meaning of the verses is: (26) And give the relative his right, and [also] the poor and the traveler, and do not spend wastefully. (27) Indeed, the wasteful are brothers of thedevils, and ever has Satan been to his Lord ungrateful.
The saying of the Prophet Mohamed, peace and blessings be upon him: "There should be neither harming nor reciprocating harm" (Narrated by Ibn Majah and Ahmad).
The saying of the Prophet Mohamed, peace and blessings be upon him: "A Muslim is the one from whose tongue and hand the Muslims are safe" (Narrated by Al-Bukhari and Muslim).

(2) Sijbren Cnossen, Op. cit., p.14.

Smoking among pregnant women is especially price responsive; in general, prevalence elasticities are 2–3 times those for adults. Therefore, higher taxes and prices decrease low-birthweight births, sudden infant death syndrome, and overall infant mortality [1].

The World Bank conservatively estimated that a sustained real price rise of 10% for tobacco products would result in 40 million people globally quitting smoking and discouraging many more from starting the habit. This price rise alone would prevent 10 million premature deaths, or 3% of all tobacco-related deaths. Four million of the premature deaths avoided would be in East Asia and the Pacific region. Numerous model-based studies have produced similar findings on the health impacts of tobacco taxes. A dynamic computer simulation study indicated that a price rise of at least 20% in California may decrease smoking prevalence from 17% to 11.6%, with a gain of almost 16 million QALYs over 75 years. A study based on data from 1954 to 2005 found a long-term relationship between respiratory cancer mortality and cigarette taxes, due to higher prices leading people to quit smoking [2].

While some argue that smokers' shorter lifespans might reduce long-term costs associated with pensions and elderly healthcare, studies indicate that these apparent savings are outweighed by the immense value of lost life years. To address this, excise taxes are crucial tools for internalizing the external and internal costs of smoking [3].

The World Health Organization recommends a 75% total tax burden on cigarettes to effectively decrease consumption.

(1) Frank J. Chaloupka, Lisa M. Powell, and Kenneth E.Warner, "The Use of Excise Taxes to Reduce T bacco, Alcohol, and Sugary Beverage Consumption", Annual Review of Public Health · April 2019, p.190.https://www.researchgate.net/publication/330099192_The_Use_of_Excise_Taxes_to_Reduce Tobacco_Acohol_and_Sugary_Beverage_Consumption#fullTextFileContent

(2) Franco Sassi, Annalisa Belloni and Chiara Capobianco, Op. cit., p.16.

(3) Sijbren Cnossen, Op. cit., p.15.

Nevertheless, many countries, including the United States, have tax levels significantly below this target, indicating potential for increased revenue and better public health through higher excise taxes. However, raising excise taxes can lead to challenges like tax evasion through smuggling and counterfeit production. Thus, it is important to consider the tobacco excise tax structure, ensuring that all tobacco products, including cigars and roll-your-own tobacco, are appropriately taxed based on their external costs, rather than other product attributes (1).

Therefore, taxes and prices are essential tools governments use to reduce tobacco consumption. Studies have shown that increased prices result in a decrease in the demand for tobacco products, which benefits public health. In this context, we will present the results of several studies that have highlighted this significant connection (2):

- Studies worldwide show that higher tobacco prices, primarily through taxes, reduce demand.
- Price elasticity (how much demand changes with price) for cigarettes is around -0.4 in high-income countries and -0.5 in low- and middle-income countries.
- Other tobacco products are generally more price-sensitive than cigarettes.
- Consumers switch between tobacco products based on relative price changes and income levels.
- Lower socioeconomic groups are more responsive to price changes.
- Increased tobacco taxes and prices lead to reduced smoking-related diseases, premature deaths, hospitalizations, and improved health outcomes.

(1) Sijbren Cnossen, Op. cit., p.15-16.

(2) Frank J. Chaloupka, Lisa M. Powell, and Kenneth E.Warner, Op. cit., p.189-190.

1.3. Fuel:

Given the importance of fuel in the economy and its impact on health and environment, many countries impose excise taxes on various types of fuel. These taxes aim to generate government revenue and encourage responsible consumption, while considering the difference in fuel uses and their impacts. Therefore, fuels are categorized based on material specifications and product uses.

Transportation fuel taxes have existed since the early 20th century. Initially designed as a specific revenue-raising tool, contemporary fuel taxes serve multiple purposes. Fuel taxes function as a user fee for road usage, fund road construction and maintenance, discourage traffic congestion, incentivize the use of public transportation, and address environmental concerns [1].

Originally, taxes on petroleum products mainly focused on fuels used for transportation, like gasoline and diesel for cars, and sometimes included alternatives like LPG[2] for vehicles, or fuels for aircraft and ships. Occasionally, these taxes also covered kerosene used for household purposes such as cooking.

The motor fuel tax is relatively well structured to capture many of the negative externalities caused by driving petroleum-powered vehicles. From the Pigouvian viewpoint, the motor fuel tax is one of the most effective policy options to internalize the externalities associated with automotive transportation [3].

The base of the fuel excise tax is the volume of the fuel, which is related to the social harm that its consumption causes- pollution (such as traffic congestion) and associated harmful effects of greenhouse gases. Since the social harm can differ with the type of fuel, the excise on fuels usually varies with the type of fuel and is imposed on a volume basis. However, for many fuels and in many

(1) Adam Hoffer, Op. cit., p.27.

(2)LPG: Liquefied Petroleum Gas.

(3) Amir El-Sibaie, "Electric Vehicles Will Have a Long-Term Impact on the Gas Tax," Tax Foundation, Feb. 12, 2018, https://taxfoundation.org/blog/electric-vehicles-gas-tax/

countries, the excise does not cover the carbon price, which is the social cost due to the greenhouse gas emissions resulting from its use. Consequently, some countries impose a carbon tax in addition to a fuel excise [1].

In almost all countries, diesel fuel is taxed at a lower rate than gasoline, this reflects the policy maker's concern about the effect of high diesel excises on the cost of industry and agriculture, and on the use of diesel fuel in commercial vehicles. Though there is no justification for imposing revenue-raising excises on intermediate uses of diesel, diesel-powered commercial vehicles, as well as diesel used in industrial and agricultural machinery, should always bear appropriate externality-correcting taxes, because the latter should be passed on in price if the fuel excise is to perform its economic role. Diesel-powered vehicles and machinery emit particulates, which can cause health problems such as respiratory ailments and cancer, especially in urban areas [2].

The taxes had various goals. While they were mainly described as taxes to discourage consumption of goods with significant negative externalities, it was recognized that for many users, the consumption of petroleum products was very inelastic, allowing these goods to bear relatively high taxes and be seen as a stable revenue source. Price increases because of excise taxes were shown to affect behavior—consumers sought vehicles with more efficient engines and lower fuel consumption, were willing to drive at lower speeds, and adjusted travel patterns to lower reliance on fuel. However, the effect was not sufficient to significantly impair tax revenue [3].

Fuel utilized for domestic purposes is also relatively inelastic, and the main goal of an excise tax on this product can be viewed as

(1) Tax Policy Assessment Framework (TPAF), Op. cit., p.9.

(2) Sijbren Cnossen, Op. cit., p.24-25.

(3) Tax Policy Assessment Framework (TPAF), Op. cit., p.10.

revenue raising, despite the clear connection between consumption and pollution. This excise tax is typically regressive, as it impacts lower-income households disproportionately in relation to their income and ability to bear taxation (1).

Recently, as the connection between fuel use and global warming became clearer, governments introduced various excise taxes on carbon-intensive products like natural gas and coal, often alongside existing fuel taxes.

1. New Excise Taxes and Trends:

The base of excise taxation is experiencing significant transformation, driven by evolving social priorities and the emergence of new economic sectors. We are observing an increasing trend of focused imposition designed to reduce public health risks, encouraging environmental sustainability, and taxing digital services.

1.1. Carbon:

The long-term stability of the climate depends on the balance of Earth's radiation. Radiation comes from the Sun and is reflected by the Earth by emitting outgoing longwave radiation. Greenhouse gases act as insulators to longwave radiation emitted from the surface. This is known as the natural greenhouse impact and is the reason the Earth's surface is warm enough to sustain life. Carbon dioxide is a naturally occurring greenhouse gas. Through the carbon cycle, the Earth keeps a balance of Carbon dioxide in the atmosphere. Natural emissions are kept balanced because processes that generate emissions of Carbon dioxide, such as the respiration of humans and animals, and decomposition, are compensated by emission capturing processes, including photosynthesis and emissions absorbed by the ocean (2).

(1) Ibid, p.10.

(2) United Nations, "Handbook on Carbon Taxation for Developing Countries", New York, 2021. P.16-17.

Besides natural processes, Carbon dioxide can also be produced by human activities, most especially the burning of fossil fuels [1]. These emissions are called "anthropogenic". Since the industrial revolution, human activities have caused a significant increase in carbon emissions in the atmosphere, which has disturbed the Earth's natural balance. Carbon emissions concentrate in the Earth's atmosphere, exacerbating the natural greenhouse effect by trapping heat. This phenomenon, known as global warming, is causing the Earth to warm faster than normal [2].

The fragmented policy approach has yielded, unsurprisingly, inconsistent outcomes. Many policies, including tax credits for alternative fossil fuels, green energy subsidies, and energy efficiency standards for appliances and automobiles, help decrease carbon emissions, but often at a high cost for a small environmental gain. One policy that could internalize the social costs in a neutral manner would be to impose a tax on carbon [3].

Carbon tax is a main instrument for reducing greenhouse gas emissions that cause global warming. However, its adoption has been limited because of concerns over its impacts on income distribution, economic growth, and international competitiveness. Yet, policymakers can reduce the impacts of the tax on economic growth through an efficient recycling of tax revenues and on equity through the adoption of appropriate mitigating or Compensating measures [4].

A carbon tax is considered a cost-effective carbon pricing tool, owing to a fixed price (tax rate) set for carbon emissions, relatively straight-forward compliance costs in most cases, and

(1) Defined to include gasoline, diesel fuel, dual-use kerosene, natural gas, and coal.

(2) United Nations, Op. cit., P.17.

(3) Adam Hoffer, Op. cit., p.27.

(4) Javier Cuervo' and Ved P. Gandhi, "Carbon Taxes: Their Macroeconomic Effects and Prospects for Global Adoption- A Survey of the Literature", International Monetary Fund, Fiscal Affairs Depar ment, 1998, p.1.

predictable market results. Carbon taxes, whether imposed on the upstream or downstream level of the fossil fuel supply chain, can set clear price signals to accelerate transition towards a low-carbon economy, Yet the feasibility and implications of carbon taxation are mostly dependent on country-specific political, economic and development aims (1).

A carbon tax would also raise costs of goods and services, leading to concerns over distributional effects on households, business competitiveness and emissions leakage. Thus, to secure political and public acceptance, a carbon tax must ensure equality, transparency, clear communications, and affordability for communities and businesses. In addition to promoting transparency and effectiveness in evaluating climate outcomes of a carbon tax, governments can consider employing digital technologies, which may require specific technical and regulatory abilities (2).

1.2. Sugar and Sugary Drinks:

Sugar-sweetened beverages (SSBs) include a wide range of drinks containing added sugar, such as energy drinks and carbonated soft drinks, which contain high amounts of added sugar contributing to weight gain and other health risks. Additionally, this category includes sports drinks and canned juices, which often contain significant amounts of added sugar to improve flavor and improve taste. To reduce the consumption of these beverages, policies such as imposing taxes on them, restricting their marketing, providing healthy substitutes, and raising awareness about their risks are implemented. It is important to pay attention to these beverages and reduce their consumption to maintain good health and avoid the health risks associated with excessive sugar intake.

(1) UNDP, "Carbon Tax in an Evolving Carbon Economy: Policy Design & Digital Innovations", 2025, p.22.
(2) Ibid.

Excise taxes on sugar-sweetened beverages (SSBs) have been enacted to discourage consumption rather than to raise revenues [1]. The concern is the broad range of adverse health consequences from excessive consumption of sugar [2], as their excessive consumption is associated with tooth decay, being overweight, diabetes, and heart and vascular diseases, encouraging over 40 countries to adopt excise taxes on sugar-sweetened beverages [3].

If the aim of reducing sugar consumption is to be taken seriously, then the excise net must be cast broader than sugar-sweetened beverages. For this reason, various countries, including, Finland, Denmark, and Norway, have included free sugar (as opposed to intrinsic sugar) and confectionery in the excise tax base, in addition to sugar-sweetened beverages. Taxing free sugar serves as a final withholding tax on the sugar content of foodstuffs, which then need not be taxed separately. Considering a more extensive scope, the focus might be on a high fat, sodium, and sugar framework [4].

Consumers substitute among various beverage types in response to changes in relative prices, such as substituting milk and bottled water when soft drink prices increase. A few studies have concluded that beverage price increases lead to some substitution to foods, partly offsetting reductions in added-sugar and/or caloric intake from decreased consumption of higher-priced beverages. Recent study indicates that Sugar-sweetened beverages demand is more price responsive in lower income than in higher income populations [5].

(1) Sugar-sweetened beverage (SSBs) taxes are usually implemented as specific excise taxes. While a few countries integrate them into existing Value Added Tax (VAT) or customs tariffs, most directly tax the drinks. The tax is usually based on sugar content, though sometimes volume is used. While a single tax rate is common, some places employ tiered rates, charging more for drinks with higher sugar levels.

(2) Tax Policy Assessment Framework (TPAF), Op. cit., p.29.

(3) Sijbren Cnossen, Op. cit., p.174.

(4) Sijbren Cnossen, Op. cit., p.175.

(5) Frank J. Chaloupka, Lisa M. Powell, and Kenneth E.Warner, Op. cit., p.191.

Evidence suggests the taxes have been effective at decreasing consumption of these beverages; the outcome is attributed to three factors [1]:

1. While the drinks could be psychologically addictive, they are not physically addictive in the way that nicotine in cigarettes is, which makes it easier to reduce consumption of these goods and substitute less harmful consumption.
2. Jurisdictions have found that consumption of sugar sweetened beverages tends to increase as incomes fall, with lower income individuals' consumption proportionally more than higher income individuals, making the target consumers more susceptible to price rises and consequently more likely to change behavior.
3. The imposition of the taxes has often generated significant community discussion and debate, raising awareness of the health consequences of excessive sugar consumption. The awareness may work with the tax to reduce consumption.

Some countries impose this tax on manufacturers to encourage the producers of sugar sweetened drinks to reduce the sugar content or shift production to less harmful drinks.

On the other hand, a recent analysis of model-based studies concluded that taxes on soft beverages and foods high in fat, possibly combined with subsidies on fruits and vegetables, do have the potential to generate significant health benefits and decrease health disparities. A Danish study found that decreased VAT rates on fruits and vegetables and increased taxation of fats and sugar would decrease cardiovascular diseases and nutrition-related cancers in the adult population. Finally, two natural experiments were conducted in the United States, one found that states without a tax on soft beverages or snack foods were over 4 times as likely as states with either of those taxes to have experienced a relative

(1) Tax Policy Assessment Framework (TPAF), Op. cit., p.29.

rise in obesity rates in the top quartile, while states that repealed an existing tax were over 13 times as likely, although these differences were not statistically significant. On the other hand, a second study found that a 1% rise in taxes on soda vending machines was associated with a negligible reduction in BMI among adolescents at risk of being overweight [1].

1.3. Single-Use Plastics:

Plastic is a material that is very low cost, and it is so durable and easy to use that it has become ubiquitous in our daily lives, a seemingly ideal solution for a wide selection of uses. We produce more than 430 million tons of plastic each year. But the biggest problem is that two-thirds of that amount is for disposable products that quickly become waste, such as bottles, food trays, packaging films and tapes, rings, etc. 36% of plastic production goes into containers or packaging. This plastic pollution impacts seas, forests, and biodiversity, as well as affecting us, our health, and our capacity to produce food and ensure our well-being [2].

Plastics release methane and other gases harmful to the ecosystem as they degrade, and in landfill areas, these leaks eventually damage soil and groundwater. In the seas and oceans, microplastics are a critical threat to biodiversity, as is larger debris, such as discarded fishing nets and rings used in packaging, which becomes a death trap for many animals. But not only because of the product that becomes waste, but because plastic production is so resource- demanding that it effects the climate change crisis: use of crude oil and other fossil fuels, polluting emissions from the manufacturing process, etc [3].

(1) Franco Sassi, Annalisa Belloni and Chiara Capobianco, Op. cit., p.17.

(2) Redacción MAPFRE, "The plastic tax and how it benefits everyone". https://www.mapfre.com/en/insights/sustainability/plastic-tax-and-how-it-benefits-everyone/

(3) Ibid.

The use of single-use plastics has increased exponentially over the past few decades. Because the environmental costs of these goods are largely hidden to the business operator and consumer, little attention is paid to the quantity of packaging consumed and quickly thrown away.

In recent years, increasing public awareness of the issue of plastics pollution has led to the implementation of numerous waste prevention policies across the world. The complexity of the plastics value chain calls for the application of multiple policy instruments to address all the environmental externalities emerging through the life cycle, including market-based tools such as taxes. Taxes on plastic materials, certain types of plastics polymers or certain uses of plastics, this can help reduce unsustainable consumption of plastic materials. The application of taxes to single-use plastic items can help to increase the price of such items and therefore drive demand away from such items and result in substitutions. Well-designed taxes should lead to the use of more durable and/or more sustainable alternatives. Such alternatives could include redesigned plastic options e.g. more readily recyclable, compostable or conversely more durable plastic or non-plastic alternatives e.g. manufactured from wood, metal or glass [1].

Finally, it must be emphasized that the above-mentioned products are the most significant and hazardous to health and environment, and is not an exhaustive list of harmful products. The base of the excise tax can include any other products proven to be detrimental to public health or the environment. The competent authorities reserve the right to add or amend the list of products subject to the tax based on emerging studies and evaluations.

(1) OECD, "Taxes on single-use plastics", 2020.
file:///C:/Dr.Ahmed/English%20research/2-%20The%20Effectiveness%20of%20Excise%20Taxes%2in%20Discouraging%20Harmful%20Consumption/2-%20References/70-%20186a058b-en[1].pdf

Section III : Global Best Practices in Excise Tax Implementaion :

1. The Egyptian Model: Excise Taxes Incorporated into the Value Added Tax:

Egypt applies excise taxes, but not under a separate law. Rather, they are included under the name "Schedule Tax" attached to the Value Added Tax Law. The "Schedule Tax" is a part of the Value Added Tax Law in Egypt, which is imposed on specific goods considered harmful or luxury, such as tobacco and its products, energy drinks, and some other goods. As for the excise tax, it is an international concept that includes imposing taxes on specific goods for health, social, or environmental objectives. In Egypt, these objectives are achieved through the "Schedule Tax". Therefore, it can be said that Egypt applies excise taxes, but they are integrated into the Value Added Tax Law and not in a separate law.

- **Excise Tax: Integration in VAT Law or Independence?**

In this context, a question arises about the best way to apply excise tax: should it be integrated into the existing (VAT) law, or a separate law should be issued for it?

Each of these options has advantages and disadvantages that must be considered. Integrating the excise tax into the (VAT) law may simplify administrative procedures and improve collection efficiency, but it may also complicate the law and lead to ambiguity in its application. On the other hand, issuing a separate law for the excise tax may provide greater flexibility and clarity in application, but it may increase administrative procedures and costs.

In the Egyptian situation, it is evident that regulating the excise tax through a separate law represents the ideal choice. This

is based on the numerous advantages that this approach provides, which include clarity in application, flexibility in modification, and the ability to achieve the desired objectives of imposing the tax.

Issuing a separate law for the excise tax will enable the precise identification of products subject to the tax, the determination of suitable tax rates for each product, and the establishment of the essential administrative procedures for applying the tax. It will also provide the flexibility needed to adjust the tax in line with changing economic and social circumstances.

Also, regulating the excise tax through a separate law will contribute to achieving the health and environmental objectives for which the tax was imposed. For instance, this law can impose high tax rates on goods harmful to health, such as tobacco and soft drinks, to decrease their consumption. It can also levy taxes on environmentally harmful goods, such as plastic products, to encourage the use of environmentally friendly substitutes.

Furthermore, a separate law ensures Egypt's alignment with regional standards, especially after the GCC (1) countries implemented the excise taxes in accordance with the Common Excise Tax Agreement of the States of the Gulf Cooperation Council (GCC) (2), which enhances economic integration. Furthermore, the GCC countries' experience has proven that the excise tax contributes to increasing government revenues, from which Egypt can benefit in financing development projects and improving public services. Moreover, the law plays a vital role in reducing the consumption of goods that are harmful to health or the environment, such as tobacco and sugary drinks, by increasing

(1) GCC: Gulf Cooperation Council.

(2) For more information on this agreement, see: https://dhruvaconsultants.com/wp-content/uloads/2022/07/Common-Excise-Tax-Agreement.pdf

their prices, thus encouraging the adoption of healthier and more sustainable consumption patterns. This trend aligns with global efforts to reduce the negative effects of these goods on public health and the environment.

Therefore, issuing a separate law for the excise tax in Egypt will represent an important step towards achieving sustainable development goals, promoting public health, and protecting the environment.

1.1. The Meaning of Schedule Tax:

Under the Egyptian VAT Law No. (67) for the year 2016, an excise tax was introduced as special tax rates imposed on specific goods and services. The excise tax [(1)] should be imposed only once on the listed Goods and services, for instance professional services, construction services, processed potatoes. It should only be imposed once more if there was a change in product status. The excise tax is applied to specific listed items, while it could be applicable in addition to the normal 14% VAT on some other items for example air conditioners. The excise tax should not be considered as a recoverable input tax, nor should it be deducted against incurred input VAT, with very limited exceptions [(2)].

The schedule tax is a tax imposed at specific rates or fixed values on the sale or import of local or imported goods and services listed in the schedule attached to Law No. 67 of 2016, in addition to the tax stipulated in the first paragraph of Article 2 of this law, unless the schedule states otherwise [(3)].

(1) It is also called schedule tax or table tax.

(2) Worldwide Tax Summaries, "Egypt: Corporate - Other taxes", https://taxsummaries.pwc.com/egypt corporate/other-taxes

(3)https://www.a-h-g.net/ar/news/%D8%B6%D8%B1%D9%8A%D8%A8%D8%A9-%D8%A7%D9%84 D8%AC%D8%AF%D9%88%D9%84/

1.2. Provisions of Schedule Tax:

- This tax is imposed on the sale, performance, or import of goods and services, and the tax rate is according to the percentages or values specified for the goods and services listed therein, in addition to the tax stipulated in Article 2 of this law.
- The tax rate is (zero) on goods and services that are exported, according to the conditions and provisions specified by the executive regulations.
- This tax is not imposed again unless there is a change in the state of the goods. The packaging, repackaging, refining, purification, or grinding process is not considered a change in the state of the goods, without prejudice to the entitlement of the tax on the goods and services listed in the attached schedule, all unless the schedule states otherwise.
- The registered person has the right to settle the tax previously paid on parts of machines, equipment, and spare parts used in the production of goods and services subject to the schedule tax only from the value of the schedule tax within the limits of what is due until it is exhausted.
- The registered person has the right to settle this tax previously paid on sales returns from the schedule tax due according to the conditions and provisions specified by the executive regulations.
- This tax is due on the goods and services listed in the attached schedule once when the sale or performance of them occurs for the first time or when they are imported, without prejudice to the entitlement of the tax stipulated in the second chapter of this law.

- The provision of the first paragraph of this article applies to the goods and services listed in the attached schedule when they are disposed of in the form of free goods and services or promotional offers, and the value in this case is determined according to market forces and transaction conditions, and the executive regulations clarify the nature of promotional offers [1].

First: Goods and Services Subject to Schedule Tax Only:

There are goods and services subject only to the schedule tax, including:

- Tobacco, raw or manufactured, and its waste.
- Moassel (flavored tobacco).
- Gasoline.
- Fixed vegetable oils.
- Animal oils and fats.
- Snacks and flour-based confectionery, excluding all types of bread.
- Processed potatoes.
- Fertilizers and agricultural pesticides.
- Soap and detergents.
- Gypsum.
- Contracting and construction works.
- Air-conditioned transportation between governorates.
- Professional and consulting services.
- Media and program production, cinematic, television, documentary, and dramatic works for television, radio, and theatre [2].

(1) https://www.a-h-g.net/ar/news/%D8%B6%D8%B1%D9%8A%D8%A8%D8%A9-%D8%A7%D9%84D8%AC%D8%AF%D9%88%D9%84/

(2) https://www.a-h-g.net/ar/news/%D8%B6%D8%B1%D9%8A%D8%A8%D8%A9-%D8%A7%D9%84D8%AC%D8%AF%D9%88%D9%84/

(1)Table
Goods and Services Subject to Schedule Tax Only

No.	Item	Tax Treatment According to the Value Added Tax Law	
		Collection Unit	Tax Category
1	Tobacco:		
	A) Raw or Unmanufactured Tobacco, and Waste:		
	1- Tombac	Value	(100%) with a minimum of EGP 40 per kilogram (net).
	2- Others ..... (1, 2)	Value	(75%) with a minimum of EGP 30 per kilogram (net).
	B) Manufactured Tobacco Extracts and Tobacco Spirits:		
	1- Cigars, Pipe Tobacco, and Compressed Tobacco ...	Value	(200%) with a minimum of EGP 50 per manufactured kilogram.
	2- Toscanello Cigars (Cigars made with fire-cured black tobacco)	Value	(200%) with a minimum of EGP 35 per manufactured kilogram.

- A table prepared by the researcher of schedule goods and services annexed to the Value Added Tax Law (amended by Law No. 208 of 2017 - Official Gazette Issue 47 (continued) on November 23, 2017).

1) The importer is obligated to notify the Authority with a statement of the entities to which the tobacco was sold and how the imported tobacco quantities were disposed of, within fifteen days following the month in which the sale occurred.

2) The schedule tax collected on this item is settled in the case of its entry into a local product, from the schedule tax due on this local product that includes the item in its composition.

No.	Item	Tax Treatment According to the Value Added Tax Law	
		Collection Unit	Tax Category
1/B	3- Cigarettes ..... (1, 2)	Per 20 cigarettes and other packages at the same rate.	50%) of the final consumer sales price in addition to:
			400 Piastres for the package whose final consumer sales price is less than EGP 18.
			650 Piastres for the package whose final consumer sales price exceeds EGP 18 and up to EGP 30.
			700 Piastres for the package whose final consumer sales price exceeds EGP 30.

- A table prepared by the researcher of schedule goods and services annexed to the Value Added Tax Law (amended by Law No. 208 of 2017 - Official Gazette Issue 47 (continued) on November 23, 2017).

1) The retail sales prices of products announced on the effective date of this law, or those issued by a ministerial decision, whichever is higher, shall be the minimum base for calculating the schedule tax due on those items.

2) The schedule tax is collected on the total retail sales price

(including all taxes and fees) from the producer or importer upon customs clearance

No.	Item	Tax Treatment According to the Value Added Tax Law	
		Collection Unit	Tax Category
Follow 1/B	4-Moassel, Snuff, Madghah, and mixed and unmixed hair tobacco		
	mported	Value	(200%)
	- Local	Value	(165%)
	5- Tobacco extracts and spirits	Value	(50%)
	6- Others ..... (1, 2)	Value	(50%) with a minimum of EGP 16 per kilogram (net) of raw tobacco used in its manufacture.
	7- Heated tobacco products (3). (3) This item includes manufactured tobacco that emits smoke (aerosol) without burning tobacco, and this tobacco may be in the form of tobacco sticks, capsules, or other forms.	Kilogram net	EGP 1400 per kilogram net of tobacco

2	2- Petroleum products:		
	A) Gasoline:	Liter	3 Piastres
	80 Octane Gasoline (Imported)	Liter	3 Piastres
	90 Octane Gasoline (Imported)	Liter	48 Piastres
	90 Octane Gasoline (Local)	Liter	63 Piastres
	92 Octane Gasoline (Imported)	Liter	48 Piastres
	92 Octane Gasoline (Local)	Liter	65 Piastres
	95 Octane Gasoline (Imported)	Liter	EGP 1.30
	95 Octane Gasoline (Local)	Liter	EGP 1.20
	(C) Solar	Liter	36 Piastres
	(D) Opel Diesel	Liter	8 Piastres
	(E) Fuel Oil (Mazut)	Ton	50 Piastres
3	- Fixed vegetable oils for food, liquid or solid, refined or refined, or mixed ..... (1) The importer or producer is obligated to notify the Authority with a statement of the entities to which the oils were sold and how the quantities of sold oils were disposed of, within fifteen days following the month in which the sale occurred. Amended by Law No. 3 of 2022 – Official Gazette Issue 3 bis (H) on 26/1/2022		5%

4	4- Animal or vegetable fats and oils for food, partially or fully hydrogenated, frozen, or refined in any other way, even if refined but not further prepared ... Amended by Law No. 3 of 2022 – Official Gazette Issue 3 bis (H) on 26/1/2022.		5%
5	Crisps and products made from flour and pastries, excluding bread of all kinds.		5%
6	Processed potatoes (chips and substitutes).		5%
7	Fertilizers and agricultural pesticides.		5%
8	Gypsum.		
9	Contracting and construction works (supplies and installation), except those that lead to the construction, maintenance, or restoration of places of worship. (2) Amended by Law No. 3 of 2022 – Official Gazette Issue 3 bis (H) on 26/1/2022.		5%
10	Soap and industrial detergents for household use (new item).		5%

11	Air-conditioned transportation between governorates (bus - railway).		5%
12	Professional and consulting services (3).		10%
13	Media and program production, cinematic, television, documentary and documentary films, television drama works, radio and theater.		5%
14	Electronic liquid (4)	Milliliter	EGP 2 per milliliter of liquid
15	Commercial reputation and customer connection (commercial store component) at (10%) of the rental or sales value, as the case may be, and the tax due on it is at a rate of (10%) of this value. Added by Law No. 3 of 2022 – Official Gazette Issue 3 bis (H) on 26/1/2022		

- A table prepared by the researcher of schedule goods and services annexed to the Value Added Tax Law (amended by Law No. 208 of 2017 - Official Gazette Issue 47 (continued) on November 23, 2017).

3) The schedule tax collected on this item is settled in the case of its hydrogenation within the products listed in serial (4) of this schedule.

4) The value referred to is the value of the certified abstract from the consultant. The schedule tax previously paid by the subcontractor is settled from the schedule tax paid by

the general contractor for the same work. The executive regulations specify the nature of this service and the rules, conditions, and procedures that regulate it.

5) The value referred to is the actual value paid for the service, and this item does not include the services of craftsmen.

6) This item includes any liquid consumed through electronic cigarettes, whether it contains nicotine or not.

Second: Goods and Services Subject to Schedule Tax in Addition to Value Added Tax, and Input Tax is Deducted from Value Added Tax Only:

There are goods and services subject to the schedule tax in addition to the 14% value-added tax, including:

- Carbonated water, soda, or flavoured and sweetened or unsweetened carbonated water, packaged in bottles or other containers.
- Perfume, softening, or cosmetic preparations and products prepared for skin and hair care.
- Air conditioners and their independent units.
- Televisions (larger than 32 inches), refrigerators (larger than 16 feet), and deep freezers.
- Private cars for transporting people in golf courses, and similar cars.
- Passenger cars up to 1600 cm3 or with rotary engines, except for three-wheeled vehicles powered by a motorcycle engine.
- Passenger cars with cylinder capacity from 1601 cm3 to 2000 cm3 or with rotary engines, and cars for transporting goods and people together, jeeps, travel and camping cars equipped for living, and trailers equipped for travel.

- Passenger cars with cylinder capacity of more than 2000 cm3 or with rotary engines (local) and passenger cars with cylinder capacity of more than 2000 cm3 or with rotary engines (imported).
- Communication services through mobile networks [1].

Table (2)
Goods and Services Subject to Schedule Tax in Addition to Value Added Tax, and Input Tax is Deducted from Value Added Tax Only

No.	Item	Tax Treatment According to the Value Added Tax Law	
		Collection Unit	Tax Category
1	Carbonated water, soda, or flavored and sweetened or unsweetened carbonated water packaged in bottles or other containers. For shops operating on a post-mix system, the tax is collected in advance from the syrup producing companies used in this system based on the produced quantities of carbonated water, which are determined according to the standards set by the competent technical authorities. The Minister of Finance, in agreement with the competent minister, issues lists specifying the product prices of carbonated water, which are taken as a basis for tax assessment. (1, 2)	Value	(8%)
2	Non-alcoholic beer (1), (2):	Value	(8%)

(1) https://www.a-h-g.net/ar/news/%D8%B6%D8%B1%D9%8A%D8%A8%D8%A9-%D8%A7%D9%84%D8%AC%D8%AF%D9%88%D9%84/

3	(a) Pure non-denatured ethyl alcohol, regardless of its alcoholic strength (3)	Pure liter	EGP 15
	(b) Denatured alcohol of any degree for fuel ...	Liquid liter	EGP 1
	(c) Fresh grape wine, grape juice with arrested fermentation by adding alcohol (including mistela), vermouth, other wines, fermented beverages ...	Value	(150%) with a minimum of EGP 15 per liquid liter
	(d) Spirits, sweetened alcoholic beverages, flavored alcoholic beverages, other alcoholic beverages, compound alcoholic preparations, natural distillates	Value	(150%) with a minimum of EGP 15 per liquid liter

- A table prepared by the researcher of schedule goods and services annexed to the Value Added Tax Law (amended by Law No. 208 of 2017 - Official Gazette Issue 47 (continued) on November 23, 2017).

1) The value referred to is the final consumer sales price.

2) The tax and schedule tax are collected on the total value of the final consumer sales price from the producer or importer upon customs release.

3) The importer and producer are obligated to provide a statement of the entities to which the sales were made or how the sold quantities were disposed of, within fifteen days following the month in which the sale occurred.

No.	Item	Tax Treatment According to the Value Added Tax Law	
		Collection Unit	Tax Category
4	Alcoholic Beer (Ale)	Value	250% with a minimum of EGP 500 per hectoliter
5	Perfume, Toiletries, or Beauty Preparations and Products Prepared for Skin or Hair Care	Value	(8%)
6	Televisions (larger than 32 inches), Refrigerators (larger than 16 feet), Deep Freezers.	Value	(8%)
7	Air Conditioning and Cooling Devices and Units and Their Independent Units. - Amended by Law No. 3 of 2022 – Official Gazette Issue 3 bis (H) on 26/1/2022.	Value	(8%)
8	Private Cars for Transporting Persons in Golf Courses, Similar Cars.	Value	(10%)
9	Passenger Cars up to 1600cc or with Rotary Engines, except for Three-Wheeled Vehicles Powered by a Motorcycle Engine.	Value	(1%)
10	Passenger Cars with Cylinder Capacity from 1601cc to 2000cc or with Rotary Engines, and Goods and Passenger Transport Cars, Jeeps, Travel and Camping Cars Equipped for Living, and Travel Trailers.	Value	(15%)
11	(a) Passenger Cars with Cylinder Capacity over 2000cc or with Rotary Engines (Local). (b) Passenger Cars with Cylinder Capacity over 2000cc or with Rotary Engines (Imported).	Value	(15%) (30%)
12	Communication Services via Mobile Networks (1).	Value	(8%)

- A table prepared by the researcher of schedule goods and services annexed to the Value Added Tax Law (amended by Law No. 208 of 2017 - Official Gazette Issue 47 (continued) on November 23, 2017).

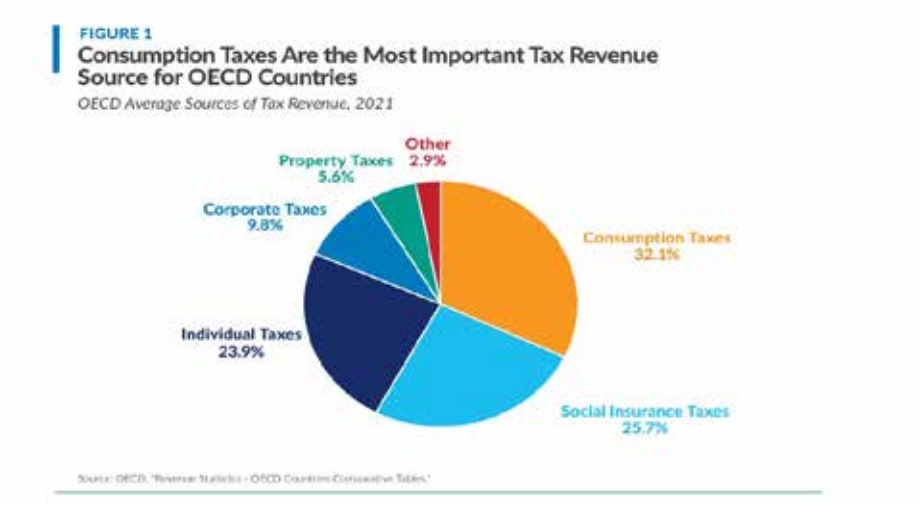
(1) The value referred to the invoice value or the service value.

2. Best Global Practices in Excise Tax Implementation:

This section discusses international experiences in excise tax implementation through a concise comparative analytical method, which is characterized by its focus on practical and applied aspects, making it more beneficial for those interested in developing tax systems. Instead of investigating into theoretical details, it provides a concise comparative analysis of global best practices, focusing on points that can be directly applied to improve the effectiveness of excise tax.

2.1.Consumption Taxes Are the Most Important Tax Revenue Source for OECD Countries:

Figure (1)
Consumption Taxes Are the Most Important Tax Revenue Source for OECD Countries
OECD Average Sources of Tax Revenue, 2021



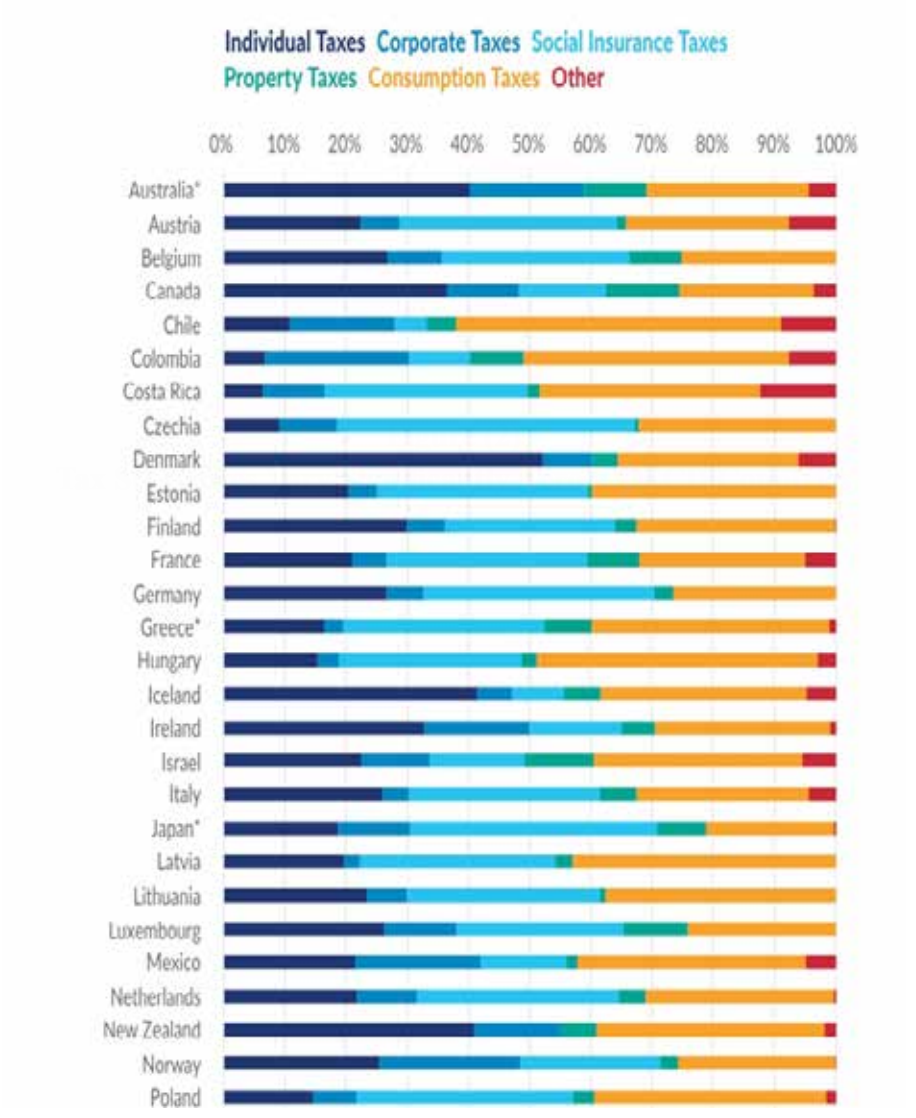
Source: OECD, "Revenue Statistics - OECD Countries Comparative Tables." And Adam Hoffer, "Global Excise Tax Application and Trends", Tax Foundation, Washington, Fiscal Fact, No. 810, Apr. 2023.

The pie chart clearly demonstrates that consumption taxes are the main source of tax revenue for (OECD) [1] countries, contributing a significant 32.1% of the total revenue in 2021. This emphasises on the reliance of these developed economies on taxes levied on goods and services. Whereas other sources such as individual taxes 23.9%, and social insurance taxes 25.7%, also play a significant role, consumption taxes stand out as the most dominant contributor to the overall tax revenue mix.

A substantial component of these consumption taxes often includes excise taxes, which are levied on specific goods such as tobacco, alcohol, and fuel. The prevalence of consumption taxes as a major revenue source underscores the importance of policies related to these taxes, including excise taxes, in influencing both consumer behaviour. Governments strategically use excise taxes to generate revenue while potentially discouraging consumption of goods deemed harmful or undesirable.

(1) - OECD: The Organization for Economic Cooperation and Development.

2.2.Tax Structures Vary Significantly Across OECD Countries:

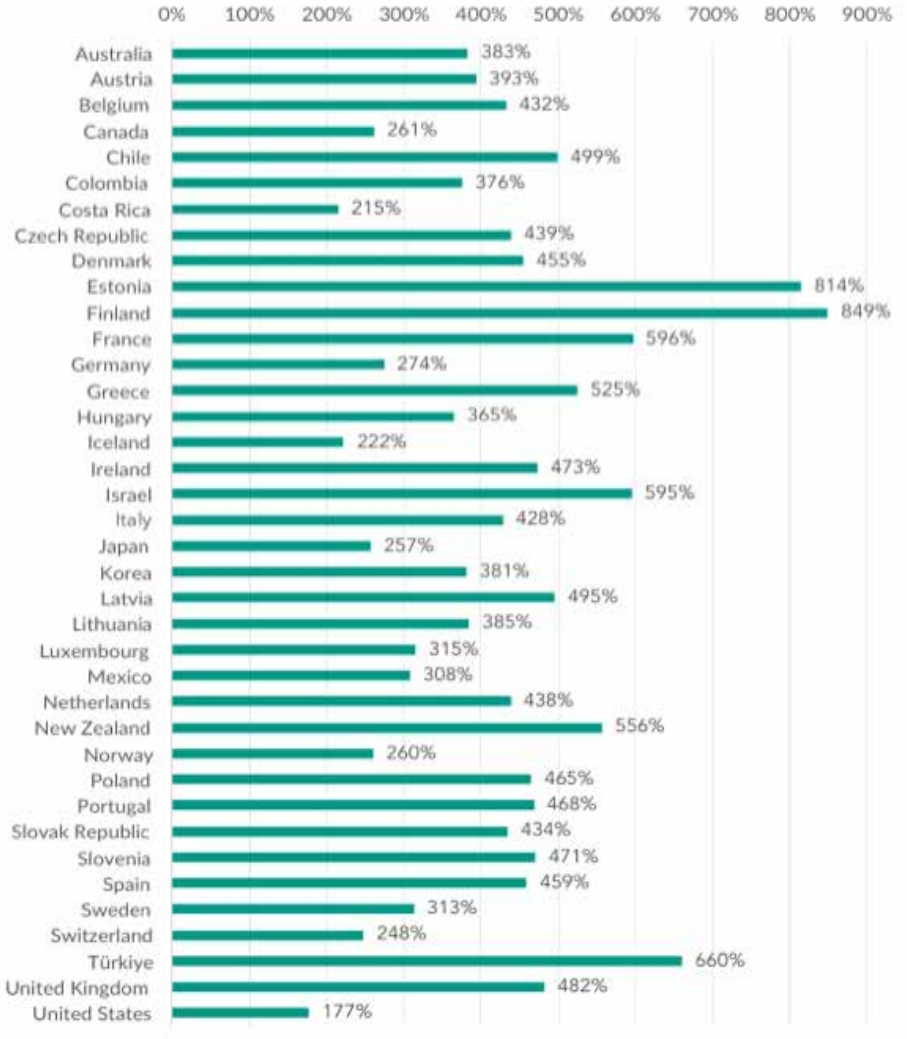


Source: OECD, "Revenue Statistics - OECD Countries Comparative Tables." And Adam Hoffer, "Global Excise Tax Application and Trends", Tax Foundation, Washington, Fiscal Fact, No. 810, Apr. 2023.

The horizontal bar chart reveals the significant diversity in tax structures across (OECD) countries in 2021. While consumption taxes are a substantial revenue source for many countries, the reliance on different tax types varies dramatically. Some countries, like Denmark, heavily depend on individual taxes, while other countries, such as Chile and Costa Rica, rely more on consumption taxes (including excise taxes) than other taxes. Social insurance taxes are prominent in countries such as France and Germany. This variation highlights the absence of a uniform tax strategy among (OECD) countries and reflects diverse economic policies and social priorities. The data underscores the importance of considering these structural differences when comparing economic indicators or formulating international tax policies.

2.4. Tax-Induced Price Increase as a Share of Non-Tax Price for Cigarettes in 2020:

Figure (3)
Tax-Induced Price Increase as a Share of Non-Tax Price for Cigarettes in 2020



Source: And Adam Hoffer, "Global Excise Tax Application and Trends", Tax Foundation, Washington, Fiscal Fact, No. 810, Apr. 2023.

The horizontal bar chart illustrates a important variation in the effect of taxes on cigarette prices across different countries in 2020**.** In several countries, particularly Finland and Estonia, the tax-induced price increase far surpasses the non-tax price, demonstrating a significant reliance on taxation as a tool to influence consumption. On the contrary, countries like the United States exhibit a relatively lower tax effect on cigarette prices. This disparity suggests diverse national policies regarding tobacco taxation and their effectiveness in raising prices. The data emphasises the powerful role taxes play in shaping the final cost of cigarettes and highlights the potential for governments to use taxation to discourage smoking and generate revenues.

2.5. Excise Duties on Distilled Spirits in European Union (EU) Member States and the United Kingdom, as of July 2021:

Table (3)

Excise Duties on Distilled Spirits in European Union (EU) Member States and the United Kingdom, as of July 2021

	Excise duty per litre of pure alcohol		Excise duty per 700ml containing 40% alcohol	
	EUR	USD	EUR	USD
Austria (AT)	€ 12.00	$13.68	€ 3.36	$3.83
Belgium (BE)	€ 29.93	$34.13	€ 8.38	$9.56
Bulgaria (BG)	€ 5.62	$6.41	€ 1.57	$1.80
Croatia (HR)	€ 7.93	$9.05	€ 2.22	$2.53
Cyprus (CY)	€ 9.57	$10.91	€ 2.68	$3.05
Czech Republic (CZ)	€ 11.98	$13.66	€ 3.35	$3.83
Denmark (DK)	€ 20.16	$22.98	€ 5.64	$6.44
Estonia (EE)	€ 18.81	$21.45	€ 5.27	$6.01
Finland (FI)	€ 50.35	$57.41	€ 14.10	$16.08
France (FR)	€ 18.03	$20.55	€ 5.05	$5.76
Germany (DE)	€ 13.03	$14.86	€ 3.65	$4.16

Source: European Commission, "Taxes in Europe Database". https://ec.europa.eu/taxation_customs/tedb/splSearchForm.html.

The table (3) illustrates a significant variation in excise duties imposed on alcohol across European countries**.** Finland stands out with the highest duty per liter of pure alcohol (€50.35) and per 700 ml bottle (€14.10), indicating a strong policy of taxing alcohol. In contrast, Bulgaria has the lowest rates (€5.62 per liter and €1.57 per 700ml), suggesting a more lenient approach.

This disparity highlights the lack of a unified tax policy on alcohol within Europe and reflects diverse national approaches to taxation, potentially driven by factors such as public health concerns, revenue generation, and cultural norms. The conversion to USD further emphasizes the economic differences in tax burdens when viewed from a global perspective.

The data in table (4) underscores the potential for significant price variations for alcoholic beverages across European borders**,** which could affect consumer behaviour and cross-border trade. It also suggests that countries with higher duties may be actively using taxation as an instrument to discourage alcohol consumption.

2.6. Sugar sweetened Beverages (SSBs) and Similar Taxes in Selected Countries:

Table (4)
Sugar sweetened Beverages (SSBs) and Similar Taxes in Selected Countries

Table 3. SSB and Similar Taxes in Selected Countries

Country	Base and Rate	Revenue (% GDP)
Algeria	0.5% tax on soft drinks	0.002
Bahrain, Qatar, U. A. E., and S. Arabia	Regional agreement: Soft drinks: 50% of retail sale price[1] Energy drinks: 100% of retail sale price[1]	NA
Barbados	Sweetened beverages: 10% of production costs or CIF value	NA
Belgium	0.068 euro per liter (±4% of grocery retail price)	0.01
Benin	Non-alcoholic beverages: 7% of ex-factory price or CIF value Non-alcoholic energy drinks: 10% of ex-factory price or CIF value	NA
Burkina Faso	Non-alcoholic beverages: 10% of ex-factory price or CIF value	NA
Cambodia	10% rate on certain carbonated and similar non-alcoholic drinks	0.16
Cameroun	Carbonated beverages, imported mineral water, fruit juices: 25% of ex-factory price or CIF value and all applicable taxes excluding VAT	NA
Cent. Afr. Rep.	Non-alcoholic beverages: 10% of ex-factory price or CIF value	NA
Chad	Bottled water carbonated or sweet beverages: 5% of ex-factory price or CIF value	NA
Chile	Beverages with more than 6.25g of sugar per 100 ml: 18% Beverages with less than 6.25g of sugar per 100 ml: 10%	0.07
Congo DR	Bottled water (carbonated or not): 10% of reference price Lemonades and other sweet beverages: 5% of reference price Fruit juices containing chemical preservers: 5% of reference price Fruit juices containing chemical preservers and other substances: 10% of reference price	0.03
Côte d'Ivoire	Non-alcoholic beverages: 14% of ex-factory price or of CIF value incl. all applicable taxes excluding VAT, augmented by 25%	NA
Croatia[2, 3]	0.533 euro per liter (±50% of grocery retail price)	0.07
Dominica	Non-alcoholic drinks (except fruit juices): 10%	NA
Equ. Guinea	Non-alcoholic drinks (except fruit juices): 20%	NA
Fiji	35 cents per liter if sweetened and carbonated drinks	NA
Finland	0.22 euro per liter (±17% of grocery retail price)	0.02
France	0.075 euro per liter (±5% of grocery retail price)	0.02
Gabon	Non-alcoholic beverages: 5% of ex-factory price or CIF value	NA
Kiribati	20–55% tax on sugar, sugar confectionary, cocoa, and sweetened drinks not including fruit or vegetable juices	NA
Lao PDR	Soft drinks: 5–10%	NA
Latvia[2]	0.074 euro per liter (±10% of grocery retail price)	0.06
Mali	Non-alcoholic beverages: 12% of ex-factory price or CIF value	0.05
Mexico	1 peso per liter (±10 percent of retail price)	0.1
Peru	Beverages with less than 6g of sugar per 100 ml: 17% Beverages with more than 6g of sugar per 100 ml: 25%	NA
Philippines	Beverages sweetened with caloric or non-caloric sweeteners: 6.00 PHP (0,12 USD) per liter Beverages sweetened with high-fructose corn syrup: 12.00 PHP (0.25 USD) per liter	NA

Source: Patrick Petit, Mario Mansour, and Philippe Wingender, "How to Apply Excise Taxes to Fight Obesity", International Monetary Fund, Fiscal Affairs Department, 2021.

The data in table (4) illustrates a diverse landscape of sugar-sweetened beverages (SSBs) taxation policies across various countries. There's a significant variation in both the base and rate of taxation, which ranges from specific amounts per liter (e.g., Mexico's 1 peso per liter) to percentages of retail or ex-factory prices (e.g., Benin's 7% of ex-factory price).

Additionally, the revenue generated as a percentage of (GDP) [1] from these taxes also differs broadly, with some countries reporting minimal contributions (e.g., Algeria at 0.002% of GDP) while others report a more significant effect (e.g., Mexico at 0.1% of GDP). Many countries, however, lack reported revenue data, making it hard to fully assess the financial effect of these taxes.

This variation suggests a lack of a unified approach to (SSBs) taxes and highlights the different priorities and economic contexts of each country. While some countries may be focusing on public health aims by discouraging consumption through higher taxes, others may be mainly aiming to generate revenue. The data underscores the complexity of implementing and evaluating (SSBs) taxes and the need for additional research to comprehend their effectiveness and impact across different regions.

(1) - GDP: Gross Domestic Product.

Conclusion and Recommendations :

A. Conclusion:

1. Excise taxes are selective consumption taxes imposed on specific goods or services. They aim to discourage harmful consumption, offset negative externalities, fund public goods, and generate revenue.
2. Excise tax rates can be per-unit (specific) or ad valorem (percentage of value), the rate choice considers factors such as negative externalities, market conditions, and substitute availability.
3. The principle of non-allocation of public revenues is significant; earmarking can lead to budget inflexibility, and distorted spending priorities.
4. Excise tax can effectively deter the consumption of harmful products such as alcohol, tobacco, and sugar-sweetened beverages. Their demand is price-sensitive, especially among lower-income groups and young people. Alcohol consumption shows less price elasticity, specifically heavy drinking.
5. Fuel taxes generate revenue, discourage excessive consumption, and internalize external costs such as pollution and road congestion.
6. Carbon taxes are an essential tool for addressing climate change; despite challenges related to economic effects and political acceptance, they provide a cost-efficient method to reduce greenhouse gas emissions.
7. Taxes on sugar-sweetened beverages show promise, they can decrease consumption and possibly enhance health outcomes, particularly when paired with other interventions.

8. Taxes on single-use plastics can promote sustainable alternatives by raising the cost of disposable plastics, encouraging the adoption of more durable and eco-friendly options.
9. Egypt incorporates excise taxes into its Value Added Tax (VAT) law as a "Schedule Tax," targeting specific goods considered harmful or luxurious.
10. Excise taxes can significantly affect the final price of goods, affecting consumption patterns, and can generate significant government revenue, which can be utilized for development projects and public services.

B. Recommendations:

1. Broaden the tax base to include contemporary products that cause negative externalities, like single use plastics and digital services.
2. The negative externalities associated to the taxed goods should be considered when determining tax rates.
3. Balance revenue generation with the goal of discouraging harmful consumption.
4. Implement strong enforcement to counter tax evasion when high tax rates are utilized.
5. Increase excise taxes on alcohol and tobacco to lower consumption and associated health issues.
6. Ensure that all tobacco products, including cigars and roll-your-own tobacco, are taxed according to their external costs.
7. Design carbon taxes to minimize negative economic effects and ensure equity.
8. Extend excise taxes on sugar-sweetened drinks and other unhealthy foods, such as free sugars and products high in fat, sodium, and sugar within the excise tax base.

9. Introduce excise taxes on single-use plastics and promote the use of sustainable alternatives to decrease plastic waste.
10. Utilize fuel taxes to internalize environmental externalities and ensure that diesel fuel and other polluting fuels are taxed appropriately.
11. Consider the distributional impacts of excise taxes and implement measures to protect vulnerable populations from disproportionate effects.
12. Promote public awareness of the health and environmental impacts of harmful products and combine excise taxes with educational campaigns to enhance their effectiveness.
13. Ensure that the excise tax structure considers all externalities, and when considering fuel taxes, make sure that carbon pricing is included in the tax.
14. Egypt should consider enacting a separate excise tax law, rather than integrating it into the VAT law, as a separate law would provide greater clarity, flexibility, and effectiveness in achieving health, social, and environmental objectives. This would allow for precise identification of taxable goods and appropriate tax rates.
15. Egypt should utilize the excise tax to promote environmental protection.

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فعالية الضرائب الانتقائية فى الحد من الاستهلاك الضار

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المستخلص:

يهدف هذا البحث إلى تقييم فعالية الضرائب الانتقائية كأداة للحد من الاستهلاك الضار، مع التركيز على دراسة حالة مصر ومقارنتها بتجارب دولية أخرى، ويطرح البحث إشكالية أساسية تتمثل فى مدى نجاح هذه الضرائب فى تحقيق أهدافها الصحية، ويتضمن ذلك أسئلة فرعية حول أنواع الضرائب الانتقائية، وتأثيرها على سلوك المستهلك، ويقوم البحث على عدة فرضيات، من بينها أن زيادة الضرائب الانتقائية تؤدي إلى انخفاض استهلاك السلع الضارة، وأن هذه الضرائب تُسهم فى زيادة الوعي الصحي، وأن توجيه عائداتها نحو برامج التوعية الصحية يعزز من فعاليتها، ويعتمد البحث على مزيج من المناهج البحثية، بما فى ذلك المنهج الوصفي التحليلي لتحليل مفهوم الضرائب الانتقائية وأنواعها وخصائصها وآثارها، والمنهج المقارن لمقارنة تجارب دول مختلفة واستخلاص أفضل الممارسات والتحديات، وقد تم تقسيم البحث إلى ثلاثة أقسام رئيسية، تتناول نظرة عامة على الضرائب الانتقائية، ودورها فى الحفاظ على الصحة العامة، وأفضل الممارسات العالمية فى تطبيق الضريبة الانتقائية، ويخلص البحث إلى تقديم توصيات عملية لصناع القرار فى مصر والدول الأخرى، بهدف تحسين فعالية الضرائب الانتقائية كأداة للحد من الاستهلاك الضار وتعزيز الصحة العامة.

الكلمات المفتاحية: الضرائب الانتقائية، الاستهلاك الضار، الصحة العامة، السياسات الضريبية، الاقتصاد السلوكي، مصر، التجارب الدولية، الضرائب الصحية.