



## THE URGENCY OF IMPOSING EXCISE ON SUGAR-SWEETENED BEVERAGES

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### ABSTRACT

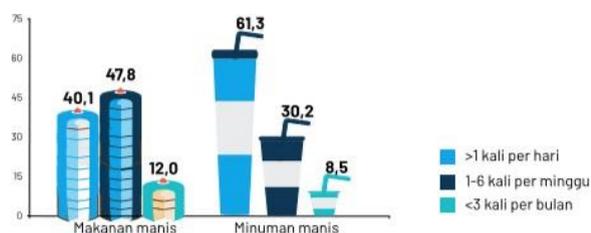
In Indonesia, one of the causes of obesity and diabetes is the high consumption of sugar-sweetened beverages with a high sugar content. The high incidence of obesity and diabetes has made it imperative for the Indonesian government to impose an excise tax on these sugary beverages in order to reduce sugar consumption and prevent the spread of disease in the country. This study aims to analyze the urgency of imposing excise duty on sugar-sweetened beverages, which has been implemented in a number of other countries. For the purpose of comparing current conditions to those of previous studies, qualitative data collection techniques and library research were employed to gather the necessary information. In several countries that have implemented the SSB Tax (Sugar-Sweetened Beverage Tax), the application of an excise duty on sugar-sweetened beverages has been associated with a reduction in consumption, as determined by the results of the analysis. Reducing consumption will have an effect on reducing the number of cases of disease attributable to excessive sugar consumption and will become an alternative means of achieving the state's revenue goals. However, prior to implementing an excise tax on sugar-sweetened beverages, the government must conduct a thorough analysis of the potential consequences.

## 1. INTRODUCTION

Sugar-sweetened beverages have become an absolute necessity in Indonesia. Over the past two decades, the consumption of sugar-sweetened beverages has increased continuously. This is evidenced by the increase in people's purchasing power. Within one month, the Indonesian population has spent between 1.8% and 2% of their total income on sugar-sweetened beverages. This promotes high levels of consumption commensurate with rising per capita income (Ardiansyah and Rosyada, 2017).

In Indonesia, the rate of sugar consumption has already reached an alarmingly high level, which is considered excessive. The Indonesian Ministry of Health (Kemenkes, 2019) discovered that 61.27 percent of the three-year-old population consumes sugary beverages more than once per day. As many as 30.22 percent of those who consume saccharine beverages do so one to six times per week. Moreover, 8.51 percent only consume saccharine beverages less than three times per month (CNN Indonesia, 2022).

The United States Department of Agriculture (USDA) released data in the form of a report explaining that annually the Indonesian population consumes 11.47 kg of sugar per person or in grams, which is as much as 32 grams in 1 day (Kumampung, 2020). PKMK UGM released a data which illustrates that Indonesia's level of consumption of sweetened drinks is ranked third in Southeast Asia. Per person, the consumption level reaches 20.23 liters in one year (Evandio, 2020). 72% of adolescents and 61% of adults drink sweets at least once a week. Packaged tea is the drink most idolized and most frequently consumed (Fanda et al., 2020).



**Figure 1.1 Prevalence of Sweet Food and Beverage Consumption (%) in National Basic Health Research 2013-2018**

Source: Litbangkes Agency, Ministry of Republic of Indonesia, 2019

Based on this number, it can be seen that daily intake of sweet drinks is very high, reaching 61.3

percent. Consumption of sweet drinks exceeds consumption of sweet meals (Pusat Data dan Informasi Kementerian Kesehatan, 2019). Sweet drinks, on the other hand, cause a variety of ailments since they include a significant amount of carbohydrates, which can raise blood sugar levels. Diabetes and obesity are among the ailments.

The government's proposal to impose a Sugar Tax or excise duty on sugar-sweetened beverages is motivated by the negative externalities associated with the consumption of sugar-sweetened beverages. The primary purpose of imposing excise is to reduce consumption with negative externalities. Since 2021, there has been discourse on the imposition of excise duty on sugar-sweetened beverages. However, there has been no implementation of this policy's continuation up until this point. In light of the high consumption of sugar-sweetened beverages in Indonesia and the numerous negative externalities that result, researchers are interested in investigating the urgency of imposing excise tax on sugar-sweetened beverages in Indonesia.

## 2. THEORETICAL FRAMEWORK

### 2.1 Sugar-sweetened beverages

Sugar-sweetened beverages are defined as any liquid sweetened with various forms of added sugar such as brown sugar, corn sweetener, corn syrup, dextrose, fructose, glucose, high fructose corn syrup, honey, lactose, malt syrup, maltose, molasses, raw sugar, and sucrose (Centers for Disease Control and Prevention, 2021). The sugar and sugar level of soft drinks is often considerable. One 500 mL drink pack can include 15 to 18 spoons with a total of 240 kcal calories (Utari, 2016).

### 2.2 Excise

Excise is a tax levied on certain items or services (Cnossen, 2005). Excise is one of the indirect taxes with distinct characteristics. This feature is not available in other forms of taxation. The primary goal of excise is to focus on routine end functions (Rosdiana and Irianto, 2012). Excise duty has the following features, according to Cnossen (Rosdiana and Irianto, 2012):

#### 1) Selectivity in Coverage

Excise has the same status as other consumption taxes such as sales tax and value

added tax. However, excise is distinct from VAT and VAT. VAT and VAT are universal in nature and are imposed on all goods and services without regard to their category. Meanwhile, the selection of objects for excise is limited, because excise is not levied on all commodities and services. Excise is only levied on certain commodities and services that have negative externalities. Furthermore, excise has a selective feature in that the level of tax rates for the collection of each commodity will be established separately.

#### 2) Discrimination in Intent

When viewed from the perspective of the purpose of collection, excise is collected not only for the purpose of generating state revenue, but also for the purpose of achieving the state's objectives. One of these is the monitoring of unhealthy consumption and luxury products or services. In addition, it is to increase revenue, compensate for external costs, limit consumption, and provide for the government by imposing road usage fees (Cnossen, 2005).

#### 3) Quantitative Measurement

Basically, excise collection has physical supervision concerns. This is done in the context of determining tax responsibilities, but it is also a tool for ensuring that excise subjects follow excise regulations. Use excise bands as a general rule. However, bookkeeping inspections are being carried out in some developed countries (Rosdiana and Irianto, 2012).

### 2.3 Sugar Drink Taxes

Sugar Drink Taxes or Sugar-Sweetened Beverage Taxes (SBB) is an application in the form of tax rates imposed on beverage products with a high sugar content or similar substances that can have deleterious effects on health (Fajarianto). According to the World Health Organization, a tax on sugar-sweetened beverages can aid in reducing sugar consumption. In practice, a constant rate per unit volume is applied in SSB. Seven U.S. cities implemented one in which the SSB tax was imposed at a rate of 34–68 cents per liter of liquid, or 1–2 cents per ounce, which should be 0.5 cents per gram of sugar (Grummon, Lockwood, Taubinsky and Allcott, 2019). Comparing SSB tariffs to other food or nutrition policy options, their implementation is relatively simple from a practical standpoint. Manufacturers, bottlers, and distributors can be subject to tax collection. This health tax collection has the potential

to provide a source of prospective state revenue (Popkin and Ngid, 2021).

### 3. RESEARCH METHOD

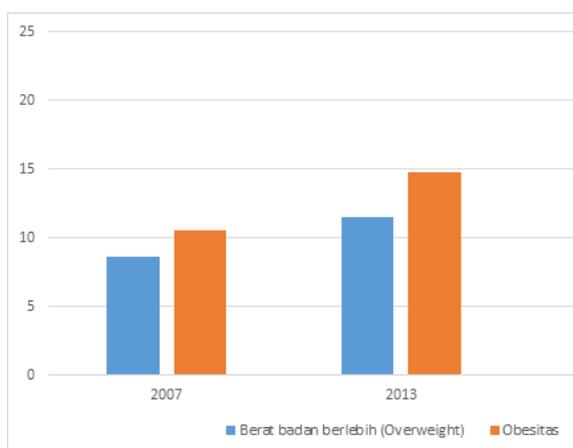
This study utilized a qualitative methodology and a literature review to examine the occurrence of social phenomena. The phenomenon raised by researchers relates to the incidence of obesity, which continues to rise each year, with sugar-sweetened beverages as one of the causes of increasing body weight and other diseases associated with obesity. On the basis of this phenomenon, the researchers are interested in analyzing further the implementation of excise on sugar-sweetened beverages as a means to slow the expected rise in obesity and as a source of additional revenue for the country.

### 4. ANALYSIS RESULT AND DISCUSSION

#### 4.1 Impact of Sugar-sweetened beverages

One of the findings of Malik, Schulze, and Hu (2006) is the significant correlation between sugar-sweetened beverages and weight gain and the risk of obesity in both children and adults (Adriansyah and Rosyada, 2017). The number of overweight individuals in Indonesia has doubled in the last two decades, according to UNICEF data. This has an effect on reducing the consumption of nutritious foods. Increased caloric intake is the root cause of Indonesia's obesity epidemic. The Ministry of Health has released data indicating that one out of every three adults suffers from obesity. One in five adolescents between the ages of 5 and 12 suffers from obesity (Zhafira, 2021). In 2018, basic health research discovered a twofold increase in weight problems in Indonesia (Zhafira, 2021).

Based on the 2018 National Basic Health Research Report, obesity rates are shown in the following figures:



**Figure 1.2 Proportion of Overweight and Obese Adults Aged >18 Years in 2007 – 2018**  
 Source: National Basic Health Research (2018) (reprocessed)

It is estimated that 43 million children aged 0 to 5 are obese or overweight globally. In addition, the data reveals that the prevalence of childhood obesity is rising. In 1990, only 4.2% of the population was affected, but by 2020, 9.1% will have been affected. In Indonesia, cases of noncommunicable diseases impose a substantial burden on the nation. In terms of expenditures, the budget for BPJS Health continues to rise. In 2017, BPJS expenses for managing PTM cases amounted to Rp14.4 trillion (Fanda et al., 2020).

Regular and excessive utilization of sugary beverages may also contribute to the development of diabetes. There is a 26% increased risk of developing type 2 diabetes mellitus if you habitually consume one to two glasses of alcohol per day, according to studies (Adhi, 2020). Diabetes is a worldwide problem, and the situation in Indonesia is no exception. According to data issued by the International Diabetes Federation (IDF), Indonesia ranks seventh among ten nations in terms of the number of diabetics. Sufferers account for 6.2 percent of the population in Indonesia (Pranita, 2020). According to Basic Health Research data, there has been a considerable increase in people with diabetes over the last five years, with a rise from 1.5 per mil to 2 per mil (Sagita, 2022).

According to data from the International Diabetes Federation (IDF), Indonesia ranks seventh among the top 10 countries with the greatest number of diabetes patients. In 2020,

the prevalence of diabetes in Indonesia will reach 6.2%, or 10.8 million people (Pranita, 2020). Due to the large number of Indonesians with diabetes who are presently in a state of alert (Pranita, 2020). Prof. Dr. dr. Ketut Suastika SpPD-KEMD, general chairman of the Indonesian Endocrinology Association, stated that this number would continue to rise to 16.7 million patients annually by 2045 (Pranita, 2020).

Implementing an excise on sugar-sweetened beverages can be used as a tool to enhance health. By imposing an excise tax on sugar-sweetened beverages, this will become one of the government's tools for reducing the prevalence of diabetes and obesity. This is a result of the rising cost of sugar-sweetened beverages. It is expected that the adoption of an excise or tax on sugar-sweetened beverages will help to reduce the problem of diabetes and obesity in Indonesia. This is also expressed in Bourke and Veerman's study, which used a multi-status proportional life table to model a \$0.30 per liter reduction in daily after-tax energy intake for sugary drinks, as well as subsequent shifts in the distribution of Body Mass Index (BMI) for income groups in Indonesia (Veerman, Thow and Dwira, 2019).

According to studies, the inclusion of SSB taxes reduces calorie intake by 17 kJ per person per day. after taking into account alternatives to other drinks. This would result in 443,000 fewer cases of overweight males, or -2.9 percent, and 204,000 fewer cases of obese men, or -7.3 percent, than the counterfactual estimate. Meanwhile, it will cut the number of overweight women by 321,000, or 1.4 percent, and the number of obese women by 348,000, or 3.9% (Veerman, Thow and Dwira, 2019). Furthermore, the implementation of excise or taxes on sugar-sweetened beverages for a period of 25 years is predicted to reduce around 63,000 instances of diabetes in Indonesia (Veerman, Thow and Dwira, 2019).

## 4.2 Implementation of Sugar-sweetened Beverages Excise in Various Countries

It is not only a concern in Indonesia, but also in a number of other nations, that diseases caused by sugar are on the rise. As a result, numerous developed nations have implemented excise taxes on sugar-sweetened beverages to reduce the prevalence of diabetes and obesity in their respective nations. There are countries that have achieved their objectives after implementing excise or taxes on sugar-sweetened beverages. These countries are:

### 1. Chile

After the SSB Tax began to be implemented in 2014, as a modification of the policy from the 1960s, Chile felt its implementation had two aspects. When viewed from the perspective of household consumption of sugar-sweetened beverages, it is discovered that all groups reduce their purchases of soft drinks in the presence of high tax rates. When disaggregated by volume of high-tax soft drinks purchased in the pre-tax period, all but the lowest tax-rate soft drink purchasers can substantially reduce the volume of goods purchased (Nakamura et al., 2018).

### 2. United Kingdom

The SSB Tax, often known as the Soft Drinks Industry Levy, was implemented in the United Kingdom in April 2018. In the United Kingdom, the tax was a levy that charged producers based on the concentration of sugar in a drink, with varied rates for different sugar levels. Beverages with more than 8 g of sugar per 100 mL are taxed at £0.24 per liter, while those with 5 to 8 g of sugar per mL are taxed at £0.18 per liter. The tax was only charged on drinks containing more than 8g sugar per 100mL, causing their costs to rise by an average of £0.075 per liter.

The effectiveness of the United Kingdom's sugar tax in reducing sugar consumption has been demonstrated by high-quality research, with the key findings summarized below (Obesity Evidence Hub, 2022):

- United Kingdom tax led to wide reformulation to reduce sugar content in SSB. The reduction in sugar from this reformulation is equivalent to removing

a total of 45 million kg of sugar from soft drinks each year.

- The proportion of drinks available in supermarkets with high sugar content fell after the introduction of the tax. Between 2015 and 2019, the percentage of drinks in supermarkets with a sugar content of more than 5 g per 100 mL fell from 49% to 15%.
- The amount of sugar in the SSB decreased after the introduction of the tax. There is a 43.7% reduction in sugar content in drinks.
- There was a decrease in sugar consumption from taxable drinks by 35.4%
- The amount of sugar in drinks was reduced, without affecting overall sales. One year after the tax's introduction, the total volume of soft drinks purchased, including those not subject to the new tax, remained unchanged. However, the overall amount of sugar in soft drinks was reduced by 10% (30 g). These results suggest that United Kingdom taxes can benefit health without harming industry.

### 3. Mexico

As one of the countries with the highest prevalence of obesity, Mexico employs the SSB Tax as a fiscal measure to limit the consumption of hazardous beverages. Since January 1, 2014, Mexico has imposed a tax of 1 peso per liter, or 10% of the price, on beverages containing added sugar. In the two years following the implementation of the excise tax on sugar-sweetened beverages, there was an average 7.6% decrease in beverage purchases. This decrease in consumption could have a positive effect on health and lower the cost of health care in Mexico. In this time period, purchases of taxable beverages decreased by 5.5% in 2014 and 9.7% in 2015. In both years, households with a lower socioeconomic status consumed less taxable beverages than those with a

higher socioeconomic status (Colchero et al., 2017).

#### 4.3 Implications of implementing excise duty on sugar-sweetened beverages in Indonesia

The Indonesian government is debating the implementation of a Sugar Tax or the imposition of an excise on sugar-sweetened beverages in order to combat the obesity and diabetes rates that are a result of imbibing sugar-sweetened beverages. This is due to the fact that these products' negative externalities have a negative impact on health. In addition to reducing the prevalence of obesity and diabetes, the imposition of excise can also increase state revenues.

The government's proposal to extend excisable goods carries a number of pressing concerns, including the following:

- 1) First, the imposition of excise taxes on products in Indonesia is still very low. Excise objects subject to excise until 2022 will be limited to tobacco products, ethyl alcohol, and ethyl alcohol-containing beverages (MMEA). In relation to the imposition of excise duty on a variety of products, Indonesia lags far behind other nations when compared to other countries. Nimpuno, the Secretary General of APIDMI, stated that the imposition of a levy on sweetened beverages would supplement the excise revenue structure, which has thus far only been derived from alcoholic beverages and cigarettes (Lestari, 2021).
- 2) Second, health problems can be reduced by excise sugar-sweetened beverages can reduce health problems. One of the instruments in reducing the number of people suffering from diabetes mellitus and obesity is the imposition of excise tax on sugar-sweetened beverages (BBC News, 2020). WHO 2017 released data which found that a 20% price increase for sugar-sweetened beverages could result in a 20% decrease in consumption (Prastiwi, 2021). Up to twenty-four times the cost of implementing the tax on sugary beverages can be saved through health care cost reductions. Obviously, a reduction in the number of diseases caused by sugar-sweetened beverages has a positive impact on BPJS Kesehatan's dependents, which can assist the organization's budget, which has been in the red (Audrienne, 2020).
- 3) It is estimated that the number of cases of obesity in individuals with low incomes could decrease by more than 15,000 if overweight cases are reduced. In addition, 417,000 cases could be reduced among persons with high incomes. It is also possible to enhance the health status of all economic groups. In fact, research indicates that if groups with low incomes can prevent as many as 63,000 cases of diabetes, groups with high incomes can prevent as many as 1,487,000 cases (Veerman, Thow and Dwira, 2019).
- 4) Third, an excise on sugar-sweetened beverages may benefit state revenues. According to preliminary estimations, this expansion has the potential to generate an additional Rp6.25 trillion in revenue each year for the government (Lestari, 2021). Packaged tea products are subject to an excise tax of Rp1,500 per liter; with a total production of 2,191 million liters, the potential excise income is estimated to be 2.7 trillion. For carbonated drinks, the peg is Rp2,500 per liter with a total production of 747 million liters, which can provide state revenue of Rp1.7 trillion. Meanwhile, other sugar-sweetened beverage products, such as energy drinks, coffee, concentrates, etc., are subject to a tariff of Rp2,500 per liter with a total production of 808 million liters, so the revenue target can reach Rp1.85 trillion (Liputan 6, 2020).
- 5) Fourth, industry participants can also consider alternatives to sugar that are healthier and more innovative (Audrienne, 2020). Entrepreneurs will be encouraged to innovate and produce healthier and higher-quality products. The application of excise tax is not intended to impede the industry, but rather to provide incentive for the industry to support health and contribute to enhancing the quality of human resources in Indonesia.

Fifth, there is motivation for consumers to purchase products that are healthier, cheaper, and abundant in nutrients. As this intervention has the potential to serve as a positive incentive to compete in the marketplace, there is a healthy market

competition for healthful products. There is no price difference between healthful and unhealthy beverages as a result of the implementation of excise. This means that people have numerous options for the type of drink they will consume. The transition to healthy drinks takes into account the cost, which is nearly the same and simple to obtain. An excise tax on sugar-sweetened beverages has the ability to reduce calorie and sugar intake while increasing behavioral intentions to reduce consumption in the future by at least 20% (Fanda et al., 2020).

## 5. CONCLUSIONS AND RECOMMENDATIONS

It is essential to apply the discourse on implementing excise duty on sugar-sweetened beverages by first analyzing its implementation in countries that have effectively implemented it, such as Chile, the United Kingdom, and Mexico. Excise is anticipated to serve as a government tool for reducing the consumption of products with potential negative externalities. Excise duty on sugar-sweetened beverages is anticipated to play a role in reducing diabetes and obesity rates, as excessive consumption of sugar-sweetened beverages is one of the leading causes of these conditions. This also accounts for the limited number of products subject to excise tax in Indonesia. The government can also reconsider the notion that implementing an excise tax on sugar-sweetened beverages will provide numerous financial benefits to the state and increase state revenues. Because the imposition of excise increases the price of sugar-sweetened beverages, industry participants may be incentivized to think creatively and innovate in order to supplant sugar with healthier sweeteners.

The government must pay close attention to this policy by analyzing the implementation of excise taxes on sugar-sweetened beverages in various nations and analyzing its various effects. The government must be aware of a variety of public and industry participant perspectives on this policy. This is due to the fact that a successful policy formulation process must involve the community in a necessary socialization procedure. The public can be persuaded to support the imposition of excise tax policies on sugar-sweetened beverages through socialization relating to the problem of rising diabetes and obesity rates.

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