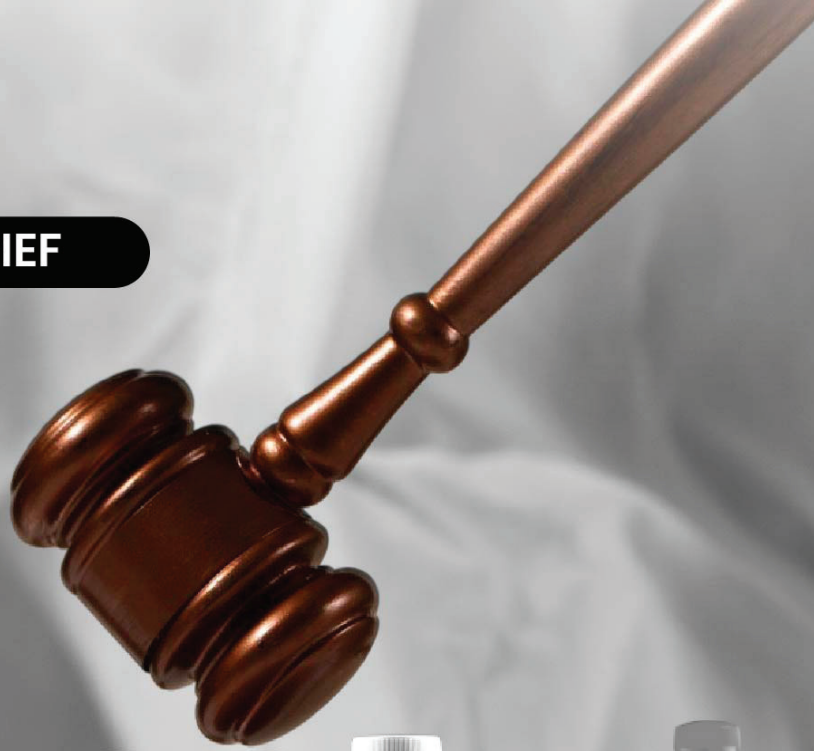**POLICY BRIEF**

HIGH SSB CONSUMPTION, SSB TAX NEEDS TO BE IMPLEMENTED IMMEDIATELY

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HIGH SSB CONSUMPTION, SSB TAX NEEDS TO BE IMPLEMENTED IMMEDIATELY

1. Key Facts

- Data from the 2024 National Socioeconomic Survey (Susenas) shows that 63.7 million households in Indonesia, or around 68.1%, consume at least one type of sugar-sweetened beverages (SSB) in packaging per week[1].

- Elasticity calculations using Susenas 2024 data show that the application of SSB tax, which increases the price of SSB products by 20%, can reduce the demand for SSB products by an average of 18%. This shows that SSB tax can be effective in reducing public consumption of SSB.

- The application of SSB tax can encourage consumers to switch to consuming mineral water and unsweetened beverages.

2. Why Should SSB Consumption Be a Concern?

SSB consumption is a major risk factor for obesity and non-communicable diseases (NCDs).

Consumption of SSB will cause excessive sugar consumption which can lead to obesity. Additionally, studies also show that excessive sugar consumption significantly increases the risk of developing Non-Communicable Diseases (NCDs) such as diabetes, cardiovascular disease, cancer, dental caries, and others [3,4,5,6,7]

The results of the 2023 Indonesian Health Survey (SKI) and Basic Health Research (Riskesdas) in previous years show that the percentage of Indonesians who are obese has tripled in the last two decades, from 10.5% in 2007 to 36.8% in 2023[8]. Additionally, data from the International Diabetes Federation (IDF) in 2024 shows that Indonesia ranks fifth in the number of adults with diabetes, with 20.4 million cases. Diabetes cases in Indonesia are dominated by type 2 diabetes (91.15%) based on data from SatuSehat, Ministry of Health of the Republic of Indonesia, 2024[9].

[1] Badan Pusat Statistik. (2024). Survei Sosial Ekonomi Nasional 2024. Badan Pusat Statistik Republik Indonesia.
[2] https://www.wcrf.org/research-policy/evidence-for-our-recommendations/limit-sugar-sweetened-drinks/
[3] Hajishafiee, M., Kapellas, K., Listl, S. et al. Effect of sugar-sweetened beverage taxation on sugars intake and dental caries: an umbrella review of a global perspective. BMC Public Health 23, 986 (2023). https://doi.org/10.1186/s12889-023-15884-5
[4] World Bank. (2020). Taxes on Sugar-Sweetened Beverages: International Evidence and Experiences
[5] Alcaraz, A., Bardach, A. E., Espinola, N., Perelli, L., Cairoli, F. R., La Foucade, A., ... & Pichon-Riviere, A. (2023). Health and economic burden of disease of sugar-sweetened beverage consumption in four Latin American and Caribbean countries: a modelling study. BMJ open, 13(2), e062809.
[6] Rippe, J. M., & Angelopoulos, T. J. (2016). Relationship between added sugars consumption and chronic disease risk factors: current understanding. Nutrients, 8(11), 697.
[7] Ahsan, A., Djutaharta, T., Utami, M. G., Pertiwi, Y. B. A., Diniary, A., Amalia, N., ... & Ramanathan, S. (2025). The correlation of caloric intake from sugar-sweetened beverage (SSB) on type 2 diabetes mellitus (T2DM) risk in Indonesia. Social Science & Medicine, 372, 117956.
[8] Kementerian Kesehatan Republik Indonesia. (2023). Survei Kesehatan Indonesia 2023.
[9] Digital Transformation Office Kementerian Kesehatan RI. Data Satu Sehat. (2024)

68.1% of households in Indonesia consume SSB products.

Data from the 2024 National Socioeconomic Survey (Susenas) shows that 68.1% of households in Indonesia consume at least one type of SSB per week. Based on 2024 population data, which shows that there are 93.5 million households in Indonesia[10], there are approximately 63.7 million households that consume SSB. This indicates that the number of households consuming SSB in Indonesia is increasing. The 2024 Susenas data also shows that households consume a total of 29.44 liters of SSB (21 packages) or an average of 21 packages per week.

Based on type, instant coffee is the most popular SSB product consumed by households (42.0%). This is followed by packaged tea; carbonated/CO2–containing beverages (22.9%), sweetened condensed milk (20.3%), packaged fruit juice; health drinks; energy drinks (18.8%), and factory-produced liquid milk (9.6%).

Based on province, West Java ranks first as the province with the highest number of households consuming SSB every week, at 88.0%. Next, the four provinces with the highest proportion of households consuming SSB are DKI Jakarta (87.4%), Banten (83.6%), West Nusa Tenggara (72.2%), and Central Papua (71.0%).

Based on household characteristics, SSB consumption is more prevalent among poor households (69.0%), households living in urban areas (73.3%), households headed by individuals who have completed high school or equivalent education (73.0%), and 74.2% of households headed by individuals working in the formal sector.

The implementation of SSB tax has been postponed again until mid–2025.

Plans to implement SSB tax in Indonesia have been rolling out for almost 10 years, from 2016 to 2025. In 2020, the Ministry of Finance again submitted a proposal to implement SSB tax, which was then welcomed by the House of Representatives of the Republic of Indonesia (DPR RI) through Commission XI by making SSB a new excise object[11].

At the end of 2024, the Indonesian House of Representatives, together with the Ministry of Finance, again set a target for state excise revenue (from all excise objects) of IDR 244.2 trillion in the Draft State Budget (R-APBN). in 2025[12,13]. This target is an increase of 3.9% from the previous year's draft state budget. To support this excise revenue target, the government has reiterated that SSB will be classified as an excisable good (BKC) in order to protect public health. Furthermore, the Ministry of Finance has set a target of Rp 3.8 trillion in excise revenue from SSB for 2025 if implemented[14].

[10] Data jumlah total rumah tangga di Indonesia berasal dari Direktorat Jenderal Kependudukan dan Pencatatan Sipil Kementerian Dalam Negeri. Data selengkapnya dapat diakses melalui: https://gis.dukcapil.kemendagri.go.id/peta/

[11] https://finance.detik.com/industri/d-4905433/sri-mulyani-mau-kenakan-cukai-minuman-ringan-ini-daftarnya

[12] Republik Indonesia. (2024). Buku II Nota Keuangan Beserta Rancangan Anggaran Pendapatan dan Belanja Negara Tahun Anggaran 2025

[13] Pemerintah telah menetapkan target penerimaan dari cukai MBDK dalam dokumen R-APBN sejak tahun 2021

[14] Lampiran 1 Peraturan Presiden Nomor 201 Tahun 2024 tentang Rincian Anggaran Pendapatan dan Belanja Negara Tahun Anggaran 2025

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The Ministry of Finance plans to impose excise tax on SSB in the second half of 2025. However, in the middle of the year, the government postponed the implementation of the excise tax again due to economic uncertainty[15]. Nevertheless, the Ministry of Finance still sees the possibility of implementing the SSB tax in 2026.

Estimated Changes in SSB Consumption After the Implementation of the SSB Tax

This policy brief was prepared as a guide for policymakers amid the urgency to reduce public consumption of SSB and increase consumption of healthier beverages. In addition, this policy brief contains updates from the elasticity study conducted by CISDI in 2023[16].

To estimate changes in demand for SSB products when prices change, we use the own-price elasticity and cross-price elasticity approaches[17].

We estimated elasticity using data from the 2024 National Socioeconomic Survey (Susenas). This survey is conducted annually by the Central Statistics Agency (BPS) to assess the socioeconomic conditions of Indonesian households, including SSB consumption.

Due to data limitations, we categorized SSB products as recorded in Susenas, namely:

1. Factory-produced liquid milk;
2. Sweetened condensed milk;
3. Instant coffee;
4. Packaged tea; Carbonated/CO_2 containing beverages;
5. Packaged fruit juice; Health drinks; and Energy drinks.

An explanation of the methodology used to calculate elasticity is provided in the appendix.

15 https://www.bloombergtechnoz.com/detail-news/74381/cukai-minuman-berpemanis-batal-diterapkan-pada-2025/2
16 Studi elastisitas yang dilakukan oleh CISDI pada tahun 2023 dapat dibaca melalui tautan berikut: https://cdn.cisdi.org/reseach-document/fnm-Report-Kuantitatif-fnm.pdf
17 Selengkapnya tentang konsep elastisitas maupun Quadratic Almost Ideal Demand System (QUAIDS) dapat dilihat pada bagian lampiran.

a **An increase in price will reduce demand for SSB products.**

Table 1 : Own-price elasticity of SSB

Factory-produced liquid milk	-0.6
Sweetened condensed milk	-0.4
Instant coffee (Sachet)	-1.7
Packaged tea, Carbonated/CO_2 containing beverages	-1.1
Packaged fruit juice, health drinks, energy drinks.	-1.2
Average	**-1.3**

Note: Complete results can be seen in Table A1 in the appendix

Table 1 shows the results of calculating the price elasticity or own-price elasticity of SSB products. In general, a negative elasticity result (-) indicates that an increase in the price of SSB products will reduce demand. The elasticity results show that SSB products are generally elastic or sensitive to price changes, with an average of -1.3. This indicates that a 10% increase in price will reduce demand by 13% (without taking into account the substitution effect).

When classified by type, liquid milk and sweetened condensed milk are inelastic or less sensitive to price changes. This may be influenced by the public's perception of milk as a

product that is good for consumption because it is rich in nutrients[18,19]. However, it should be noted that milk sold on the market, especially flavored milk, tends to have a high sugar content, so its consumption needs to be limited. Similarly, sweetened condensed milk has a high sugar content and is commonly added as a sweetener to certain foods and beverages[20].

b Consumers will switch to consuming mineral water

The results of cross-price elasticity analysis show that mineral water is a substitute for SSB. Therefore, mineral water can be an alternative beverage for consumption by the public if there is an increase in the price of SSB products on the market.

The results of the cross-price elasticity analysis show that the average cross-price elasticity between mineral water and SSB products is 0.77. This indicates that a 10% increase in the price of SSB will increase the demand for mineral water by 7.7%.

The results of the cross-elasticity calculation can be seen in Table A2 in the appendix

c The imposition of SSB tax, which increases the price of SSB products by 20%, will reduce SSB consumption by 18%.

Taking into account price elasticity and cross-elasticity (substitution effect), we estimate changes in SSB consumption patterns among the public if the price of SSB products increases by 20%. The results show that imposing an excise tax on SSB that increases the price of SSB products by 20% has the potential to reduce SSB demand by an average of 18% (Table 2).

d Changes in SSB consumption patterns vary based on household characteristics

Table 2 shows that households with lower expenditure levels and those living in rural areas will reduce their consumption by a greater amount compared to households with higher expenditure levels and those living in urban areas.

Based on the age and length of education of the head of the household, households with heads of households aged >50 years and with ≤ 12 years of schooling years old, each will reduce their consumption by a greater amount compared to households with heads aged ≤ 50 years and with > 12 years of schooling.

18 Tan, K. Y., van der Beek, E. M., Kuznesof, S. A., & Seal, C. J. (2016). Perception and understanding of health claims on milk powder for children: A focus group study among mothers in Indonesia, Singapore and Thailand. Appetite, 105, 747–757.

19 Sajdakowska, M., Gębski, J., Gutkowska, K., & Żakowska-Biemans, S. (2018, August 2). Importance of health aspects in Polish consumer choices of dairy products. Nutrients, 10(8). 10.3390/nu10081007.

20 Widarjono, A., Afin, R., Kusnadi, G., Firdaus, M. Z., & Herlinda, O. (2023, December 29). Taxing sugar sweetened beverages in Indonesia: Projections of demand change and fiscal revenue. PLOS One, 18(12). https://doi.org/10.1371/journal.pone.0293913.

Tabel 2 : Estimated change in demand for SSB after the imposition of an excise tax on SSB that increases the price by 20%

Beverages	Overall change in demand	Level of Expenditure			Region		Age of Head of Household (Kepala Rumah Tangga, KRT)		Length of Schooling for KRT	
		25%	50%	75%	Kota	Desa	<=50	>50	<=12	>12
Factory-produced liquid milk	–15.6	–17.4	–16.6	–16.2	–14.6	–16.4	–14.8	–16.6	–15.8	–15
Sweetened condensed milk	–17.4	–19.4	–18.6	–18	–18.2	–16.8	–17	–18	–17.4	–17.4
Instant Coffee (Sachet)	–18.4	–17	–17.6	–18	–18	–18.6	–18.6	–18	–18.2	–18.6
Packaged tea	–19	–19.2	–19.2	–19	–19	–19	–19	–19	–19	–19
Packaged fruit juice	–19.4	–19.2	–19.2	–19.2	–19.6	–19.2	–19.2	–19.4	–19.4	–19.4
Average change in demand	–18.0	18.4	18.2	–18.1	–17.9	–18.0	–17.7	–18.2	–18.0	–17.9

Policy Recommendations

SSB tax needs to be implemented immediately.

Since the discussion on the implementation of SSB tax began in 2016, SSB products have not yet been subject to excise tax. This has certainly kept SSB consumption high among the public. The slow implementation of SSB tax is feared to continue to increase the number of people with NCDs and cause the health costs borne by the Indonesian government to balloon. A 2024 CISDI study found that the non-implementation of SSB tax could potentially result in 8.9 million new cases of type 2 diabetes and 1.3 million deaths (due to type 2 diabetes) over the next 10 years.

In addition, the same study also shows that a 20% increase in SSB tax has the potential to prevent 3.1 million new cases of type 2 diabetes and 455,310 deaths from type 2 diabetes. For this reason, we urge the government to no longer delay the implementation of the SSB tax to support public health.

The government needs to impose an SSB tax that increases the minimum selling price by 20%.

The design and rate of the SSB tax need to be set optimally so that it can increase the price of SSB products by at least 20% on average, based on studies compiled by the WHO[21,22]. In addition, the WHO also recommends that the SSB tax should be able to increase the price of SSB products by at least 50% by 2035[23].

Governments need to implement SSB tax taxes to address negative externalities.

Consumption of SSB can cause negative externalities such as an increase in the burden on BPJS Kesehatan for diseases with risk factors of obesity, diabetes, and hypertension in the last five years. Apart from health aspects, other negative externalities from SSB consumption include SSB packaging in the form of plastic and cans that have an impact on the environment[24]. Various studies show that the imposition of SSB tax is an effective policy to encourage behavioral change in the community to overcome the negative externalities resulting from SSB consumption[25,26,27,28].

[21] https://www.who.int/news/item/05-12-2023-who-calls-on-countries-to-increase-taxes-on-alcohol-and-sugary-sweetened-beverages

[22] Taxes on sugar drinks: why doing it? https://iris.who.int/bitstream/handle/10665/260253/WHO-NMH-PND-16.5Rev.1-eng.pdf

[23] https://www.who.int/news/item/02-07-2025-who-launches-bold-push-to-raise-health-taxes-and-save-millions-of-lives

[24] University of California Research Consortium on Beverages and Health. (2022). The Heavy Environmental Impact of Sugary Drinks. https://ucanr.edu/sites/default/files/2022-12/377585.pdf

[25] Stiglitz, J. E., & Rosengard, J. K. (2015). Economics of the Public Sector. W. W. Norton, Incorporated.

[26] Xiang, D., Zhan, L., & Bordignon, M. (2020, August). A reconsideration of the sugar sweetened beverage tax in a household production model. Food Policy, 95(101933). https://doi.org/10.1016/j.foodpol.2020.101933

[27] Miracolo, A., Sophiea, M., Mills, M., & Kanavos, P. (2021). Sin taxes and their effect on consumption, revenue generation and health improvement: A systematic literature review in Latin America. Health Policy and Planning, 36(5), 790–810. 10.1093/heapol/czaa168

[28] Fichera, E., Mora, T., Lopez-Valcarcel, B. G., & Roche, D. (2021, April). How do consumers respond to "sin taxes"? New evidence from a tax on sugary drinks. Social Science & Medicine, 274(113799). https://doi.org/10.1016/j.socscimed.2021.113799

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The implementation of SSB tax needs to take into account various scientific evidence and international best practices

Scientific evidence and international best practices should be used as a basis for designing more targeted and sustainable SSB tax policies, particularly in the design and determination of excise tax rates and earmarking the use of SSB tax revenue.[29,30]

There needs to be a comprehensive policy to control sugar consumption in addition to the SSB tax.

In addition to implementing SSB tax, we also encourage the government to implement other comprehensive policies to support healthy eating habits and control sugar, salt, and fat (SSF) consumption as part of efforts to combat NCDs through several measures, such as

1. the implementation of warning labels on the front of packaging;
2. restricting the marketing of foods high in SSF;
3. the implementation of taxes on products with high sodium levels.

[29] World Bank. (2020). Taxes on Sugar-Sweetened Beverages: Summary of International Evidence and Experiences.
[30] Task Force on Fiscal Policy for Health. (2024). Health Taxes: A Compelling Policy for the Crises of Today. https://assets.bbhub.io/dotorg/sites/64/2024/09/Health-Taxes-A-Compelling-Policy-for-the-Crises-of-Today.pdf#page=8.06

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Appendix 1: Methodological Notes

Own-price elasticity

In economic theory, elasticity indicates the percentage change in one variable relative to a change in another variable. Elasticity is generally divided into two types: own-price elasticity and cross-price elasticity. First, own-price elasticity is an indicator that shows the change in the quantity demanded of a good relative to an increase in the price of that good.

In interpreting price elasticity, a good is said to be elastic or sensitive to price changes if it has an elasticity value >1. Conversely, a good is said to be inelastic or less sensitive to price changes if it has an elasticity value <1.

Cross-price elasticity

Second, cross-price elasticity is an indicator that shows changes in the quantity demanded of a good as a result of an increase in the price of another good. In interpreting cross-price elasticity, a product can be complementary or substitutable for other products. If the cross-price elasticity result is positive, then an increase in the price of one good will increase the demand for another good, indicating that the two goods are substitutes. Conversely, if the cross-elasticity result is negative, then an increase in the price of one good will cause a decrease in the demand for another good, indicating that the two goods are complementary.

Quadratic Almost Ideal Demand System (QUAIDS)

To estimate elasticity in this policy brief, we used the Quadratic Almost Ideal Demand System (QUAIDS) approach. This model was initiated by Banks et al., (1997)[31]. This model assumes that the relationship between consumption and income is not linear. A more detailed explanation of the QUAIDS method used in this study can be found at the following link:
https://cdn.cisdi.org/reseach-document/fnm-Report-Kuantitatif-fnm.pdf

Changes in SSB Demand

After estimating elasticity, we projected the impact of SSB tax (in this case, price increases) on changes in demand for SSB products based on price elasticity and cross elasticity. We formulated changes in demand as follows:

$$\Delta SSB_j = \%\Delta price \times own\ price\ elasticity + \%\Delta price \times cross\ price\ elasticity$$

[31] Banks, J., Blundell, R., & Lewbel, A. (1997). Quadratic Engel curves and consumer demand. Review of Economics and statistics, 79(4), 527–539.

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Appendix 2: Price elasticity based on demographic characteristics and cross elasticity

Table A1. Price elasticity based on demographic characteristics

Beverages	Ownprice	Level of Expenditure			Region		Age		Length of Schooling	
		25%	50%	75%	Kota	Desa	<=50	>50	<=12	>12
Factory-produced liquid milk	-0.63	-0.72	-0.68	-0.66	-0.58	-0.67	-0.59	-0.68	-0.64	-0.60
Sweetened condensed milk	-0.44	-0.54	-0.50	-0.47	-0.48	-0.41	-0.42	-0.47	-0.44	-0.44
Instant coffee (Sachet)	-1.76	-1.69	-1.72	-1.74	-1.74	-1.77	-1.77	-1.74	-1.75	-1.77
Packaged tea	-1.11	-1.12	-1.12	-1.11	-1.11	-1.11	-1.11	-1.11	-1.11	-1.11
Packaged fruit juice	-1.25	-1.24	-1.24	-1.24	-1.26	-1.24	-1.24	-1.25	-1.25	-1.25

Table A2. Cross elasticity

	Factory-produced liquid milk	Sweetened condensed milk	Instant Coffee (Sachet)	Packaged tea; Carbonated/CO2 containing beverages	Packaged fruit juice; health drinks; energy drinks	Bottled mineral water
Factory-produced liquid milk	–	0.10	–0.86	–0.08	–0.30	**0.99**
Sweetened condensed milk	0.05	–	–1.42	–0.11	–0.05	**1.10**
Instant Coffee (Sachet)	0.07	0.24	–	–0.08	–0.05	**0.66**
Packaged tea; Carbonated/CO2 containing beverages	0.06	0.15	–0.64	–	0.02	**0.57**
Packaged fruit juice; health drinks; energy drinks	0.15	0.08	–0.47	0.01	–	**0.51**
Bottled mineral water	0.11	0.27	–0.95	–0.10	–0.09	–
Average	**0.09**	0.17	–0.87	–0.07	–0.09	**0.77**

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