

Modelling the Revenue Implications of Alcohol Taxation in Sri Lanka

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RESET Alcohol

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Abstract

Alcohol taxation is an effective policy strategy for controlling alcohol consumption and related harm. This study aims to estimate the revenue implications of modifying alcohol taxation in Sri Lanka. The economic modelling comprises of three scenarios which change the current excise tax on alcohol by 14 percent, 20 percent, and 50 percent. The estimation uses annual production, revenue and taxation rates for 2023 as the base case. It is assumed that changes in excise duty fully incorporated into the consumer price, thus, reduce the affordability of alcohol. Increased excise tax rates lead to declining production and increasing revenues. Larger alcohol tax rate revisions provide more impactful results. Thus, increasing alcohol excise taxes is an effective strategy for reducing heavy alcohol consumption. However, there remains a major concern on the most appropriate taxation. Tax revision impacts vary with disposable incomes, demand elasticity for alcohol and presence of informal markets. Thus, imposing optimal tax rates should factor these modifications across alcoholic beverages for effective policy design.

Keywords: Alcohol taxation, revenue implications, appropriate tax rate

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Abstract

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1. Introduction

Excessive alcohol consumption leads to health and social problems. Economic theory suggests that an increase in the price of a product decreases the quantity demanded. Alcohol taxation has the potential to improve public health, revenue generation, efficiency of resource allocation, social equity or fairness, and employment (Kenkel & Manning, 1996). Therefore, alcohol taxation is used by governments worldwide as a tool to reduce heavy alcohol consumption and its associated health and economic harms as well as to generate more revenue.

In high-income countries, the tax burden on alcoholic beverages is mostly low, and the share of excise taxes as a percentage of prices has not changed much over time since the World Health Organization and others started monitoring it (Ngo et al., 2021). In Sri Lanka, adjustment of alcohol taxation is usually an annual exercise that is implemented with the annual national budget. Occasionally, the tax rates have been revised several times a year, in response to strong social pressures or a need for raising additional revenue.

Alcohol tax rates vary significantly across countries and products. The appropriate or effective tax rate is inconclusive and depends partly on the government's development objectives, though evidence shows that in most countries taxes do not affect prices enough to drive down consumption. The evidence also shows that alcohol taxes could be raised in almost every jurisdiction and generate additional tax revenues while driving down consumption. Furthermore, alcohol taxation is frequently not tied to inflation; hence, the optimal tax may be quite different from the imposed taxes. Inflation-adjusted taxation is more impactful on public policy, as adjusting upward for inflation is beneficial even at low rates of inflation (Beer et al., 2023). As alcohol taxation helps to improve public health via reduced consumption of alcoholic beverages, indexing alcohol excise taxes to inflation would help to mitigate the negative impacts of alcohol use.

In 2023, the excise tax share in Sri Lanka for arrack and beer was approximately 52 percent and 54 percent of retail price, respectively. In 2016 and 2017, those shares stood at 63–64 percent and 48–49 percent of retail price, respectively (Leifman & Trollidal, 2020). There is potential to raise alcohol tax rates to support the dual goals of revenue generation and improved public health.

The main purpose of this study is to investigate how policy makers can use alcohol taxation effectively to generate more revenues while reducing public health costs. Hence, this study aims to assess revenue changes under three different scenarios of increased excise duties for alcohol in Sri Lanka. Alcohol taxation is primarily targeted at reducing alcohol consumption. However, despite the causal link between alcohol use and poor public health outcomes, the nexus between alcohol taxation and its impacts are largely under-researched in low- and middle-income countries. This study of Sri Lanka, classified as a lower-middle-income country according to the World Bank, is therefore a significant contribution to the extant literature.

This study shows that compared to the base year of 2023, increases in alcohol excise tax by 14 percent, 20 percent, and 50 percent would decrease production by 23 percent, 25 percent, and 36 percent, respectively; and consumption would decrease by 9 percent, 12 percent, and 26 percent, respectively. Likewise, all three scenarios would generate additional excise tax revenue: LKR 3.5 billion, LKR 1.8 billion, and LKR 4.3 billion, respectively, which amounts to a four-percent, six-percent, and 10-percent change in excise tax revenue generation, respectively.

The impact of income elasticity is substantial for alcoholic beverages, as affordability of alcohol is likely to be significantly influenced by rising real incomes (Nelson, 2013). Hence, the positive revenue impacts could have been driven by several factors. The Sri Lankan economy is showing signs of economic recovery, with expected positive income growth of 1.7 percent for 2024, after nearly six consecutive quarters of contraction (Chung & Peiris, 2023; Breuer & Jahan, 2024), and inflation was reduced to single-digit levels in January 2024 (CBSL, 2024).

In general, the larger the alcohol excise tax rate revision, the greater the production and consumption impacts. For Sri Lanka, the arrack market seems to be more sensitive to tax revisions than the beer market. Increased taxes lead to higher alcohol retail prices and ultimately limit alcohol consumption due to substitution and avoidance behaviour ((Elder et al., 2010; Gehrsitz et al., 2021). This includes consumers shifting consumption to lower-priced beverages or harmful counterfeit products and/or increases in legal/illegal cross border trade. For Sri Lanka, estimates of unrecorded (illegal) alcohol consumption range between seven percent and 40 percent, while the global average is about 25 percent (Leifman, 2018; WHO, 2022). Thus, imposing optimal tax rates across different alcoholic beverages and controlling informal markets may help further enhance policy effectiveness (Rehm et al., 2022; Shang, 2018).

The remainder of the study is organised as follows. Section 2 presents the data and Section 3 looks at trends in the alcohol market. Section 4 details methodology and Section 5 contains the results and discussion. Finally, Section 6 presents conclusions and policy implications.

2. Data

The study estimates production and revenue changes of alcohol by applying different scenarios of tax increases to current relevant tax structures. Information on the alcohol excise tax structure for 2020–2024 and revenue and production data were obtained from the Ministry of Finance and the Excise Department of Sri Lanka. The excise revenue for 2023 was estimated using the Fiscal Management Report 2024 (FMR, 2024).¹ The alcohol retail prices were sourced from two main private beverage companies. All the other macro-level data were obtained from the Central Bank of Sri Lanka, the World Health Organization, and the World Development Indicators of the World Bank.

¹ The alcohol excise tax revenue for 2023 was estimated using revenue data of the *Fiscal Management Report 2024* (FMR, 2024). Accordingly, the initial nine months' revenue shows a decline of 0.4 percent from 2022 to 2023. A similar revenue drop is assumed in calculating the full year revenue for 2023. To obtain revenue by alcohol type, estimated 2023 revenue figure is distributed among all 10 alcohol types as per the average revenue shares during 2018–2022 period. The assumption of a drop in revenue for 2023 is based on 'negative GDP growth of six consecutive quarters before recording a positive real GDP growth of 1.6 percent in quarter 3, 2023' for Sri Lanka (Breuer & Jahan, 2024).

Alcoholic beverages are categorised into three major groups: beer, wine, and spirits. In this study, the main focus was on beer (above five percent in strength) and spirits (hereafter referred to as arrack, the principal spirits beverage), as these two alcoholic beverages constitute 85 percent of total alcohol production in Sri Lanka.² In order to evaluate the mean proportion of the alcohol tax for each type of alcoholic beverage, the mean percentage of pure alcohol for each beverage was assumed to be 8.8 percent for beer and 33.3 percent for arrack. Then, five different volumes of alcoholic beverages were considered. For beer: 500 ml and 330 ml, and for arrack: 750 ml, 375 ml, and 180 ml.

Sri Lanka uses a volumetric tax system (or specific tax), where the excise duty is levied on the volume of alcohol contained in a product (Yasmin et al., 2022). Accordingly, there are two types of taxation: the **absolute litre system**, in which the tax is applied on the content of alcohol, applies to almost all alcoholic beverages, while the **bulk litre system** applies to alcoholic beverages that contain low concentrations of alcohol (5.5–7.5 percent), currently applied only to ‘bottled toddy.’ The alcohol tax structure for 2020–2024 is shown in Table 1.

Table 1. Liquor Tax Structure (LKR per absolute alcohol litre), 2020–2024

Alcoholic beverages		2020	2021	2022	2023	2024
Beer	Beer: Absolute strength 5% and below	3,200	3,300	3,300	3,960	5,415
	Beer: Absolute strength above 5% (including stout)	3,200	3,450	3,450	4,150	5,680
Spirits	Special arrack	3,800	4,180	4,180	5,000	6,840
	Molasses, palmyrah, coconut, & processed arrack	4,050	4,460	4,460	5,350	7,320
	Locally made foreign liquor	4,150	4,570	4,570	5,500	7,525
Other	Liquor (other than toddy or from any cereal) manufactured by process other than distillation of natural products	3,200	3,300	3,300	3,960	5,415
	Liquor produced only from local plant materials or local animal milk (containing not more than 18% by volume of alcohol)	900	-	-	1,080	1,480
	Milk punch (local)	-	-	-	2,750	3,760
	Cider of not more than 4% of absolute strength (local)	-	-	-	3,000	4,105

Notes: Tax rates are reported at the beginning of each year.

Source: MOF. (2022) . Annual Report. Colombo: Ministry of Finance.

² In modelling revenue implications for Sri Lanka, only two alcohol types are considered. This is mainly because of the unavailability of disaggregated retail price data by alcohol type and product type.

Adjusting for possible influencing factors is important to avoid a large effect size. Thus, a number of assumptions and parameters are used in this study, as shown in Table 2 below. Alcohol culture is country- or region-specific (Leifman & Trollidal, 2020). Thus, the selection of assumptions and parameters should be done cautiously.

Table 2. Assumptions and Parameters Used in Modelling Alcohol Taxation for Sri Lanka

Assumption/parameter	Amount	Remarks
Market share	Arrack: 0.54 By product type: 750ml/375ml/180ml is 40%/10%/50% Beer: 0.3 By product type: 500ml/330ml is 65%/35%	Market share is calculated considering the average production share to total production during 2020–2022. Market share by product type was based on consumer interviews (10). These figures were then verified with the Distilleries Company of Sri Lanka.
Expected income growth	1.7%	Sri Lanka's growth forecast for 2024 by the World Bank (Chung & Peiris, 2023)
Expected inflation rate	6.4%	Inflation for January 2024 (CBSL, 2024)
Price elasticity of demand	Arrack: -0.79 Beer: -0.5	Price elasticity of demand shows how a one-percent increase in price affects sales in percentage terms (Leifman & Trollidal, 2020). The arrack market is more sensitive to price changes than beer.
Income elasticity of demand	Arrack: 1.00 Beer: 0.51	Alcohol is considered a normal good with an income elasticity less than 1 (Nelson, 2013).
Value-added tax (VAT)	2023: 15% 2024: 18%	Since January 2024, the VAT rate increased to 18% eliminating all VAT exemptions except selected products in health, education, and a few essential foods (MOF, 2024).

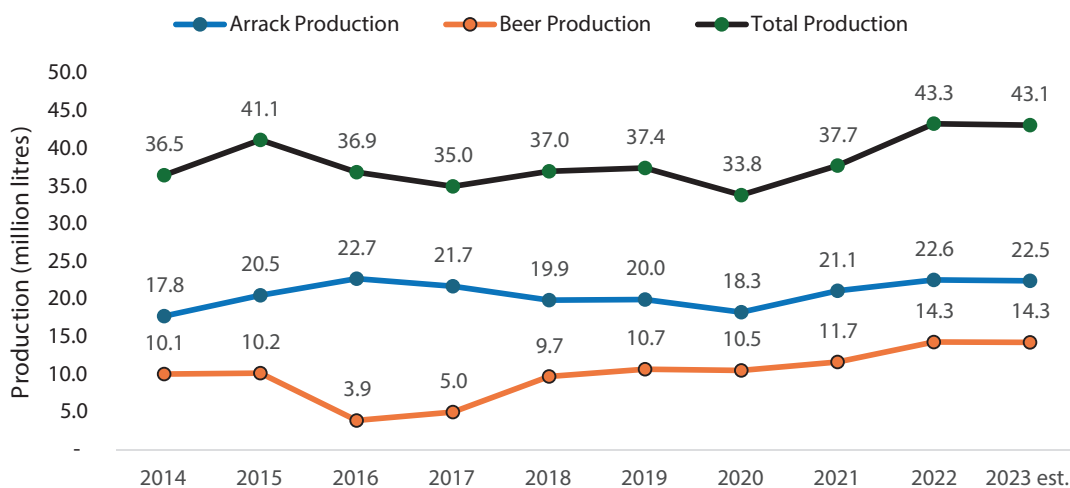
3. Trends in the Alcohol Market

This section presents trends in the alcohol market, with special emphasis on arrack and beer. For Sri Lanka, arrack is the most consumed traditional alcoholic beverage, while beer is considered more of a new beverage that is associated with a modern lifestyle (Leifman & Trollidal, 2020).

3.1 Alcohol Production

Figure 1 shows the total alcohol production during 2014–2023. With the exception of a few years, production is trending steadily upwards.

Figure 1. Alcohol Production in Sri Lanka (2014–2023)



Source: Excise Department of Sri Lanka and Ministry of Finance

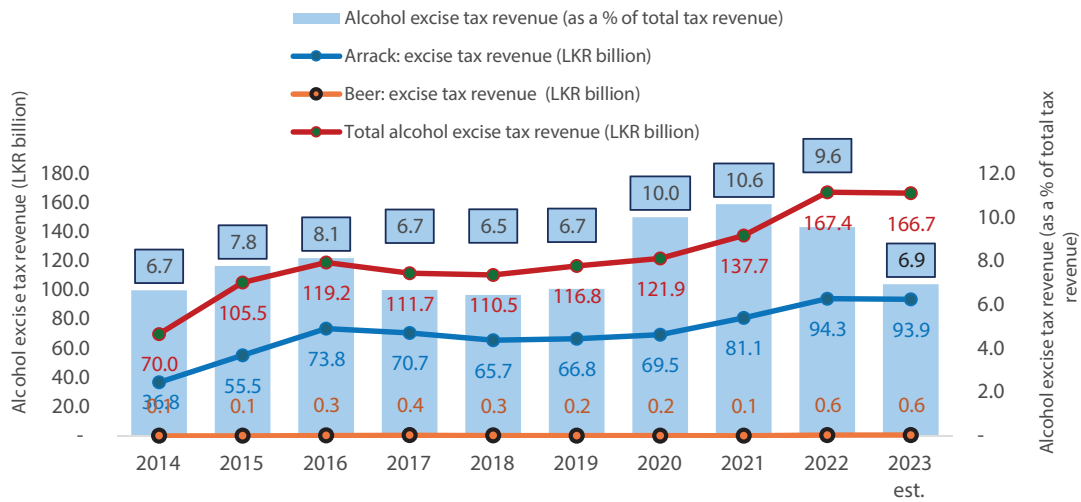
The lowest alcohol production of 33.8 million litres of absolute alcohol was recorded in 2020 which this could be due to the pandemic-related lockdowns and closure of sales outlets. Since 2021, production has picked up. In 2023, the estimated production is expected to reduce by 0.4 percent (FMR, 2024). The expected production decline is likely attributable to declining disposable income stemming from the stark increases in various taxes and inflationary pressures. Arrack and beer followed similar patterns of production, except for the significant production decline for beer during the 2016–2017 period. For beer, the production decline in 2016 was large, at 62 percent: from 10.2 million litres in 2015 to 3.9 million litres. This could have been driven by the substitution effect from beer to arrack in connection with a significant increase in beer taxation in 2015 and 2016 alongside a minor increase in arrack taxation. In 2023, arrack and beer shares of total production amounted to 52 percent and 33 percent, respectively.

3.2 Alcohol Revenue

On average, the annual excise duty increased by 14 percent for both arrack and beer during 2018–2024. Thus, revenue from excise duty on alcohol shows an increasing trend, except for 2018 and 2023. The highest total tax revenue of LKR 167 billion was recorded in 2022. On average, the percentage share of total excise tax revenue for arrack and beer amounts to 57.5 percent and 0.2 percent, respectively, during 2018–2023.

The average alcohol excise tax revenue share of total tax revenue is 8.1 percent during 2014–2022. The highest share of 10.6 percent is in 2021, and the lowest of 6.6 percent is in 2014. The percentage share of alcohol excise tax revenue in total tax revenue is, however, expected to drop from 9.6 percent in 2022 to 6.9 percent in 2023. This is mainly because of the significant growth in other tax-revenue-generating sources.

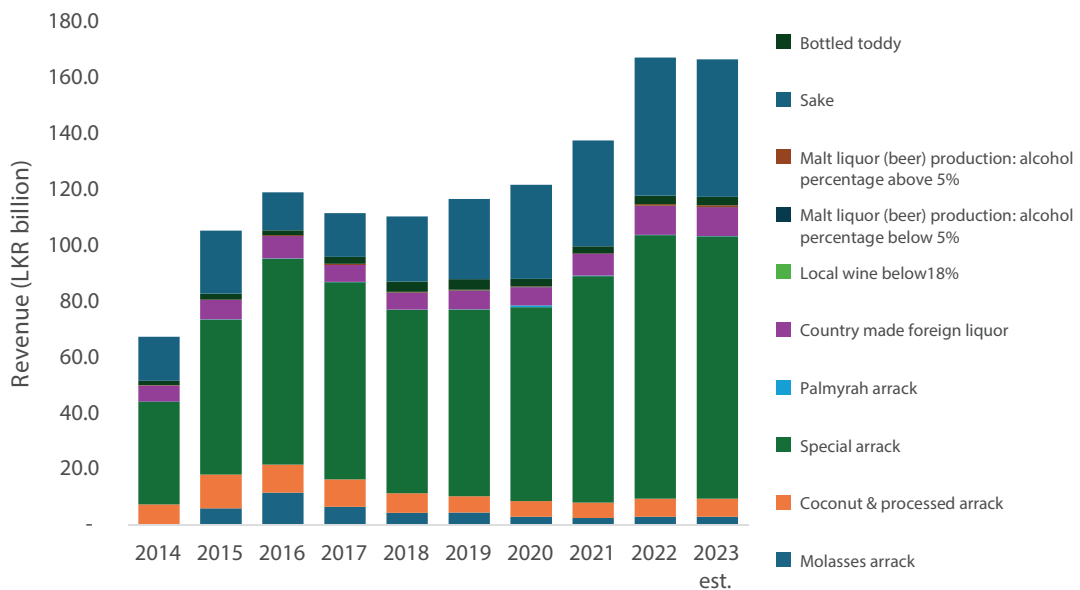
Figure 2. Alcohol Revenue in Sri Lanka (2014–2023)



Source: Excise Department of Sri Lanka and Ministry of Finance

Alcohol excise tax revenue comprises of 10 alcoholic beverages. Of these, special arrack has the highest revenue share of 56.3 percent (LKR 93.9 billion), followed by bottled toddy at 29.5 percent (LKR 49.2 billion) in 2023 (Figure 3). The other five alcoholic beverages with the highest shares are country-made foreign liquor (6.2 percent), coconut and processed arrack (3.9 percent), sake (1.8 percent), molasses arrack (1.8 percent), and beer above five-percent strength (0.3 percent).

Figure 3. Alcohol Excise Tax Revenue by All Alcohol Type

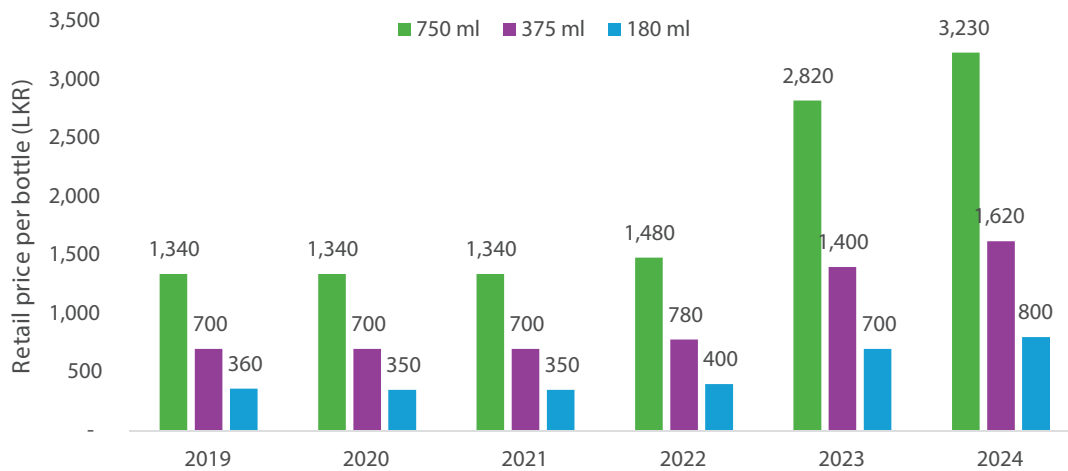


Source: Excise Department of Sri Lanka and Ministry of Finance

3.3 Alcohol Retail Prices

Figure 4 shows the arrack (special arrack) retail prices by three different product sizes: 750 ml, 375 ml, and 180 ml. Except for the years 2019, 2020, and 2021, retail prices are continuing to rise. The largest retail price increase of 82 percent is observed in 2023. The retail prices of the three sizes of special arrack—750 ml, 375 ml, and 180 ml—increased by 91 percent, 79 percent, and 51 percent, respectively, in 2023. During 2022–2024, the product size that saw the largest average change in price was 750 ml (39 percent). The change in price for 375 ml and 180 ml was approximately 36 and 35 percent, respectively.

Figure 4. Retail Price for Special Arrack (2019–2024)



Source: Distilleries Company of Sri Lanka

For beer, the price changes are smaller. From 2023 to 2024, the price increased for the 500 ml product by nine percent, from LKR 430 to LKR 470. For the 330 ml product, this change is seven percent, from LKR 280 to LKR 300.³

4. Methodology

The study employs predictive modelling techniques to assess the impacts of excise tax rate changes on revenue and production of alcohol in Sri Lanka. The estimation method closely follows a similar study conducted by the Social Policy and Development Centre on tobacco taxation in Pakistan (SPDC, 2021). The assessment has two main steps: (1) building taxation scenarios and (2) deriving production and revenue impacts.

4.1 Building Taxation Scenarios

Alcohol taxation is mainly driven by two major taxes in Sri Lanka: the excise duty, which is imposed on the volume of alcohol contained in a product, and the value-added tax (VAT). The retail price (RP) of alcohol is decomposed as follows:

³ Beer retail prices are from online sources available from Lion Brewery Ceylon Limited, thus, no historical data are available.

$$RP_{it} = PP_{it} + TR_{it} + (PP_{it} + TR_{it}) * VAT_t \text{-----}(1)$$

where the producer price of alcohol (PP) adds the excise duty (TR) and VAT to make the retail price. Producer price is inclusive of retail margin.

This study simulates three different scenarios: increases in excise tax by 14 percent, 20 percent, and 50 percent for each alcoholic beverage. Producers were assumed to pass the cost of the tax increase directly onto the consumer by increasing their alcoholic beverage prices by exactly that amount (Kilian, et al., 2021). The increase in consumer price is expected to reduce consumption.

Equation (2) projects the new retail prices assuming the tax increase (14 percent, 20 percent, and 50 percent), an ex-ante full tax pass-through, and an increase in producer price in line with general inflation:

$$RP_{it}^{new} = PP_{i(t-1)}(1+\pi) + TR_{it}(1+\delta) + \{PP_{i(t-1)}(1+\pi) + TR_{it}(1+\delta)\} * VAT_t \text{-----}(2)$$

where the projected retail price (RP^{new}) reflects an impact of both inflation (π) and percentage change in tax rate (δ).

4.2 Deriving Production and Revenue Impacts

Alcohol-tax-induced revenue and production changes were estimated considering income growth ($Income_{it}$), price elasticity of demand (ϵ_p), and income elasticity of demand (ϵ_g), which measures the extent to which an increase in alcohol prices and income will reduce consumption of alcohol, respectively. Alcohol production (P_{it}) is calculated using equation (3) below:

$$P_{it} = P_{i(t-1)} (1 + \Delta RP_{it} * \epsilon_p + Income_{it} * \epsilon_g) \text{-----}(3)$$

where ΔRP is the percentage change in retail price of taxable alcohol beverages and ϵ_p is the short-term price elasticity of demand extracted from a similar study on 19 countries including Sri Lanka (Leifman & Trollidal, 2020). $Income_{it}$ is the expected income growth and ϵ_g is the income elasticity (Nelson, 2013).

5. Results and Discussion

Sri Lanka's alcohol market comprises 10 alcohol beverages, including beer and arrack, in which arrack has the largest share of total production and excise tax revenue. Using the average production share of total production during 2020–2022, the market shares of arrack and beer are assessed at 54 percent and 30 percent, respectively. Then, the market share by each product type is estimated using the data generated through a focus group discussion with ten consumers and a key informant interview with a production firm.⁴ Accordingly, market shares of 750 ml, 375 ml, and 180 ml products of arrack equal 40 percent, 10 percent, and 50 percent, respectively. For beer, the shares for 500 ml and 330 ml are 65 percent and 35 percent, respectively.

⁴ The production firm is the Distilleries Company of Sri Lanka, which has the largest market share by revenue among all other distillery companies in Sri Lanka.

Taxes and Prices

In 2023, the total excise tax collection from arrack and beer is estimated at LKR 93 billion, and arrack would contribute 99 percent of this revenue. The total tax burden is calculated as 52 percent for both arrack and beer. Tax burden indicates the percentage share of total taxes in the retail price of a product (Table 3).

Table 3. Baseline and Simulated Taxes and Price of Alcohol

	2023 Base year	Taxation scenario		
		Scenario 1	Scenario 2	Scenario 3
Exogenous policy shock				
Change in excise rate		20%	50%	100%
Inflation		1.5%	1.5%	1.5%
Weighted average price and tax components				
Producer price (LKR)	260	276	276	276
Total taxes (LKR million)	135,414	121,913	123,832	127,681
Excise tax	93,166	96,677	98,516	102,839
VAT	42,248	25,235	25,316	24,843
Consumer price per bottle (LKR)	1,030	1,170	1,208	1,400
Total taxes as % of price (%)	52	55	56	60
Excise tax (% of price)	44	44	45	49
VAT (% of price)	11	11	11	11
Percentage change in consumer price (%)		11	14	30
PERCENTAGE CHANGE IN PRICE AND TAX COMPONENTS (%)				
Percentage change in producer price (%)		6.4	6.4	6.4
% change in weighted average excise tax		14.0	20.0	50.0
% change in weighted average VAT tax		33.8	38.71	63.4
Percentage change in total taxes (%)		-10.0	-8.6	-5.7
% change in excise tax		3.8	5.7	10.4
% change in VAT		-40.3	-40.1	-41.2
Percentage change in weighted average price		14	17	36
% change in final price of arrack		14	17	36
% change in final price of beer		13	17	37

The simulation is conducted for three tax policy scenarios: 14 percent, 20 percent, and 50 percent, assuming 1.7 percent income growth and 6.4 percent inflation. Increasing tax ratios would lead to increased excise tax revenues in all three scenarios at four percent, six percent, and 10 percent, respectively.

In the three scenarios, the excise tax revenue change for arrack would be four percent, six percent, and 10 percent, respectively; and for beer it would be seven percent, 11 percent, and 24 percent, respectively. This shows that, compared to arrack, beer is more responsive to tax revisions. Tax-induced retail prices have different effects on consumer consumption behaviour. Thus, in response consumers may choose to consume lower-priced or illegal alcoholic beverages. Despite increased excise tax revenue, VAT revenue on average shows a 40-percent reduction, leading to an eight-percent reduction in total tax revenue. This revenue drop is more significant for beer than for arrack. In the three scenarios, the average change in total revenue for arrack would be two percent, while for beer it would be 94 percent. The magnitude of the changes for beer are massive and could be due to the unavailability of data at disaggregated levels.

The changes in tax ratios are not comparable to the changes in tax revenues. This variation could have been driven by many factors: the assessment includes only own-price elasticity and income elasticity. However, cross-price elasticities and illicit markets can also have considerable impacts on the alcohol market. Hence, the findings need to be interpreted with caution. Future studies incorporating all of these factors are recommended; yet, the unavailability of quality data at disaggregated levels is an ongoing concern.

Increases in retail prices do not necessarily follow the rate of increase in alcohol excise taxes (Young & Bielińska-Kwapisz, 2002). Therefore, there are barriers in raising taxes through alcohol tax revisions. This includes cross-border shopping, job losses for employees in the alcohol industry, and low-income households bearing a heavier tax burden. However, it is important to note that job losses can be offset by improved productivity and lower consumption, which lead to improved health. Yet, raising taxes may increase alcohol trade between borders illegally. Thus, neighbouring jurisdictions play a significant role on alcohol consumption.

Tax pass-through is different across alcoholic beverages (Nelson & Moran, 2020; Wilson, et al., 2021). For cheaper beverages, prices tend to rise by less than the tax increase (under-shift), while the expensive products are more prone to receive an over-shift in prices. When alcohol taxes are levied based on volume or quantity (that is, specific taxes), the tax burden is larger for lower-priced products than for higher-priced products (Ngo et al., 2021). These types of taxes are effective in reducing price variability, incidence of tax avoidance, and consumption of lower-price products (Shang, 2018). Analysing the variation in prices and consumption across population subgroups is useful in public policy formulation.

Production and Revenue Impacts

Table 4 shows the production and consumption changes for the alcohol tax simulations. Confirming the economic theory, the rise in retail price would reduce alcohol production and consumption. The price elasticity of demand for beer and arrack is taken as -0.5 and -0.79, respectively (Leifman & Trolldal, 2020). Alcohol excise tax revenue contributed 10 percent of total tax revenue during 2020–2022. Alcohol consumption was assumed to match production and revenue patterns.

Table 4. Impact on Alcohol Production and Consumption

	2023 Base year	2024		
		Scenario 1	Scenario 2	Scenario 3
Alcohol production				
Change in total alcohol production (%)		-22.7	-24.9	-35.6
Change in production of arrack (%)		-19.9	-22.4	-35.2
Change in production of beer (%)		-27.3	-28.7	-36.1
Total production (million litres)	36.7	28.4	27.6	23.7
Production of arrack (million litres)	22.5	18.0	17.4	14.5
Production of beer (million litres)	14.3	10.4	10.2	9.1
Change in total alcohol consumption (%)		9.0	11.9	26.4
Alcohol production				
Change in consumption of arrack (%)		9.0	11.9	26.5
Change in consumption of beer (%)		5.9	7.8	17.3
Total consumption (million litres)	13.64	12.41	12.02	10.04
Consumption of arrack (million litres)	13.55	12.33	11.93	9.96
Consumption of beer (million litres)	0.088	0.083	0.081	0.073

With the base year alcohol production of 37 million litres, the production decline seems to be more distinctive in beer than in arrack. The change in production for arrack would be -20 percent, -22 percent, and -35 percent, respectively; while for beer it would be -27 percent, -29 percent, and -36 percent, respectively. Across the three scenarios, the base year consumption of 14 million litres would decline to 12.4, 12.0, and 10.0 million litres, respectively. In contrast to production, consumption of beer would be less affected with lower consumption declines of six percent, eight percent, and 17 percent across the scenarios. The consumption decline for arrack would be nine percent, 12 percent, and 27 percent, respectively. Hence, these results confirm that the alcohol taxation can be effectively used as a policy strategy to control heavy alcohol consumption.

The revenue impacts of the alcohol tax simulations are shown in Table 5. All three policy scenarios would have positive impacts on excise tax revenue generation. The percentage change in excise tax revenue would be four percent, six percent, and 10 percent, respectively. Although absolute values are smaller, revenue changes for beer would be significantly higher than arrack, at eight percent, 11 percent, and 24 percent, respectively. However, both VAT and total revenue would decrease across the three scenarios. The decrease in VAT revenue for beer would be almost 99 percent. As a result, total revenue would be considerably smaller.

Table 5. Impact on Alcohol Revenue

	2023	2024		
	Base year	Scenario 1	Scenario 2	Scenario 3
Total and additional tax revenue (LKR million)				
Total revenue	135,414	121,913	123,832	127,681
Excise tax revenue	93,166	96,677	98,516	102,839
VAT revenue	42,248	25,235	25,316	24,843
Additional total tax revenue		-13,501	1,920	3,849
Additional excise tax revenue		3,512	1,839	4,322
Additional VAT revenue		-17,013	81	-474
Percentage increase in tax revenue (nominal)				
Total revenue		-10.0	-8.6	-5.7
Excise tax revenue		3.8	5.7	10.4
VAT revenue		-40.3	-40.1	-41.2

6. Conclusion and Policy Implications

Alcohol taxation is primarily used in improving public health and revenue generation. In general, the alcohol tax revisions are implemented parallel to the annual national budget in Sri Lanka. Despite these annual alcohol tax revisions, alcohol production shows an increasing trend. Tax revisions and price changes vary significantly across alcoholic products. This study shows that by increasing excise tax rates by 14 percent, 20 percent, and 50 percent, the government can generate an additional excise tax revenue of LKR 3.5 billion, LKR 1.8 billion, and LKR 4.3 billion. Across the three scenarios, the expected decline in production is 23 percent, 25 percent, and 36 percent, respectively; and the expected decline in consumption is nine percent, 12 percent, and 26 percent, respectively. Therefore, alcohol taxation could be used as an effective policy strategy to control heavy alcohol consumption in Sri Lanka.

Larger alcohol tax revisions that make alcoholic beverages more expensive would result in more revenue and reduced production. Tax rate changes generally are under-shifted on lower-priced alcoholic beverages and over-shifted on higher-priced beverages. Hence, having a uniform tax rate across different alcoholic products may be useful to avoid industry misuse of the tax policy reforms.

The price elasticity of alcohol differs by the type of alcoholic product, age of the consumer, and the amount consumed. High-income economies show highly inelastic alcohol consumption, and alcohol is considered more of a luxury good than a normal good. Similarly, alcohol consumption of both youth and heavy drinkers is typically less elastic. Further, control of informal markets is vital for effective alcohol taxation policy in a country (Rehm et al., 2022). Hence, analysing the impacts of alcohol taxation across different alcoholic beverages, as well as across socioeconomic and demographic groups, would inform more sensible policy development and future research on optimal taxation and incidence.

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