

Critical considerations in tax policy design and implementation, including monitoring, challenges and data needs

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Policy Transmission Mechanism of Health Taxes

1. Increase in taxes results in higher prices

- ▶ Tax pass through influences impact, but
- ▶ Well designed **tax structures** ensure opt

2. Increases in prices reduce consumption

- ▶ Even though tobacco and alcohol are re

3. Reduced consumption improved health

- ▶ Increased cessation, reduced initiation, a

4. Higher taxes result in increased tax revenue

- ▶ Price inelastic demand ensures tax revenues increase even when consumption falls

The tax structure is a key factor in the policy transmission mechanism:

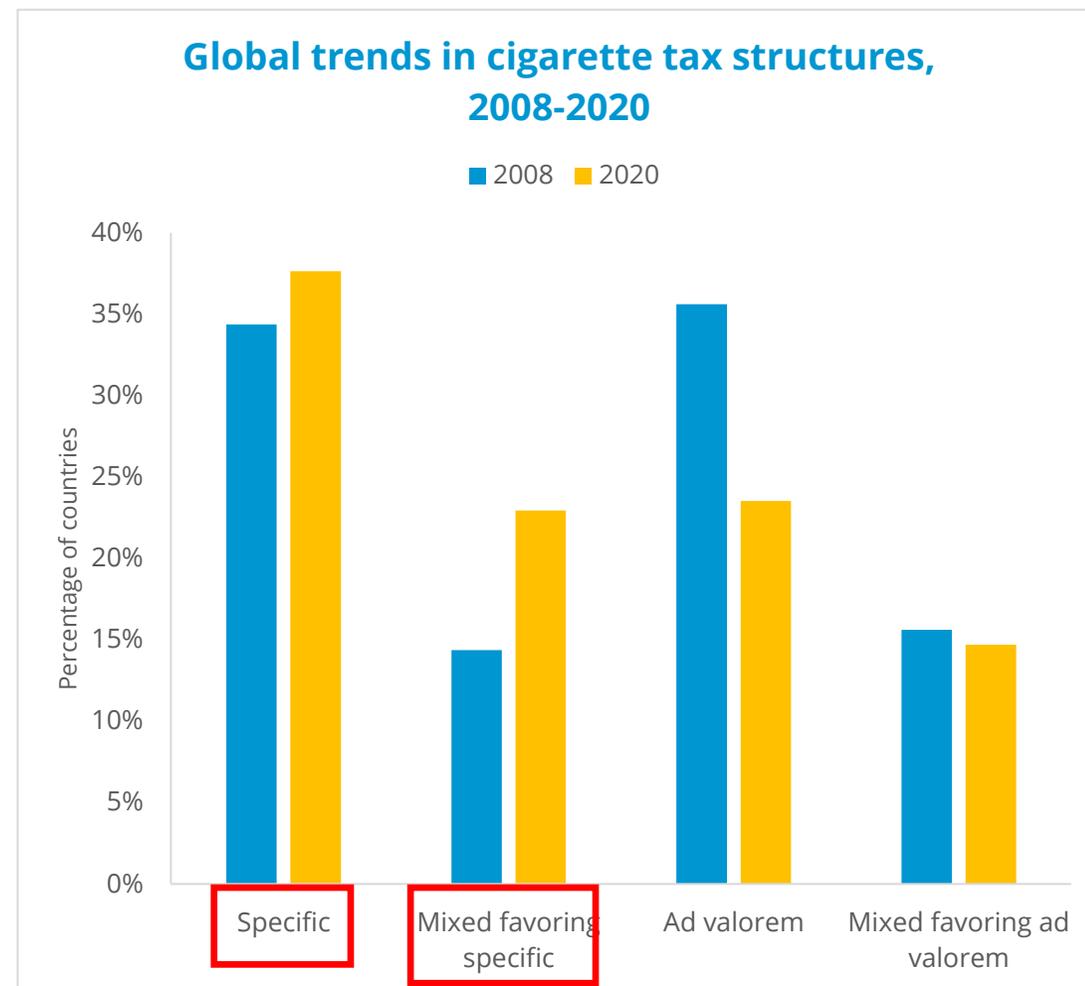
- If tax structures are poorly designed, tax increases will not result in prices increase, meaning that there is no decline in consumption, and thus no improvement in health outcomes
- Alternatively, poorly designed tax structures will mean increase in tax rates have no significant impact on the effective tax, resulting in little to no impact on revenue

What do we mean by tax structure?

- Type of tax: choice of specific, ad valorem or mixed
- Tax base:
 - ▶ Specific: what volume the tax is applied to (sticks, weight or packs; beverage volume or sugar/alcohol volume)
 - ▶ Ad valorem: where in the supply chain the value is established (early or late)
- Scope of the tax:
 - ▶ Tobacco: which tobacco products do taxes apply to; variation in tax rates between different tobacco products
 - ▶ Alcohol: which beverages do taxes apply to; variation in tax rates between different alcohol (e.g., beer, wine, spirits)
 - ▶ SSBs: which beverages are taxes applied to (e.g., fruit juices, mineral water, diet drinks)
- Other attributes:
 - ▶ Tiers: different rates on products with different attributes, prices, or production
 - ▶ Thresholds: a tier below which a tax is not levied

Tax structure: type of tax

- **Specific** excise taxes are where the tax is levied on the volume of product, i.e. the number of cigarettes or packs, or the litres of beer, wine or spirits
- **Ad valorem** excise taxes are where the tax is levied on the value of the product, i.e. the CIF or ex-factory price, or retail prices
- Mixed systems can be applied by using both specific and ad valorem taxes together
- Whereas hybrid systems apply different aspects of each (sometimes) under different conditions (e.g. the higher of ad valorem or specific)
- Global trends show that specific taxes are becoming more popular than ad valorem taxes (see figure on the right)



Source: WHO GTCR (2009-2021)

Attributes of specific and ad valorem taxes

- Each tax type has advantages and disadvantages, but there is a consensus that specific taxes are preferred to ad valorem taxes
- Specific taxes are ultimately preferred since they have a more significant health and fiscal impact
- Specific taxes also are more effective at targeting negative externalities and internalities since they do not vary with value: a cheaper cigarette is not less harmful than a more expensive cigarettes
- Preferences may also vary between products, but that needs to be considered alongside the tax base and other product characteristics

Specific taxes	Ad valorem taxes
Results in higher prices, on average than ad valorem systems	Results in lower prices, on average than specific systems
Increases prices of cheaper products more than ad valorem systems in relative terms	Increases prices of cheaper products less than specific systems in absolute terms
Less variation in prices; less opportunity to trade down in response to prices increases	More variation in prices; more opportunity to trade down in response to prices increases
More likely to over shift tax increases; larger price increases	More likely to under shift tax increases; smaller/no price increases
Larger and more predictable revenue streams	Revenue undermined by under shifting
Easier to collect since easier to count volume	More difficult to collect since more difficult to establish values
Less susceptible to tax avoidance	More susceptible to tax avoidance due to strategies like under shifting and transfer pricing
Real values eroded by inflation	Maintains real value; not eroded by inflation

Tobacco tax structures in Caricom countries	
Antigua and Barbuda	No excise
Bahamas	Specific
Barbados	Specific
Belize	Specific
Dominica	Specific
Grenada	Ad valorem (CIF/ex-factory)
Guyana	Specific
Haiti	Ad valorem (CIF/ex-factory)
Jamaica	Specific
Montserrat	n/a
St. Kitts and Nevis	Ad valorem (CIF/ex-factory)
St. Lucia	Specific
St. Vincent and the Grenadines	Specific
Suriname	Specific
Trinidad and Tobago	Specific

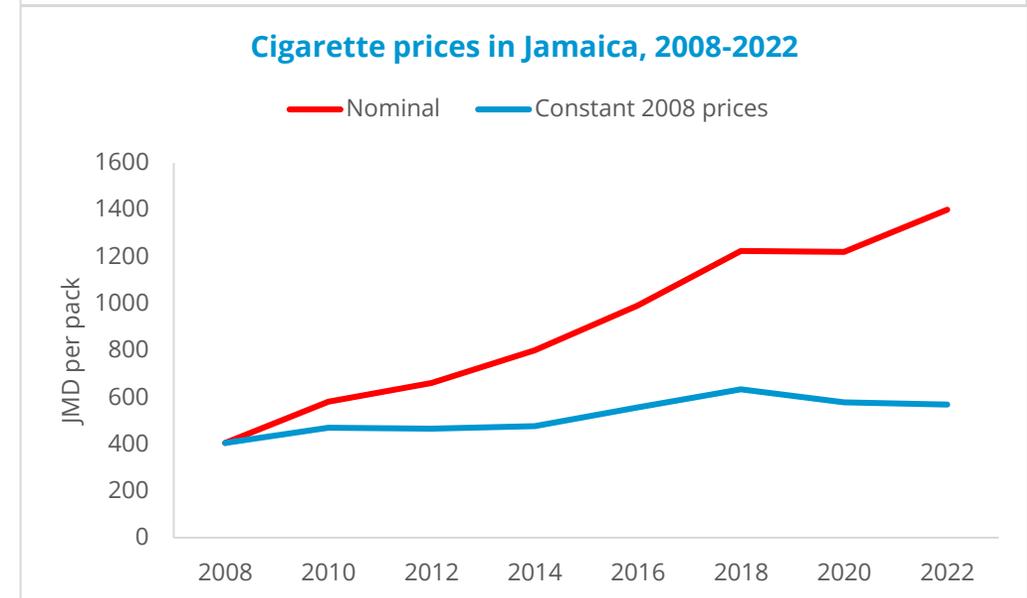
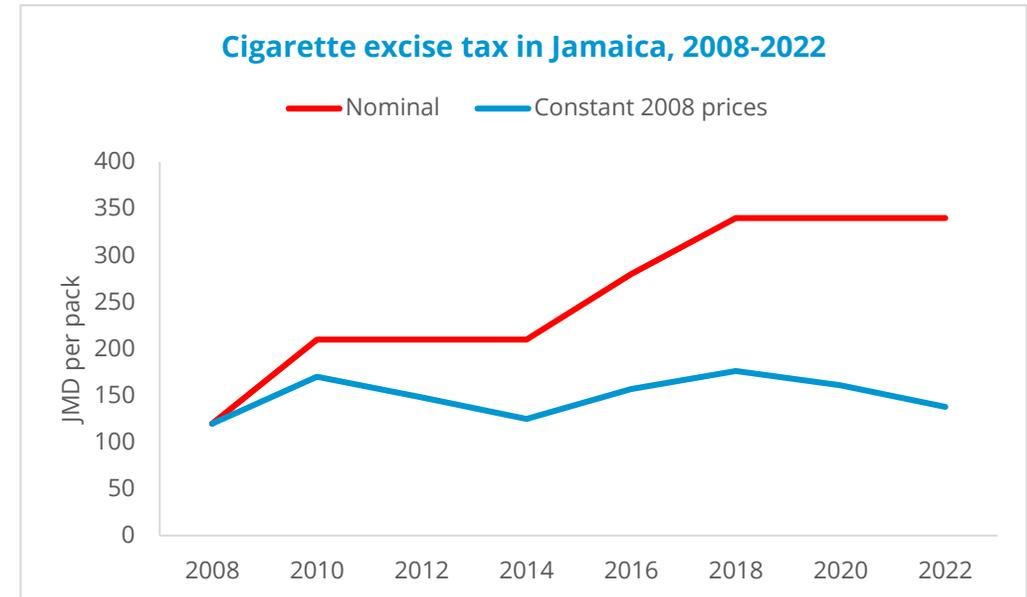
Source: WHO (2022)

Generally, Caricom countries have well-designed tax structures on tobacco

- Most countries have specific taxes, while three have ad valorem taxes early in the supply chain and one has no excise
- Specific taxes result in better fiscal and health outcomes on tobacco; however, this does not say anything about the tax rates

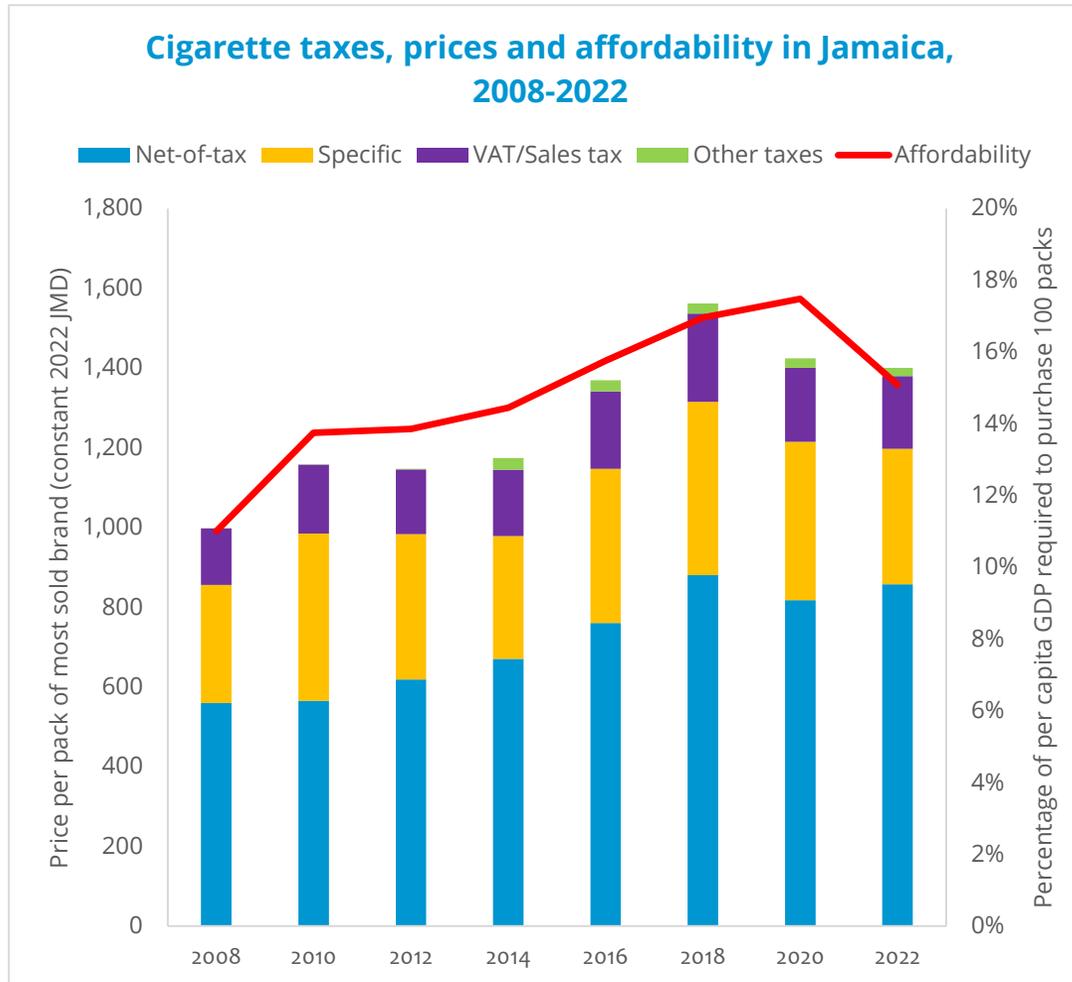
Case study of tobacco taxes in Caricom: cigarettes in Jamaica

- While taxes and prices have increased in nominal terms, the effect of inflation have eroded these increases
- The nominal tax remained unchanged from 2010 until 2014
- It increased again in 2016 & 2018, whereafter it remained unchanged through 2022;
- the net result is that in inflation adjusted terms, despite increasing 183% in nominal terms, in real terms taxes were only 15% higher in 2022 than 2008.



Source: World Bank Global Tax Program estimates using WHO (2022) data

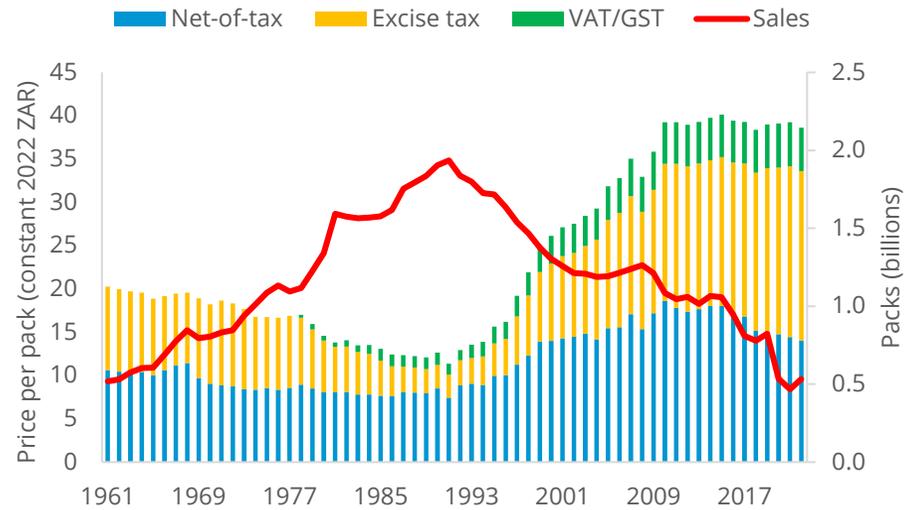
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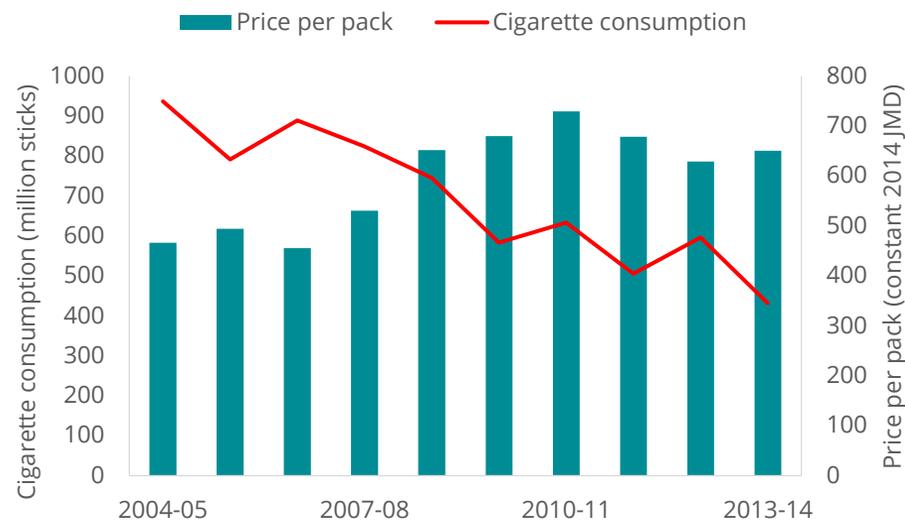
Source: World Bank Global Tax Program estimates using WHO (2022) data

- Cigarette taxes led to price increase in Jamaica over time, although not consistently
- This has led to declining cigarette affordability, however in the most recent years, prices increases have subsided and affordability trends have reversed
- The figure shows that whenever taxes increased in Jamaica (increase in the orange bar), the net-of-tax price (blue bar) increased. When prices increase by more than the increase in tax, taxes are said to be over shifted. Over shifting results in larger declines in sales, but smaller increases in tax revenues (compared to tax increases being fully pass through).
- The net-of-tax price is the value attributable to the supply chain, including the industry margins. The industry was taking advantage of, and exploiting, tax increases to compensate for declining sales with larger margins

Cigarette taxes, prices, and sales in South Africa, 1961-2022



Cigarette prices and consumption in Jamaica, 2004-2014



Impact of increasing specific taxes in South Africa and Jamaica (reminder)

- Increases in taxes resulted in increases in prices that led to declining sales, combined with increases in taxes
- Tax increases were over shifted meaning that prices increased by more than the tax increase; while this increased the impact on sales and health, it resulted in smaller increases in tax revenues
- However, specific taxes are vulnerable to inflation and should be adjusted regularly to protect their real value

- Vietnam applies an ad valorem excise on cigarettes, based on the ex-factory price
- Since this is early in the supply chain, the tax base is relatively small
- Between 2006 and 2016, tax rates increased from 55 to 70%, yet retail prices did not increase
 - A tax rate of 55% in 2006 was only 36% of the price
 - A tax rate of 70% accounted for only 37% of the price in 2016
 - The tax increases were *under shifted*, as producers cut ex-factory prices to maintain the effective tax value
- Since prices did not increase, there was no impact on consumption or health; in fact, sales volumes increased
- Applying the tax base early in the supply chain is not a good practice, however simply shifting it later in the supply is also less preferable to specific taxes

Ad valorem taxes in Vietnam ineffective in terms of health outcomes

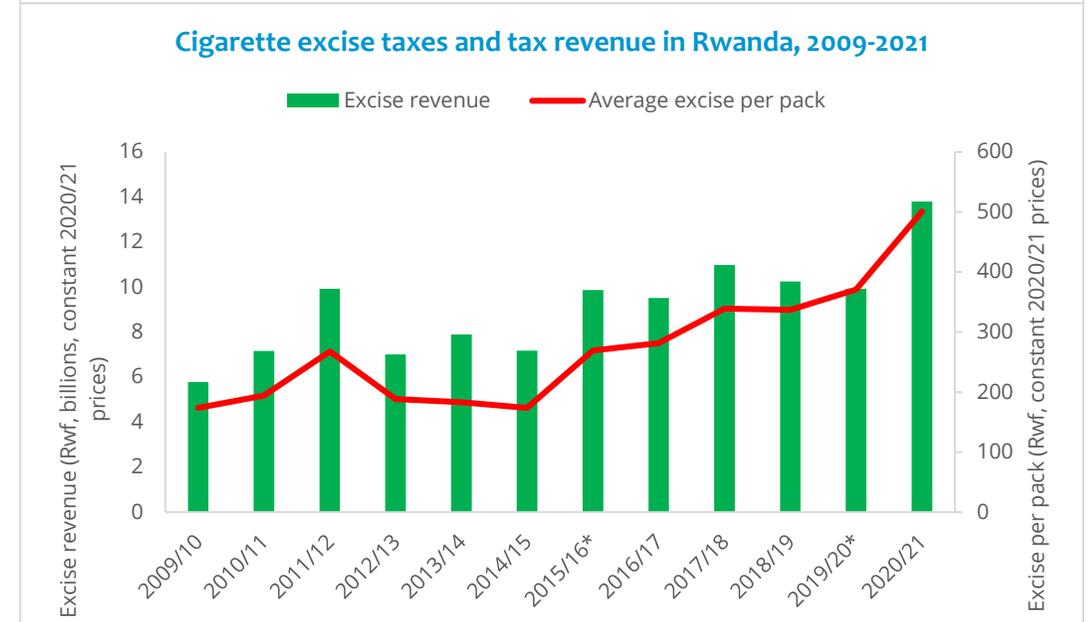
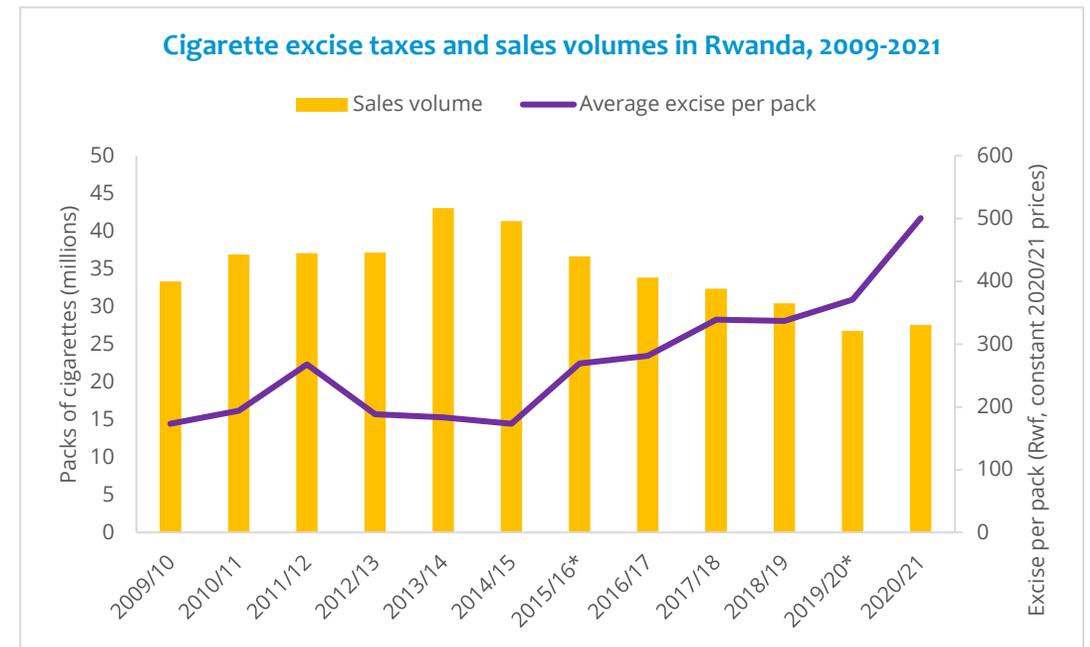


Source: Blecher and Le Thu Thu (2018)

Note: all values are adjusted for inflation (converted into 2016 constant prices)

When reforming an ad valorem system, there are several options, including a mixed system and moving the tax base later in the supply chain

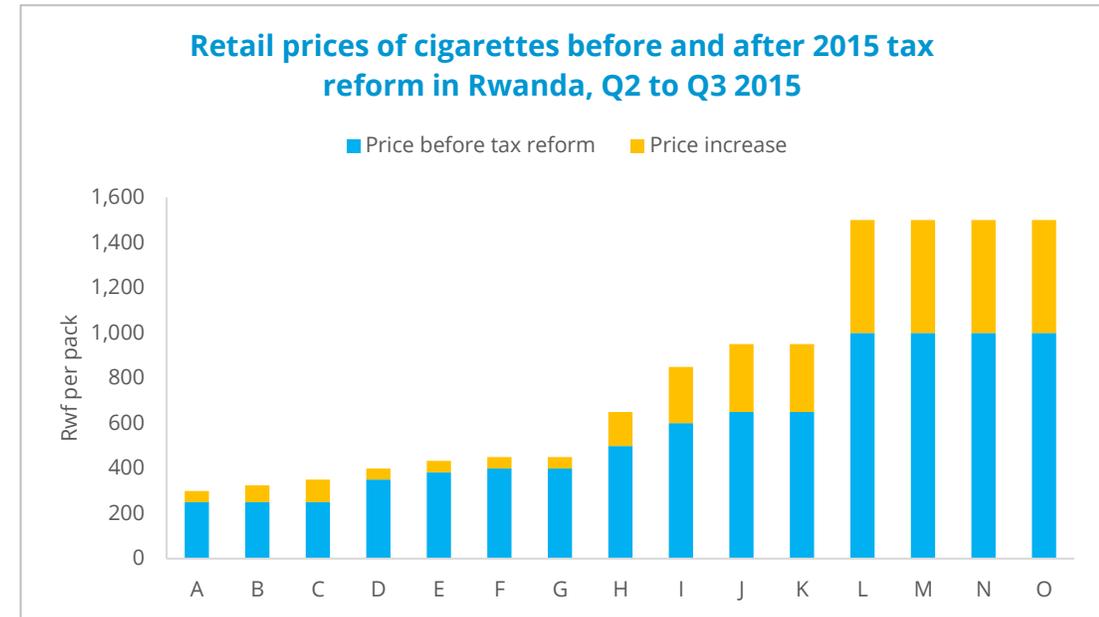
- Example of Rwanda (pre-2015/16): 175% ad valorem on CIF/ex-factory price; tax apply early in supply chain resulting in a small tax base)
- 2015/16 reform: implemented a mixed system RWF 30 per pack specific tax and 36% ad valorem now on retail prices (later in the supply chain)
- 2019/20 increase: increased specific tax to RWF 130 (no change in ad valorem)
- Resulted in significant increases in taxes, reductions in sales, and increases in tax revenue



Source: World Bank estimates using Rwanda Revenue Authority data

While the impact of the reform was good, the decline in consumption was limited by the impact of shifting the ad valorem tax base

- When reforming an ad valorem system, there are several options, including a mixed system and moving the tax base later in the supply chain
- 2015/16 reform: larger variance in prices after tax increase due to larger price increases on more expensive brands due to ad valorem tax; increasing incentives to trade-down to avoid tax increases
- 2019/20 increase: equal absolute price increases, but larger relative price increases on cheaper brands due to specific tax; reducing incentives to trade-down
- This highlights how reforms to uniform specific taxes have the most significant impact on reducing consumption and improving health



Note: A through O represents anonymized brands
 Source: World Bank estimates using Rwanda Revenue Authority data

Tax structure: the nuance

Tobacco

- Negative externalities and internalities of cigarettes are not significantly correlated with the strength of cigarette (e.g. nicotine or tar)
- Rather, harm is correlated to “*pack years*” (number of cigarettes smoked per day multiplied by the years of smoking)
- Thus, the tax is almost always applied to the number of cigarettes or pack, or the weight
- No known examples where the tax base is linked to the strength of the cigarette

Alcohol

- Negative externalities and internalities of alcohol use has two distinct variations
- Volume of total alcohol consumption is correlated with chronic diseases (e.g. liver cirrhosis)
- And the concentration (or pattern) of drinking is linked to acute injuries (e.g. drunk driving or violence resulting from binge drinking)
- Taxing the volume of the beverage versus the volumes of alcohol has varying impacts that target the externalities and internalities differently; let's consider this in more detail

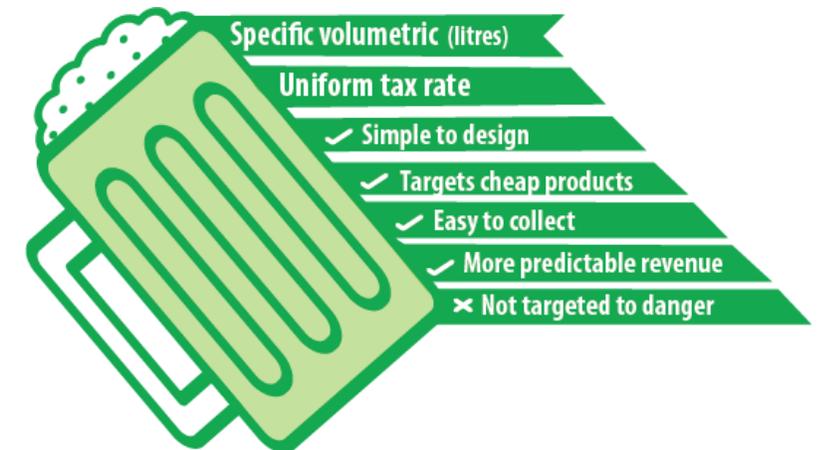
Alcohol-content based specific taxes

- Tax is applied per litre of absolute alcohol (or similar measure), meaning that the tax is higher on higher strength beer, and lower on lower strength beer
- Assuming that taxes are fully passed through to prices, lower strength beer will be cheaper than higher strength beer resulting
- This will result in a substitution from higher to lower strength beer and a reduction in total alcohol consumption, all else being held constant
- It also generates incentives for firms to lower alcohol content to reduce their tax liability
- However, critics argue that it will result in cheaper products that may encourage consumption, particularly experimentation by youth
- Furthermore, it is far more complex to administer, requiring more intensive tax administration; may not be appropriate in low-capacity settings



Volumetric specific taxes

- Tax is applied per litre of beverage, meaning the tax is the same no matter the strength of the beer
- Does not result in relative price changes and substitution to lower alcohol beer; it may even encourage substitution to higher alcohol beer since the effective tax per litre of absolute alcohol is lower
- However, it does raise prices of cheaper products more, resulting in a larger reduction in total volume compared to a similar tax under an alcohol-content based tax
- Furthermore, it is significantly simpler to administer and does not require measuring alcohol volume
- Ultimately, the choice between the tax base may also vary country to country, considering the market characteristics as well pattern of alcohol harm

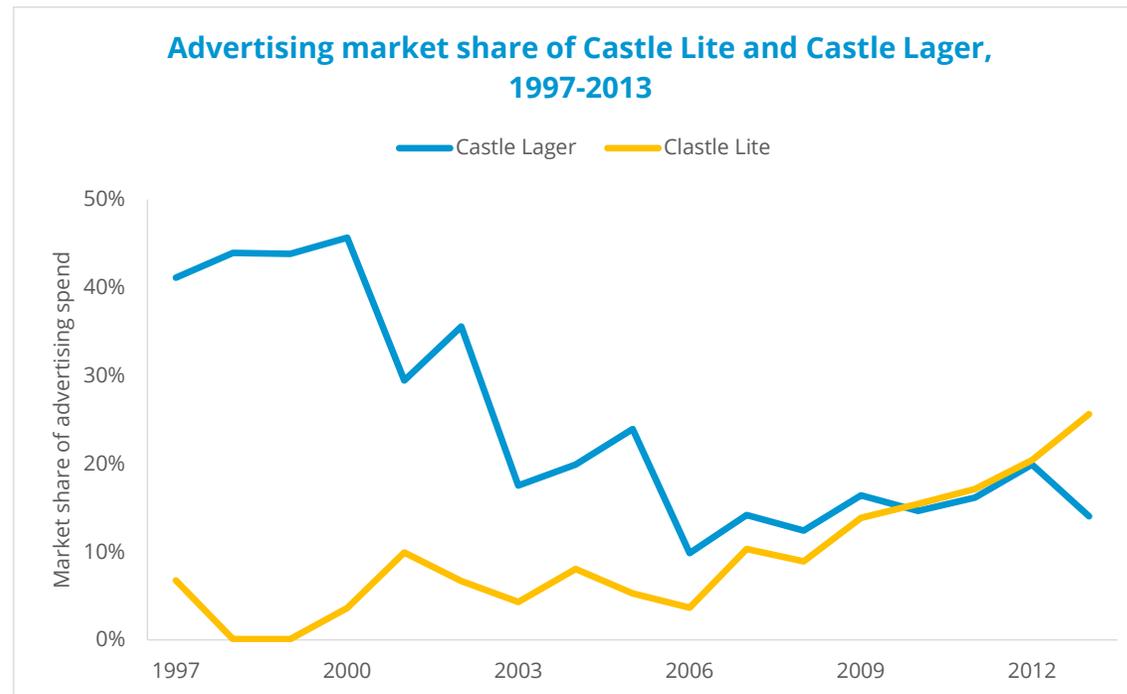


Alcohol content as the tax base

- Prior to 1998, beer excise taxes in South Africa were volumetric (per litre of beer)
- A reform was implemented in 1998 changing the tax base to alcohol volume (per litre of absolute alcohol)
- The current excise rate is R121.41 per liter of absolute alcohol, resulting in varying tax yields per 330ml can of beer (see table)

ABV	Brands	Excise
2.4%	Windhoek Light	R 0.97
4.0%	Castle Lite , Amstel Lite, Windhoek Lager	R 1.60
5.0%	Castle Lager , Amstel Lager, Heineken	R 2.00
5.5%	Black Label	R 2.20

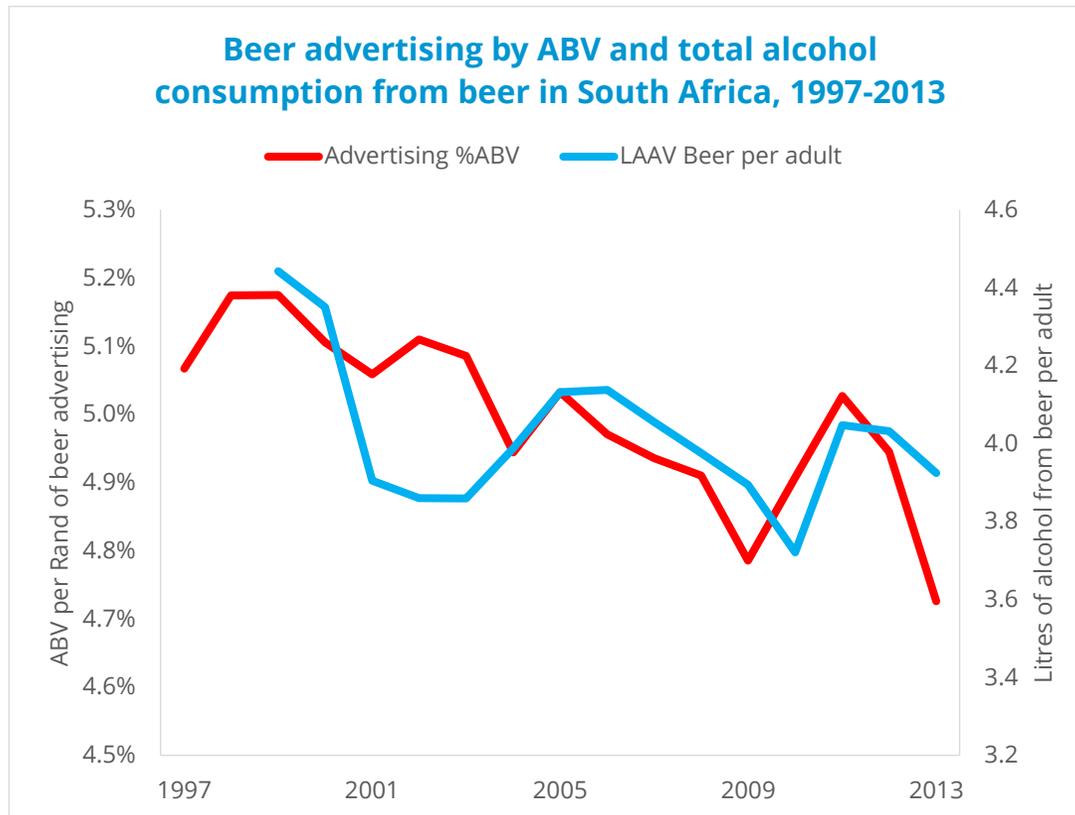
What have the effects in the market been?



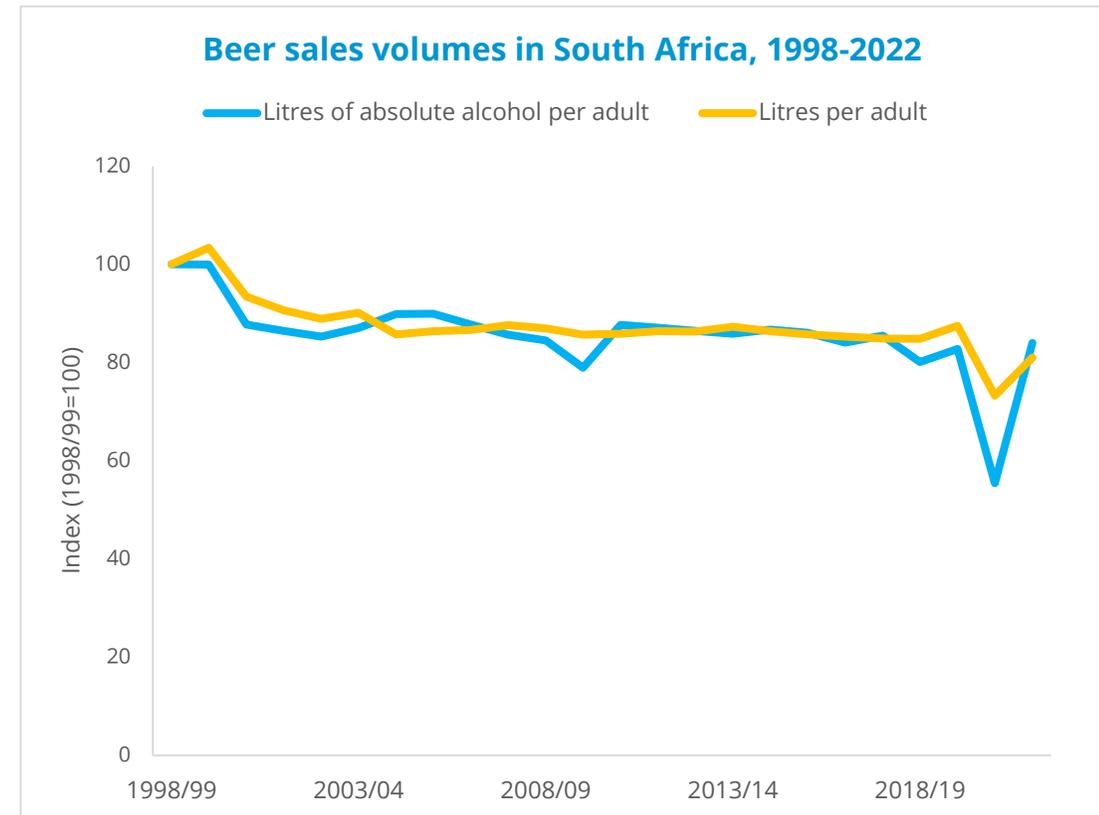
Source: Blecher (2015)

- No noticeable tax pass-through to prices, i.e. higher-alcohol beers did not become relative more expensive than lower-alcohol beers
- Instead, large shifts in advertising occurred with brewers favoring advertising lower-alcohol beers compared to higher-alcohol beers
- Example shows two complementary beer brands, Castle Lager (5.5% ABV) and Castle Lite (4% ABV); clear shift from higher- to lower-alcohol brand

- Advertising trends in previous example were observed across the whole market; weighted average ABV per Rand of advertising spend significantly and coincided with consumption; even year-to-year variations are closely correlated (figure on left)
- A counter argument is that consumers will respond by drinking more beer (by volume) to compensate for drinking lighter beer, however figure on the right shows per capita beer volume (litres of beer) and the litres of alcohol from beer; both measures show substantial decline showing that there was no compensation



Source: Blecher (2015)



Source: National Treasury; Euromonitor; SAWIS

Similar tax structures are in place on alcohol

- While this also does not say anything about the tax rates, it does tell us about the tax base
- Some countries apply specific taxes based on the beverage volume (volumetric) and others on the strength of alcohol (alcohol content)
- Furthermore, in many cases, countries apply different rates on different categories, however we will return to this

	Beer	Spirits	Wine
Antigua and Barbuda	No excise		
Bahamas	Mixed (vol/retail ex-VAT)	Ad valorem (retail ex-VAT)	Specific (volumetric)
Barbados	Specific (volumetric)		
Belize	Specific (volumetric)		
Dominica	Specific (volumetric)		
Grenada	Specific (alcohol)	Specific (volumetric)	Specific (alcohol)
Guyana	Specific (volumetric)		
Haiti	Ad valorem (CIF/ex-factory)		
Jamaica	Specific (alcohol)		
Montserrat	n/a		
St. Kitts and Nevis	Ad valorem (retail ex-VAT)		
St. Lucia	Specific (volumetric)		
St. Vincent	Specific (volumetric)		
Suriname	Specific (volumetric)	Specific (alcohol)	Specific (volumetric)
Trinidad and Tobago	Specific (volumetric)		Specific (alcohol)

Source: PAHO

As indicated earlier, many countries in the region have specific taxes on alcohol, but rates vary widely between different products

- Table indicates the effective tax rate pre litre of alcohol content relative to beer (generally most consumed product)
- The interpretation is relatively simply, for example, on average, in the Bahamas, wine and spirits are taxed 30% and 60% less per litre of pure alcohol than beer
- Should we tax all alcohol equally?
- Conceptually, all ethanol is equal and thus it may appear to be the optimal solution, however this ignores that taxes are not prices, but just a share in price (might we want effective prices to be closer to quality?)
- Alternatively, we may want to target harm based on products that are larger contributors to harm (e.g., binge drinking) or future harm (e.g., youth drinking

Effective (alcohol content)			
	Beer	Wine	Spirits
Bahamas, The	1.0	0.7	0.4
Belize	1.0	0.9	1.5
Grenada	1.0	1.6	9.6
Guyana	1.0	0.4	0.2
Jamaica	1.0	n/a	1.7
St. Kitts and Nevis	1.0	0.7	0.6
St. Lucia	1.0	4.2	2.8
St. Vincent and the Grenadines	1.0	2.9	1.1
Suriname	1.0	1.0	1.1

Source: GTP estimates using PAHO data

The previous figure is a summary of the average by product, however many countries in the region have very complex tax structures

- For example, St Lucia has an array of subcategories with different tax rates (very different in some cases)
- Yet, most categories contribute a very small share of total alcohol consumption and tax revenue
- This generates a high tax administration burden, while simultaneously generating many opportunities for tax avoidance and evasion
- Tax increases will likely have limited impact as producers or consumers avoid tax increases through substitution and reclassification (and greater incentives to evade)
- Simplification of the system would generate large benefits even without tax increases
- Also, this is a great example of high-quality data; while the tax structures are complex, detailed data collection and presentation allows excellent policy analysis

When setting thresholds or tiers, careful attention needs to be given to the sugar or alcohol level at which the threshold or tier is placed

- If the threshold or tier is set too low, then it may be too difficult for firms to reach, however if it's set too high it may be too easy to reach but make too small an impact on behavior
- Mongolia presents a typical example of poorly set alcohol content-based tiers on distilled spirits
- By setting the upper tier at 40% ABV, the tier is set too high, firms need to reformulate by a negligible amount in order to have products taxed at a significantly lower rate
- For example, most vodka (the most consumed alcohol products in Mongolia) is approximately 40% ABV (or marginally higher); firms simply need to dilute the vodka to 39% ABV and pay 56% less tax
- The lower tier, set at 25%, requires a dramatic reformulation/dilution in order to take advantage of the lowest tax
- Unsurprisingly, **99.6%** of all spirits in Mongolia (in 2015) was taxed in the middle tier

Excise tax tiers and market share on distilled spirits in Mongolia, 2015

ABV	Excise (MNT/L)	Market share
<25%	2900	0.3%
>25%, <40%	5800	99.6%
>40%	13050	0.1%



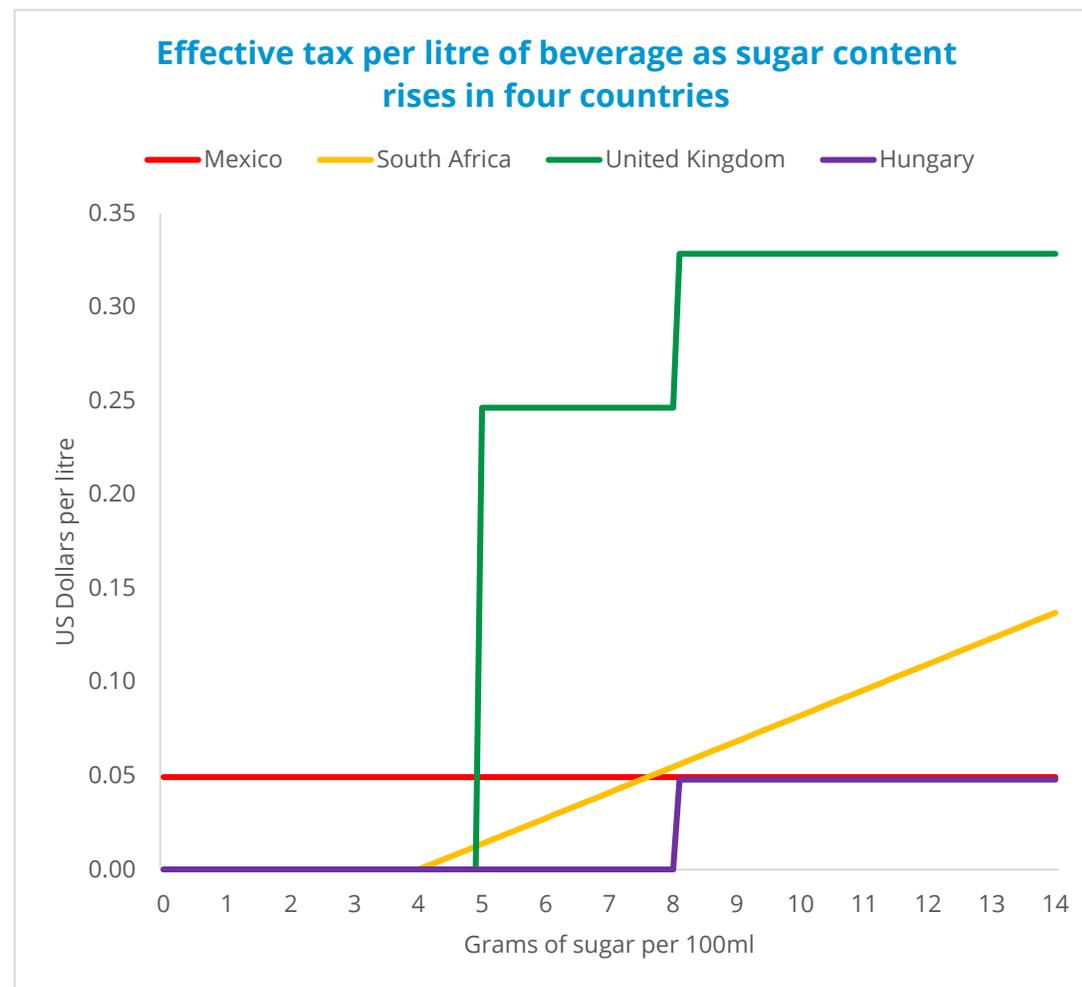
SSBs have a similar tax base challenge, whether to apply the tax to the volume of the beverage or the sugar content

- SSBs have many similarities to alcohol in that the negative externalities and internalities are correlated with sugar consumption, and thus with the sugar content rather than the volume of the beverage
- However, unlike alcohol, the concentration or pattern of drinking is not linked to acute mortality and morbidity (i.e., drunk driving or violence resulting from binge drinking)

Extraordinary innovation in tax design is happening in countries implementing SSB taxes

- SSB taxes can be applied to the beverage volume or the sugar content (like alcohol)
- Applying the tax to the beverage volume reduces demand, whereas applying the tax to the sugar content generates incentives to reduce sugar content
- There are several ways they are doing this, by applying the tax per grams of sugar, or by applying volumetric taxes alongside sugar content-based thresholds and/or tiers

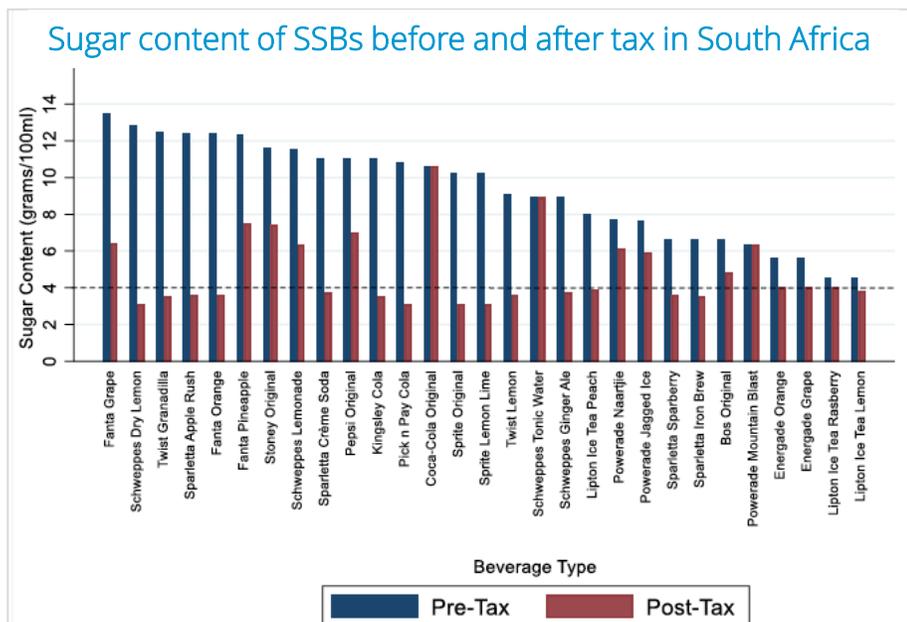
Linear with threshold	South Africa	ZAR 0.021/g/100ml where sugar content > 4g/100ml
Tier with threshold	United Kingdom	GBP 0.18/L (sugar >5g/100ml and <8g/100ml); GBP 0.24/L (sugar >8g/100ml); no tax (sugar <5g/100ml)
Volumetric tax with threshold	Hungary	HUF 7/L for all beverages where sugar >8/100 ml
Volumetric tax	Mexico	Uniform specific volumetric tax (MXN 1/L)



	Sugar content	Excise tax
	g/100ml	ZAR/L
Generic/threshold	4.0	0.00
Vitamin Water	5.4	0.29
Powerade	7.7	0.78
Fuze Tea	7.7	0.78
Schweppes	8.9	1.03
Sprite	10.2	1.30
Coca Cola	10.6	1.39
Sparletta	11.0	1.47
Stoney	11.6	1.60
Play	11.7	1.62
Twist	12.9	1.87
Fanta	13.5	2.00

Examples of sugar content and excise tax of several popular brands in South Africa before the implementation of the SSB tax

- As with alcohol, the variations in taxes by sugar content may be passed on through variation in prices, or incentivize manufacturers to shift advertising to lower sugar products
- The empirical evidence though shows that these systems generate large incentives for manufacturers to reformulate their products, lowering sugar content to lower their tax liability
- Let's consider South Africa again: the tax is applied at a rate of ZAR 0.021 per gram of sugar per 100ml meaning that as the sugar content of a beverage increases, so does the tax (in a linear manner)
- Furthermore, a threshold is applied, meaning that any beverages with 4 grams of sugar per 100ml (or less) has no tax liability, but also that only the sugar content above the threshold is taxed



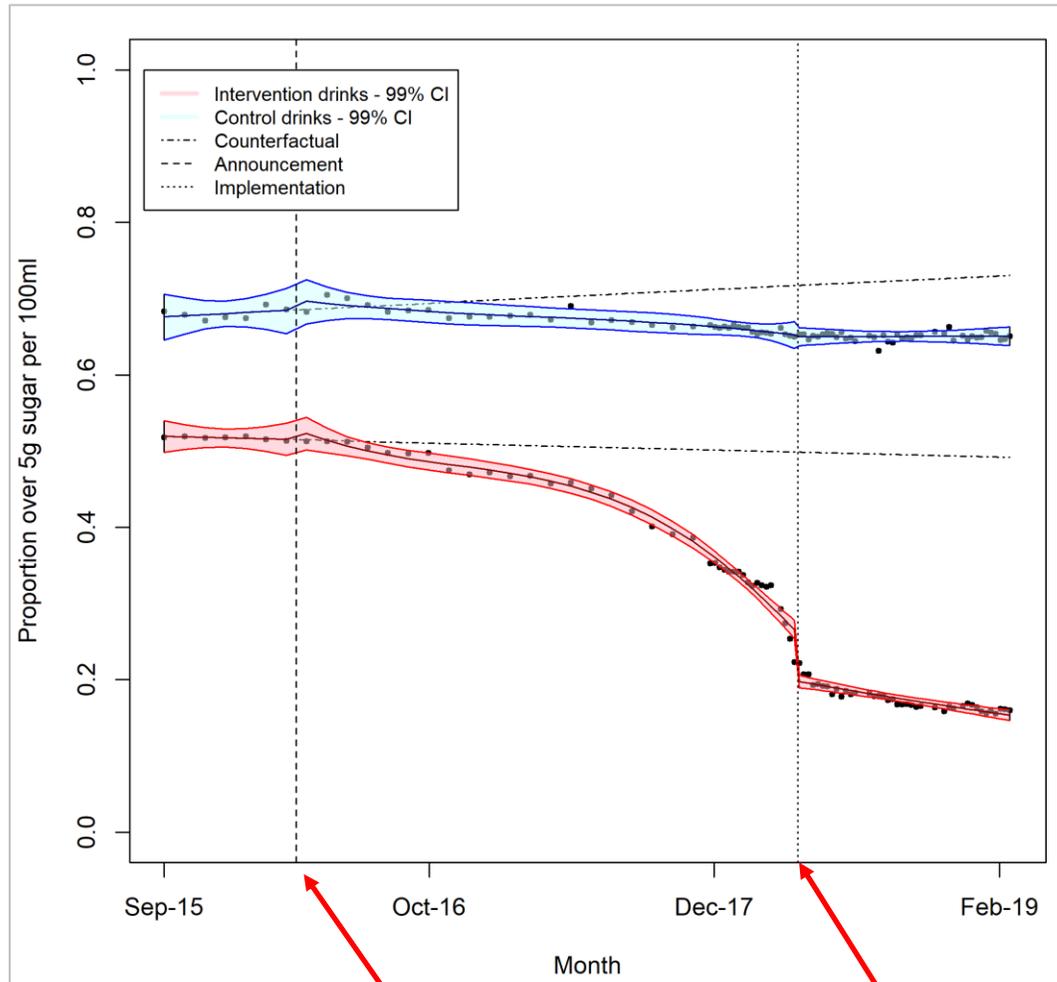
Source: Heneck (2022)

Fiscal year	Tax revenue (ZAR million)	Tax rate (Cents/g/100ml)	Tons of sugar
2018/19	R 3,248	2.21	146,976
2019/20	R 2,513	2.21	113,701
2020/21	R 2,114	2.21	95,638
2021/22	R 2,289	2.21	103,568

Source: National Treasury Budget Review (2022)

In South Africa, the SSB tax drove product reformulation, reducing sugar content & limiting revenue impact

- Since implementation in 2018, most brands have been reformulated to lower sugar content and thus their tax liability; of the 30 largest brands, 18 reduced below threshold (no tax), 9 reduced but remained above, and only 3 assumed the full liability
- SSB tax revenue declined over time as manufacturers reformulated products, with nominal revenue declining by 29% over the last four years
- However, this also implies that total sugar consumption (from SSBs with more than 4g/100ml of sugar) has also declined by 29%



Source: Scarborough et al. (2020)

Announcement

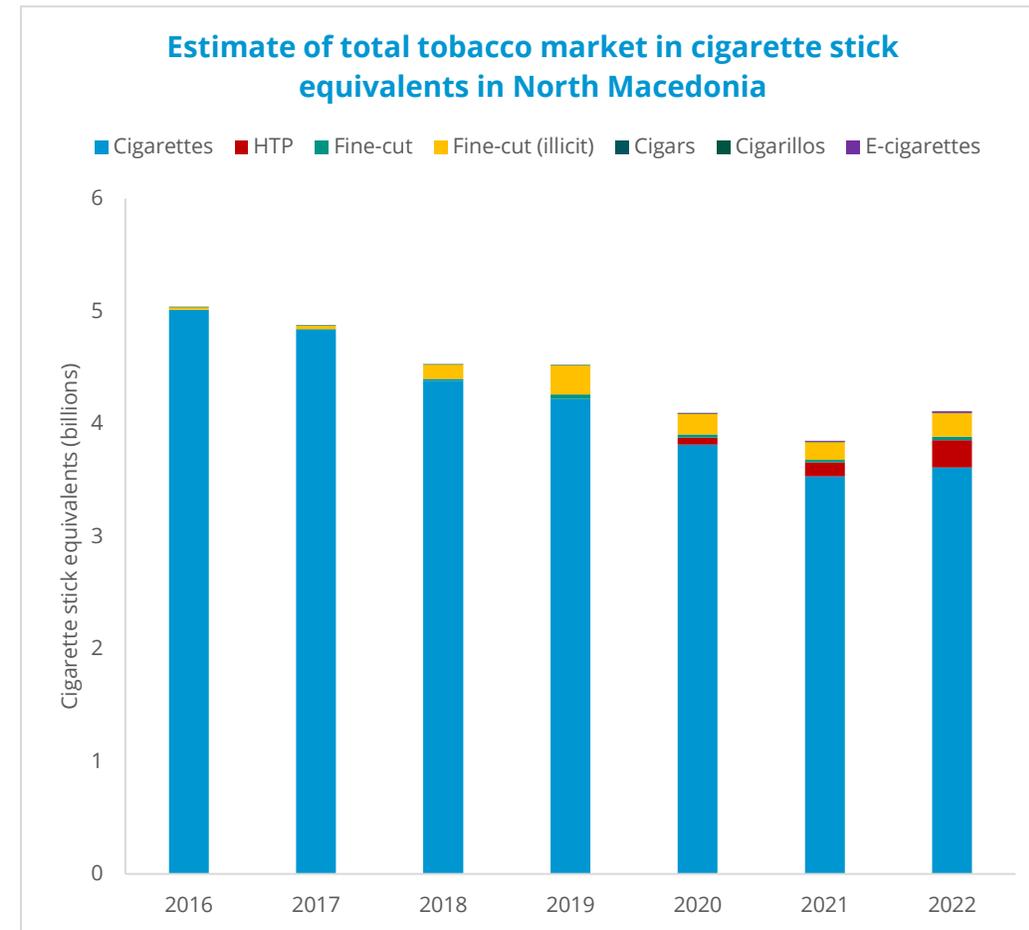
Implementation

Instead of using a linear tax like South Africa, the United Kingdom targets the sugar content using a threshold and a tier

- Instead of applying the tier at 4g of sugar per 100ml, they apply is slightly higher at 5g of sugar per 100ml
- Beverages with sugar content greater than 5g/100ml are charged a volumetric tax of GBP 0.18 per litre
- However, beverages with sugar content greater than 8g/100ml are charged a higher volumetric tax of GBP 0.24 per litre
- This system has two discrete incentives; in a manner of speaking the tax draws two *lines in the sand*
- Furthermore, the tax was announced in 2016, well before the implementation in 2018; this intentionally provided manufacturers with a very long lead time
- Manufacturers began reformulating products well before the implementation of the tax, although this gain momentum as the implementation date approached

High quality data collection allows to detect change in trends and intervene with effective policies

- As a result of high-quality data collection systems that track every cigarette sold by price, source and type each month
- North Macedonia detected that the emergence of electronic nicotine products has been rapid and substitution from cigarettes (to heated tobacco (HTP)) is evident in tax paid sales data
- They shared this Data with us as technical assistance partners to allow for analysis and development of analytic tools that allow policy makers to analyze the impact and implications on tax policy
- This technical assistance has influenced recent policy reforms that will raise tax rates on non-cigarette products, including HTP, closer to equivalence with cigarettes that will limit further substitution that may undermine tax policy goals

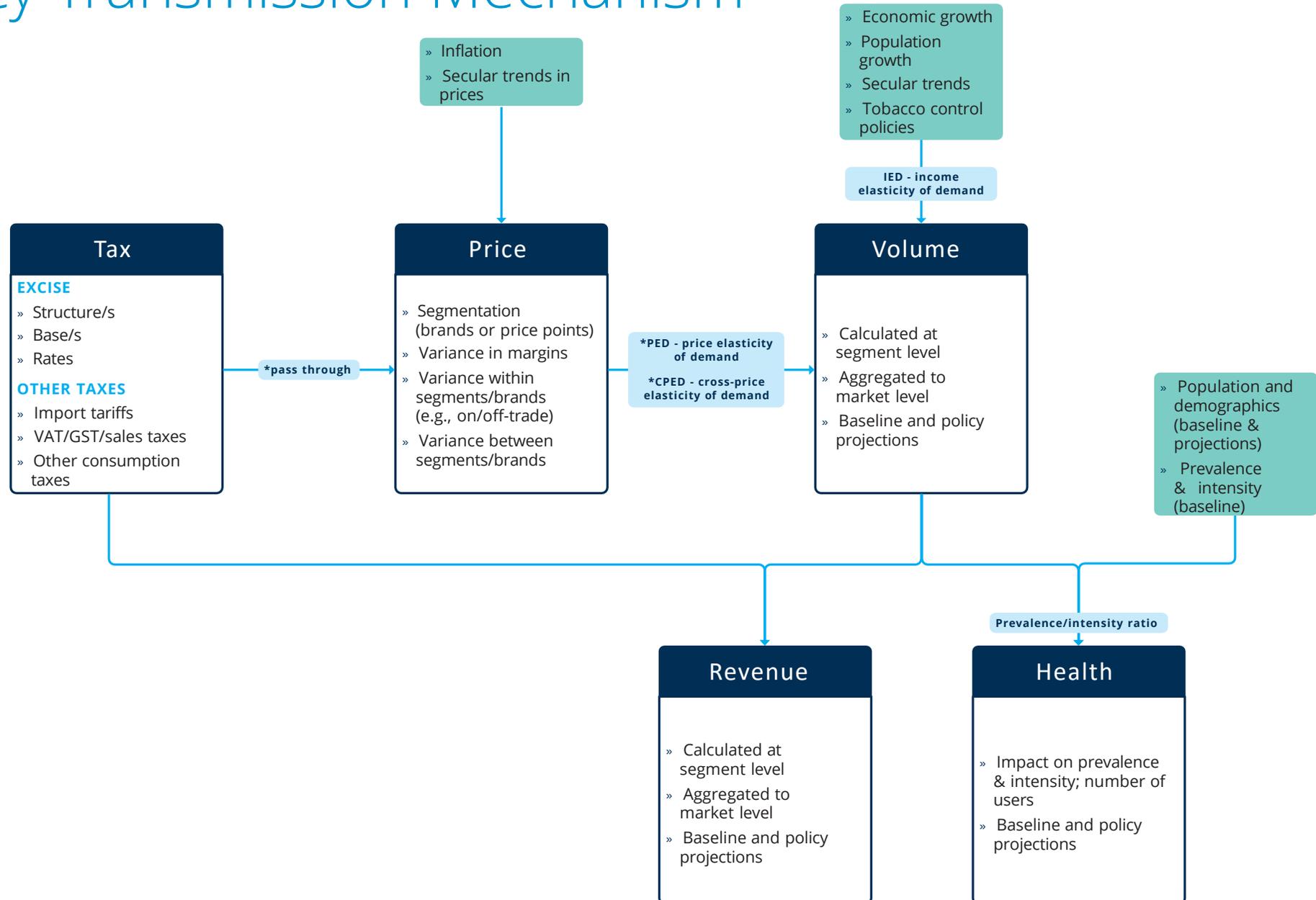


Source: GTP estimates using MoF data

Tax administration

- Health taxes will not result in the desired health and fiscal impact if they are poorly implemented or if capacity is not available to administer them; good implementation requires attention to governance and tax administration systems
- Tax administration challenges and responses will vary across countries, but some general considerations that apply include:
 - ▶ Tax evasion and avoidance incentives are typically unusually high for alcohol and tobacco (with a high value of tax to volume). This may require excise stamp regimes, specialized track and trace systems, and bonded warehouses
 - ▶ Health tax administration can require significant regulatory expertise, including interactions with systems that deal with standards setting, measurement, and labelling
 - ▶ Producers will have incentives to lobby policy makers and tax administrators to counter tax reforms. For instance, producers might promote certain tax regimes to hurt competitors or exploit arguments around illicit trade
 - ▶ Improved data and analysis of government revenue loss resulting from tax avoidance and evasion of alcohol, tobacco, and SSBs, as well as monitoring industry lobbying practices, pricing, and marketing strategies, can help to curb counterproductive actions

Policy Transmission Mechanism



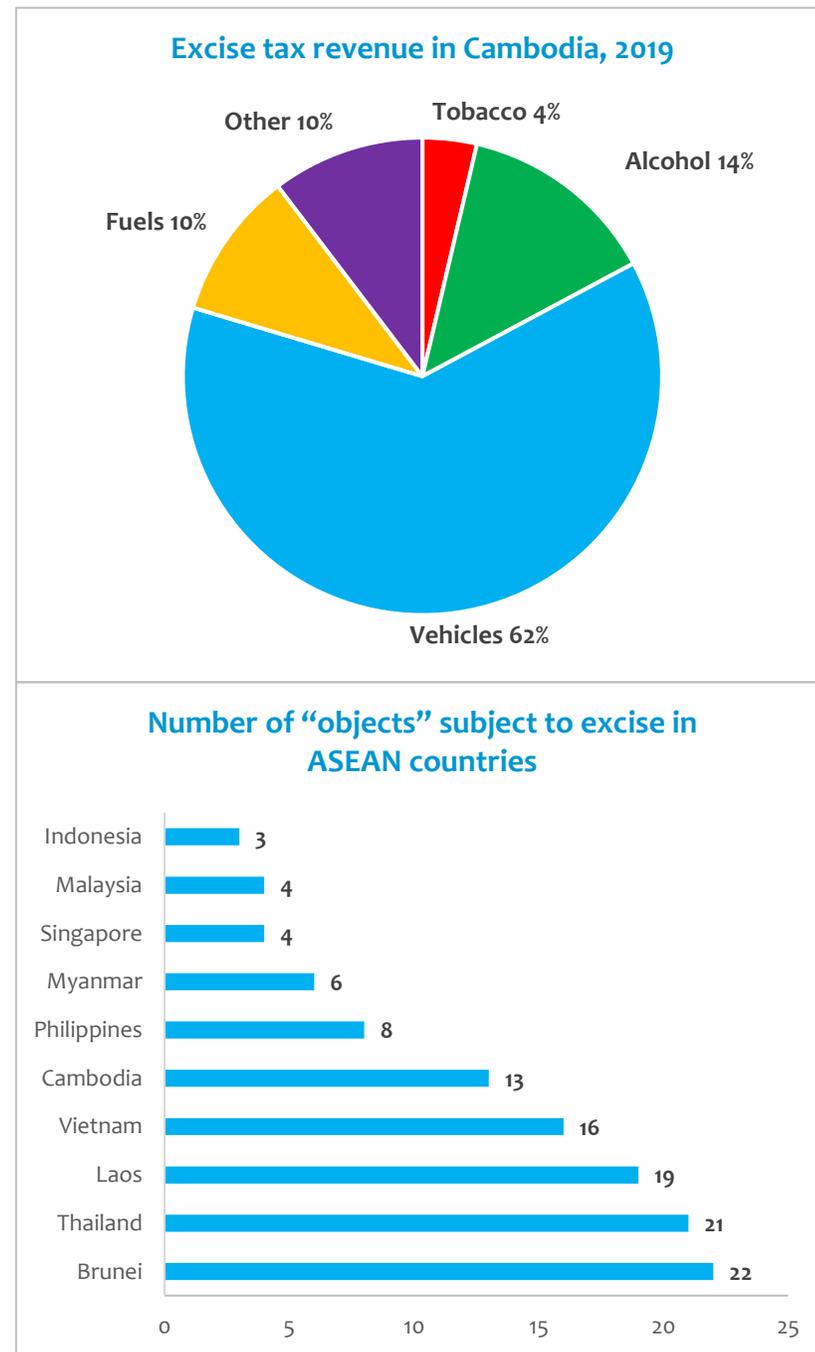
Situating health taxes: the "how to" of excise

- What does an excise policy review look like?
 - ▶ Evaluating the scope of excise
 - ▶ Evaluating the tax structures
 - ▶ Evaluating the tax rates
 - ▶ Evaluating the revenue yield and potential
- This all brings us back to the economic framework (targeting negative externalities and internalities). What to look for?
 - ▶ Too narrow a scope?: does not target externalities and internalities
 - ▶ Too broad a scope?: excisable product and services list is non-standard and very long. Too much focus on "luxuries". "Old school" tax structure often poorly design and rates too low to effectively target externalities and internalities
 - ▶ Tax revenues from goods that generate externalities and internalities often very high, while revenues from luxuries often negligible
- Let's consider a country example as a starting point ...

A pressing challenge for many countries is the appropriate scope of excise with older generation systems taxing a wide range of luxury products, while modern systems focus on products that generate negative externalities and internalities

- Cambodia is a typical example of a very broad scope, applying excise to nearly 100 HS-4 level categories, most of which do not generate negative externalities and internalities
- List includes building supplies, household appliances and kitchenware, many baby related products, productivity tools, cosmetics, and entertainment services
- Household appliances (e.g., air conditioners, refrigerators, freezers, washing machines, vacuum cleaners, etc) reduce the burden/hours of unpaid work at home, a condition for women’s participation to the labor force; linked to cost of living and quality of life
- Productivity tools (e.g., mobile phones, computers, electronics, etc) generate significant economic benefits (positive externalities), including enabling entrepreneurship
- 90% of excise revenues are generated from only four categories (motor vehicles, tobacco, alcohol, and fuels), which do generate negative externalities and internalities
- Reforming the system by eliminating excises that do not generate externalities and internalities would have limited revenue impact and can be offset by revenue gains from tax reforms on other products
- On the other hand, Indonesia has only three excisable goods (tobacco, alcohol, and plastics); no excise on fuel and vehicles (typical in ASEAN)

Source: Ministry of Economy and Finance; DDTTC (2019)





Step 1: Increases in taxes result in increase in prices

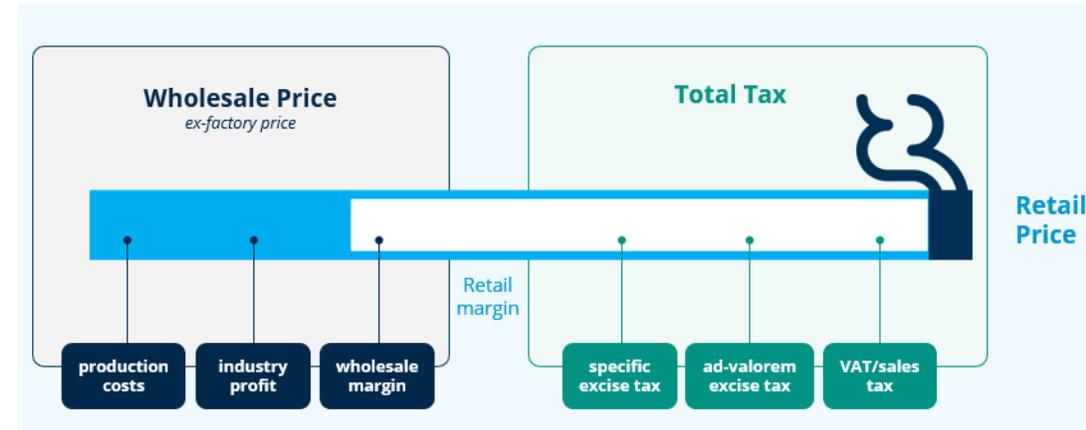
- Excise taxes are a component of the price, so all else being constant, an increase in the excise will result in an increase in price
- Tax pass through varies between and within different products, countries and over time; taxes can be fully passed through, or under or over shifted; influenced by **tax structure**, market structure, price elasticity, etc

Step 2: Increases in prices results in lower consumption

- Negative relationship between price and consumption (law of demand), significant variation in price elasticity
- Tobacco is very inelastic (addiction); more inelastic means that larger taxes are required to achieve declines in consumption, but larger impact on revenue; young and poorer are less inelastic meaning that they are more responsive than adults or richer
- Alcohol is inelastic, but wide variation between products and consumers (alcohol use disorders more inelastic than general population)
- SSBs are far less inelastic (sometimes elastic) due to wide range of substitutes; very low revenue scope
- Lower consumption results in health improvements through (1) reduced initiation (very important to consider youth initiation), (2) increased cessation, and (3) reducing intensity of consumption of continuing users

Step 3: Increases in tax results in higher tax revenue

- Despite declining consumption, health taxes generally result in increases in tax revenues; inelastic demand means that declines in consumptions are less than proportional to increases in tax/price
- Need to pay attention to tax administration since poor compliance, or high levels of tax avoidance and evasion can undermine tax revenue generation



<https://bit.ly/health-tax-revenue>

