Tobacco Taxation: Policy Impact, Tax Design and Lessons from WPRO

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Contents

Part I. Why Tobacco Tax Matters

Tobacco Tax is both health policy and fiscal policy

Tobacco excise tax serves two objectives

Health objective

- Reduce consumption
- Prevent initiation
- Promote cessation
- Reduce premature mortality

Fiscal objective

- Generate government revenue
- Create fiscal space
- Support sustainable public finance

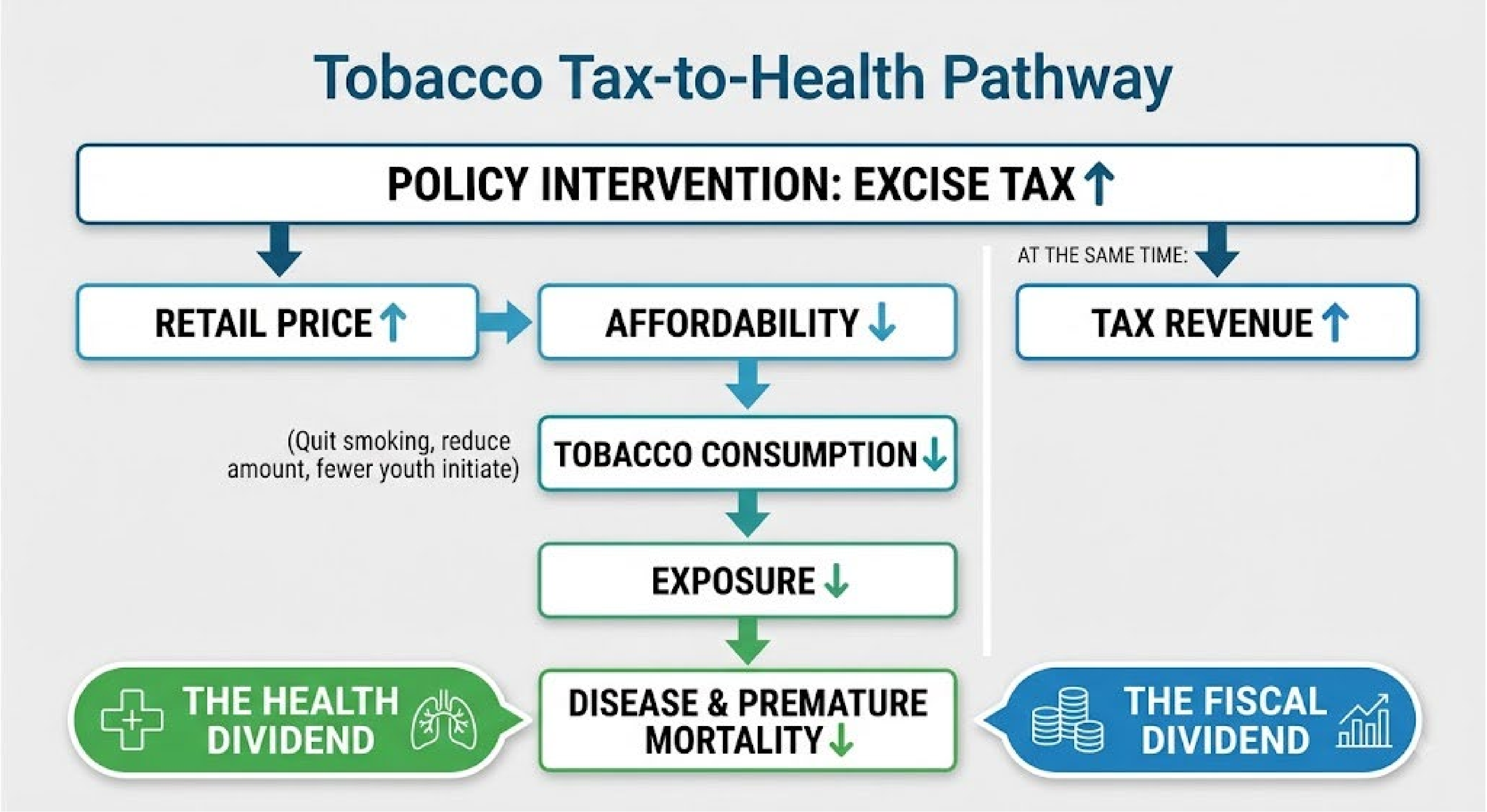
Why Tobacco Tax Remains Relevant in WPRO

- **A major global tobacco production & consumption hub**

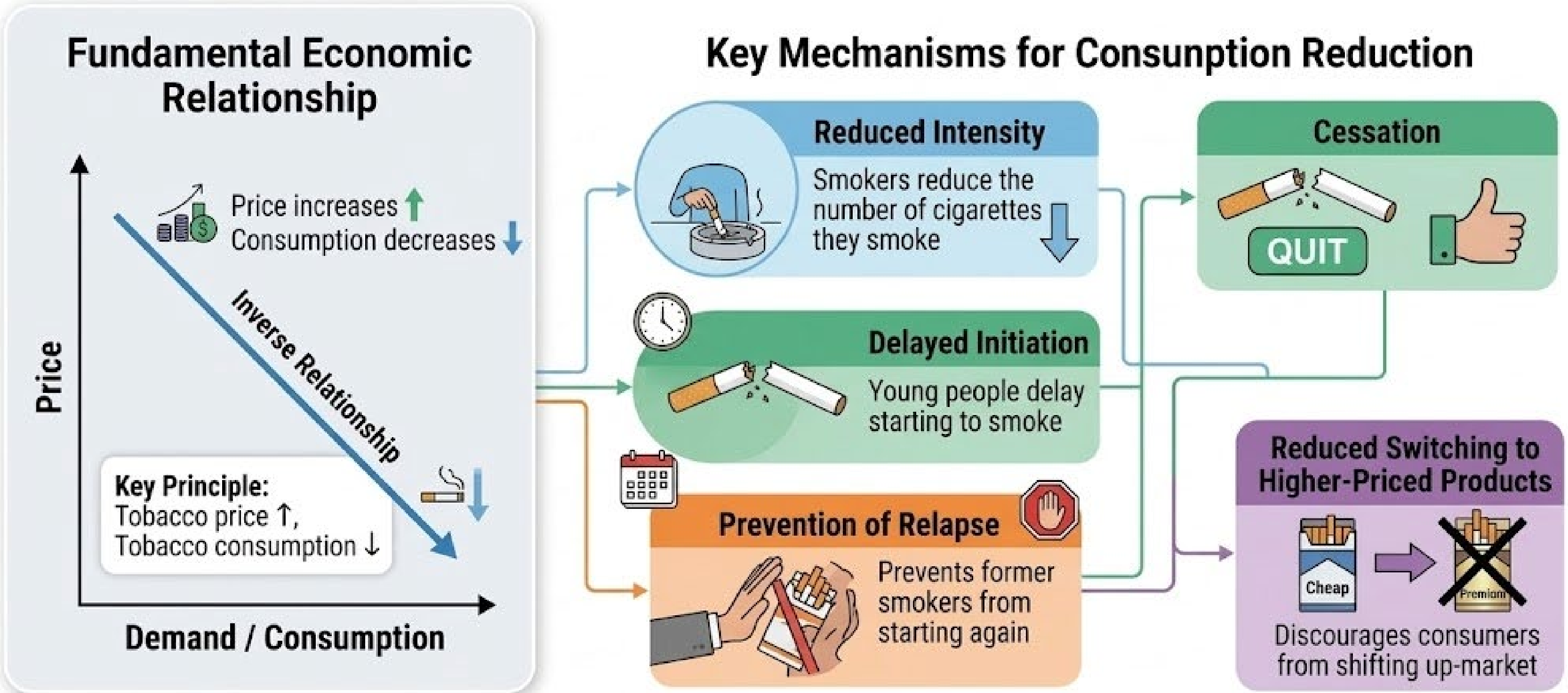
  China: the world's largest tobacco producer and consumer
- **Highly diverse tobacco-tax systems**
- **Uneven tobacco-control progress**
- **Persistent affordability of tobacco products**
- **Emerging nicotine products**
- **Fiscal pressures across countries**
- **Significant illicit trade & cross-border markets**
- **Different political and institutional contexts**

The WPRO tobacco-tax challenge is not simply “raising the tax”; it is designing an effective tax system for very different tobacco markets, fiscal systems and institutional contexts.

Part II. How Tobacco Tax Works

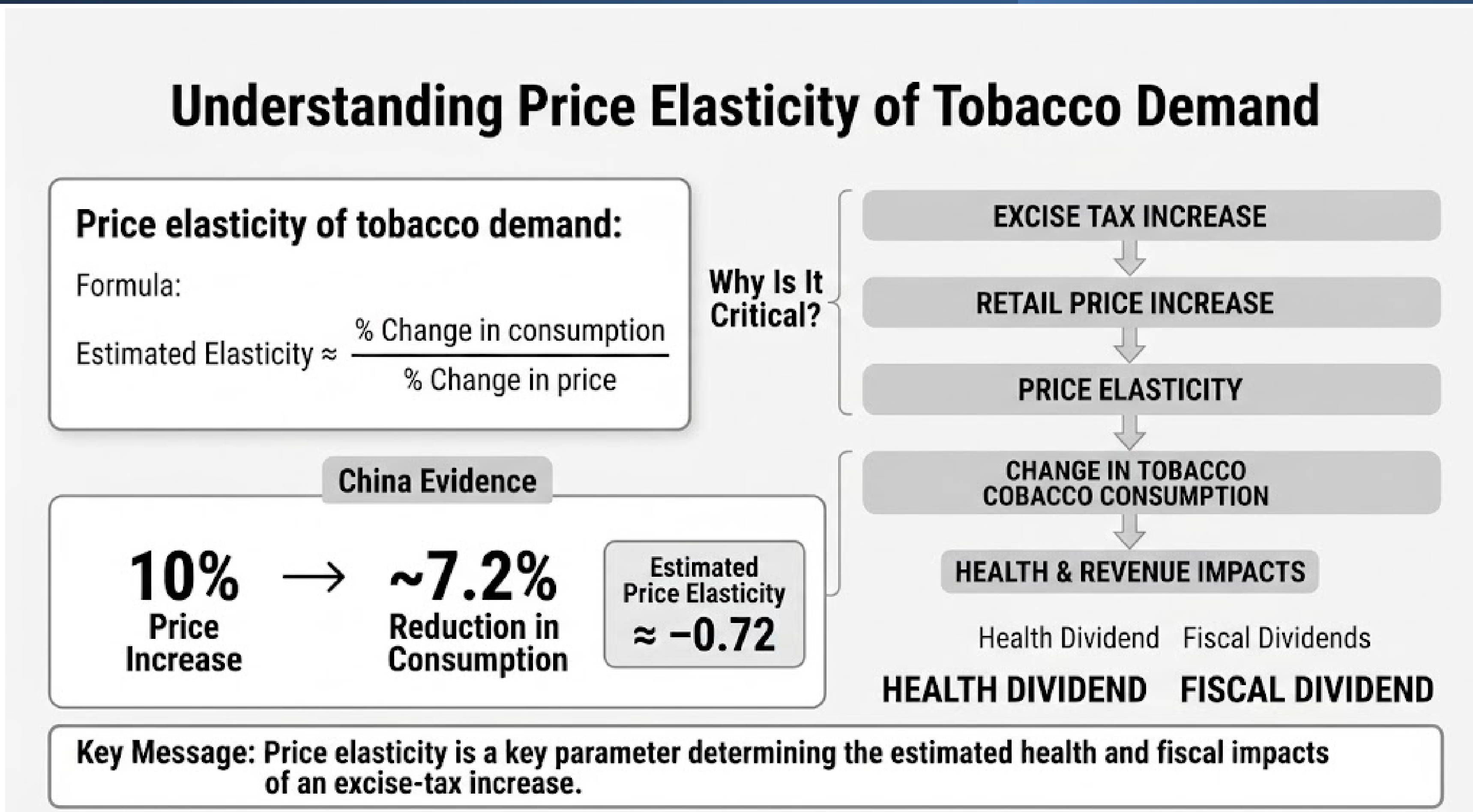


Price Is the Main Mechanism



Tax effectiveness hinges on retail price increase, which has a limited health impact if it is not meaningful.

Price Elasticity： A Key Parameter for Tax Simulation



Income Elasticity and Tobacco Affordability

Formula & Definition

Income elasticity of tobacco demand = % change in tobacco consumption ÷ % change in income

For tobacco products, income elasticity is generally **positive**. As income increases (↑), tobacco consumption tends to increase (↑), other things equal.

Modelling Logic

[INCOME ↑]
↓ leads to
[PURCHASING POWER ↑]
↓ leads to
[TOBACCO BECOMES MORE AFFORDABLE]
↓ leads to
[CONSUMPTION ↑] ***[unless price increases sufficiently to offset the income effect]***

China Evidence (Illustrative Example)

[Estimated income elasticity ≈ **+0.23**]

An illustrative example:

[**10% INCREASE IN INCOME**] *results in* → [**~2.3% INCREASE IN CONSUMPTION**]

**Holding tobacco prices and other factors constant.*

CONSUMER DEMAND

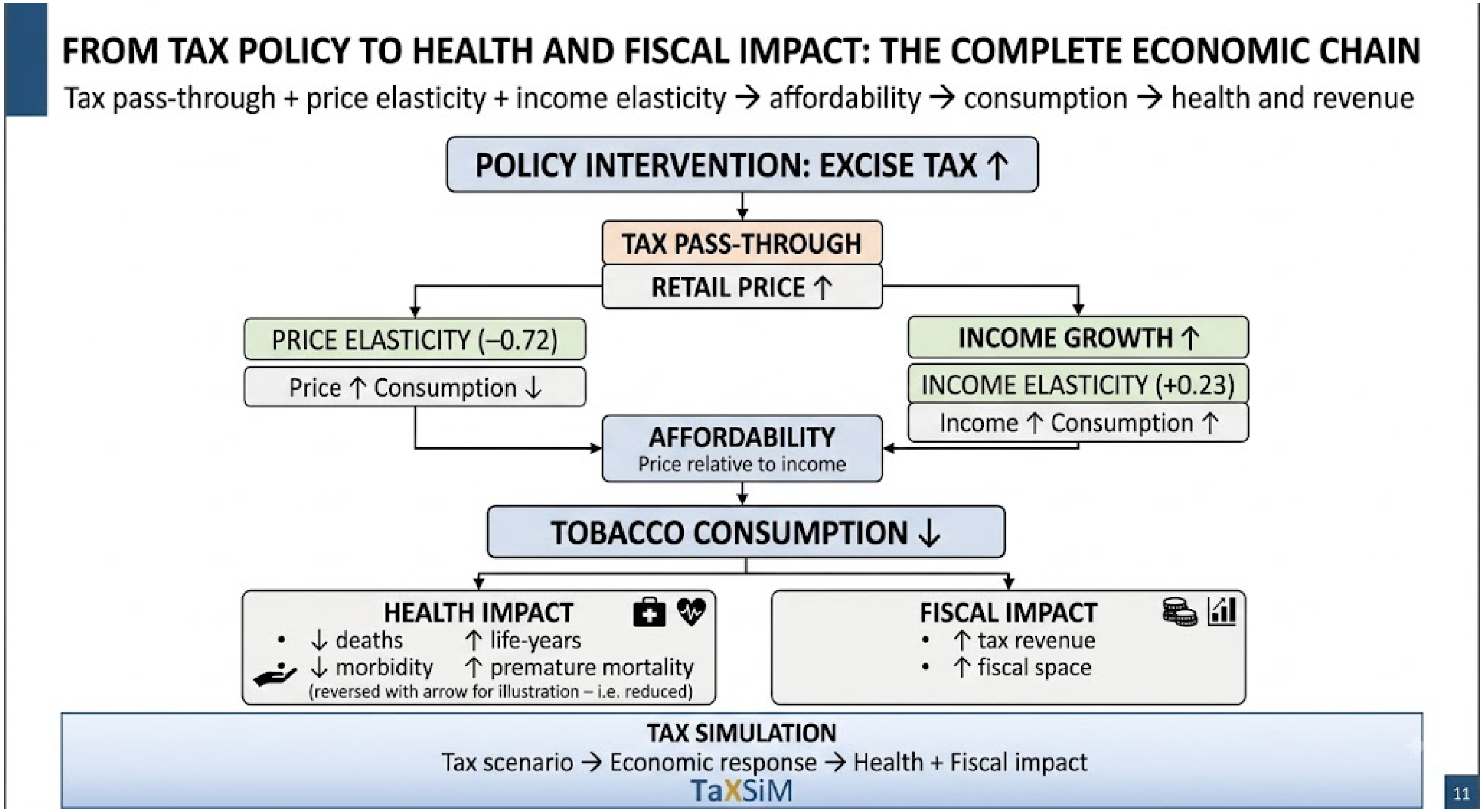
PRICE EFFECT	INCOME EFFECT
↓	↓
PRICE ↑	INCOME ↑
↓	↓
AFFORDABILITY ↓	AFFORDABILITY ↑
↓	↓
CONSUMPTION ↓	CONSUMPTION ↑
UP DOWN	UP UP

KEY MESSAGE: Income elasticity is the second key behavioral parameter—alongside price elasticity—in assessing tobacco-tax impacts and changes in affordability.

NET CONSUMPTION EFFECT: Tax policy needs to make the price effect sufficiently strong to offset the income effect.

From Tax Policy to Health and Fiscal Impact: The Complete Economic Chain

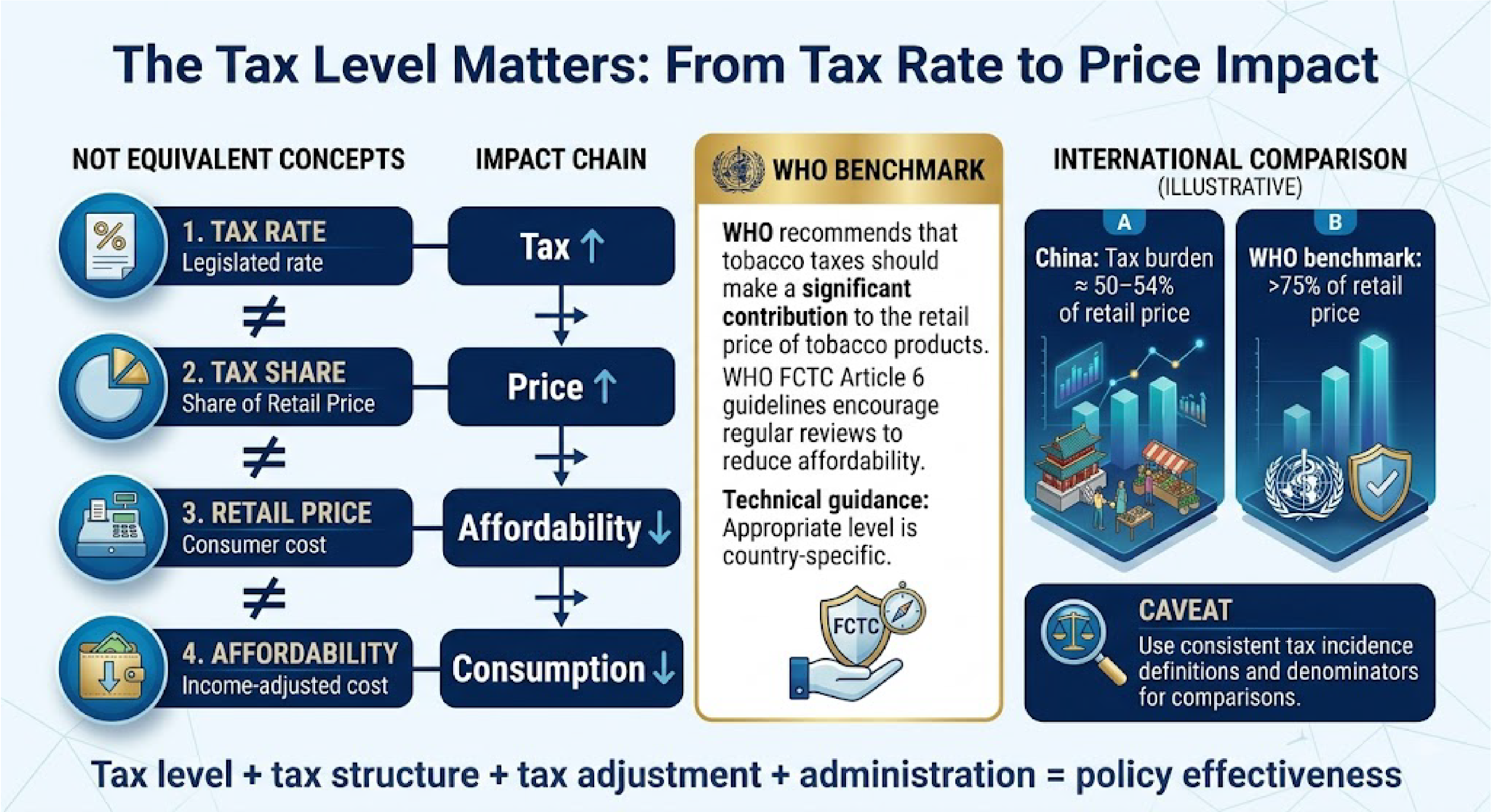
Price elasticity and income elasticity determine the strength of the response



The impact of a tobacco-tax increase depends not only on the tax rate, but on how the tax changes prices and affordability—and how consumers respond.

Part III. Designing an Effective Tobacco Tax

How High Should Tobacco Tax Be?

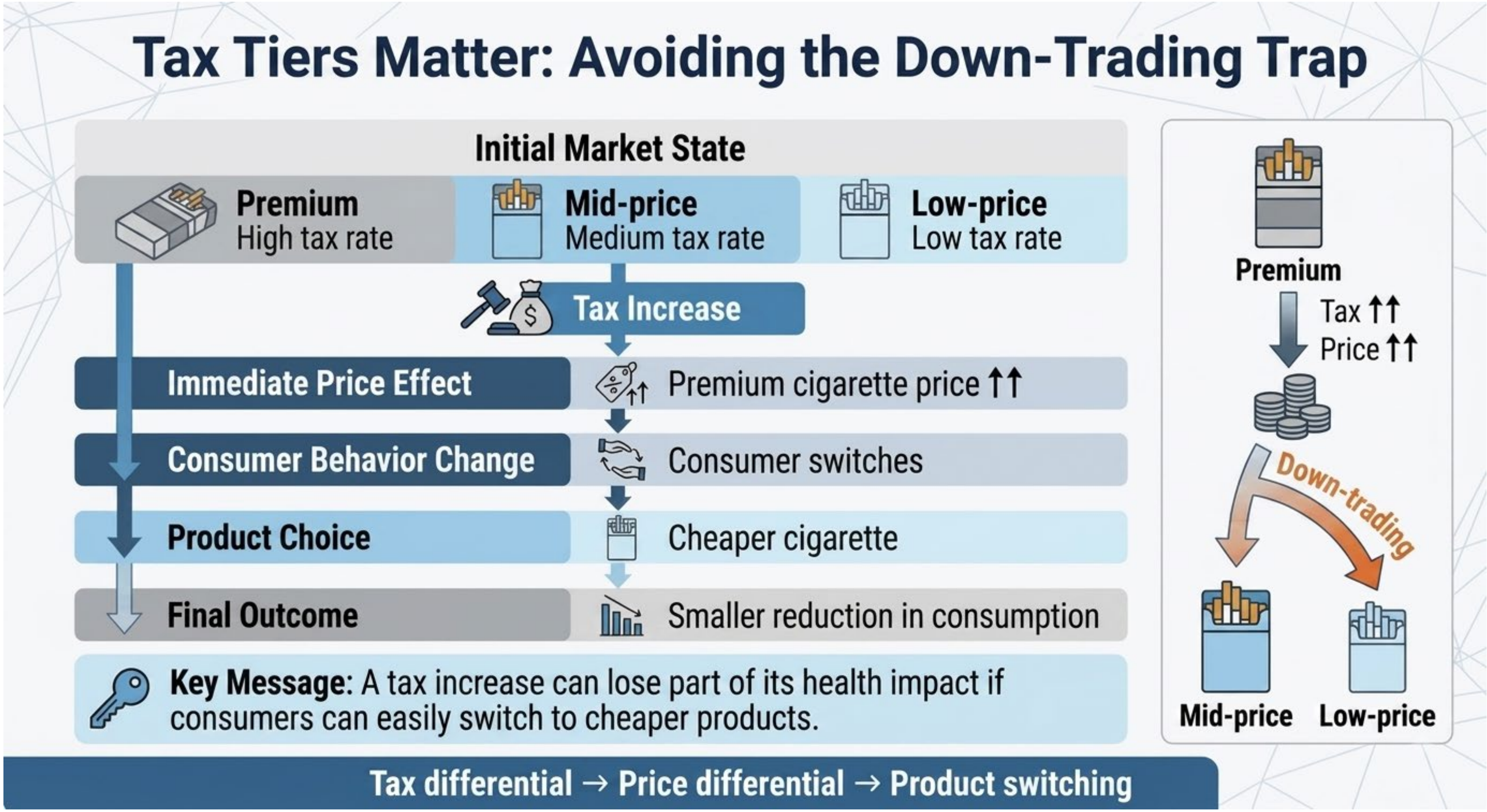


Specific vs. Ad Valorem: Two Fundamental Tax Designs

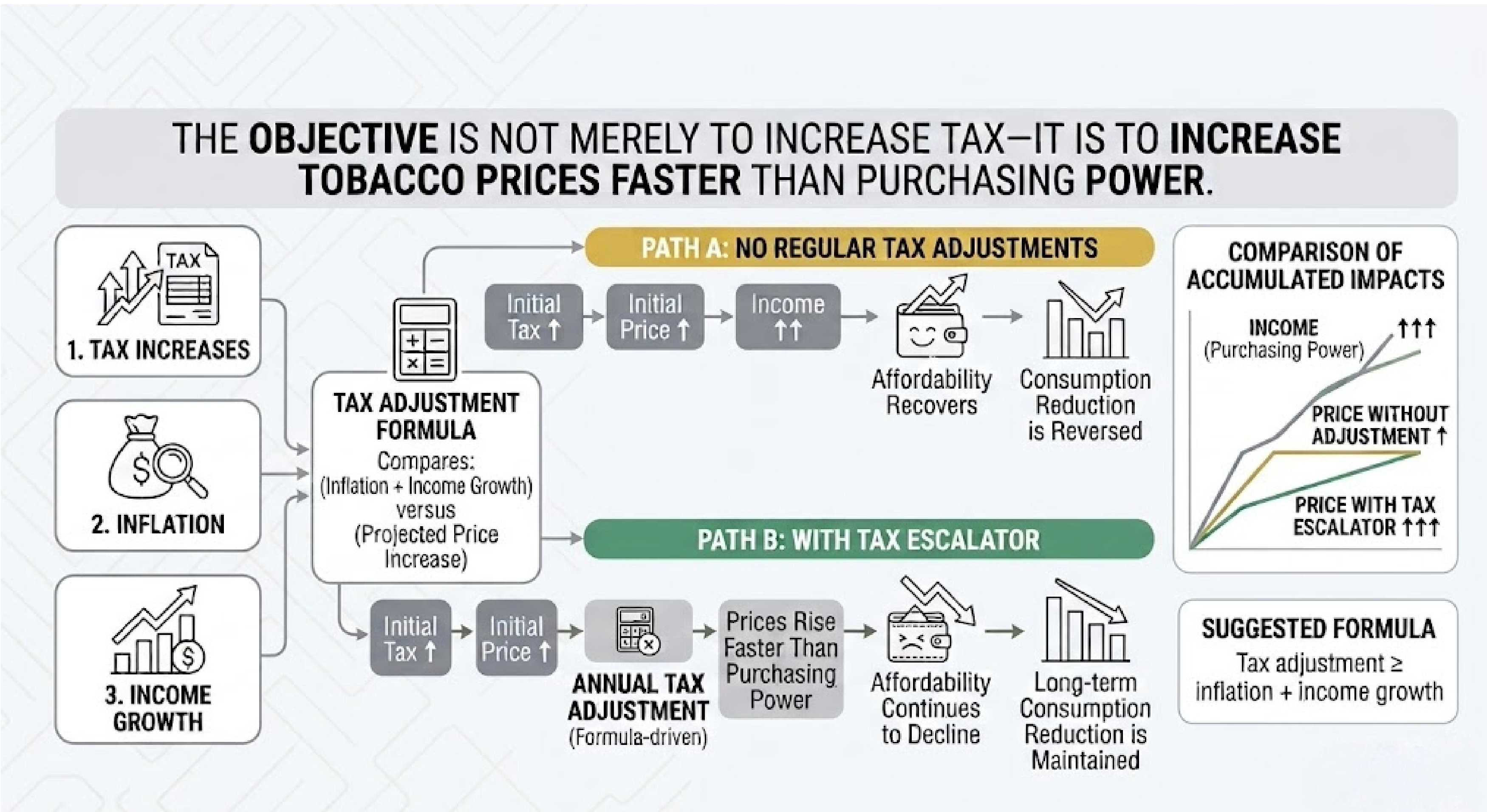
Specific vs. Ad Valorem: What Does the Tax Incentivize?

SPECIFIC EXCISE	AD VALOREM EXCISE
1. FIXED AMOUNT A set tax per pack or individual unit.	**1. PERCENTAGE OF PRICE** Taxed as a percentage of the retail or wholesale.
2. RAISES PRICE FLOOR Increases the minimum price, raising the cost of cheaper products.	**2. MOVES WITH PRODUCT PRICE** Tax amount automatically adjusts as the product price changes.
3. PROTECTS AGAINST DOWN-TRADING Makes lower-priced options relatively less attractive, reducing down-trading.	**3. MAINTAINS PRICE DIFFERENTIALS** Keeps the price differences between product tiers, encouraging product variety.
4. MORE PREDICTABLE REVENUE Creates a consistent revenue source per unit sold, regardless of price fluctuations.	**4. REVENUE RISES WITH PRICE** Tax revenue increases significantly as premium products gain market share or prices increase.
5. NEEDS INFLATION ADJUSTMENT The tax amount must be regularly updated to account for inflation.	**5. REINFORCES PREMIUM TAXATION** Ensures premium and luxury goods contribute disproportionately more in taxes.

Tax Tiers and Down-Trading

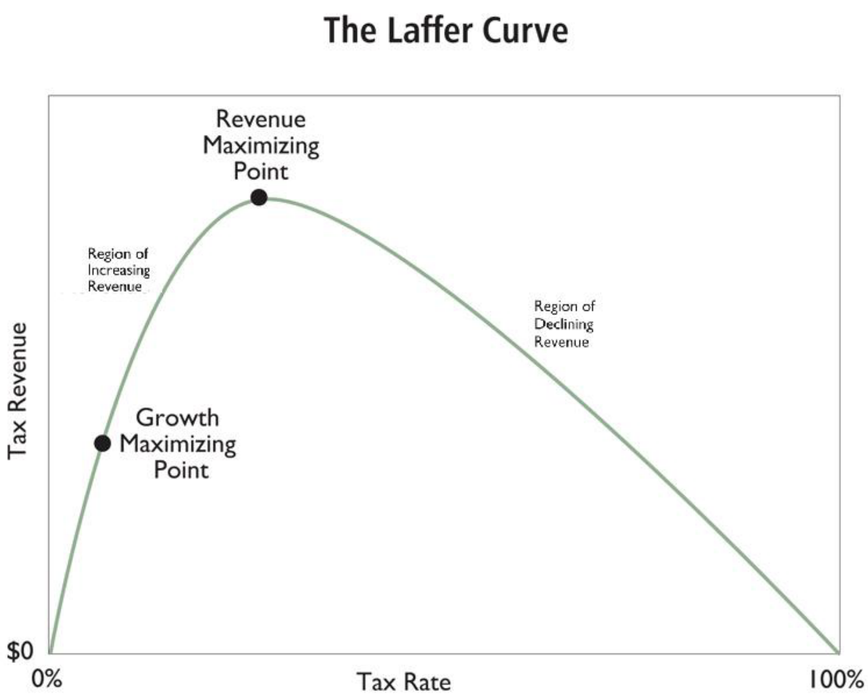


Tax Escalator: Keeping Tobacco Unaffordable



Tax Structure and Revenue: The Laffer Curve

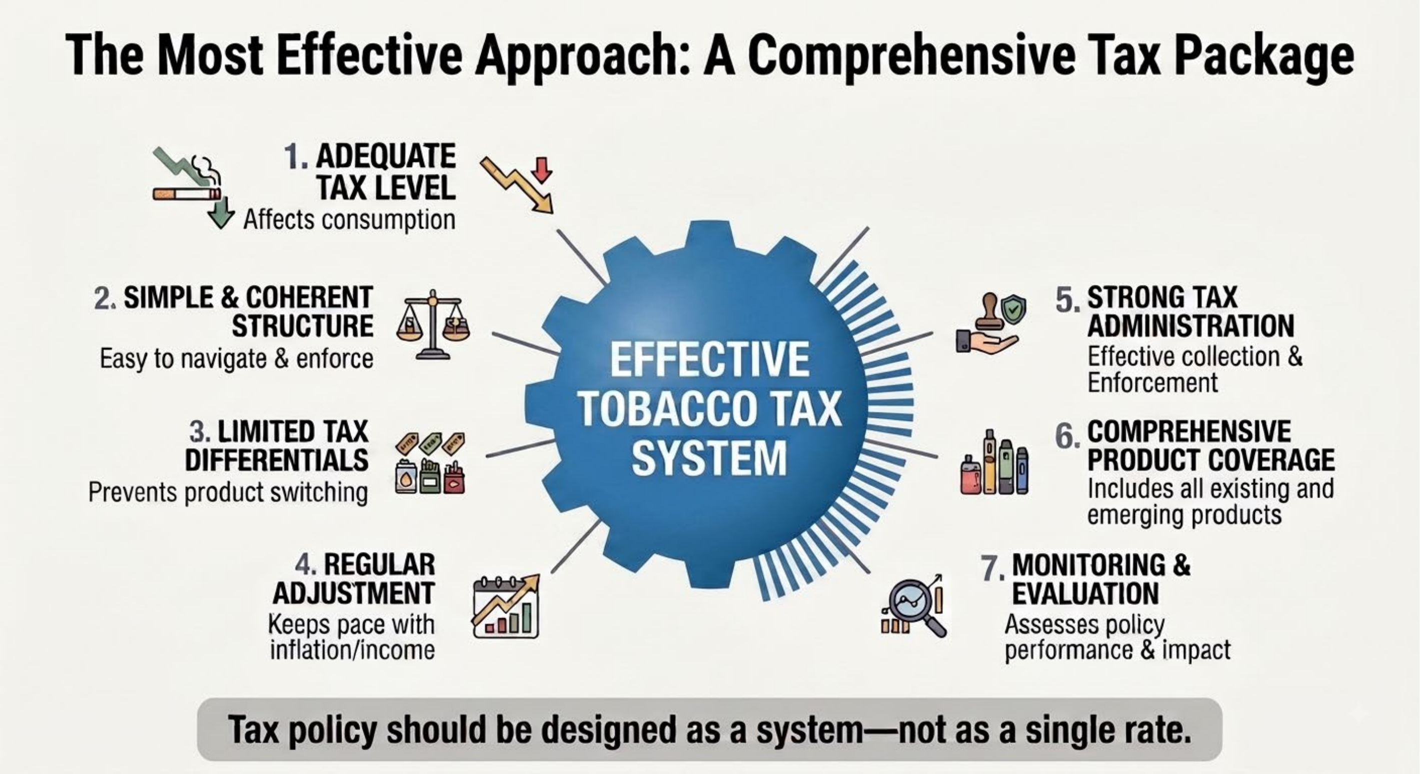
Revenue-maximizing tax ≠ health-optimal tax



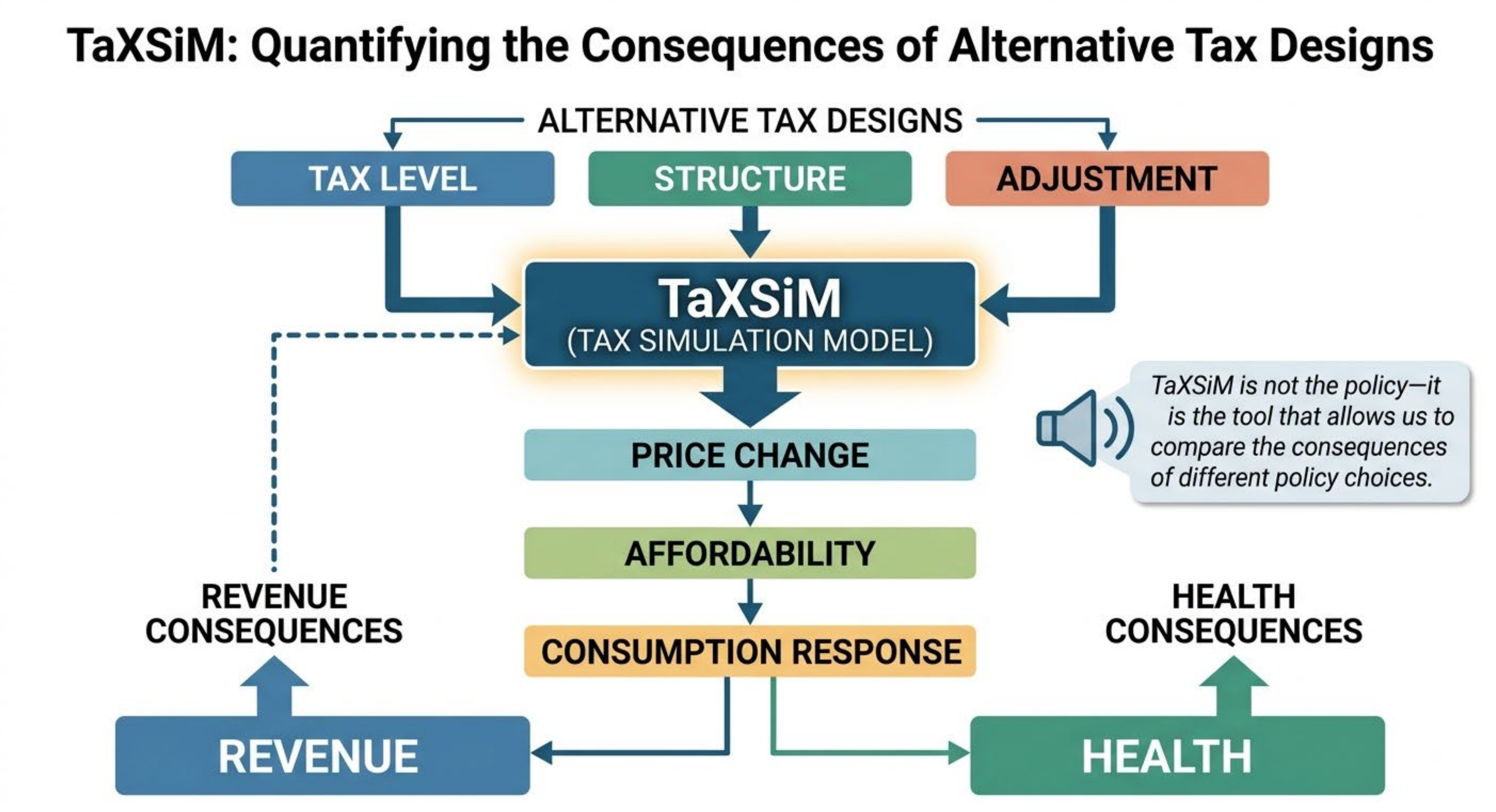
The health objective may justify taxation **beyond the revenue-maximizing point**, provided the tax remains administratively feasible and other policy considerations are addressed.

Higher Tax Does Not Mean Unlimited Revenue

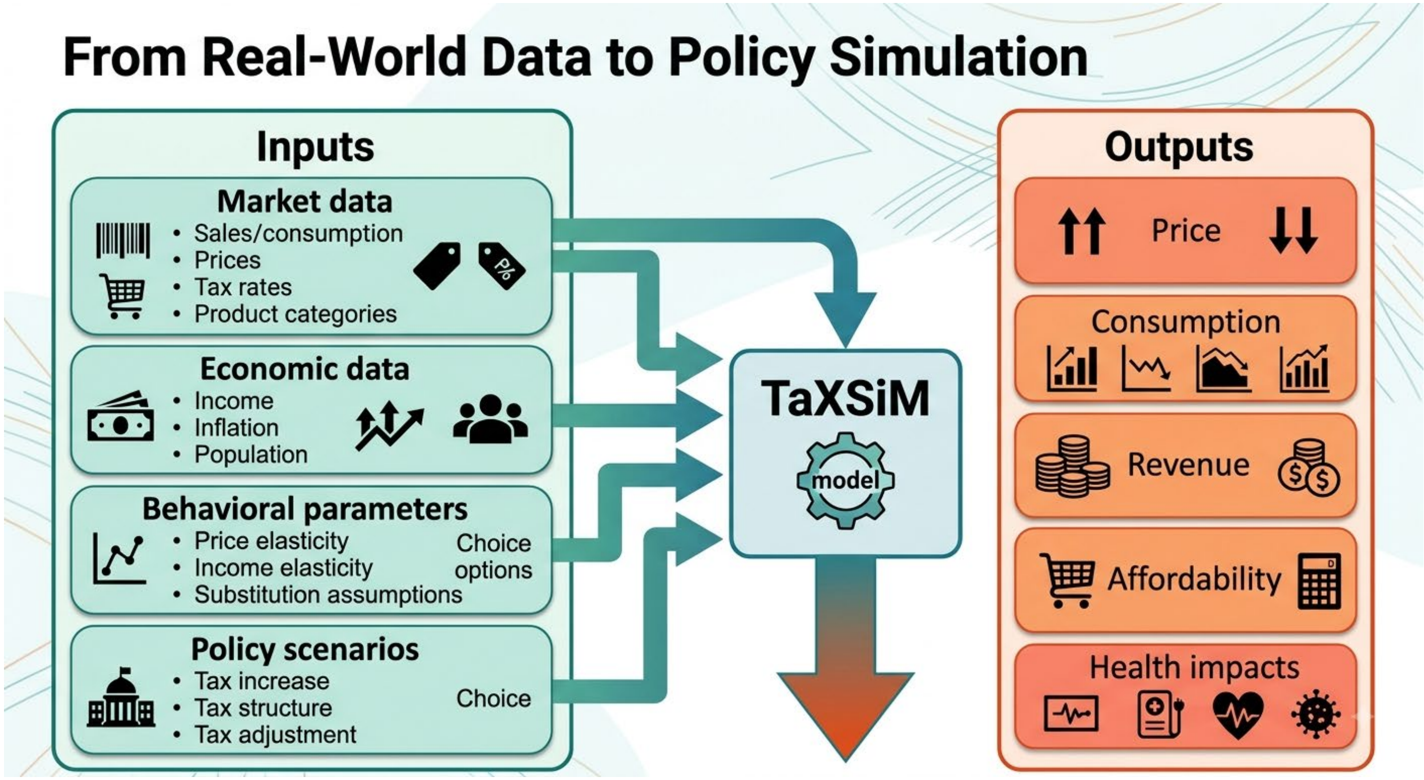
Designing the Tax System as a Package



From Tax Policy to Outcomes: TaXSiM



What Goes Into the Model?



Part IV. What Can We Learn from the Western Pacific Region?

The Western Pacific: Different Countries, Common Policy Lessons

Case	Policy question	Main lesson
Thailand	How should tax tiers be designed?	Reduce structural incentives for down-trading
Philippines	Can taxes deliver a double dividend?	Health gains + revenue mobilization
Australia /New Zealand	How can impact be sustained?	Regular increases and affordability management
Pacific Islands/Tonga	How should small markets respond?	Context-specific design and administration, tax coverage on all tobacco products matters
China	What is the potential at scale?	Large health gains remain possible from stronger taxation

Thailand: Tax Structure Matters

Background

- Thailand has one of the **highest tobacco tax incidences in the Asia-Pacific region**, reflecting strong government commitment to tobacco control.
- In 2017, Thailand introduced a **two-tier cigarette excise tax system**:
  - **25% ad valorem tax** for cigarettes priced ≤72 baht/pack;
  - **42% ad valorem tax** for cigarettes priced >72 baht/pack;
  - Plus a **specific tax of 1.25 baht per cigarette**.

Policy Challenge

The tiered system aimed to protect low-income consumers but resulted in unintended consequences:

- Limited reduction in smoking prevalence;
- Did not effectively eliminate illicit cigarette markets;
- Reduced expected government revenue performance;
- Encouraged consumers to shift toward cheaper cigarette products.

Evidence

Under the previous simpler tax structure (before 2017):

  - Tobacco tax revenue increased from **13.6 billion baht (1990)** to **68.6 billion baht (2017)**;
  - Smoking prevalence declined by approximately **12%**.

Thailand

Key Lessons

- Tax incidence matters, but tax architecture matters too. A high overall tax burden is not sufficient if the structure creates large price gaps between products.
- Simple and more uniform excise systems can reduce down-trading and tax-induced product switching.
- Illicit trade should be addressed through effective enforcement and market control, rather than through lower or differentiated tax rates.
- The health impact of a tax increase depends on the price response across the entire cigarette market, not simply on the statutory tax rate.

Take-home message:

- Thailand shows why tobacco-tax policy should be assessed not only by “how much” tax is imposed, but also by “how” the tax is structured.

Philippines: Tobacco Tax as Both Health and Fiscal Policy

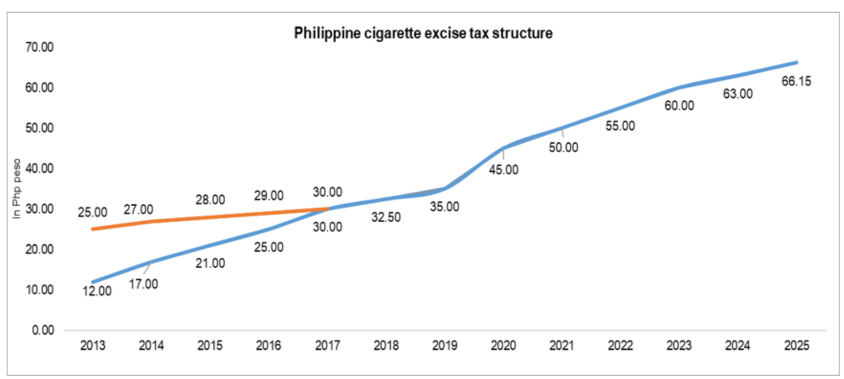
Key Takeaway
A well-designed tobacco tax can simultaneously achieve public health gains and strengthen government fiscal capacity.

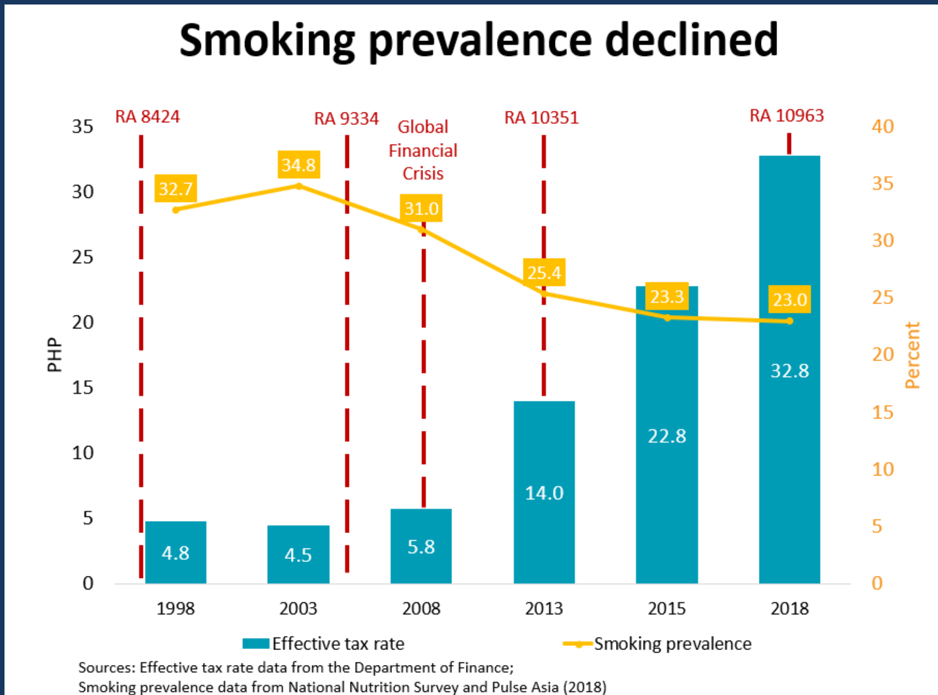
Sin Tax Reform Act (2012)

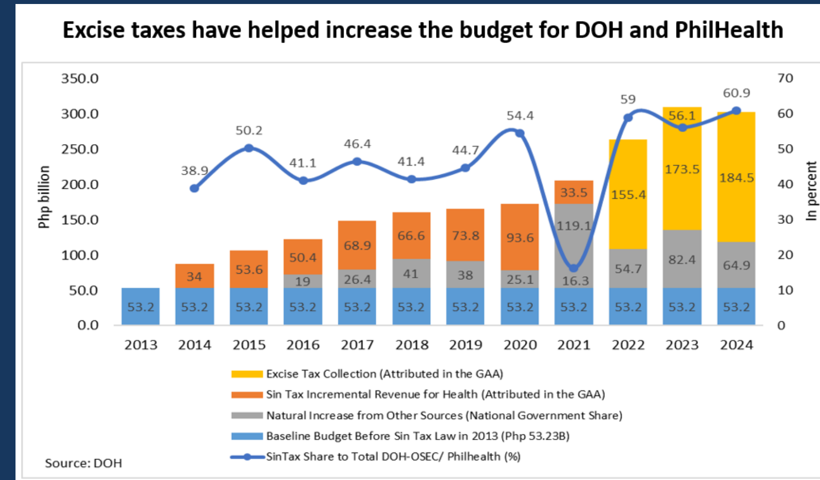
- Simplified the excise tax structure;
- Increased tobacco excise rates substantially;
- Adopted a clearer health-oriented tax framework;
- Dedicated part of the revenue to health financin

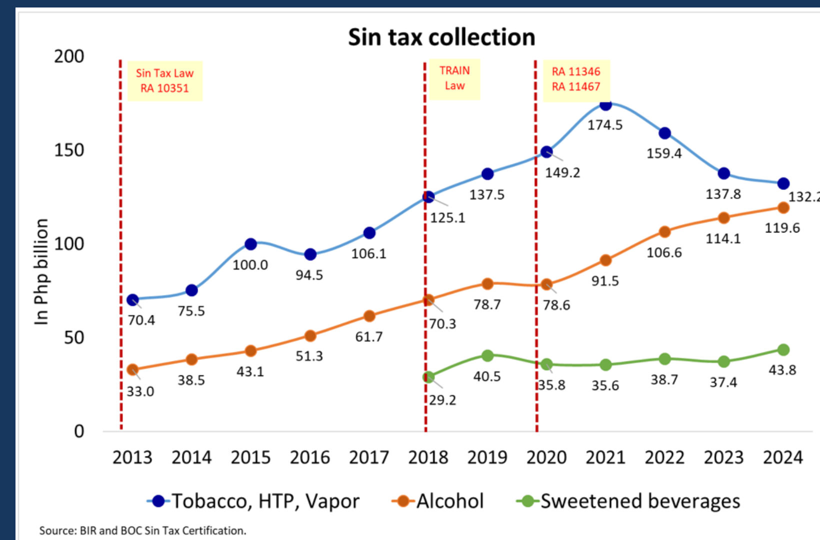
Excise tax rates of cigarettes

1. Removal of price classification freeze and tax advantages of legacy brands.
2. Unitary tax structure and tax rates indexed to inflation by 2017.









Impact

- Significant increase in tobacco excise revenue;
- Expanded health insurance coverage through earmarked revenue;
- Decline in cigarette affordability;
- Reduction in smoking prevalence.

Philippines

Australia & New Zealand: The Importance of Sustained Tax Increases

The policy problem

One-off tax increase

↓

Initial price increase

↓

Affordability gradually recovers

The solution

Regular tax increases

Inflation adjustment

Affordability monitoring

↓

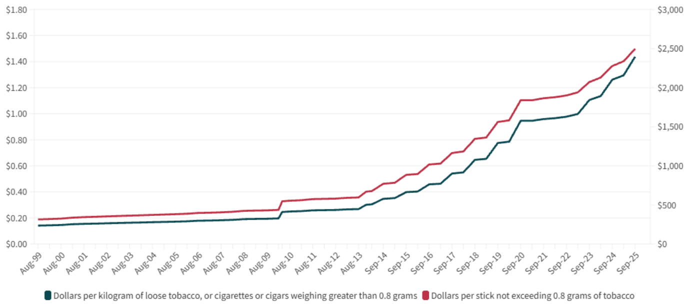
Sustained reduction in affordability

Key message

Tobacco-tax policy should be a process, not a one-off event.

Figure 13.6.1 Tobacco excise rates, Australia, November 1999 to September 2025 ($)

Rates in current dollars for cigarette sticks and per kilogram of loose tobacco



Prices shown in current dollars (the price in the applicable year); no adjustment has been made for inflation.

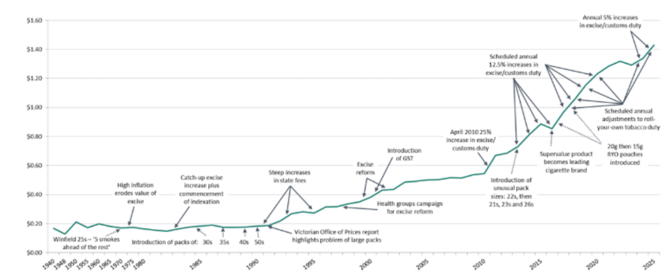
Source: Australian Taxation Office (2025). Tobacco excise rates. Available from: https://www.ato.gov.au/businesses-and-organisations/gst-excise-and-indirect-taxes/tobacco-and-excise/excise-duty-rates-for-tobacco#ato-Tobaccoexciserates. Accessed September 2025.
Australian Taxation Office (2024) Historical excise rates, for Petroleum, Alcohol and Tobacco back to 1965. Available from: https://data.gov.au/data/dataset/excise-data. Accessed February 2024.

Share this graphic

Tobacco in Australia
Facts & Issues

Figure 13.6.4 Cigarette prices annotated with major policies and events impacting tobacco prices, $2012, Australia, 1940 to 2025

Recommended retail price per stick from the leading cigarette brand in each year



To adjust for inflation over time, prices are expressed in 2012 dollars. Dashed arrows: major industry innovations that impacted prices. Prices are for February of each year to 2013, then March of each year (or closest month available) from 2014 onwards. Sources: NSW Retail Traders' Association. Price lists—Cigarettes. The Retail Tobacconist of NSW. 1940–2013: 9 to 87 (February editions); 2014–2015: 90 to 93 (March editions); 2019: 108 (Dec 2018 edition). 2021 118 Apr-Jun edition. CTC Eastern. National Price Lists, March (2020, 2023 to 2025). CTC Eastern. Available from: http://www.ctceastern.com/home/home_index.html. Accessed: 01/09/2025.
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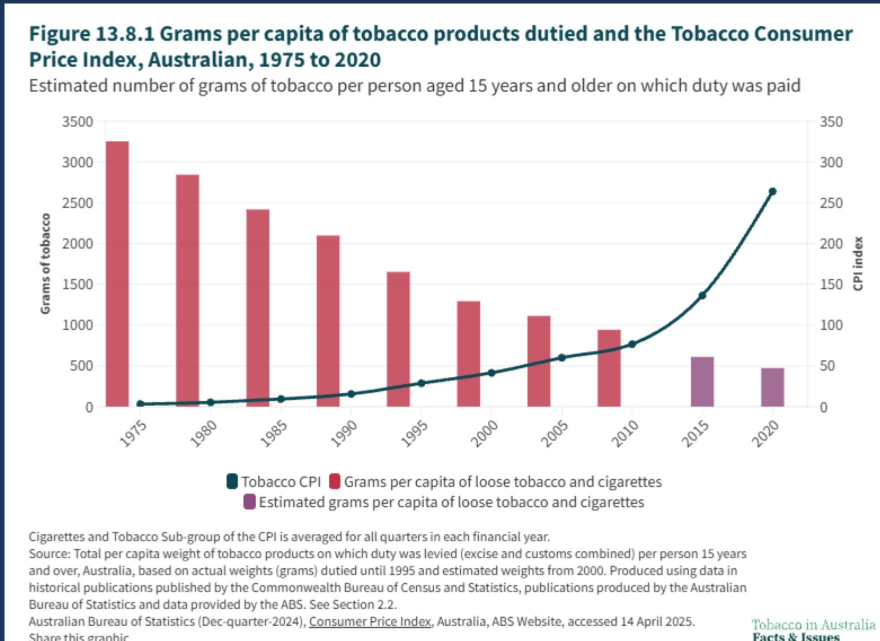
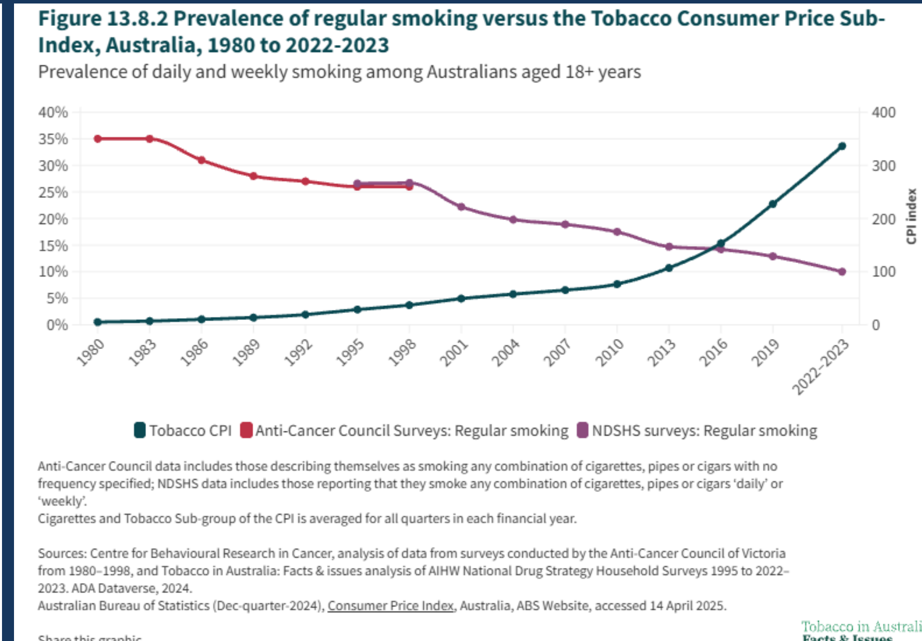
Tobacco in Australia
Facts & Issues





Australia& New Zealand

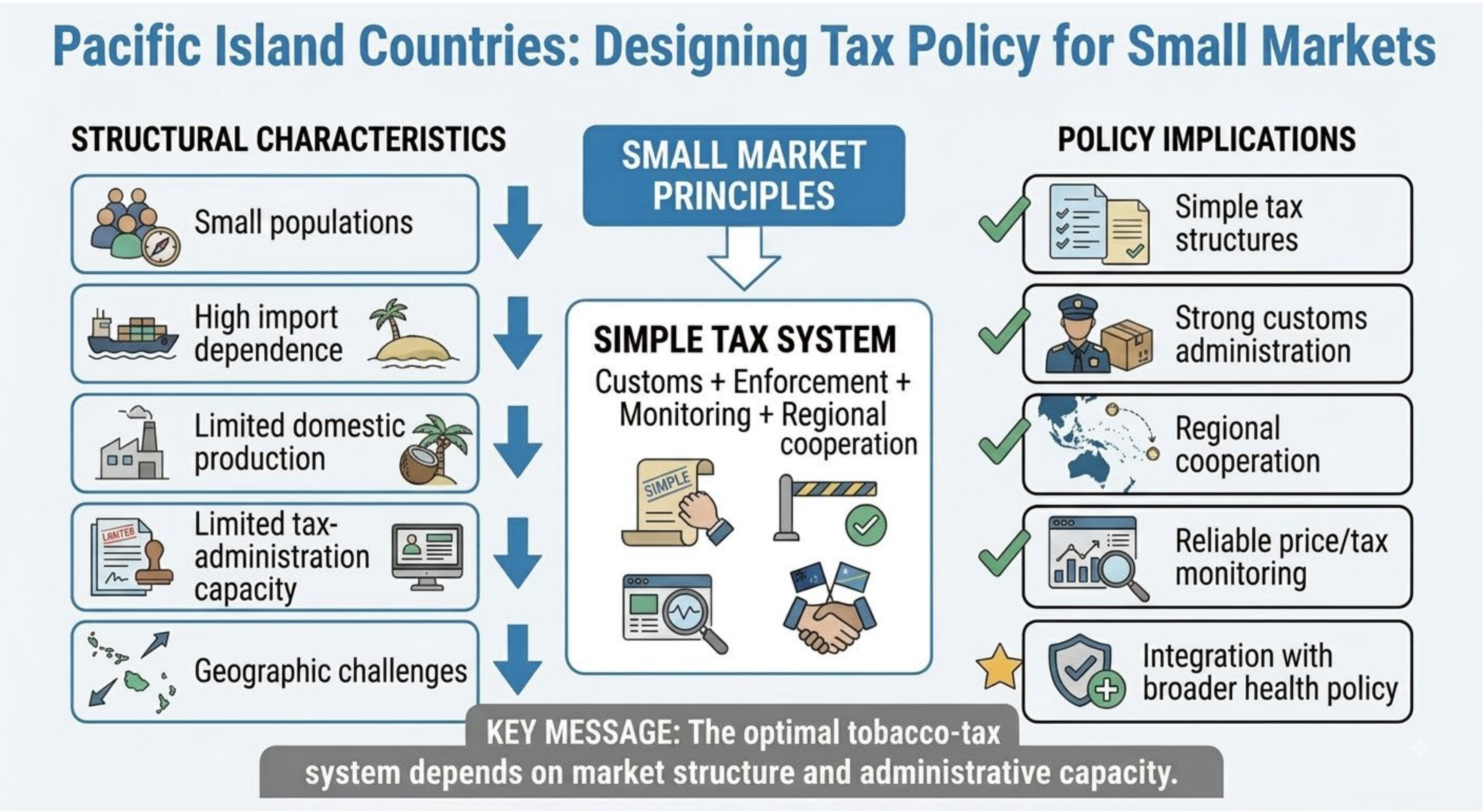
Tobacco Excise Indexation — Maintaining Tobacco Unaffordability

- **Key message: Index tobacco taxes to income growth, not only inflation, to prevent tobacco from becoming more affordable over time**

Policy lesson:

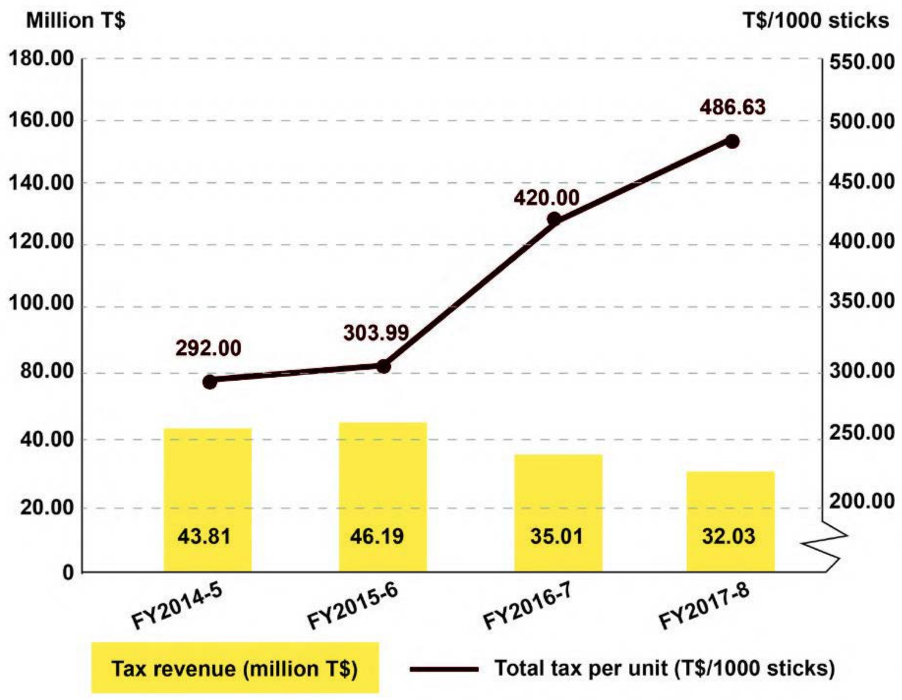
- **The effectiveness of tobacco taxation depends not only on raising tax rates, but also on maintaining long-term reductions in tobacco affordability. Indexing taxes to income growth is an effective strategy to sustain health impacts over time.**

Pacific Island Countries: Designing Tax Policy for Small Markets



Pacific Islands: Tonga Case Study

The World Bank's analysis of Tonga found that the major FY2016–17 increase in cigarette excise was followed by a substantial reduction in manufactured cigarette consumption and tobacco-tax revenue, with approximately one-fifth of smokers shifting toward Tapaka Tonga, a cheaper local tobacco product.



Lessons takeaway:
Taxing cigarettes is not enough if smokers can switch to cheaper, untaxed tobacco products, both the fiscal and health impacts of taxation can be weakened.

China: Tobacco Tax Works in The World's Largest Tobacco Market

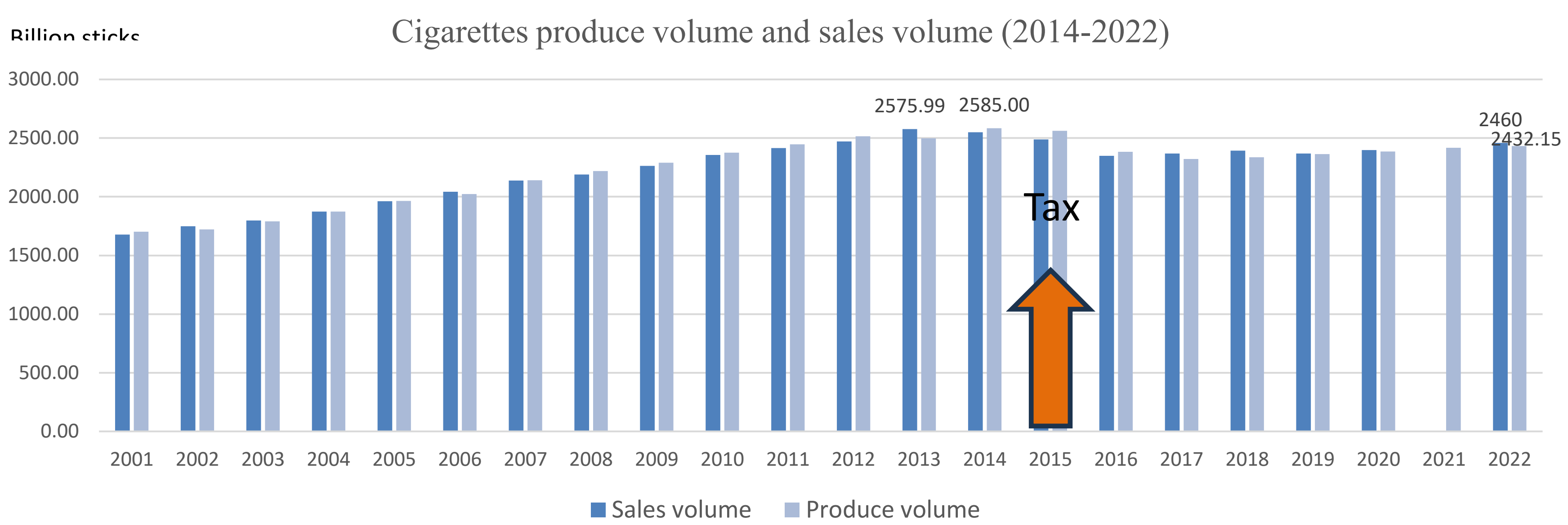
Early assessment of China's 2015 tobacco tax increase

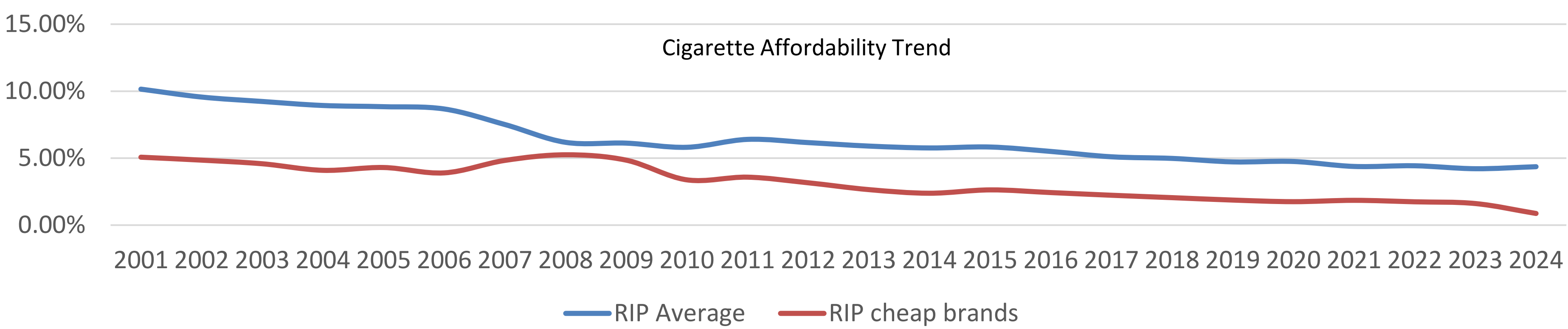
Mark Goodchild[a] & Rong Zheng[b]

Abstract In 2015, the Chinese government raised tobacco excise tax for the first time since 2009. Changing from previous practice, the State Tobacco Monopoly Administration raised its cigarette prices at the same time. We assessed the early impact of the 2015 tax increase on cigarette prices, sales volumes, tax revenue generation and the potential effect on prevalence of smoking in China. Between 2014 and 2016, the retail price of cigarettes increased on average by 11%, with the cheapest category of cigarette brands increasing by 20%. The average proportion of tax in the price of cigarettes rose from 51.7% to 55.7%. Annual cigarette sales decreased by 7.8%, from 127 to 117 billion packs. The increase in cigarette prices could be associated with a 0.2% to 0.6% decrease in the proportion of adults smoking, representing between 2.2 and 6.5 million fewer smokers. Tax revenues from cigarettes increased by 14%, from 740 to 842 billion Chinese yuan between 2014 and 2016, reflecting an extra 101 billion Chinese yuan in tax revenues for the government. The 2015 tax increase shows that tobacco taxation can provide measurable benefits to both public health and finance in China. The experience also highlights the potential for tobacco taxation to contribute to China's broader development targets, including the sustainable development goals and Healthy China 2030. Looking forward, this link to development can be facilitated through multisectoral research and dialogue to develop consistent cross-sectoral objectives for tobacco tax policy design and implementation.

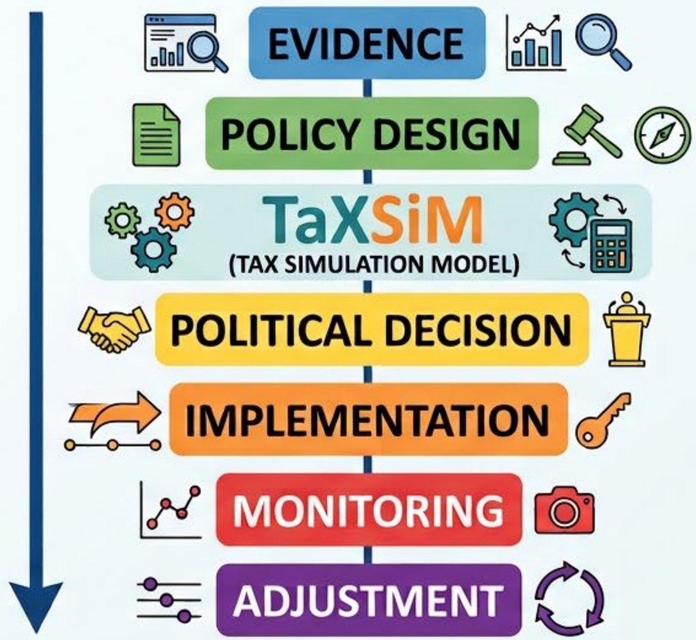
Abstracts in عربي, 中文, Français, Русский and Español at the end of each article.

China: One-Off Increases Are Not Enough





Part V. From Evidence to Policy Action



Central: Effective tobacco taxation is not a one-time tax increase. It is a continuous policy process.

Step 1 — Know Your Tobacco Market

Before changing the tax, governments should know:

Who consumes?

→ Smoking prevalence

What do they consume?

→ Cigarettes / roll-your-own / heated tobacco / other products

What do they pay?

→ Retail prices

What is taxed?

→ Tax structure and tax burden

What substitutes exist?

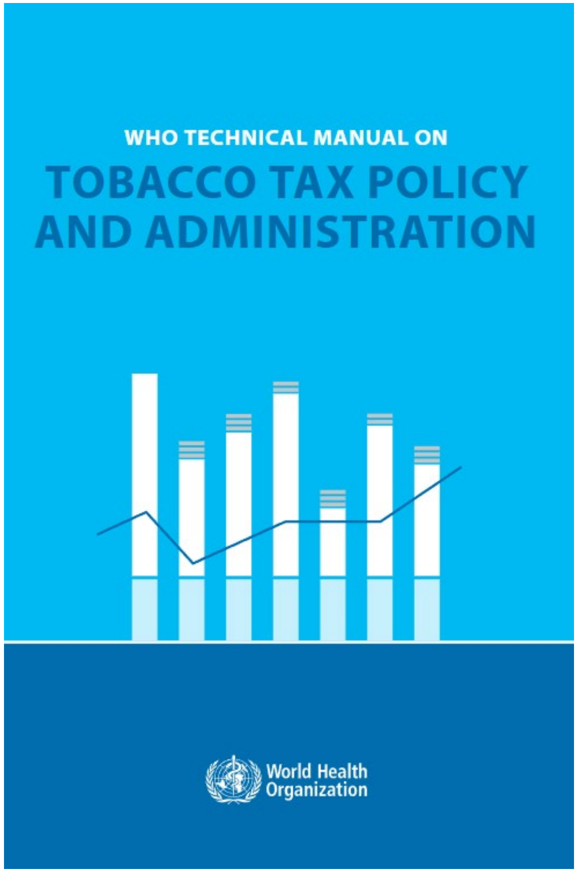
→ Cheaper brands / untaxed products / illicit products

How affordable is tobacco?

→ Price relative to income

Key message:

A tax reform designed without a clear understanding of the market can produce unintended consequences.



WHO's technical manual specifically identifies understanding the tobacco market as a fundamental step before deciding on the form of taxation.

Step 2 — Set a Clear Tax Reform Objective

A government may have several objectives:

Health: Reduce tobacco consumption and smoking prevalence

Revenue: Mobilize sustainable domestic revenue

Objectives should be explicit because different objectives may imply different policy choices.

Step 3 — Use Modelling Before Making the Decision

Policy scenarios

Scenario 1
Current policy (Base year/BAU)

Scenario 2
Scenario 3
Scenario 4
Scenario 5
Comprehensive reform + regular adjustment

↓

TaXSiM

↓

Compare:

Price

Tax incidence

Affordability

Consumption

Revenue

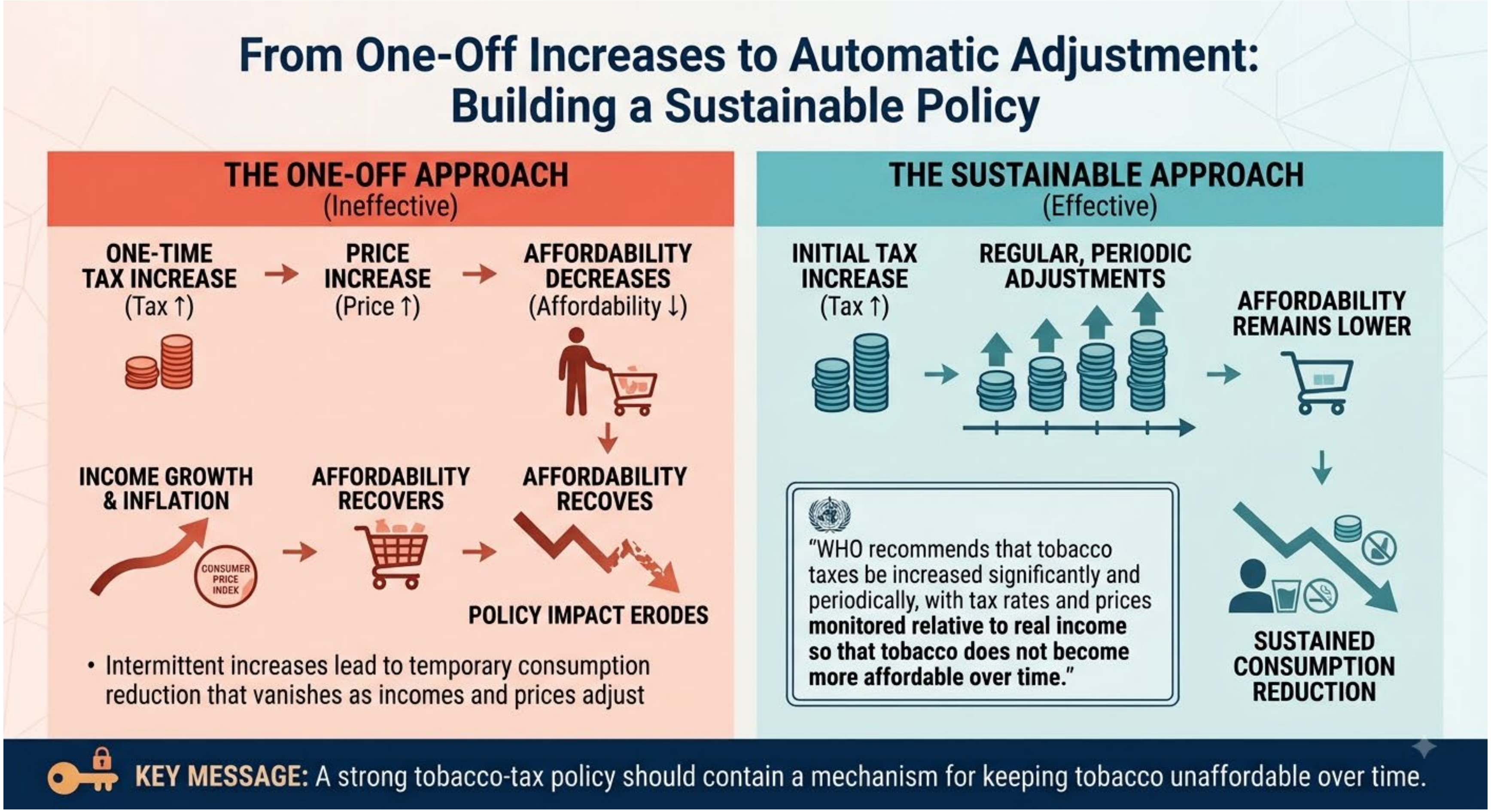
Health impact (smoking rate)

Distributional effects

Don't Debate Tax Rates Without Quantifying the Options

Key message
Modelling should inform the policy decision before the tax reform—not explain it afterwards.

Step 4 — Build the Tax Reform into a Sustainable System



What Gets Measured Gets Managed

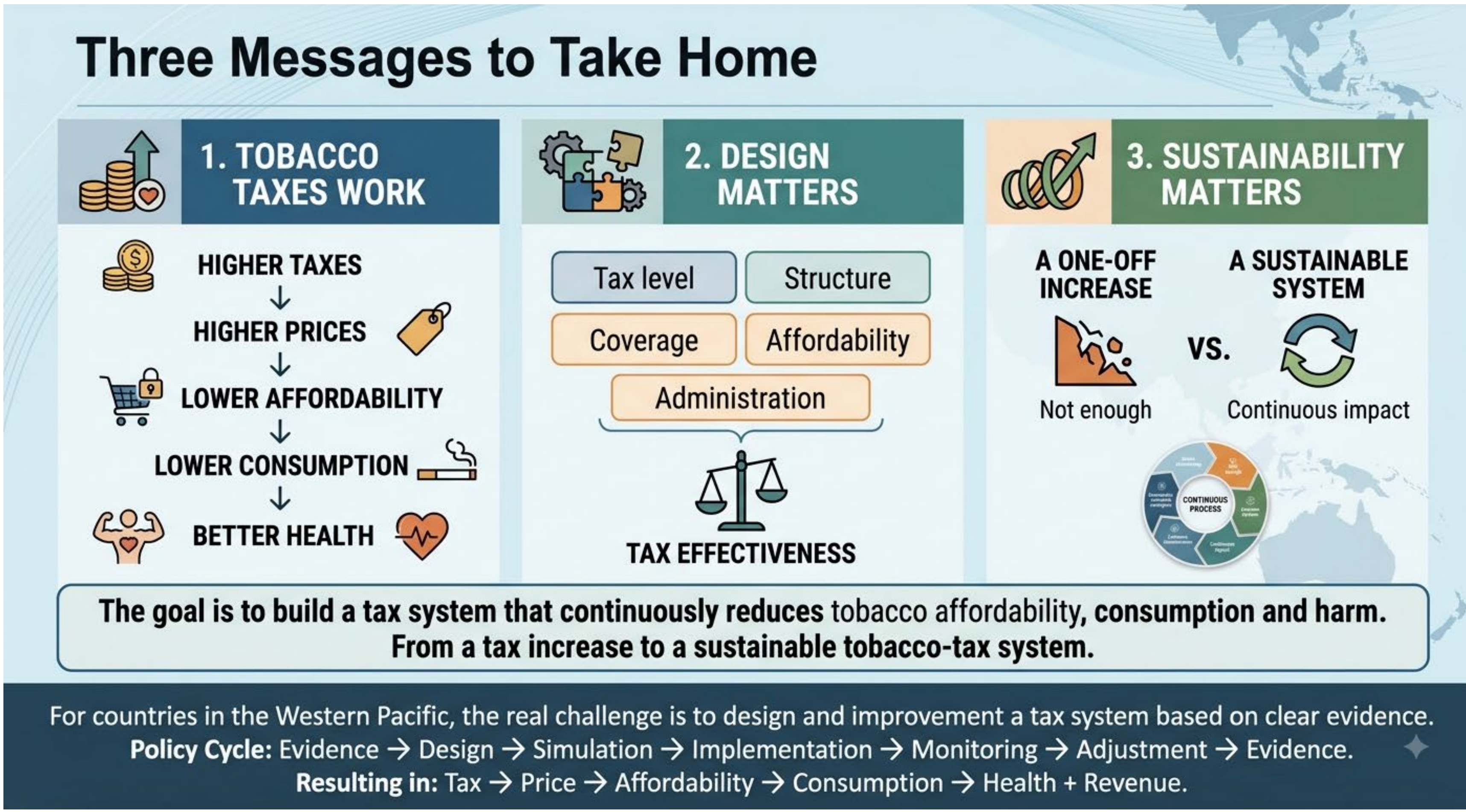
Step 5 — Implement and Monitor

Monitor outcomes—not just tax rates.

Indicator	What does it tell us?
Excise tax rate	Is the statutory tax changing?
Retail price	Is the tax being passed through?
Affordability	Is tobacco becoming less affordable?
Sales/consumption	Is behavior changing?
Product switching	Are consumers moving to substitutes?
Tax revenue	What is happening to tax revenue?
Illicit market indicators	Are there implementation/enforcement concerns?

Step 6 — Institutionalize a Cross-Ministry Process

Concluding Comments



Thank You

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