

tobacconomics

Economic Research Informing Tobacco Control Policy

The Evidence for Tax and Price Measures

Frank J. Chaloupka, University of Illinois at Chicago

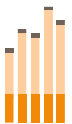
Economics of Tobacco Control Workshop

World Conference on Tobacco or Health

6 March 2018, Cape Town, South Africa

Overview

- Impact of tobacco taxes & prices on tobacco use
- Best practices in tobacco taxation
- Myths & Facts on economic “costs” of tobacco taxation




TOBACCO CONTROL

DEVELOPMENT IN PRACTICE

Curbing the Epidemic

Governments and the Economics of Tobacco Control




A WORLD BANK PUBLICATION

The International Tobacco Control Policy Evaluation Project

Tobacco Price and Taxation

ITC Cross-Country Comparison Report



MARCH 2012

UNIVERSITY OF WATERLOO

itc International Tobacco Control Policy Evaluation Project

International Agency for Research on Cancer
World Health Organization

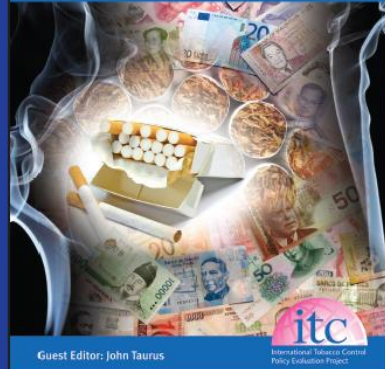
IARC HANDBOOKS OF CANCER PREVENTION
Tobacco Control

Volume 14

Effectiveness of Tax and Price Policies for Tobacco Control

2011

The Economics of Tobacco Control: Evidence from the International Tobacco Control (ITC) Policy Evaluation Project




Guest Editor: John Taurus

itc International Tobacco Control Policy Evaluation Project

tobaccocontrol.bmj.com

BMJ


 FCTC
WHO FRAMEWORK CONVENTION ON TOBACCO CONTROL

Guidelines for implementation of Article 6
Price and tax measures to reduce the demand for tobacco


Adopted by the Conference of the Parties at its sixth session (decision FCTC/COP(6)(6))

Online version available at http://www.who.int/fctc/treaty_instruments/guidelines_article_6.pdf

WHO Technical Manual on Tobacco Tax Administration




World Health Organization

 World Health Organization

WHO REPORT ON THE GLOBAL TOBACCO EPIDEMIC, 2015
Raising taxes on tobacco

fresh and alive
mpower

 NATIONAL CANCER INSTITUTE

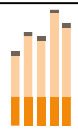
21

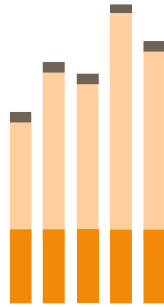
NCI TOBACCO CONTROL MONOGRAPH SERIES

The Economics of Tobacco and Tobacco Control

IN COLLABORATION WITH WORLD HEALTH ORGANIZATION

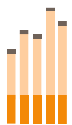
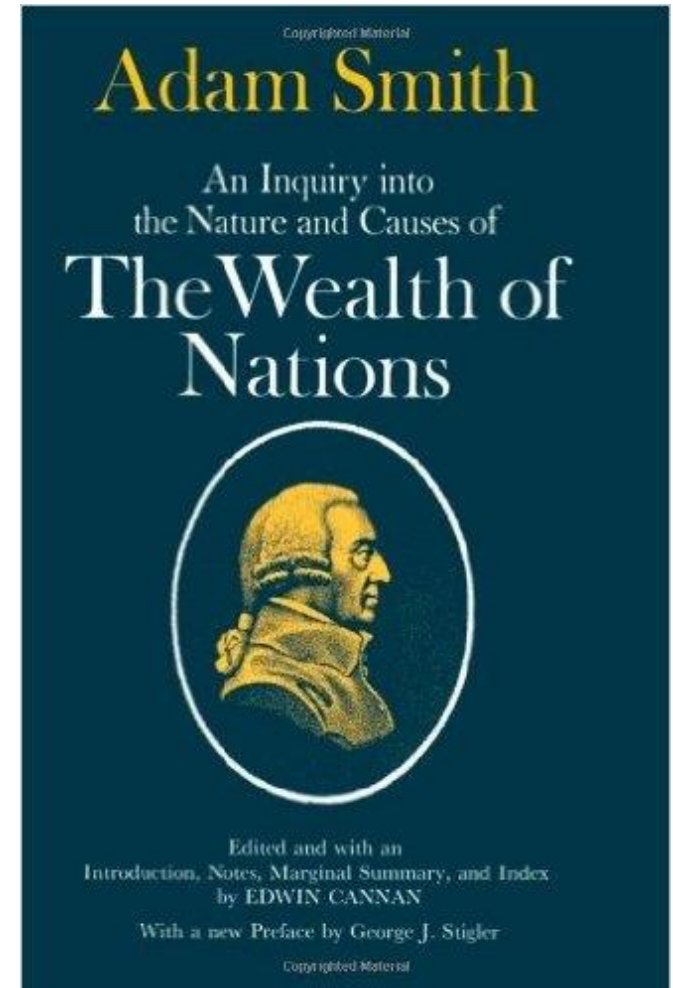
Executive Summary





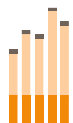
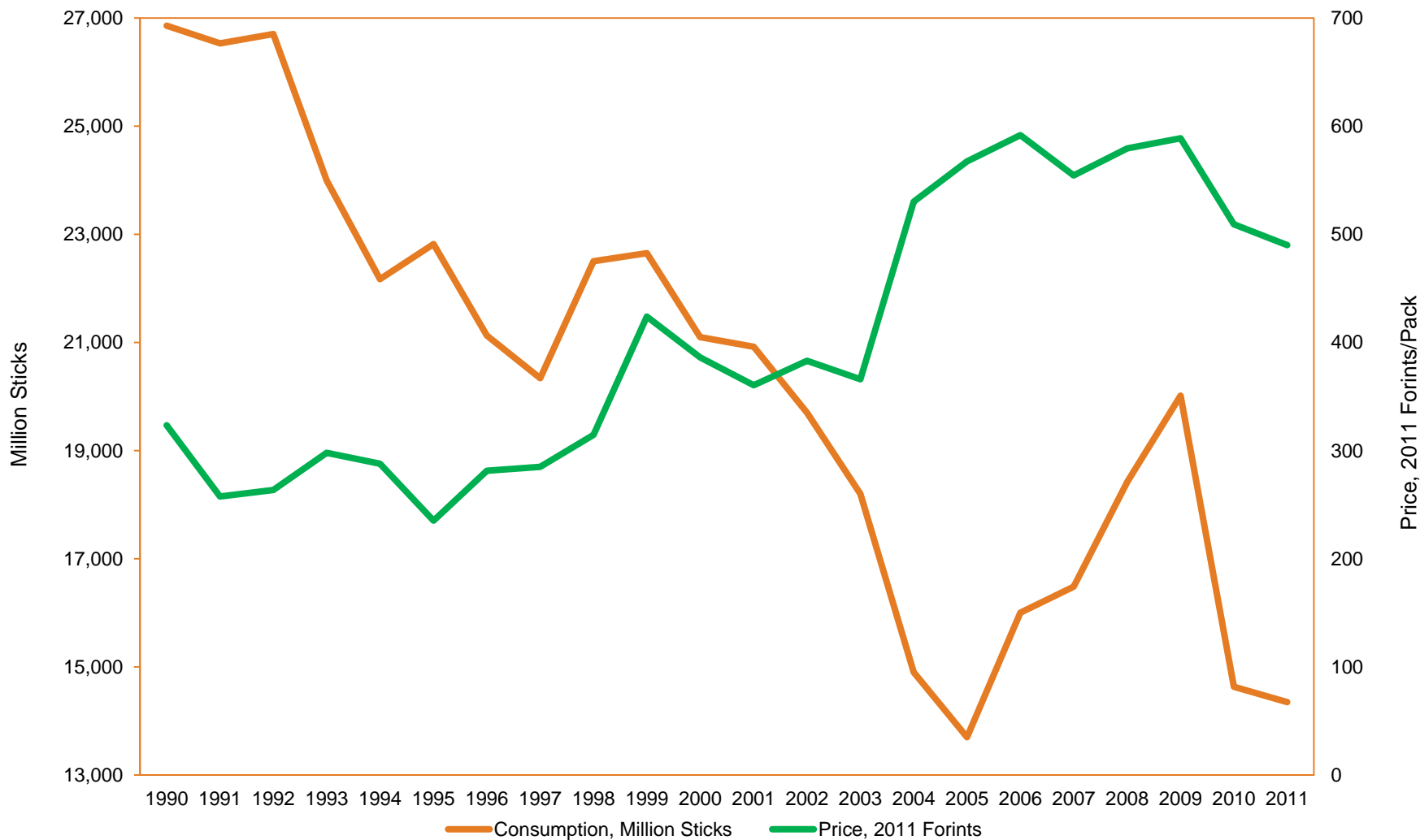
Impact of Tobacco Tax & Price Increases

" Sugar, rum, and tobacco, are commodities which are no where necessaries of life, which are become objects of almost universal consumption, and which are therefore **extremely proper subjects of taxation.**



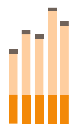
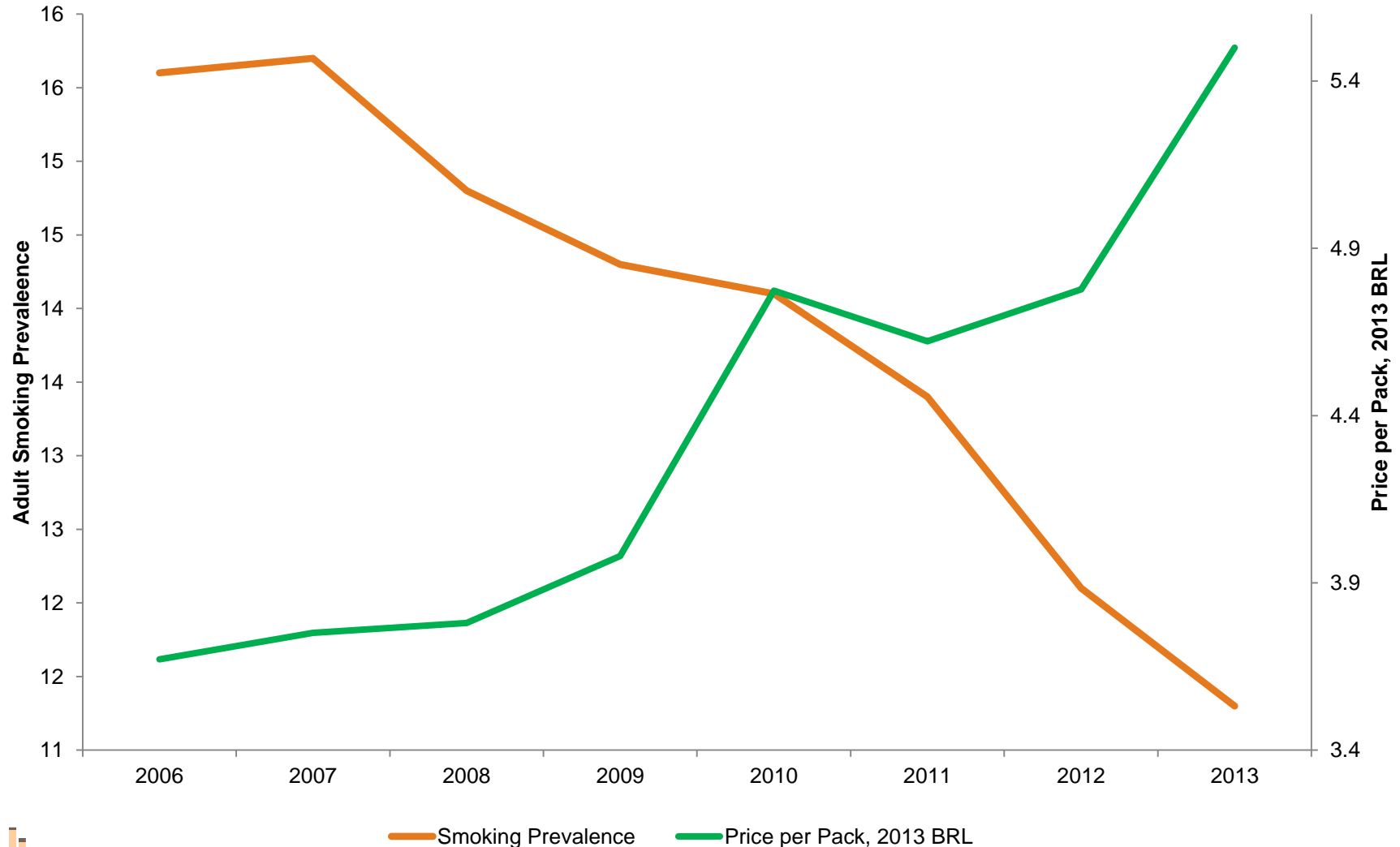
Cigarette Price & Consumption

Hungary, 1990-2011, Inflation Adjusted

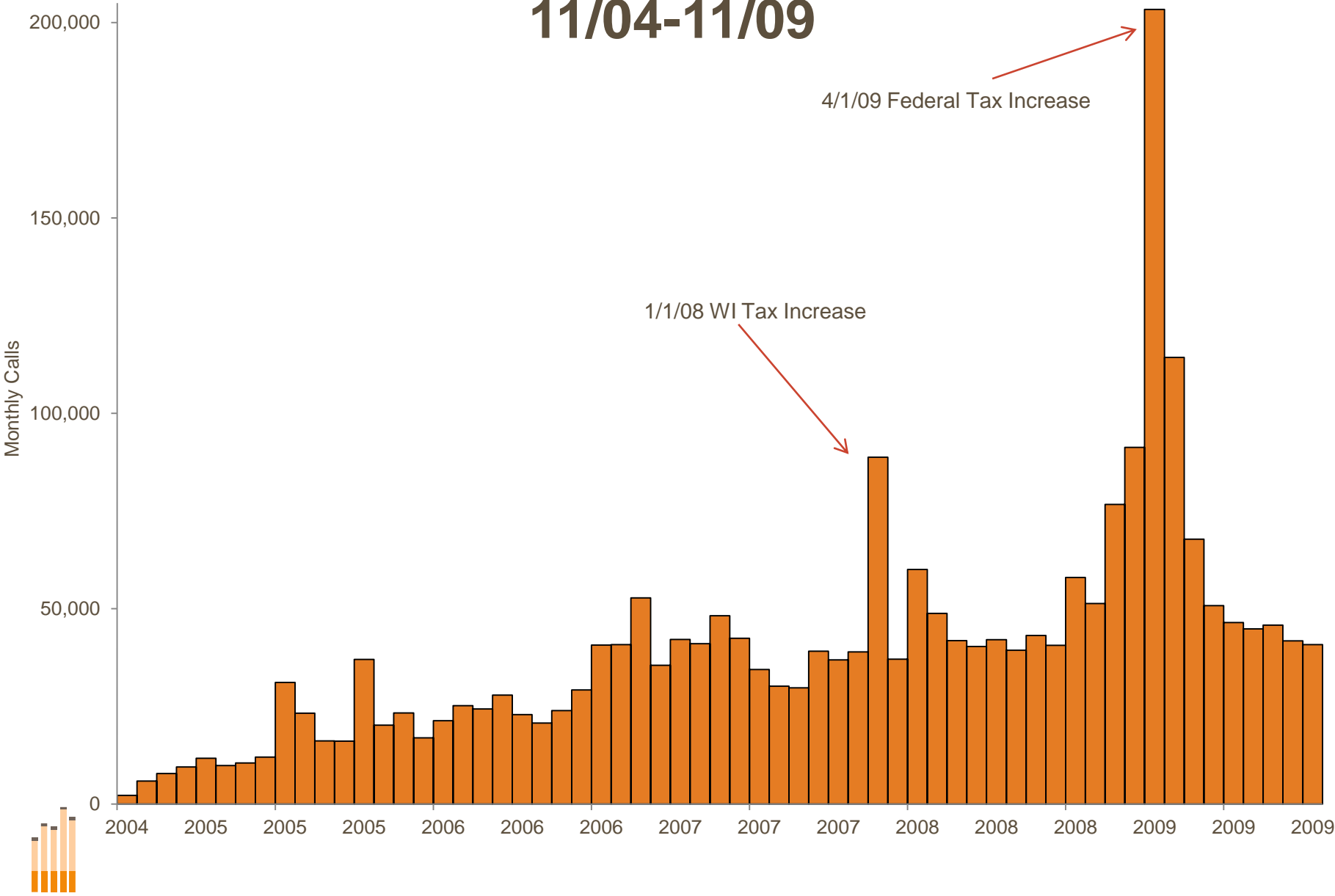


Adult Smoking Prevalence & Price

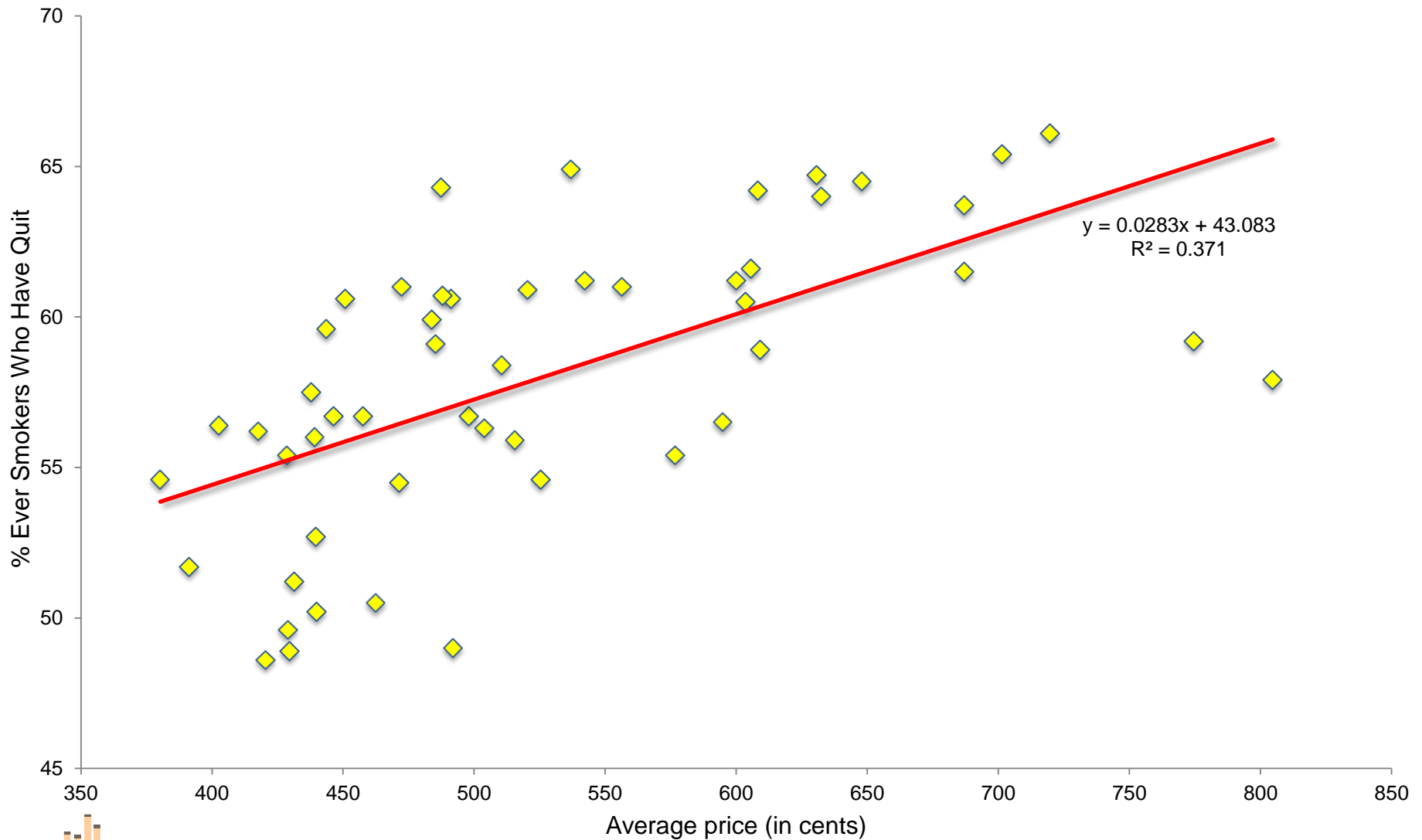
Brazil, Inflation Adjusted, 2006-2013



Monthly Quit Line Calls, United States 11/04-11/09



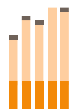
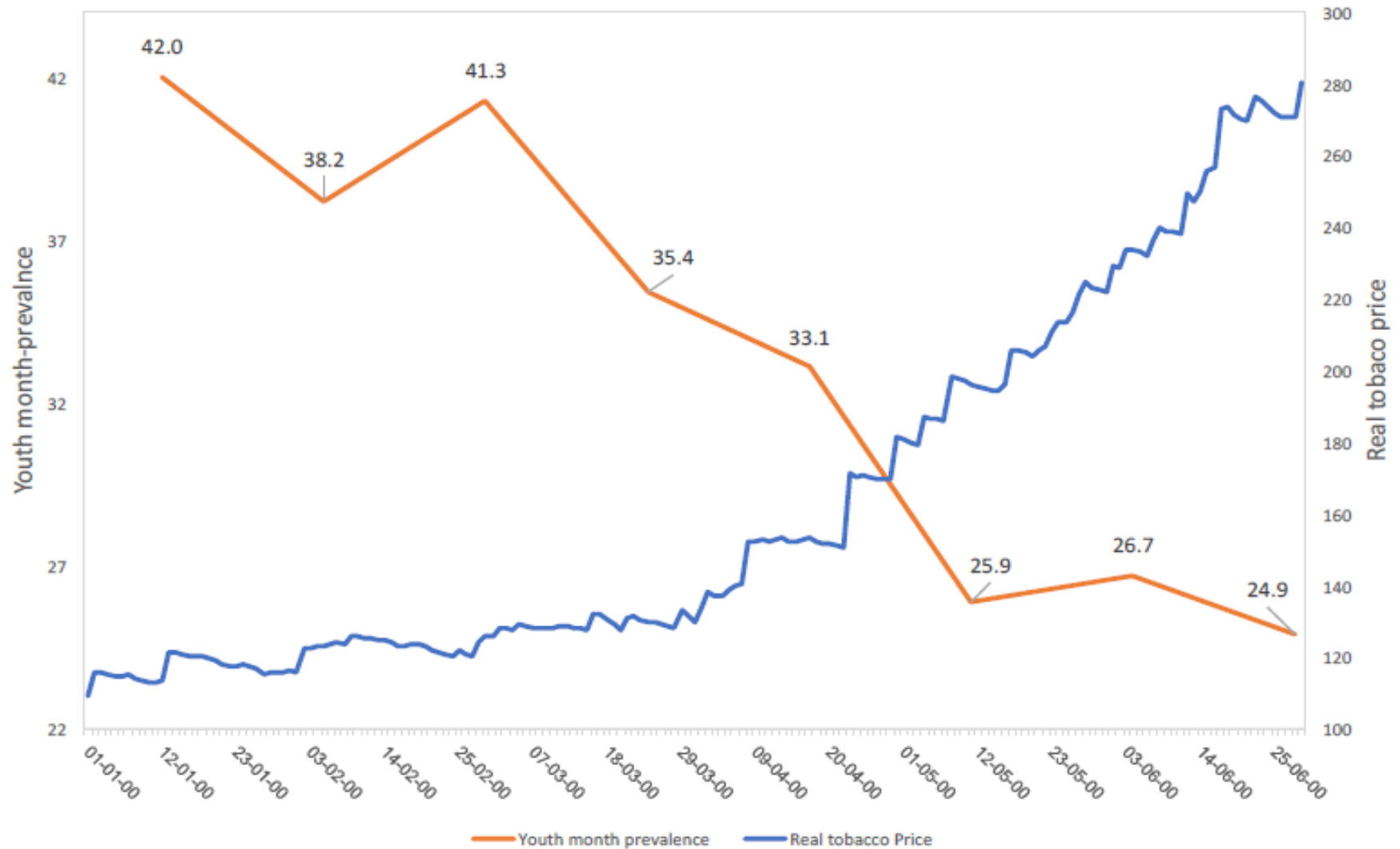
Cigarette Prices and Cessation US States & DC, 2009



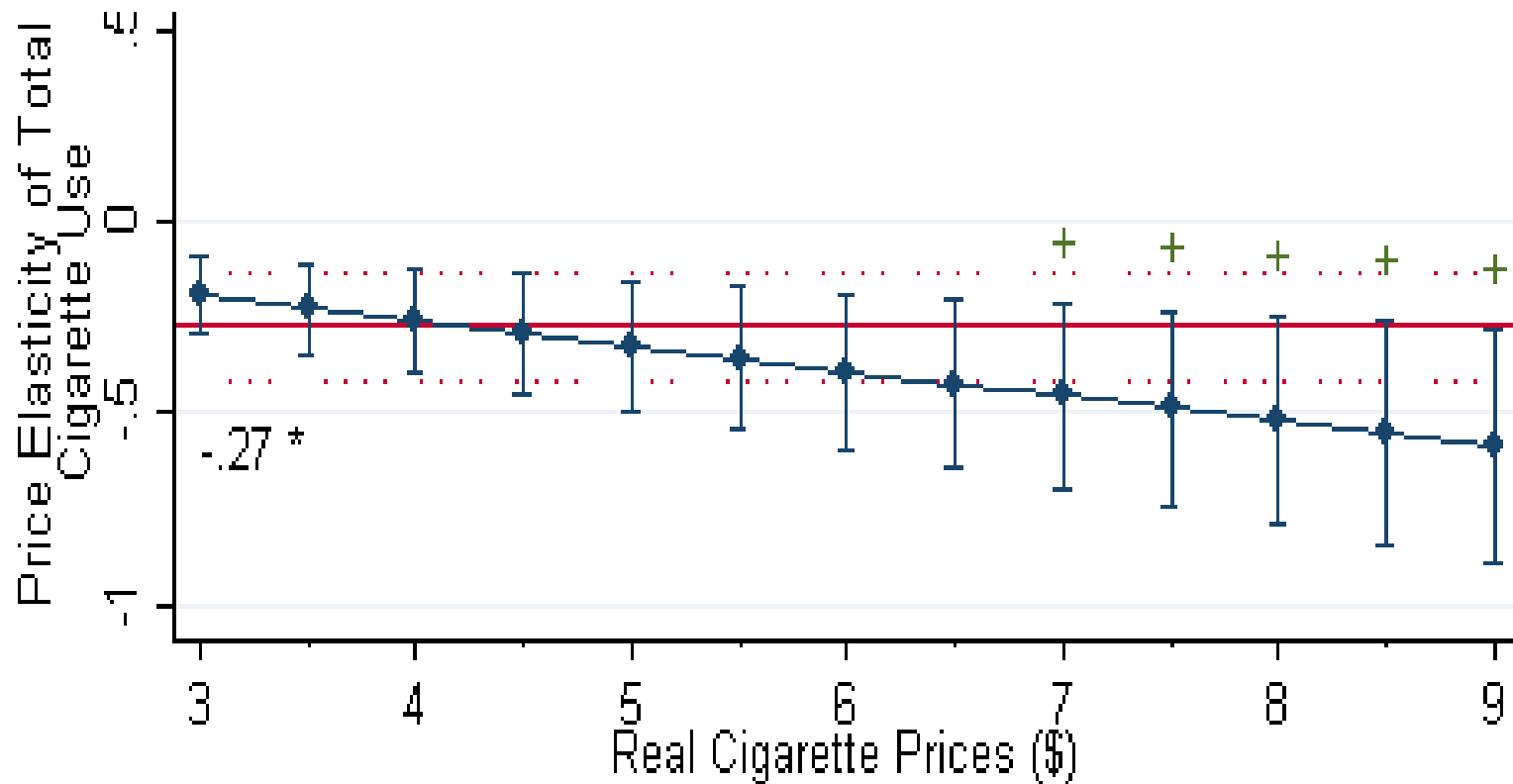
Source: BRFSS, *Tax Burden on Tobacco*, 2010, and author's calculations



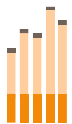
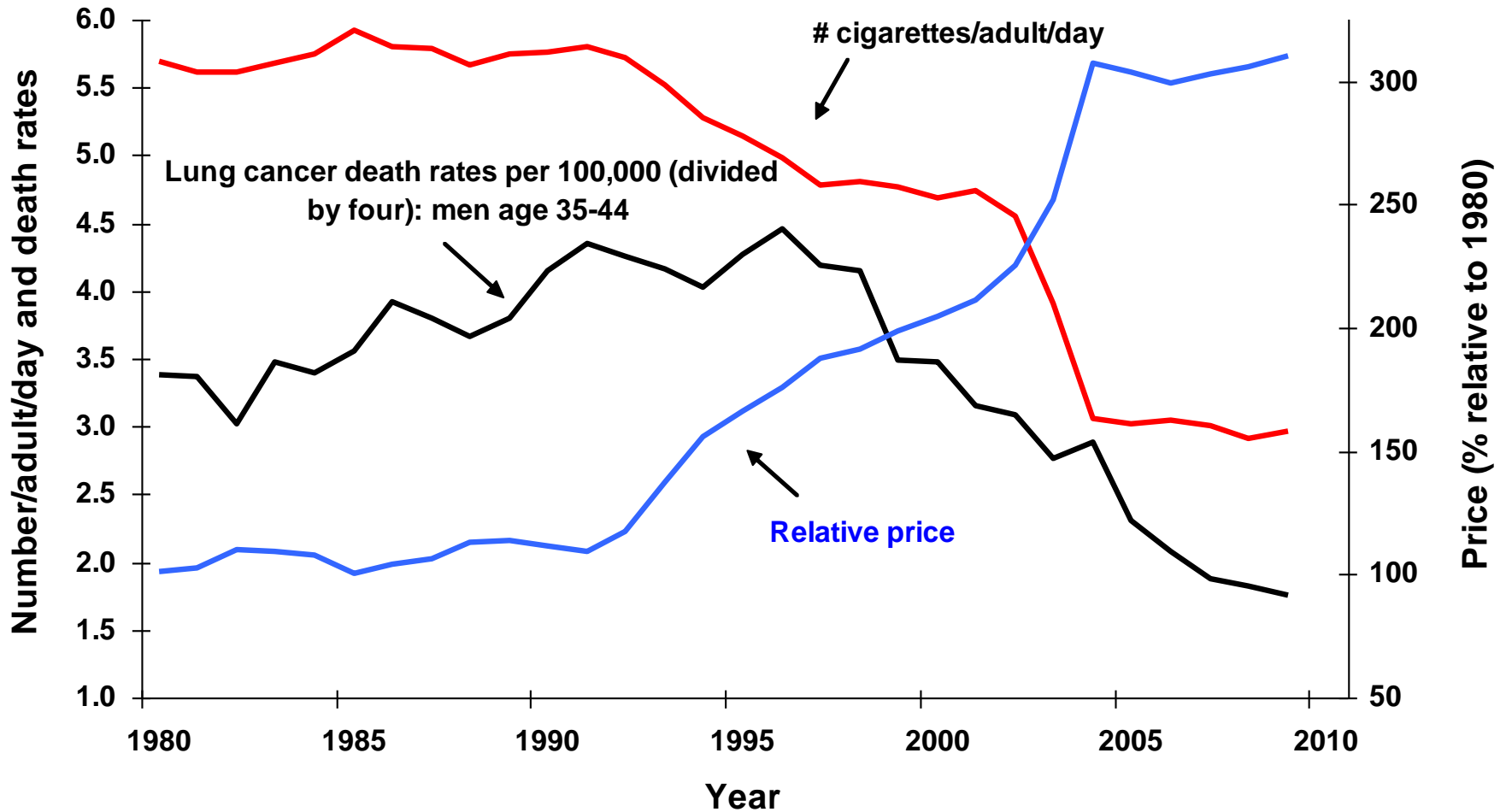
Cigarette Price & Youth Smoking Prevalence Chile, 2000-2015



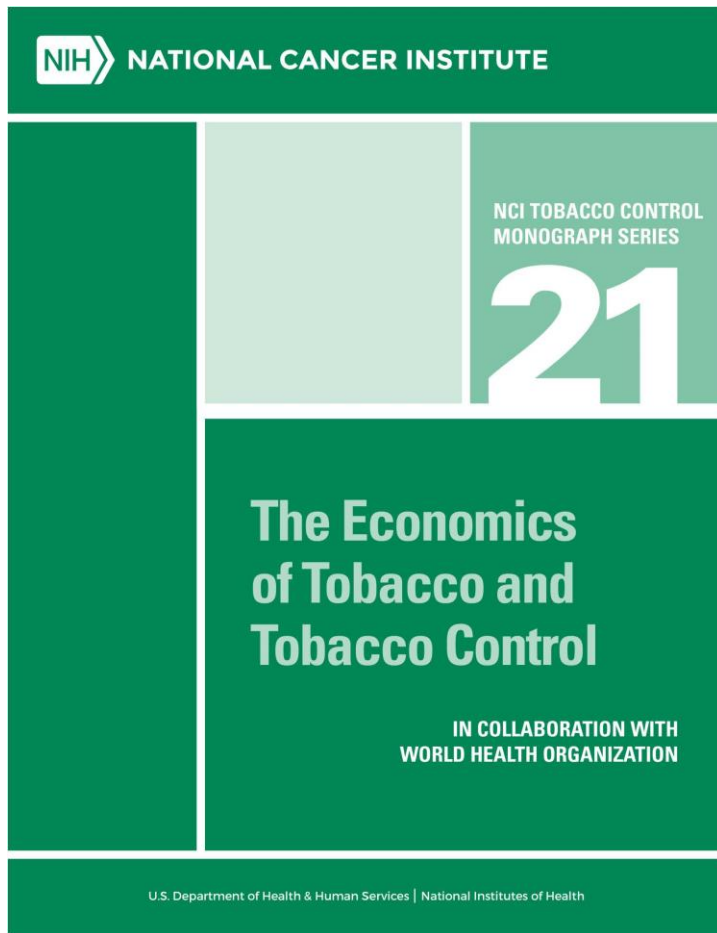
Increasing Elasticity with Increasing Price – U.S. TUS-CPS Data



Price, Consumption & Lung Cancer, France

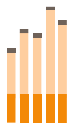


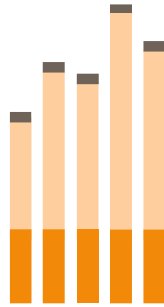
Effectiveness of Tobacco Taxes



Chapter 4, Conclusion 1:

A substantial body of research, which has accumulated over many decades and from many countries, shows that **significantly increasing the excise tax and price of tobacco products is the single most consistently effective tool for reducing tobacco use.**



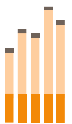


Best Practices in Tobacco Taxation

Recommendations

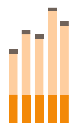
Section 3 – Tobacco taxation systems

“Parties should implement the simplest and most efficient system that meets their public health and fiscal needs, and taking into account their national circumstances. **Parties should consider implementing specific or mixed excise systems with a minimum specific tax floor,** as these systems have considerable advantages over purely ad valorem systems.”

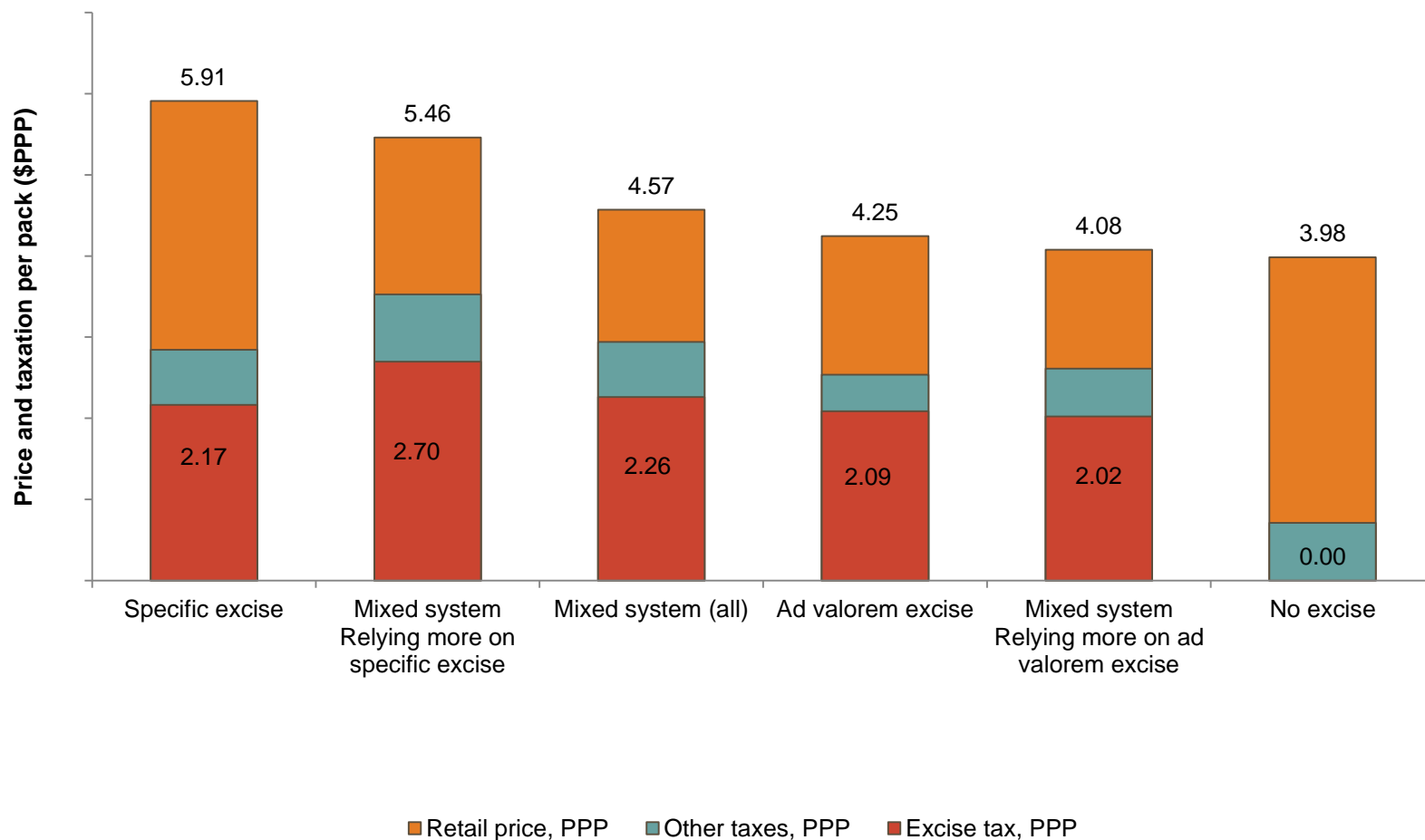


Excise systems for cigarettes 2016

	Number of Countries (global)	Number of Countries (European Region)
Total covered	188	52
Specific excise only	66	12
Ad valorem excise only	47	2
Mixture of both excises	60	38
No Excise	15	0

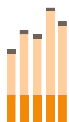


Excise tax structure: Specific and mixed relying more on the specific component tend to lead to higher prices

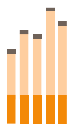
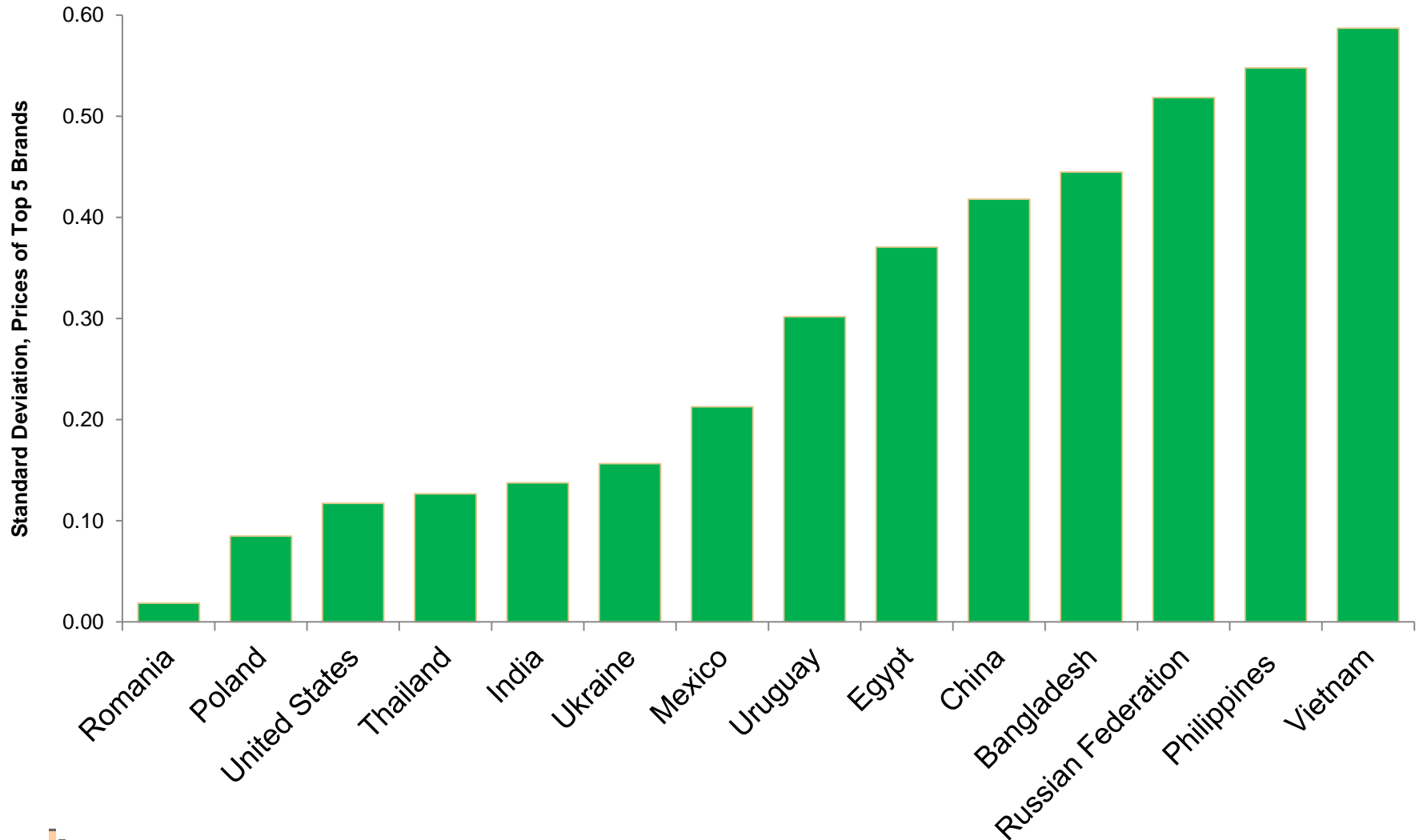


Source: WHO 2017 GTCR data; unpublished figure.

Notes: Averages are weighted by WHO estimates of number of current cigarette smokers ages 15+ in each country in 2015; Prices are expressed in Purchasing Power Parity (PPP) adjusted dollars or international dollars to account for differences in the purchasing power across countries. Based on prices as of July 2016 for 53 high-income, 100 middle-income and 27 low-income countries with data on prices of most sold brand, excise and other taxes, and PPP conversion factors.



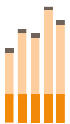
Excise Tax Structure and Price Variability



Recommendations

Section 2 – Relationship between tobacco taxes, price and public health:

“When establishing or increasing their national levels of taxation Parties should take into account – among other things – both price elasticity and income elasticity of demand, as well as inflation and changes in household income, to **make tobacco products less affordable over time in order to reduce consumption and prevalence**. Therefore, Parties should consider having regular adjustment processes or procedures for periodic revaluation of tobacco tax levels.”

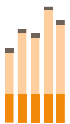


Recommendations

Section 3 – Tobacco taxation systems

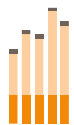
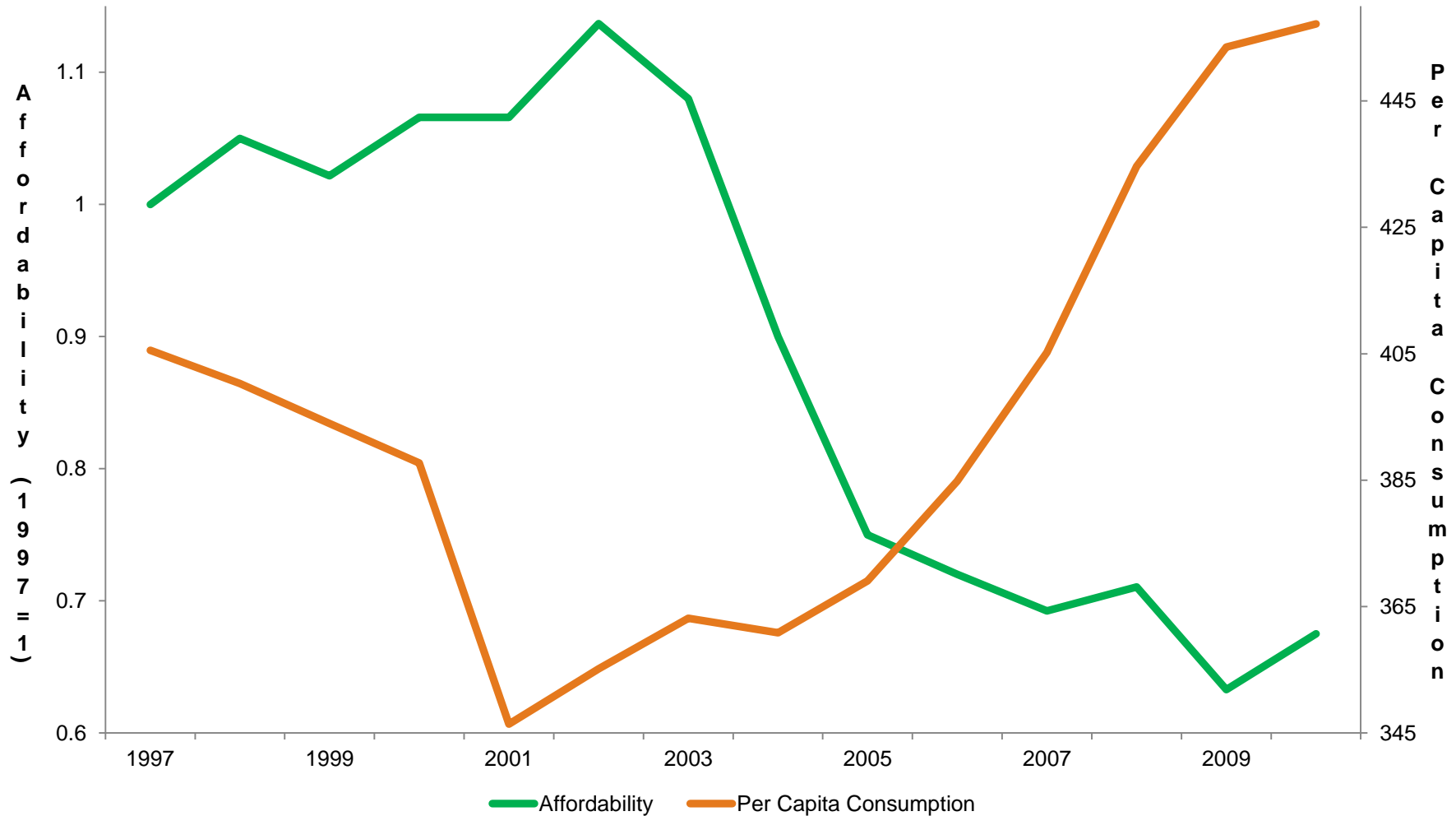
“Parties should establish coherent long-term policies on their tobacco taxation structure and monitor on a regular basis including targets for their tax rates, in order to achieve their public health and fiscal objectives within a certain period of time.”

“Tax rates should be monitored, increased or adjusted on a regular basis, potentially annually, taking into account inflation and income growth developments in order to reduce consumption of tobacco products.”



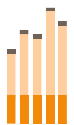
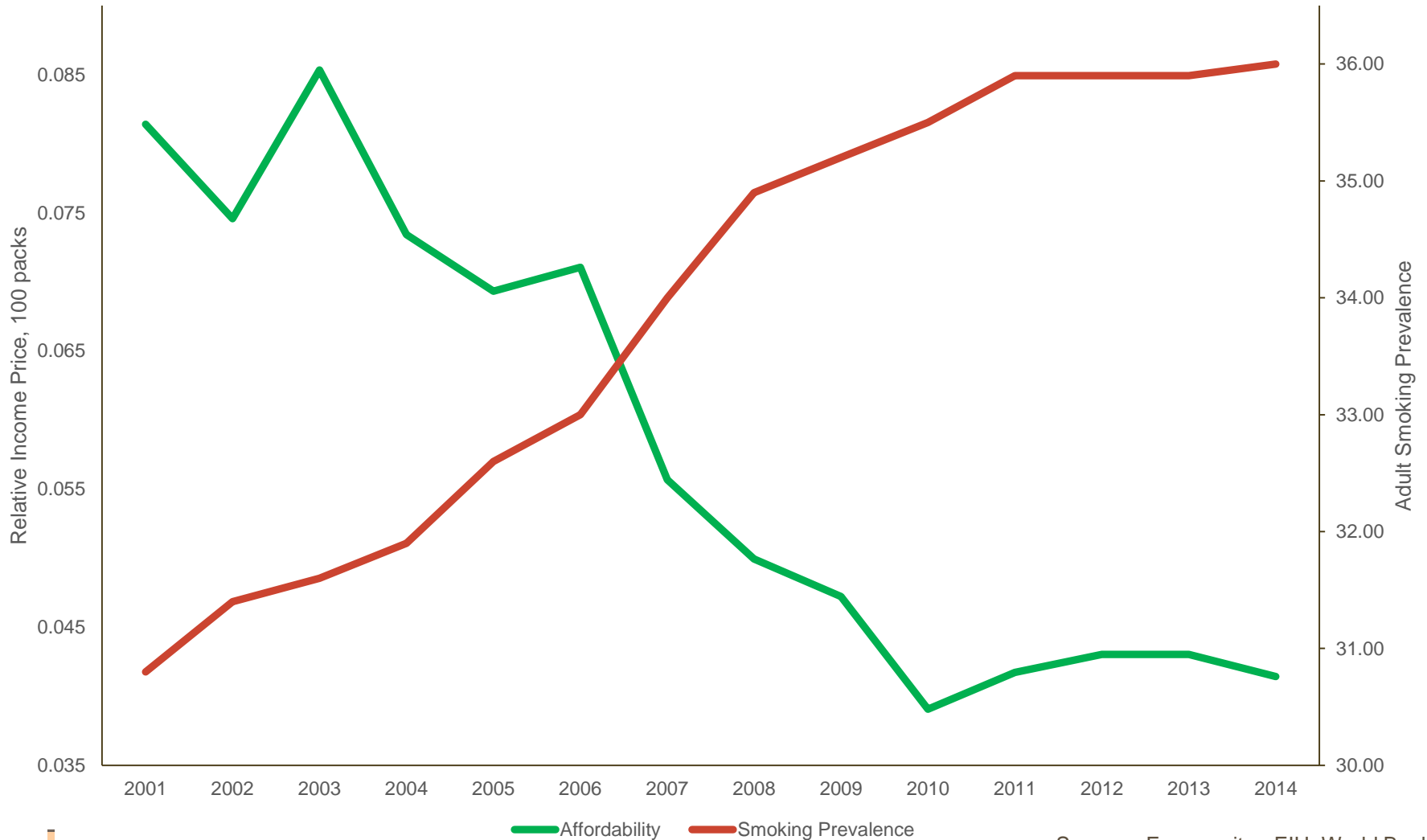
Affordability and Tobacco Use

Cigarette Sales, Bangladesh, 1997-2010



Affordability & Tobacco Use

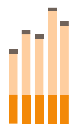
Adult Smoking Prevalence, Indonesia, 2001-2014



Text of Guidelines

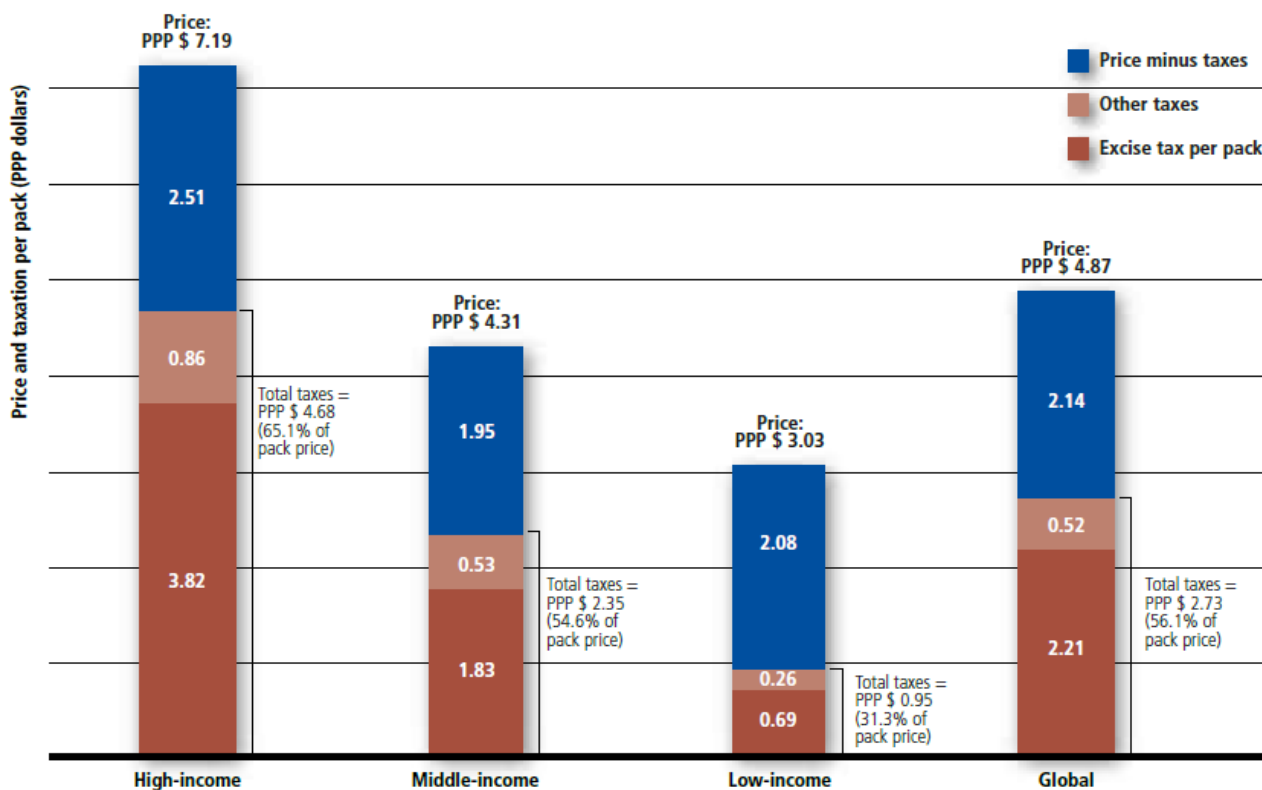
“As recognized in Guiding Principle 1.1, **Parties have the sovereign right to determine and establish their taxation policies, including the level of tax rates to apply.** There is no single optimal level of tobacco taxes that applies to all countries because of differences in tax systems, in geographical and economic circumstances, and in national public health and fiscal objectives. In setting tobacco tax levels, consideration could be given to final retail prices rather than individual tax rates. **In this regard, WHO had made recommendations on the share of excise taxes in the retail prices of tobacco products¹.**”

¹ WHO technical manual on tobacco tax administration. Geneva, World Health Organization, 2010. (Recommends that tobacco excise taxes account for at least 70% of the retail prices for tobacco products).



Cigarette Prices and Taxes by Income Group, 2016

WEIGHTED AVERAGE RETAIL PRICE AND TAXATION (EXCISE AND TOTAL) OF MOST SOLD BRAND OF CIGARETTES, 2016



Note: Averages are weighted by WHO estimates of the number of current cigarette smokers aged over 15 years in each country in 2016. Prices are expressed in Purchasing Power Parity (PPP) adjusted dollars or international dollars to account for differences in purchasing power across countries. Based on 53 high-income, 100 middle-income and 26 low-income countries with data on prices of the most sold brand, excise and other taxes, and PPP conversion factors. Numbers may not add up due to rounding.

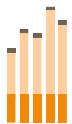
Recommendations

Section 3 – Tobacco taxation systems

“All tobacco products should be taxed in a comparable way as appropriate, in particular where the risk of substitution exists.”

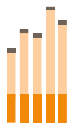
“Parties should ensure that tax systems are designed in a way that minimises the incentive for users to shift to cheaper products in the same product category or to cheaper tobacco product categories as a response to tax or retail price increases or other related market effects.”

“In particular, the tax burden on all tobacco products should be regularly reviewed and, if necessary, increased and, where appropriate, be similar.”



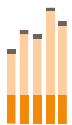
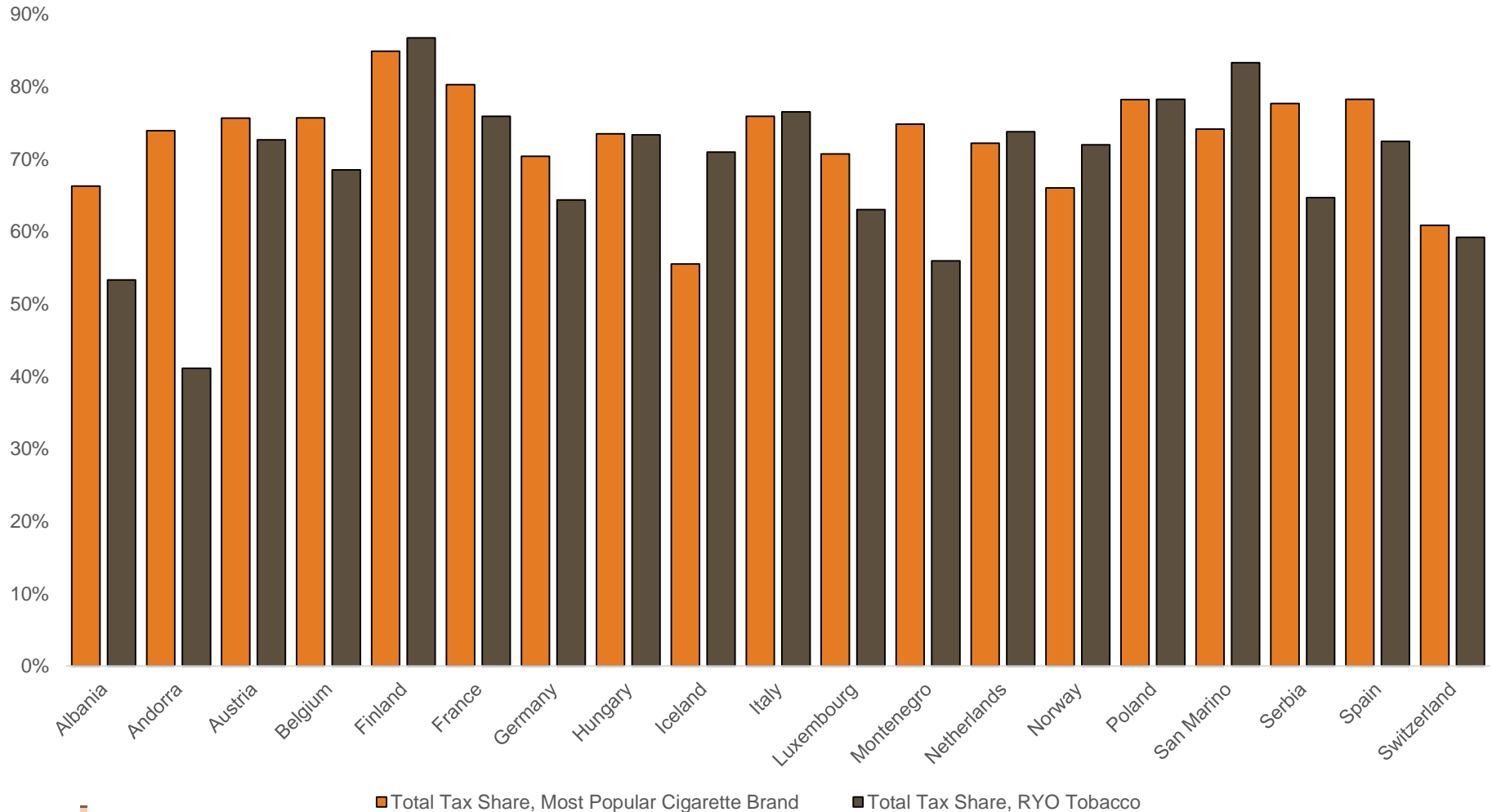
Price & Other Tobacco Product Use

- Consistent evidence on own-price effects
 - Generally find demand for OTP and vaping products more responsive to price than cigarette demand
- Mixed evidence on substitution among various products
 - Greater substitution among more similar products (e.g. cigarettes and other combustibles)
 - Some evidence of substitution between cigarettes and vaping products
 - Weak evidence of complementarity between combustibles and other non-combustibles



Cigarette & RYO Taxes as Percent of Price

European Region, 2016



Recommendations

Section 4 – Tax administration

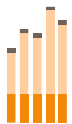
“Parties should ensure that transparent **licence or equivalent approval or control systems** are in place.”

“Parties are urged to adopt and implement **measures and systems of storage and production warehouses to facilitate excise controls** on tobacco products.”

“In order to reduce the complexity of tax collection systems, **excise taxes should be imposed at the point of manufacture, importation or release for consumption** from the storage or production warehouses.”

“Tax payments should be required by law to be remitted at fixed intervals or on a fixed date each month and should ideally include reporting of production and/or sales volumes, and price by brands, taxes due and paid, and may include volumes of raw material inputs.”

“Tax authorities should also allow for the public disclosure of the information contained within the reports, through the available media, including those online, taking into account confidentiality rules in accordance with national law.”



Recommendations

Section 4 – Tax administration

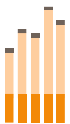
“In anticipation of tax increases **Parties should consider imposing effective anti-forestalling measures.**”

“Where appropriate, **Parties should consider requiring the application of fiscal markings** to increase compliance with tax laws.”

“**Parties should clearly designate and grant appropriate powers to tax enforcement authorities.**”

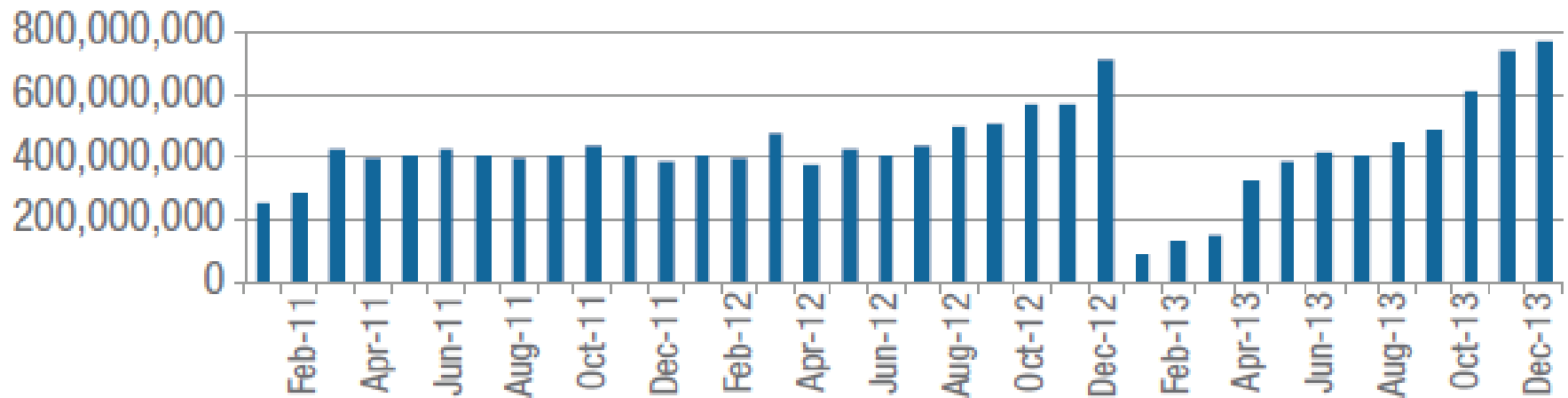
“Parties should also provide for information sharing among enforcement agencies in accordance with national law.”

“In order to deter non-compliance with tax laws, **Parties should provide for an appropriate range of penalties.**”

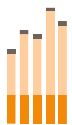


Philippines Experience Stockpiling

Tobacco packs

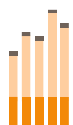
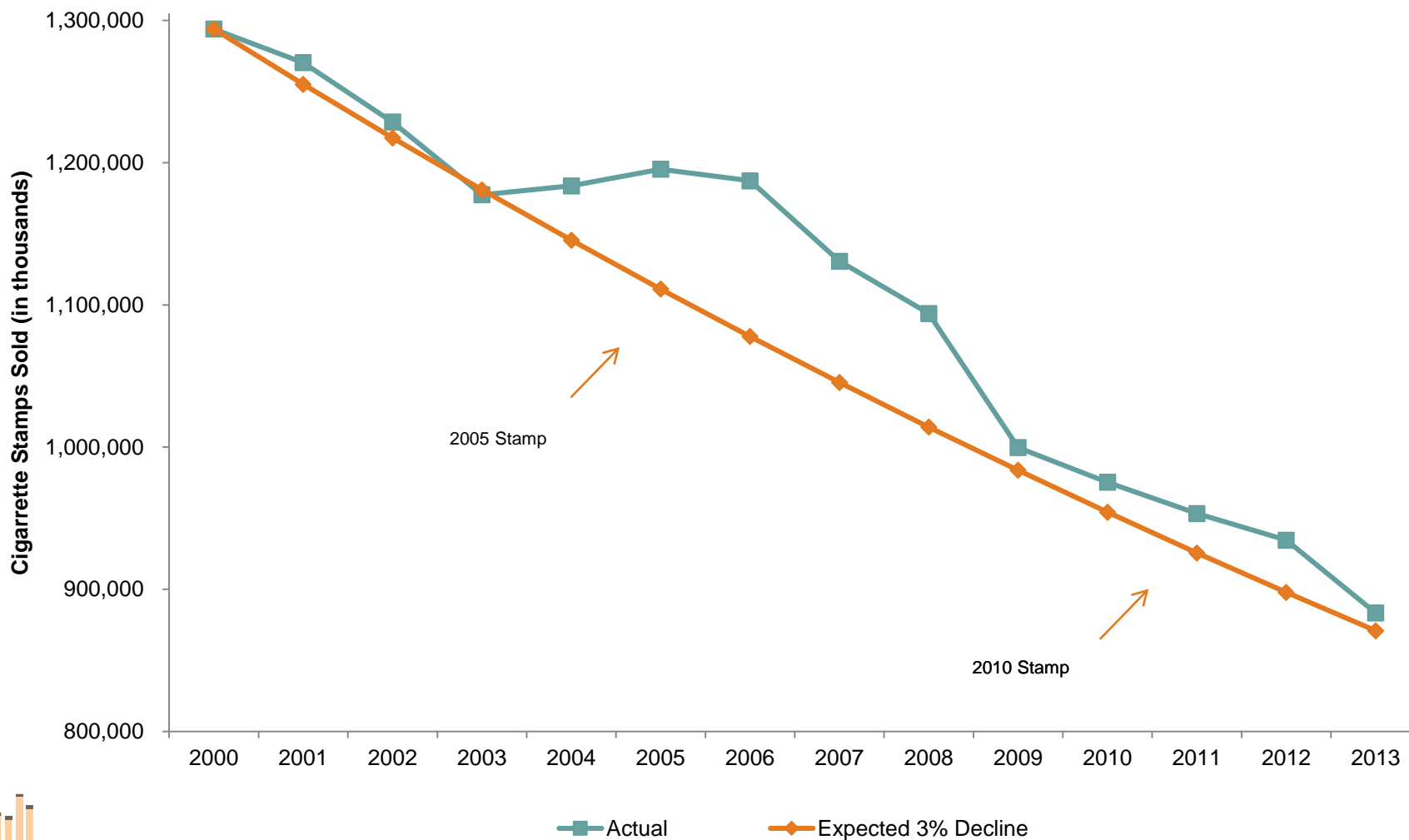


Source: Ross & Tesche, 2015



Cigarette Tax Stamps Sold

Projected and actual, California, 2000 - 2013

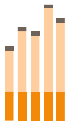


Source: Chaloupka, et al., 2015

Recommendations

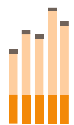
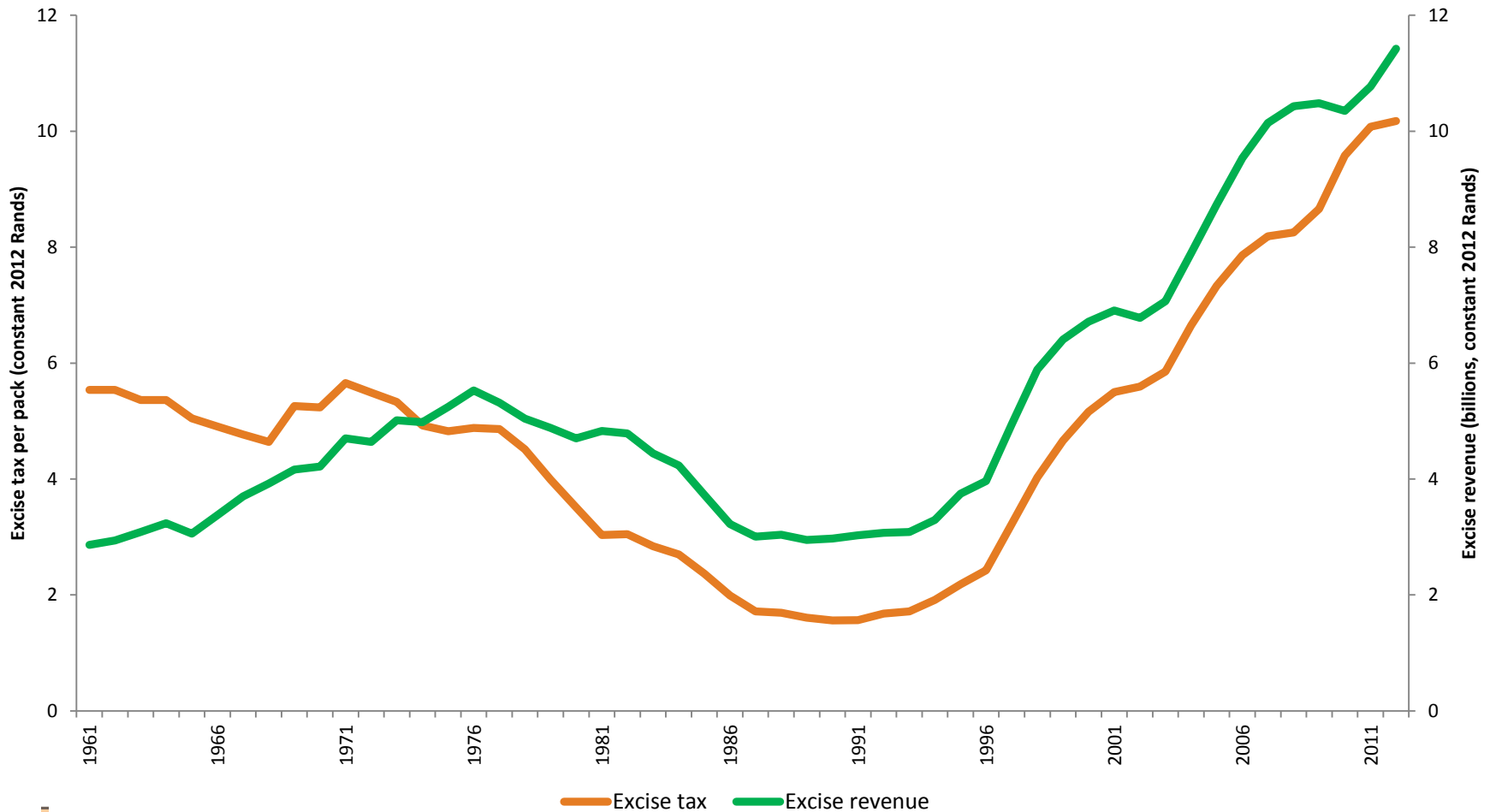
Section 5 – Use of Revenues – Financing of Tobacco Control

“Parties could consider, while bearing in mind Article 26.2 of the WHO FCTC, and in accordance with national law, **dedicating revenue to tobacco-control programmes, such as those covering awareness raising, health promotion and disease prevention, cessation services, economically viable alternative activities, and financing of appropriate structures for tobacco control.**”



Taxes & Tax Revenues, South Africa

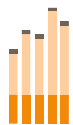
Excise Tax per Pack and Excise Tax Revenue
South Africa, Inflation Adjusted, 1961-2012



Sources: Blecher & Van Walbeek, 2014

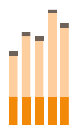
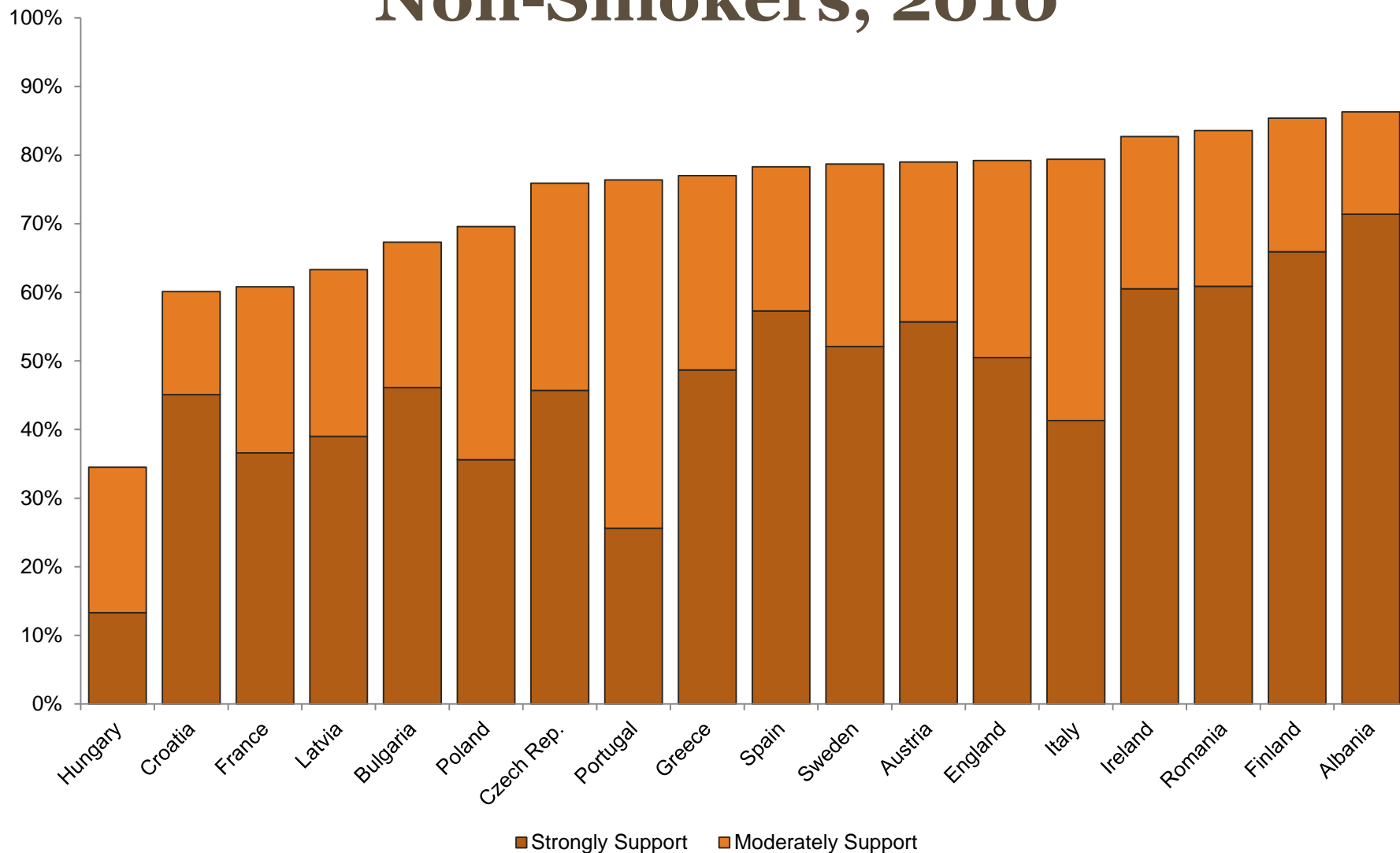
Tobacco Taxes Popular

- Tobacco Excise Tax Increases:
 - Generally supported by the public
 - Including significant number of smokers
 - More support when framed in terms of impact on youth tobacco use
 - More support when some of new revenues are used to support tobacco control and/or other health-related activities
 - Greater support than for other revenue sources



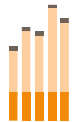
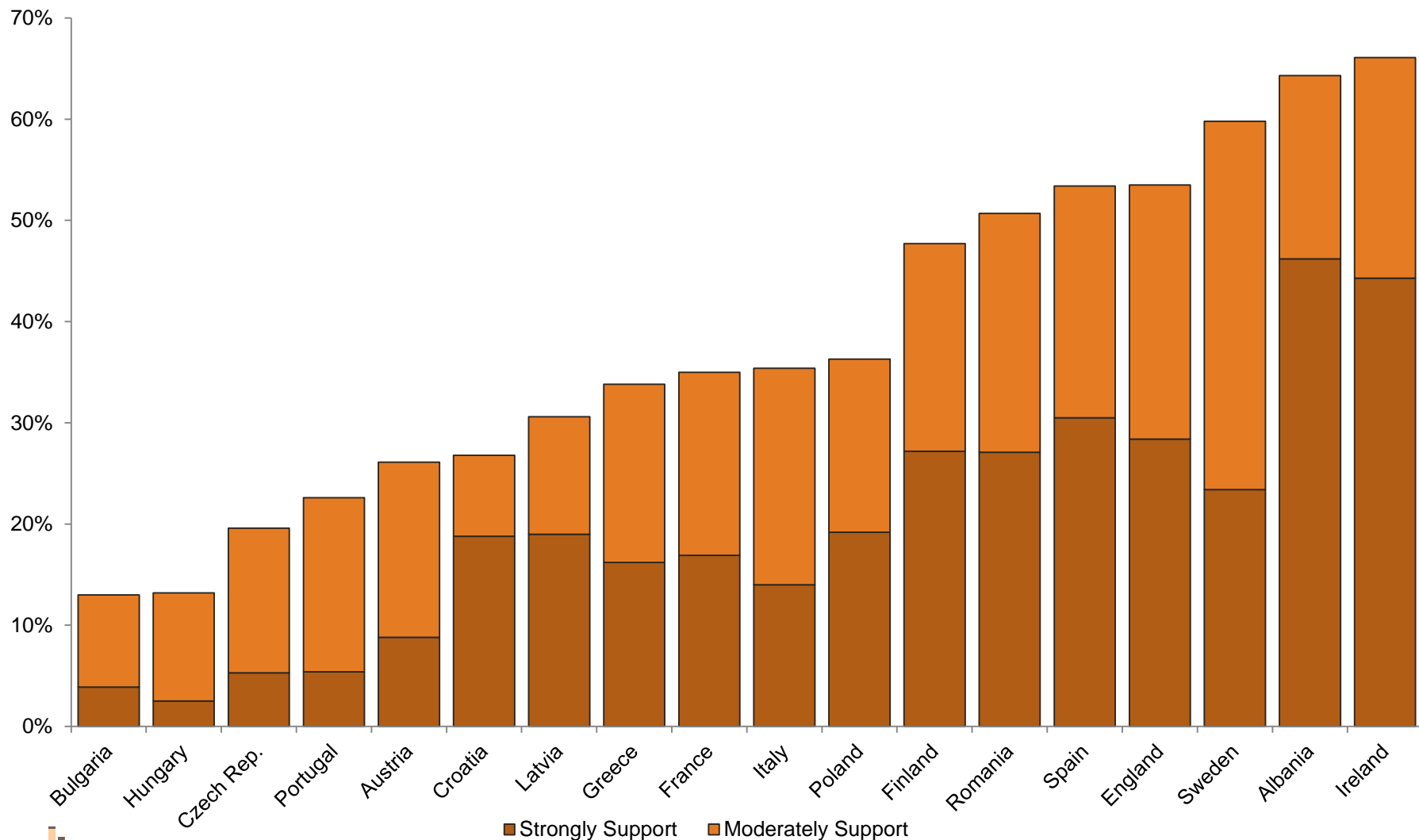
Support for 20% Price Increase

Non-Smokers, 2010

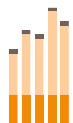
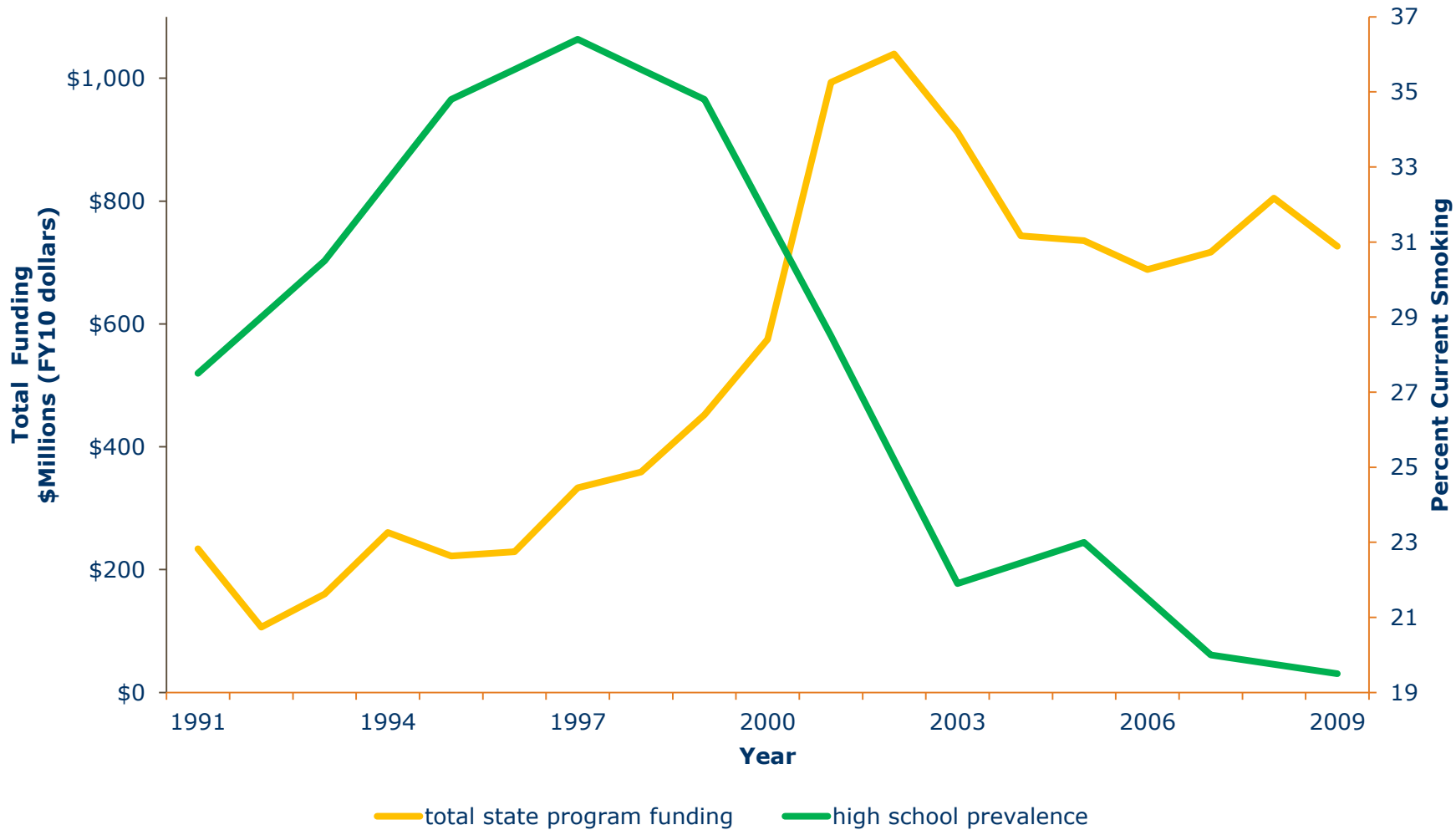


Support for 20% Price Increase

Current Smokers, 2010



State Tobacco Control Program Funding and Youth Smoking Prevalence, United States, 1991-2009

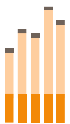


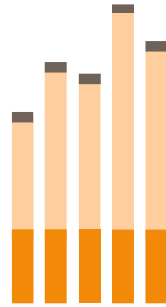
Source: ImpacTeen Project, UIC; YRBS

Recommendations

Section 6 – Tax-Free/Duty-Free Sales

“Parties should consider prohibiting or restricting the sale to and/or importation by international travellers, of tax-free or duty-free tobacco products.”





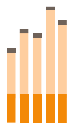
Oppositional Arguments

-

Impact on Jobs, Business

Tobacco Control & Employment

- Tobacco control will lead to decreased consumption of tobacco products
 - Small loss of jobs in tobacco sector
- Money not spent on tobacco products will be spent on other goods and services
 - Gains in jobs in other sectors
- Increase in tobacco tax revenues will be spent by government
 - Additional job gains in other sectors
- Net increase in jobs in most countries

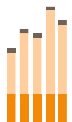
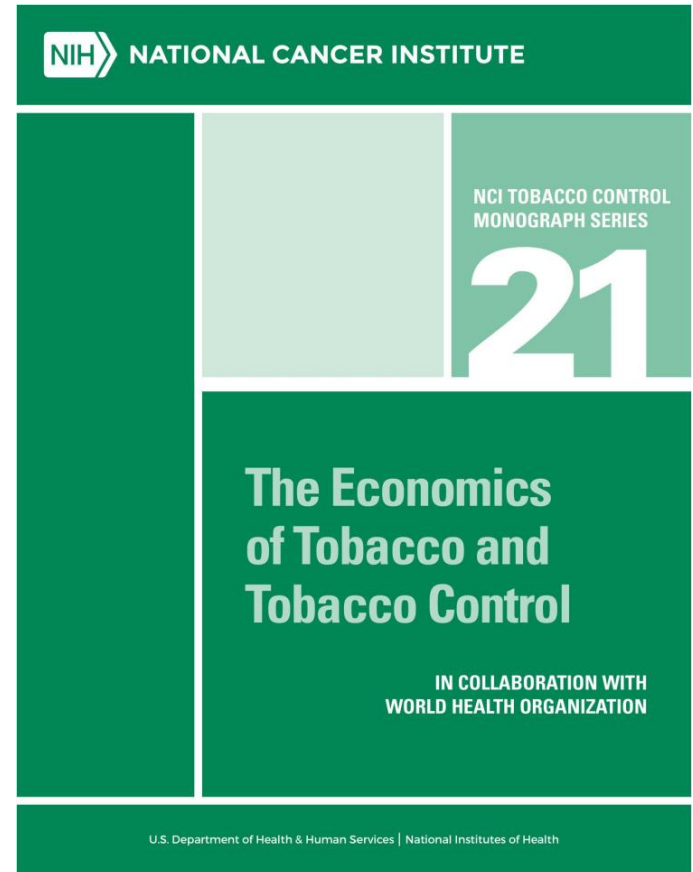


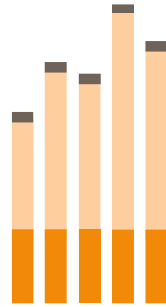
Economic Impact of Tobacco Control

Major Conclusion

#7:

Tobacco control
does not harm
economies.





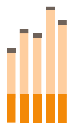
Oppositional Arguments

-

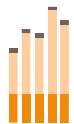
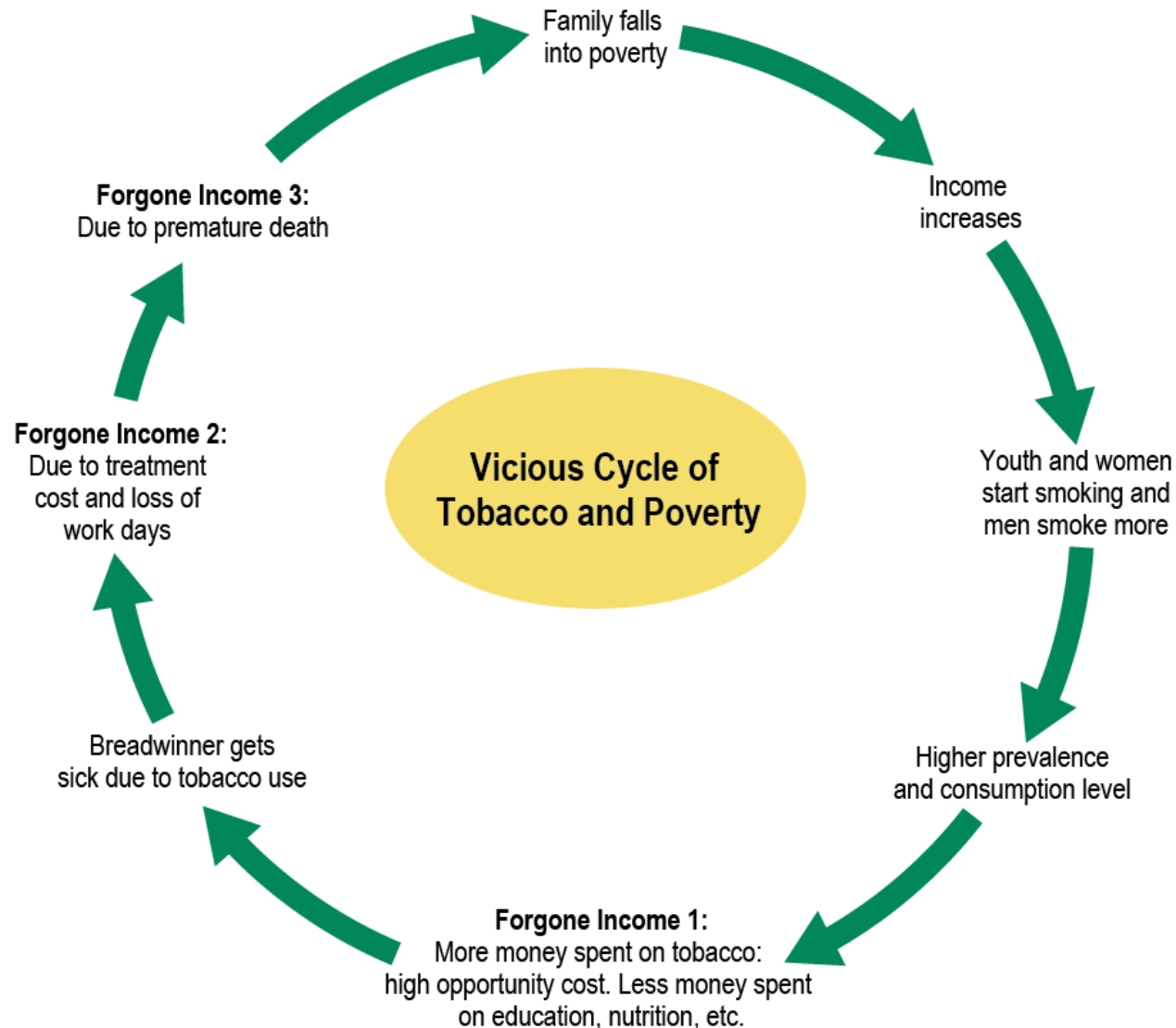
Impact on the Poor

Impact on the Poor

- Concerns about the regressivity of higher tobacco taxes
 - Tobacco taxes are regressive, but tax increases can be progressive
 - Greater price sensitivity of poor – relatively large reductions in tobacco use among lowest income populations, small reductions among higher income populations
 - Health benefits that result from tax increase are progressive

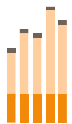
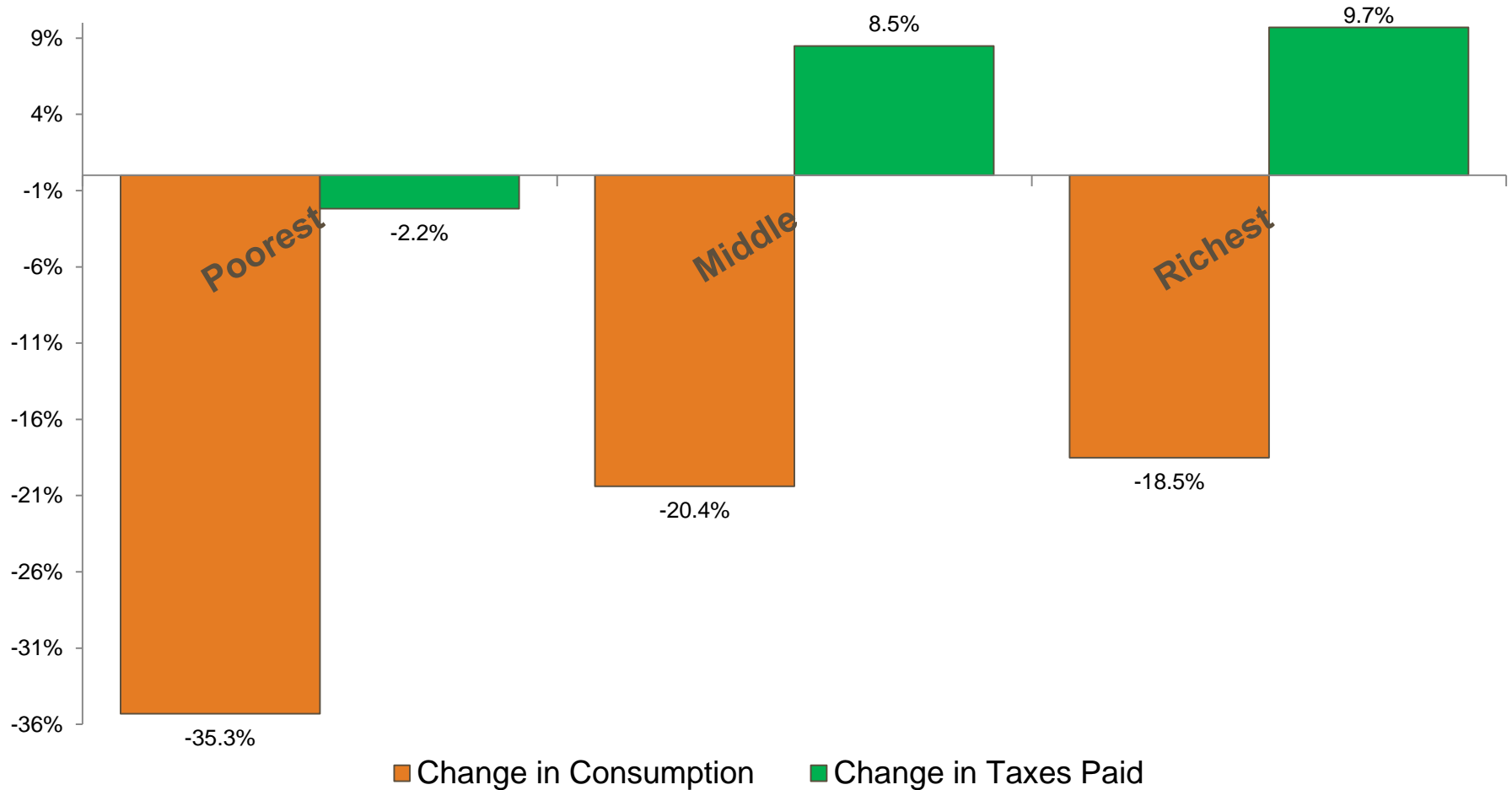


Tobacco & Poverty



Source: NCI & WHO 2016

Who Pays & Who Benefits Turkey - 25% Tax Increase

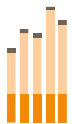


Source: Adapted from Önder & Yürekli, 2014

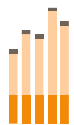
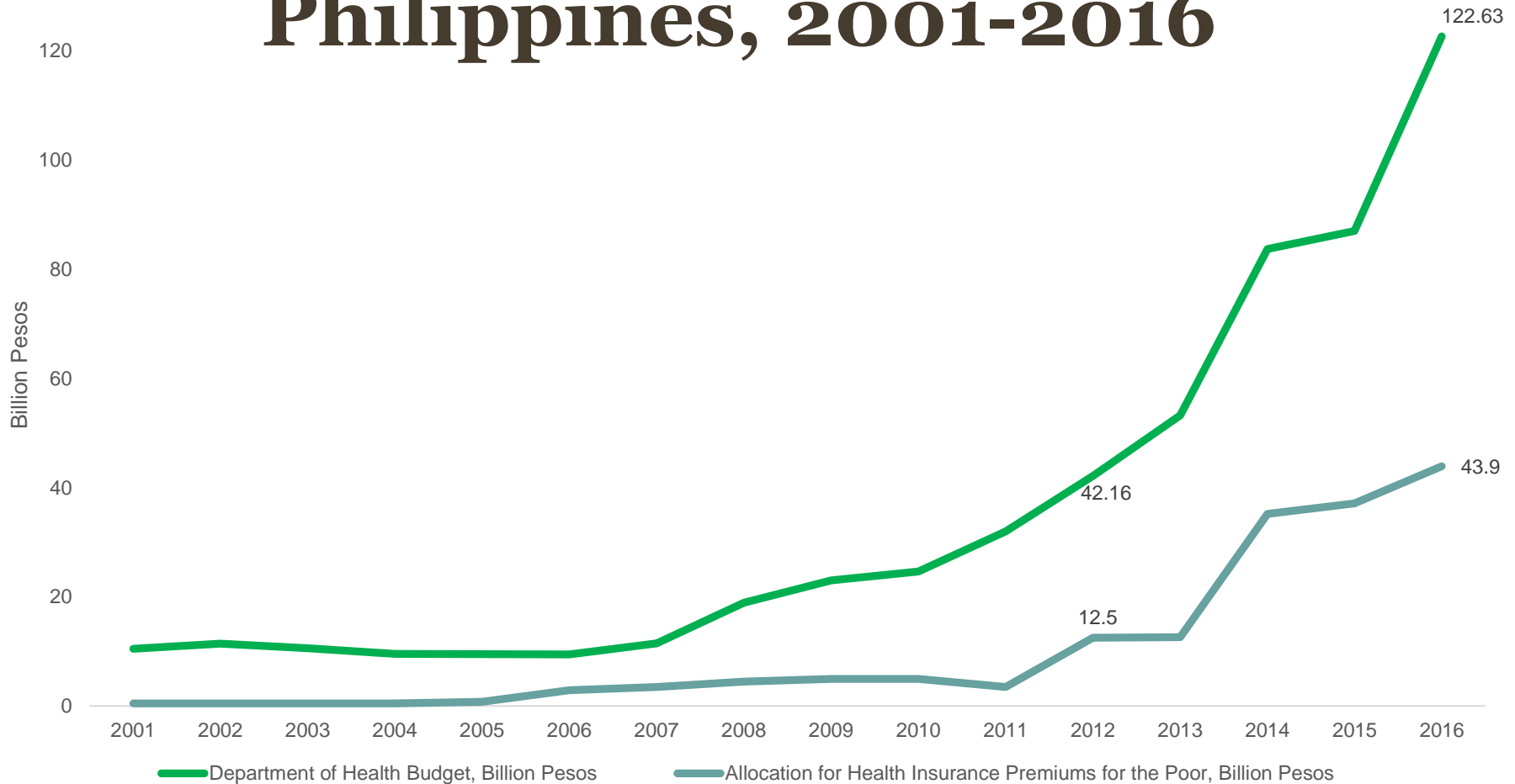
Impact of Tobacco Taxes on the Poor

Also depends on use of new tax revenues:

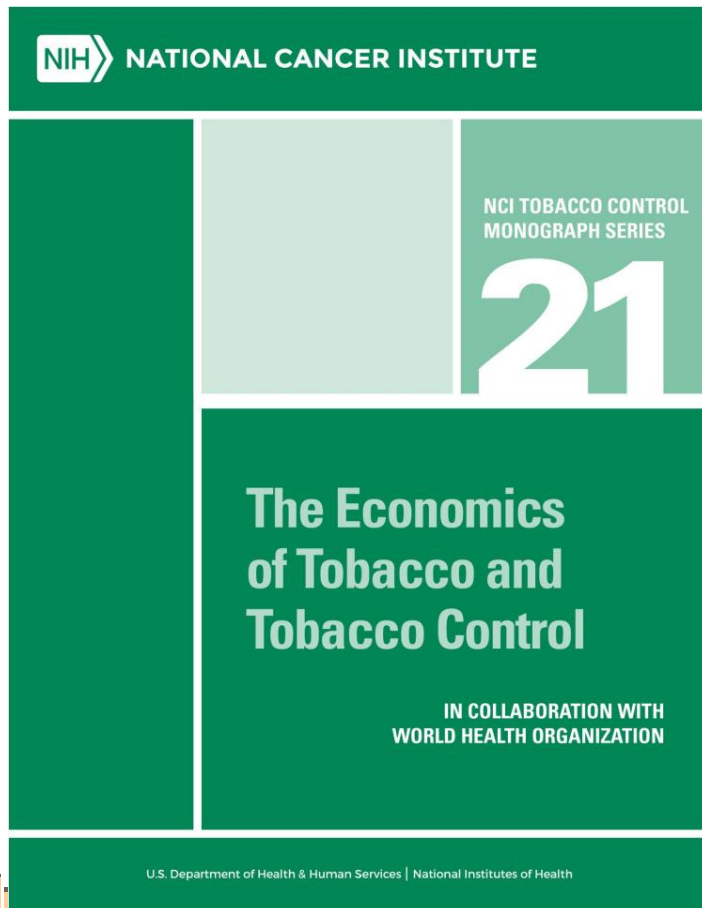
- Greater public support for tobacco tax increases when revenues are used for tobacco control and/or other health programs
- Net financial impact on low income households can be positive when taxes are used to support programs targeting the poor
- Concerns about regressivity offset by use of revenues for programs directed to poor



Incremental Revenues for Health and the Poor Philippines, 2001-2016



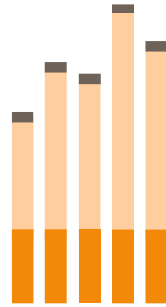
Impact of Tobacco Control on the Poor



Major Conclusion
#8:

Tobacco control reduces the disproportionate burden that tobacco use imposes on the poor.



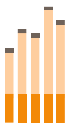
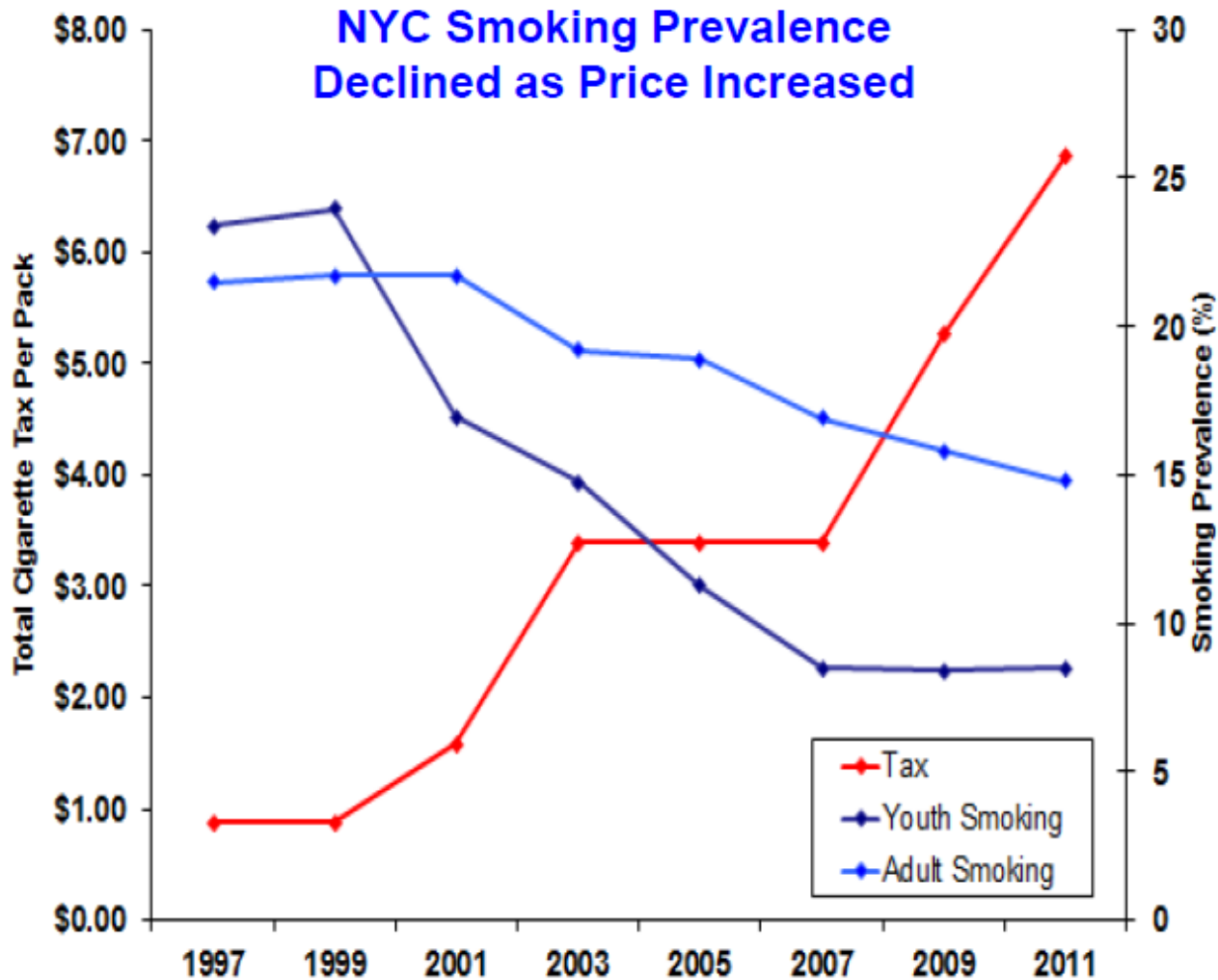


Oppositional Arguments

-

Illicit Trade

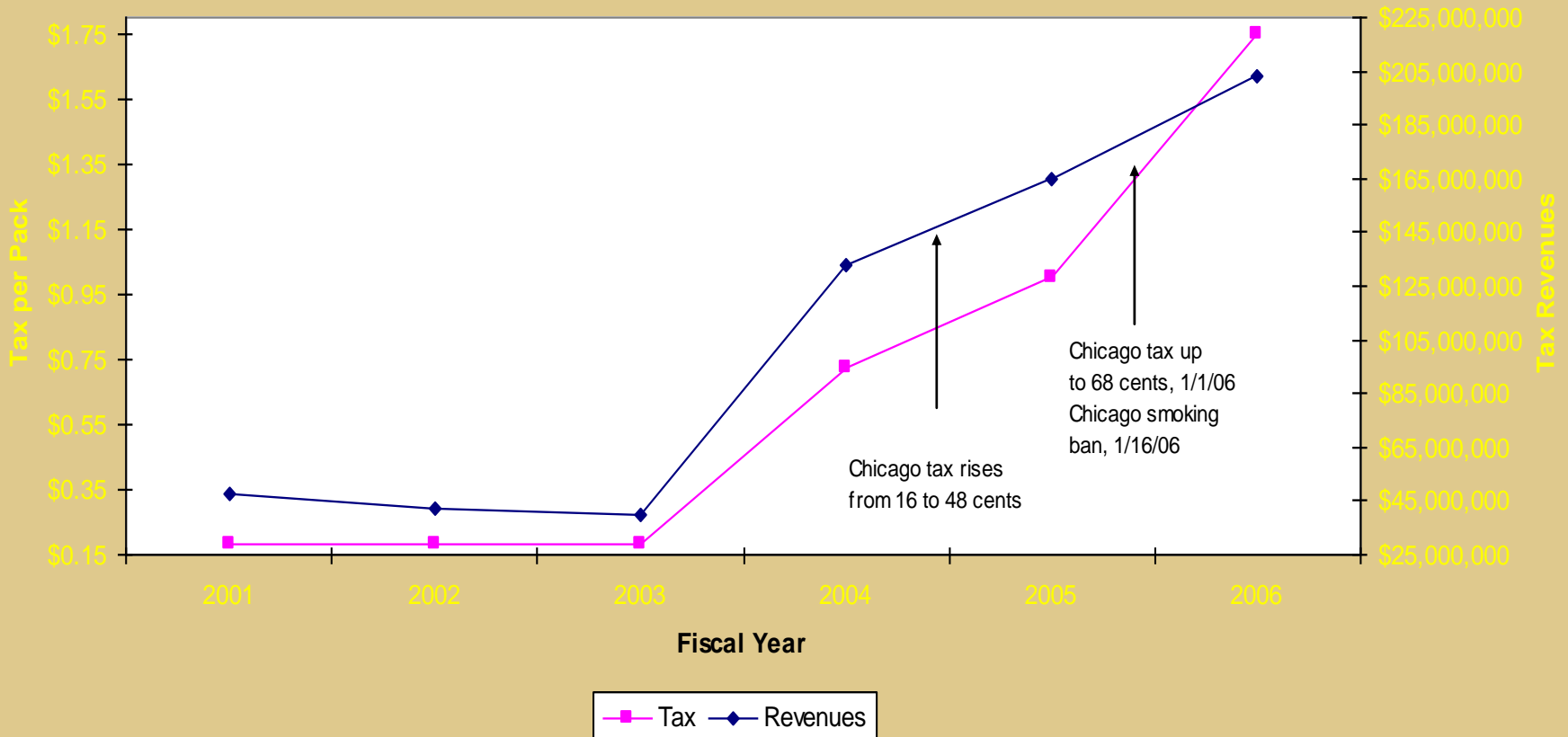
Tax Avoidance & Evasion Do NOT Eliminate Health Impact of Higher Taxes



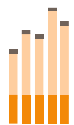
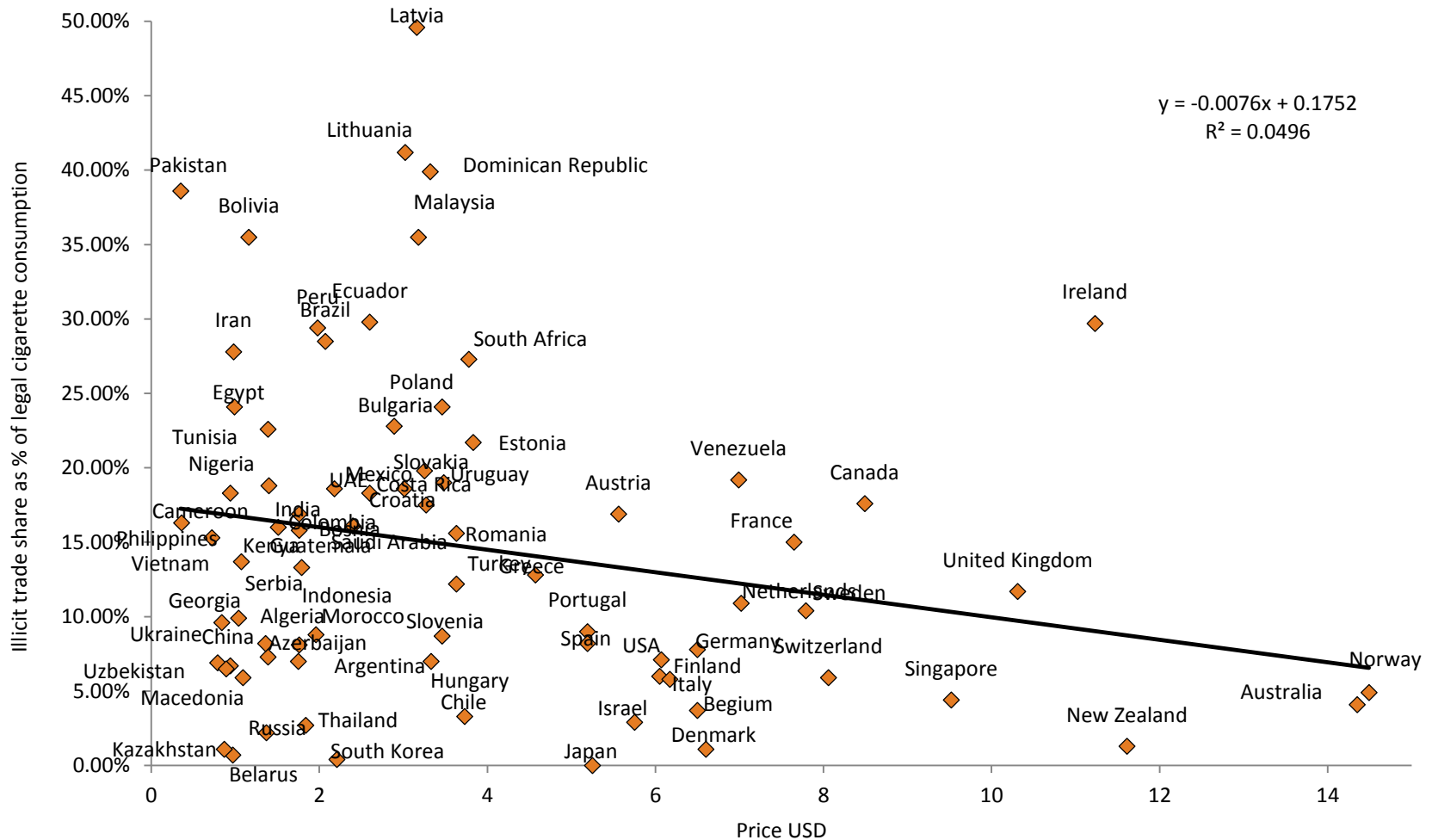
Tax Avoidance & Evasion

Do NOT Eliminate Revenue Impact of Higher Taxes

Cook County Cigarette Tax and Tax Revenues - FY01-FY06

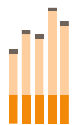


Illicit Cigarette Market Share & Cigarette Prices, 2012

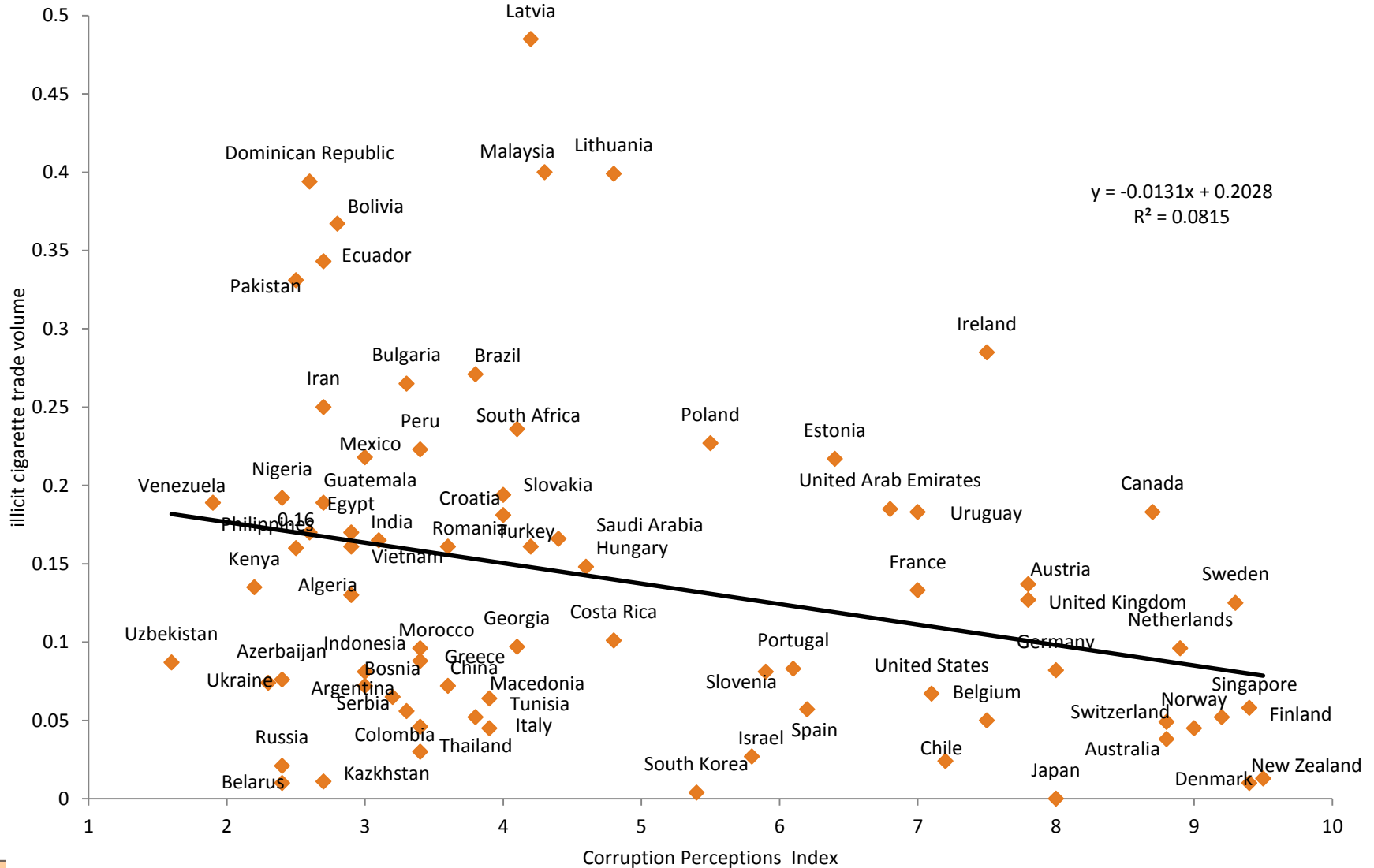


Determinants of Illicit Tobacco

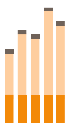
- Corruption
- Weak tax administration
- Poor enforcement
- Presence of informal distribution networks
- Presence of criminal networks
- Access to cheaper sources



Smuggling and Corruption, 2011

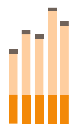
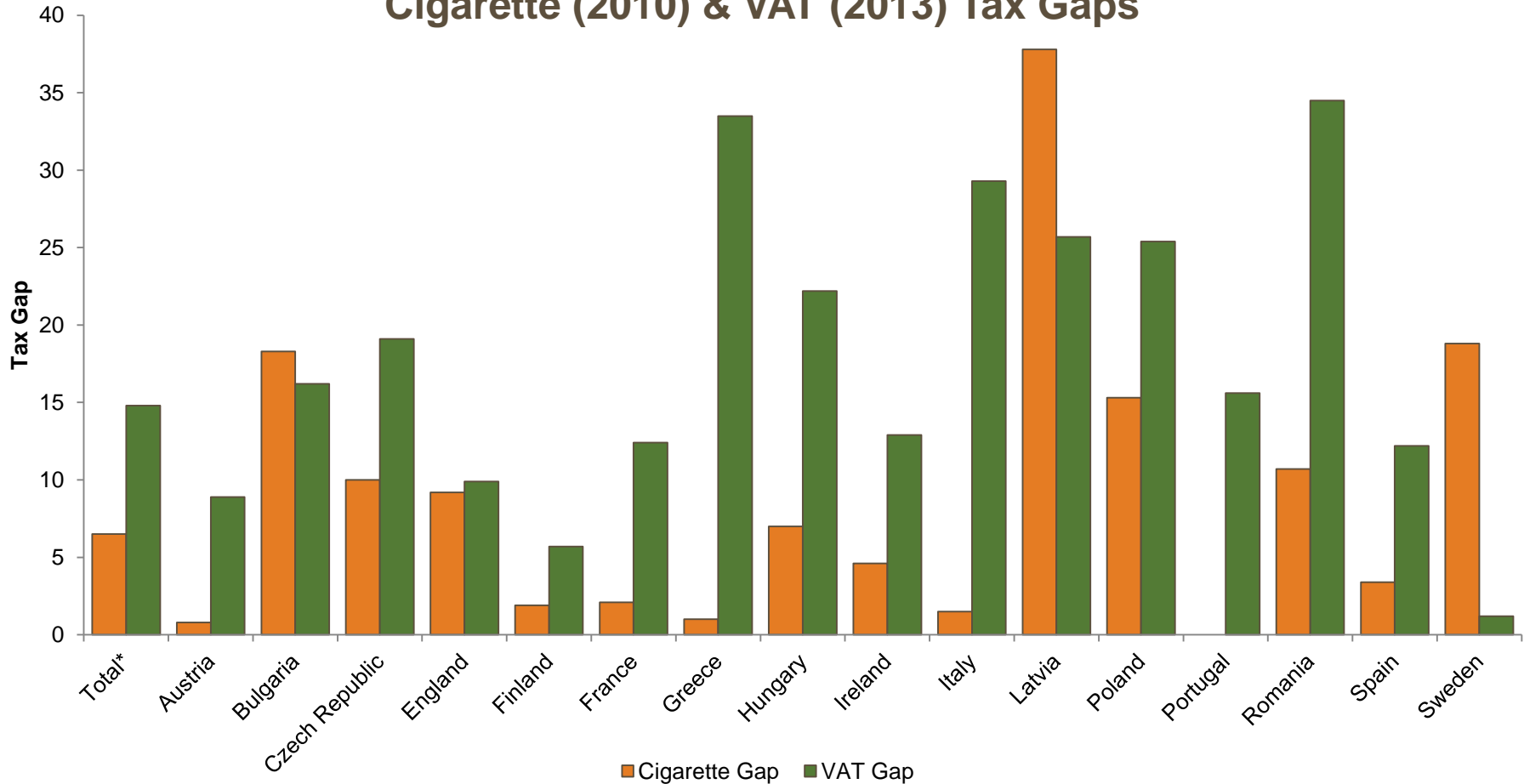


Sources: Euromonitor, Transparency International



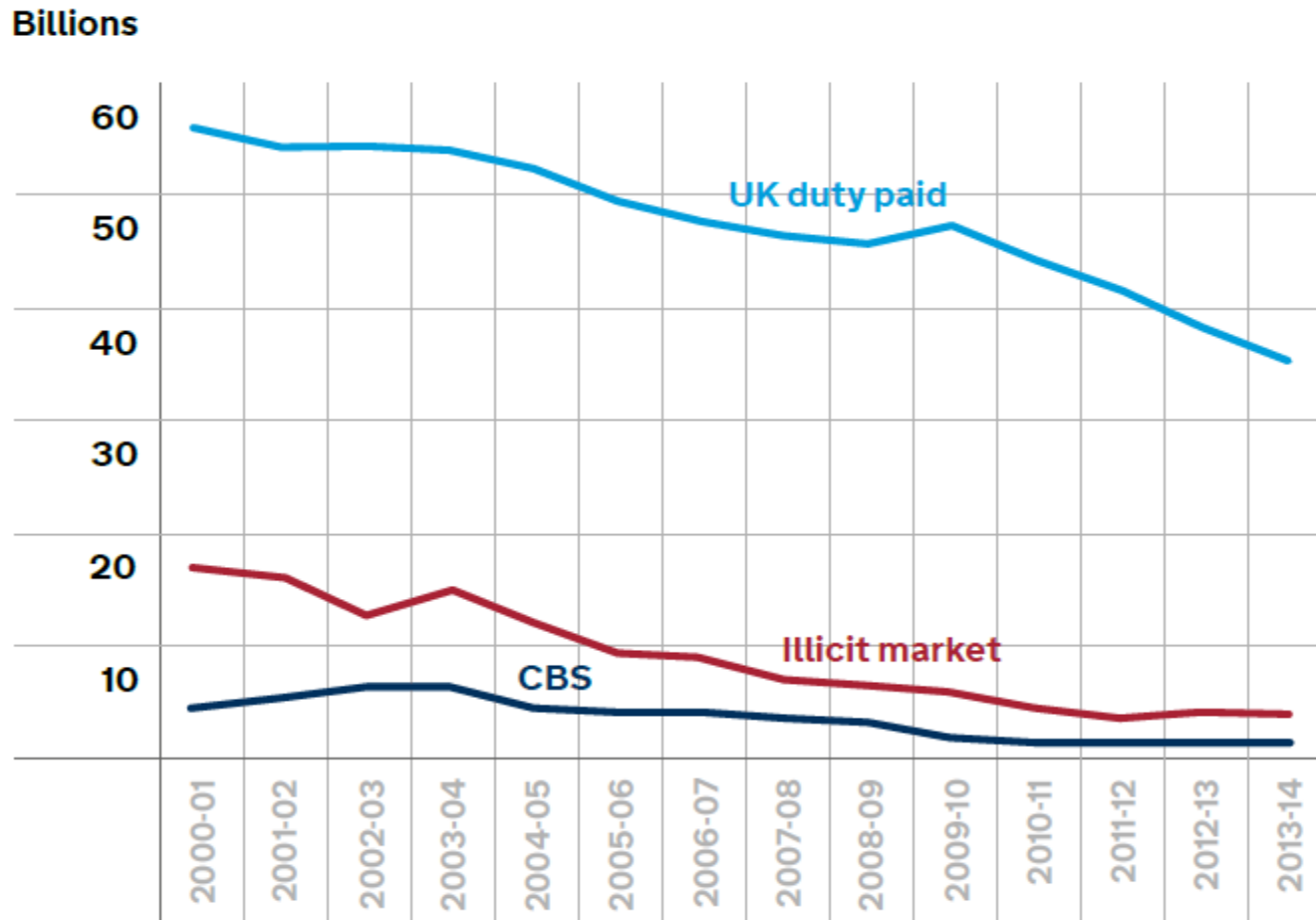
How big is illicit tobacco trade and how big of a problem is it to government?

Cigarette (2010) & VAT (2013) Tax Gaps

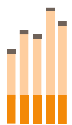


Sources: Joosens, et al., 2014; CASE & IAS 2016
 Notes: Total includes 28 EU member states for VAT gap and 18 countries in PPACTE Survey for Cigarette gap

Figure 12 – Estimated Volumes of Cigarettes Consumed in the U.K. – Duty paid, illicit, and cross-border shopping, 2000-01 – 2013-14

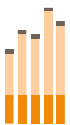


Source: HM Revenue & Customs, 2014

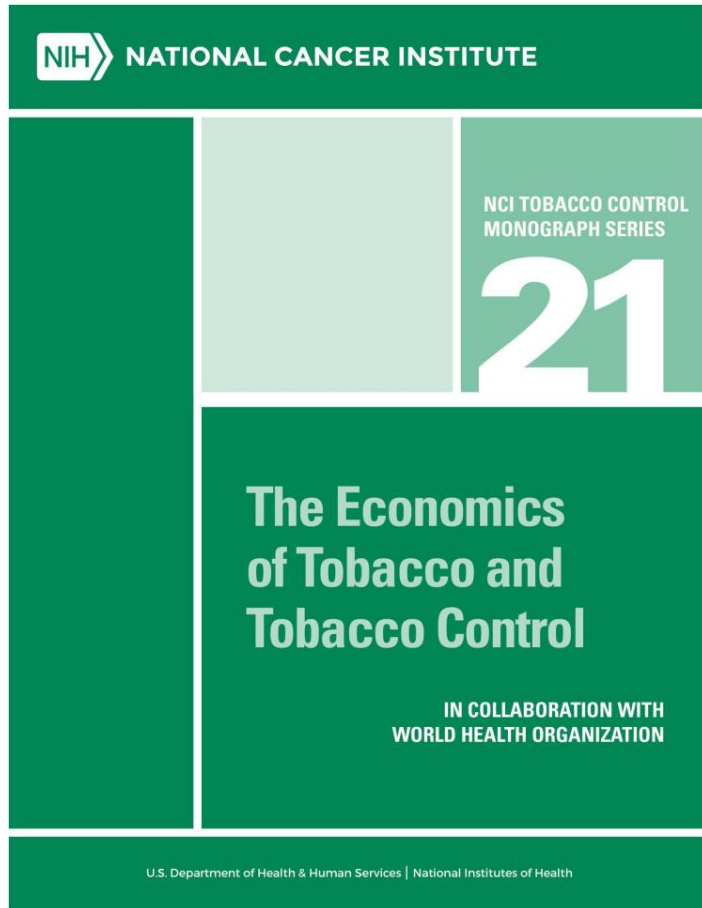


Combating Illicit Tobacco Trade

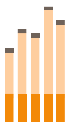
- Illicit trade protocol to the WHO FCTC
 - Adopted November 2012; currently in process of being signed/ratified; provisions calling for:
 - Strong tax administration
 - Prominent, high-tech tax stamps and other pack markings
 - Licensing of manufacturers, exporters, distributors, retailers
 - Export bonds
 - Unique identification codes on packages
 - Better enforcement
 - Increased resources
 - Focus on large scale smuggling
 - Swift, severe penalties
 - Multilateral/intersectoral cooperation

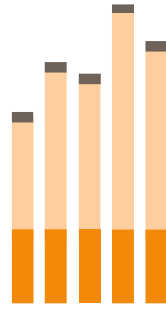


Control of Illicit Tobacco Trade



Major Conclusion #5:
Control of illicit trade in tobacco products, now the subject of its own international treaty, is the key supply-side policy to reduce tobacco use and its health and economic consequences.



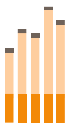


Summary

Economic Impact of Tobacco Control

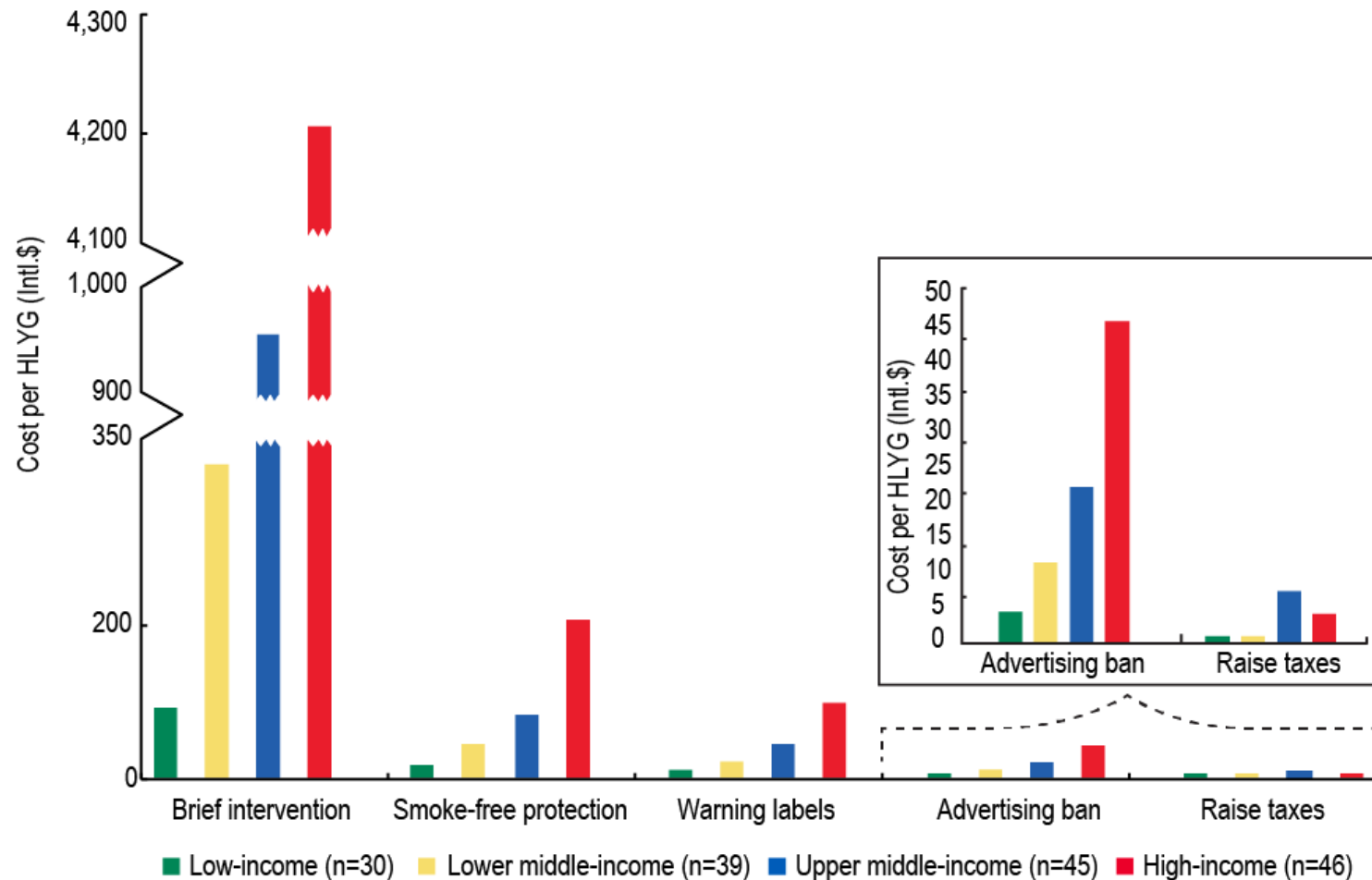
Tobacco tax increases and other effective tobacco control measures make good economic sense:

- Not just long-term public health, but near-term health and economic benefits
- Higher taxes and stronger tobacco control measures will not harm economies
- Substantial impact in reducing health care costs, improving productivity, and fostering economic development.

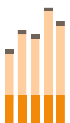


Key Tobacco Control Policies

Cost-Effectiveness



Notes: HLYG = healthy life-year gained. Country income group classification based on World Bank Analytical Classifications for 2014. Source: NCI & WHO, 2016



For more information:

<http://www.tobacconomics.org>

@tobacconomics

Sign up for newsletter: bit.ly/tbxemail

fjc@uic.edu

