

**tobacconomics**

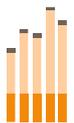
Economic Research Informing Tobacco Control Policy

# The Importance of Economic Data for Tobacco Control

Frank J. Chaloupka, University of Illinois at Chicago  
Workshop on Tobacco Economics for Central and Eastern Europe  
Marie Curie Institute, Warsaw, Poland, 8 May 2018

# Overview

- Economic costs of tobacco use
- Impact of tobacco taxes on tobacco use
- Myths & Facts on economic “costs” of tobacco control
- Cost-effectiveness of tobacco control



# 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

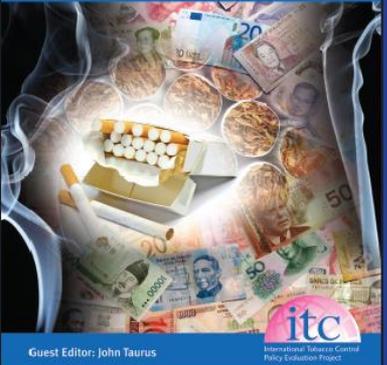
IARC HANDBOOKS OF CANCER PREVENTION  
Tobacco Control

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

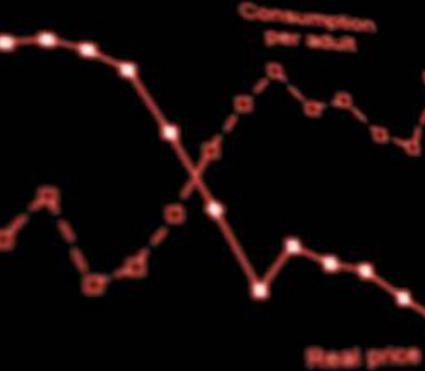


Guest Editor: John Taurus

itc International Tobacco Control Policy Evaluation Project

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**Tobacco control in developing countries**

editors | Prabhat Jha | Frank Chaloupka

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

NIH NATIONAL CANCER INSTITUTE

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NCI TOBACCO CONTROL MONOGRAPH SERIES

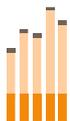
## The Economics of Tobacco and Tobacco Control

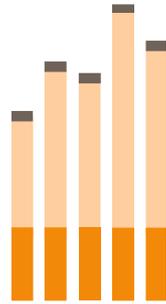
IN COLLABORATION WITH WORLD HEALTH ORGANIZATION

Executive Summary

U.S. Department of Health & Human Services | National Institutes of Health

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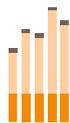




# Economic Costs of Tobacco Use

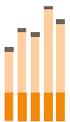
# Why Study the Costs of Tobacco Use?

- To assess the economic impact of tobacco use on:
  - Society
  - Individuals
  - Government
  - Business/employers
- Economic cost estimates can help spur adoption of effective tobacco control policies
  - WHO “toolkit” for estimating economic costs



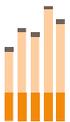
# Categories of Costs

- Direct costs: reduction in actual resources
  - Direct health care costs
    - e.g. hospital, out-patient, drugs, etc.
  - Other direct costs
    - e.g. transportation to clinic, family members' time providing care
- Indirect costs: reduction in potential resources
  - Lost productivity due to morbidity and premature mortality

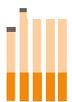
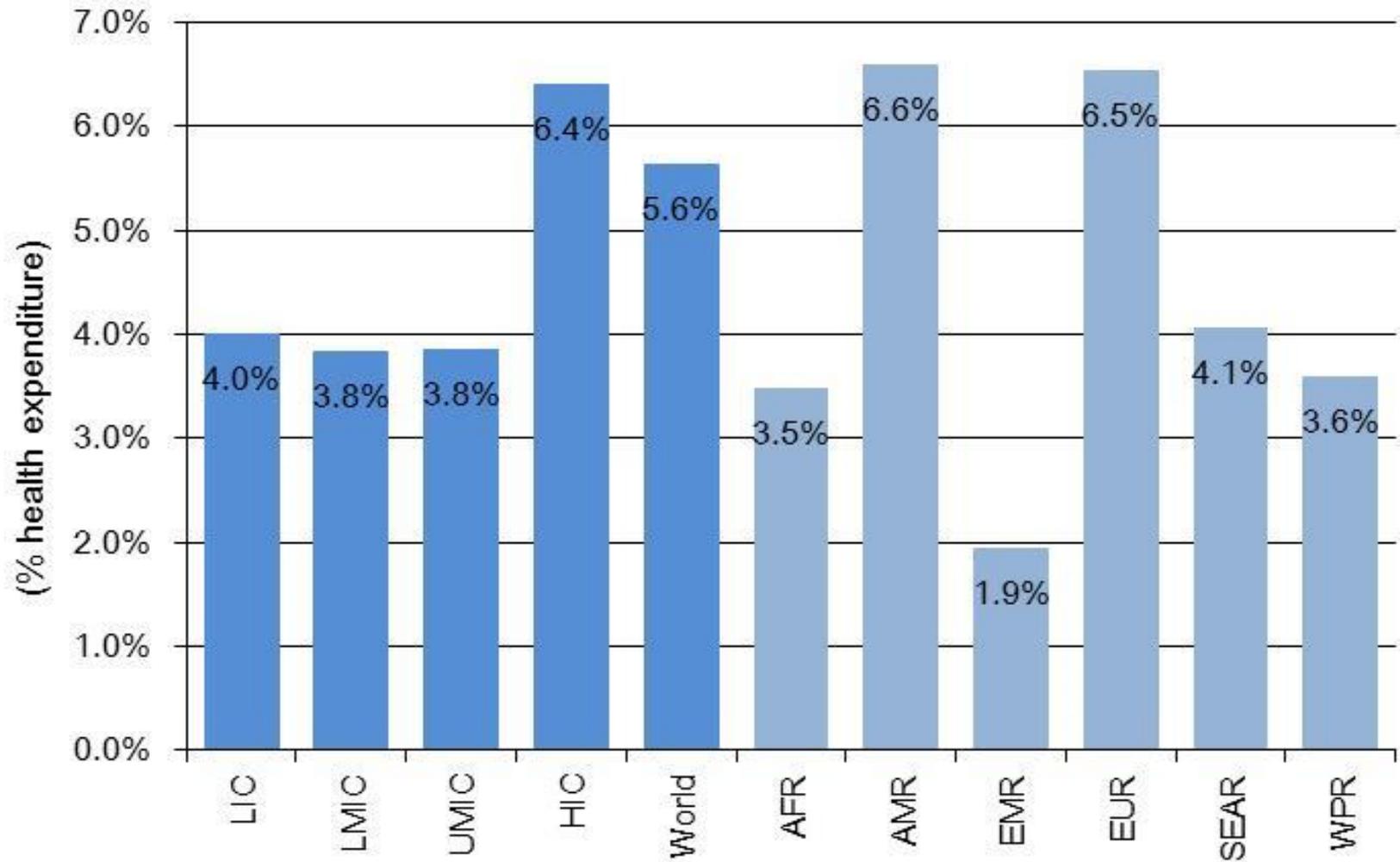


# Categories of Costs

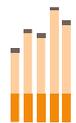
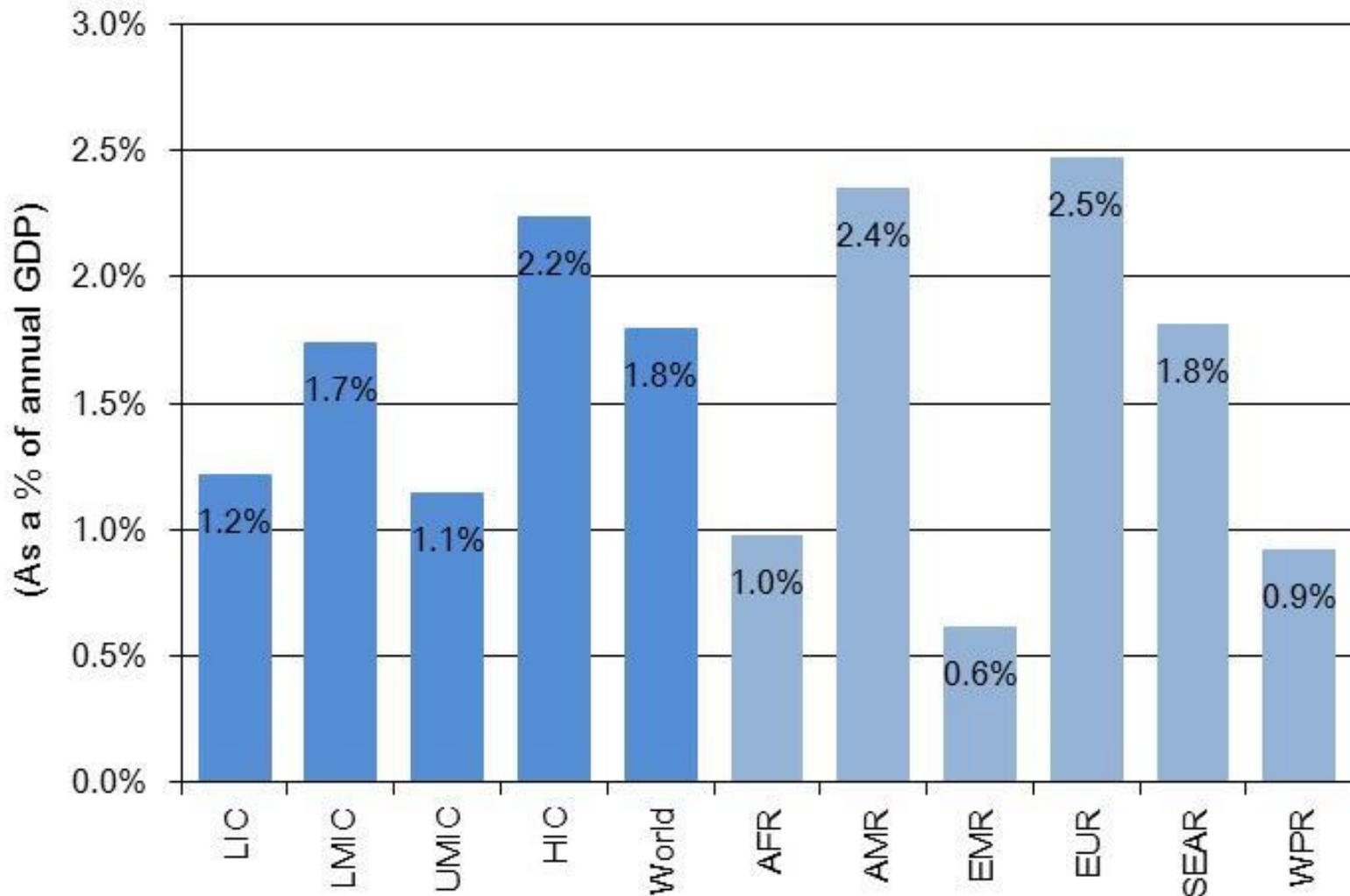
- External costs
  - costs that tobacco users impose on others (e.g., costs related to secondhand smoke)
- Internal costs
  - costs paid for by tobacco users as a result of tobacco use (e.g., out of pocket costs for health care to treat diseases caused by smoking)
- “Internalities”
  - internal costs resulting from information failures in the market that can be thought of as external costs

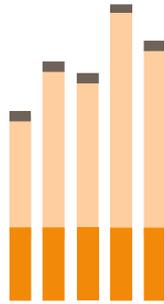


# Smoking-Attributable Spending as Share of Total Health Expenditures, 2012, by Income Group and WHO Region



# Economic Costs of Smoking-Attributable Diseases as Share of GDP, 2012, by Income Group and WHO Region

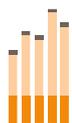
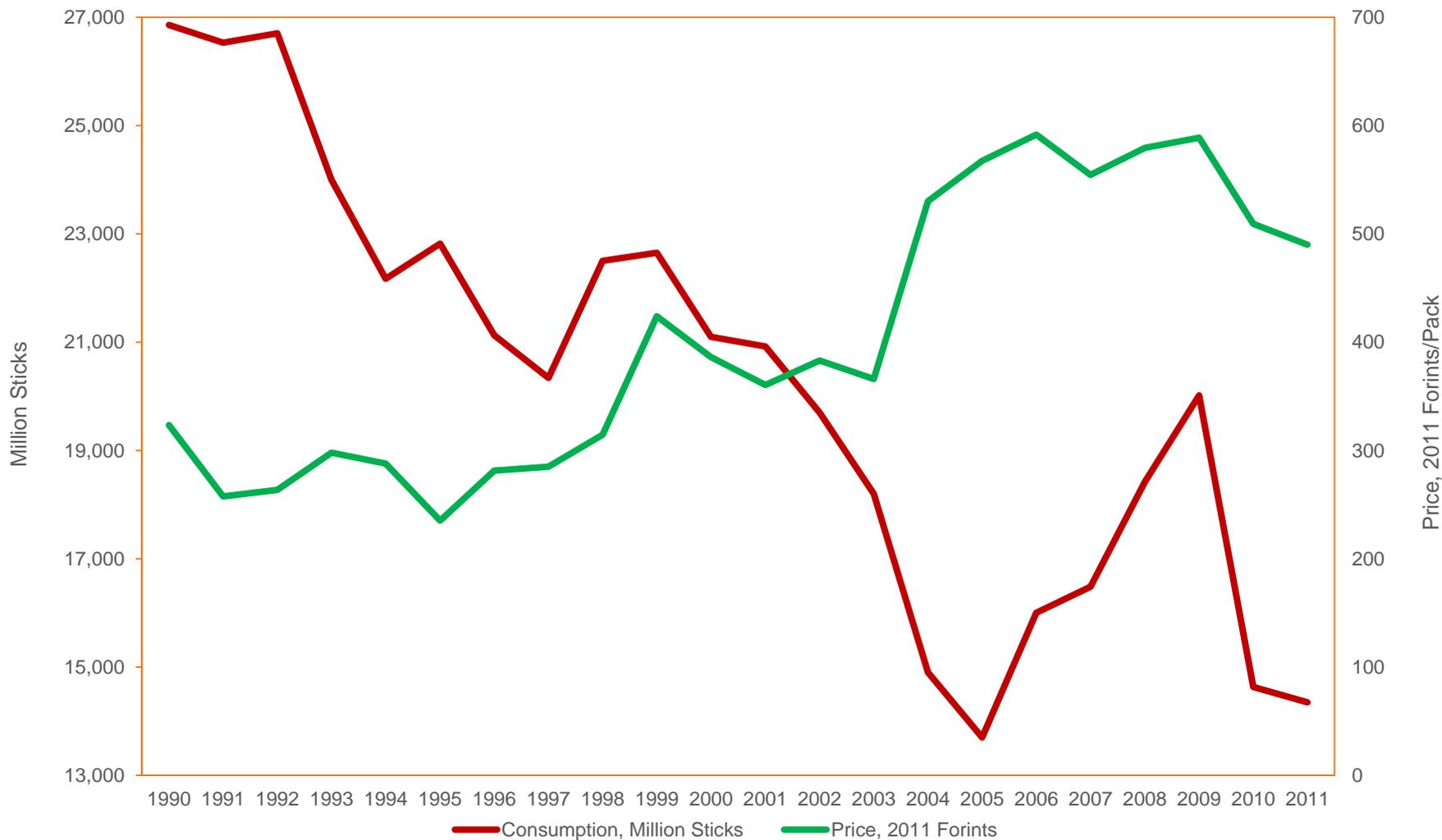




# Impact of Tobacco Taxes & Prices on Tobacco Use

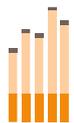
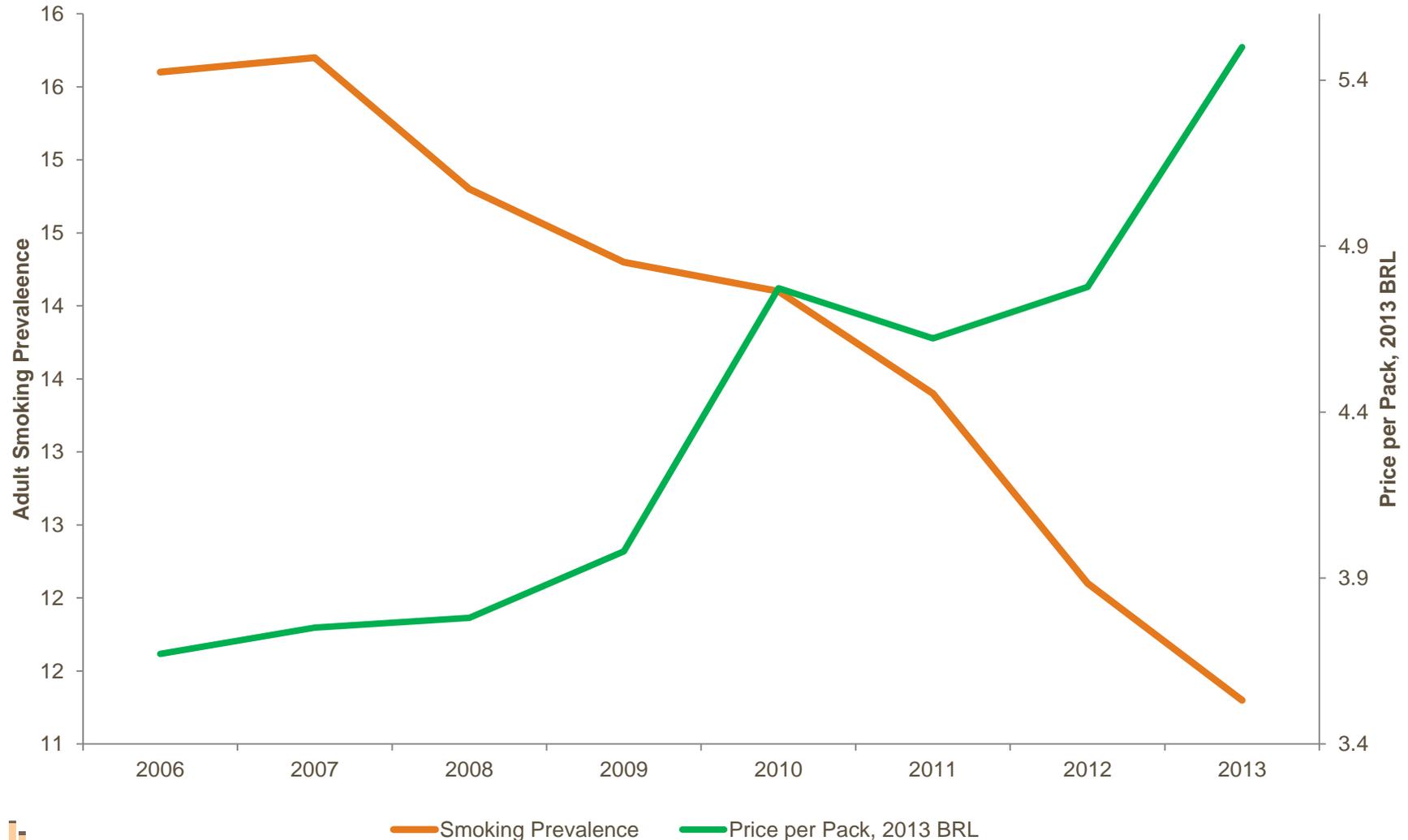
# Cigarette Price & Consumption

## Hungary, 1990-2011, Inflation Adjusted

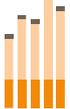
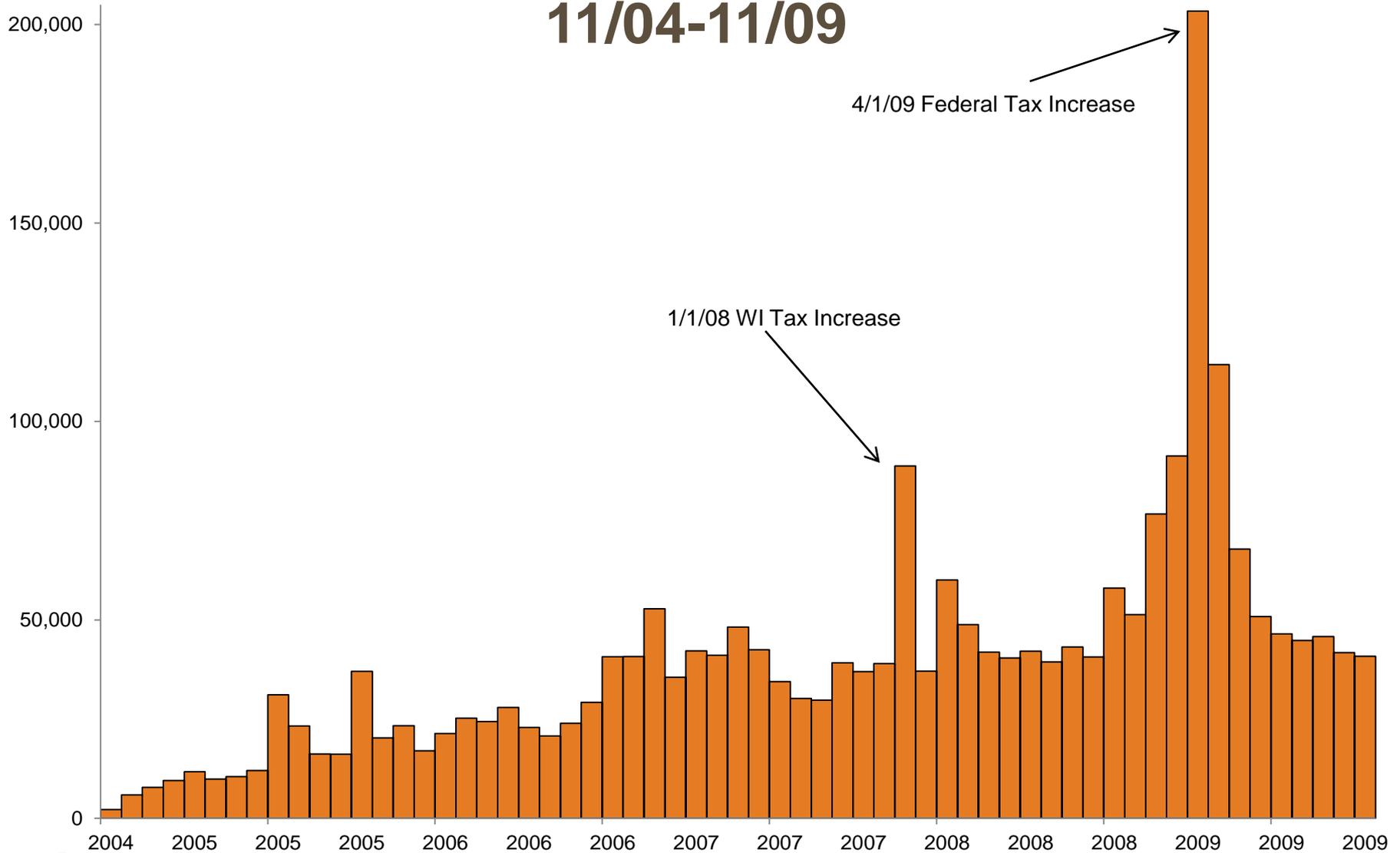


# Adult Smoking Prevalence & Price

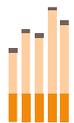
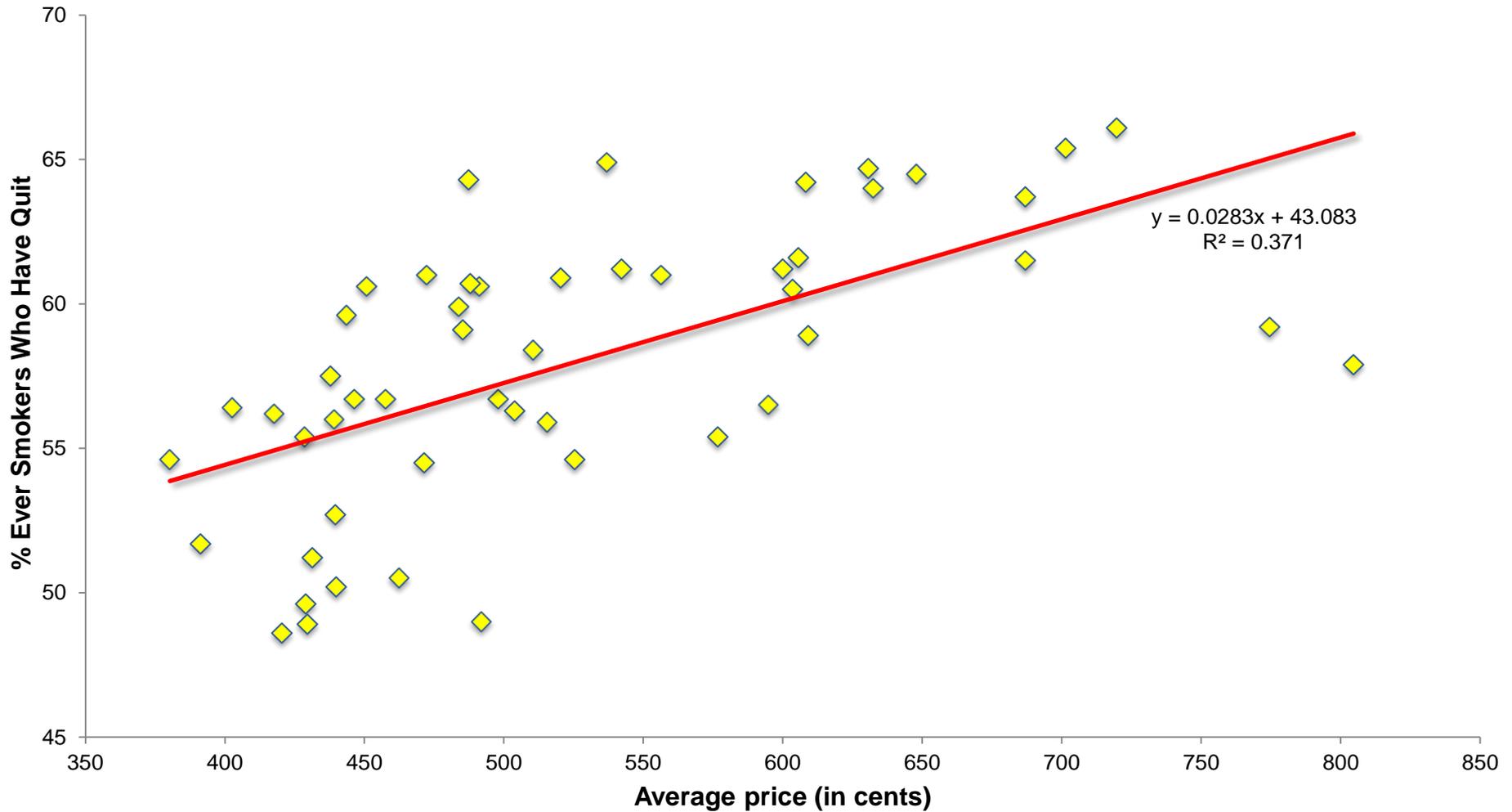
Brazil, Inflation Adjusted, 2006-2013



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



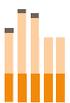
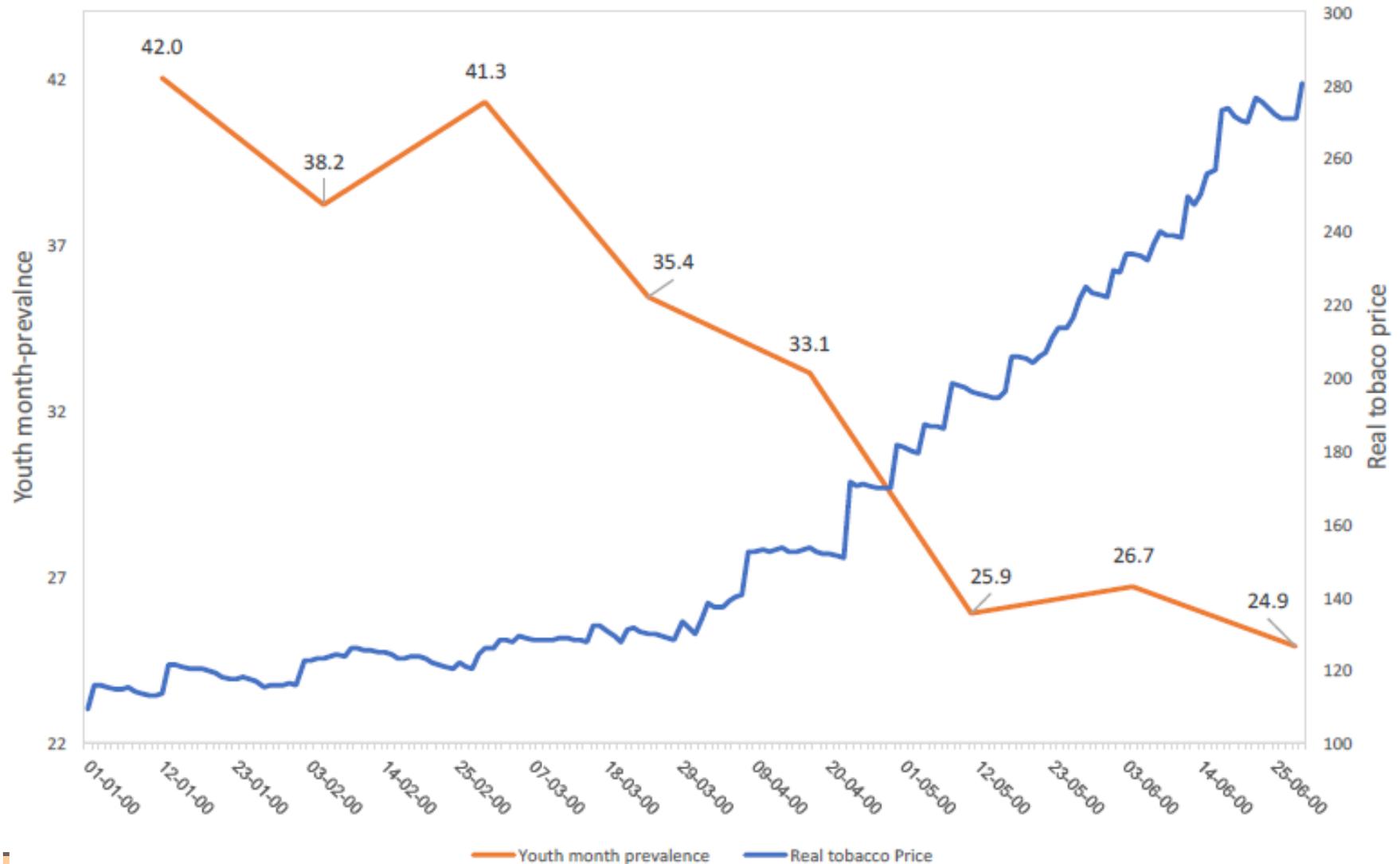
# Cigarette Prices and Cessation US States, 2009



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

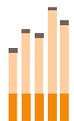
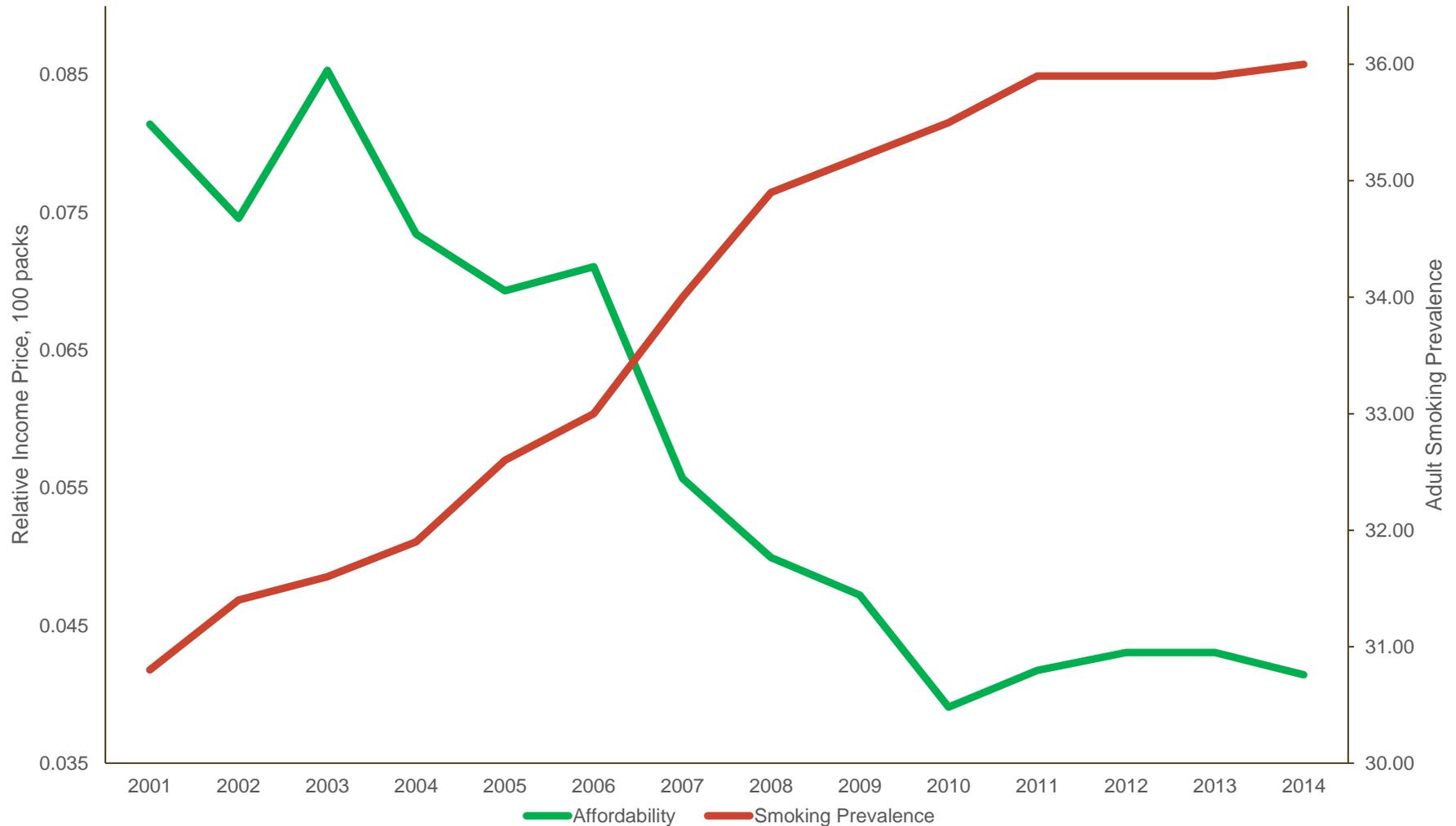
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# Cigarette Price & Youth Smoking Prevalence Chile, 2000-2015



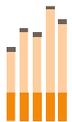
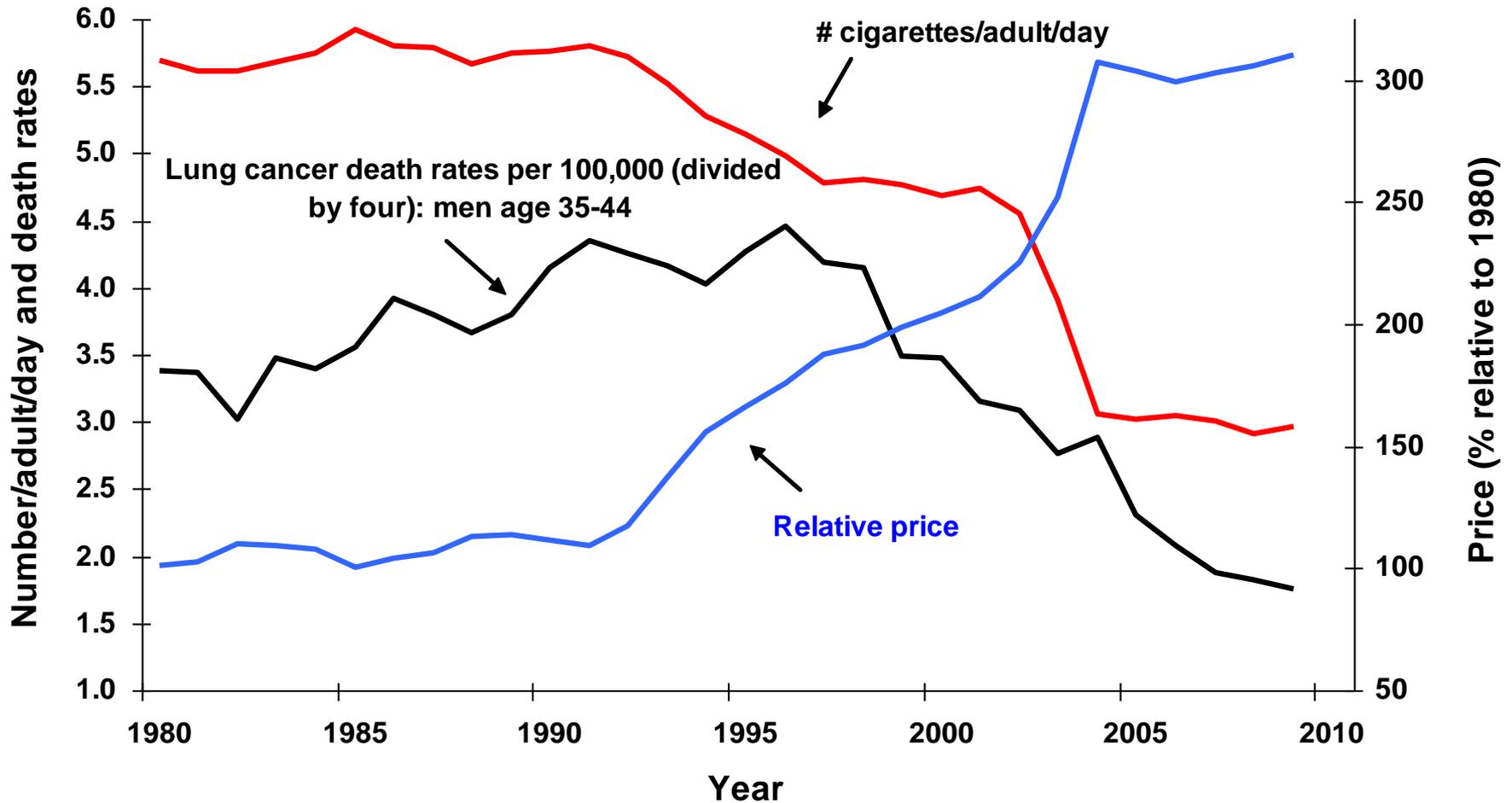
# Affordability & Tobacco Use

## Adult Smoking Prevalence, Indonesia, 2001-2014

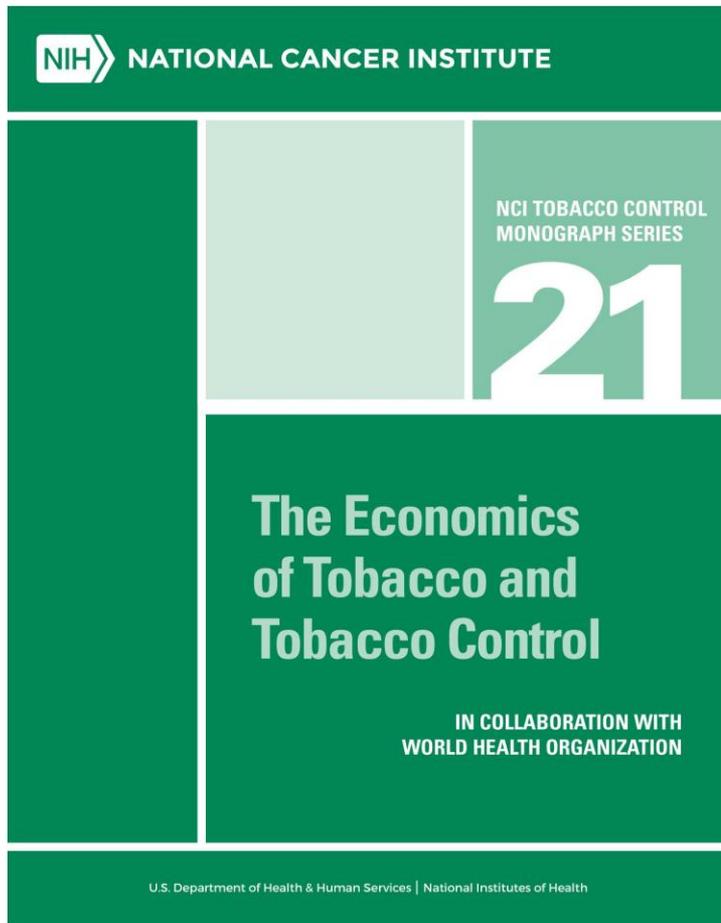


Sources: Euromonitor, EIU, World Bank, and Authors' Calculations

# Price, Consumption & Lung Cancer, France

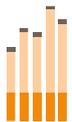


# Effectiveness of Tobacco Taxes



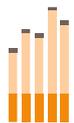
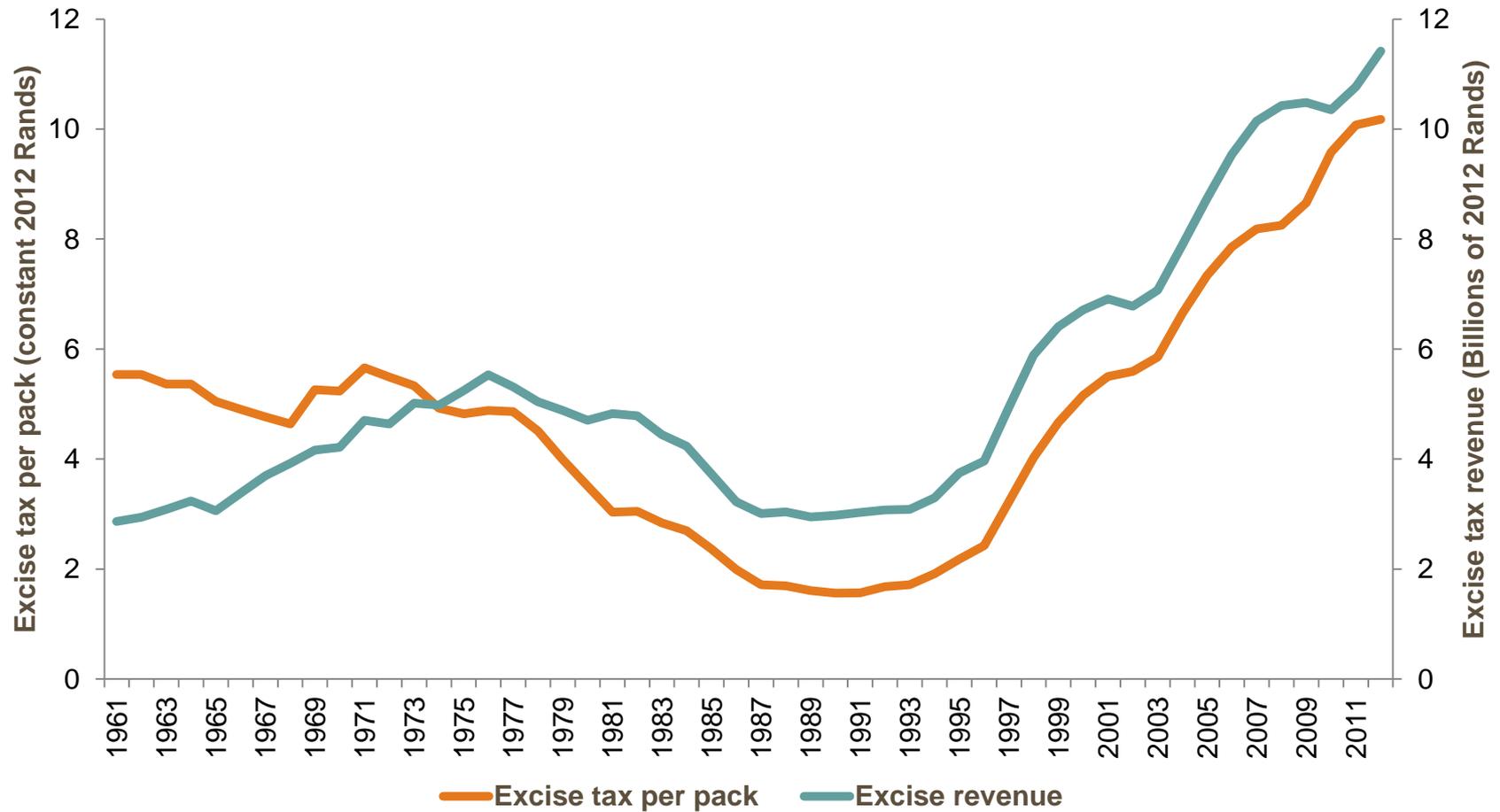
Chapter 4, Conclusion 1:

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.**



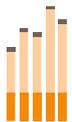
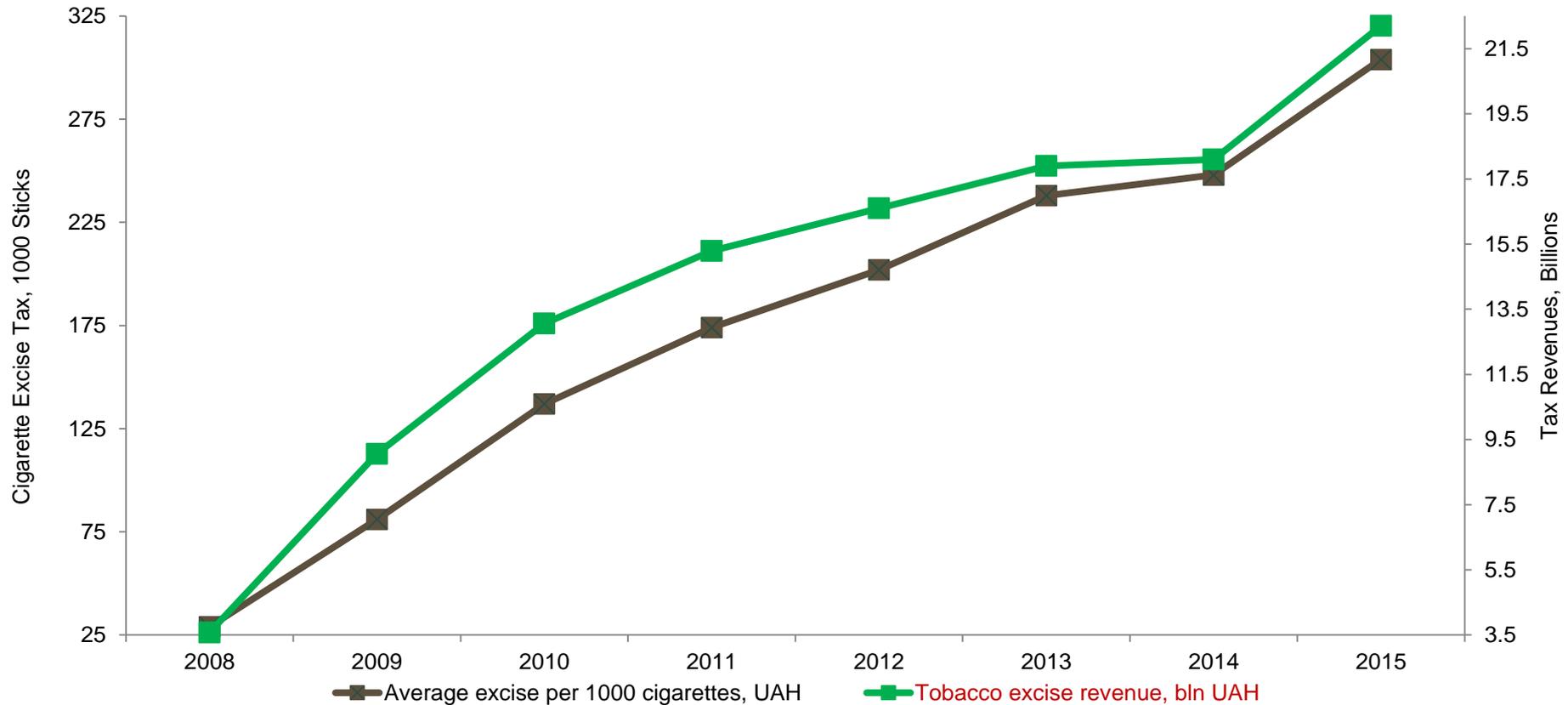
# Tobacco Taxes and Revenues

South Africa, 1961-2012

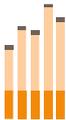
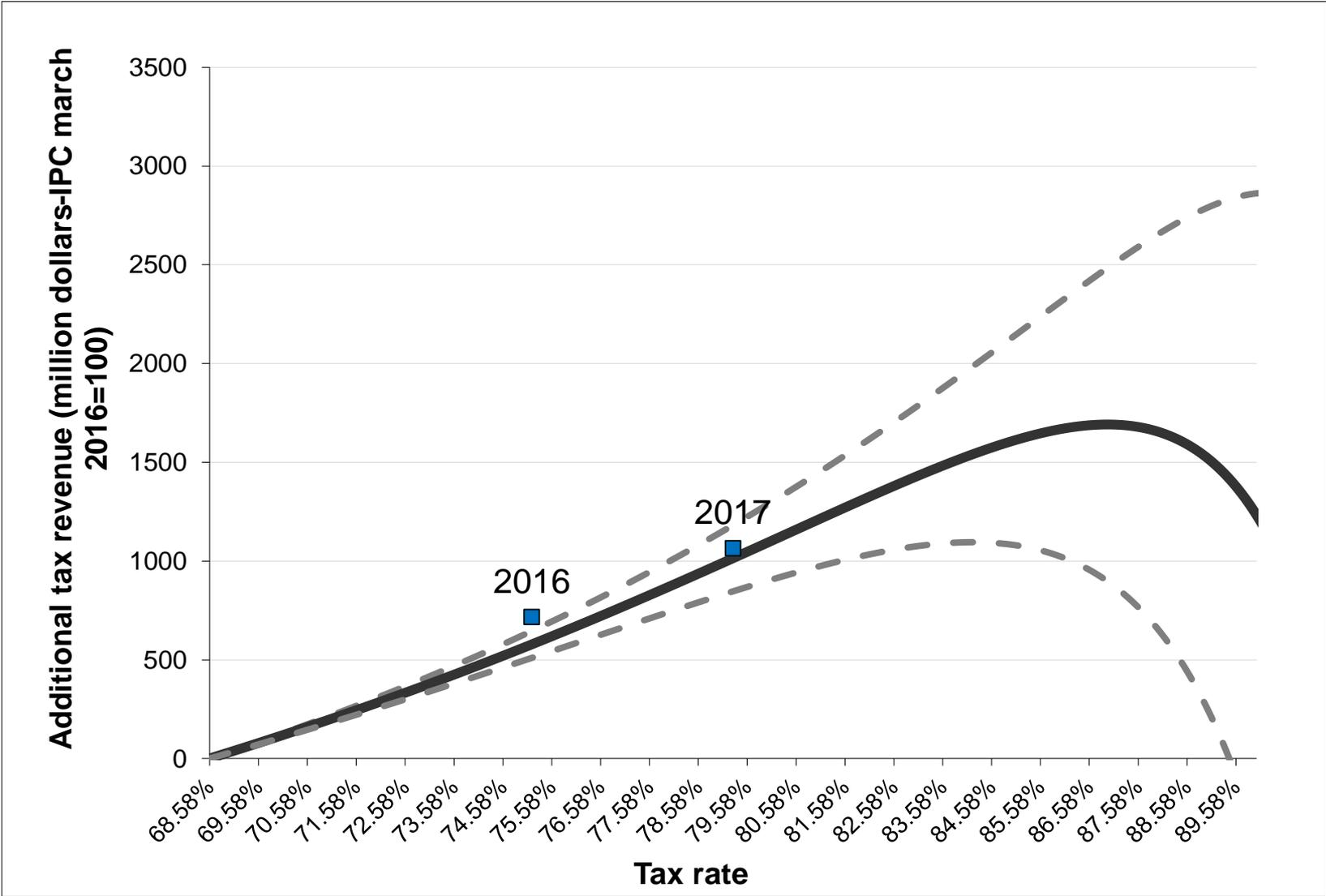


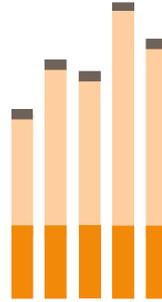
# Cigarette Tax and Tax Revenues Ukraine: 2008-2015

Average excise rate for cigarettes – increased 10-fold  
Cigarette Tax Revenue – increased 6-fold

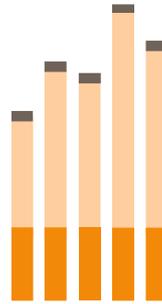


# The Laffer Curve – Argentina



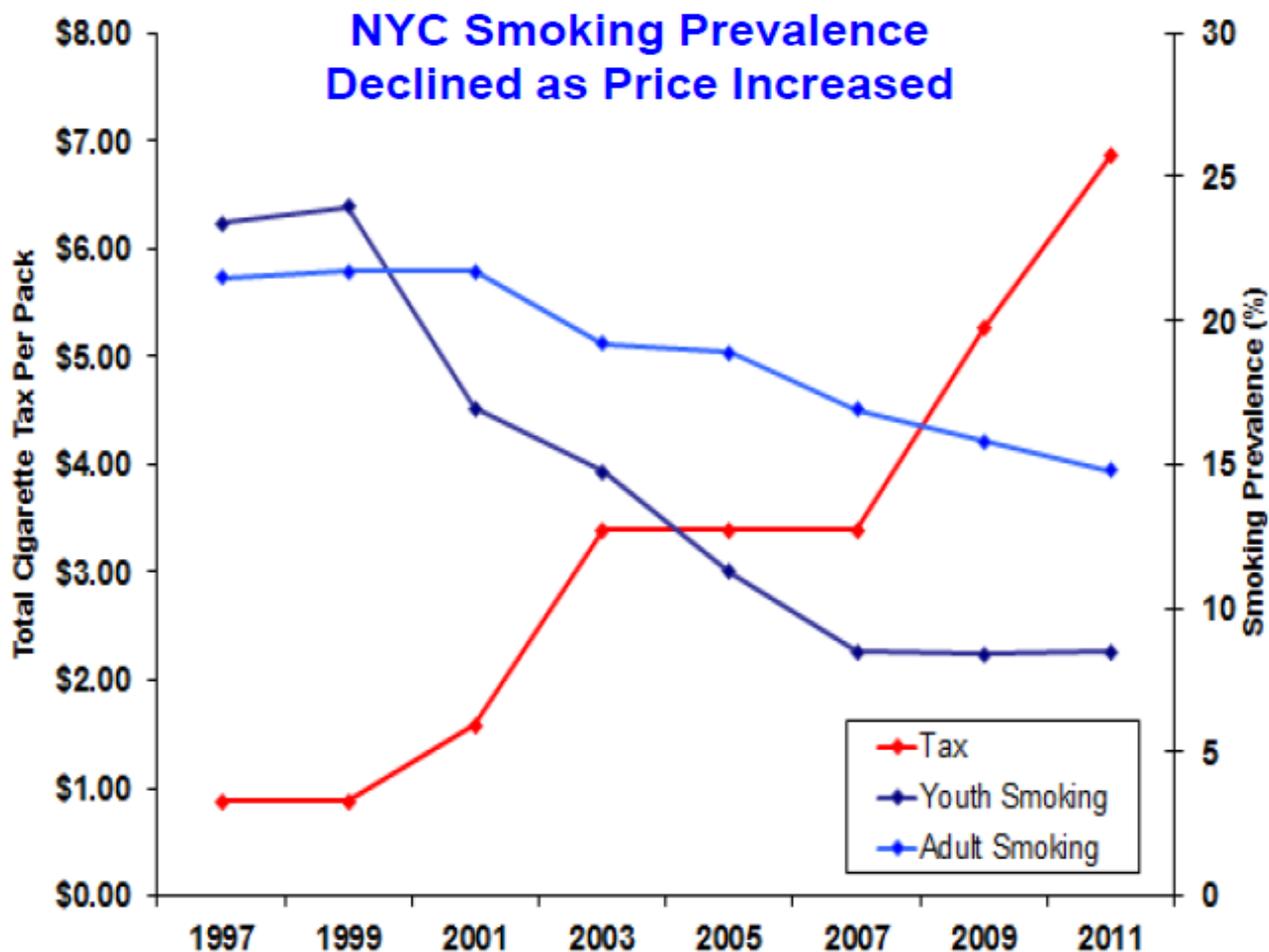


# Oppositional Arguments

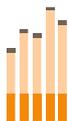


# Tax Avoidance & Evasion

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

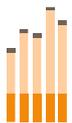
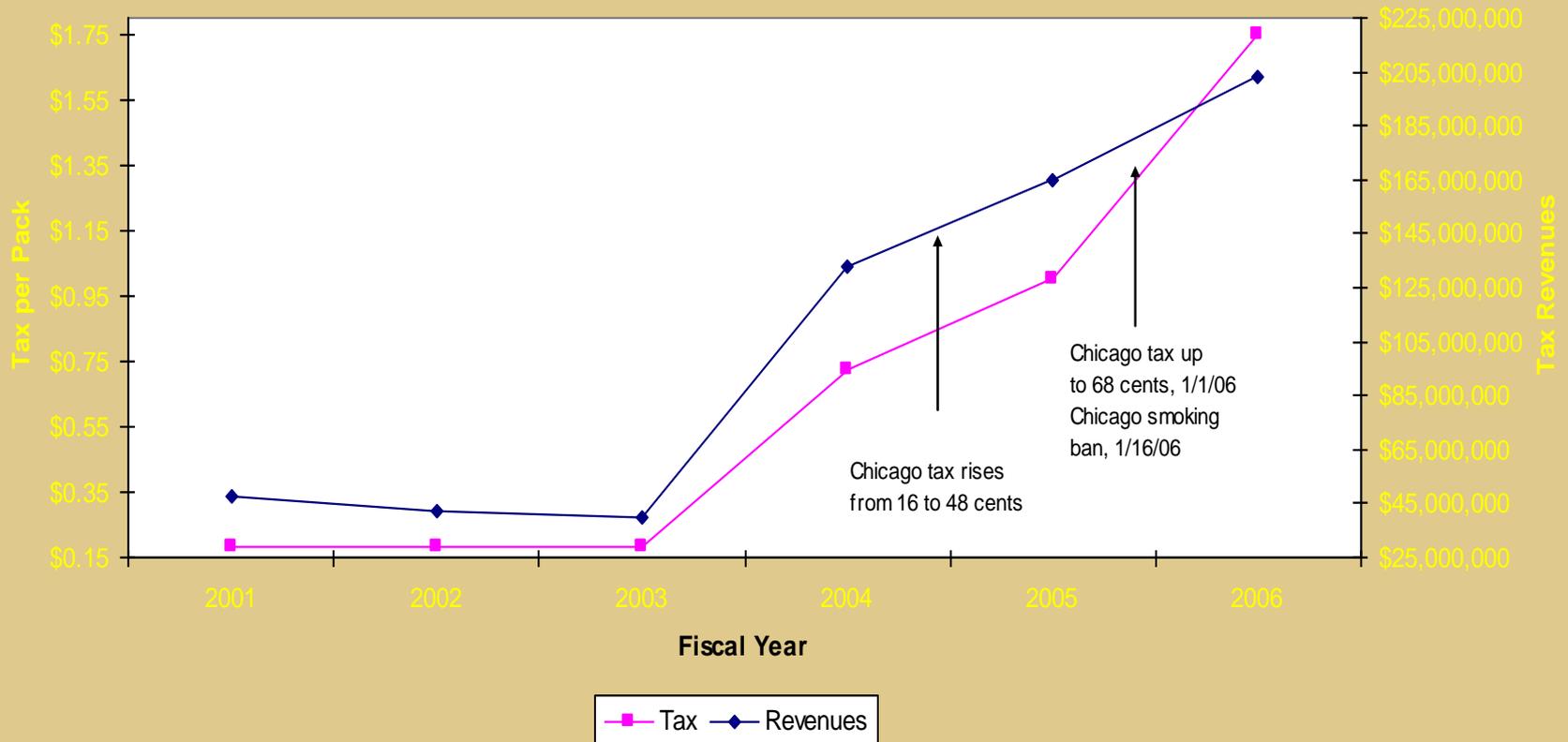


Source: Schroth, 2014

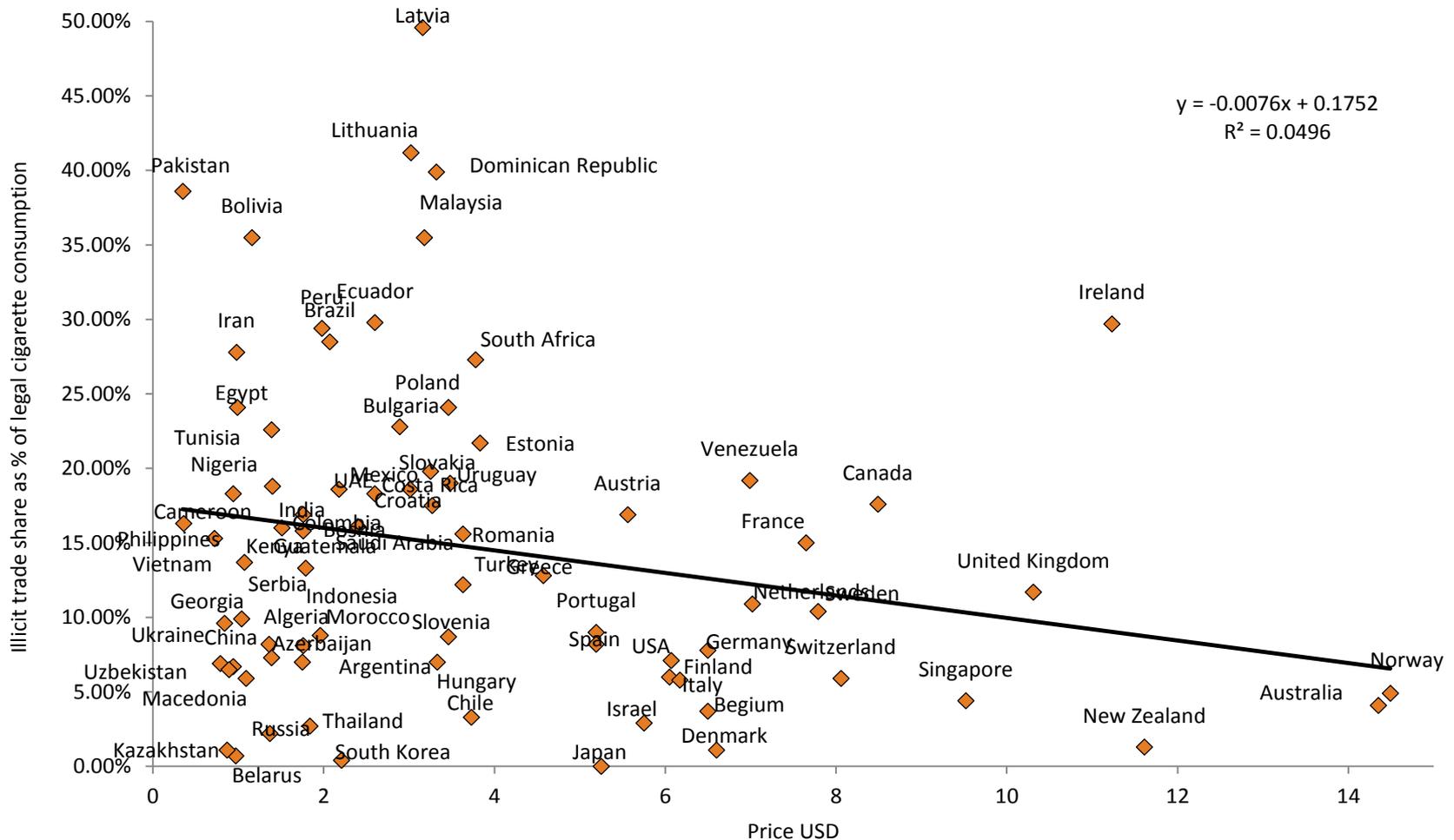


# Tax Avoidance & Evasion Do NOT Eliminate Revenue Impact of Higher Taxes

## Cook County Cigarette Tax and Tax Revenues - FY01-FY06



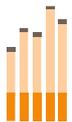
# Illicit Cigarette Market Share & Cigarette Prices, 2012



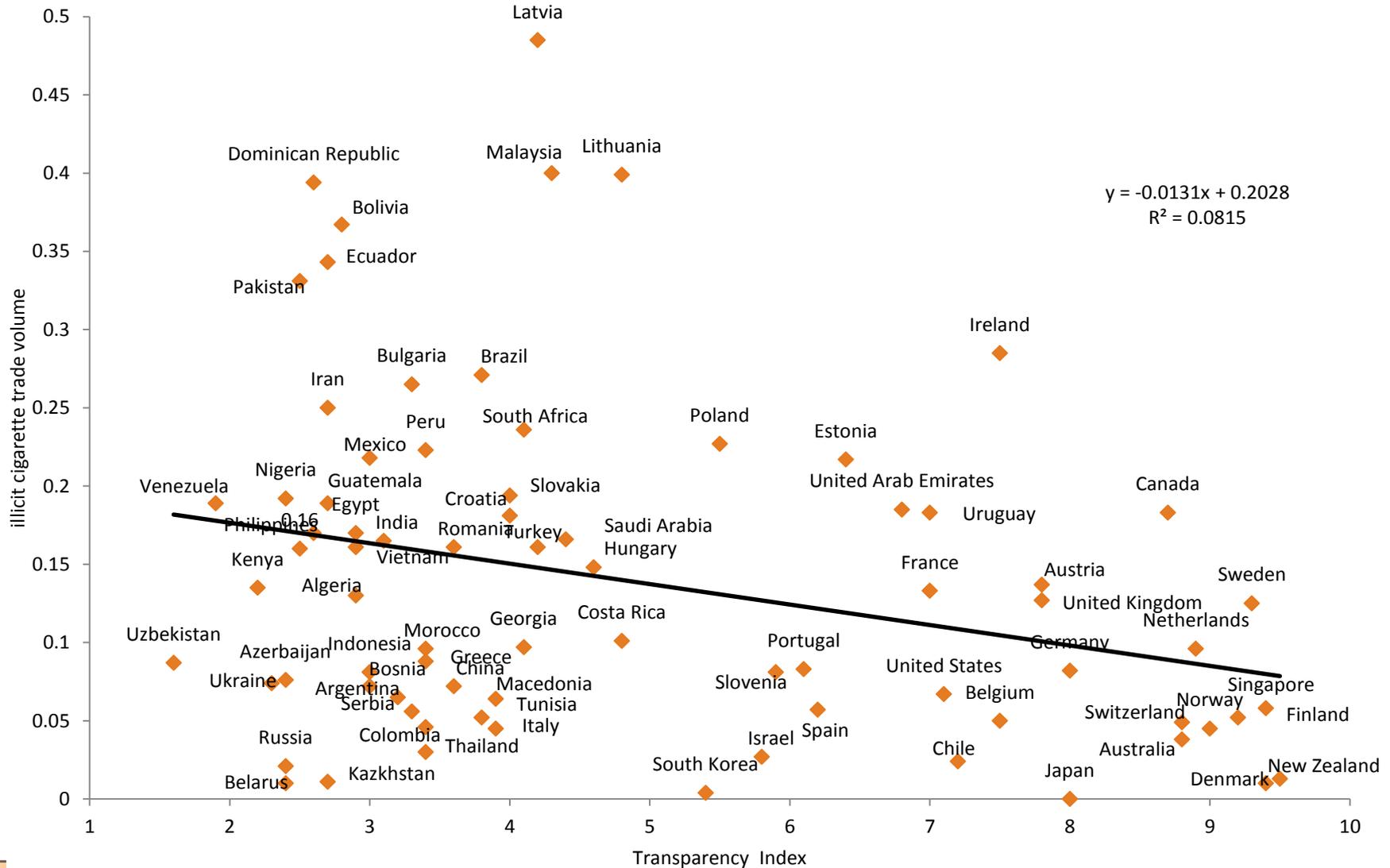
# Drivers of Illicit Tobacco

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

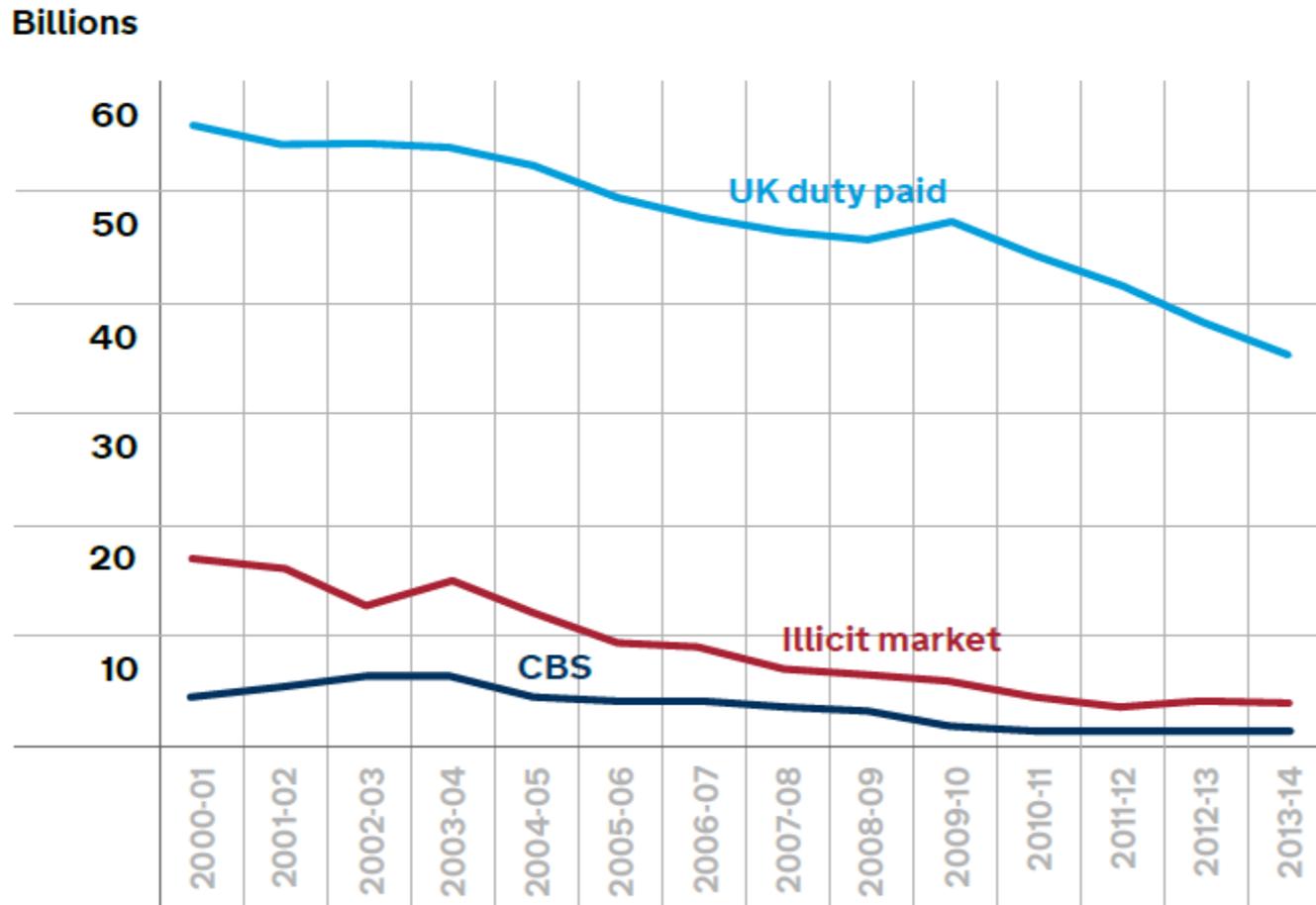
Sources: NRC/IOM 2015; NCI/WHO 2016



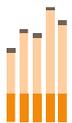
# Smuggling and Corruption, 2011



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

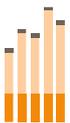


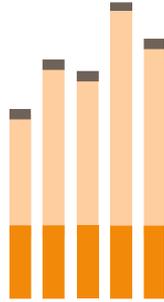
Source: HM Revenue & Customs, 2014



# Combating Illicit Tobacco Trade

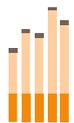
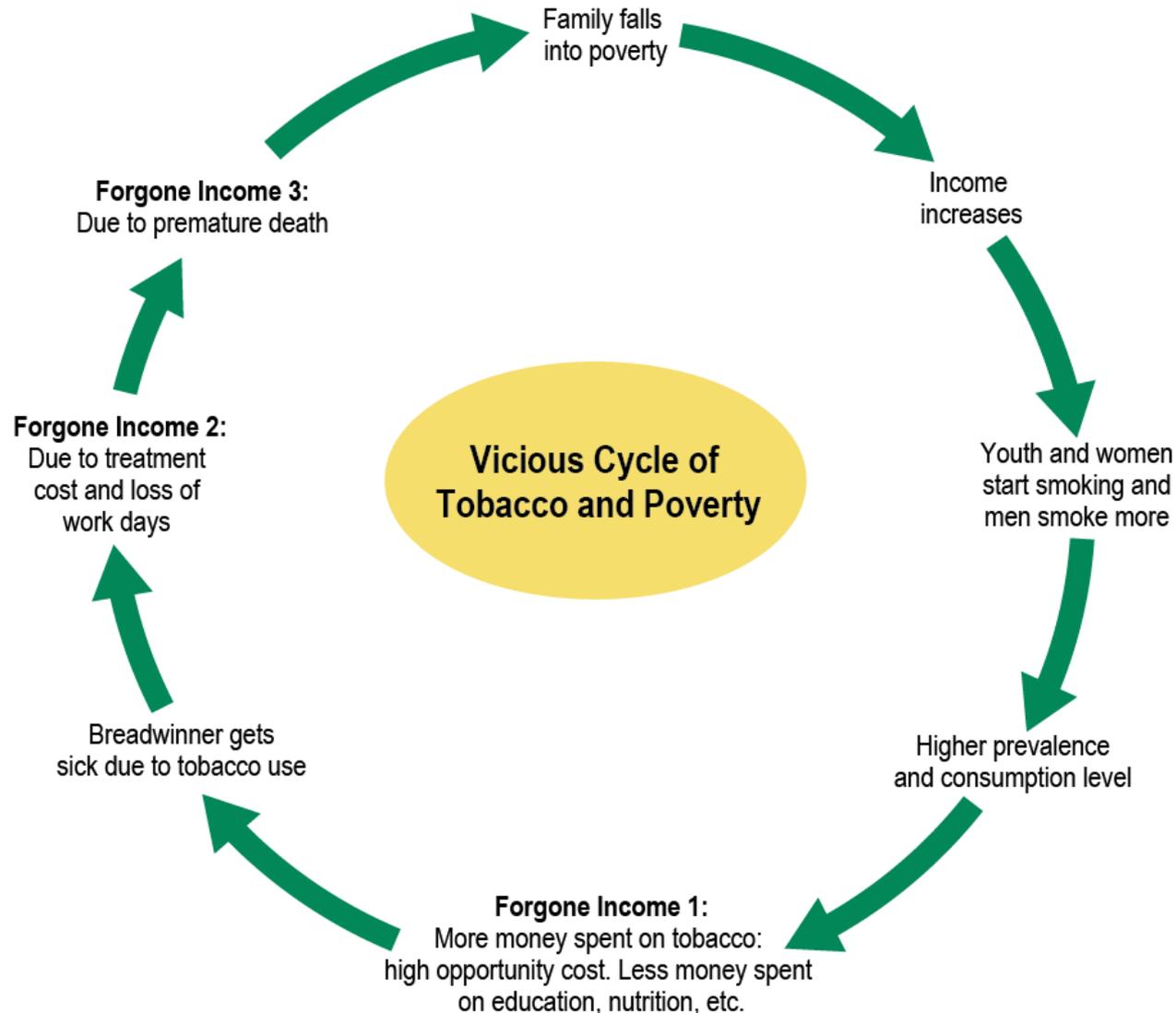
- Illicit trade protocol to the WHO FCTC
  - Adopted November 2012; currently in process of being signed/ratified; provisions calling for:
    - Strong tax administration
      - Prominent, high-tech tax stamps and other pack markings
      - Licensing of manufacturers, exporters, distributors, retailers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





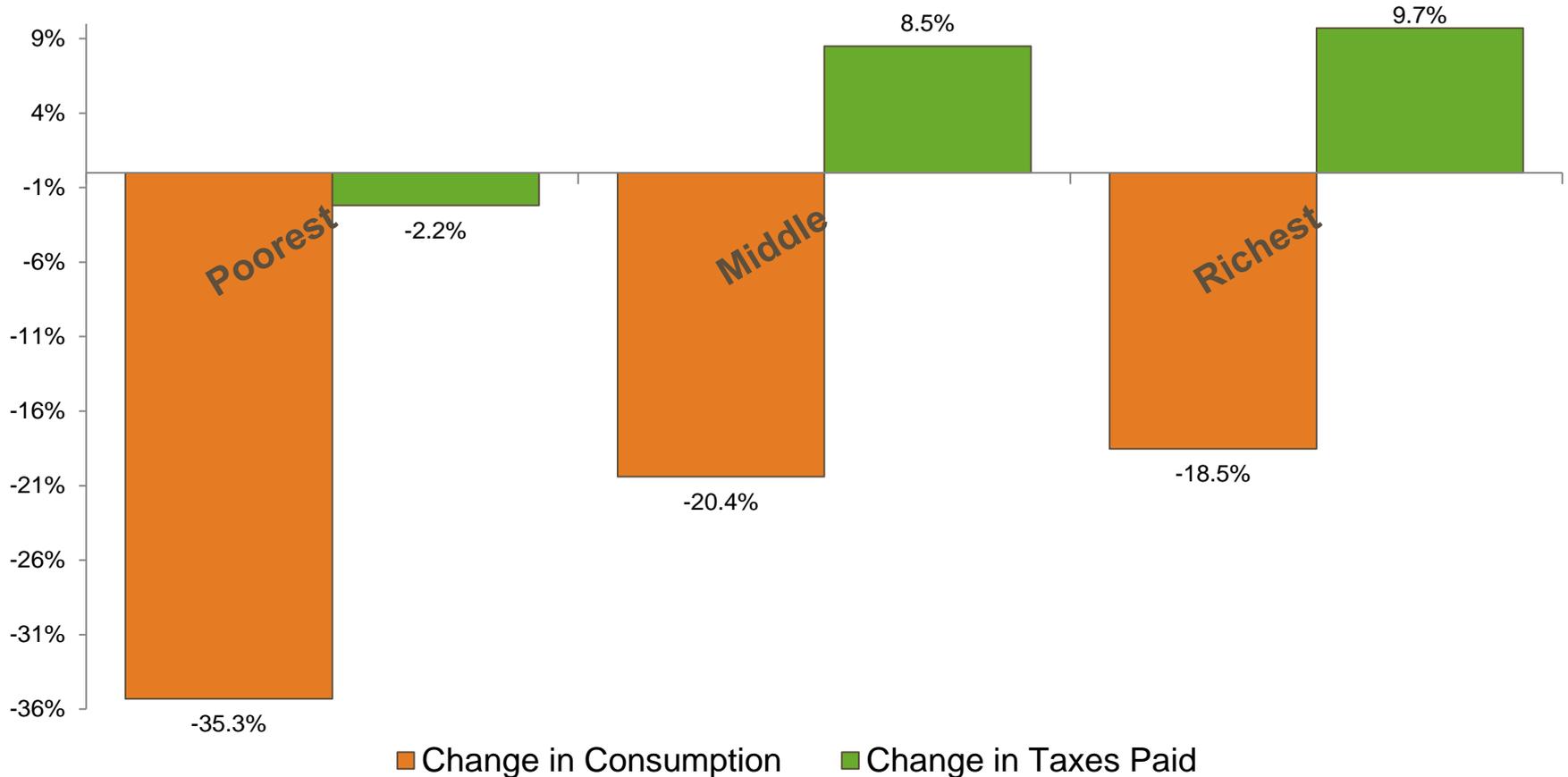
# Impact on the Poor

# Tobacco & Poverty



Source: NCI & WHO 2016

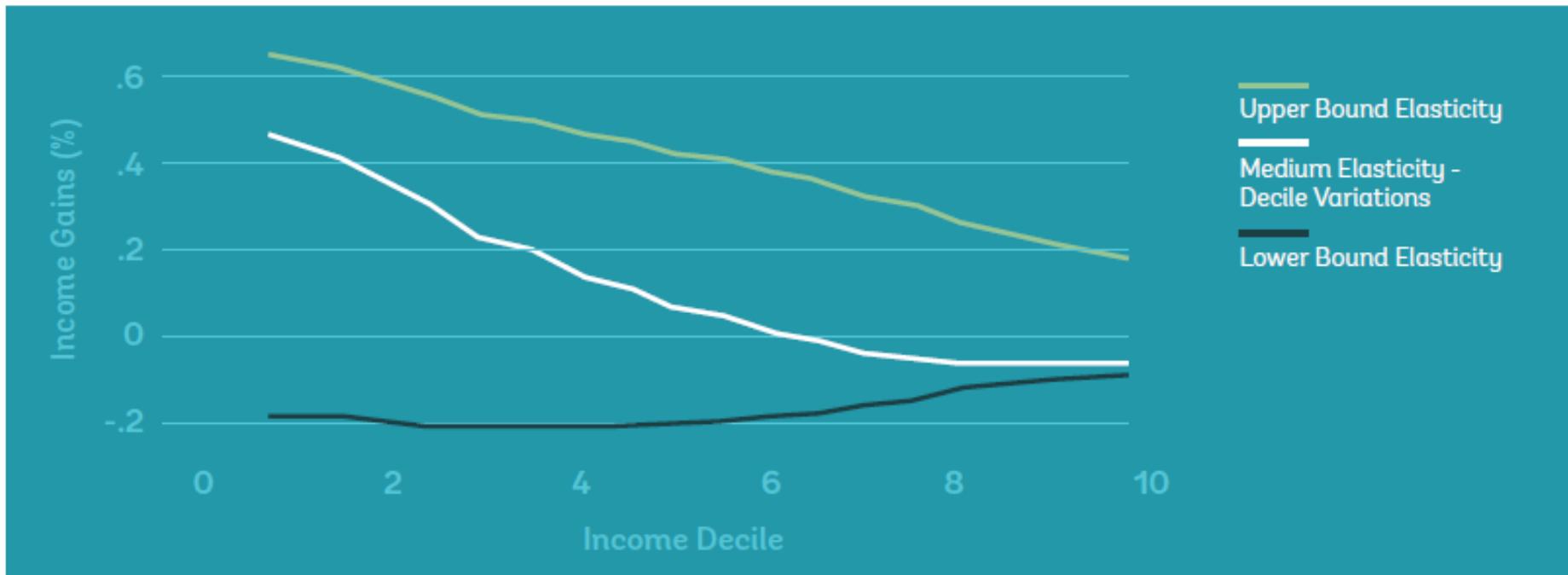
# Who Pays & Who Benefits Turkey, 25% Tax Increase



Source: Adapted from Önder & Yürekli, 2014

# Who Pays & Who Benefits Chile, 25% Tax Increase

Figure 6: Total Income Effect: Direct and Indirect Effect of Taxes  
(tobacco price increase, medical expenditure and working years gained)



Source: Author's estimation using a price shock of 25%

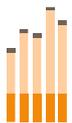


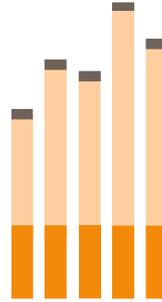
Source: Fuchs, et al., 2017

# Impact on the Poor

## Need to consider overall fiscal system

- Key issue with taxes is what's done with the revenues generated by the tax
- 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



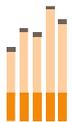


# Impact on the Economy

# Tobacco Control and Jobs

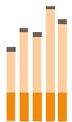
Industry-sponsored studies tell part of story:

- Focus on the gross impact:
  - Tax increase, other tobacco control policies reduce tobacco consumption
  - Results in loss of some jobs dependent on tobacco production
- Ignore the net impact:
  - Money not spent on tobacco products will be spent on other goods and services
  - New/increased tax revenues spent by government
    - ***Offsetting job gains in other sectors***



# Tobacco Taxes and Jobs

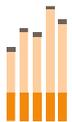
- Many published studies assess impact of reductions in tobacco use from tax increases and/or other tobacco control measures:
  - Variety of high, middle, and low income countries
  - Use alternative methodologies
- Generally find that employment losses in tobacco sector more than offset by gains in other sectors



# Tobacco Taxes and Jobs

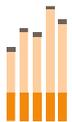
Concerns about job losses in tobacco sector have been addressed using new tax revenues:

- Turkey, Philippines among countries that have allocated tobacco tax revenues to helping tobacco farmers and/or those employed in tobacco manufacturing make transition to other livelihoods
  - Crop substitution programs, retraining programs



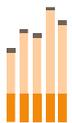
# Smoke Free Air Policies & Economic Activity

- Industry and its allies argue that comprehensive smoke-free air policies will harm the hospitality industry as smokers are deterred from frequenting bars and restaurants
- Extensive research shows that comprehensive smoke-free air policies have no negative impact, and often a positive impact, on economic activity in the hospitality sector



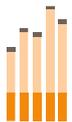
# Tobacco Taxes and Small Businesses

- More recent argument that higher taxes will harm convenience stores
- Huang & Chaloupka (2012)
  - Number of convenience stores, by state, 1997-2009
  - State cigarette tax rates and smoke-free air policies
  - Economic conditions (income, unemployment, gas prices)
  - Multivariate, fixed effects econometric models
  - Find that higher taxes associated with **increase** in convenience store business
    - Likely due to spending on other products, overshifting of taxes



# Tobacco Control and Overall Economic Activity

- Chaloupka & Peck (2009)
  - Adaptation of Murphy & Topel (2003) assessment of the broader economic impact of medical research
  - Accounts for increased life expectancy, improved productivity resulting from improvements in health
  - We estimated impact of reductions in cigarette smoking in the U.S. in the 40 years following the 1964 Surgeon General's report
  - Estimate that by 2004, increased economic activity by \$300-\$700 billion; (equivalent to 2.4% - 5.7% of GDP)

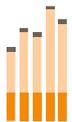
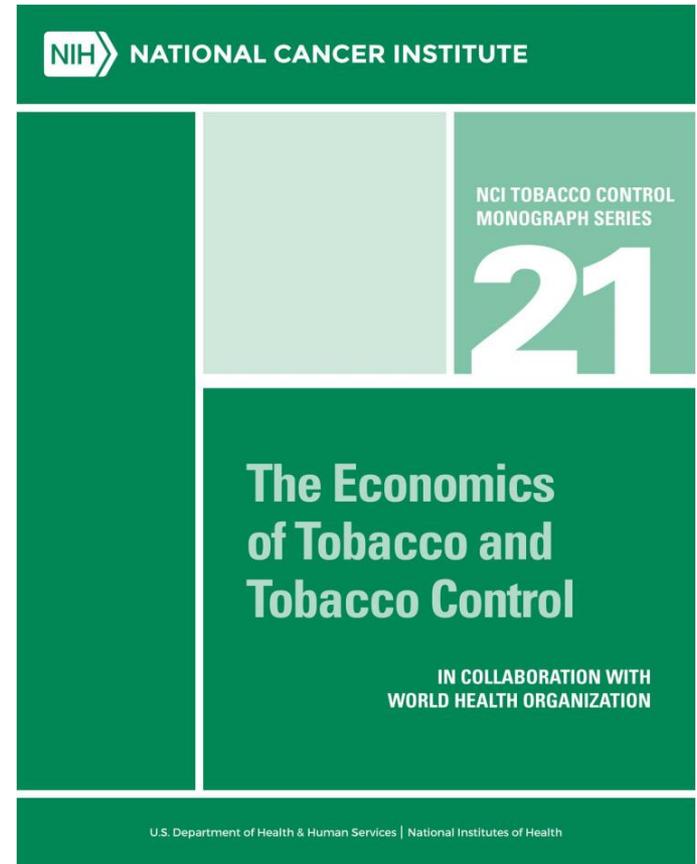


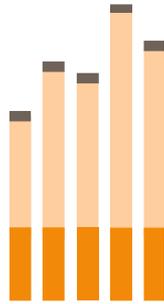
# Economic Impact of Tobacco Control

Major Conclusion

#7:

Tobacco control  
does not harm  
economies.



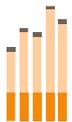


# Summary

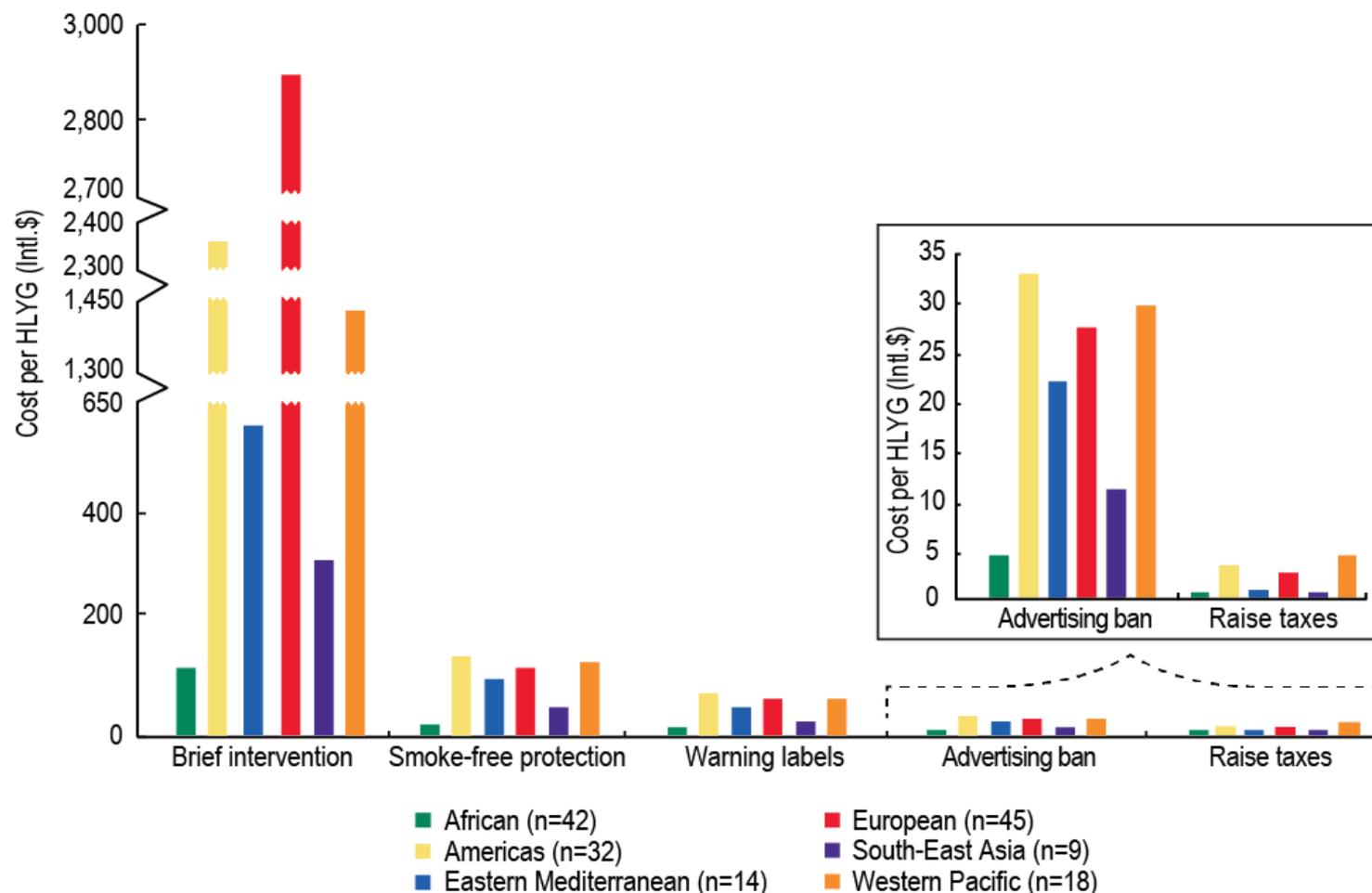
# Economic Impact of Tobacco Control

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
- Tobacco control will not harm economies
- Substantial impact in reducing health care costs, improving productivity, and fostering economic development.



# Figure 17.3 Tobacco Control Policies and Cost Per Healthy Life-Year Gained, by WHO Region



Note: HLYG = healthy life-year gained.

Source: Based on calculations from World Health Organization CHOICE model, 2016.

For more information:

<http://www.tobacconomics.org>

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Thank You!

