

tobacconomics

Economic Research Informing Tobacco Control Policy

Raising Revenue & Cutting Costs: Excise Taxes & Health

Frank J. Chaloupka, University of Illinois at Chicago

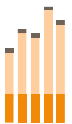
Economic Commission for Latin America and the Caribbean

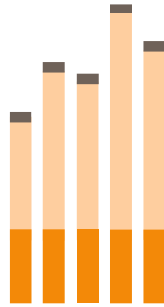
XXX Regional Fiscal Policy Seminar

27 March 2018, Santiago, Chile

Overview

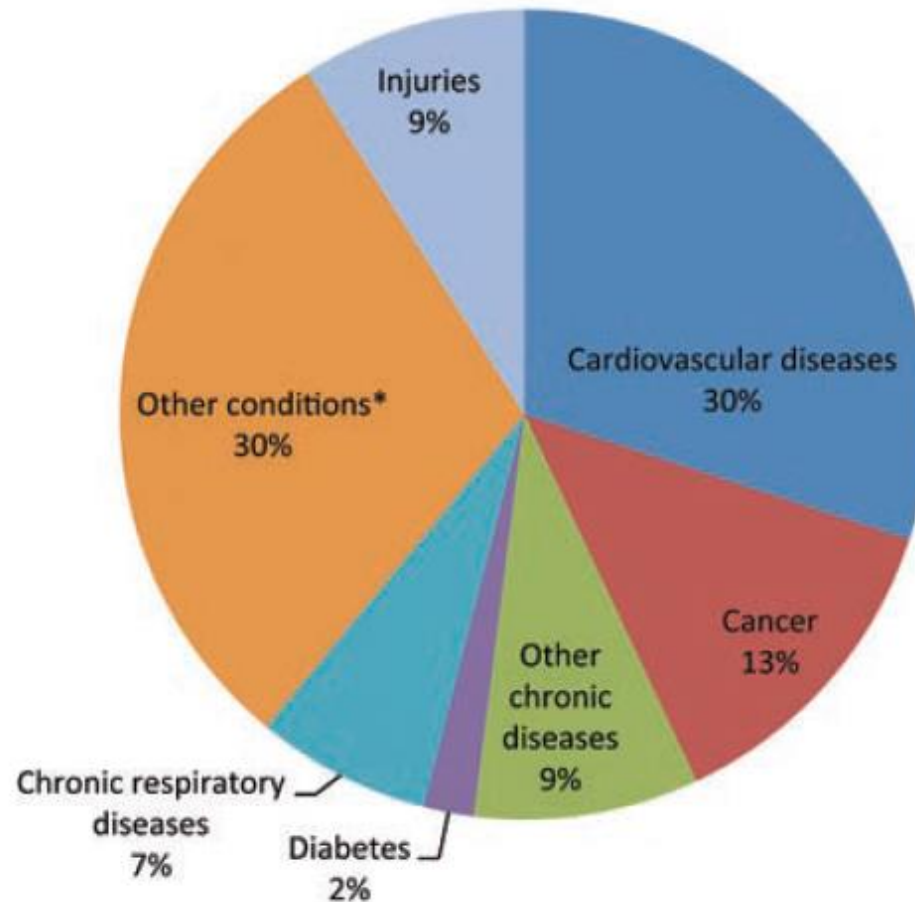
- Health & Economic Impact of Non-Communicable Diseases
- Impact of Tobacco, Alcohol, and Sugary Beverage Taxes
- Taxes and Tax Revenues





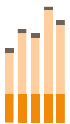
Health & Economic Impact of NCDs

Leading Causes of Death Globally



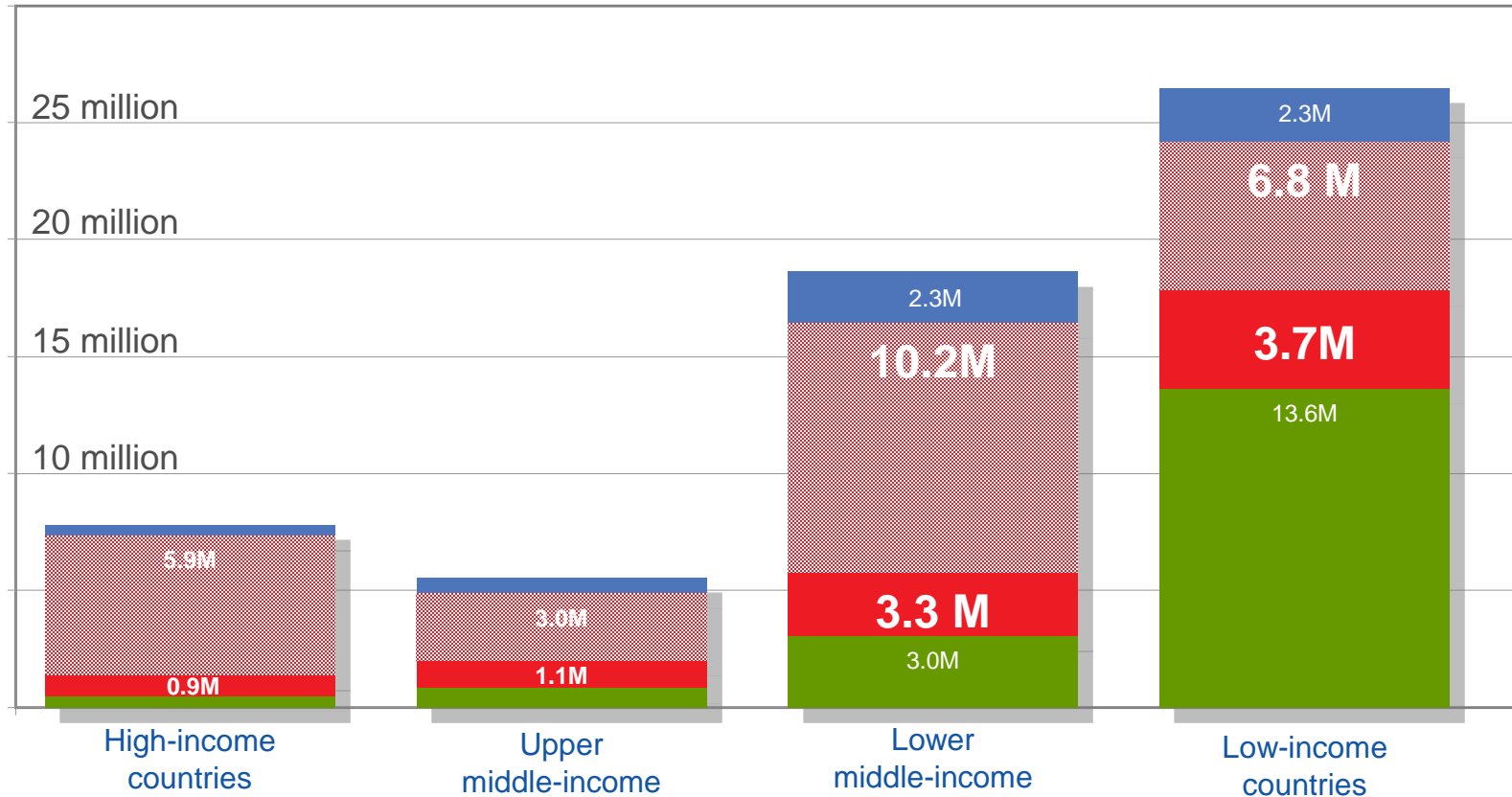
Source: World Economic Forum & Harvard School of Public Health, 2011

Other Conditions include communicable diseases, maternal/perinatal conditions, and nutritional deficiencies

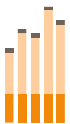


Total Deaths by Income

Source:



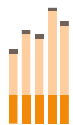
- Group III - Injuries
- Group II - Other deaths from noncommunicable diseases
- Group II - Premature deaths from noncommunicable diseases (below the age of 60), which are preventable
- Group I - Communicable diseases, maternal, perinatal and nutritional conditions



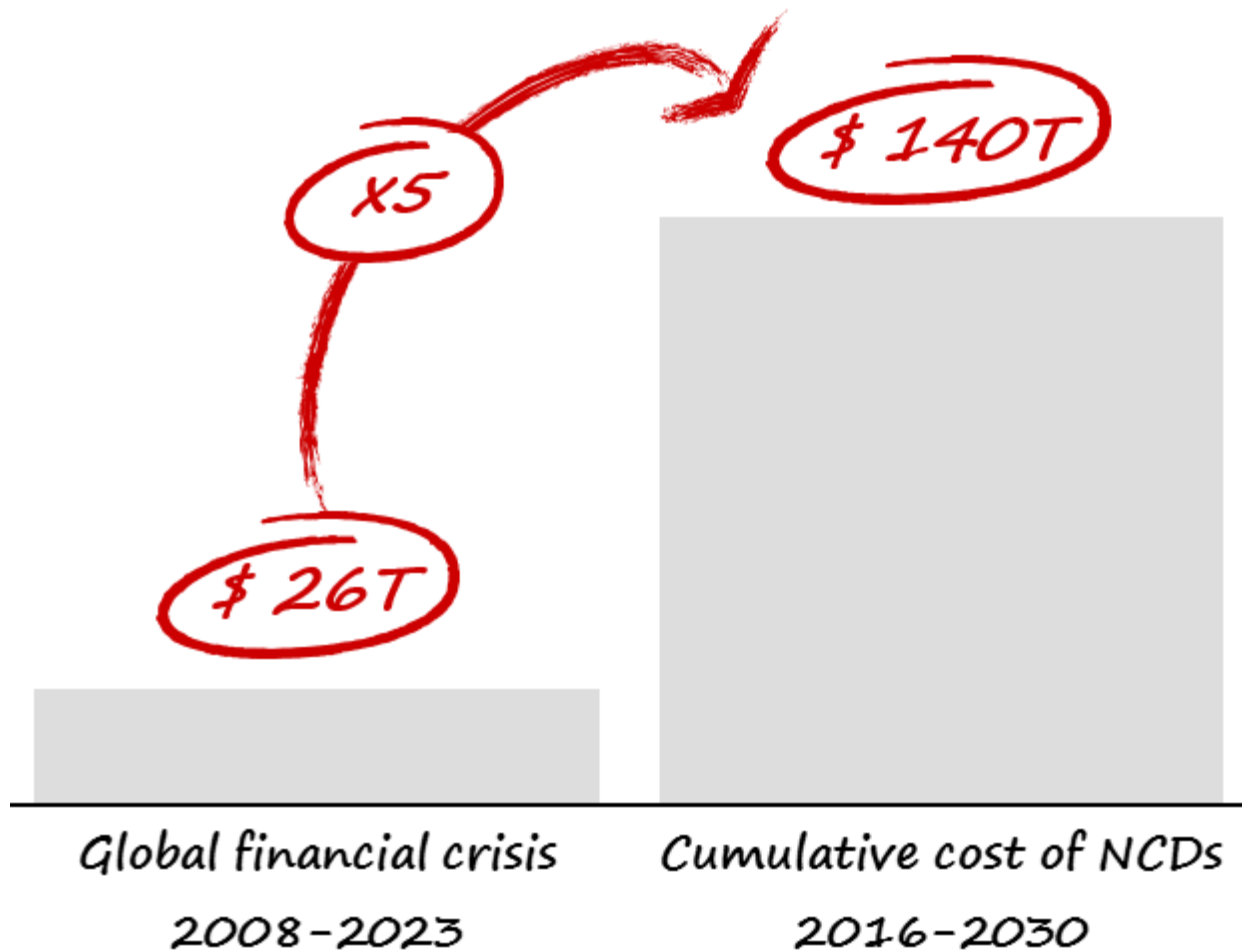
Source: WHO 2010

Economic Consequences of NCDs

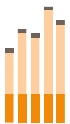
- Large economic burden from NCDs:
 - Large, growing health care costs from treating NCDs
 - Significant lost productivity
 - Cause of poverty
 - Account for much of inequalities in health



Significant Economic Costs



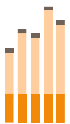
Source: World Economic Forum & Harvard School of Public Health

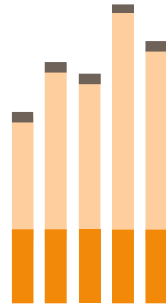


Economic Costs of Unhealthy Behaviors

- Significant direct and indirect costs
 - Tobacco use: > \$1.4 trillion in 2012
 - Equivalent to 1.8% of global GDP
 - Alcohol use: 2.1% - 2.5% of GDP
 - Obesity: ~\$2 trillion in 2014
 - Equivalent to 2.5% of global GDP

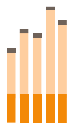
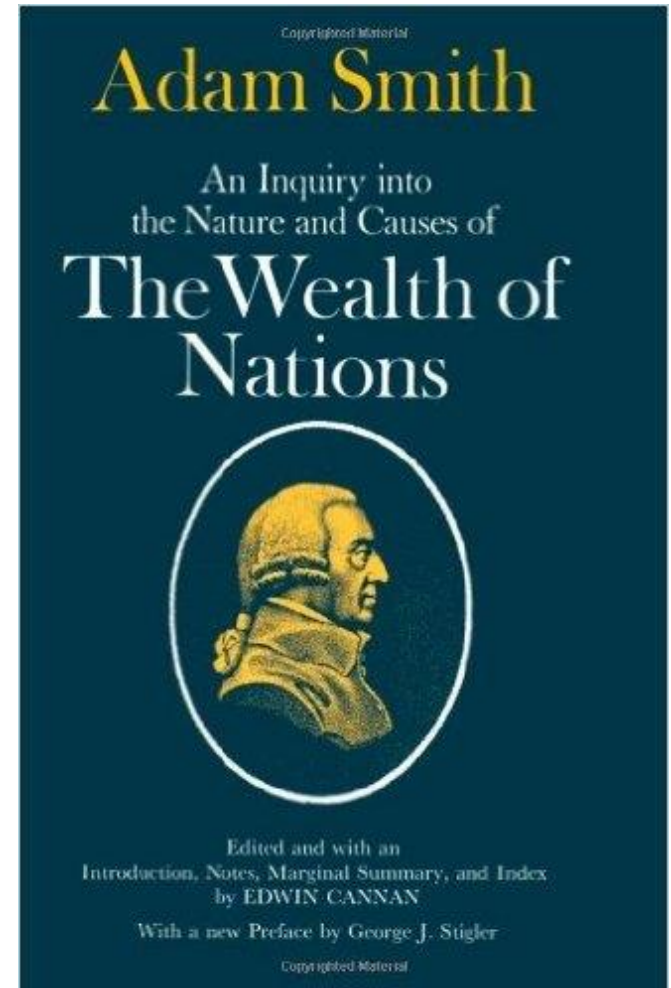
Sources: Goodchild, et al., 2017; WHO, 2017; McKinsey, 2014





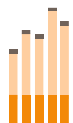
Taxes, Prices and Unhealthy Behaviors

" 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

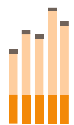
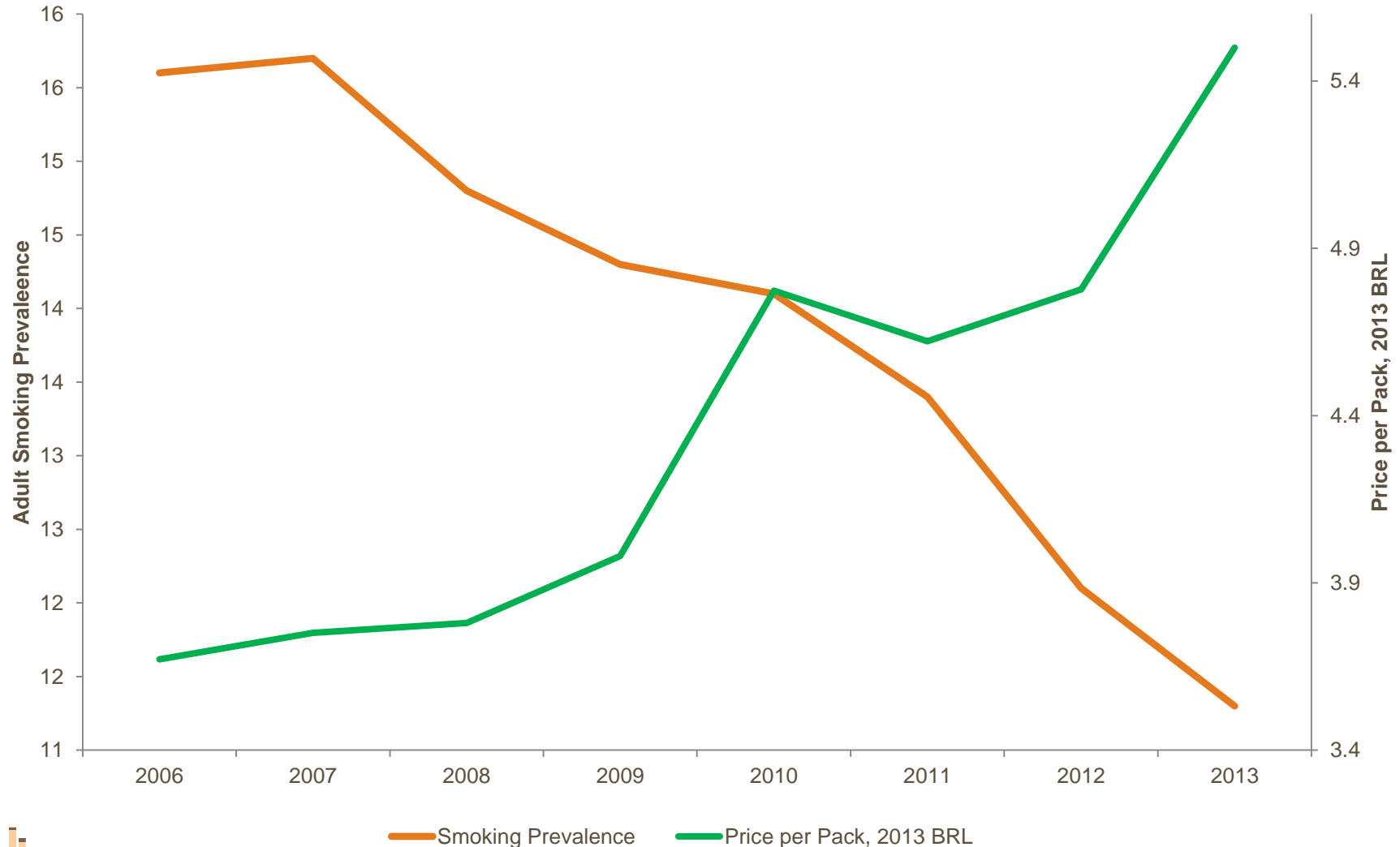
Mexico, 2001-2014, Inflation Adjusted



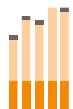
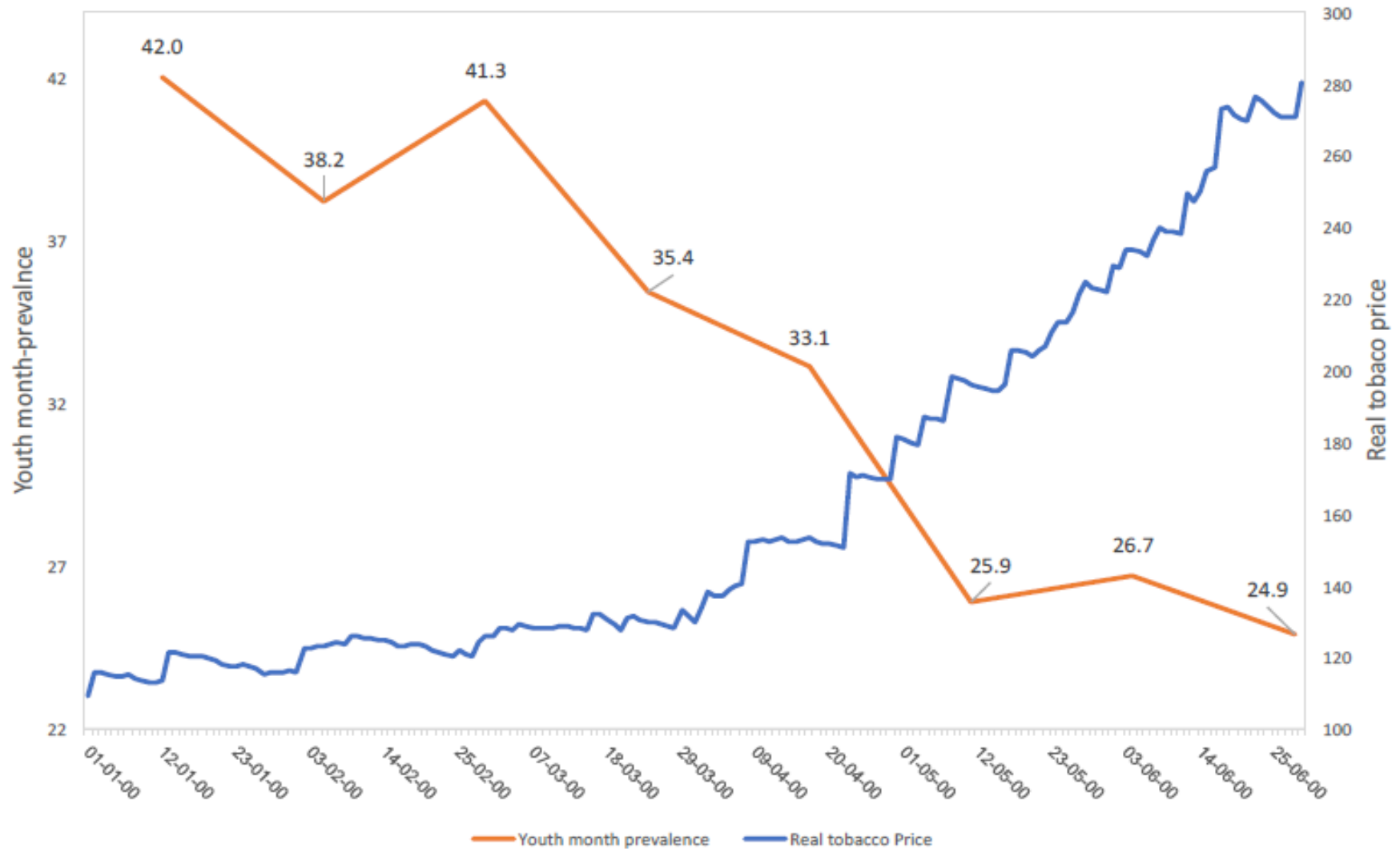
Sources: EIU, Euromonitor, and World Bank

Adult Smoking Prevalence & Price

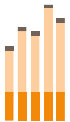
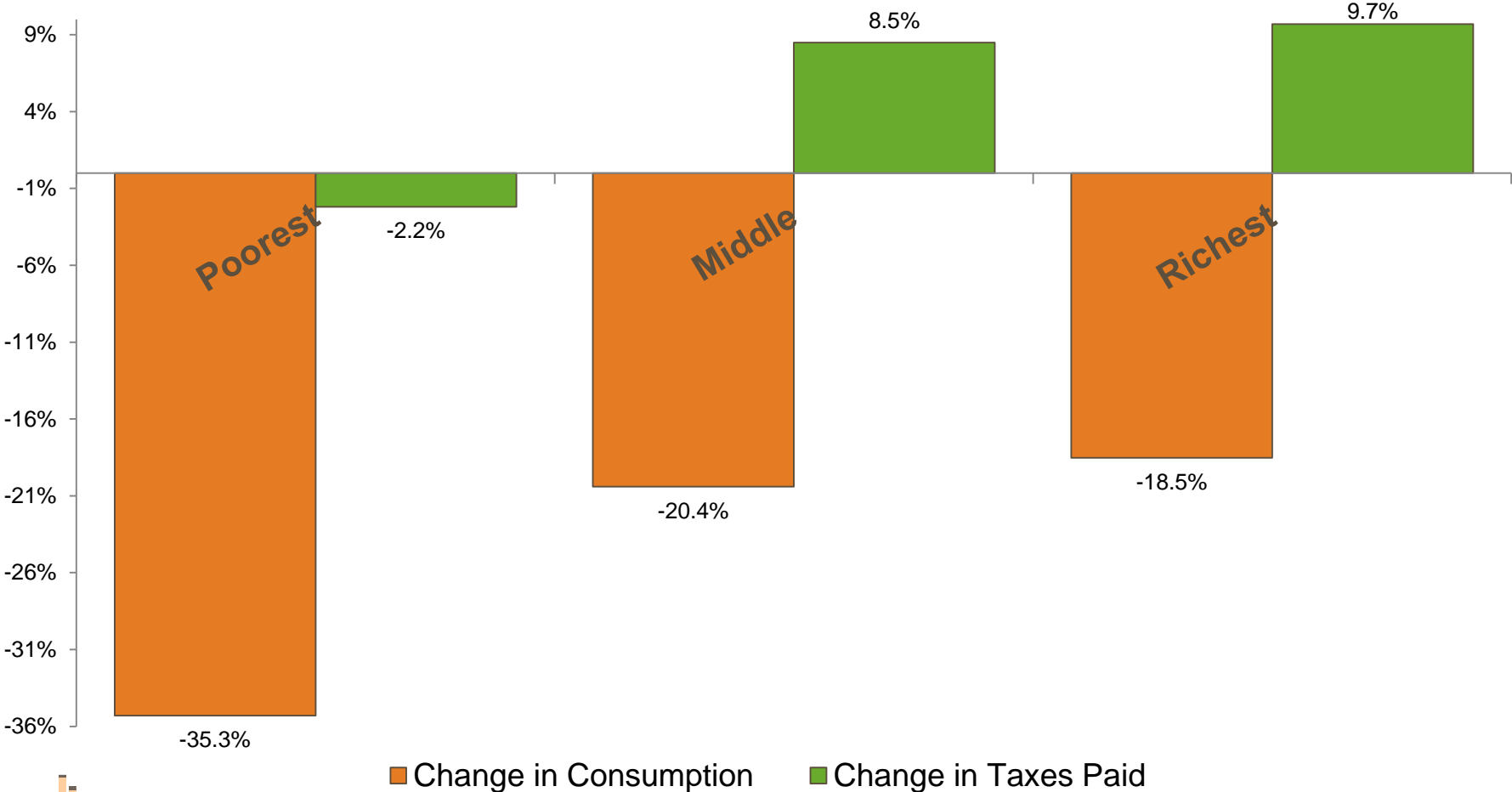
Brazil, Inflation Adjusted, 2006-2013



Cigarette Price & Youth Smoking Prevalence Chile, 2000-2015

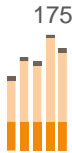
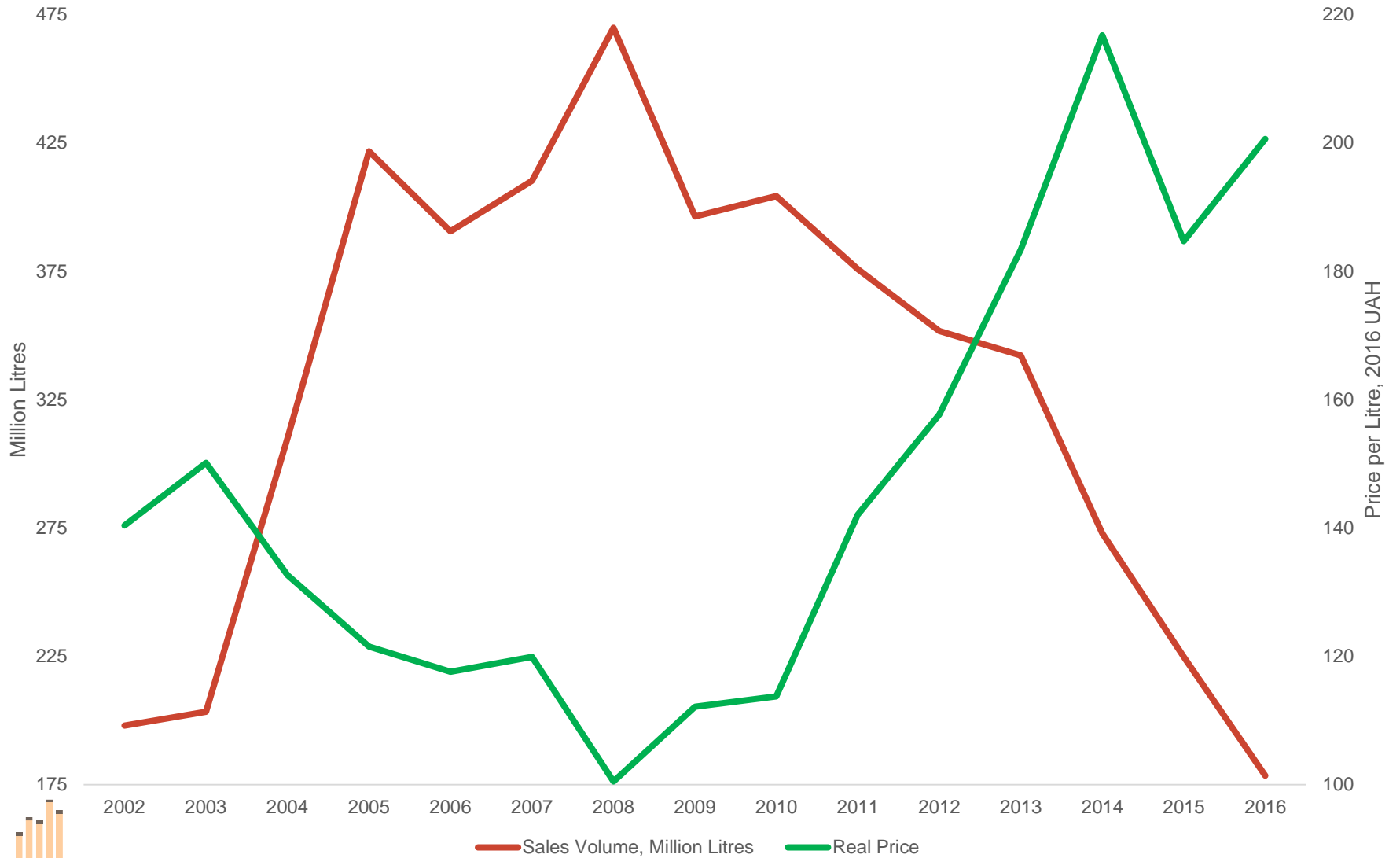


Who Pays & Who Benefits Turkey, 25% Tax Increase

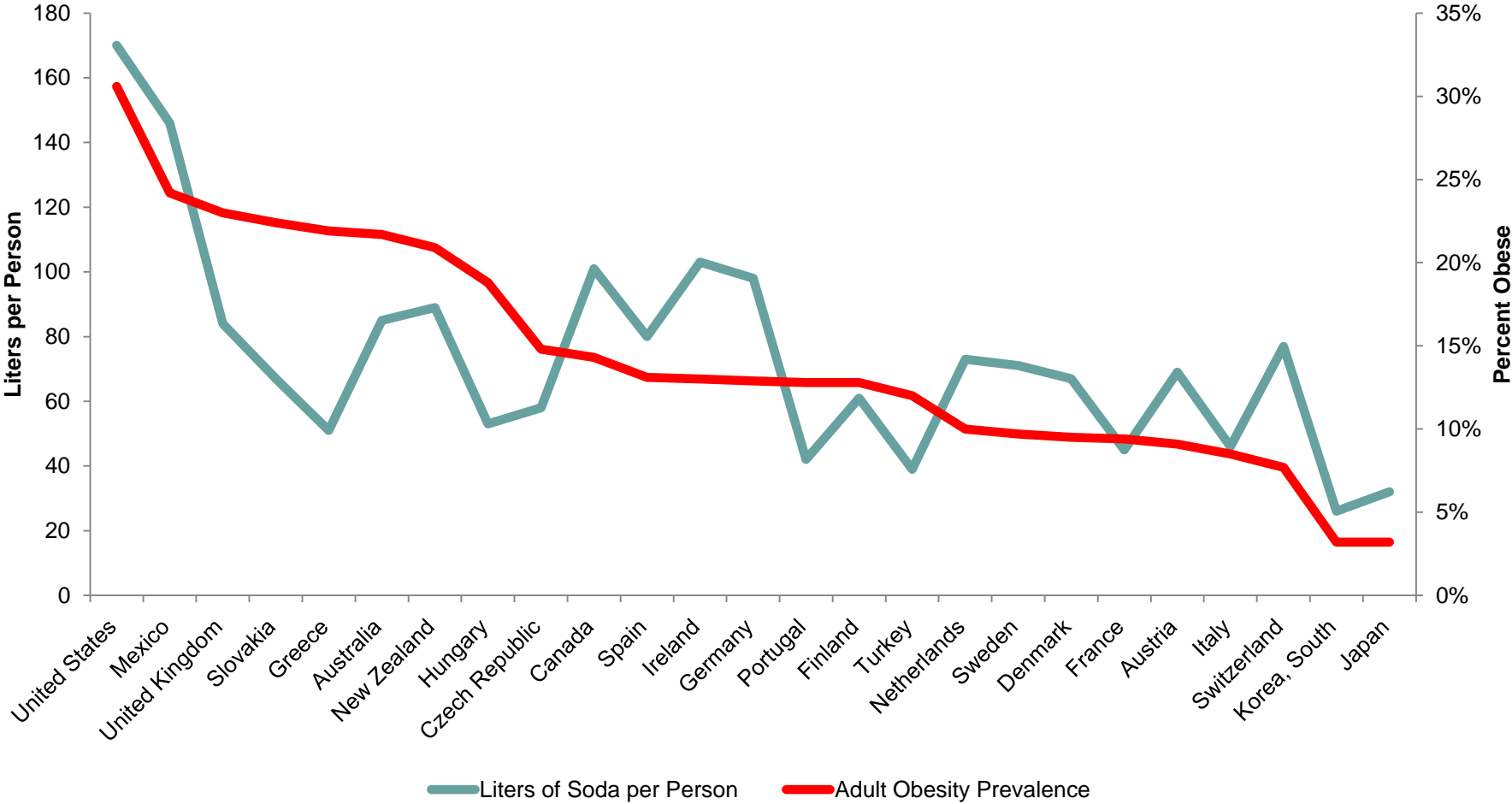


Source: Adapted from Önder & Yürekli, 2014

Distilled Spirits Sales and Prices Ukraine, 2002-2016, Inflation Adjusted



Soda Consumption & Obesity Selected Countries

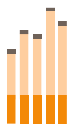
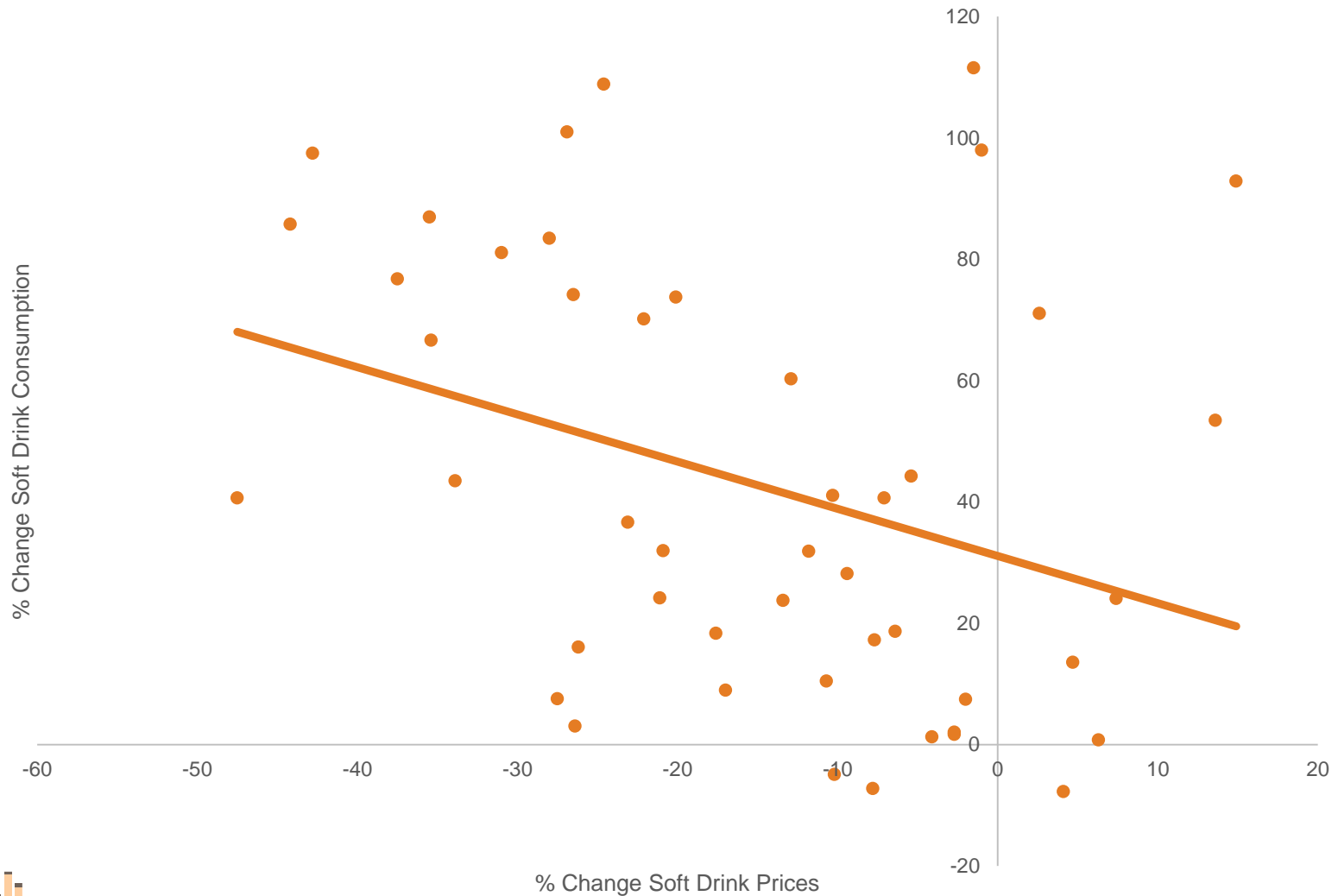


Source: Soda consumption from Euromonitor, 2011; Obesity prevalence from OECD Health Data, 2005



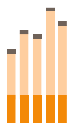
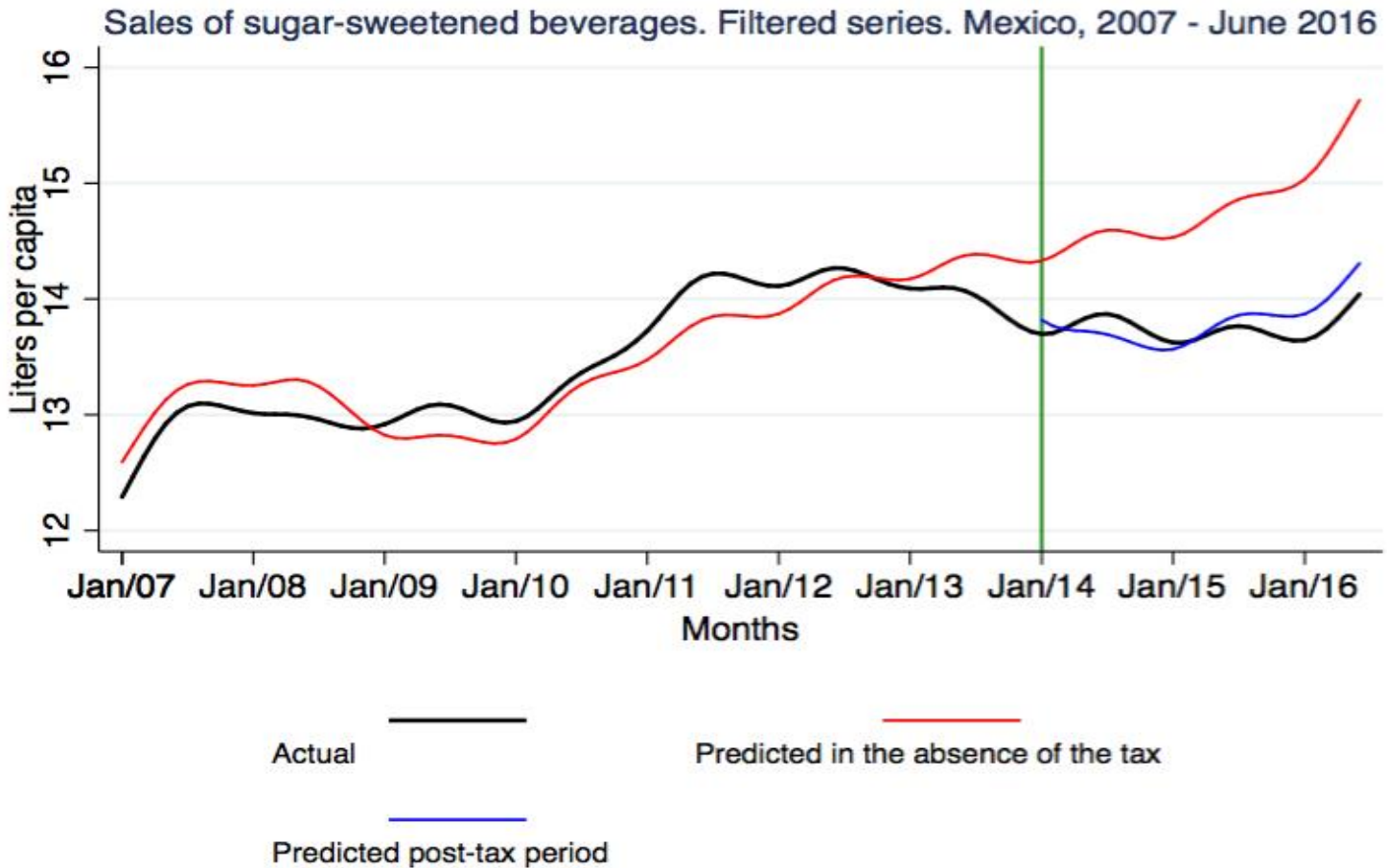
Soft Drink Prices & Consumption

Percentage Change, 2000-2014, Selected Countries



Source: Euromonitor, 2015, and author's calculations

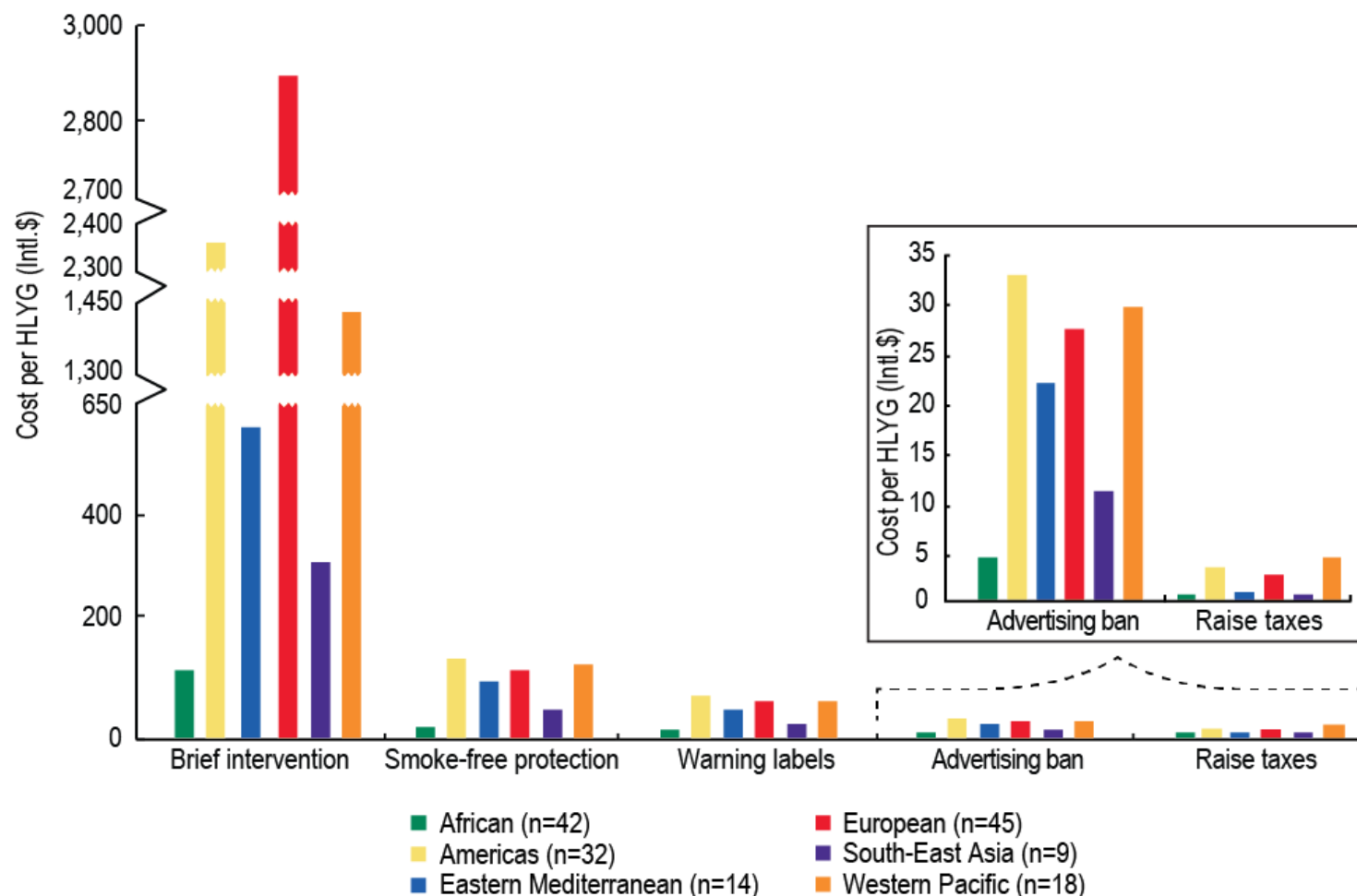
Impact of Sugary Drink Tax on Sales Mexico, 2007-2016



Colchero MA, Guerrero Lopez C, Molina M, Rivera J . Beverage sales in Mexico before and after implementation of a sugar sweetened beverages tax. 2016. PLoS ONE. 11(9).

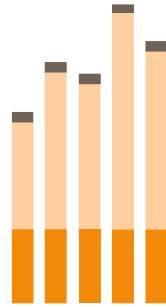
Changes in sales of sugar-sweetened beverages in Mexico before (2007-2013) and after the tax (2014-2016): <https://www.insp.mx/epppo/blog/4278-changes-sales-beverages.html>

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



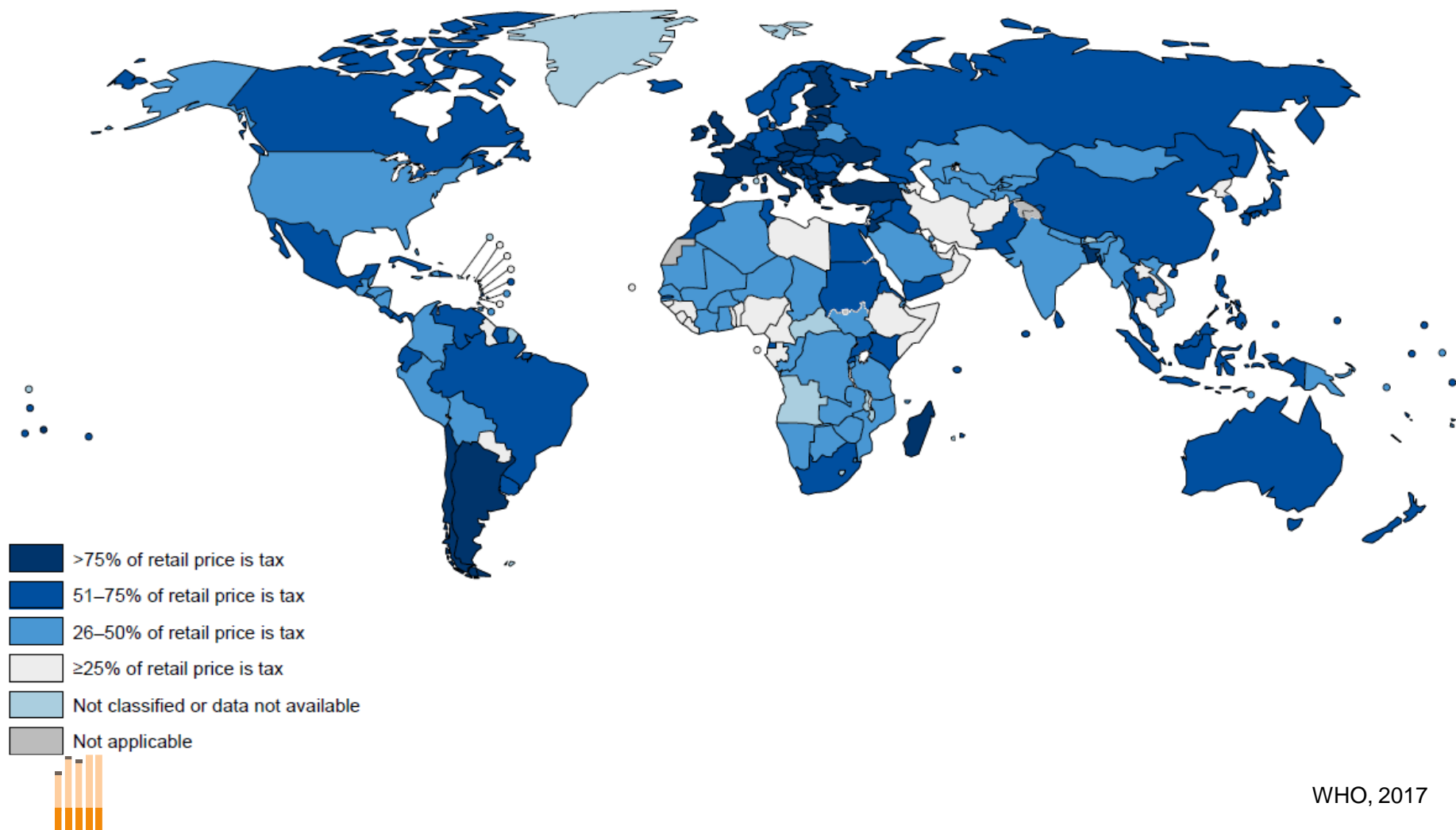
Note: HLYG = healthy life-year gained.

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

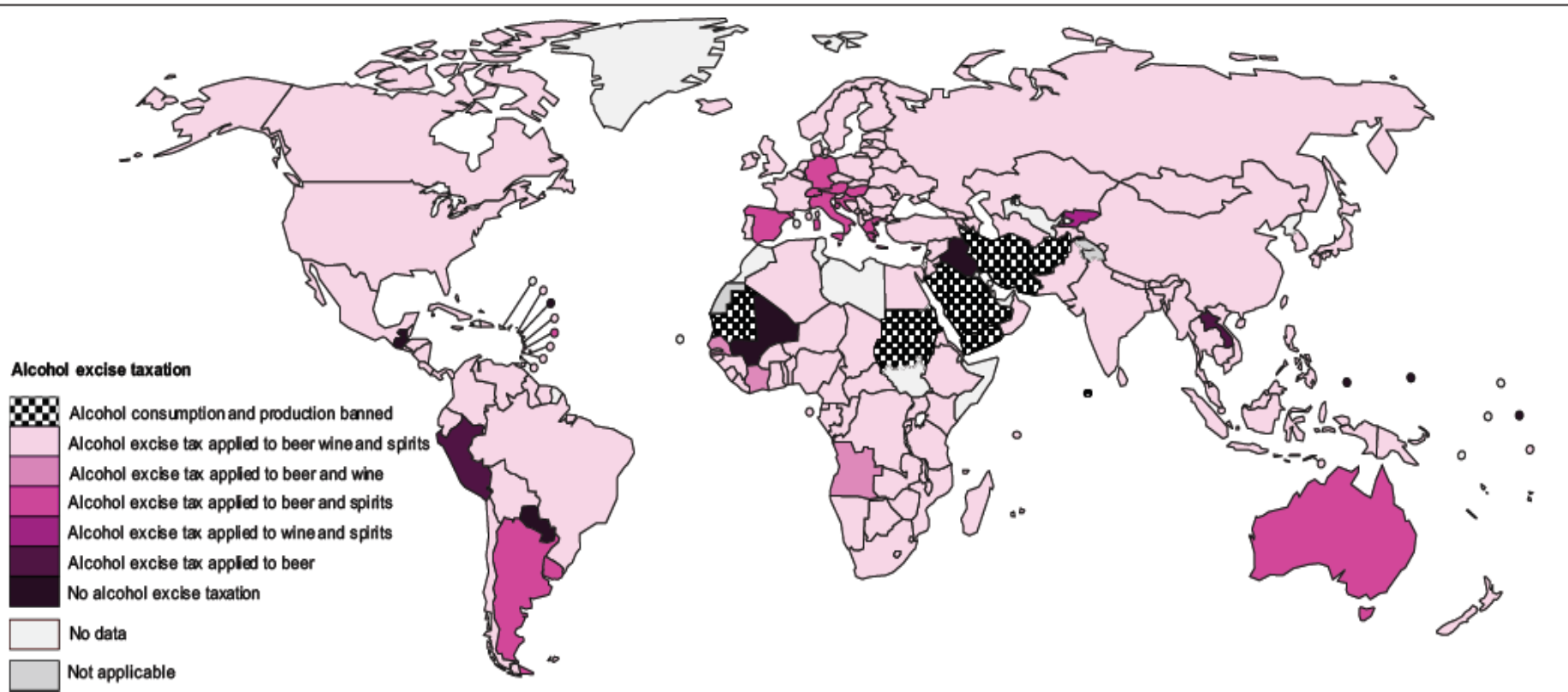


Tobacco, Alcohol & Sugary Drink Taxes

Cigarette Taxes as Percent of Retail Price July 2016



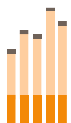
Alcoholic Beverage Excise Taxes by Beverage Type



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country territory city or area or of its authorities or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.






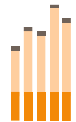
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Sugary Drink Taxes, August 2016

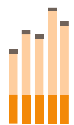
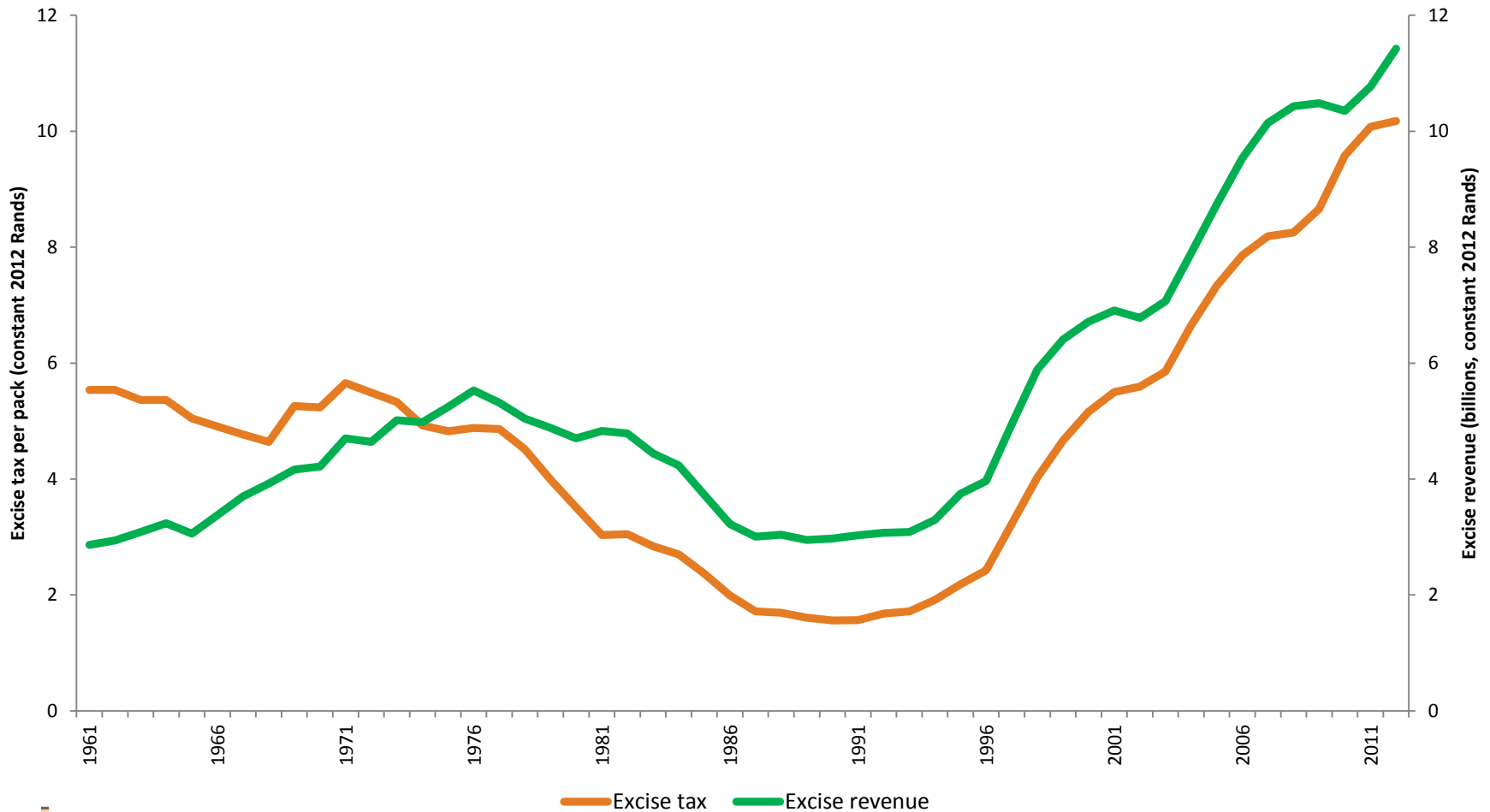
A Look at Some of the World's Anti-Soda Efforts

-  Countries and cities currently levying an SSB tax or have passed one.
-  Countries and cities where lawmakers are considering an SSB tax.
-  States and cities that have made or are making efforts to require some kind of health-warning label for SSBs.



Taxes & Tax Revenues, South Africa

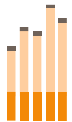
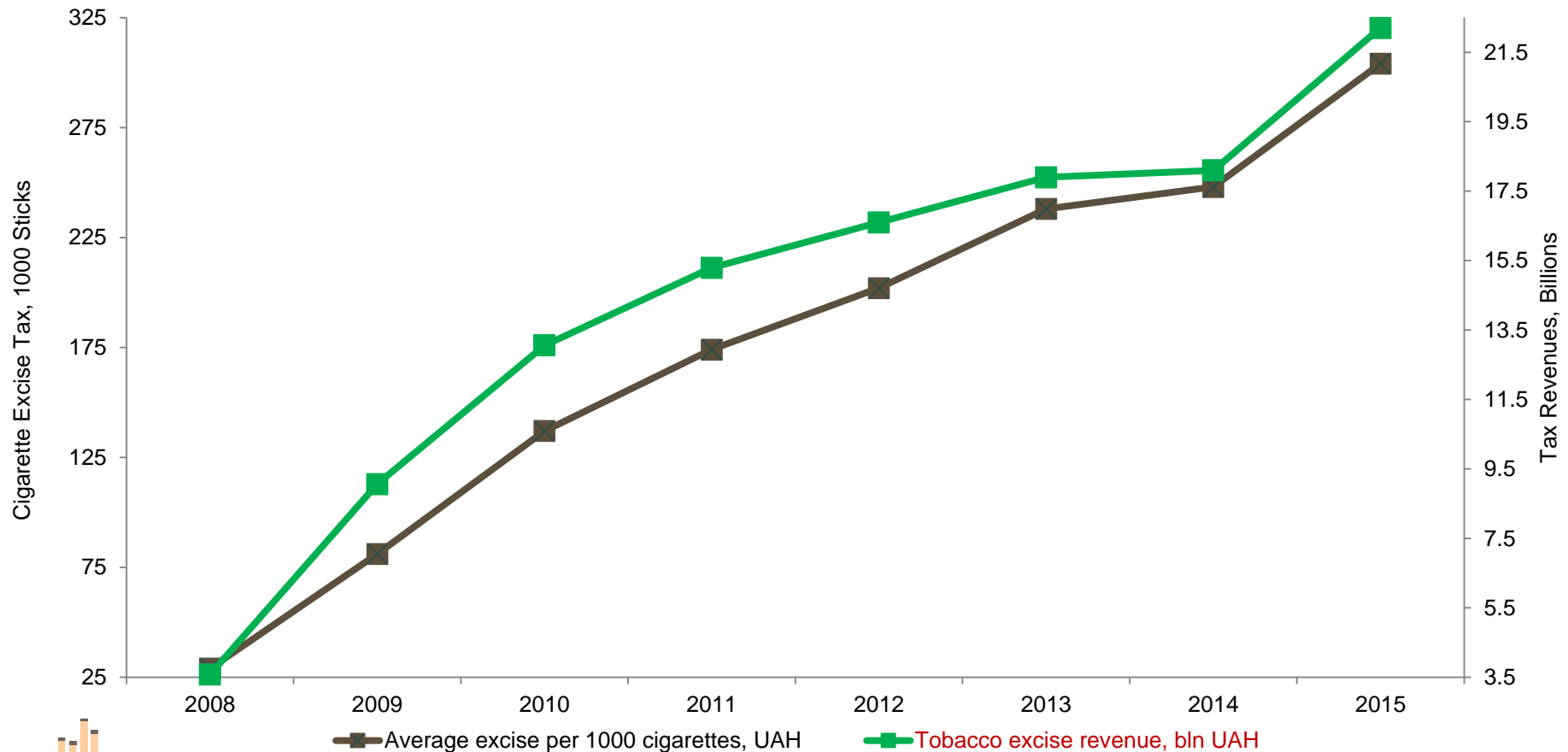
Excise Tax per Pack and Excise Tax Revenue
South Africa, Inflation Adjusted, 1961-2012



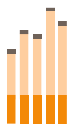
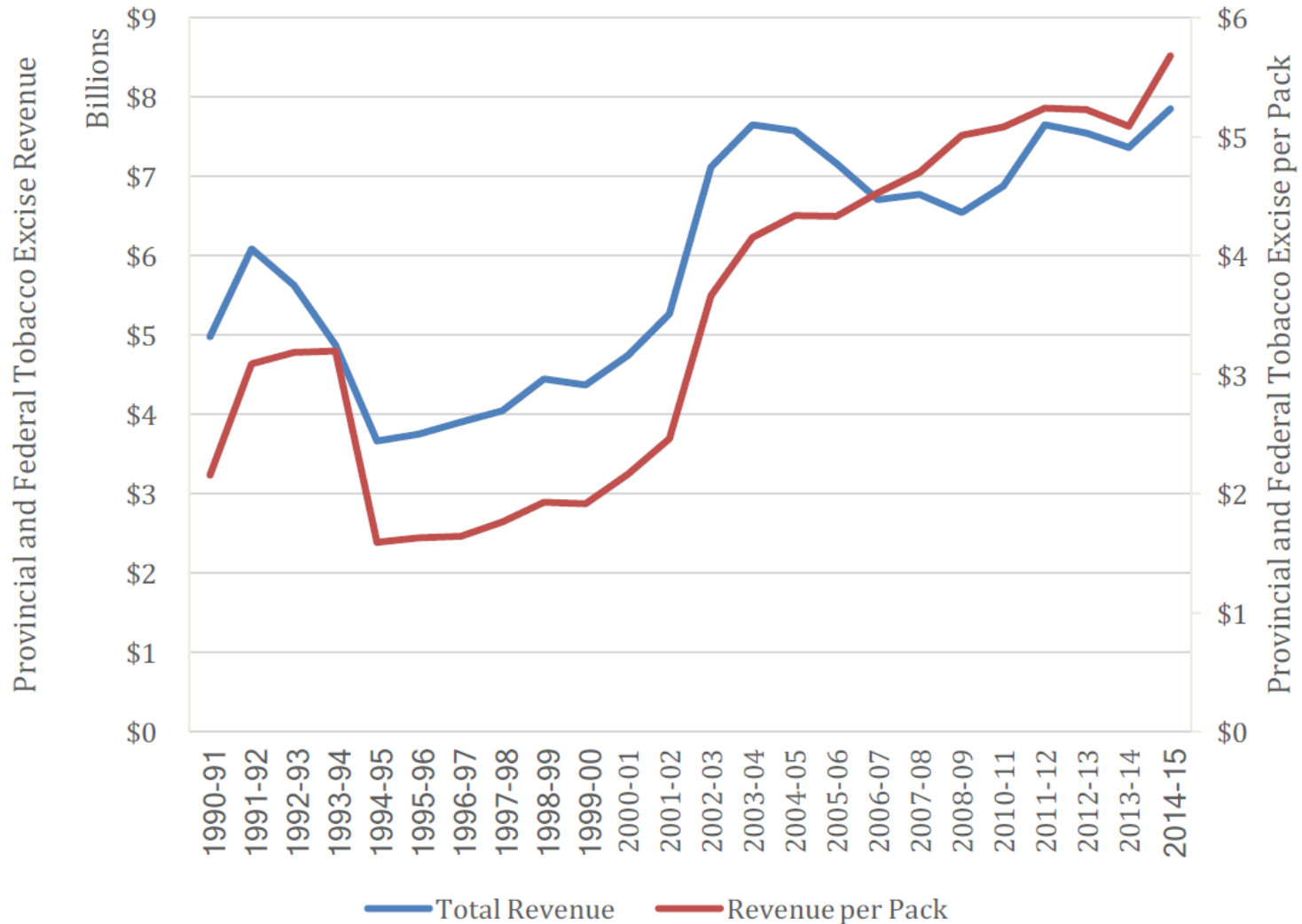
Sources: Blecher & Van Walbeek, 2014

Cigarette Tax and Tax Revenues Ukraine: 2008-2015

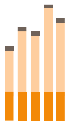
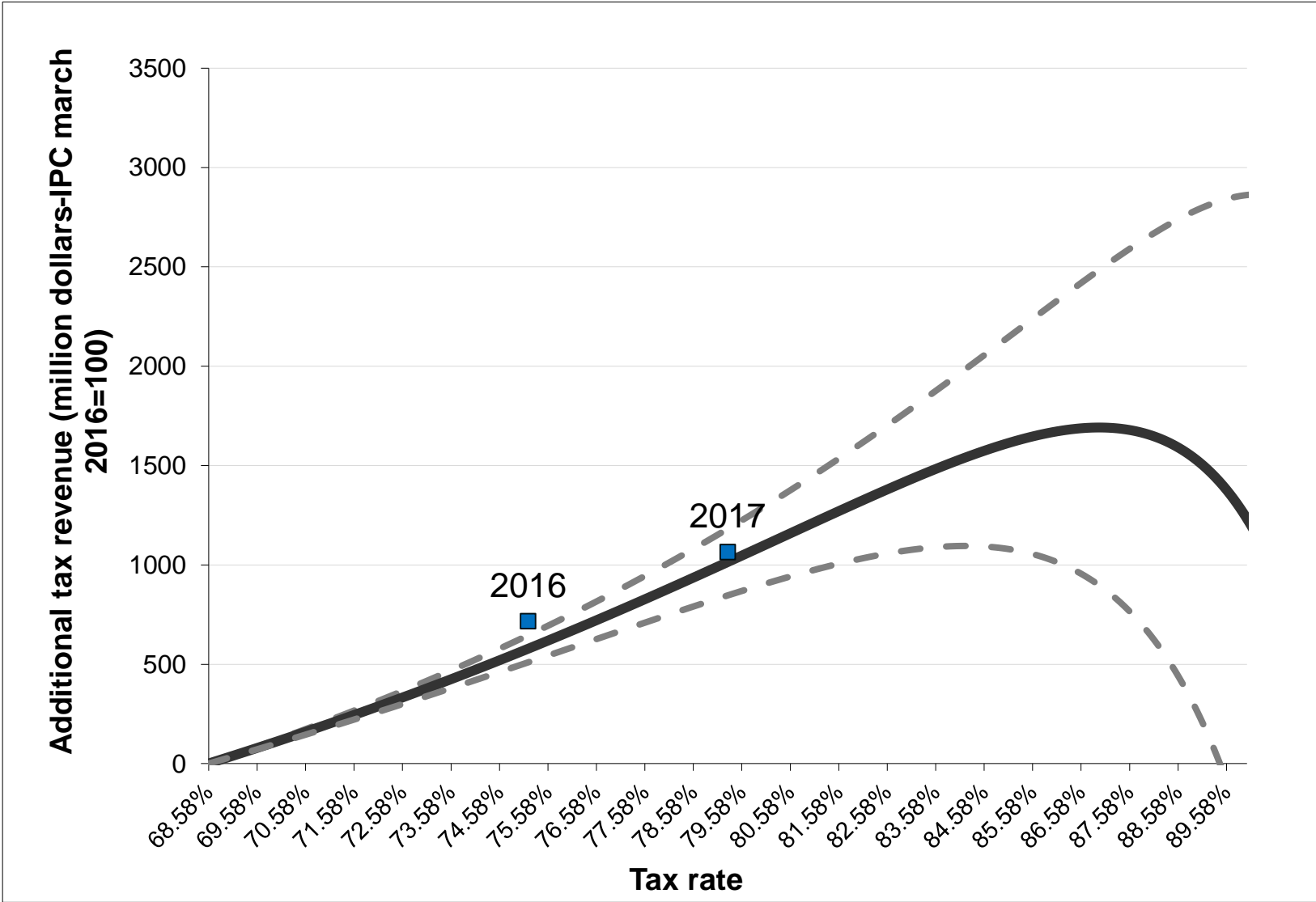
Average excise rate for cigarettes – increased 10-fold
Cigarette Tax Revenue – increased 6-fold



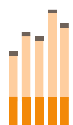
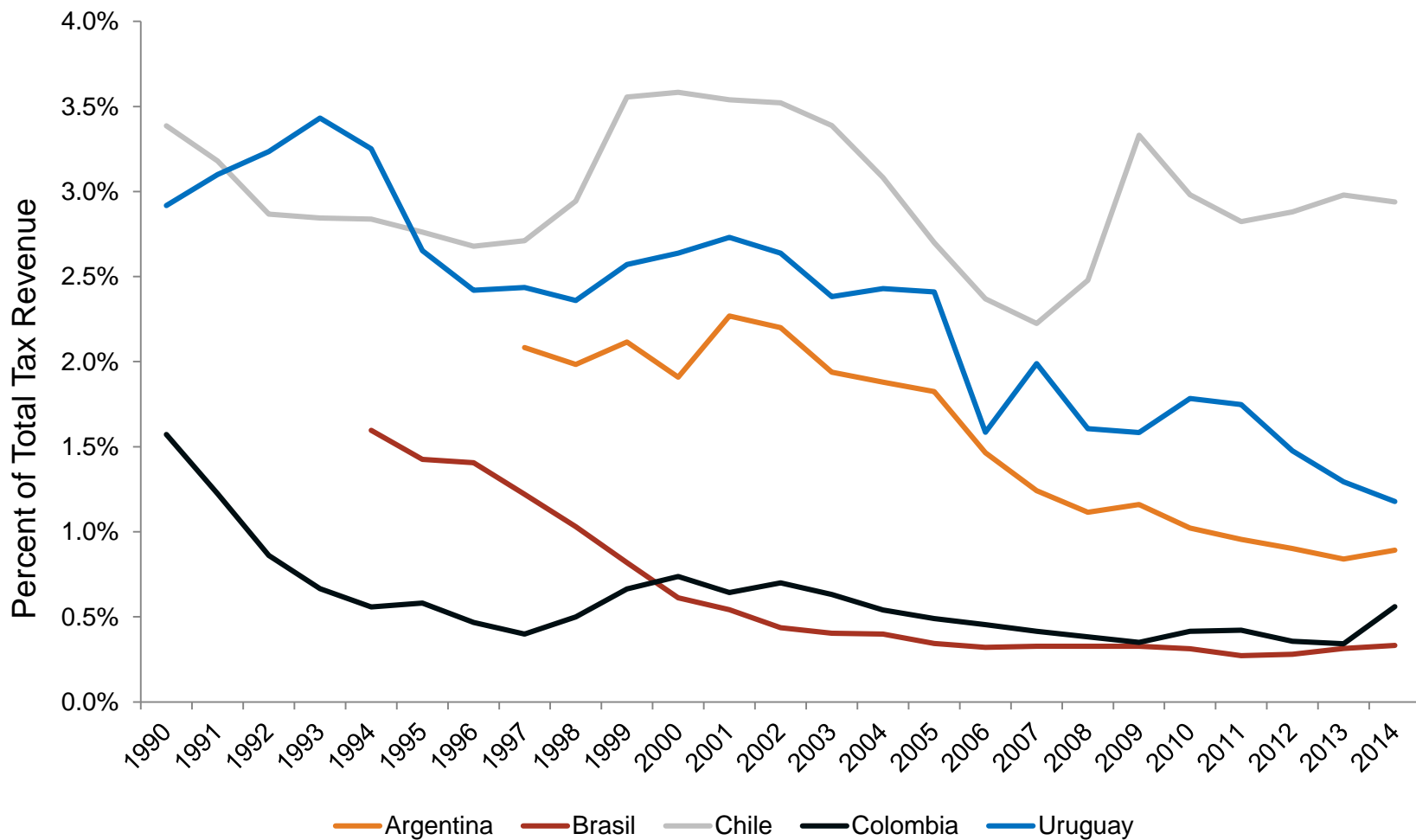
Taxes and Tax Revenues Canada, 1990/91-2014/15



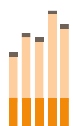
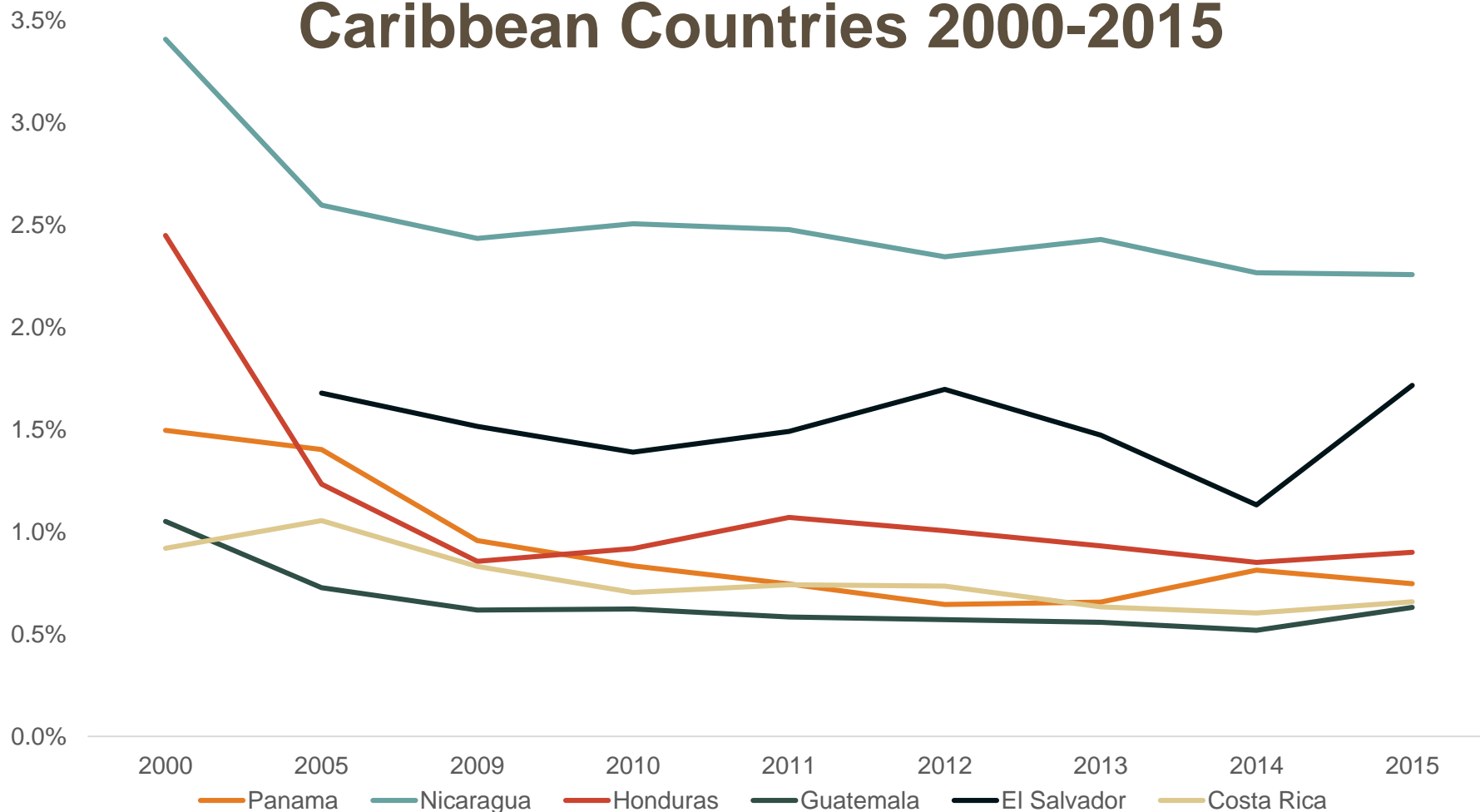
The Laffer Curve – Argentina



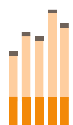
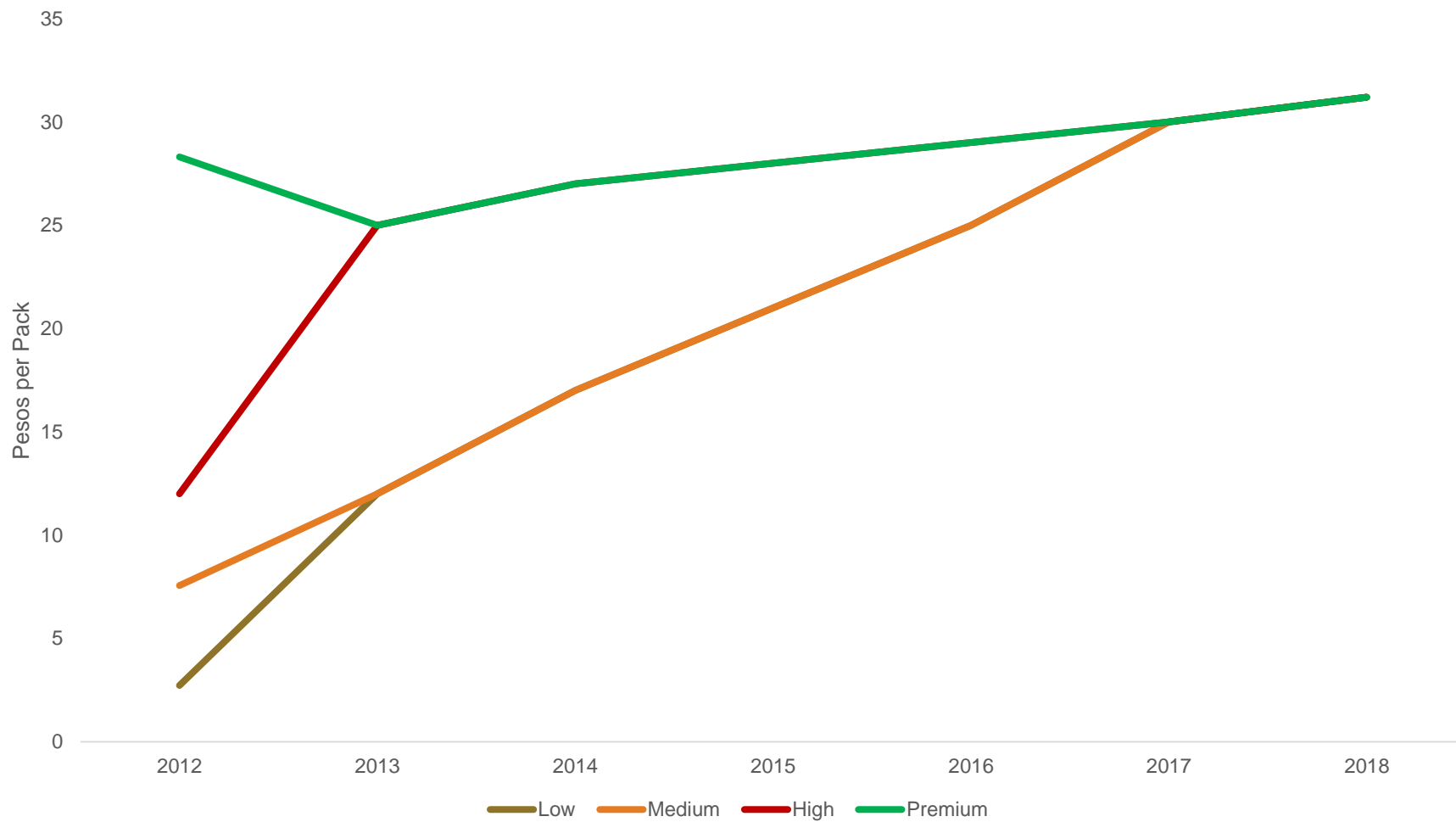
Tobacco tax revenue as a percentage of Total tax revenues – South America 1990-2014



Alcohol tax revenue as a percentage of total tax revenues – Selected Central American & Caribbean Countries 2000-2015

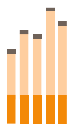


Cigarette Excise Tax per Pack Philippines, 2012-2018



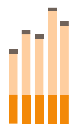
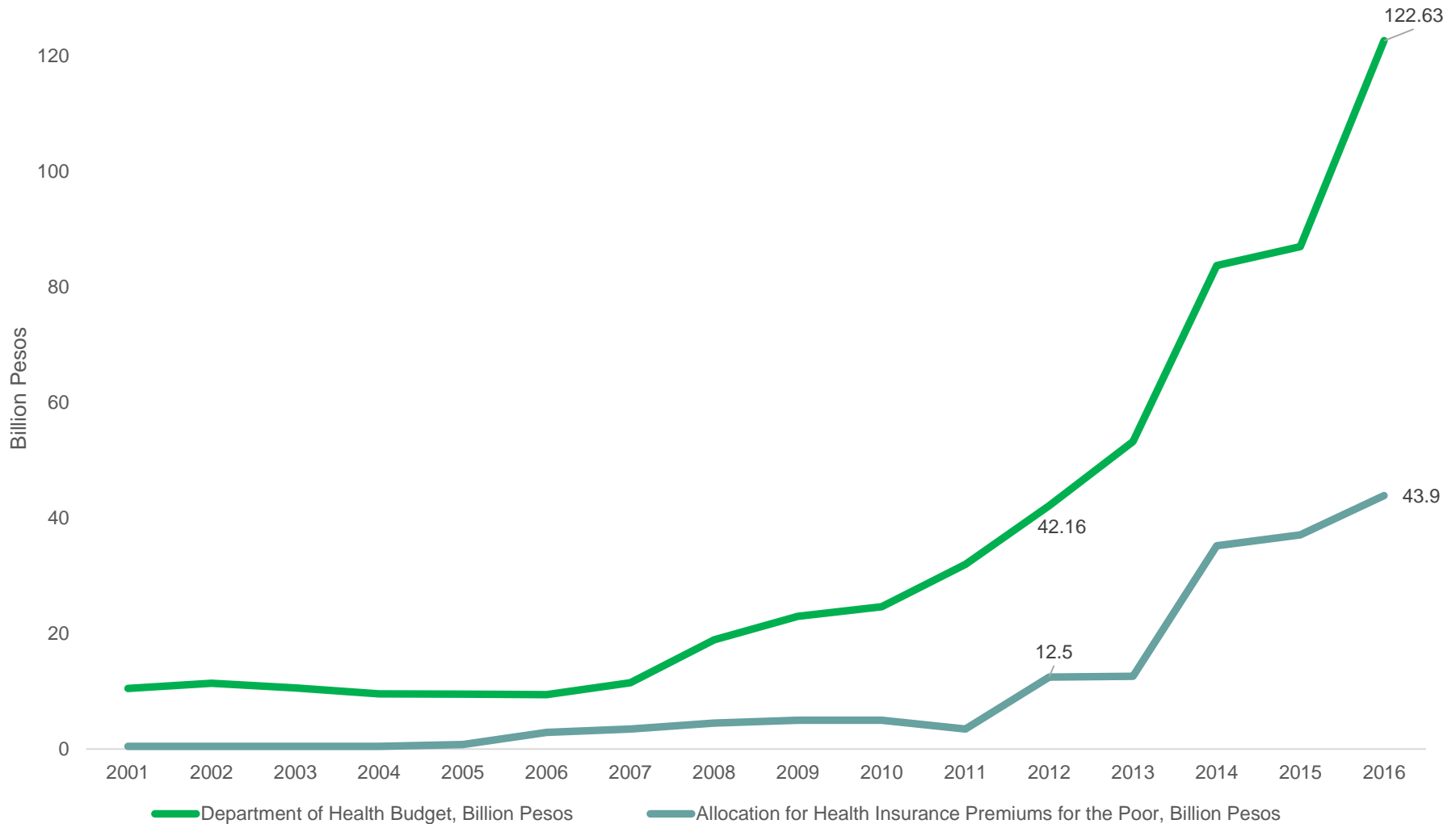
Cigarette Sales and Prices

Philippines, 2002-2016, Inflation Adjusted



Sources: Euromonitor, World Bank, and Authors' Calculations

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



The Case of the Philippines: Benefits to the Economy



Increased fiscal space created by higher tobacco taxes helped to attain investment grade status, which lessens the cost of borrowing

MOODY'S	Investment Grade Baa3 Positive (Oct. 3, 2013); Upgraded to Baa2 Stable (Dec. 11, 2014)
FITCH RATINGS	Investment Grade BBB- Stable (March 27, 2013); Affirmation (March 25, 2014); Upgraded to BBB- Positive (Sept 24, 2015)
STANDARD & POOR'S	Investment Grade BBB-/Stable (May 2, 2013) Upgraded to BBB /Stable (May 8, 2014) Affirmation (April 24, 2015)
JAPAN CREDIT RATING AGENCY (JCRA)	Investment Grade BBB/Stable (May 7, 2013); Affirmation (May 30, 2014); Upgraded to BBB+ /Stable (July 6, 2015)
RATING & INVESTMENT (R&I) INFORMATION, INC.	Investment Grade BBB/Stable (July 9, 2014); Affirmation (July 20, 2015)



Tobacco Taxes and Revenues

- The Addis Ababa Action Agenda states:

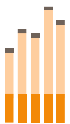
“... price and tax measures on tobacco can be an effective and important means to reduce tobacco consumption and health-care costs, and represent a revenue stream for financing development in many countries”

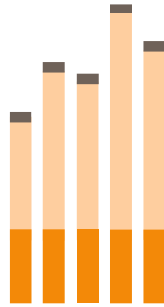


**FINANCING FOR
DEVELOPMENT**

13-16 JULY 2015 • ADDIS ABABA • ETHIOPIA

TIME FOR GLOBAL ACTION

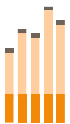




Summary

Conclusions

- Higher tobacco and alcohol taxes, new sugary beverage taxes significantly reduce consumption
- Reduced consumption leads to fewer NCDs, less spending on health care, increased productivity, and improved development
- At the same time, tax increases/new taxes will generate significant new revenues in short to medium term



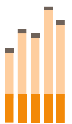
For more information:

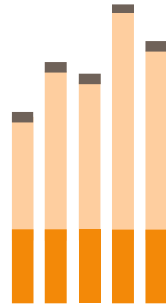
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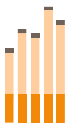


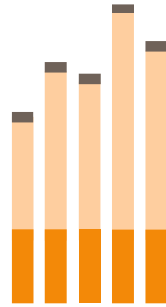


Extra Slides

Common Oppositional Arguments

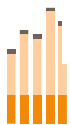
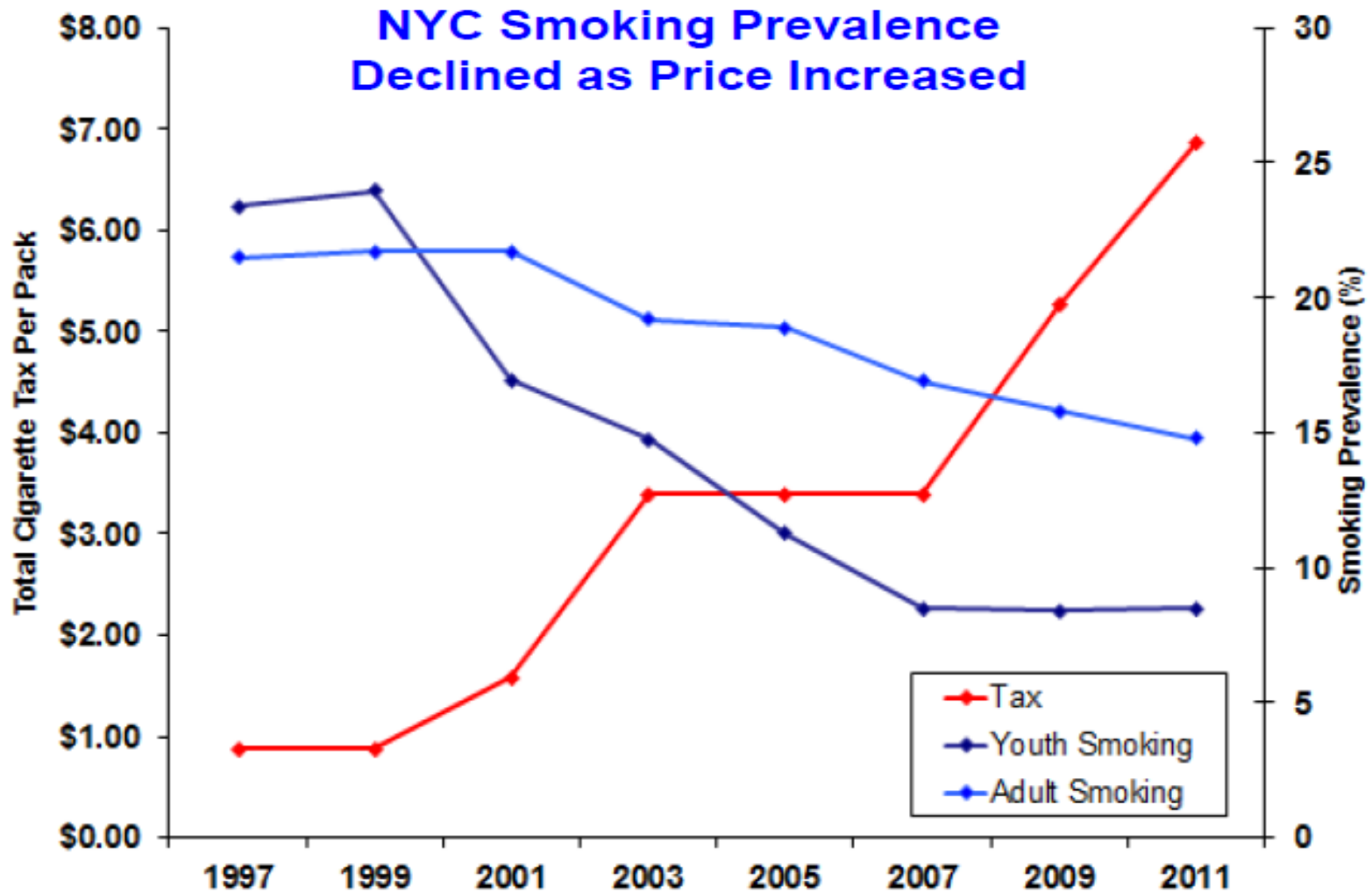
- Industries and allies use several common arguments in opposition to tax increases:
 - Won't have the intended impact in terms of reducing use and consequences
 - Will lead to extensive tax avoidance and tax evasion
 - Will harm poor and working class consumers
 - Will lead to massive job losses





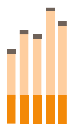
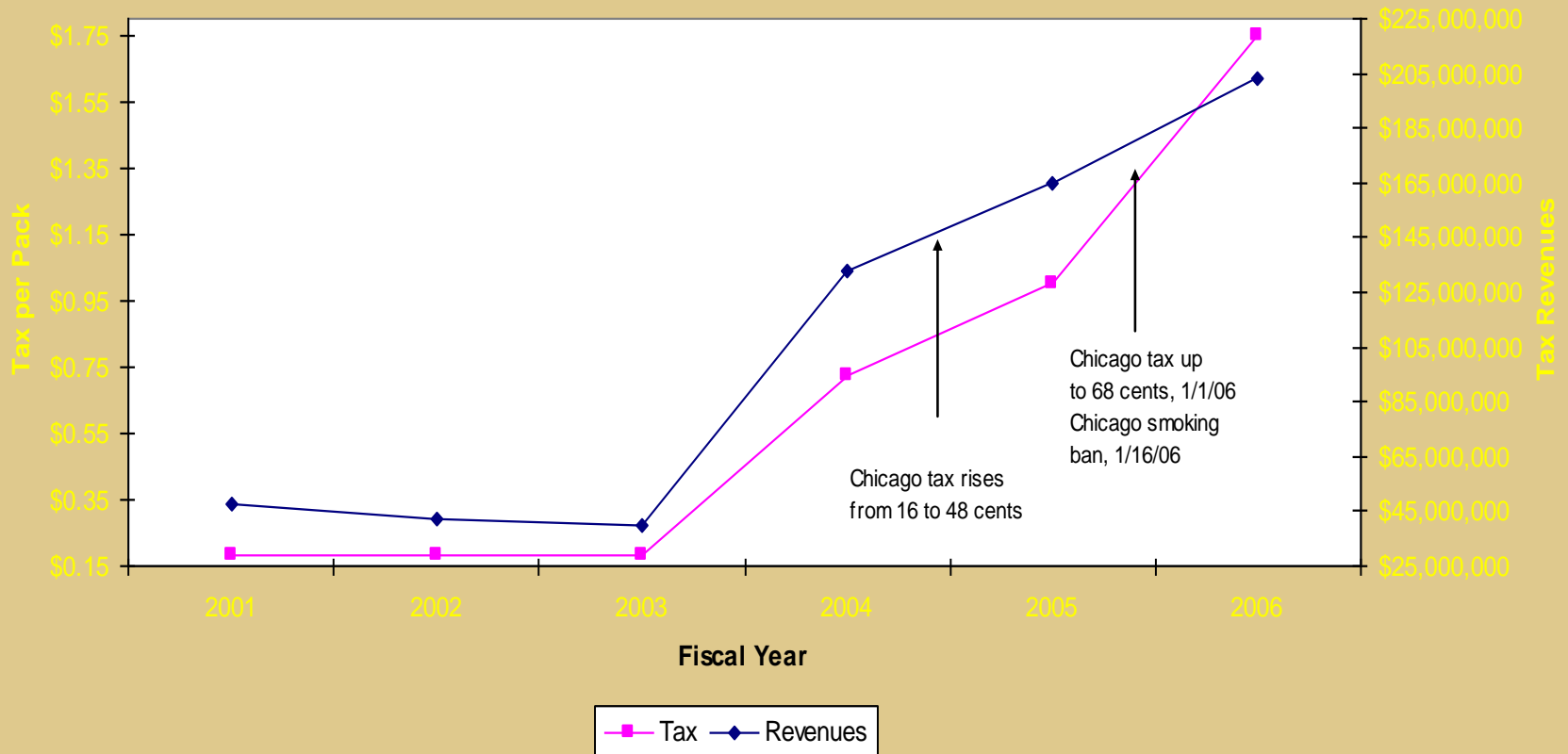
Tax Avoidance & Evasion

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

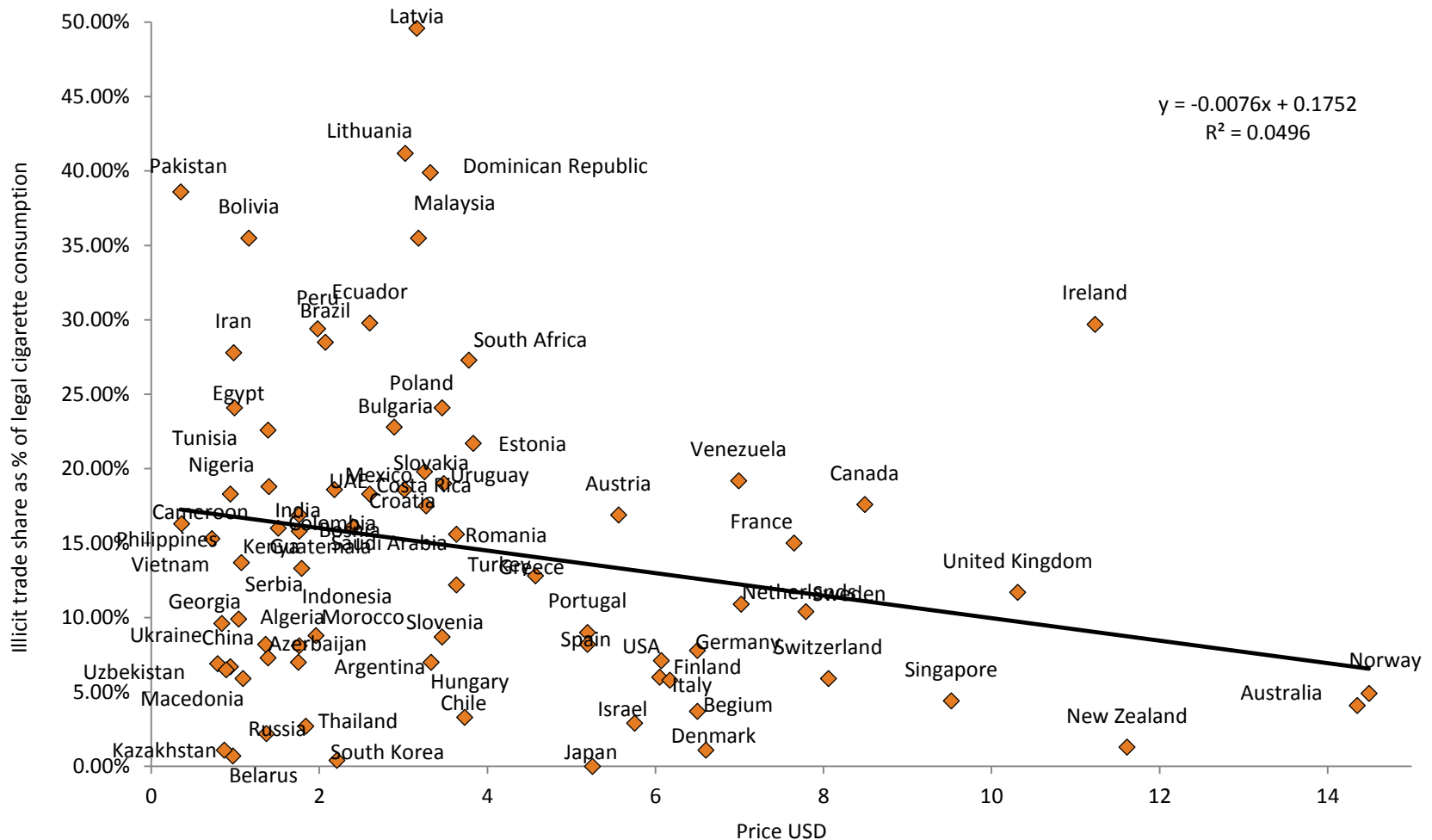


Tax Avoidance & Evasion Do NOT Eliminate Revenue Impact of Higher Taxes

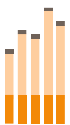
Cook County Cigarette Tax and Tax Revenues - FY01-FY06



Illicit Cigarette Market Share & Cigarette Prices, 2012



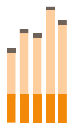
Sources: Euromonitor, WHO



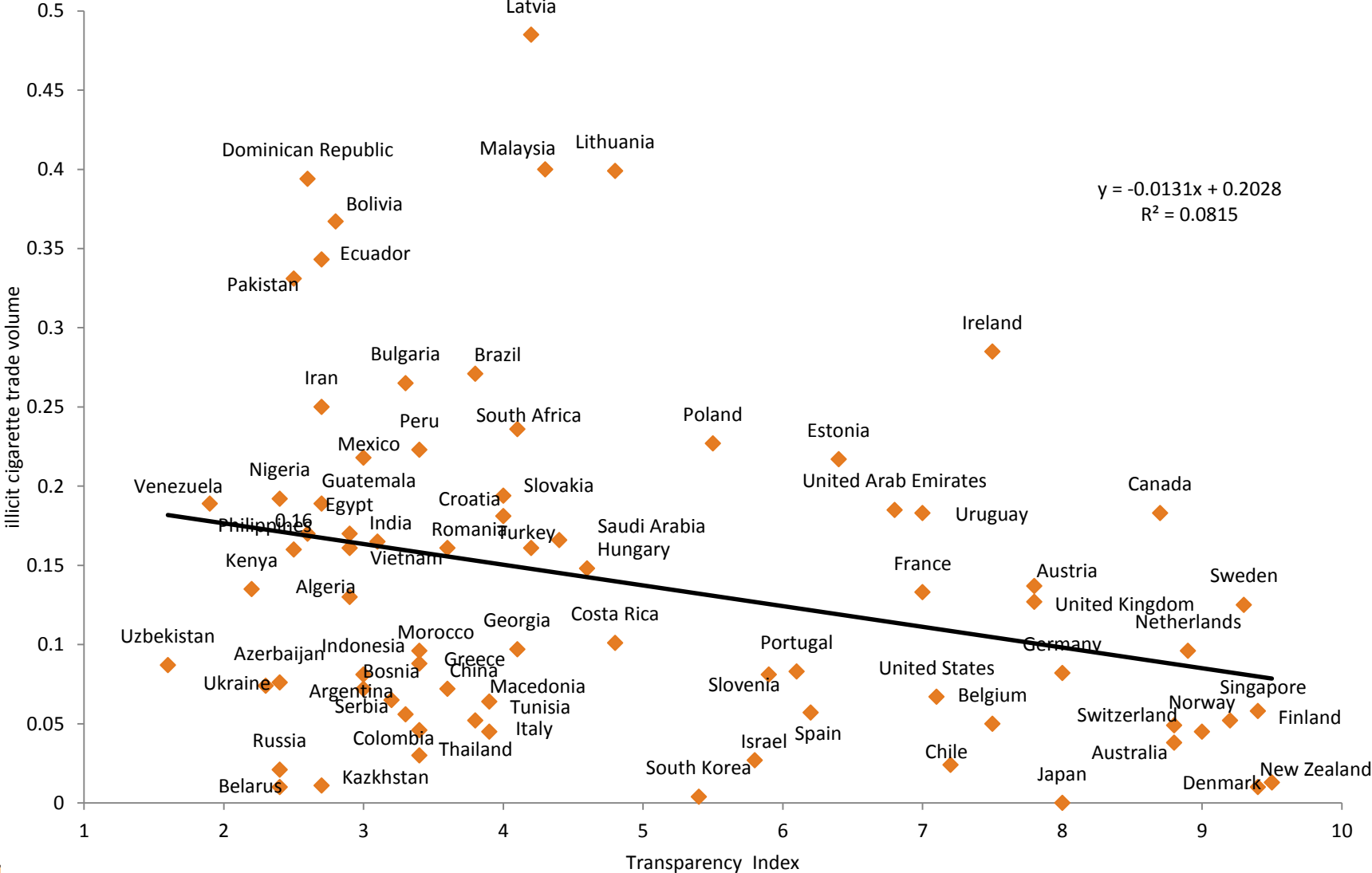
Drivers of Illicit Tobacco

- 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



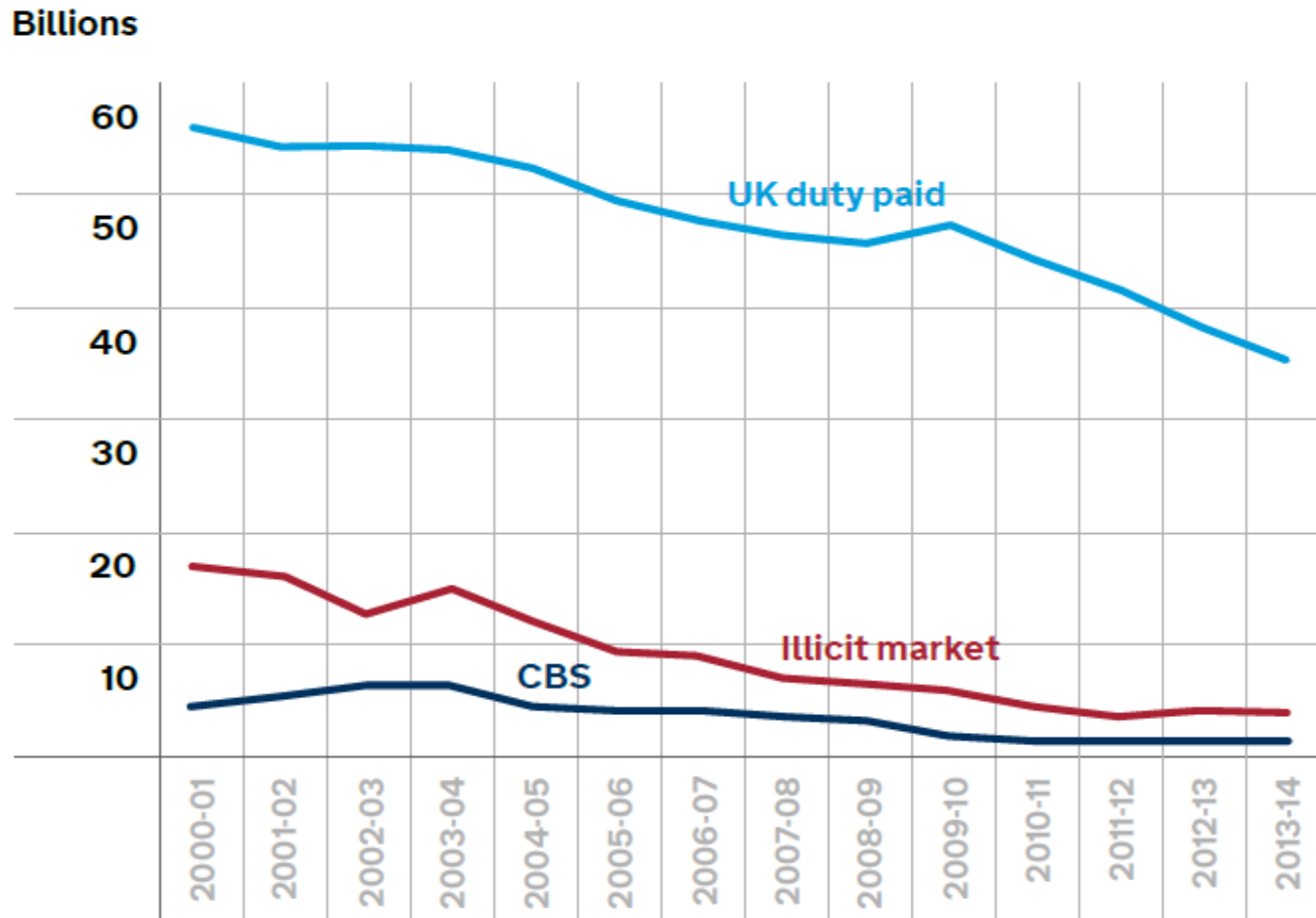
Smuggling and Corruption, 2011



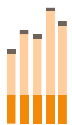
Sources: Euromonitor, Transparency International



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

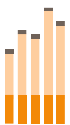


Source: HM Revenue & Customs, 2014



Combating Illicit Tobacco Trade

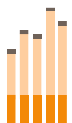
- Illicit trade protocol to the WHO FCTC
 - Adopted November 2012; currently in process of being signed/ratified; provisions calling for:
 - Strong tax administration
 - Prominent, high-tech tax stamps and other pack markings
 - Licensing of manufacturers, exporters, distributors, retailers
 - Export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



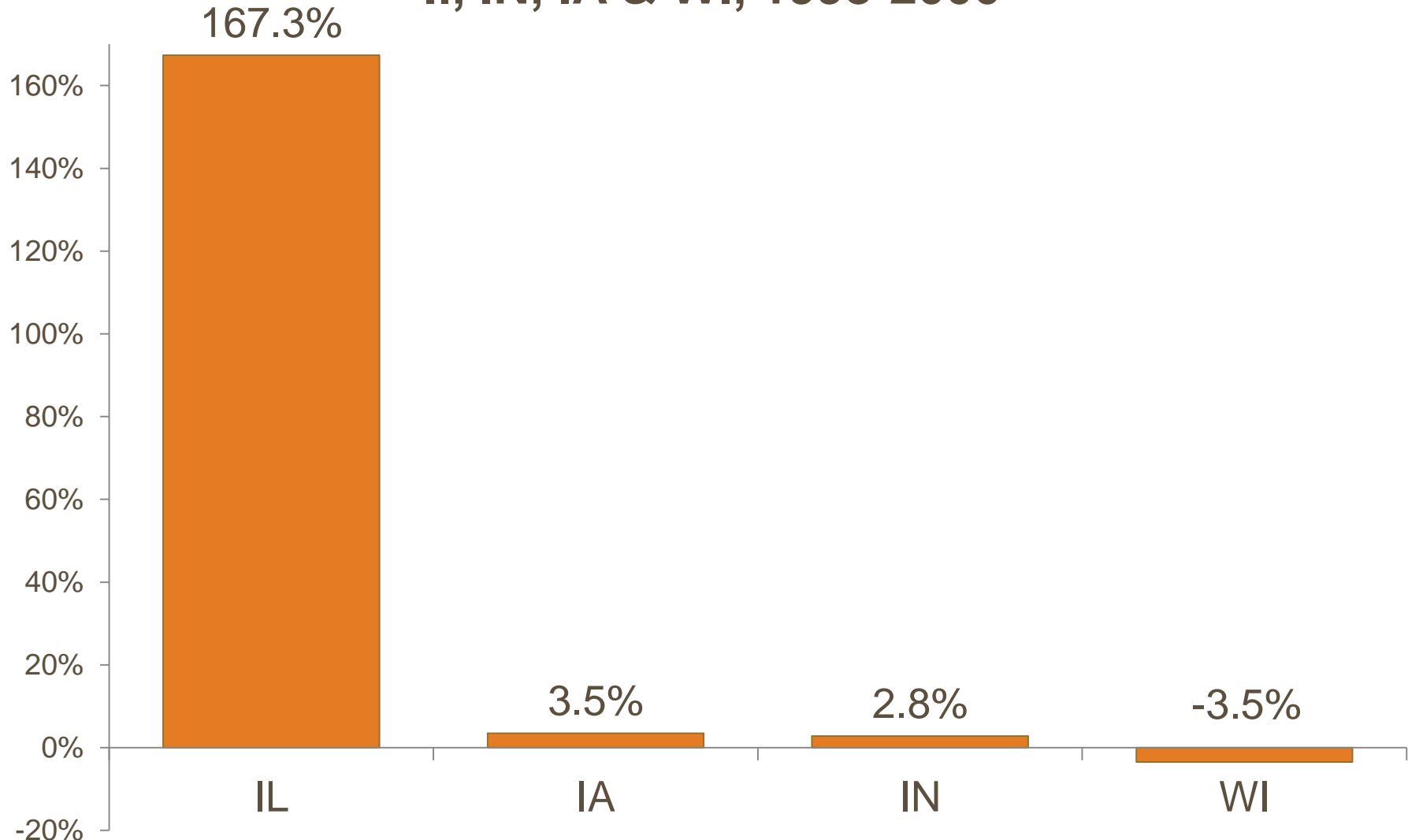
Beverage Tax Avoidance & Evasion

Little evidence of significant tax avoidance & evasion

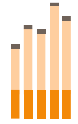
- low taxes relative to prices
- costly to avoid/evade taxes
- Illinois – recent experiences with beer taxes
 - IL – raised tax from 7 cents/gallon to 18.5 cents/gallon, August 1999; again to 23.1 cents/gallon September 2009
 - Iowa – 19 cents/gallon throughout
 - Indiana - 11.5 cents/gallon throughout
 - Wisconsin – 6.45 cents/gallon throughout



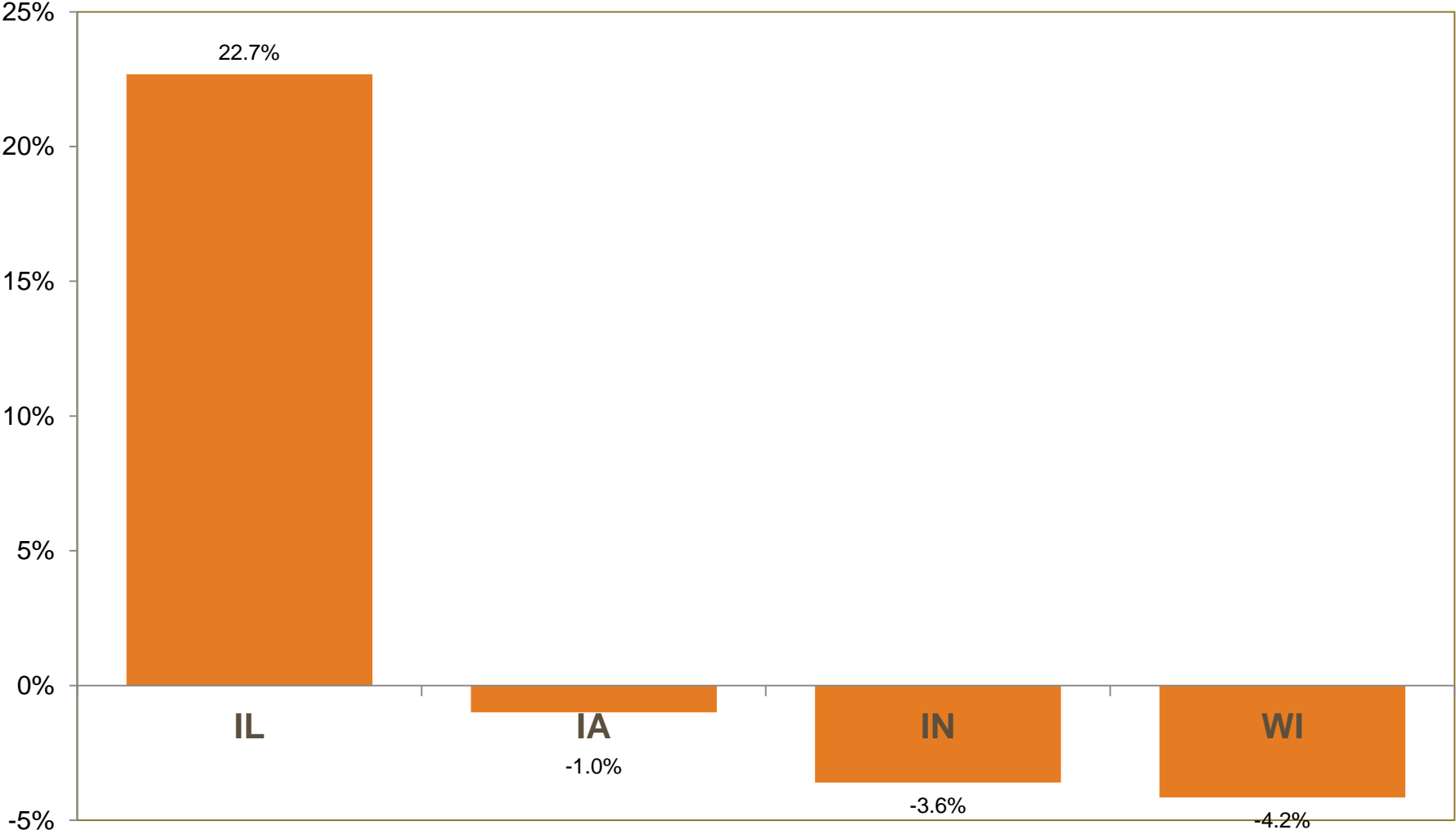
Percent Change in State Beer Taxes Revenues, IL, IN, IA & WI, 1998-2000



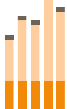
Source: *Brewers' Almanac*, 2013, and author's calculations

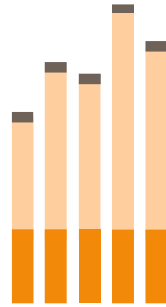


Percent Change in Beer Taxes Revenues IL, IA, IN, WI 2008-2010



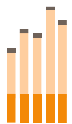
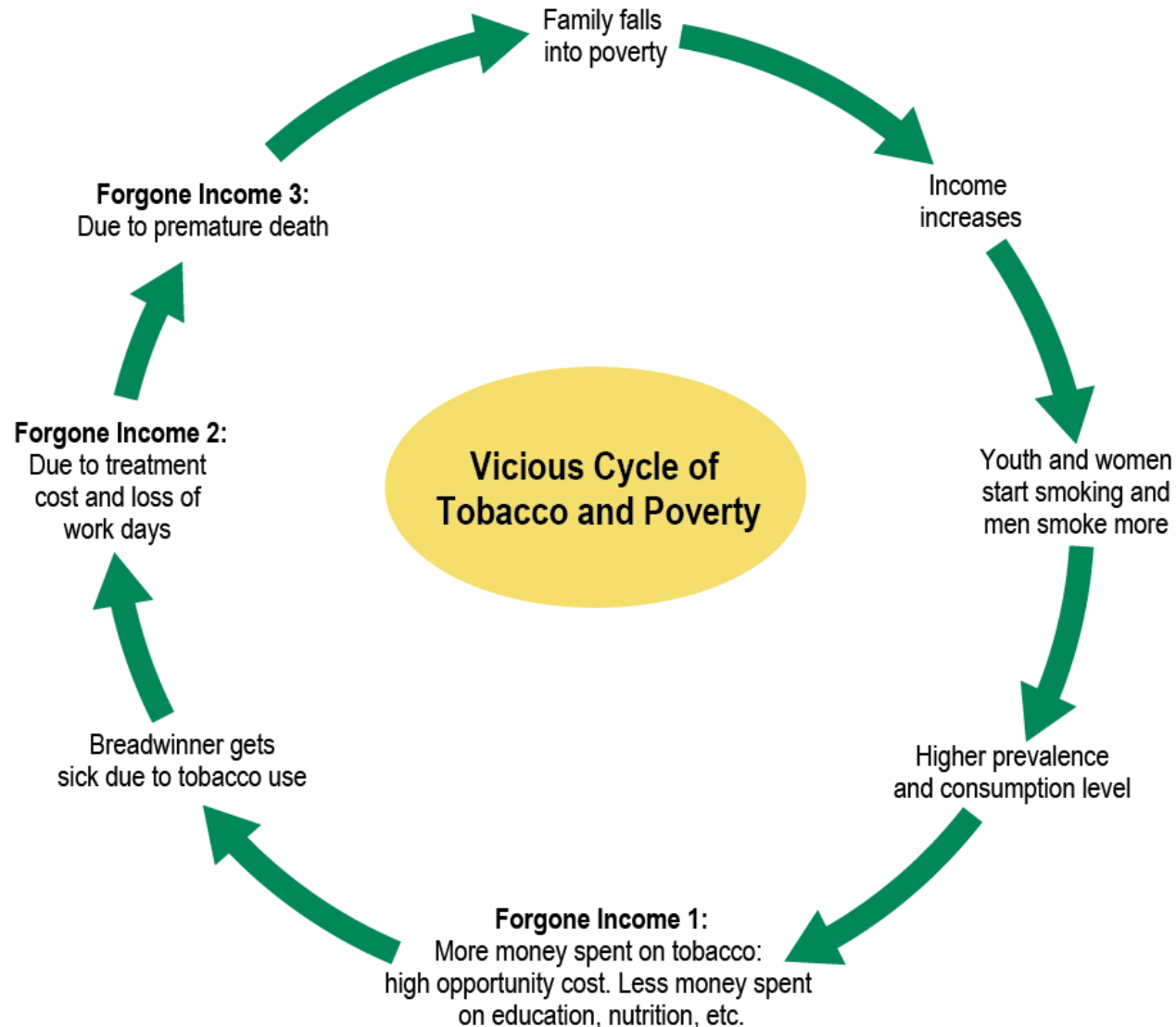
Source: *Brewers' Almanac*, 2013, and author's calculations





Impact on the Poor

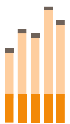
Tobacco & Poverty



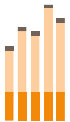
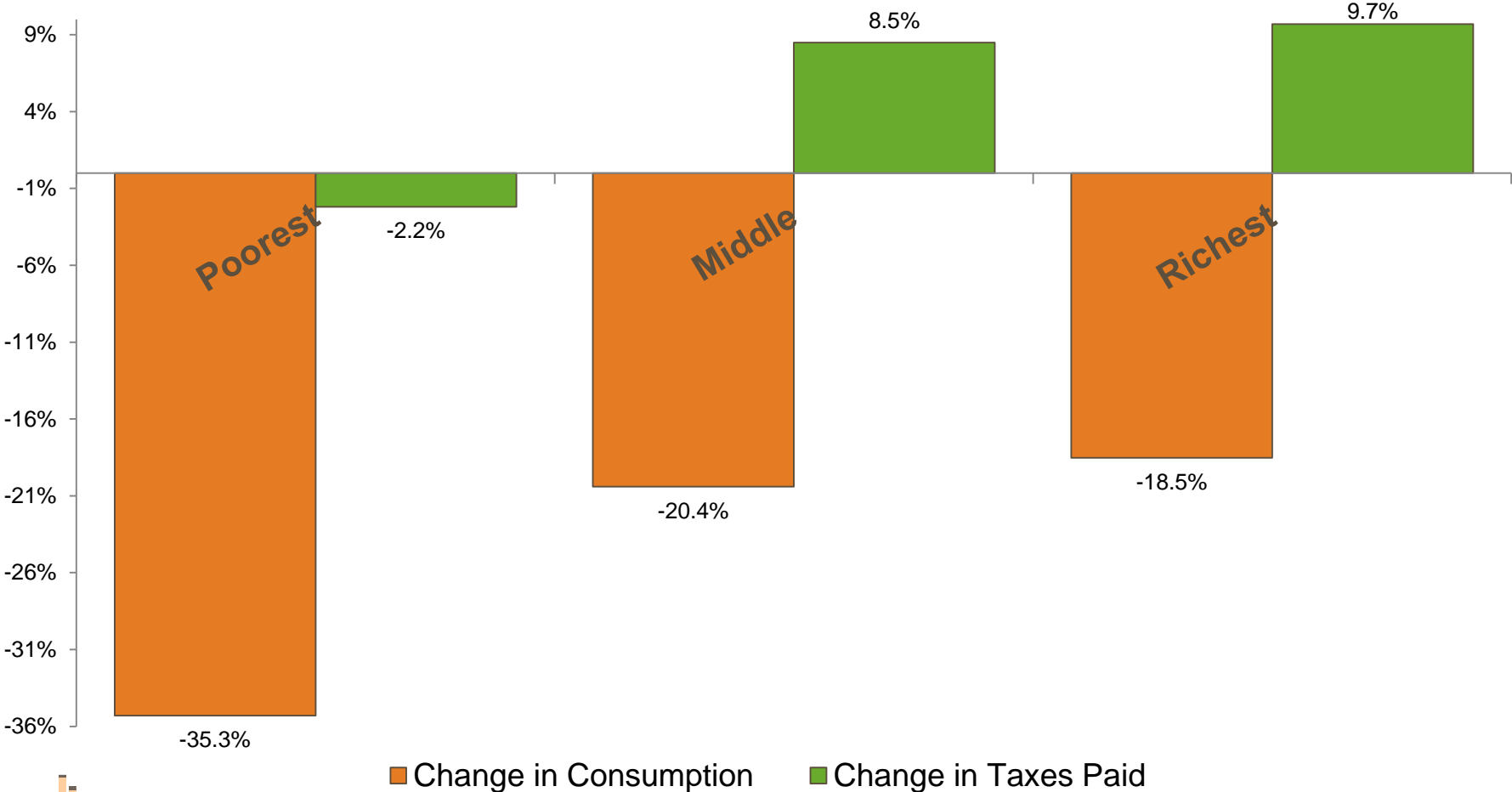
Source: NCI & WHO 2016

Impact on the Poor

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



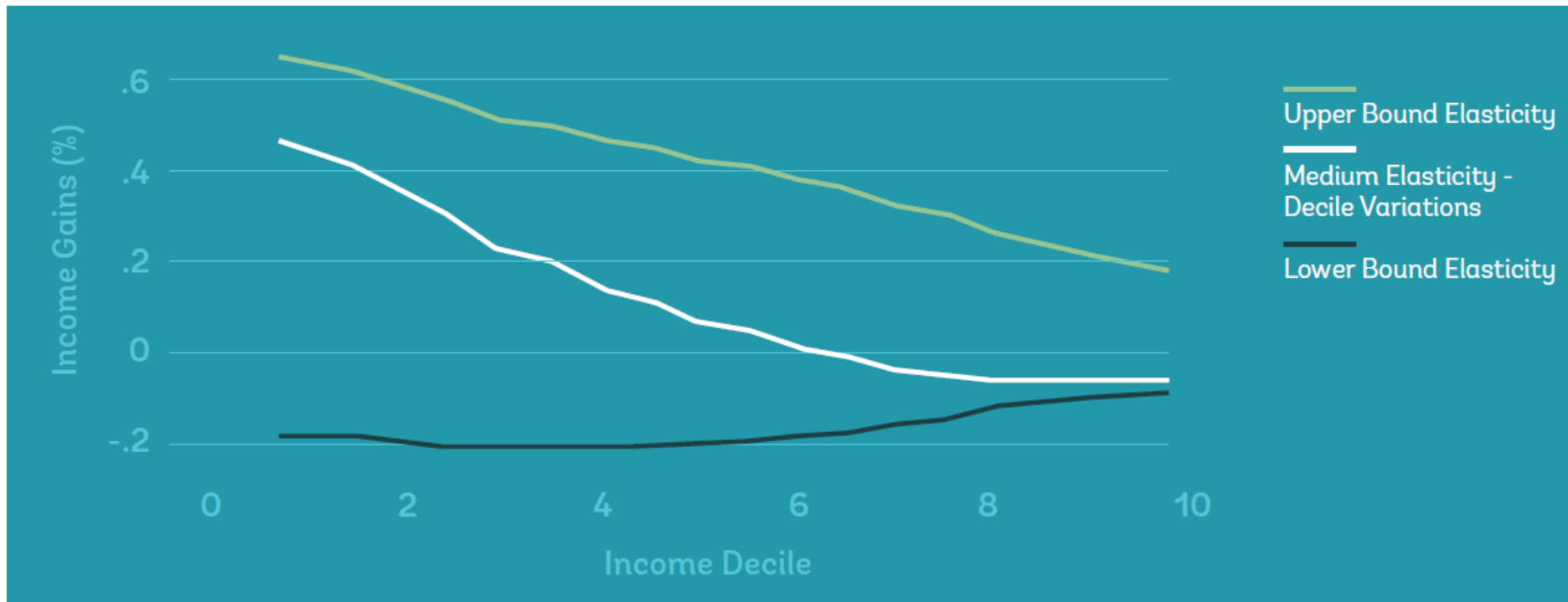
Who Pays & Who Benefits Turkey, 25% Tax Increase



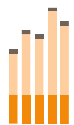
Source: Adapted from Önder & Yürekli, 2014

Progressivity of Tobacco Tax Increase Chile

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

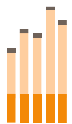


Source: Author's estimation using a price shock of 25%



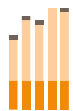
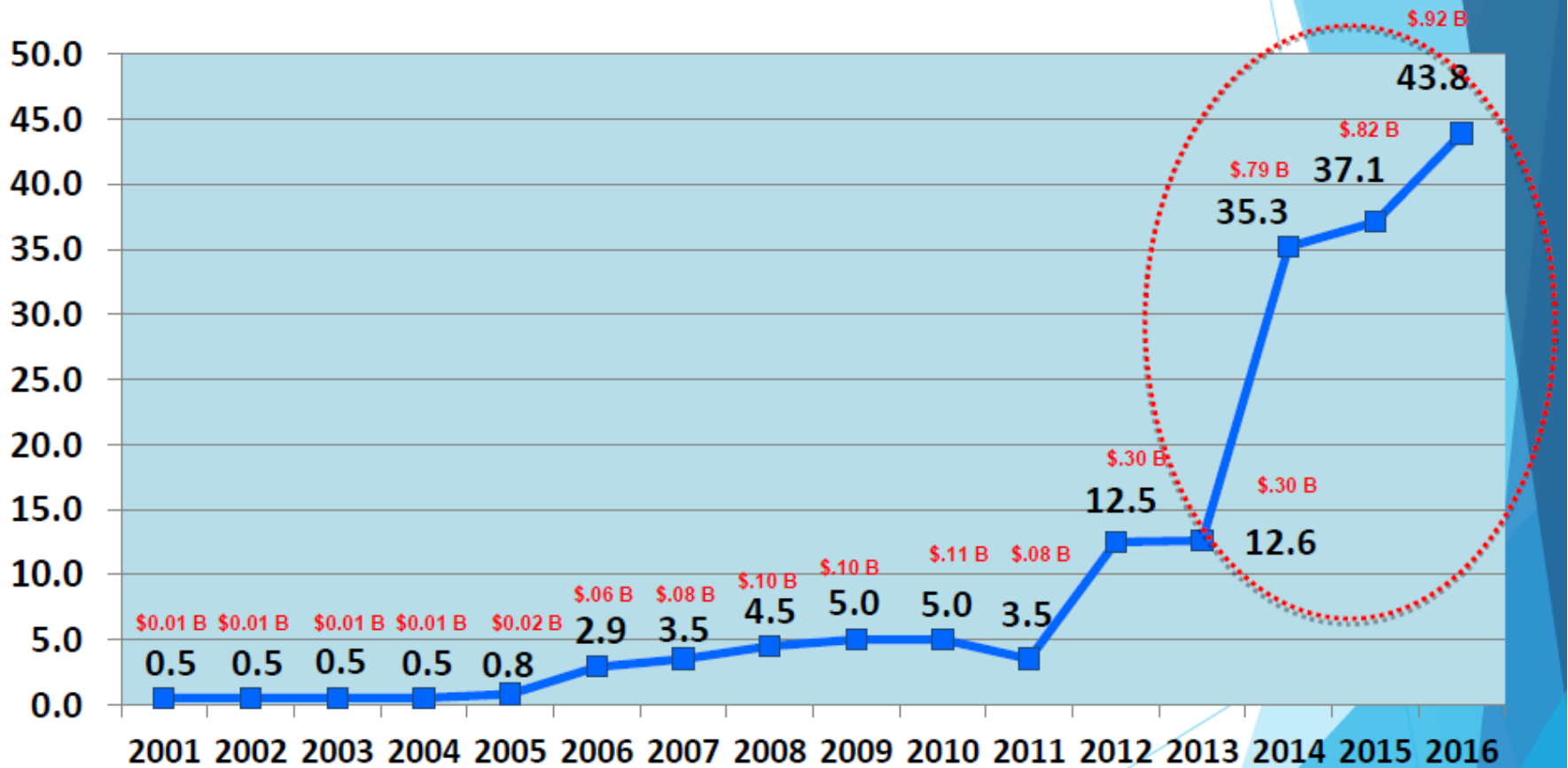
Impact on the Poor

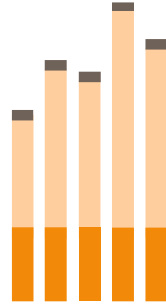
- Need to consider overall fiscal system
 - Key issue with taxes is what's done with the revenues generated by the tax
 - Greater public support for tax increases when revenues are used for prevention & control programs and/or other health programs
 - Net financial impact on low income households can 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



Philippines 'Sin Tax' Reform

National Government Allocation for Health Insurance Premiums for the Poor



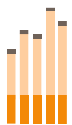


Impact on the Economy

Excise Taxes and Jobs

Industries argue that production and consumption of their products makes a significant economic contribution

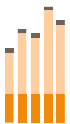
- employment in farming, manufacturing, distribution, retailing, and related sectors
- multiplier effects as income earned in these jobs is spent on other goods & services



Excise Taxes and Jobs

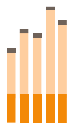
Industry-sponsored studies tell only part of story:

- Focus on the gross impact:
 - New tax or tax increase will lead to decreased consumption of taxed product
 - Results in loss of some jobs dependent on production of taxed product
- Ignore the net impact:
 - Money not spent on taxed product 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

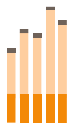
- Many published studies assess impact of reductions in tobacco use from tax increases and/or other tobacco control measures:
 - Variety of high, middle, and low income countries
 - Use alternative methodologies
- Generally find that employment losses in tobacco sector more than offset by gains in other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





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Employment changes associated with the introduction of taxes on sugar-sweetened beverages and nonessential energy-dense food in Mexico

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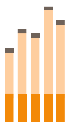
ARTICLE INFO

Keywords:

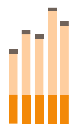
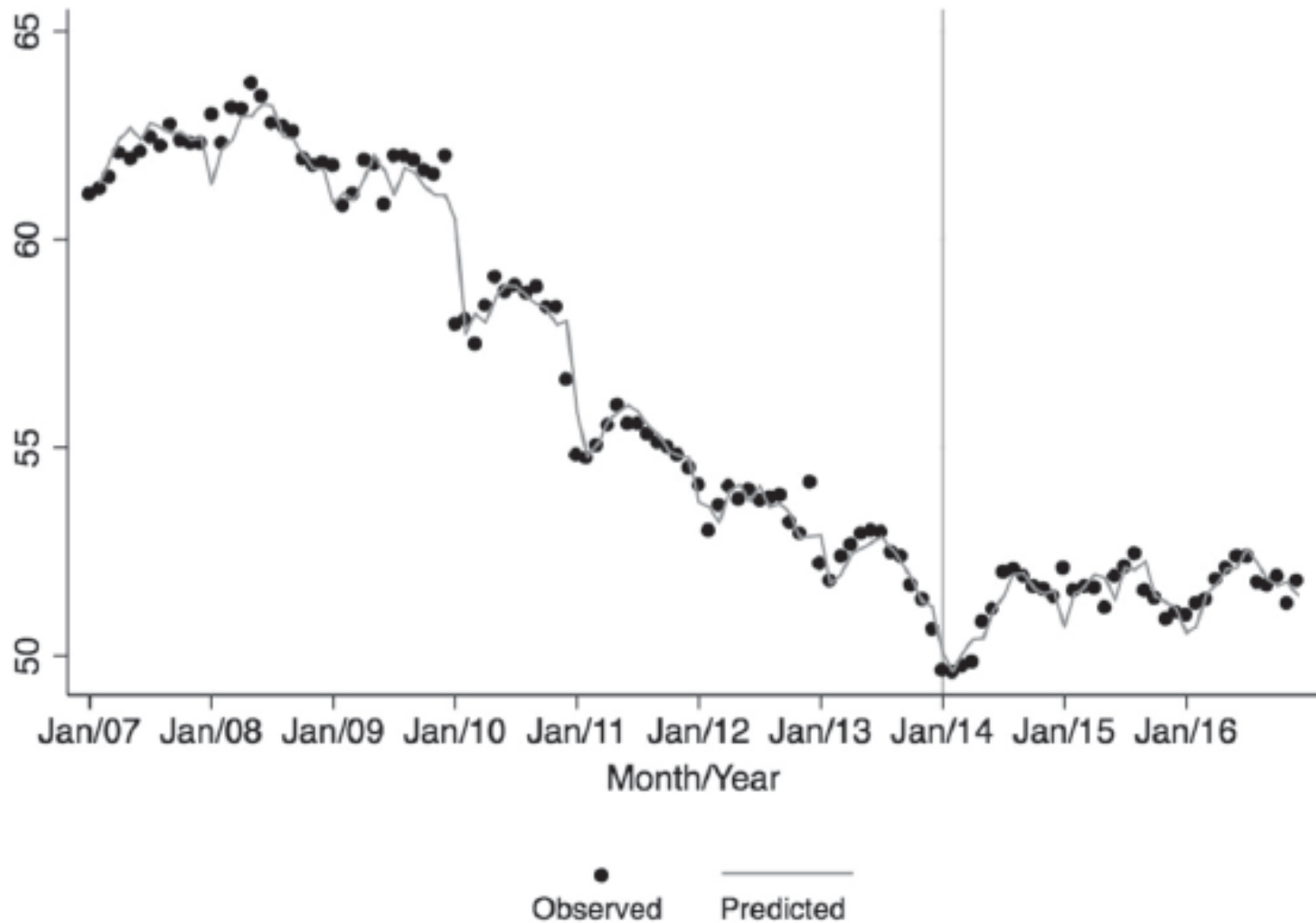
Employment
Taxes
Mexico
Evaluation
Policy
Obesity

ABSTRACT

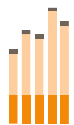
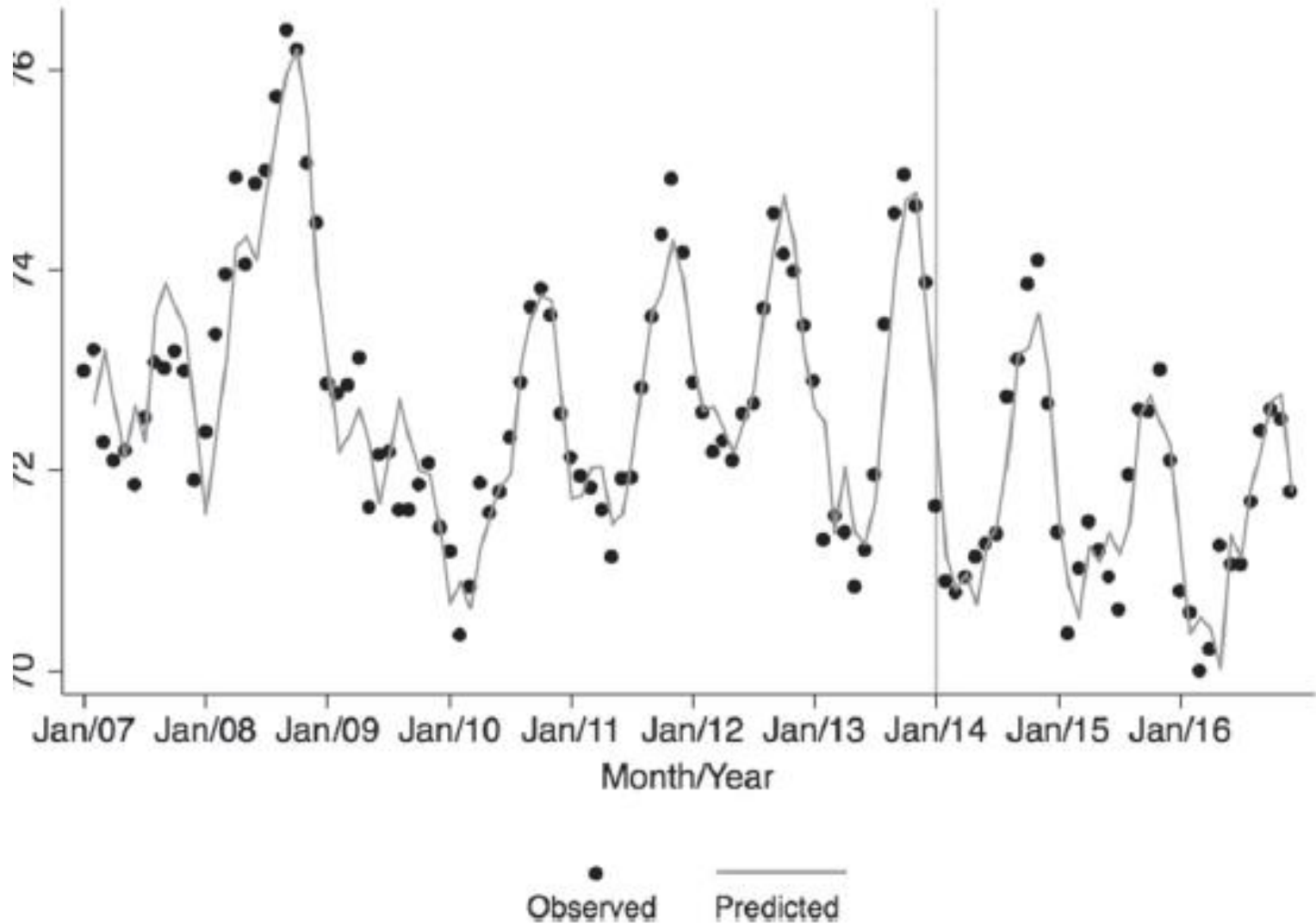
We assessed changes in employment in the manufacturing industry, the commercial sector and national unemployment rates, associated with the fiscal policies implemented in 2014 in Mexico: a 1 peso per liter excise tax to sugar-sweetened beverages (SSB) and an 8% tax on nonessential energy-dense food. We used data from three nationally representative surveys. Controlling for contextual variables, we used interrupted time series analyses to model changes in number of employees in the SSB and nonessential energy-dense food industry, in commercial establishments selling beverages and food and changes in national unemployment rates. Our results show that there were no significant changes in employment associated with the taxes in the manufacturing industries (for beverages and nonessential energy-dense food). We found a very small increasing trend in the post-tax period for employment in commercial stores and a decreasing trend in the unemployment rate. However, these changes are negligible and unlikely to be caused by the implementation of the taxes. In conclusion, there were no employment reductions associated with the fiscal policies implemented in Mexico in 2014 on SSB and nonessential energy-dense food.



A- Sugar-sweetened beverages industry



B- Nonessential energy-dense food industry



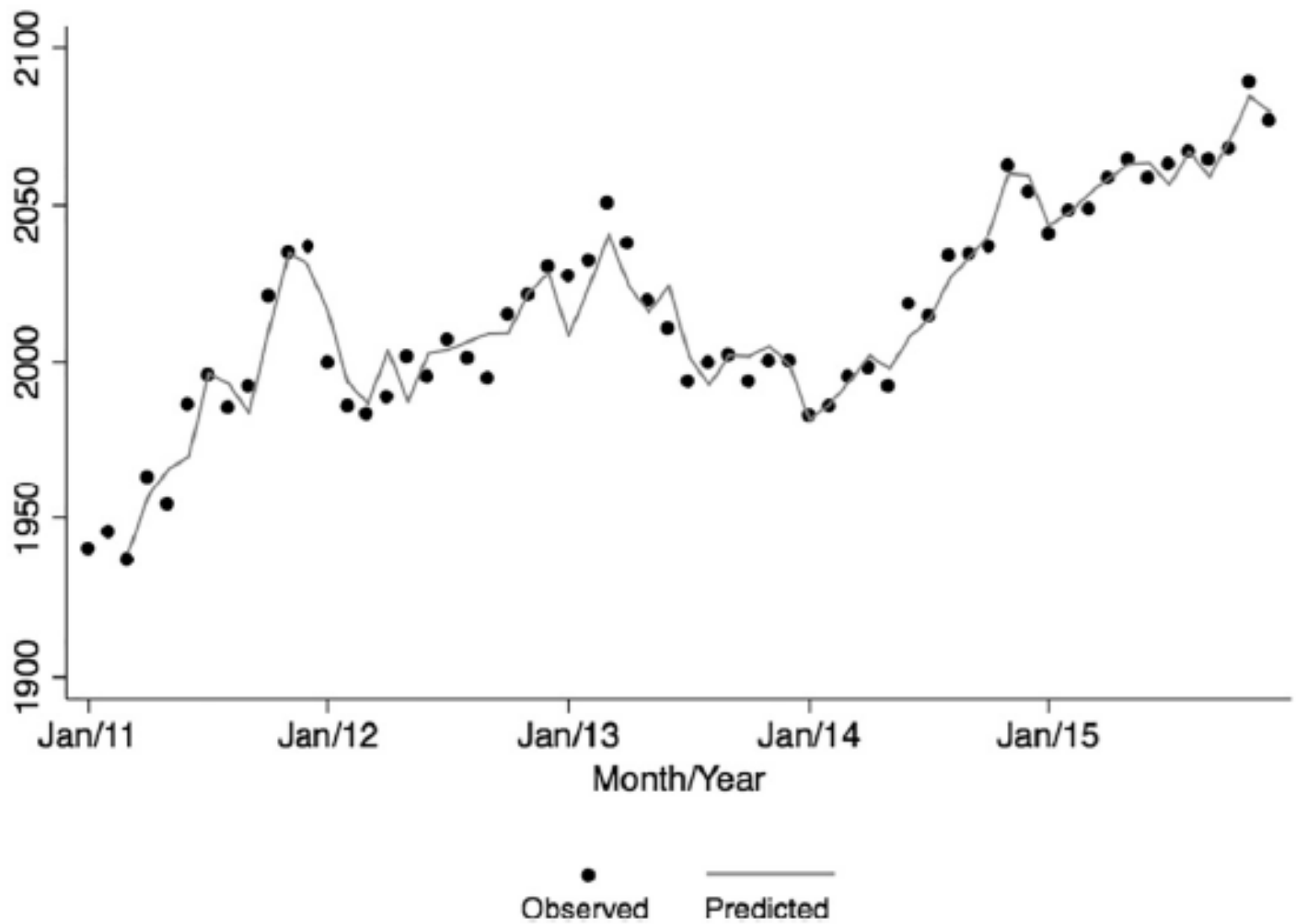
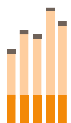


Fig. 2. Thousands of employees in commercial establishments. Mexico, EMEC, 2011–2015.



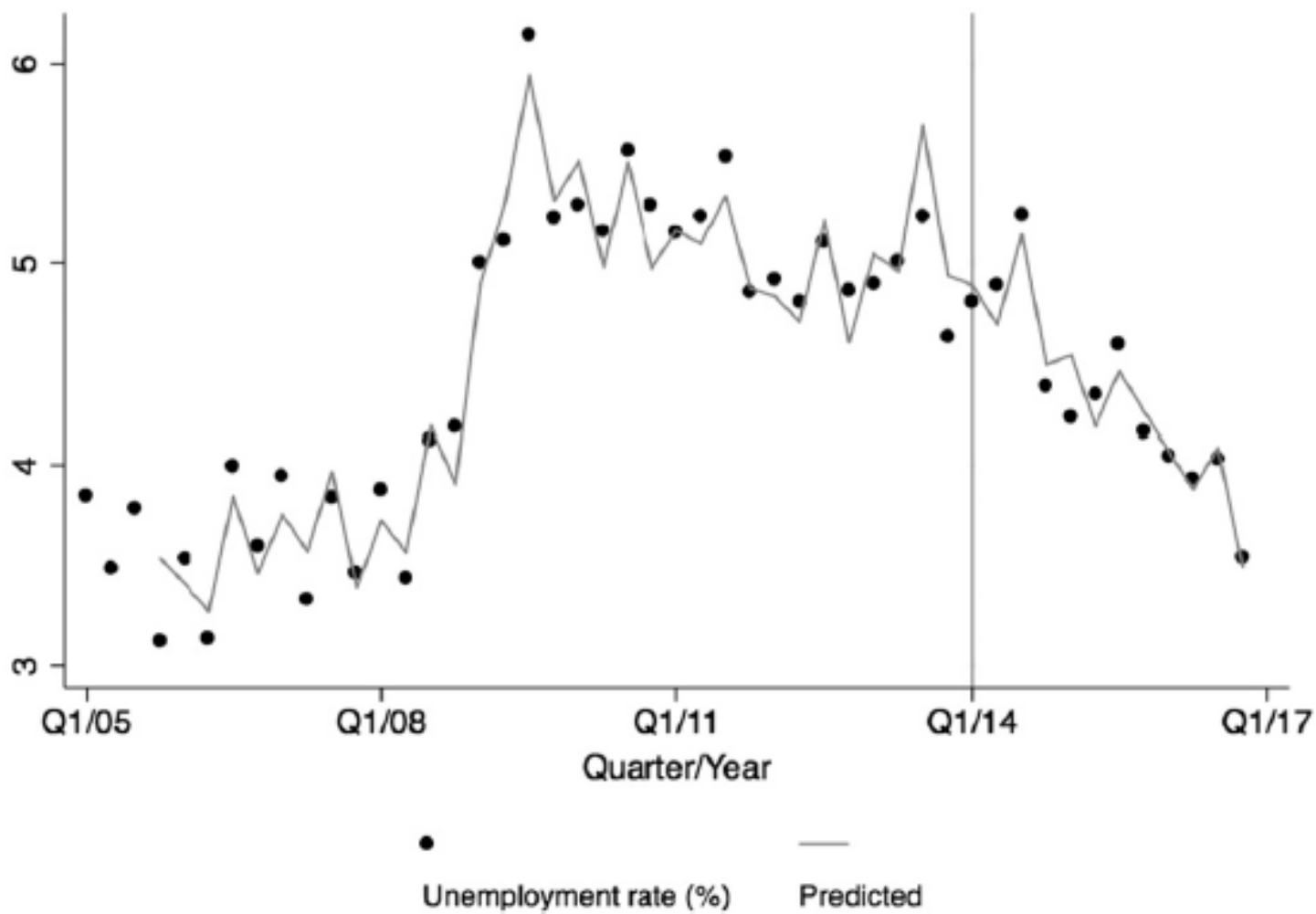
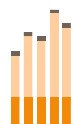


Fig. 3. National unemployment rate. Mexico, ENOE 2005–2016.





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journal homepage: www.elsevier.com/locate/ypmedEmployment impacts of alcohol taxes[☆]Roy Wada^a, Frank J. Chaloupka^{b,c,*}, Lisa M. Powell^{b,c}, David H. Jernigan^d^a Boston Public Health Commission, 1010 Massachusetts Avenue, 6th Floor, Boston, MA 02118, United States^b Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago, MC 275, 1747 W. Roosevelt Road, Chicago, IL 60608, United States^c Health Policy and Administration, School of Public Health, University of Illinois at Chicago, Chicago, IL 60608, United States^d Department of Health, Behavior and Society, Bloomberg School of Public Health, The Johns Hopkins University, Baltimore, MD 21205, United States

ARTICLE INFO

Keywords:

Alcohol taxes

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Employment

ABSTRACT

There is strong scientific evidence supporting the effectiveness of increasing alcohol taxes for reducing excessive alcohol consumption and related problems. Opponents have argued that alcohol tax increases lead to job losses. However, there has been no comprehensive economic analysis of the impact of alcohol taxes on employment. To fill this gap, a regional macroeconomic simulation model was used to assess the net impact of two hypothetical alcohol tax increases (a 5-cent per drink excise tax increase and a 5% sales tax increase on beer, wine, and distilled spirits, respectively) on employment in Arkansas, Florida, Massachusetts, New Mexico, and Wisconsin. The model accounted for changes in alcohol demand, average state income, and substitution effects. The employment impact of spending the new tax revenue on general expenditures versus health care was also assessed. Simulation results showed that a 5-cent per drink additional excise tax on alcoholic beverages with new tax revenues allocated to general expenditures increased net employment in Arkansas (802 jobs); Florida (4583 jobs); Massachusetts (978 jobs); New Mexico (653 jobs); and Wisconsin (1167 jobs). A 5% additional sales tax also increased employment in Arkansas (789 jobs); Florida (4493 jobs); Massachusetts (898 jobs); New Mexico (621 jobs); and Wisconsin (991 jobs). Using new alcohol tax revenues to fund health care services resulted in slightly lower net increases in state employment. The overall economic impact of alcohol tax increases cannot be fully assessed without accounting for the job gains resulting from additional tax revenues.

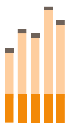
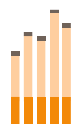


Table 3

Simulated impacts of alcohol tax increases on employment (number of jobs) by government revenue allocation in Arkansas, Florida, Massachusetts, New Mexico, and Wisconsin.

		5-Cent excise tax	5% sales tax
Arkansas	Gross	- 323	- 408
	Net (general revenue)	802	789
	Net (health care sector ^a)	67	11
Florida	Gross	- 3281	- 4042
	Net (general revenue)	4583	4493
	Net (health care sector)	1048	687
Massachusetts	Gross	- 1009	- 1248
	Net (general revenue)	978	898
	Net (health care sector)	250	121
New Mexico	Gross	- 334	- 390
	Net (general revenue)	653	621
	Net (health care sector)	139	98
Wisconsin	Gross	- 1078	- 1315
	Net (general revenue)	1167	991
	Net (health care sector)	1064	887

^a Health care sectors consist of health practitioners; outpatient, laboratory, and other ambulatory care services; home health care services; hospitals; and nursing and residential care facilities.



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PUBLIC HEALTH **TASK FORCE ON FISCAL POLICY FOR HEALTH**

OVERVIEW SHARE

“Noncommunicable diseases are a growing global crisis, especially in low-and-middle income countries. There’s substantial evidence that taxes and fiscal policies are essential to confronting this health threat. This Task Force will explore which policies can make the biggest difference and help them spread, saving millions of lives.”
MIKE BLOOMBERG

The Task Force on Fiscal Policy for Health – announced by Mike Bloomberg and economist Larry Summers, former Secretary of the U.S. Treasury and former Director of the National Economic Council – brings together esteemed fiscal policy, development and health leaders from around the globe to address the enormous and growing health and economic burden of noncommunicable diseases – including cardiovascular disease, cancer, chronic respiratory diseases and diabetes – with fiscal policy tools that are currently underutilized by governments and their leaders.

“We have strong evidence from around the world that raising taxes on products like tobacco, sugar sweetened beverages and alcohol is highly effective at reducing harmful consumption and saving lives. I’m grateful for the commitment of this impressive group of leaders, whose expertise and experience will help the Task Force bring attention to the enormous potential of fiscal policies for health.”

LARRY SUMMERS

