

Emerging Evidence Needs in the Economic Aspects of Tobacco Control

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Harnessing Research Evidence and Capacity to Inform Tobacco
Control Policy in Low- and Middle-Income Countries
Center for Global Health Studies, Fogarty International Center
National Institutes of Health, Bethesda, MD, June 24, 2013

Overview

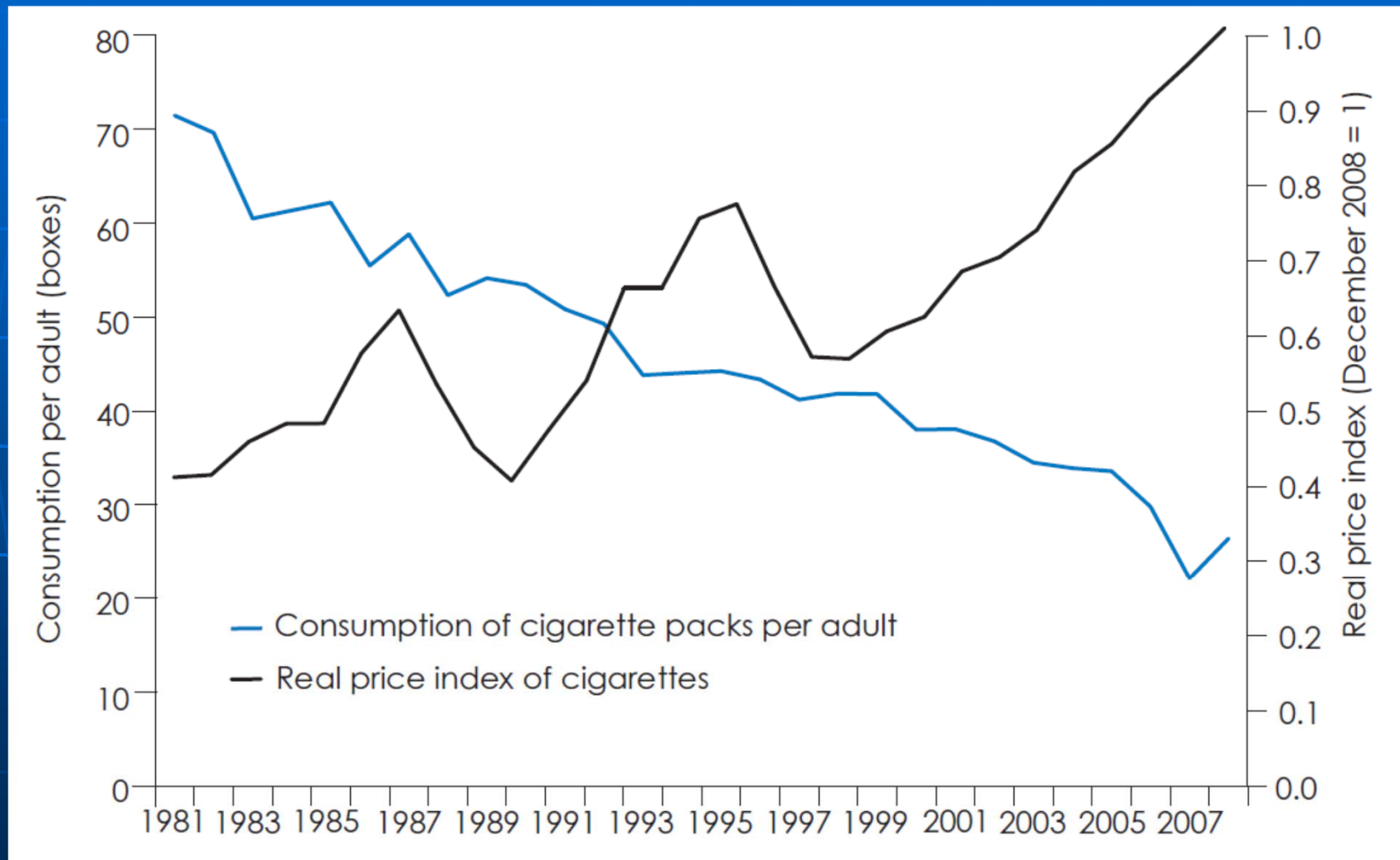
- Tax, Price and Tobacco Use
- Tobacco Tax Structure
- Economic Costs of Tobacco Use
- Economic Impact of Tobacco Control
- Tobacco and Poverty
- Globalization of Tobacco Industry
- Economically Viable Alternatives to Tobacco

Tax, Price and Tobacco Use

Taxes, Prices and Tobacco Use

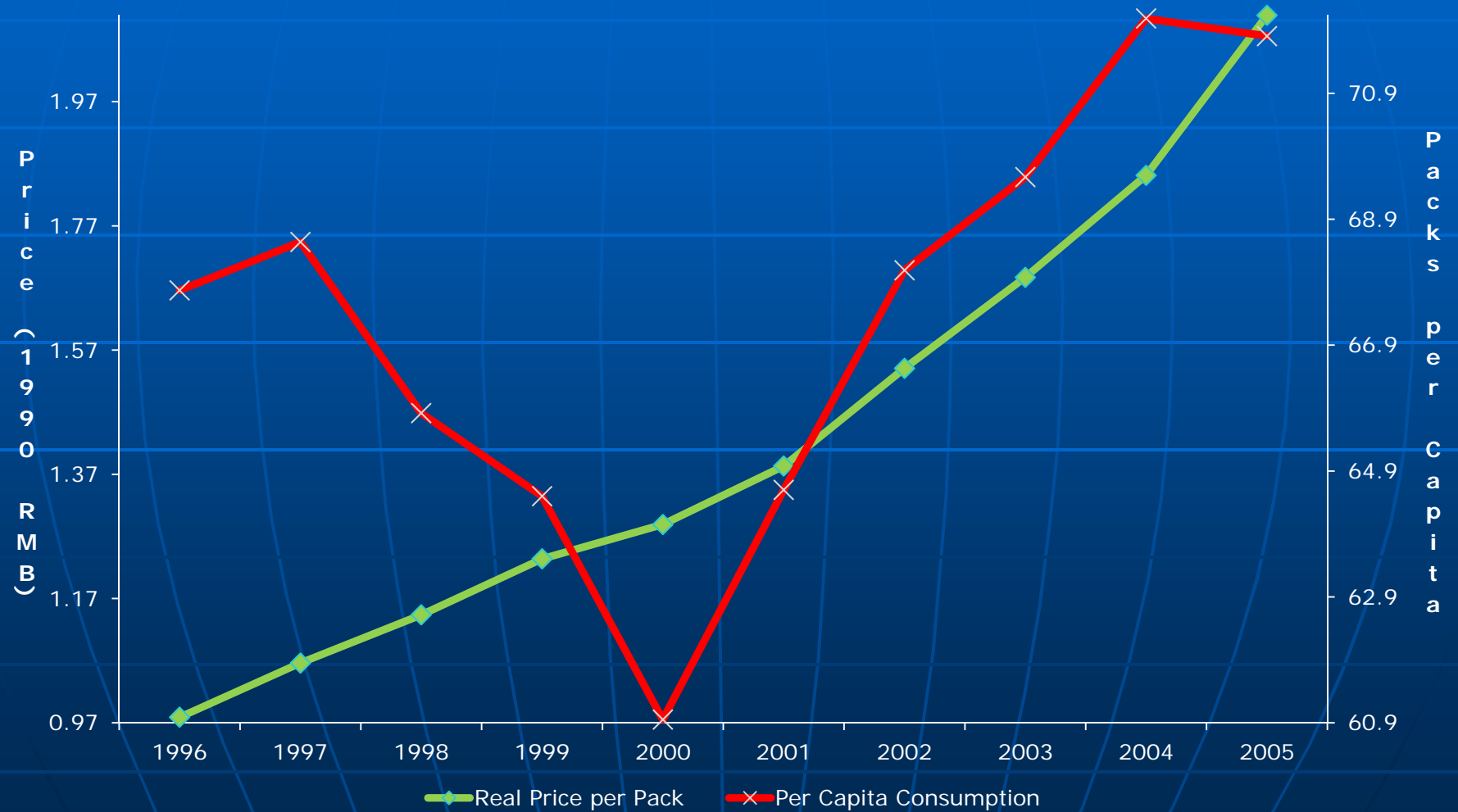
- **Increases in tobacco taxes that increase tobacco product prices:**
 - Induce current users to try to quit
 - Many will be successful in long term
 - Keep former users from restarting
 - Prevent potential users from starting
 - Particularly effective in preventing transition from experimentation to regular use
 - Reduce consumption among those who continue to use
 - Lead to other changes in tobacco use behavior, including substitution to cheaper products or brands, changes in buying behavior, and compensation

Consumption and real cigarette price in Mexico 1981-2008

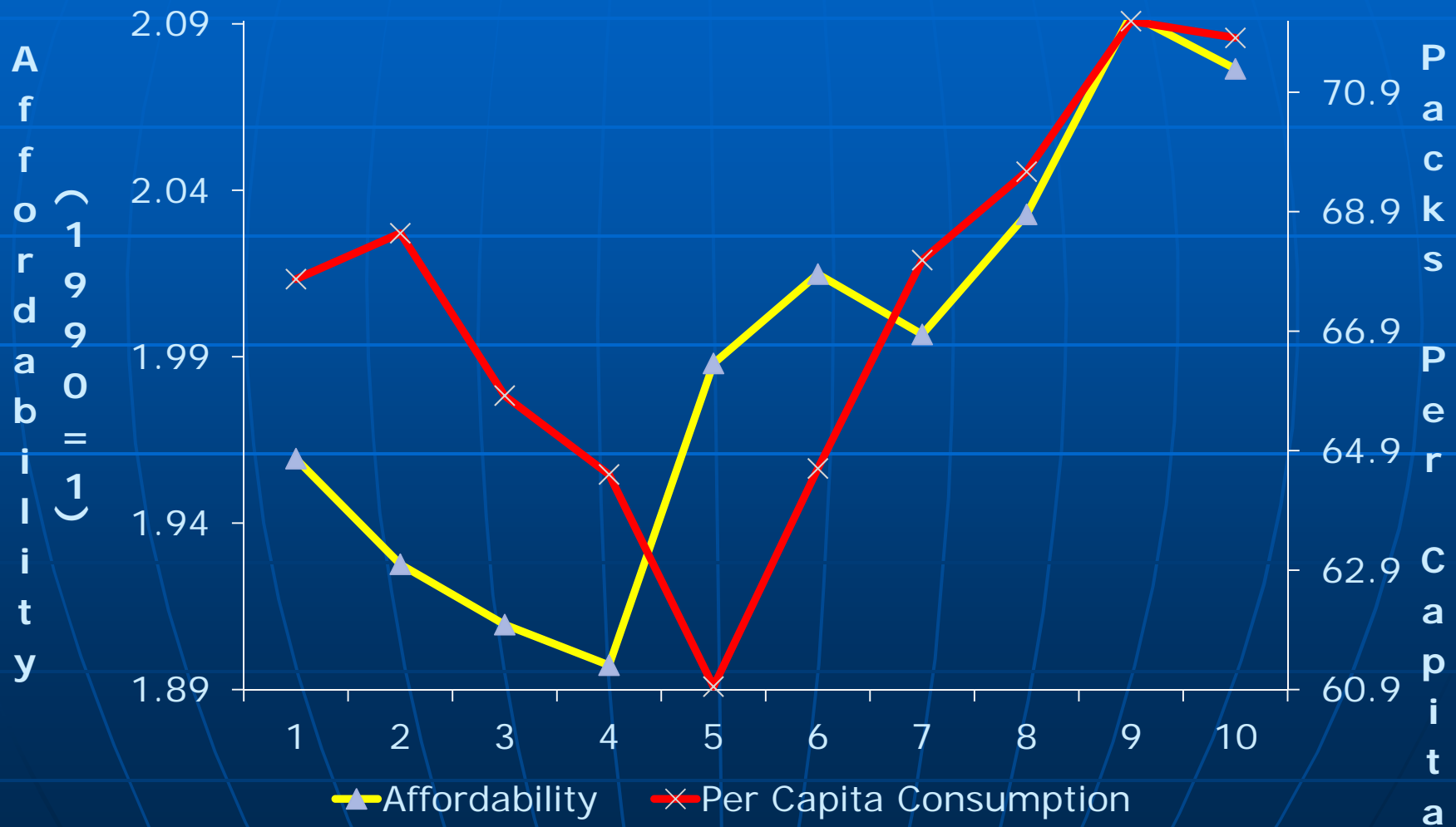


Source: Waters et al, 2010

Cigarette Prices and Cigarette Consumption China, 1996-2005



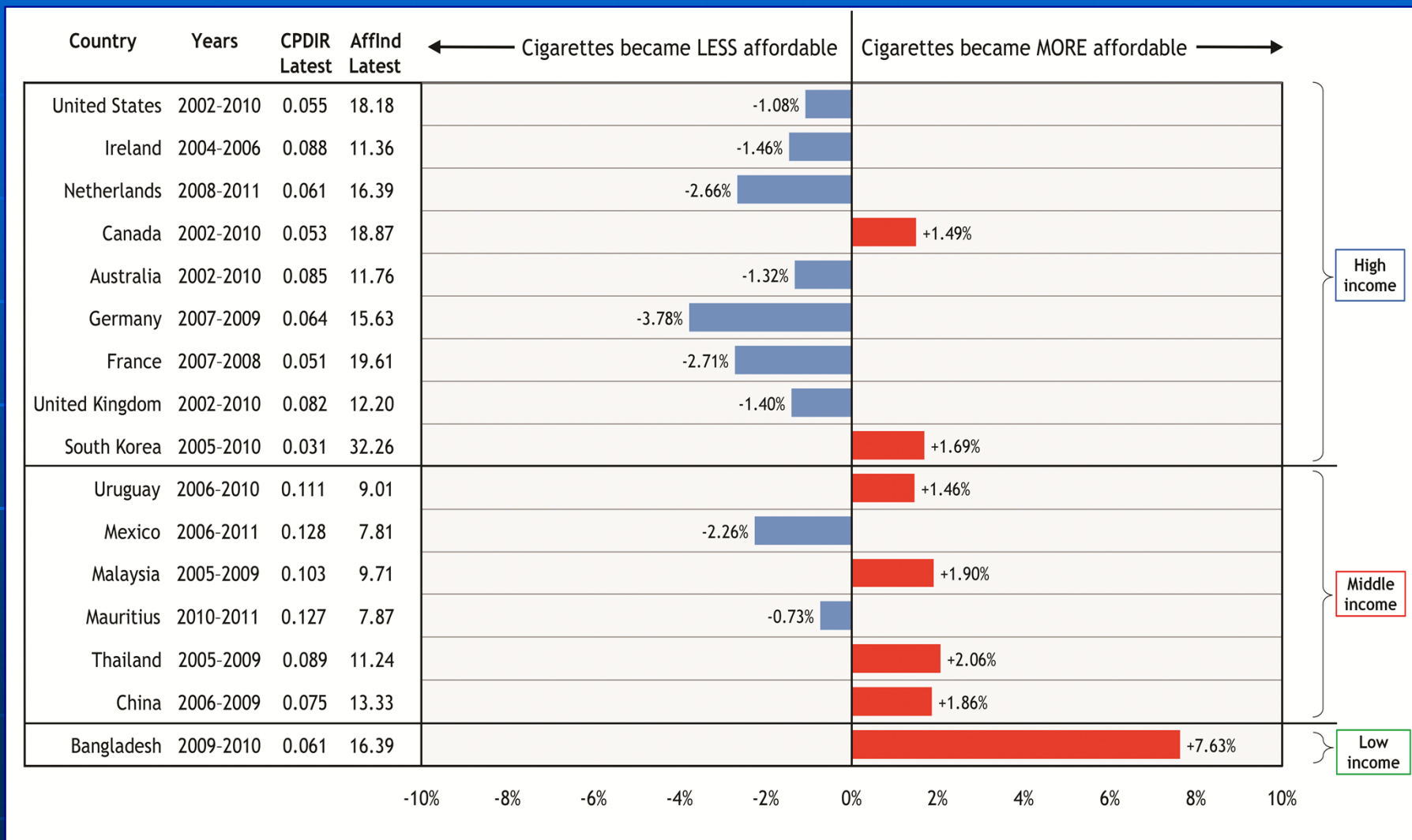
Affordability and Cigarette Consumption China, 1996-2005





Cigarette Affordability

16 ITC Countries over Time



Source: ITC Project, 2012

Research Needs

- Country-specific estimates of the impact of tax/price and income on tobacco use
 - In order to determine tax and price increases needed to achieve public health objectives
 - To project impact of tax increases on tobacco tax revenues
 - To understand impact on vulnerable populations (poor, young people, women)
 - To determine substitutability/complementarity of use of alternative tobacco products
 - Need to account for changes in affordability in countries

Tobacco Tax Structure

Types of Taxes

■ Excise Tax Systems

- Specific: specific taxes applied to all brands/variants of a given tobacco product
- Ad valorem: *ad valorem* rate applied to all brands/variants of a given tobacco product
- Mixed system: combination of specific and *ad valorem* taxes applied to all brands/variants of a given tobacco product
- Can include:
 - Minimum specific floor: in *ad valorem* or mixed system, a minimum specific tax that sets a floor
 - Tiers: can have tiered taxes under all systems

Cigarette Taxation Globally

	Excise System on Cigarettes			
Income Group	Only specific	Only ad valorem	Both specific and ad valorem	No Excise
High	11	2	25	7
Upper Middle	16	11	9	6
Lower Middle	18	19	12	3
Low	10	28	2	3
By Region				
AFRO	14	29	1	2
AMRO	13	16	2	3
EMRO	1	7	5	7
EURO	10	3	36	0
SEARO	3	2	2	1
WPRO	14	3	2	6
All Countries	55	60	48	19

* Countries for which data are available

Source: WHO calculations using WHO GTCR 2009 data

Cigarette Taxation Globally

Table 2: Different bases for tiered systems around the world

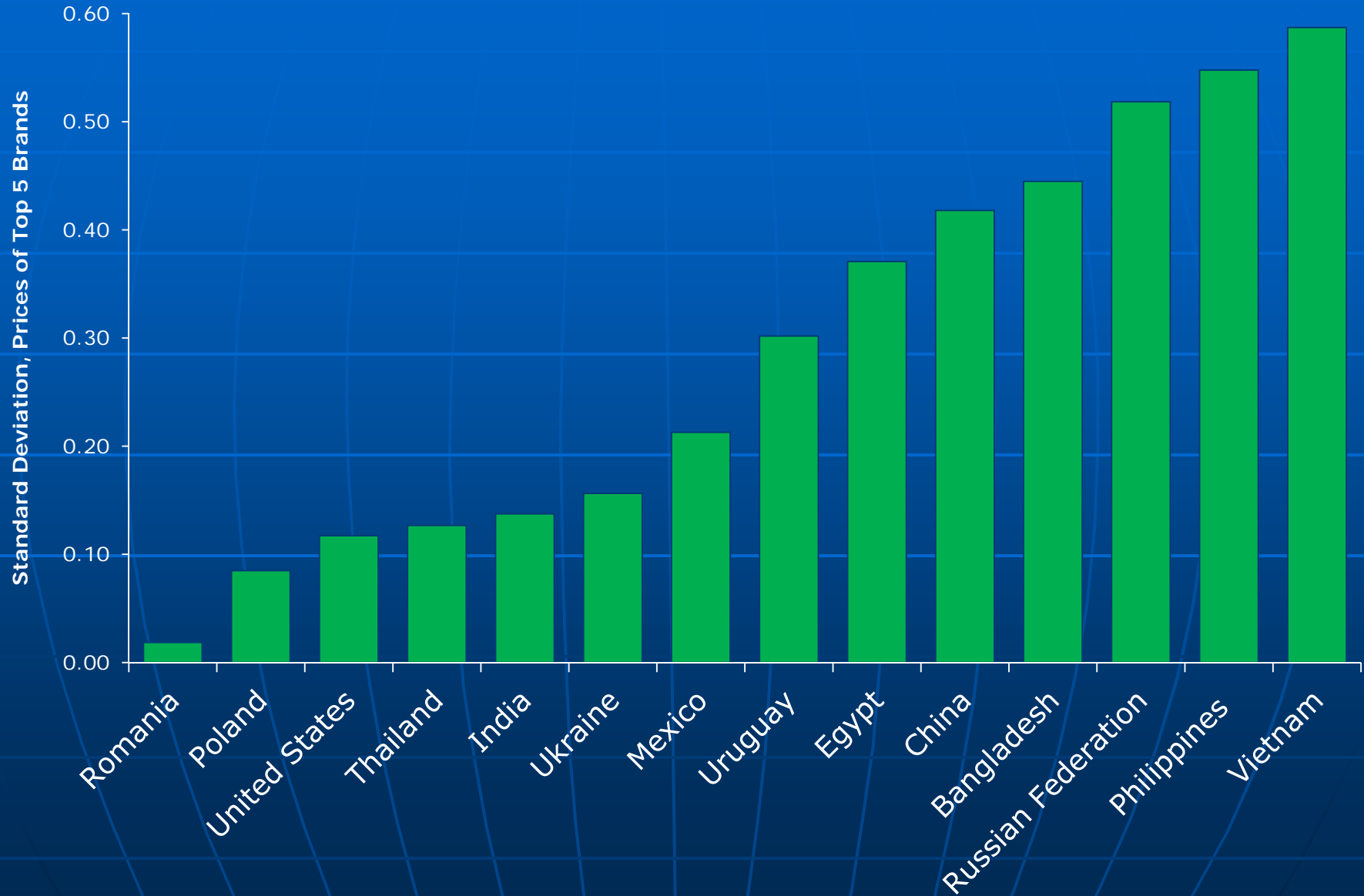
Differential /Tiered Excise taxes on cigarettes		
		Number of countries
Total covered		156
With tiers		32
Base of tiers	Retail price	11
	Producer price	2
	Sales volume	1
	Production volume	1
	Type - filter/non filter	12
	Type - hand/machine made	2
	Type - kretek/white cigarette	1
	Packaging soft/hard	3
	Cigarette length	4
	Trade domestic/imported	1
	Weight (tobacco content in cigarette)	1
	Leaf content (domestic/imported)	3
<p><i>Note :Of the 155 countries with available data in TMA, 10 countries has no excise Some countries differentiate based on more than on criteria. 8 countries differentiate their excises based on more than 1 criteria</i></p>		

Source: TMA 2009

Average price and excise tax by tax structure, 2010

Excise tax structure	Average price PPP	Average excise PPP
Specific only	4.51	1.78
Ad valorem only	2.38	0.77
Mixed system	3.81	2.17
Relying more on specific	4.42	2.54
Relying more on ad valorem	3.40	1.91

Cigarette Tax Structure & Prices



Source: Chaloupka, et al., in progress

Research Needs

- Assessment of impact of tobacco tax structure on:
 - Tobacco product prices within product category and across product categories
 - Brand/product choice
 - Tobacco use, particularly in vulnerable populations (poor, young people, women)
 - Stability and predictability of tobacco tax revenues
- Case studies of countries that have changed tax structure

Economic Costs of Tobacco Use

Economic Costs of Tobacco Use

- Direct costs: reduction in existing resources
 - “Direct health care costs” (e.g., medicines)
 - “Direct non–health care costs” (e.g., transportation to clinic, time of family members providing care)
- Indirect or productivity costs: reduction in potential resources
 - Lost productivity due to morbidity and premature mortality

Economic Costs of Tobacco Use

- External costs

- costs that tobacco users impose on others (e.g., costs related to secondhand smoke)

- Internal costs

- costs paid for by tobacco users (and their families) incurred as a result of tobacco use (e.g., out of pocket costs for health care to treat diseases caused by smoking)

- “Internalities”

- the internal costs that result from the information failures in the market that can be thought of as external costs

Estimating the Economic Costs of Tobacco Use

- Prevalence-based approach:
 - **Gross health care costs of smoking**
 - Actual expenditures for additional health care provided across a given time period because of smoking by the population (smoking attributable fraction)
- Incidence-based approach:
 - **Net health care costs of smoking**
 - Additional costs across the full lifespan of a smoker, compared with costs for that same person as a hypothetical nonsmoker
 - Used in the so-called "Death Benefit" argument

Economic Costs of Tobacco Use

Limited, but emerging evidence from low and middle-income countries:

- China:
 - 3.1% of health care costs; 1.9% of GDP
- India:
 - 4.7% of health care costs; 0.25% of GDP
- Bangladesh:
 - >3% of GDP
- Economic costs in LMICs will almost certainly rise over time

Research Needs

- Country specific estimates of economic costs that assess costs from different perspectives
 - Society (macroeconomic impact)
 - Individuals (impact on households)
 - Government (state budgets)
- Economic cost estimates can help spur adoption of effective tobacco control policies

Economic Impact of Tobacco Control

Misleading Arguments About Economic Impact of Tobacco Control

- Massive job losses as tobacco use falls in response to tobacco control policies
- Poor adversely affected by higher tobacco taxes
- Increased tax avoidance and tax evasion in response to higher taxes
 - Increasingly used to argue against other tobacco control policies

Impact on Jobs

March 9, 2009 – Vanguard, AllAfrica.com

Nigeria Anti-Tobacco Bill – 400,000 Jobs on the Line

- “if passed into law, The National Tobacco Bill which is currently on the floor of the National Assembly will lead to at least 400,000 Nigerians being thrown into the unemployment market.”
- “This was the view expressed by the Chairman, Senate Committee on Industries, Senator Kamorudeen Adedbu, while speaking with reporters recently in Iselyn, Oyo State, while speaking at the 2008 Farmers Productivity Day Award Ceremony.”

Economic Impact of SFA Policies

July 19, 2009 – The Sofia Echo – Turkey Bans Smoking in Bars, Cafes, and Restaurants

- The ban, in a country where smoking traditionally has been ubiquitous and is famed for its tobacco, sparked ire among owners of restaurants and bars.

On July 15, tea and coffeehouse owners gathered in the centre of the Aegean port city of Izmir, western Turkey, to smoke water pipes in protest at the forthcoming ban.

Customers would be driven away by the smoking ban, the BBC quoted Istanbul café owner Selahattin Nar as saying.

Tobacco-Related Employment

- Very small share of employment *dependent* on tobacco growing and manufacturing in most countries
 - Economic presence does not imply economic dependence
 - Employment in tobacco manufacturing falling over time in response to tobacco industry shift to more capital intensive production technologies.
 - Can use revenues from tobacco taxes to help those in tobacco growing/manufacturing shift to other sustainable livelihoods

Research Needs

- Research to assess employment impact of tobacco control policies:
 - Small loss of jobs in tobacco sector vs. gains in jobs in other sectors from changes in consumer, government spending
- Research on economic impact of smoke-free policies in LMICs
- Research on broader economic impact of tobacco control policies
 - Increased productivity, longer lives, economic development

Impact on the Poor

September 9, 2012 – The Philippine Star

- “From a macroeconomic standpoint, high tobacco taxes are not advisable. From a microeconomic perspective, it is injudicious. **Any new tax measure that cuts across economic classes, especially when it is excessive, would hurt poor households the most.** The harmful impact a 700 percent cigarette tax increase on inflation illustrates this point. The Senate should correct this glaring oversight of the House and consider the welfare of low-income consumers in crafting a new excise tax bill for tobacco products.”

Who Pays & Who Benefits

Philippines: Distribution of marginal taxes and health benefits

Background

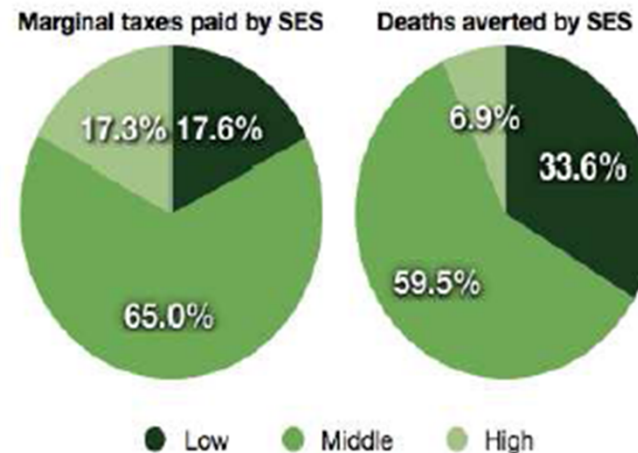
Methodology, data and assumptions

Results

Discussion

Summary

- The Low socioeconomic status (SES) group (measured by wealth) pays 17.6% of increased taxes and receives 33.6% of health benefits.
- Health benefit to tax ratio: **1.9**



Research Needs

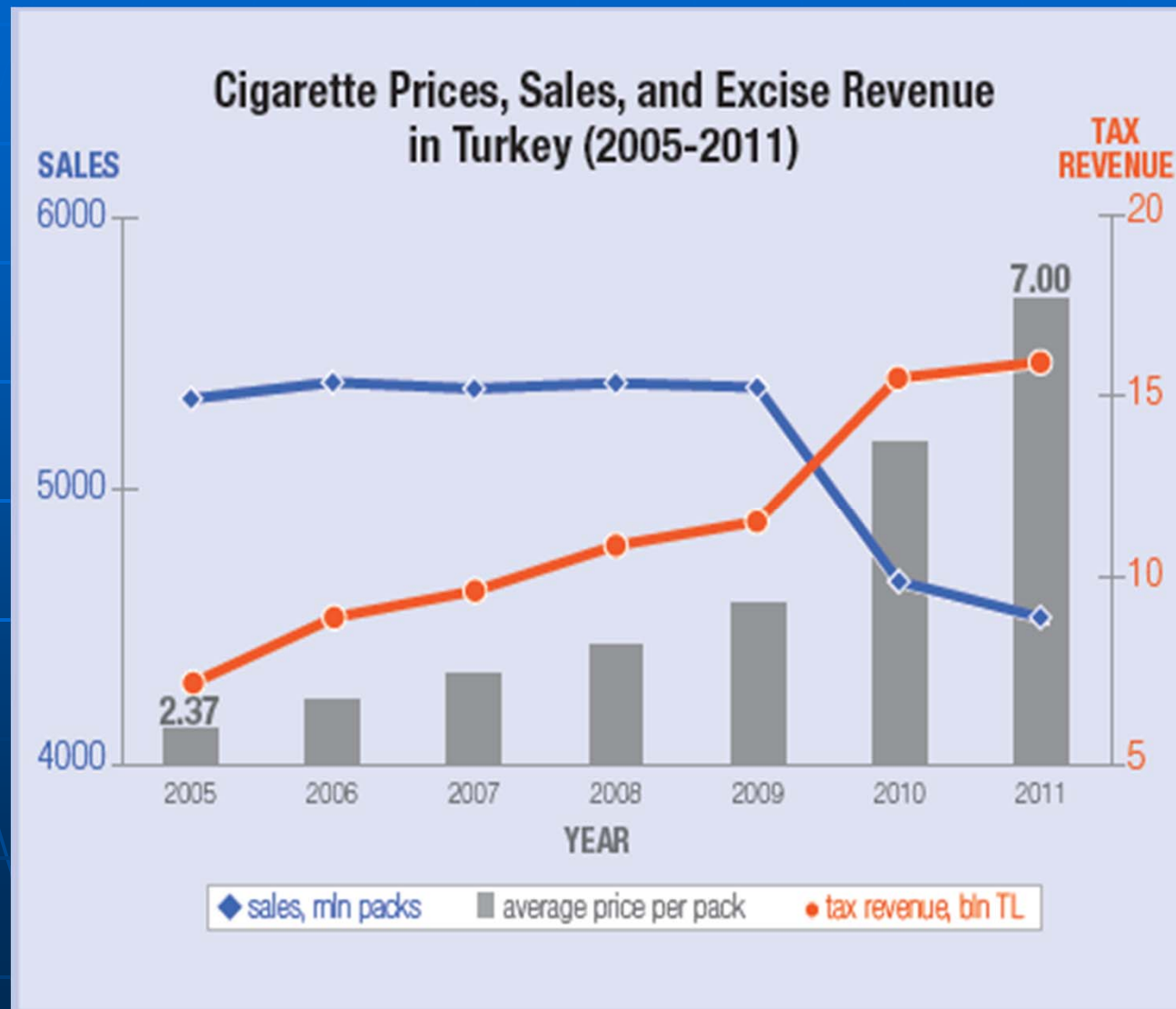
- Research to assess the impact of tobacco tax increases on the poor
 - Estimates of the price sensitivity of poor relative to higher income populations
 - Poor often more price sensitive, but can be affected by tax structure and other factors
 - Estimates of health benefits that result from tax increase
 - Progressive if poor are more price sensitive
 - Impact within overall fiscal system
 - Including use of new tobacco tax revenues

Impact on Illicit Trade & Revenue

May 5, 2011 – Anatolia News Agency

- “Smuggling and fraud involving alcoholic drinks and cigarettes is growing rapidly in Turkey, recent inspections by the country’s Revenues Administration have revealed.”
- “The number of cigarettes without a tax label has doubled in one year, hurting tax revenues, the official data gathered by the Anatolia news agency showed.”

Impact on Revenues



Source: Myers, 2012

Illicit Trade

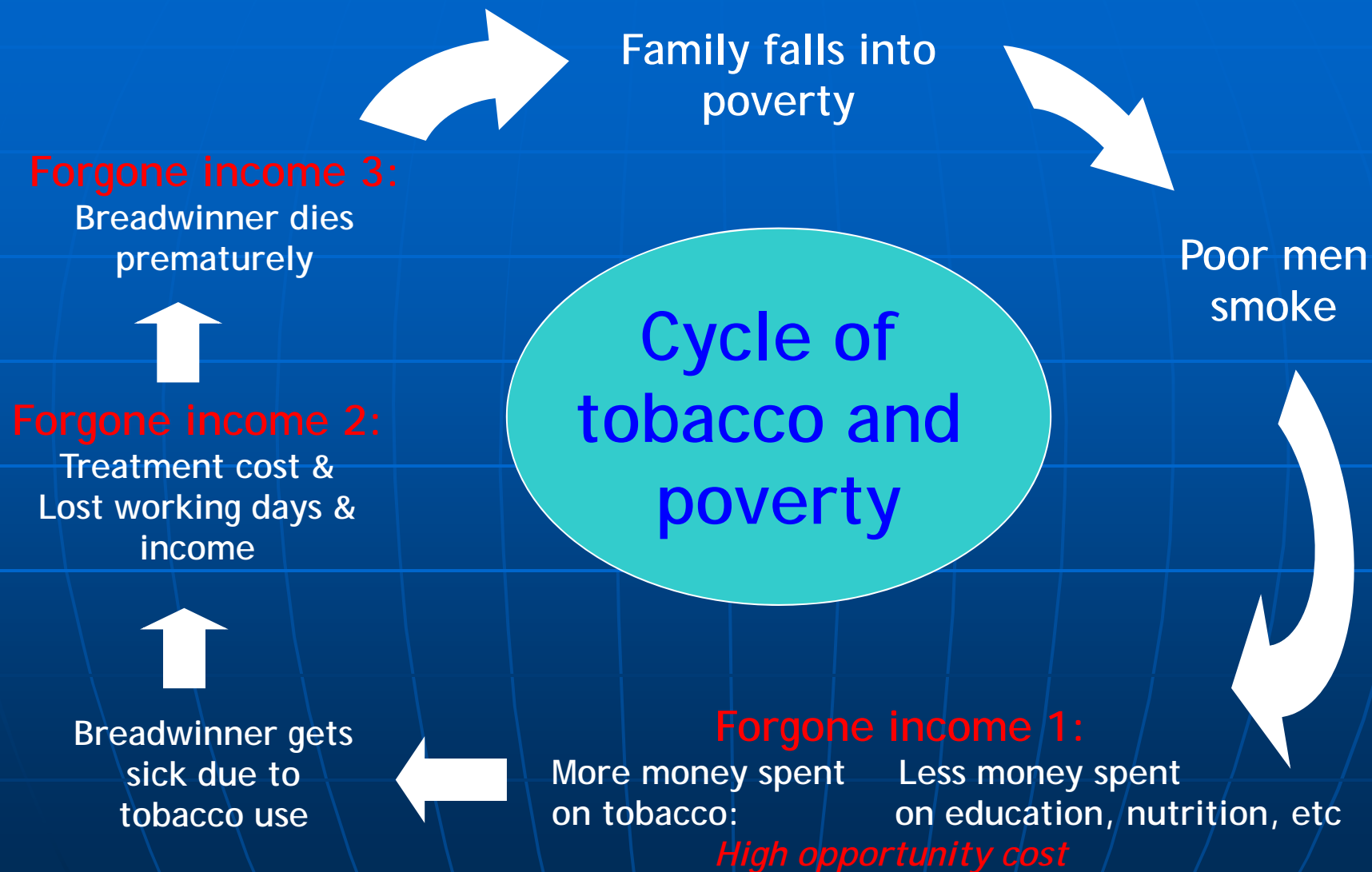
- Historically used in opposition to tobacco tax increases
- More recently, raised in opposition to growing number of tobacco control policies
 - Potential ban on menthol cigarettes in US
 - Retail display bans in various countries
 - Plain packaging proposals in Australia, New Zealand, UK

Research Needs

- Extent of tax avoidance/evasion
 - Industry estimates generally overstate extent of problem
- Determinants of illicit trade
 - Role of tax/price differentials, tobacco control policies
 - Role of other factors – corruption, weak tax administration, criminal networks, etc.
- Impact of interventions to curb tax avoidance/evasion
 - Implementation of WHO FCTC Illicit Trade protocol

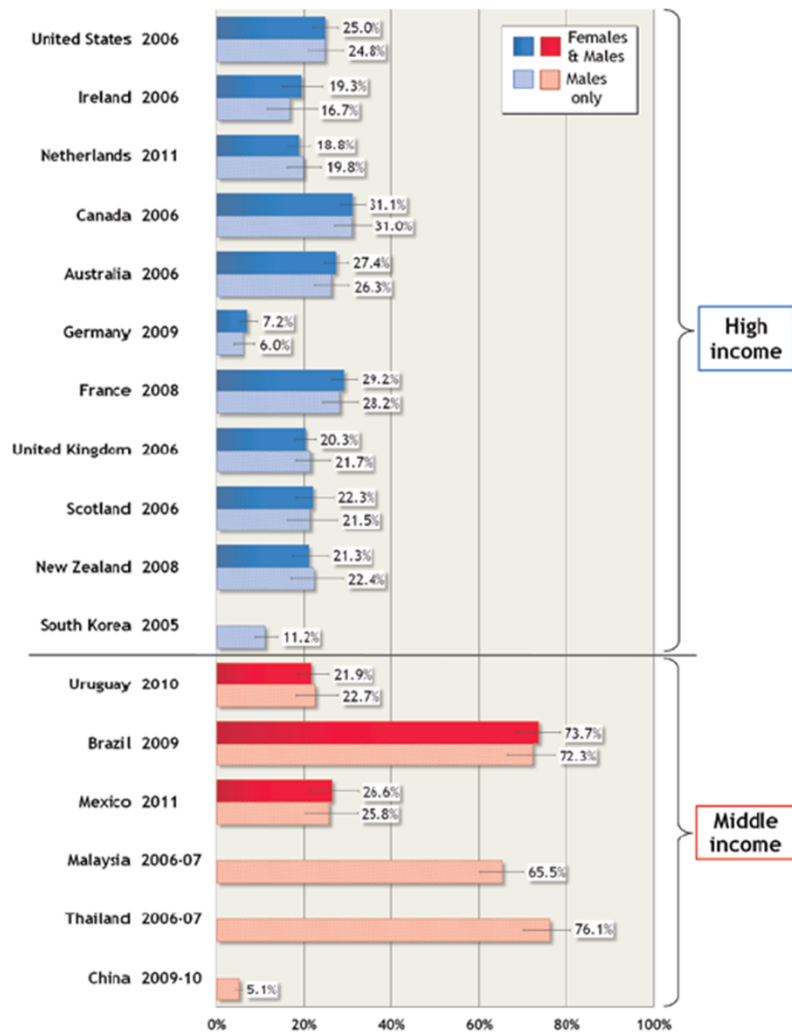
Tobacco Use and Poverty

Tobacco and Poverty



Spent Money on Cigarettes Instead of Essentials

Figure 2. Percentage of smokers who spent money on cigarettes instead of household essentials, such as food, in the last 6 months, by country



Crowding Out 17 ITC Countries

Tobacco crowds out spending on essentials.
– Greater crowding out in LMICs



Source: ITC Project, 2012

Research Needs

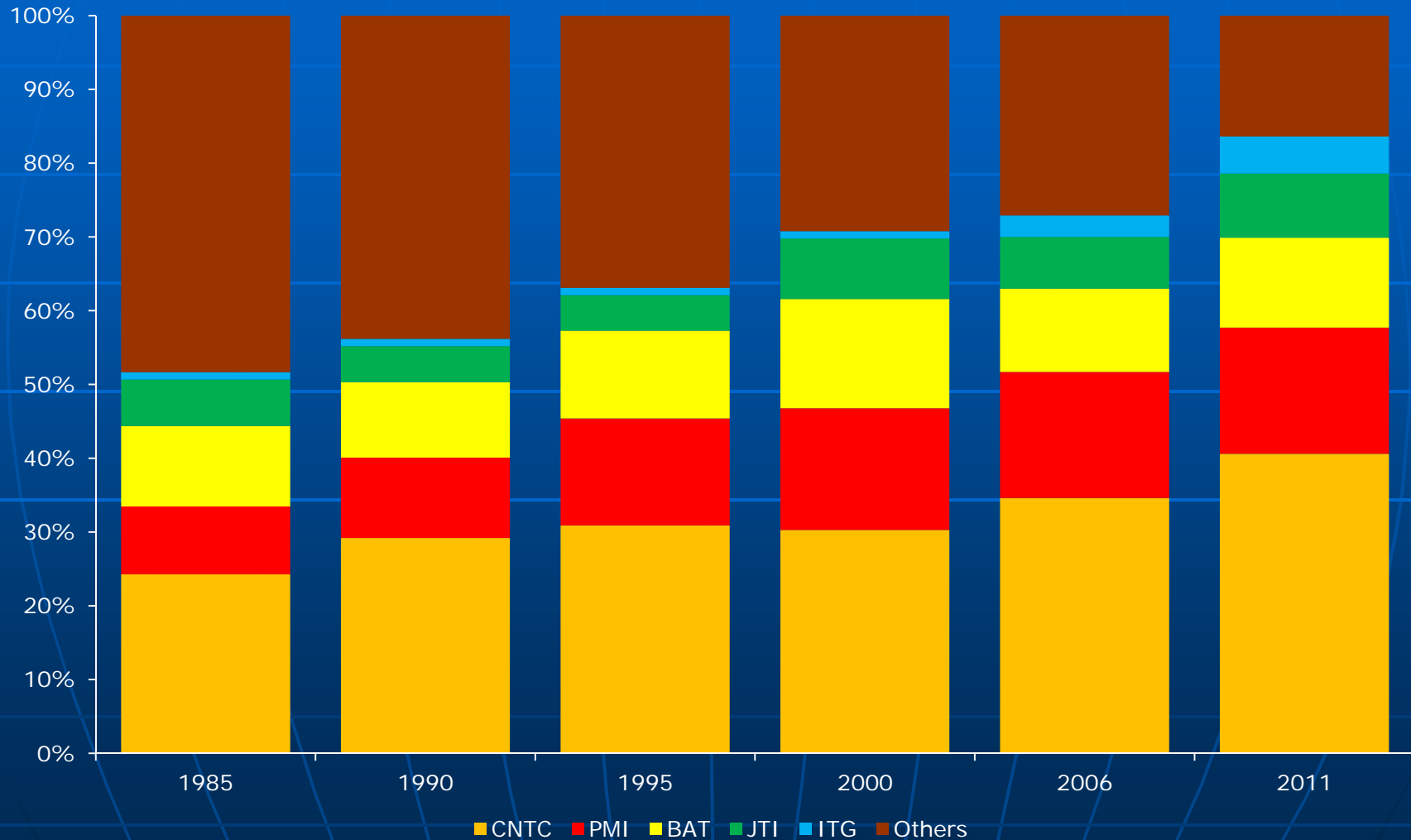
- Research to determine role of tobacco use in causing poverty
 - Recent cross-sectional estimates suggest tobacco use responsible for impoverishment of over 50 million in China and 15 million in India
- Research assessing impact of spending on tobacco crowding out other spending, particularly among the poor
- Research on the differential impact of tobacco control policies on the poor



Globalization

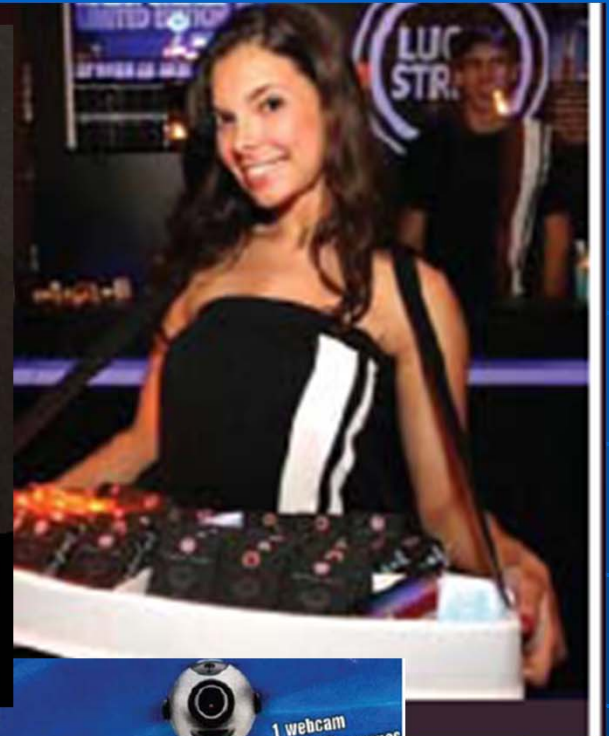
Cigarette Company Market Shares

1985-2011, Selected Years



Source: *Maxwell Tobacco Fact Book*, various years; Euromonitor, 2013; note: PMI includes Philip Morris International and Altria Group Inc.

Price-Reducing Marketing:



Evolution of Tobacco Products



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Research Needs

- Research on industry pricing, marketing and lobbying strategies
- Research on supply of and demand for emerging tobacco products
- Research to counter industry challenges to national tobacco control policies under bilateral, regional, and global agreements

Alternative Livelihoods

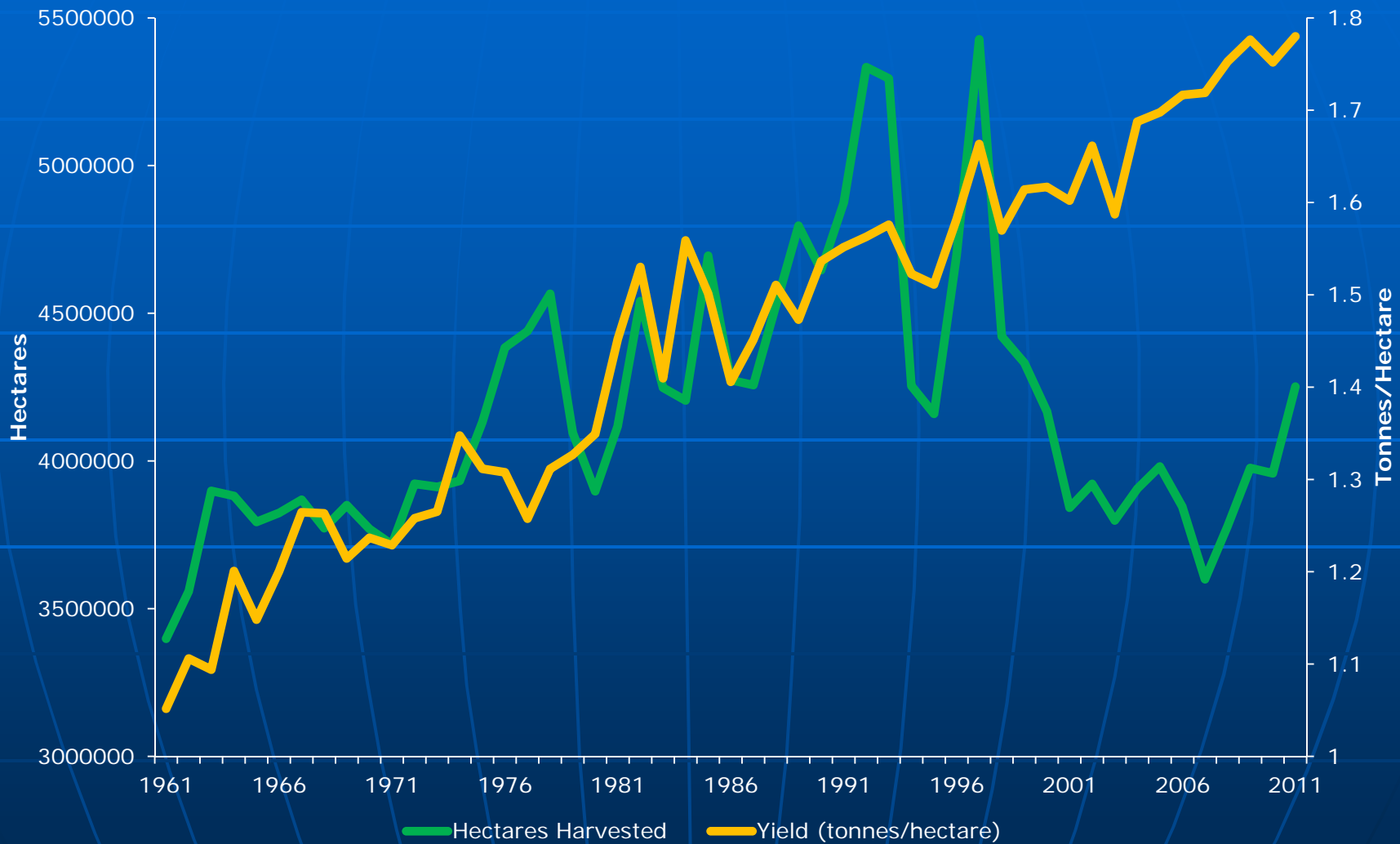
Tobacco Farmers

September 27, 2012 – Tobacco Reporter

FCTC guidelines thought to threaten tobacco grower livelihoods

- “Korean tobacco growers joined with protestors from other countries on Tuesday in Manila, the Philippines, to voice their opposition to measures that are expected to be announced at a tobacco control conference at Seoul, Korea, in November, according to a story in The Korea Herald.”
- “Titled ‘Save Our Farms’ and led by the International Tobacco Growers Association (ITGA), **the protest was said to reflect the views of millions of Asian tobacco growers who fear having their livelihoods destroyed upon the implementation of a series of ‘radical guidelines’**, the Korea Tobacco Growers’ Organization (KTGO) said yesterday.”

Tobacco Farming, Global Trends



Source: FAOSTAT, 2013

Research Needs

- Good estimates of employment in and costs/benefits of tobacco farming
- Case studies documenting successful strategies to transition farmers from tobacco growing to economically viable alternative livelihoods
- In countries highly dependent on tobacco, research on developing economically viable alternatives to tobacco growing and manufacturing

Summary

Summary

- Economic arguments often used in opposition to adoption and implementation of effective tobacco control policies
- Need for economic research to:
 - Highlight economic consequences of tobacco use
 - Refute economic arguments against tobacco control policies
 - Demonstrate economic benefits of reductions in tobacco use

For more information:

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Coming soon:

www.tobacconomics.org