The Economics of Tobacco and Tobacco Control: Global Evidence and Implications for the Republic of Korea

Frank J. Chaloupka, University of Illinois at Chicago
International Symposium on Tobacco Control: An Evaluation and the Way Forward. 28 March 2017, Seoul, Republic of Korea
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
Economic Costs of Tobacco Use
Economic Rationale for Tobacco Control

Major Conclusion 2: Failures in the markets for tobacco products provide an economic rationale for governments to intervene in these markets.
Smoking-Attributable Spending as Share of Total Health Expenditures, 2012, by Income Group and WHO Region

Source: Goodchild, et al., forthcoming
Economic Costs of Smoking-Attributable Diseases as Share of GDP, 2012, by Income Group and WHO Region

Source: Goodchild, et al., forthcoming
Impact of Tobacco Tax Increases
"Sugar, rum, and tobacco, are commodities which are nowhere necessaries of life, which are become objects of almost universal consumption, and which are therefore extremely proper subjects of taxation."
Percentage Change in Real Cigarette Prices vs. Percentage Change in Per Capita Consumption of Cigarettes, 1996–2011

Note: Country income group classification based on World Bank Analytical Classifications for 2011.
Sources: Economist Intelligence Unit 2012; ERC Group 2011; NCI & WHO Monograph, 2016

www.tobacconomics.org
Cigarette Price & Consumption
Republic of Korea, 2005-2015, Inflation Adjusted

Sources: EIU, Euromonitor, and World Bank

www.tobacconomics.org
Adult Smoking Prevalence & Price

Brazil, Inflation Adjusted, 2006-2013

Sources: Ministry of Health, Brazil; EIU; World Bank

www.tobacconomics.org
Cigarette Price & Adult Prevalence
Republic of Korea, 2005-2015, Inflation Adjusted

Sources: EIU, Euromonitor, and World Bank

Price per Pack (2015 Won) vs. Adult Smoking Prevalence, %

Price per Pack
Smoking Prevalence
Monthly Quit Line Calls, United States
11/04-11/09

4/1/09 Federal Tax Increase

1/1/08 WI Tax Increase
Cigarette Prices and Cessation
US States & DC, 2009

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

\[
y = 0.0283x + 43.083
\]

\[R^2 = 0.37104\]
Cigarette Prices & Cessation
Republic of Korea, 2016, ITC Survey

Days Quit in Response to Tax Increase

- <30: 59.4%
- 30-60: 24.6%
- 61-180: 13.3%
- >180: 2.7%

Source: ITC-RoK 2016 Survey
Cigarette Price and Youth Smoking Prevalence
Seniors, United States, 1991-2014

Source: MTF, Tax Burden on Tobacco, 2015, and author's calculations
Elasticity Increasing with Price

U.S. TUS-CPS Data

Price Elasticity of Total Cigarette Use

-0.5 -0.1 0.1 0.5

-0.27 *

Real Cigarette Prices ($)

3 4 5 6 7 8 9
Lung cancer death rates per 100,000 (divided by four): men age 35-44

Sources: Jha & Hill, 2012

www.tobacconomics.org
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
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 2014

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of countries (global)</th>
<th>Number of countries (Americas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total covered</td>
<td>186</td>
<td>33</td>
</tr>
<tr>
<td>Specific excise only</td>
<td>61</td>
<td>15</td>
</tr>
<tr>
<td>Ad valorem excise only</td>
<td>46</td>
<td>9</td>
</tr>
<tr>
<td>Mixture of both excises</td>
<td>61</td>
<td>7</td>
</tr>
<tr>
<td>No Excise</td>
<td>18</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: WHO 2015
## Excise systems on cigarettes

<table>
<thead>
<tr>
<th>Base of tiers</th>
<th>Country</th>
<th># of countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail price</td>
<td>Bangladesh, Mozambique, Philippines, Belarus, Indonesia, Pakistan</td>
<td>6</td>
</tr>
<tr>
<td>High, standard and low end cigarettes</td>
<td>Burkina Faso, Senegal</td>
<td>2</td>
</tr>
<tr>
<td>Producer price</td>
<td>China</td>
<td>1</td>
</tr>
<tr>
<td>Production volume</td>
<td>Indonesia</td>
<td>1</td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>filter/non filter</td>
<td>Armenia, Belarus, India, Nepal, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Papua New Guine, Tajikistan, Ukraine</td>
<td>11</td>
</tr>
<tr>
<td>hand/machine made</td>
<td>Indonesia, India, Philippines</td>
<td>3</td>
</tr>
<tr>
<td>krettek/white cigarette, cheerot/cigarette</td>
<td>Indonesia, Myanmar</td>
<td>2</td>
</tr>
<tr>
<td>Tobacco content (dark/blonde or dark/light)</td>
<td>Andorra, Algeria</td>
<td>2</td>
</tr>
<tr>
<td>Packaging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>soft/hard</td>
<td>Brazil, Mozambique, Uganda</td>
<td>3</td>
</tr>
<tr>
<td>Cigarette length</td>
<td>India, Nepal, Hong Kong, Sri Lanka</td>
<td>4</td>
</tr>
<tr>
<td>Trade (domestic/imported)</td>
<td>Andorra, Uzbekistan</td>
<td>2</td>
</tr>
<tr>
<td>Weight (tobacco content in cigarette)</td>
<td>Belize, New Zealand</td>
<td>2</td>
</tr>
<tr>
<td>Leaf content (domestic/imported)</td>
<td>Fiji</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: WHO 2015
Excise tax structure: Specific and mixed relying more on the specific component tend to lead to higher prices

Source: WHO 2015
Excise tax structure: Simple specific and mixed relying more on specific tax to lead to less variable prices
Excise tax structure: Specific and mixed relying more on the specific component tend to reduce price gaps.
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.”
“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 & Cigarette Sales

Sources: Euromonitor; EIU; World Bank

Cigarette Affordability and Sales, Brazil, 2003-2013

@tobacconomics
Cigarette Affordability
Selected Countries, by Country Income Group, 2013

Notes: Relative income price is the percentage of annual per capita GDP required to buy 100 packs of cigarettes. Country income group classification based on World Bank Analytical Classifications for 2013.
Source: NCI & WHO 2016

@tobacconomics
Cigarette Affordability & Sales
Republic of Korea, 2005-2015

Affordability

Cigarette Sales, Million Sticks

Sources: Euromonitor, EIU, World Bank

@tobacconomics
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).
Average Price of the Most Sold Brand & Excise Tax per pack, and Excise Tax Share

By Income Group 2014

Source: NCI & WHO 2016

www.tobacconomics.org
Average Price of the Most Sold Brand & Excise Tax per pack, and Excise Tax Share

By WHO Region 2014

<table>
<thead>
<tr>
<th>WHO Regions and China</th>
<th>Retail price</th>
<th>Total tax share</th>
<th>Excise tax</th>
<th>Excise tax share</th>
</tr>
</thead>
<tbody>
<tr>
<td>African</td>
<td>2.66</td>
<td>0.64</td>
<td>0.83</td>
<td>73.5%</td>
</tr>
<tr>
<td>Americas</td>
<td>5.34</td>
<td>2.40</td>
<td>0.54</td>
<td>55.1%</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>2.01</td>
<td>2.01</td>
<td>0.83</td>
<td>54.7%</td>
</tr>
<tr>
<td>European</td>
<td>2.94</td>
<td>1.52</td>
<td>1.73</td>
<td>56.7%</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>3.20</td>
<td>1.52</td>
<td>1.73</td>
<td>47.5%</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>3.42</td>
<td>1.73</td>
<td>0.70</td>
<td>50.5%</td>
</tr>
<tr>
<td>China</td>
<td>2.33</td>
<td>0.70</td>
<td>0.70</td>
<td>44.4%</td>
</tr>
<tr>
<td>Global</td>
<td>3.51</td>
<td>1.58</td>
<td>1.58</td>
<td>58.6%</td>
</tr>
</tbody>
</table>

Source: NCI & WHO, 2016

www.tobacconomics.org
## Average Price of the Most Sold Brand & Excise Tax per pack, and Excise Tax Share

### WESTERN PACIFIC: Share of total and excise taxes in the price of a pack* of the most sold brand of cigarettes, 2014; Republic of Korea, 2015

<table>
<thead>
<tr>
<th>Country</th>
<th>% Excise Tax</th>
<th>% All Other Taxes</th>
<th>Total Taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kiribati</td>
<td>78%</td>
<td></td>
<td>88.9%</td>
</tr>
<tr>
<td>New Zealand</td>
<td>64%</td>
<td></td>
<td>77.3%</td>
</tr>
<tr>
<td>Philippines</td>
<td>64%</td>
<td></td>
<td>74.3%</td>
</tr>
<tr>
<td>Tonga</td>
<td>59%</td>
<td></td>
<td>71.9%</td>
</tr>
<tr>
<td>Niue</td>
<td>67%</td>
<td></td>
<td>69.8%</td>
</tr>
<tr>
<td>Palau</td>
<td>60%</td>
<td></td>
<td>66.7%</td>
</tr>
<tr>
<td>Singapore</td>
<td>60%</td>
<td></td>
<td>66.2%</td>
</tr>
<tr>
<td>Japan</td>
<td>57%</td>
<td></td>
<td>64.4%</td>
</tr>
<tr>
<td>Micronesia (Federated States of)</td>
<td>63%</td>
<td></td>
<td>74.0%</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>63%</td>
<td></td>
<td>74.0%</td>
</tr>
<tr>
<td>Brunei Darussalam</td>
<td>62%</td>
<td></td>
<td>61.7%</td>
</tr>
<tr>
<td>Cook Islands</td>
<td>52%</td>
<td></td>
<td>60.8%</td>
</tr>
<tr>
<td>Marshall Islands</td>
<td>48%</td>
<td></td>
<td>58.7%</td>
</tr>
<tr>
<td>Australia</td>
<td>42%</td>
<td></td>
<td>56.8%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>42%</td>
<td></td>
<td>55.4%</td>
</tr>
<tr>
<td>Samoa</td>
<td>44%</td>
<td></td>
<td>55.4%</td>
</tr>
<tr>
<td>Vanuatu</td>
<td>33%</td>
<td></td>
<td>52.2%</td>
</tr>
<tr>
<td>China</td>
<td>30%</td>
<td></td>
<td>44.4%</td>
</tr>
<tr>
<td>Fiji</td>
<td>31%</td>
<td></td>
<td>44.1%</td>
</tr>
<tr>
<td>Mongolia</td>
<td>33%</td>
<td></td>
<td>42.4%</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>33%</td>
<td></td>
<td>41.6%</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>26%</td>
<td></td>
<td>35.5%</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>19%</td>
<td></td>
<td>29.2%</td>
</tr>
<tr>
<td>Cambodia</td>
<td>13%</td>
<td></td>
<td>22.2%</td>
</tr>
<tr>
<td>Lao People's Democratic Republic</td>
<td>8%</td>
<td></td>
<td>17.3%</td>
</tr>
<tr>
<td>Tuvalu</td>
<td>2%</td>
<td></td>
<td>2.7%</td>
</tr>
</tbody>
</table>

Source: WHO 2015; Euromonitor

Note: Data not available for Nauru
“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
Taxable RYO and Pipe Tobacco
US, 2008-2009

Source: US Treasury Department, Alcohol and Tobacco Tax and Trade Bureau
Tobacco and ENDS Taxes

Governments starting to tax electronic cigarettes and other vaping products face multiple options:

1. Tax all tobacco and vaping products at the same rate
   • Minimizes uptake of vaping products by young people
   • Reduces incentives for current tobacco users to substitute to vaping products
   • Generates some new tax revenues

Source: Chaloupka, Warner & Sweanor, 2015
Tobacco and ENDS Taxes

Governments starting to tax electronic cigarettes and other vaping products face multiple options:

2. No or very low tax on vaping products
   • Little impact on uptake of vaping products by young people
   • Maximizes incentives for current tobacco users to substitute to vaping products
   • Likely loss of tobacco tax revenues

Source: Chaloupka, Warner & Sweanor, 2015
Tobacco and ENDS Taxes

Governments starting to tax electronic cigarettes and other vaping products face multiple options:

3. Significant tax on vaping products combined with significant tax increases on tobacco products, particularly combustible products
   - Reduced initiation of tobacco use and use of vaping products by young people
   - Greater cessation among current tobacco users
   - Incentives for current tobacco users who can’t quit to substitute to vaping products
   - Significantly higher tax revenues

Source: Chaloupka, Warner & Sweanor, 2015

www.tobacconomics.org
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.”
Excise Tax per Pack and Excise Tax Revenue
South Africa, Inflation Adjusted, 1961-2012

Sources: Blecher & Van Walbeek, 2014

www.tobacconomics.org
State Tobacco Control Program Funding and Youth Smoking Prevalence, United States, 1991-2009

Source: ImpacTeen Project, UIC; YRBS

www.tobacconomics.org
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
“Parties should consider prohibiting or restricting the sale to and/or importation by international travellers, of tax-free or duty-free tobacco products.”
Economic Impact of Tobacco Control - Dispelling the Myths
Oppositional Arguments

• Massive job losses as tobacco use falls in response to tobacco control policies
• Poor adversely affected by higher tobacco taxes
• Increased illicit trade in response to higher taxes and other tobacco control policies
Oppositional Arguments - Impact on Jobs, Business
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.”
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
Tobacco Control & Business

Impact of smoke-free policies on hospitality sector

• No or small positive impact of smoke-free policies on bar and restaurant business (IARC Handbook 13)

Impact of tobacco control policies on convenience stores (Huang and Chaloupka 2012)

• More business activity where cigarette taxes are higher
• No impact of smoke-free policies
• Overshifting and replacement purchase
Economic Impact of Tobacco Control

Major Conclusion #7:
Tobacco control does not harm economies.
Oppositional Arguments - Impact on the Poor
Impact on the Poor

July 23, 2010 – San Francisco Examiner

• “Democrats are relying more heavily in their midterm 2010 election message that Republicans care nothing about the poor. Conveniently absent from this analysis is Republican opposition to President Barack Obama’s cigarette tax increase…… While higher cigarette taxes do discourage smoking, they are highly regressive. Analyzing a slightly less severe proposal in 2007, the Tax Foundation noted that ‘no other tax hurts the poor more than the cigarette tax.’” Peyton R. Miller, special to the Examiner.
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

Forgone Income 3: Due to premature death

Income increases

Forgone Income 2: Due to treatment cost and loss of work days

Youth and women start smoking and men smoke more

Breadwinner gets sick due to tobacco use

Higher prevalence and consumption level

Forgone Income 1: More money spent on tobacco: high opportunity cost. Less money spent on education, nutrition, etc.

Vicious Cycle of Tobacco and Poverty

Source: NCI & WHO 2016

@tobacconomics
Who Pays & Who Benefits
Turkey - 25% Tax Increase

Source: Adapted from Önder & Yürekli, 2014

Change in Consumption  Change in Taxes Paid

Poorest  -35.3% -2.2%
Middle  -20.4% 8.5%
Richest  -18.5% 9.7%

@tobacconomics
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
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
Costa Rica’s Cigarette-Tax Regime a Gift to Black Markets

Franklin Murillo, the manager of British American Tobacco in Costa Rica, told La Nación on March 31 that “In the face of higher taxes on a legal product … an illicit market will arise that does not compete under equal conditions and provides products at lower prices and lower quality.”

This is a phenomenon that merits our attention. Since the enactment of the Anti-Tobacco Law in Costa Rica on March 2012, we’ve been under the impression that cigarette use has gone down. However, in reality, we’ve seen a dramatic increase in illegal smuggling, and all because of a lack of understanding of how the market works.

In Costa Rica, it was thought that if taxes on cigarettes were increased, no one would buy them anymore because of higher prices. People failed to realize that doing this would only lead to tobacco users turning to the black market.
Tax Avoidance & Evasion Do NOT Eliminate Health Impact of Higher Taxes

NYC Smoking Prevalence Declined as Price Increased

Source: Schroth, 2014

www.tobacconomics.org
Cook County Cigarette Tax and Tax Revenues - FY01-FY06

- Chicago tax rises from 16 to 48 cents, 1/16/06
- Chicago tax up to 68 cents, 1/1/06
- Chicago smoking ban, 1/16/06

Tax Avoidance & Evasion
Do NOT Eliminate Revenue Impact of Higher Taxes
Illicit Cigarette Market Share & Cigarette Prices, 2012

Sources: NCI & WHO, 2016

www.tobacconomics.org
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

Source: NCI & WHO, 2016

www.tobacconomics.org
Illicit Cigarette Market Share and Percentage of Most Popular Price Category Accounted for by Taxes

Italy, 1991–2010

Source: NCI & WHO 2016

@tobacconomics
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

www.tobacconomics.org
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
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.
Key Tobacco Control Policies
Cost-Effectiveness

Source: NCI & WHO, 2016
Key Tobacco Control Policies
Cost-Effectiveness

Cost per HLYG (Intl. $)

- Brief intervention
- Smoke-free protection
- Warning labels
- Advertising ban
- Raise taxes

Source: NCI & WHO, 2016
Implications for Republic of Korea

- Room for additional large tax increases on cigarettes
- Need to regularly adjust tax for inflation and income growth
- Increase taxes on other combustible tobacco products to be equivalent to cigarette tax
- Dedicate revenues to tobacco control programs, support for cessation, and other health promotion efforts
- Strengthened tax administration for continued effectiveness in countering illicit trade
For more information:

http://www.tobacconomics.org

@tobacconomics

Sign up for newsletter:  bit.ly/tbxemail

fjc@uic.edu