Tobacco Tax Structure and Tobacco Use

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The Economics of Tobacco Control in Africa: Linking Research and Advocacy
Singapore, March 20, 2012
Best Practices in Tobacco Taxation
WHO’s Best Practices in Tobacco Taxation

- Simpler is better

  - Complex tax structures more difficult to administer
  - Greater opportunities for tax evasion and tax avoidance under complex tax structures
  - Where existing structure is more complex, simplify over time with goal of achieving single uniform tax
WHO’s Best Practices in Tobacco Taxation

- **Rely more on specific tobacco excises as the share of total excises in prices increases**
  - Greater public health impact of specific excises given reduced opportunities for switching down in response to tax/price increases
  - Sends clear message that all brands are equally harmful
  - Where existing tax is ad valorem, adopt a specific tax and increase reliance on specific tax over time
WHO “Best Practices” for Tobacco Excise Taxes

- **Adopt comparable taxes and tax increases on all tobacco products**
  - Maximizes public health impact of tobacco tax increases by minimizing opportunities for substitution
  - Harm reduction?
Types of Tobacco Taxes

- Tobacco Excise Taxes
  - Two types of excises
    - **Specific Taxes**: excises based on quantity or weight (e.g. tax per pack of 20 cigarettes)
    - **Ad Valorem taxes**: excises based on value of tobacco products (e.g. a specific percentage of manufacturer’s prices for tobacco products)
  - Some countries use a mix of specific and *ad valorem* tobacco excises, differential taxes for different products of given type, minimum taxes, etc.
  - Many countries apply different types of taxes and/or tax rates on different types of tobacco products (e.g. manufactured cigarettes vs. bidis)
# Cigarette Taxation Globally

<table>
<thead>
<tr>
<th>Income Group</th>
<th>Only specific</th>
<th>Only ad valorem</th>
<th>Both specific and ad valorem</th>
<th>No Excise</th>
<th>Total countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>11</td>
<td>2</td>
<td>25</td>
<td>7</td>
<td>45</td>
</tr>
<tr>
<td>Upper Middle</td>
<td>16</td>
<td>11</td>
<td>9</td>
<td>6</td>
<td>42</td>
</tr>
<tr>
<td>Lower Middle</td>
<td>18</td>
<td>19</td>
<td>12</td>
<td>3</td>
<td>52</td>
</tr>
<tr>
<td>Low</td>
<td>10</td>
<td>28</td>
<td>2</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td><strong>By Region</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFRO</td>
<td>14</td>
<td>29</td>
<td>1</td>
<td>2</td>
<td>46</td>
</tr>
<tr>
<td>AMRO</td>
<td>13</td>
<td>16</td>
<td>2</td>
<td>3</td>
<td>34</td>
</tr>
<tr>
<td>EMRO</td>
<td>1</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td>EURO</td>
<td>10</td>
<td>3</td>
<td>36</td>
<td>0</td>
<td>49</td>
</tr>
<tr>
<td>SEARO</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>WPRO</td>
<td>14</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td><strong>All Countries</strong></td>
<td><strong>55</strong></td>
<td><strong>60</strong></td>
<td><strong>48</strong></td>
<td><strong>19</strong></td>
<td><strong>182</strong></td>
</tr>
</tbody>
</table>

* Countries for which data are available

Source: WHO calculations using WHO GTCR 2009 data
# Cigarette Taxation Globally

<table>
<thead>
<tr>
<th>Specific (51)</th>
<th>Ad Valorem (47)</th>
<th>Mix (47)</th>
<th>Uniform (41)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiers (21)</td>
<td>Uniform (30)</td>
<td>Uniform (41)</td>
<td>Tiers (6)</td>
</tr>
<tr>
<td>Bosnia, Brazil, Belarus, Croatia, Egypt, Fiji, Ghana, India, Indonesia, Kazakhstan, Kenya, Kyrgyzstan, Nepal, New Zealand, Papua New Guinea, Philippines, Republic of Korea, Sri Lanka, Tajikistan, Tanzania, Uzbekistan</td>
<td>Albania, Algeria, Andorra, Armenia, Australia, Azerbaijan, Barbados, Belize, Botswana, Brunei, Canada, Colombia, Cuba, Georgia, Haiti, Jamaica, Japan, Lesotho, Malawi, Mauritius, Namibia, Norway, Singapore, South Africa, Suriname, Swaziland, Trinidad &amp; Tobago, Uganda, Uruguay, USA</td>
<td>Angola, Bangladesh, Burkina Faso, Côte d'Ivoire, Myanmar, Senegal</td>
<td>Bolivia, Burundi, Cambodia, Cameroon, Chile, Costa Rica, Congo, Ecuador, El Salvador, Ethiopia, Gabon, Guatemala, Guinea, Guyana, Honduras, Iran, Laos, Lebanon, Liberia, Libya, Mali, Mauritania, Mexico, Mozambique, Nicaragua, Niger, Nigeria, Panama, Paraguay, Peru, Rwanda, Sierra Leone, Sudan, Togo, Turkey, Turkmenistan, Venezuela, Viet Nam, Yemen, Zambia, Zimbabwe</td>
</tr>
</tbody>
</table>

**Note:**

1. Out of the 155 countries for which there are data in TMA, 10 countries had no excise tax.
2. The following countries imposed a minimum tax in addition to their statutory rates: the 27 EU countries, Israel, Russia, Switzerland, Turkey, Turkmenistan, and Ukraine.

*Source: TMA 2009*
## Cigarette Taxation Globally

**Table 2: Different bases for tiered systems around the world**

<table>
<thead>
<tr>
<th>Differential /Tiered Excise taxes on cigarettes</th>
<th>Number of countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total covered</td>
<td>156</td>
</tr>
<tr>
<td>With tiers</td>
<td>32</td>
</tr>
<tr>
<td>Base of tiers</td>
<td></td>
</tr>
<tr>
<td>Retail price</td>
<td>11</td>
</tr>
<tr>
<td>Producer price</td>
<td>2</td>
</tr>
<tr>
<td>Sales volume</td>
<td>1</td>
</tr>
<tr>
<td>Production volume</td>
<td>1</td>
</tr>
<tr>
<td>Type - filter/non filter</td>
<td>12</td>
</tr>
<tr>
<td>Type - hand/machine made</td>
<td>2</td>
</tr>
<tr>
<td>Type - kretiek/white cigarette</td>
<td>1</td>
</tr>
<tr>
<td>Packaging soft/hard</td>
<td>3</td>
</tr>
<tr>
<td>Cigarette length</td>
<td>4</td>
</tr>
<tr>
<td>Trade - domestic/imported</td>
<td>1</td>
</tr>
<tr>
<td>Weight (tobacco content in cigarette)</td>
<td>1</td>
</tr>
<tr>
<td>Leaf content (domestic/imported)</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Of the 155 countries with available data in TMA, 10 countries has no excise. Some countries differentiate based on more than one criteria. 8 countries differentiate their excises based on more than 1 criteria.

Source: TMA 2009
## Cigarette & Bidi Taxes, India, 2009

<table>
<thead>
<tr>
<th>Description</th>
<th>BED (Length)</th>
<th>NCCD</th>
<th>AED</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unfiltered Cigarette (Rs. Per 1000)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>length ≤ 60 mm</td>
<td>659</td>
<td>90</td>
<td>70</td>
<td>819</td>
</tr>
<tr>
<td>length 60-70 mm</td>
<td>1068</td>
<td>145</td>
<td>110</td>
<td>1323</td>
</tr>
<tr>
<td><strong>Filtered Cigarette (Rs. Per 1000)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>length ≤ 70 mm</td>
<td>659</td>
<td>90</td>
<td>70</td>
<td>819</td>
</tr>
<tr>
<td>length 70-75 mm</td>
<td>1068</td>
<td>145</td>
<td>110</td>
<td>1323</td>
</tr>
<tr>
<td>length 75 - 85 mm</td>
<td>1424</td>
<td>190</td>
<td>145</td>
<td>1759</td>
</tr>
<tr>
<td>length &gt; 85 mm</td>
<td>1748</td>
<td>235</td>
<td>180</td>
<td>2163</td>
</tr>
<tr>
<td><strong>Bidis from producer making &lt; 2 million sticks/year</strong></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Bidis other than paper rolled, manufactured without machines (Rs per 1000)</strong></td>
<td></td>
<td>12</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td><strong>All Other Bidis (Rs per 1000)</strong></td>
<td></td>
<td>30</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

**Notes:**
- BED: Basic Excise Duty; SED: Special Excise Duty; NCCD: National Calamity Contingency Duty;
Types of Tobacco Taxes

- Specific taxes:
  - Easier to administer
    - No valuation issues
  - Real value falls with inflation
  - Smaller price gap between high/low priced brands
  - Generally produce more stable stream of revenue
  - Promote higher “quality” products
    - Producers keeps all of additional price from higher quality products
Types of Tobacco Taxes

- **Ad valorem** taxes:
  - More difficult to administer given variety of different prices
    - Valuation problems, abusive “transfer” pricing
    - May require minimum price policies
  - More likely to keep pace with inflation
  - More unstable revenues
    - Government subsidizes industry price cuts but benefits from industry price increases
  - Larger price gap
    - Greater potential for “switching down” in response to tax increase
  - Favor low “quality” products
    - Less incentive to invest in quality given price rises by more
  - May be protective for domestic industry
    - if imports or foreign-owned brands tend to be higher quality/price
  - More “equitable”
    - Absolute amount of tax higher on higher priced brands
Types of Tobacco Taxes

- Mixed systems
  - More difficult to administer given variety of different prices
    - Valuation problems, abusive “transfer” pricing
  - Better able to keep pace with inflation
  - Somewhat less stable revenues
    - Government still subsidizes industry price cuts and benefits from industry price increases, just not as much
  - Reduced price gap
    - Relative to pure ad valorem
  - More protective for domestic industry
    - Relative to pure specific
  - Somewhat more “equitable”
Uniform Specific Tax, $0.50 per pack

Price Gap: $1.60

Producer price, tax, retail price, and tax as % of price are shown in the graph.
Uniform Ad Valorem Tax, 62.5% of Producer Price

Price Gap: $2.60

Tax as % of Price
Mixed Ad Valorem Tax, 30% of Producer Price
and Specific Tax, $0.26 per pack
OR Minimum Tax of $0.75 per pack

Price Gap: $1.83
Tiered Ad Valorem Tax, 62.5%, 83.3%, 125% of Producer Price

Price Gap: $4.10

Producer price
Tax
Retail price
Tax as % of price
Tax Structure and Tobacco Use

- EU Analysis:
  - Cigarette prices
  - Cigarette tax revenues
  - Tax paid cigarette sales
  - Smoking Prevalence
    - Mostly 1997-2008
  - Control for:
    - Economic conditions (real GDP per capita, unemployment rate)
    - Market structure (Herfindahl-Hirschman Index)
    - Country, year fixed effects
Structures of excise on cigarettes

*pack 20 pieces MPPC*

16 July 2008; Frank Van Driessche, European Commission, Director General for Taxation and the Customs Union
Conclusions

- Greater reliance on specific tobacco excises:
  - Reduced gap in prices between high and low priced cigarette brands
  - Produced more stable, predictable stream of cigarette excise tax revenues
  - Had greater impact on cigarette smoking
  - Effects vary with market structure
Global Adult Tobacco Survey

- CDC/WHO Partnership
  - Nationally representative, face-to-face household survey of adult (15+) population
  - 14 BGI countries; most complete and released
  - New countries in field or planning stages

- Data on:
  - tobacco use, cessation, knowledge/attitudes, exposure to tobacco smoke, media influences, economics

- Key measures:
  - Price, brand choice, tobacco use
International Tobacco Control Policy Evaluation Surveys

• Multiple researchers and funders
  - Cohort surveys of smokers/tobacco users
  - 23 countries; varying start dates, waves
  - Mix of high, middle, low income countries; covers all regions; most of the world’s tobacco users

• Data on:
  - tobacco use, cessation, knowledge/attitudes, exposure to tobacco smoke, media influences, economics; key policy mediators

• Key measures:
  - Price, brand choice, other purchase behaviors, tobacco use
National Cancer Institute UO1

- Assess impact of differential tobacco product taxes
  - Most states tax other tobacco products below cigarettes
  - Specific cigarette taxes in all states, *ad valorem* taxes on other tobacco products in most
    - In recent years, industry pushing states to move from *ad valorem* to specific, weight based taxes
    - 5 states and Federal smokeless taxes currently weight based
  - Taxation of new generation of tobacco products unclear
Traditional vs. New Non-Combustible Products

**Camel Snus**
1 tin (15 pouches) = 0.32 oz.

**Stonewall Hard Snuff**
1 box of 20 “Pieces” = 0.335 oz.

**Marlboro Snus**
1 “foil pack” (6 pouches) = 0.1 oz.

**Skoal Pouches**
1 tin (20 pouches) = 0.82 oz

**Camel Orbs**
1 box of 15 “Pieces” = 0.12 oz.

Source: Eric Lindblom, Campaign for Tobacco-Free Kids
Data

Key data components include:

• *Policy surveillance* – original legal research building on past & ongoing research for BTG/ImpacTeen state tobacco policy database; data for 2002 through 2013

• *Observational data collection* - expand tobacco component of ongoing Bridging the Gap Community Obesity Measures Project in MTF communities; current data for 2010 and 2011; expanded data for 2012

• *Adult tobacco use survey* – adaptation of International Tobacco Control Policy Evaluation Project’s adult smoker survey; conducted in BTG-COMP communities in 2012

• *Existing data* - numerous surveys, commercial databases, and archival data sources
For more information:

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