The Role of Commodity Taxes in Health Promotion

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Taxes on tobacco, alcohol, salt and other goods have existed in many countries for centuries.

Historically the primary objective has been revenue generation.

In recent years tax increases at least partially motivated by public health concerns.
Alcohol Taxes in OECD Countries

• Excise duties on wine vary across OECD countries:
  – **Zero**: Austria, Greece, Israel, Italy, Luxemburg, Portugal, Slovenia, Spain and Switzerland
  – **More than $2.5/litre**: Finland, Iceland, Ireland, Norway and the United Kingdom

• All OECD countries apply VAT on wine
  – VAT rates vary from **5%** to **25%**
Tobacco Taxes in OECD Countries

- Most OECD countries use a combination of **specific** and **ad valorem excises**

- All OECD countries apply **VAT** (rates vary from **5%** to **25%**)

Source: European Commission, 2010
Food Taxes in OECD Countries

- **Denmark, 2011**: 16 kroner (EUR 2.15) per kg of saturated fat (on food with more than 2.3% of saturated fat)

- **Finland, 2011**: EUR 0.75 per kg on confectionery products

- **France, 2012**: EUR 7.16 per hectoliter on drinks with added sugars and drinks with artificial sweeteners

- Most OECD countries apply a **reduced VAT rate** or **sales tax exemptions** on most foods and beverages
Tobacco taxes (excise + VAT) account for 1% to 10% of tax revenues in countries at different levels of income.

Excise taxes on tobacco and alcohol products as share of total tax revenues are:

- 1.85% in Germany
- 2.55% in Finland
- 2.6% in Japan
- 3.4% in Hungary
Trends in Excise Tax Revenues

• Excise revenues as % of total tax revenues:

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<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>14.2</td>
<td>10.5</td>
<td>9.5</td>
<td>8.3</td>
<td>8.4</td>
<td>8.1</td>
</tr>
</tbody>
</table>

• Excises on alcohol and tobacco products as % of total tax revenues in the period 2000-2010:
  – were stable in Germany
  – slightly decreased in Japan (from 3.0% to 2.6%) and in Finland (from 2.9% to 2.5%)
  – slightly increased in Hungary (3.2% to 3.4%)
Effects depend on:

a) Own price elasticity

b) Cross price elasticity

c) Pass-through
(a) Own Price Elasticity

- **Tobacco**: Most estimates between -0.25 and -0.5, clustered around -0.4 (Chaloupka et al., 2000)

- **Alcoholic beverages**:

<table>
<thead>
<tr>
<th>Source</th>
<th>Distilled spirits</th>
<th>Wine</th>
<th>Beer</th>
<th>Total alcohol consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fogarty 2006</td>
<td>-0.70</td>
<td>-0.77</td>
<td>-0.38</td>
<td></td>
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<tr>
<td>Gallet 2007</td>
<td>-0.68</td>
<td>-0.70</td>
<td>-0.36</td>
<td>-0.50</td>
</tr>
<tr>
<td>Wagenaar et al. 2008</td>
<td>-0.80</td>
<td>-0.69</td>
<td>-0.46</td>
<td>-0.51</td>
</tr>
</tbody>
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- **Soft drinks**: Sugar-sweetened beverages: -1.21 [-0.71 to -3.87]; Soft drinks: -0.86 [-0.41 to -1.86] (Powell 2013)

- **Food**:

<table>
<thead>
<tr>
<th>Source</th>
<th>Eggs</th>
<th>Sugar &amp; sweets</th>
<th>Cheese</th>
<th>Fats &amp; oils</th>
<th>Meats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andreyeva 2010</td>
<td>-0.27</td>
<td>-0.34</td>
<td>-0.44</td>
<td>-0.48</td>
<td>≈ -0.70</td>
</tr>
<tr>
<td>Bonnet 2007</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-1.45</td>
<td>-1.69</td>
</tr>
</tbody>
</table>
(b) Cross Price Elasticity

- Complementarity between regular and low-calorie soft drinks (-0.46; -0.86)

- Alcoholic beverages are complements for cigarettes, but not the reverse (Koksal & Wohlgenan, 2011; Pierani & Tiezzi, 2005)

- Substitution effect between whole milk and low or reduced-fat milk is bigger than between whole milk and skim milk ([0.06-0.5] and [0.01-0.29])
(c) Pass-through Effect

Summary of results of pass-through for Ireland, by beverage, 1994-2010

<table>
<thead>
<tr>
<th>Beverage</th>
<th>Off-premise (€)</th>
<th>On-premise (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer</td>
<td>0.37–0.45</td>
<td>0.00*</td>
</tr>
<tr>
<td>Spirit</td>
<td>0.57–0.67</td>
<td>0.09–0.10</td>
</tr>
<tr>
<td>Wine</td>
<td>0.33</td>
<td>0.18</td>
</tr>
</tbody>
</table>

* The analysis finds statistically insignificant results (or pass-through not different from zero Euros).

Pass-through for beer in Ireland; Finland; Latvia and Slovenia

Source: RAND Europe 2012
Effects on Consumption

• Demand for unhealthy commodities is generally inelastic:
  – Modest change in consumption
    BUT
  – Reduced substitution effect
  – Likely high pass-through
Additional Impacts of Taxation

• Financial impact on consumers:

• Population with income <£36 per week spend 0.7% of their total income on food, the richest pay less than 0.1% (Leicester, 2004)

• Disadvantaged socio-economic groups will benefit the most in health terms
Additional Impacts of Taxation

- Smuggling/illicit trade

Unrecorded alcohol consumption

Litres of pure alcohol

% of total consumption

% unrecorded

unrecorded
Additional Impacts of Taxation

• **Earmarking**: Countries may decide to use tax revenues to fund further health promotion efforts
  
  – Some **38 countries** earmark part or all their tobacco taxes for specific programs
  
  – Few governments earmark tobacco tax revenues for tobacco control efforts
    (Chaloupka 2012)
Conclusions

• Increased interest in taxes on health-related commodities
• Public health justification
• Reluctance to fund synergistic measures
• Concern about regressive impacts and effect on business/labour