Economics of Tobacco Control in China: From Policy Research to Practice

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SPECIAL COMMUNICATION

Cigarette taxation in China: lessons from international experiences

Teh-wei Hu

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“Health, not economic arguments, are the reasons for controlling tobacco, but economic arguments, are raised as an obstacle to tobacco control policies,” Gro Harlem Brundtland, former WHO Director General (2004)
Theme of the book

Addressed: not only why Chinese should raise tobacco tax, but also how to raise tobacco tax.
The purposes of the book

1. To inform economists, public health professionals, and policy makers about economic consequences of smoking
2. To provide economics and public health information of the impact of the tobacco tax policies
3. To identify barriers, challenges, and recommendations for the Chinese government
4. To describe how research findings can be disseminated and communicated successfully to the Chinese government policy makers
Background: Cigarette Smoking, Taxes, and Health Impact in China

- More than 300 million smokers
- More than 700 million second-hand smokers
- Consumed more than 120 billion packs
- State Tobacco Monopoly Administration (STMA) contributed more than US$ 130 Billion taxes (>6% of central government revenue)
- More than 1 million smoking-related death
Content

I. Economic cost of smoking
II. Demand of cigarette consumption
III. Tobacco taxation system and its reform impact
IV. Tobacco control in China: Barriers, Challenges, and Recommendations
Economic cost of smoking
(2008 price in US $)

Direct cost: 6.2 billion
Indirect cost: 22.7 billion
Total: 28.9 billion
• about 45% of STMA tobacco profit and tax
• 3% of the total Chinese national health care costs

Yang, Sung, Mao, Hu (2011)
Demand for cigarette consumption

• Estimated price elasticities range from -0.15 to -0.70
• An increase 1 RMB per pack, 4-7% of smokers may switch from one higher priced brand to lower priced brand
• Even with wide price range (US$ 0.15 to US$15 per pack) tax on cigarette is still effective to reduce consumption

Social Norm of Cigarette Gifting in China

• 23% of smokers have either received or given cigarette as gifts

Zhang, Lin, Hu (2016)
Simulation of Impact of tax/price increase per pack of cigarette on lives saved

<table>
<thead>
<tr>
<th>Price Elasticity</th>
<th>Tax price increase</th>
<th>New tax rate (%)</th>
<th>Number of smokers quitting smoking (million)</th>
<th>Lives saved (million)</th>
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</thead>
<tbody>
<tr>
<td>0.15</td>
<td>1</td>
<td>51</td>
<td>4.1</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>58</td>
<td>8.2</td>
<td>2.1</td>
</tr>
</tbody>
</table>

- Additional 1 RMB per pack, 4.10 million would quit smoking and 1 million lives saved
- Additional 2 RMB per pack, 8.20 million would quit smoking and 2.1 million lives saved

Hu, Mao, Shi, Chen (2009)
Simulation of Impact of tax/price increase per pack of cigarette on government revenue

- Additional 1 RMB per pack, government revenue increases by 85.4 billion
- Additional 2 RMB per pack, government revenue increases by 164.5 billion

<table>
<thead>
<tr>
<th>Price Elasticity -0.15</th>
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<tbody>
<tr>
<td>Tax price increase</td>
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<tr>
<td>New tax rate (%)</td>
</tr>
<tr>
<td>Additional Government Revenue (billion)</td>
</tr>
</tbody>
</table>

Hu, Mao, Shi, Chen (2009)
Simulation Model Shows Effectiveness of Tobacco Tax

- Tobacco tax is more cost-effective than other non-price tobacco control policies (smoke-free in public place, warning label, etc)
- Tobacco tax could be pro-poor

Levy, Buno, Hu (2014)
Barriers to Effective Tobacco Control

• Political Barriers
• Structural Barriers
• Economic Barriers
• Social Barriers

Hu, Lee (2013)
From Policy Research to Practice

• Shared research findings with government officials and media reporters through workshops held each year since 2002
• Provided policy briefs and sent personal communications through informal channels to key government officials
• Collaborated closely with CATC and key government/academic/research institutions
• Publications through media and key Chinese government journals
Comparison of Chinese Tobacco Excise Tax Structure before and after May 10, 2015

<table>
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<tr>
<th></th>
<th>Before May 10, 2015</th>
<th>After May 10, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>At Producer price level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific excise tax (per pack)</td>
<td>0.06 RMB</td>
<td>0.06 RMB</td>
</tr>
<tr>
<td>Ad valorem tax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;= 7 RMB</td>
<td>56%</td>
<td>56%</td>
</tr>
<tr>
<td>&lt; 7 RMB</td>
<td>36%</td>
<td>36%</td>
</tr>
<tr>
<td><strong>At Wholesale price level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific excise tax (per pack)</td>
<td>0</td>
<td>0.10 RMB</td>
</tr>
<tr>
<td>Ad valorem tax</td>
<td>5%</td>
<td>11%</td>
</tr>
</tbody>
</table>
Preliminary Results of 2015 Tax Increase

• Tax rate at retail price increased from 52% to 56%
• Average retail price increase 10.3% (1 RMB per pack)
• Sales reduced 2.38% (or reduced 3 billion packs)
• Contributed additional central government revenue of 72 billion RMB (US $ 11 billion)

(Marquez and Zheng, World Bank, Investing in Health, Nov.9, 2016)
Retail prices of tobacco and other foods in China

Affordability Index of cigarette consumption (2000-2014, 2000=1)

Data Sources:
Cigarette prices in China are still relatively cheap

- Compare to retail prices increase among food, alcohol, tea and soft drinks between 2000 and 2014, it increased 210%, 38%, and 18% respectively. Cigarette increased only 4.6%.
- Taking into account the annual growth of GDP and the price increase in cigarette between 2000 and 2014, smokers have increased 120% in purchasing power (It is 120% cheaper in 2014 compared to 2000).

Hu, Zhang, Zheng (2016)
China still has room to raise cigarette tax

- Median cigarette tax rate around the world is 75% of the retail prices
- WHO recommended a benchmark is 70% of the retail price
- China current cigarette tax rate is 56% of retail price
Recommendations

• Raise the specific excise tax at the wholesale price level from 0.6 RMB to 1RMB per pack
• Converting the tiered ad valorem tax rates into a uniformed tax rate at the producer price level, from 36% to 56% of all classes
• Use earmark portion of the additional cigarette tax revenue for health care reform and health promotion, and tobacco crop diversification.
Thank you!