Tobacco Endgame and Effective Tobacco Tax Policy

Hana Ross, PhD
School of Economics
University of Cape Town
Key Messages

• Higher taxes improve public health.
• Higher taxes improve public health even if some smokers consume illegal cigarettes.
• Because tobacco taxes are not exhaustible, they can be the primary policy of the End Game.
• Tobacco tax revenue is important, but not vital for the economy.
• As the endgame countries gain economic benefits from healthier populations, Govt' revenue sources will rise (while some expenditures will be reduced.)
• Hong Kong has several options how to “play” the End Game.
Raising Tobacco Taxes: Win for Public Health

• Significantly increasing the excise tax and price of tobacco products is the single most consistently effective tool for reducing tobacco use.

• In HICs, (or territories like Hong Kong) estimates of price elasticity of demand range from -0.2 to -0.6, clustering around -0.4. Price elasticity in Hong Kong is -0.3

Source: WHO report on the global tobacco epidemic, 2015 (Figure)
Tax Hikes in South Africa: Win for Public Health

![Graph showing the impact of tax hikes on smoking habits in South Africa. The graph illustrates the increase in prices per pack of 20 cigarettes and the corresponding decrease in consumption.](image-url)
Hong Kong: Taxes Reduce Consumption

Source: Author’s calculation based on Custom and Excise department, Hong Kong
Hong Kong: Tax Did Not Do it Alone

TC index

Source: Jing Chen, HKU, 2017
Cigarette Price & Youth Smoking Prevalence in Chile, 2000 - 2015

Source: Paraje, 2017, Adapted from Chaloupka, 2017
Higher Taxes Prevent Potential Users From Initiation: Hong Kong

Prevalence of current smoking among S1-S5 students

- ↓ 27% smoking prevalence
- ↓ 51% smoking prevalence
- ↓ 13,452 current smokers
- Avoid at least 6,726 future deaths


2007 Jan: smokefree law implementation
2009 Feb: 50% increase in tobacco tax

Lung Cancer Deaths: males age 35-44/4

Number cigarettes/adult/day

Relative Price

Year


Price/Deaths (% Relative to 1980)

50 100 150 200 250 300

Source: Jha, 2009
Higher prices = lower infant mortality

- EU study: An increase of €1 (US $1.18) per pack in the median cigarette price is associated with a significant decline in infant mortality both the same year and the following year.

- Cigarette price increases across 23 European countries between 2004 and 2014 were associated with 9208 fewer infant deaths.

Increasing Tobacco Tax

A “WIN-WIN” FOR HEALTH AND THE ECONOMY

Higher taxes on tobacco products reduce tobacco consumption and improve public health, while also increasing government revenues that can be used to fund priority investments and programs that benefit the entire population.
Tax Hikes in South Africa: Win for Public Health, and Win for Revenues

Illicit cigarettes represent 23% (GFA Consulting Group, 2012) up to 28% of the market (EM, 2017).
Tobacco Excise Tax Policy in Ukraine, 2008 - 2017

Tax rate increased 10-times; revenue 6-times; sales dropped 40%; prevalence went down 28%. Tobacco tax = 1.7% of GDP in 2017, up from 1.5% GDP in 2016. By 2035, 125,000 new cases of tob. related diseases, 30,000 prem. deaths, 260,000 YLL prevented.
Higher Tax Rate, Higher Tax Revenue In Hong Kong

Source: Author’s calculation based on Customs and Excise Department, Hong Kong
Tax Revenue in Hong Kong Increased Despite Lower Consumption

Illicit cigarette market share = 15% (Tsui, 2016); Industry estimates 36% (Chen et al, 2014)

Source: Author’s calculation based on Customs and Excise department, Hong Kong
Arizona – Tax Evasion (1)

Percent of cigarettes stamps sold by location and buyer, 2001-2007

- Regular retail
- Reservation sales to non-Indians

©2016 Hana Ross
Arizona – Tax Evasion (2)

Tax revenue from cigarettes & other tobacco products, and sold packs, AZ 2004-2007

- # of cigarette packs sold
- Net cigarette tax revenue

©2016 Hana Ross
Impact of Tax Increases: UK

Source: HM Customs & Revenue. ASH.
Tax Gap Estimates, UK, 2013-14

Tax Gap - Billion Pounds

- Inc, CG, NIC: £14.0, 41%
- VAT: £13.1, 39%
- Corporate Tax: £3.0, 9%
- Excise Taxes: £2.7, 8%
- Tobacco Excise Taxes: £1.1, 10%
- Other Taxes: £1.1, 3%

Percent of Taxes Avoided/Evaded:
- £0.0
- £2.0
- £4.0
- £6.0
- £8.0
- £10.0
- £12.0
- £14.0
- £16.0

Tax Gap - Billion Pounds

- Tax Gap
- Share
End Game: New Zealand

- First country to adopt a government-endorsed ‘endgame’ goal—achieving a prevalence of <5% by 2025.
- Tax policy is the main tool of the endgame – it is not an exhaustible policy.
- Annual tobacco tax increase of 10% above inflation until 2020 – not high enough to achieve the endgame goal.
- Tobacco tax revenue is projected to increase from NZ $1.3 billion in 2011 to NZ$3.7 billion by 2025.
- Price of a pack as of Jan 2017 - NZ$20 (HK$ 110)
- A range of tobacco endgame strategies is needed to achieve <5% prevalence for all social groups.
- A model showed that rapid increases in illicit trade may initially counter the effects of higher taxes, but the reductions in smoking prevalence will far outweigh any short-term effects of increases in illicit trade, if taxes are regularly increased.

Note: if people do not smoke, illicit cigarette trade is eliminated Cobiac et al., 2015.
End Game Countries Recognize That

- Tobacco tax revenue is important, but not vital for the economy.
- The economic benefits from a healthier population will outweigh any tobacco revenue loss.
- Government is not dependent on tobacco taxes for its revenue (0.55% of GDP in New Zealand in 2011; similar in HK); alternative revenue sources exist and will be utilized.
How to Play the End Game
• Excise tax: high specific element, low ad valorem

• Maintain high tax rates to support health policy and reduce affordability: in 2006 the price of cigarettes relative to GDP per capita was greater than in all other high income countries, except for New Zealand.

• Average price in 07/16 = €10.5 (about HK$ 97); excise tax = €7.06 (67%)

• Regular tax increase (an escalator of 2% above inflation).

• Since 2007 the UK has scored highest for tobacco control policy implementation in Europe.
<table>
<thead>
<tr>
<th>Years</th>
<th>Tobacco excise increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993 – 1997</td>
<td>3% above inflation (RPI)</td>
</tr>
<tr>
<td>1998 – 2000</td>
<td>5% above inflation</td>
</tr>
<tr>
<td>2001 – 2008 *</td>
<td>In line with inflation</td>
</tr>
<tr>
<td>2009</td>
<td>2% increase [NB at a time of deflationary RPI forecast of -3%]</td>
</tr>
<tr>
<td>2010</td>
<td>1% above inflation, with a commitment to minimum 2% above inflation increases for next four years</td>
</tr>
<tr>
<td>2011</td>
<td>2% above inflation [Additional 10% increase on hand-rolled tobacco]</td>
</tr>
<tr>
<td>2012</td>
<td>5% above inflation</td>
</tr>
<tr>
<td>2013 onwards</td>
<td>2% above inflation [with a commitment to 2% above RPI for the 2015-2020 Parliament]</td>
</tr>
<tr>
<td>2016</td>
<td>In 2016 tax on handrolled tobacco was increased by an additional 3% above RPI—5% above RPI in total</td>
</tr>
</tbody>
</table>
Article 6: International Best Practice - Australia

- Specific tax only.
- Indexes tobacco tax increases to inflation twice a year.
- In 2010 it increased tobacco excise taxes by 25%; revenues increased by 13%.
- Price/tax in 2015: AU$ 16.2/9.4 (HK$ 98/57); excise = 58% of retail price.
- 2017 – 2020: annual tax increases of 12.5%
- Allocated AU$7.7 million a year to combat illicit tobacco activity, provision for stronger penalties, a reduction in duty free allowance to 25 cigarettes per person.
- Mass media campaigns + plain packaging
Cigarettes Affordability in Hong Kong

Cigarette affordability

Possible Hong Kong Tax Strategy

- Inflation is relatively low; 2.4% in 2016, expected 2.8% in 2018.
- GDP growth in 2017: 4.3%
- Given that tax is specific, it need to be increased by 7% a year just to keep the affordability constant.
- Annual tax increase above 7% needed to reduce affordability of cigarettes, and their consumption.
Industry Response to Tax Policy in Hong Kong

Tax in Hong Kong is usually over shifted:

- 2011 - tax increased by HK$10, price increased by HK$11
- 2014 – tax increased by HK$4, price increased by HK$5

This is good for public health, less favorable for tax revenue, very favorable for tobacco industry. It also signals that the market can handle higher prices and that the industry is not worried about illicit cigarette trade.
Tax Avoidance/Evasion: Illicit Trade in Hong Kong

- Euromonitor estimates of illicit market are problematic:
  - 2006: 39.1% of legitimate sale (EMI, 2007)
  - 2007: 24.6% of legitimate sale (EMI, 2014)
  - 2012: 33.1% of legitimate sale (EMI, 2014)
  - 2012 EMI comment: a significant rise in smuggling activities due to higher tax.
  - No tax change 2006 – 2007, but 37.1% decrease in illicit market?
  - Tax more than doubled 2006 – 2012, but 15% decrease in illicit market?
  - 2012 illicit trade estimate funded by Philip Morris: 35.9% of total market, i.e. 21.5%% higher than 2012 EMI estimates published in 2017.

- COSH estimate: 8.2 – 15.4% of the market consists of illicit cigarettes.
Key Messages

• Higher taxes improve public health.
• Higher taxes improve public health even if some smokers consume illegal cigarettes.
• Because tobacco taxes are not exhaustible, they can be the primary policy of the End Game.
• Tobacco tax revenue is important, but not vital for the economy.
• As the endgame countries gain economic benefits from healthier population, the Govt revenue sources will expand while some expenditures will be reduced.
• Hong Kong has several options how to “play” the End Game.
Thank you!

Hana Ross
hana.ross@uct.ac.za