

7.1

Policy Interventions: Taxation

The theory of tobacco taxation

Governments have three reasons to raise taxes on tobacco:

- To deter consumption
- To correct for externalities such as health care costs
- To raise revenue.

The law of demand in economics states that *ceteris paribus*, if the price of a commodity rises, the quantity demanded of the commodity will fall. How does this law apply to tobacco? It is instinctive to argue that, given its addictive nature, tobacco would be an exception to the rule. However, a large number of econometric studies that have examined the relationship between prices and tobacco use using various time series, household- and individual-level datasets have reached the unequivocal consensus that higher prices are effective in reducing tobacco use, especially among the young and the poor.

The summary measure used to document this is that of elasticity of demand. The responsiveness of the quantity demanded by consumers to changes in the price is called the price elasticity of demand. For example, if a 10% increase in price leads to a 5% fall in the quantity demanded, the elasticity of demand is -0.5 . The higher the responsiveness of consumers, the greater the elasticity of demand.

In terms of policy decisions, two considerations emerge. One, an increase in the taxes on tobacco products (resulting in an increase in price) leads to a fall in the demand for these products,

thereby reaching a positive public health outcome. Second, most governments see taxation on tobacco products (and similar products such as alcohol) as a source of revenue.

Policy-makers are often apprehensive of the fall in consumption that is expected to come about as a result of a rise in the taxes on tobacco products. The fear is that this will generate less revenue. However, this fear is unfounded, at least in the short- to medium term. This is because the demand for tobacco is relatively inelastic, i.e. a fall in the consumption of tobacco will be less than proportional to the rise in price. In the long run, though, the effect on revenue is uncertain.

The following are the caveats of the elasticity analysis:

- The responsiveness changes with the age of recruitment to tobacco (the evidence is of a much higher E_p [price elasticity] among young smokers).
- The responsiveness changes with income levels. (The lower socioeconomic groups respond more by reducing consumption.)
- The responsiveness changes with the availability of substitutes (although scratchy evidence suggests high brand and product stickiness of consumers).
- Besides income and price, factors such as education and urbanization also affect the consumption of tobacco.

International evidence

The World Bank reviewed the evidence in a 1999 report and concluded that a 10% increase in the prices of tobacco products would reduce their use by about 4% in developed countries and by about 8% in developing countries.^{1,2}

The impact of a 10% increase in cigarette taxes on the consumption of and tax revenues generated by cigarettes was estimated for 70 countries, assuming the short run E_p for cigarettes to be -0.4 for high-income countries and -0.8 for low- and middle-income countries.

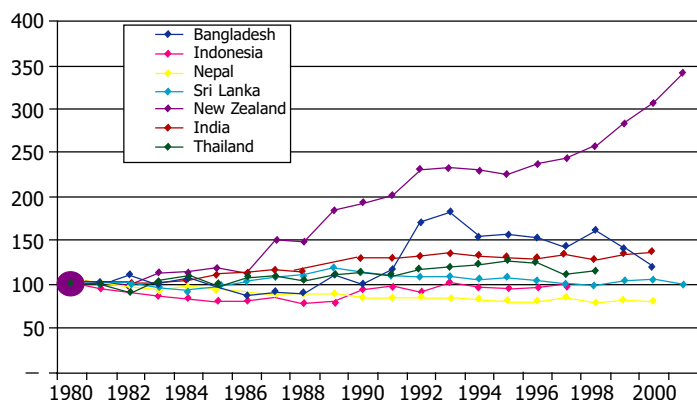
Table 7.1 Impact of increasing cigarette taxes on the consumptions of and revenues generated by cigarettes

Countries	Change in cigarette consumption (%)	Change in cigarette tax revenue (%)
Bangladesh	-2.40	7.36
China	-3.23	6.45
Nepal	-5.86	3.56
Sri Lanka	-1.91	7.90
France	-3.00	6.70
Japan	-2.40	7.36
Singapore	-2.92	6.79
UK	-3.12	6.57
USA	-1.20	9.68

The results showed that while there could be a marked increase in cigarette taxes in all countries, the percentage tax revenue in low- and middle-income countries would be somewhat less (4.8%) as compared with high-income countries (7.2%) due to the relatively larger decline in the consumption in these countries (3.5% compared to 2.24% in high-income countries) and the lower share of cigarette prices accounted for by excise duty. Data from select countries belonging to different income categories are summarized in Table 7.1.

Evidence from South-East Asia³

Figure 7.2 presents trends in the real price of tobacco products. The data for the consumer



(Index 1980=100)³

Fig. 7.2 Trends in the real prices of tobacco products (1980–2000)

Source: National Statistics Agency; World Health Organization South-East Asia Regional Office (WHO-SEARO); International Monetary Fund (IMF)

price index (CPI) for tobacco products were obtained from national statistical agencies or central banks, and were deflated by the country’s CPI for all items. Data for New Zealand, which has actively used tobacco price policy as a health instrument, are also presented to allow some comparison with a ‘best practice’. With the exception of India and Thailand, from 1988 onwards, real prices for tobacco products remained surprisingly stable during the 1980s and 1990s in the South-East Asian countries for which data are available. In Bangladesh, real prices increased in the early 1990s to subsequently decrease to almost their original level.

Figure 7.3 presents trends in the ‘costliness’ of tobacco products. Costliness is calculated by dividing a country’s per capita gross domestic product (GDP) by relative prices of tobacco products. A falling costliness index indicates that tobacco products are becoming more affordable or less costly. The data show that tobacco products in India, Indonesia, Nepal, Sri Lanka and Thailand became about 50% more affordable during the past two decades, while there was substantial fluctuation in Bangladesh, although tobacco products were still more affordable at the end of the 1990s than they were at the beginning of the 1980s. These trends are in sharp contrast to those observed in New Zealand, where real prices more than tripled and

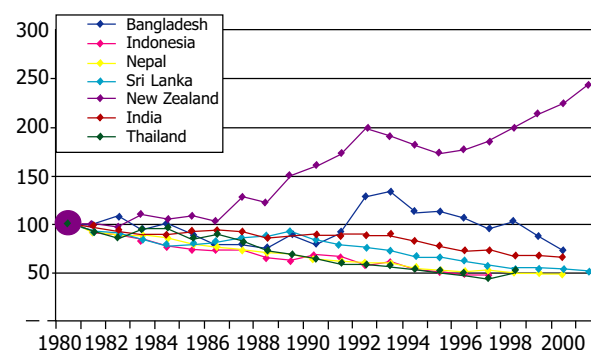


Fig. 7.3 Trends in the ‘costliness’ of tobacco products (1980–2000)

Source: National Statistics Agency; World Health Organization South-East Asia Regional Office (WHO-SEARO); International Monetary Fund (IMF)

Table 7.2 Excise duty structure on cigarettes

Description	2001–2002	2000–2001	1999–2000	1998–1999
	TOTAL = BED+AED+NCCD (Rs per 1000)	TOTAL = BED+AED (Rs per 1000)	TOTAL = BED+AED (Rs per 1000)	TOTAL = BED+AED (Rs per 1000)
<i>Non-filter cigarettes</i>				
Not exceeding 60 mm in length	78+37+20 = 135	78+37 = 115	75+35 = 110	68+32 = 100
Exceeding 60 mm but not exceeding 70 mm	265+125+60 = 450	265+125 = 390	252+118 = 370	252+118 = 370
<i>Filter cigarettes</i>				
Not exceeding 70 mm in length	395+185+90 = 670	395+185 = 580	374+176 = 550	374+176 = 550
Exceeding 70 mm but not exceeding 75 mm	645+300+145 = 1090	645+300 = 945	612+288 = 900	612+288 = 900
Exceeding 75 mm but not exceeding 85 mm	860+400+190 = 1450	860+400 = 1260	816+384 = 1200	816+384 = 1200
Other cigarettes	1050+495+235 = 1780	1050+495 = 1545	1000+470 = 1470	1000+470 = 1470

BED: basic excise duty; AED: additional excise duty; NCCD: National Calamity Contingent Duty

Source: Department of Revenue, Government of India

Table 7.3 Duty rates on other tobacco products

	Duty rates 2000–2001			Duty rates 2001–2002			
	AED	BED	SED	Surcharge	AED	BED	SED
<i>Paan masala</i> containing tobacco (<i>gutka</i>)	16%	24%	Nil	16%	10%	16%	18%
<i>Paan masala</i> without tobacco	16%	24%	Nil	16%	23%	16%	Nil
Chewing tobacco	16%	24%	10%	16%	10%	16%	18%
<i>Beedis</i>	Rs 4.6/1000	Nil	Rs 1.4/1000	Rs 4.6/1000	Rs 1.0/1000	Nil	Rs 1.4/1000

AED: additional excise duty; BED: basic excise duty; SED: surcharge on excise duty

Source: Department of Revenue, Government of India

affordability was considerably reduced between 1980 and 2000.

The Indian context

In February 1987, India shifted from the *ad valorem* duty structure to the specific duty structure for taxation. Tables 7.2 and 7.3 indicate the existing excise duty structure for cigarettes and other tobacco products. In addition, many states levy a luxury or entry or toll tax on tobacco products (Table 7.4).

1. With effect from Budget 2001–2002, a National Calamity Contingent Duty (NCCD) has been imposed on all tobacco products, including cigarettes.
2. The manufacturer of final products is allowed to avail of credit of the NCCD paid on inputs but this credit shall be utilized only towards the payment of the NCCD.

According to a report on the smokeless tobacco industry in India, Blackstone (India) Market Facts mentions that although most *gutka* manufacturers are registered, yet they declare only about 10% of the production; the remaining 90% escapes excise duties.⁴

Table 7.4 States levying luxury/entry tax on tobacco products⁵

State	Year	Type of tax	Rate (%)
Madhya Pradesh	1976	Entry tax	3
Bihar	Apr 1993	Entry tax	5
Manipur	Apr 1993	Entry tax	3
Kerala	Apr 1994	Luxury tax	5
West Bengal	Apr 1994	Luxury tax	10
Maharashtra	May 1994	Luxury tax	8
Rajasthan	May 1994	Luxury tax	7
	Oct 1999	Entry tax	1.5
Gujarat	Aug 1995	Luxury tax	5
Orissa	Aug 1995	Luxury tax	6
	Dec 1999	Entry tax	1
Andhra Pradesh	Aug 1996	Luxury tax	5
Karnataka	Mar 1997	Luxury tax	4
Assam	Apr 1998	Luxury tax	10
Tamil Nadu	Mar 1999	Luxury tax	5
Jammu and Kashmir	Mar 2000	Toll tax	4
Uttar Pradesh	Apr 2000	Entry tax	2

Recommendations

Earmarking of tobacco taxes

The hypothecation or earmarking of tobacco tax revenues is recommended for spending on some specific activities. Earmarking can take different forms. For example, governments in several countries, including in one of China's largest cities, Chongqing, and several US states such as California, Massachusetts, Arizona and Oregon, earmark a portion of the tobacco taxes for tobacco-related education, counter-advertising and other tobacco control activities. In California, 20% of the allocation is earmarked for health education and media campaign, 50% for indigent health care, and 5% each for research and environment. Several Australian states and New Zealand have adopted the 'Vic-Health' model, in which tobacco tax revenues are used to fund sporting and artistic events previously funded by the tobacco industry.

In Nepal, a measure was adopted by Parliament to impose a 1 paisa 'health tax' per manufactured cigarette (domestically produced or imported). This health tax became effective in the fiscal year 1993–1994 and was subsequently increased to 2 paisa in 1994–1995. The revenue generated by this tax is earmarked for cancer control.⁶ In 2001, the Government of Thailand passed the

Health Promotion Foundation Act, which led to the setting-up of the Thai Health Promotion Foundation. Thai Health receives 2% of the total national tax revenue on alcohol and tobacco products.³

In India, Rs 2 per 1000 manufactured *beedis* are earmarked for the *Beedi Workers' Welfare Fund*, which was set up after the *Beedi Workers' Welfare Fund Act, 1976* was passed. This Welfare Fund is administered by the Ministry of Labour and aims to provide housing, medical care, social security, educational and recreational facilities to workers employed in the *beedi* industry. A critique of this aspect is presented in the section on employment. In the Indian context, part of the earmarked funds can be used to help tobacco farmers and those employed in the manufacturing of tobacco products to move to other crops and industries. If tobacco taxes are used for things such as subsidizing tobacco cessation products, anti-tobacco media campaigns and other tobacco control measures, it would lead to larger reductions in tobacco consumption and a better public health outcome than would be achieved from tobacco tax increase alone. It will also partially take care of the resource problem that typically plagues funding for control of non-communicable diseases in developing countries.

Taxation of *beedis* and smokeless tobacco

As is clear from the discussion and evidence presented above, for various reasons, the tax rates on *beedis* and smokeless tobacco products are still very low. While recommending an increase in tax rates for *beedis* and chewing tobacco, it is also necessary to improve tax administration in this regard. A considerable proportion of smokeless tobacco and unbranded *beedis* escape the tax net.

As the discussion on fiscal measures adopted by the government so far (Section 6.8) shows, the tax net has fallen almost exclusively on the cigarette sector of the Indian tobacco industry (Box 7.1). The *beedi* and chewing tobacco sectors, which constitute larger consumption segments, have not been adequately taxed as they are mostly in the unorganized sector and are also the preferred products of the poor who consume tobacco. Such a policy, however,

ignores the reality that the non-cigarette sectors will contribute to the largest burdens of death and disability attributable to tobacco in India. It also does not take into account the fact that price elasticity is higher among the poor and, therefore, the impact on consumption will be even greater if the products consumed by the poor have a price increase through the tax mechanism.

Box 7.1 Why does the cigarette industry fear taxes?

The best illustration of the effect of tax hike on tobacco consumption comes from the industry itself as shown by the following newspaper report.

‘India’s leading tobacco trade body has forecast that the volume of Indian cigarettes sold in this financial year (2001–2002) will fall by 9% due to higher taxes.’

‘Cigarette (stick) consumption is expected to decline by about 9% in the current year to March 2002,’ said Amit Sarkar, Director, Tobacco Institute of India. He blamed the sharp fall on a 15% across-the-board hike in excise duties on cigarettes in the budget of February 2001.

(‘Cigarette sale seen dipping 9% this year on duty hikes,’ *Economic Times*, 6 September 2001)⁷

7.1 POLICY INTERVENTIONS: TAXATION

KEY MESSAGES

- A rational tax structure needs to be designed to provide a tax- and price-based disincentive for tobacco consumption in all forms, rather than merely transferring consumption from one tobacco segment to another.
- While taxes on cigarettes must be progressively increased, *beedis* and oral tobacco products should be taxed at sufficiently high rates.
- Several countries, e.g. New Zealand, Australia and the USA, have used an earmarked ‘tobacco tax’ to generate financial resources for funding health promotion programmes and specifically designed tobacco control programmes.
- India has used an earmarked *beedi* tax to provide several benefits to *beedi* workers. This concept needs to be extended to a dedicated tax or cess that will be utilized for resourcing tobacco control programmes.