

## Application Taxing to Discourage Smoking and Raise Revenue

*I phoned my dad to tell him I had stopped smoking. He called me a quitter. —  
Steven Pearl*

Governments tax cigarettes to discourage socially harmful behavior and raise tax revenue. The reason to reduce smoking is that it is very costly to society. In 2002, the U.S. Center for Disease Control (CDC) reported that the annual economics cost of smoking for U.S. adults \$158 billion: \$82 billion in lost productivity and \$75 billion in medical expenses. Neonatal medical care adds another \$366 million in costs. The CDC estimated that 442,000 people die annually due to smoking. As a result, 5.6 million potential years of life are lost (13.2 years of life per adult male smoker and 14.5 years per female).

Despite the risk, 29.8 percent of the U.S. population 12 years and older smoke: 70.8 million people in 2003. If the government really wants to stop people—especially teenagers and pregnant women—from smoking, how should it do so? It could spend millions on education programs and public service ads. Alternatively, the government can tax cigarettes, which reduces smoking and raises revenues rather than cost money.

A tax discourages more cigarette smoking but raises less tax revenue, the more elastic is the demand curve. Several economic studies estimate that the elasticity of demand is between -0.3 and -0.6 for the U.S. population and between -0.6 and -0.7 for children. Estimated elasticities are larger for developing countries, but still generally inelastic—because nicotine is an addictive drug.

When the price of cigarettes in Canada increased 158% from 1979 to 1991 (after adjusting for inflation and including taxes), teenage smoking dropped by 61% and overall smoking by 38%. The U.S. Tobacco Settlement between the major tobacco companies and 46 states caused the price of cigarettes to jump 45¢ cent (21%) in November, 1998. Keeler et al. (2004) estimate that this price increase reduced overall per capital cigarette consumption by 8.3%.<sup>10</sup>

The U.S. tax burden on cigarettes is the lowest of all industrialized countries. As of 2005, the federal tax, 39¢, plus the average state tax totaled 84.5¢ per pack. The average state tax per pack is 19.8¢ in tobacco-growing states and 93.1¢ in non-tobacco states. The state tax ranges from 5¢ in North Carolina up to \$1.50 in New York (plus a city tax of \$1.50 in New York City), \$1.60 in Alaska, \$2.40 in New Jersey, and \$2.46 in Rhode Island.

As of 2005, taxes were much higher in many other countries. For example, the tax per pack was \$1.76 in Hong Kong, \$2.76 in New Zealand, \$2.92 in Australia, \$3.13 in Sweden, \$4.02 in Denmark, \$4.16 in Ireland, \$4.30 in the United Kingdom, and \$5.23 in Norway.

As long as the demand curve is not completely inelastic, raising the tax discourages additional smokers. By raising the federal cigarette tax to international levels, we would substantially reduce smoking. In 2003, the U.S. Congress considered a

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<sup>10</sup> Cigarette manufacturers are competitive firms. Unfortunately, the cigarette companies responded to the settlement's price increase by advertising more, which increased cigarette consumption by 2.7 to 4.7%, thus reducing the pure price effect by 33-57%.

proposal to raise the federal cigarette tax from 39¢ per pack to \$2.39. In 2005, Dr. Richard Horton, editor *Lancet*, a medical journal, urged governments around the globe to reduce smoking by raising cigarette taxes by 50% every year.

Even at current tax rates, tax revenue is substantial. The U.S. government collected cigarette tax revenues of \$7.9 billion (2004 fiscal year) and state governments raised \$12.6 billion (2004 calendar year). Given an inelastic demand, raising the tax causes government revenue to increase.