



## Higher Tobacco Taxes Reduce Tobacco Use

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***“The most effective way to deter children from taking up smoking is to increase taxes on tobacco. High prices prevent some children and adolescents from starting and encourage those who already smoke to reduce their consumption.”***

***– World Bank, Curbing the Epidemic, 1999***

### **Increasing tobacco taxes is a Win, Win for governments:**

- **Public Health Win** – Higher tobacco taxes help prevent kids from starting to smoke and encourage smokers to quit, thus reducing the terrible toll on public health from tobacco use.
- **Fiscal Win** – Despite the inevitable declines in tobacco use, tobacco tax increases produce significant revenue for governments to fund important projects. In addition, the reduction in smoking rates also leads to a reduction in tobacco-related health care costs—many of which are born by governments and taxpayers.

Cigarettes are the most consumed type of tobacco product in the world; therefore the focus has largely been on cigarette taxes and price. However, the evidence also indicates that increases in taxes on other tobacco products also reduce use. It is important that taxes be increased on all tobacco products, such as bidis, spit (smokeless) tobacco, cigars, etc.

Although tobacco tax rates vary in each country, the overall price and affordability of tobacco products matters most. Raising overall product prices through increased tobacco taxes would make tobacco products less affordable and therefore reduce consumption. Going a step further, countries should index tobacco tax rates to inflation to allow the value to follow the country's economy.<sup>1</sup>

### **The Evidence from Around the Globe Could Not Be More Clear**

#### **Economic Research on Tobacco Tax Increases Reducing Consumption**

Numerous economic studies have documented that tobacco tax or price increases reduce both adult and youth tobacco use. In terms of cigarette smoking, the general consensus is that every 10 percent increase in the real price of cigarettes:

- Reduces overall cigarette consumption by approximately three to five percent.<sup>2</sup>
- Reduces the number of young-adult smokers by 3.5 percent.<sup>3</sup>
- Reduces the number of kids who smoke by six or seven percent.<sup>3</sup>

The subsequent reduction in tobacco use from increased tobacco taxes is a result of three main behavioral responses:

- the cessation among existing tobacco users
- the prevention of initiation and reinitiation among potential users
- the reduction in the intensity of use among continuing users

Higher prices are particularly effective in reducing smoking among vulnerable populations, such as youth, pregnant women, low-income smokers, and ethnic minorities.

### Research from Developing Countries

In developing countries, independent studies using various methods and datasets consistently found that higher cigarette prices reduce cigarette smoking.<sup>4</sup> Research studies have found that a 10 percent increase in the real price of tobacco products would result in the following:

- in Brazil, the overall cigarette consumption would be reduced by up to 2 percent in the short-run, and up to 8 percent in the long-run.<sup>5</sup>
- in the South East Asian countries of Bangladesh, Indonesia, Nepal, Sri Lanka, and Thailand, the overall cigarette consumption in the region would decrease by 6 to 9 percent.<sup>4, 6</sup>
- in Mexico, overall tobacco consumption would be reduced by 1.1 percent in the short-run, and 7.3 percent in the long-run.<sup>4, 7</sup>
- in South Africa, the overall demand for cigarettes would fall by 8.1 to 13.9 percent.<sup>4, 8</sup>

### Expert Conclusions on Tobacco Prices and Use Levels

Authoritative experts from around the globe have consistently concluded that raising tobacco taxes effectively reduces tobacco use.

- In its 2007 report, *Ending the Tobacco Problem: A Blueprint for the Nation*, the U.S. National Academy of Sciences' Institute of Medicine recommends raising cigarette taxes in states with low rates and the federal cigarette excise tax and indexing them to inflation, to reduce cigarette consumption and to provide money for tobacco control. The report states, "an increase in the federal excise tax would have the dual purposes of reducing consumption and making more funds available for tobacco control programs," thus "the committee thinks that the federal tobacco excise tax rate should be increased substantially – at least on the order of \$1.00 per pack..."<sup>9</sup>
- The 1999 World Bank report *Curbing the Tobacco Epidemic: Governments and the Economics of Tobacco Control* carefully evaluated existing research and data, worldwide, and concluded that "the most effective way to deter children from taking up smoking is to increase taxes on tobacco. High prices prevent some children and adolescents from starting and encourage those who already smoke to reduce their consumption."<sup>10</sup>
- The 2000 U.S. Surgeon General's Report, *Reducing Tobacco Use*, found that increasing the price of tobacco products would decrease the prevalence of tobacco use, particularly among kids and young adults, and that tobacco tax increases would lead to "substantial long-term improvements in health." Its review of existing research concluded that raising tobacco taxes is one of the most effective tobacco prevention and control strategies.<sup>11</sup>
- Wall Street tobacco industry analysts have long recognized the powerful role increased cigarette taxes and rising cigarette prices play in reducing U.S. smoking levels. For example, a December 1998 *Sensitivity Analysis on Cigarette Price Elasticity* by Credit Suisse First Boston Corporation settled on a "conservative" estimate that cigarette consumption will decline by four percent for every 10 percent increase in price.
- In its 1998 report, *Taking Action to Reduce Tobacco Use*, the National Academy of Sciences' Institute of Medicine concluded that "the single most direct and reliable method for reducing consumption is to increase the price of tobacco products, thus encouraging the cessation and reducing the level of initiation of tobacco use."<sup>12</sup>

- A 1993 National Cancer Institute Expert Panel found that “a substantial increase in tobacco excise taxes may be the single most effective measure for decreasing tobacco consumption,” and “an excise tax reduces consumption by children and teenagers at least as much as it reduces consumption by adults.”

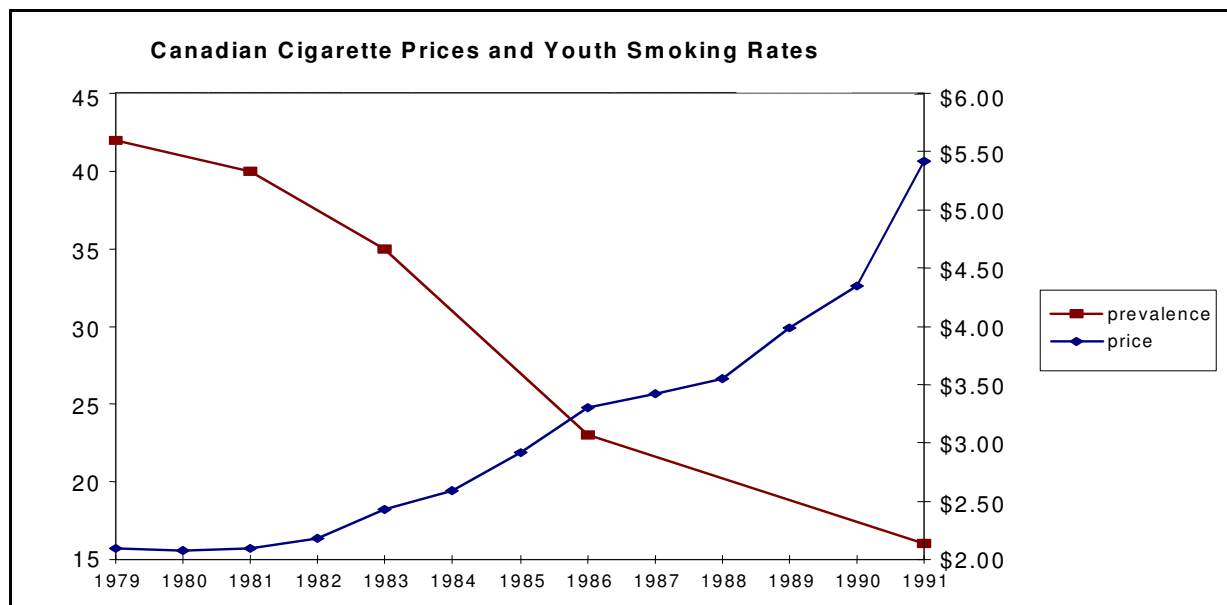
### **Country-Specific Examples**

#### ***Successive Tobacco Tax Increases in Germany***

A study of five successive tobacco tax increases in Germany between 2001 and 2005 found that larger tax increase amounts reduced tobacco consumption more than smaller levels of increase. In addition, the study showed the need to increase tax rates on all tobacco products, to prevent people from switching to lower-cost products.<sup>13</sup>

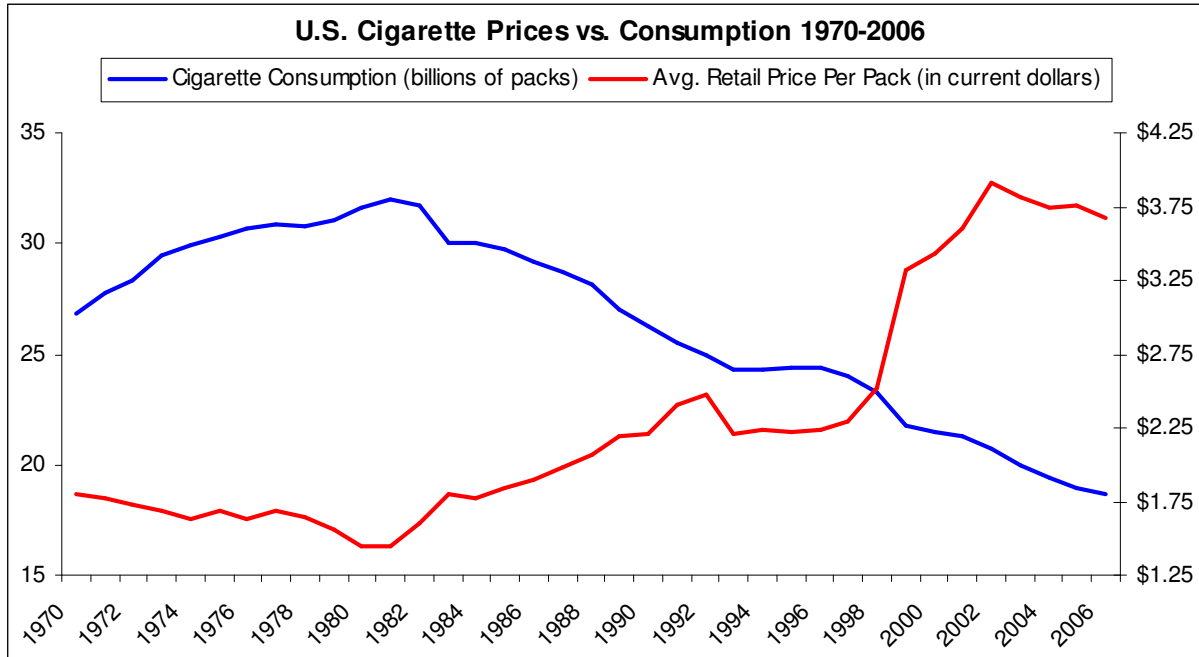
#### ***The Canadian Experience***

From 1979 to 1991 real prices in Canada increased from \$2.09 to \$5.42 and smoking among 15 to 19 year olds fell from 42 to 16 percent (see following chart). As the President of the Canadian Tobacco Manufacturers Council then admitted to a legislative committee, “there is no question that consumption is down measurably over the last five years, and there is no question in our minds that taxes have been a significant factor.”<sup>14</sup> But when Canada subsequently reduced its cigarette taxes (to reduce tax-avoidance smuggling supported by the cigarette companies), youth smoking immediately increased for the first time in nearly fifteen years.<sup>15</sup> A study of young adult smoking between 1994 and 1995 found that greater declines in cigarette prices from the tax decrease led to higher smoking initiation.<sup>16</sup> Subsequent Canadian cigarette tax increases have reduced youth smoking (without any revival of the past cigarette smuggling problems).



## The United States

Although there are many other factors involved, comparing the trends in cigarette prices and overall U.S. cigarette consumption from 1970 to 2006 shows that there is a strong correlation between increasing prices and decreasing consumption (see chart below).



While U.S. cigarette prices are largely controlled by the cigarette companies' price-setting decisions, from 1970 to 2006, the federal tax on cigarettes also increased from eight cents to 39 cents per pack and the average state cigarette tax increased from 11 to 94.7 cents per pack during that time period. Without these federal and state tax increases, U.S. cigarette prices would be much lower and U.S. smoking levels would be much higher.

In fact, declines in adult smoking rates remained the same between 2004 and 2006, following a 15 percent decline between 1997 and 2004.<sup>17</sup> According to the CDC, tobacco industry discounting strategies such as coupons, two for one offers and promotional discounts have blunted the impact of state cigarette tax increases that otherwise would have significantly reduced smoking rates. Tobacco company price discounting has also contributed to a stalling of youth smoking declines.<sup>18</sup> Between 2002 and 2004, there was no statistically significant change in smoking rates among either high school or middle school students.

### Quotes from Transnational and U.S. Tobacco Companies

Tobacco companies have opposed tobacco tax increases by arguing that raising product prices would not reduce adult or youth smoking. But the companies' internal documents, disclosed in the U.S. tobacco lawsuits, show that they know very well that raising cigarette prices is one of the most effective ways to prevent and reduce smoking, especially among kids.

- Philip Morris: *Of all the concerns, there is one - taxation - that alarms us the most. While marketing restrictions and public and passive smoking [restrictions] do depress volume, in our experience taxation depresses it much more severely. Our concern for taxation is, therefore, central to our thinking . . . .*<sup>19</sup>
- Philip Morris: *When the tax goes up, industry loses volume and profits as many smokers cut back.*<sup>20</sup>

- RJ Reynolds: *If prices were 10% higher, 12-17 incidence [the percentage of kids who smoke] would be 11.9% lower.*<sup>21</sup>
- Philip Morris: *It is clear that price has a pronounced effect on the smoking prevalence of teenagers, and that the goals of reducing teenage smoking and balancing the budget would both be served by increasing the Federal excise tax on cigarettes.*<sup>22</sup>
- Philip Morris: *Jeffrey Harris of MIT calculated...that the 1982-83 round of price increases caused two million adults to quit smoking and prevented 600,000 teenagers from starting to smoke... We don't need to have that happen again.*<sup>23</sup>
- Philip Morris: *A high cigarette price, more than any other cigarette attribute, has the most dramatic impact on the share of the quitting population...price, not tar level, is the main driving force for quitting.*<sup>24</sup>

[For more on cigarette company documents and price/tax increases see the 2002 study in the *Tobacco Control* journal, "Tax, Price and Cigarette Smoking: Evidence from the Tobacco Documents."<sup>25</sup>]

The cigarette companies have even publicly admitted the effectiveness of tax increases to deter smoking in their required filings with the U.S. Securities and Exchange Commission.

- Philip Morris: [I]ncreases in excise and similar taxes have had an adverse impact on sales of cigarettes. Any future increases, the extent of which cannot be predicted, may result in volume declines for the cigarette industry. [10-Q Report, June 30, 2002.]
- Loews/Lorillard Tobacco: *Significant increases in federal and state excise taxes on cigarettes . . . have, and are likely to continue to have, an adverse effect on cigarette sales.* [Loews (parent corporation of the Lorillard cigarette company) 10-K Report, March 31, 1999.]
- R.J. Reynolds: *[S]ubstantial increases in state and federal excise taxes on cigarettes. . . have had and will likely continue to have an adverse effect on cigarette sales.* [10-Q Report, August 1, 2001.]

### **Campaign for Tobacco-Free Kids, November 2, 2007**

**For more information on global tobacco taxes, visit the International Resource Center at [http://tobaccofreecenter.org/taxation\\_and\\_price](http://tobaccofreecenter.org/taxation_and_price).**

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<sup>2</sup> Chaloupka F, Warner K, The Economics of Smoking. In: Culyer AJ, Newhouse JP. *Handbook of Health Economics*. Amsterdam: North Holland; 2000. p. 1539-1627.

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<sup>4</sup> Ross H, Chaloupka FJ. Economic Policies for Tobacco in Developing Countries. *Salud pública México*. 2006;48. Available from: [http://scielo.unam.mx/scielo.php?script=sci\\_arttext&pid=S0036-36342006000700014&lng=es&nrm=iso](http://scielo.unam.mx/scielo.php?script=sci_arttext&pid=S0036-36342006000700014&lng=es&nrm=iso).

<sup>5</sup> Chaloupka FJ, Hu T, Warner LE, Jacobs R, Yurekli A. The taxation of tobacco products. In: Jha P, Chaloupka FJ. 2000: Ch 10.

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