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Increasing the Federal Cigarette Tax: A Means of Reducing Consumption?

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Increasing the Federal Cigarette Tax

Over the past several years, the political power of the tobacco industry has been eroded by a series of developments. These include damning revelations of questionable marketing behavior, growing acceptance of the deleterious effects of smoking (even on nonsmokers exposed only to secondhand smoke), increasing understanding of the addictive nature of nicotine, declining rates of smoking among adult men (historically, the heaviest smoking population), and a growing consensus that public health considerations should govern public policy with regard to such issues as where people can smoke and the access of minors to cigarettes and other tobacco products. These developments culminated in the \$368.5 million settlement reached on June 20, 1997, between the tobacco industry and 40 state attorneys general who had brought suits against them.

But since that agreement was reached, inertia seems to have overtaken action. Public health advocates, harshly criticizing the legal protections afforded the tobacco industry, have complained that the settlement does not go far enough, and the industry has dug in its heels over the issue of immunity from civil suits. Federal officials have indicated that part of funds from the settlement should accrue to the federal treasury, while governors have argued that, because states have taken the initiative and the risk, they should bear the full fruit of their efforts. Lawyers representing the states have attempted to lay claim to large pieces of the financial award made under the settlement, much to the displeasure of most interested parties. Meanwhile, legislation to implement the settlement has stagnated in Congress.

Even before the settlement was reached, however, there was consensus on one point: it is time to increase federal excise taxes on tobacco products. The magnitude of the increase remains open to debate. At a time when talk of increased taxes generally seems to be the kiss of death for politicians, the American public seems reconciled to increased tobacco taxes. In part, this is because they have long been inclined to accept “sin taxes” like those on consumption of alcohol and tobacco products. In addition, both inflation and political inertia have undercut the force of the federal cigarette tax, which now stand at 24 cents per pack. Between 1951 and 1982, however, the federal tax stood at 8 cents per pack; just to accommodate inflation since 1951, the tax would now have to stand at 47 cents.

Moreover, U.S. tobacco taxes are lower than that of any other developed nation.

In recent years, political leaders have repeatedly turned to the tobacco tax as a means of financing health policy initiatives. In 1994, President Clinton relied on increased tobacco tax revenues as a means of financing his proposed comprehensive national health insurance program. Last year, in enacting the State Child Health Insurance Program to cover uninsured indigent children, congressional leaders zeroed in on an increase in tobacco taxes as a means of underwriting the program in the out years. And, while the settlement reached last June 20 did not incorporate tax increases per se, it would result in an estimated 62 cent increase per pack. Subsequently, a number of bills have been introduced in Congress building on the settlement by increasing taxes.

The focus of the public debate about tobacco tax increases has shifted in recent months, partly as a result of the growing public consensus on the desirability of reducing tobacco consumption, especially among children and young adults. Tobacco tax increases of unprecedented magnitude—\$1.50 per pack, or even more—are on the table precisely because tax increases are coming to be seen as a means of reducing consumption and deterring people—especially younger Americans—from beginning to smoke in the first place. Less clear is how the increased revenues associated with such an increase should be allocated—to programs to reduce smoking, for reimbursing the costs of smoking-induced illnesses, for general health policy initiatives

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such as expanded insurance coverage, or even for reducing the national debt.

This Forum session will probe the economic issues associated with tobacco and cigarettes. In particular, it will examine the possible effectiveness of a tax increase as a strategy to reduce cigarette consumption, especially among young people, and the likely ramifications of a tax increase for the tobacco industry. As corollary issues, the meeting will consider trends in cigarette and tobacco consumption patterns as well as socioeconomic and demographic differences in consumption. It will also reference the dimensions of the tobacco industry, including tobacco farming, manufacture of cigarettes and other tobacco products, and wholesale and retail sales of tobacco products, because such factors may affect decisions about the scope of the settlement. The session will also allow for discussion of the prospects for congressional action on comprehensive tobacco legislation. It is recognized that, while economic or public health criteria might point to a desired outcome, political forces are likely to shape a quite different result.

THE JUNE 20 SETTLEMENT AND SUBSEQUENT DEVELOPMENTS

When 40 state attorneys general and “Big Tobacco” announced their \$368.5 billion tobacco settlement on June 20, 1997, it made both national and international news. The agreement would end lawsuits brought by 40 states and Puerto Rico to recover Medicaid funds spent on treating smoking-related illnesses. (Only two of the top six tobacco-producing states, South Carolina and Georgia, participated in the suit.¹) The agreement would also end class-action suits filed by 17 states on behalf of smokers alleging harm from nicotine addiction. The \$368.5 billion would be paid over 25 years, with \$10 billion up front and annual payments beginning at \$8.5 billion in 1998, increasing to \$15.5 billion by 2002 and remaining stable thereafter. Of the total, \$25 billion would be earmarked to provide coverage to uninsured children. Additional funds would go to anti-smoking education campaigns, smoking cessation programs, and enforcement of the legislation. Penalties would be incurred by tobacco companies if target reduction rates in youth smoking were not reached. In return, the settlement would offer the tobacco industry certain protections; for example, it would limit future class-action lawsuits and punitive damages for past tobacco industry conduct. Individuals could still sue for damages.

Three months following the announcement of the agreement, Clinton challenged Congress to strengthen

the settlement. Among other things, the president suggested that the Food and Drug Administration (FDA) be vested with full authority to regulate tobacco products and that tobacco farmers and their communities be protected from the potential negative consequences of the agreement.

Shortly after the president's challenge was issued, three bills—one with bipartisan sponsorship, the other two with sponsors from only one party—were introduced to build on the June 20 settlement. They addressed issues such as protections for tobacco farmers, the dollar level of the settlement, FDA authority to regulate tobacco, liability protections for the tobacco industry, and increased federal cigarette taxes. None has left committee since introduction.

In mid-February, Clinton threw his support behind a fourth bill, developed by a Senate Democratic Task Force on Tobacco headed by Sen. Kent Conrad (D-N.D.), that would raise the cigarette tax \$1.50 per pack but would give the tobacco industry more limited protection from lawsuits than the settlement.² The bill would settle only those suits brought by government entities, such as those initiated by the 40 state attorneys general; unlike the settlement, it would allow class action suits. The Conrad bill would also expand the FDA's authority and penalize the industry more strongly for failure to meet targets to reduce youth smoking.

FACTORS INFLUENCING THE SETTLEMENT

For decades, public health officials and advocates have asserted that cigarettes cause cancer and heart disease, that nicotine is addictive, and that cigarette smoking is the number one preventable cause of morbidity and mortality. Until very recently, the tobacco industry responded that the causal relationship between tobacco and disease had not been proven conclusively, that nicotine was not addictive, and that smoking was a matter of free choice by individual Americans.

In early 1994, then-Commissioner David Kessler announced plans for the FDA to consider regulating tobacco as a drug. Following this, seven tobacco company executives testified before Congress that smoking was not addictive. Soon thereafter, thousands of internal industry documents became public that suggested that the industry had been manipulating the nicotine content in cigarettes for decades. With mounting evidence of the health hazards of cigarettes, in 1994 Michael Moore of Mississippi became the first state attorney general to sue tobacco companies to recover

health care costs associated with smoking. Other states' suits followed, eventually totaling 40.

While states were battling the tobacco industry, the FDA received a strongly worded letter from a group of members of Congress from tobacco-growing states, claiming that the agency's tobacco proposal would put thousands of jobs at risk and "trample First Amendment rights to advertise legal products to adults." Nevertheless, the FDA in 1995 declared that nicotine was a drug. In late summer of 1996, the president supported the FDA's proposed regulation, allowing the agency to regulate cigarettes as a "drug delivery device." This was followed by an admission by Liggett Tobacco in early 1997 that smoking was addictive and could cause cancer. Not long after that, attorney generals from 40 states and the tobacco industry came to the landmark June 20 settlement.

Cigarette Consumption

To understand the ramifications of the settlement and any tax increase, it is important to examine patterns of cigarette consumption. Cigarette consumption has been a focus of public policy since 1964, when the U.S. surgeon general first indicated a causal link between cigarette smoking and lung cancer among men.³ Twenty-four surgeon generals' reports later—each cautioning the public of the dangers of smoking—cigarette smoking remains the primary preventable cause of morbidity and mortality in the United States. Over 400,000 individuals die prematurely of smoking-related illnesses each year.⁴ Following decades of public information on the adverse consequences of smoking, the number of adult smokers in America declined from 51 million Americans in 1988 to 47 million Americans in 1995, the most recent year a national survey was conducted on smoking prevalence.⁵

Approximately 25 percent of all Americans aged 18 years and older are "current smokers," defined as individuals who report having smoked more than 100 cigarettes during their lifetime and who now consume cigarettes on at least some days. Although the percentage of male smokers is still higher than that of female smokers—27 percent versus 22 percent—this gap is narrowing. Until relatively recently, men had much higher rates of smoking, but a number of factors, including greater freedom from traditional social constraints for women and targeted cigarette advertising, have increased the rates for women. The state of Kentucky has the highest percentage of adult smokers (28 percent) and Utah has the lowest (13 percent).⁶ The median state rate is 22 percent.

The percentage of adult smokers varies considerably across ethnic and racial groups:

American Indians/Alaskan Natives	36 percent
White (non-Hispanic)	26 percent
Black (non-Hispanic)	26 percent
Hispanic	18 percent
Asian/Pacific Islander	17 percent

Even more pronounced in accounting for differences in smoking are socioeconomic status and education levels. Studies have shown that a higher percentage of poor people smoke. According to a recent survey, those living below poverty level between the years 1991 and 1993 were 26 percent to 30 percent more likely to be smokers than those living above the poverty threshold.⁷ Individuals with lower levels of education (9 to 11 years) had the highest rates of smoking (38 percent), while those with more than 16 years of education had the lowest rates of smoking (14 percent).

Although the overall rates of smoking among adults have steadily declined (by an annual average rate of 1.3 percent since 1990),⁸ the number of young adults picking up the habit has increased. According to the National Monitoring the Future Study, cigarette smoking has continued to increase among high school seniors.⁹ In 1997, 25 percent of 12th graders reported daily cigarette smoking, the highest rate since 1979. On the brighter side, the percentage of eighth and tenth graders engaging in smoking has declined slightly, the first time this has occurred since the data were collected.

Cigarette smoking remains the preferred mode of tobacco consumption in America. In 1996, Americans smoked 487 billion cigarettes.¹⁰ Per capita cigarette consumption was 2,490; the record high was 4,345 in 1963. Americans also consumed 3 billion cigars, 14 million pounds of pipe tobacco, 60 million pounds of chewing tobacco, and 60 million pounds of snuff.

The average price of a pack of 20 cigarettes for a full-priced brand (including federal and state taxes) is \$1.96. (For a pack of generic brand cigarettes, it is \$1.85.) State-specific average cigarette prices range from \$1.56 in Kentucky to \$2.75 in Washington state; the variation is attributable to differentials in state cigarette taxes.

The price of a pack of 20 cigarettes in the United States is one of the lowest among developed countries. The Non-Smoker's Rights Association, based in Ottawa, Canada, conducted a survey of the price of 20 cigarettes in selected countries in 1995.¹¹ The price in the United States was \$1.89; in Norway, which had the highest price, it was \$5.43 (in U.S. dollars), followed by

Denmark (\$5.03), Ireland (\$4.33), and the United Kingdom (\$4.28).

In 1996, Americans spent a total of \$45 billion for cigarette products. Of the total, approximately \$13 billion went to federal and state taxes, which accounted for 30 percent of the retail price of cigarettes. The U.S. tax rate remains the lowest excise tax on cigarette products in developed countries. In a large number of countries, the average tax rate ranges from 60 percent to 80 percent of the price of a pack of cigarettes.¹²

The Tobacco Industry¹³

While a primary public health goal has been to reduce overall rates of cigarette consumption, the tobacco industry has long been a staple of the U.S. economy, with particular importance in the Southeast. In a study produced for the Tobacco Institute, the American Economic Group (AEG) estimated that the tobacco industry contributed \$44.7 billion to the United States Gross National Product (GNP) in 1994 (about 0.6 percent of total GNP for that year). The tobacco industry directly supported 662,402 jobs that produced and delivered tobacco products.

Five American corporations—Philip Morris, Inc.; R. J. Reynolds Tobacco Companies; Brown and Williams Tobacco Corporation (B.A.T. Industries); Lorillard, Inc. (Loews); and Liggett Group, Inc.—manufacture cigarettes, and two, Philip Morris and R. J. Reynolds, account for more than 70 percent of all industry sales. The total output of cigarettes from U.S. factories in 1996 was 760 billion. Of this figure, 10 billion were shipped to American armed forces overseas and 260 billion were shipped to other countries.

Tobacco is the seventh largest cash crop; it was valued at \$2.9 billion in 1996, comprising approximately 2.5 percent of the total value of cash crops and farm commodities in the United States. Tobacco is grown in 21 states and Puerto Rico, with six states accounting for more than 90 percent of annual farm cash receipts from tobacco. These top tobacco-producing states (ranked from first to sixth) are North Carolina, Kentucky, Tennessee, South Carolina, Georgia, and Virginia. In 1994, North Carolina alone accounted for almost 36 percent of the value of tobacco leaf grown in the United States. (Tobacco manufacturing is even more concentrated in that state; it was the source of about 54 percent of the total U.S. tobacco manufacturing and product value in 1992.)

Tobacco was grown on 124,270 farms in the United States in 1996. Approximately 739,000 acres were

harvested, yielding a total harvest of 1.54 billion pounds of leaves. Although tobacco is the most labor-intensive crop to grow (tobacco leaves are handpicked individually), tobacco yielded more gross revenue per acre (\$4,089) than other crops such as wheat (\$140), corn (\$278), or peanuts (\$755). At \$1,627 per acre, sweet potatoes came closest to the farm value of tobacco.¹⁴

The federal government issued 346,000 tobacco allotments in 1996. Tobacco allotments, or quotas, form the basis of a price support program that was established in the early 1930s under the Agricultural Adjustment Act. Essentially, the program limits the tobacco supply but guarantees growers a minimum price for their crops. Only allotment holders—growers who own or lease allotments of land—are eligible to participate in the program. Within a given allotment, a quota is set, which limits the amount of tobacco that can be produced. Until 1982, the federal government helped subsidize the program; however, in that year Congress passed legislation stipulating that the price support system be run at “no net costs to the taxpayers,” other than for administrative purposes. The administrative costs for the program were \$15 million in 1995.¹⁵

Despite the seemingly nominal costs to the federal government to support the program (compared to price support programs for other crops), critics of the program argue that it seems inconsistent as a matter of public policy to support tobacco farmers while at the same time campaigning for a reduction in smoking. When House Appropriations Committee member Nita Lowey (D-NY) introduced legislation that would end the federal subsidies for tobacco farmers for fiscal year (FY) 1998, this measure was defeated by members of tobacco-growing states who claimed that it would hurt farmers but do little to reduce overall cigarette consumption.

In 1992, according to estimates from the Business Division of U.S. Bureau of Census, 625,000 retail outlets distributed tobacco products. Approximately 3,600 retail tobacco shops were in business in 1996; of these, 1,020 specialized primarily in cigarette products. Cigarette sales at more than half of these retail shops averaged \$500,000 or more. Cigarette products were also sold in convenience stores and gas stations. Total tobacco sales in these stores were \$12.7 billion. Vending machine sales added \$2 billion in tobacco sales.

CIGARETTE TAX LEVELS

The federal government has imposed excise taxes on tobacco products since 1890. State tobacco taxation did not begin until 1921, when Iowa became the first state

to add its own cigarette tax of \$0.02 per pack onto the federal excise levy tax of \$0.06 per pack. By 1970, all 50 states and the District of Columbia imposed state cigarette taxes in addition to the federal excise tax. Municipalities in eight states also impose taxes on cigarette products. The federal excise tax on a pack of cigarettes is currently \$0.24.¹⁶ State cigarette taxes range from a low of \$0.025 in Virginia to a high of \$1.00 in Alaska (and Hawaii, too, effective July 1, 1998). The average state tax is \$0.385.

Although cigarette products have long been subject to federal taxation, trends in the level of federal taxes are noteworthy. The federal tax increased slowly from 1 cent per pack to 8 cents per pack between 1890 and 1951, remaining at that level for the next three decades. The Tax Equity and Fiscal Responsibility Act of 1982 boosted the tax on a pack of cigarettes to 16 cents per pack. In 1991, the federal excise tax rose to 20 cents per pack, reaching 24 cents per pack by 1993. As mentioned above, if the tax had been adjusted for inflation since 1951, the federal excise tax would now be 47 cents instead of 24 cents per pack.¹⁷ This has led some to suggest the merits of indexing cigarette taxes to accommodate inflation (for example, by adjusting the taxes for changes in the Consumer Price Index or setting them at a specified percentage of the average price per pack.)

Federal excise taxes on cigarettes have served a variety of purposes. In 1898, cigarette taxes were hiked by 200 percent to help finance the Spanish-American War. More recently, the abortive 1994 Clinton Health Security Act included a tobacco tax increase to help pay for health care reform. Last year, the State Child Health Insurance Program to expand health insurance to uninsured children—enacted as part of the Balanced Budget Act of 1997 (P.L. 105-33)—contained provisions for funding based on an increase of 10 cents in the cigarette tax beginning in FY 2000 and 15 cents beginning in FY 2002. In the president's proposed FY 1999 budget, the projected \$14.8 billion increase in tobacco revenues (predicated on the passage of tobacco-settlement-related legislation and expected to total \$65.5 billion over five years) would help pay for child care programs, education, health insurance, and medical research. The revenues would also go towards reducing the federal deficit. Some Republican senators have responded that any enhanced revenues derived from the settlement should be spent only for health-related purposes.

Increases in cigarette taxes have also been used as an opportunity by the tobacco industry to raise cigarette prices. This behavior by the industry was documented in a September 1997 Federal Trade Commission (FTC)

report entitled *Competition and the Financial Impact of the Proposed Tobacco Industry Settlement*.¹⁸ The report found historical evidence that, with each tax increase, the cigarette industry “passed through” the tax increase to consumers by increasing the price of cigarettes and raised the price by more than the amount of the tax increase. The FTC report highlighted several studies that found that, between 1955 and 1990, the pass-through rates from federal taxes to retail prices were estimated at 102 percent. Another study found that between 1980 and 1992, the average prices for cigarettes rose faster than the combined total costs of cigarette manufacturing and federal taxes. Other studies found that the tobacco industry engaged in similar behavior with respect to increases in state and municipal taxes, raising prices by passing tax increases through to consumers. The FTC report also concluded that the tobacco industry would profit substantially from the June settlement (if legislation is enacted to ratify the settlement), since it would grant tobacco companies antitrust immunity for achieving the goals of the settlement, primarily a reduction in youth smoking. In addition, the FTC found that the settlement would provide an opportunity for the industry to “coordinate” price increases and generate substantial profits. In response to the FTC report, the tobacco companies (with the exception of Brown and Williamson) criticized the report as “seriously flawed” and cited a series of underlying methodological errors.¹⁹

The Demand for Cigarettes

To discuss the effects of tax increases on cigarette consumption, economists often use the term “price elasticity of demand” to indicate the effect of a change in the price of a product on the demand for the product (cigarettes). For example, if a product has a price elasticity of demand of -2.0, an increase in the price of the product by 10 percent would result in a decrease in demand for the product by 20 percent. The generally accepted estimate of the price elasticity of demand for cigarettes in the United States is -0.4.²⁰ This implies that a 10 percent price increase will result in a 4 percent decrease in the number of cigarettes demanded. These estimates are based on historical data on the demand for cigarettes. Some studies have shown that the overall demand by adults for cigarettes is price inelastic, or relatively insensitive to price. This implies that adult consumers will continue to smoke despite increases in cigarette prices. (As discussed below, however, the price responsiveness of demand for cigarettes among underage smokers is much stronger, making tax increases a tool with great potential for reducing underage smoking.)

Recently, economists have been asked to predict the price elasticity of demand for cigarettes in light of the discussions about the settlement-induced price increase (estimated to be 62 cents) and proposals for increased federal taxes. At the request of the Senate Democratic Task Force on Tobacco, the industry was asked to estimate the impact of the settlement on cigarette consumption.²¹ The tobacco industry analysis released in October 1997 concluded that cigarette consumption would decline by up to 43 percent in the next decade if the tax increase included in the settlement were implemented. This analysis was based on the assumption that the price elasticity of demand for cigarettes would range between -0.5 and -0.75, significantly higher than the -0.4 figure cited above. According to the analysis,

When consumer prices reach unprecedented levels, sensitivity to price also rises and thus elasticity ratios become more pronounced. . . . The industry conservatively estimates that as a result of the real retail price increases that will result from the implementation of the proposed resolution [the settlement], price elasticity is likely to range between -0.5 and -0.75.

In other words, the higher the rate of tax increase, the more precipitous would be the decline in demand.

Numerous studies have demonstrated that young people are especially sensitive to price. Michael Grossman, professor of economics at the City University of New York, and Frank Chaloupka, associate professor of economics at the University of Illinois at Chicago, concluded that a 10 percent increase in the price of cigarettes would lower the number of youth smokers by 7 percent.²² Based on similar studies, youths are estimated to be up to three times more sensitive to price increases than adults.

Grossman and Chaloupka offer three reasons for teenagers' greater responsiveness to the price of cigarettes. First, young smokers have less disposable income than adults do. Second, the effects of peer pressure are much more pronounced among young smokers. Third, young people have a greater tendency to discount the future. Since teenagers are more likely to give more weight to present satisfaction and very little weight to future consequences of their actions, they may opt to smoke to satisfy their curiosity.

Likely Effects of Tax or Price Increases on Consumption

How much federal taxes on cigarettes might or should be increased is a matter of debate. The alternative tax and price increase scenarios currently under discussion might have the following results based on an

overall price elasticity of demand of -0.4, the current consensus rate; an elasticity of two to three times that rate for younger smokers; and an assumption that the increase will be maintained in real value over time.²³

- *62 cents*—If the June agreement were adopted without change and resulted in a price increase of 62 cents per pack, total consumption would decline about 10 percent. Youth consumption would decline by one-fifth to one-third. The smoking initiation rate for regular smokers aged 18 to 24 is projected to fall from its 1995 rate of 25 percent to about 20 percent.
- *\$1.50*—If taxes were increased by \$1.50 per pack—as Clinton and some Democratic senators have suggested—total consumption would drop by about 15 to 20 percent, and youth consumption would fall by between 33 percent and 50 percent.
- *\$2.00*—If taxes were increased by \$2.00 per pack—as some public health experts have suggested—total consumption would drop by about 25 percent. Youth consumption would fall by between 55 percent and 80 percent. The initiation rate for regular smokers between 18 and 24 years of age would fall from 25 percent to 12 percent or less.

In mid-February, the Clinton administration announced results of a Treasury Department study that found that an increase in cigarette taxes of \$1.10 per pack would result in a 32 percent decline in youth consumption. (This finding was based on the assumption—also made by Grossman and Chaloupka—that, for every 10 percent increase in price, there would be a 7 percent decline in smoking by young Americans.) Adding in the effects of marketing and advertising restrictions supported by the administration, the Treasury Department projected an overall decline of 39 to 46 percent in youth consumption, reducing the number of teenage smokers by between 2.4 and 2.8 million cumulatively over the next five years.

While Congress and the president will have the final say on any tobacco settlement and on any federal cigarette tax increase, analysts predict that a federal tax increase would most likely be no more than the \$1.50 figure proposed by the president and some Democratic senators.

Although no federal tobacco legislation has passed in recent months, the tobacco industry itself has continued to increase the price of cigarettes, raising it at least three times in the last 12 months. In March 1997, a price increase of \$0.05 per pack became effective, one month following the settlement reached between the state of

Florida and the tobacco industry. This was followed by a \$.07 per pack increase in September 1997; the same month, Clinton unveiled his proposal for a \$1.50 tax increase. In January 1998, the tobacco industry raised the price of cigarettes \$.025 per pack of cigarettes, one day after the Texas settlement was announced. Coincidentally, each price increase followed (and was possibly camouflaged by) events that occurred as a result of developments related to government tobacco policy.

CIGARETTE TAX INCREASES AS A STRATEGY TO REDUCE UNDERAGE CONSUMPTION

Because nicotine is addictive, underage cigarette smoking can have negative lifelong health consequences and, ultimately, result in premature death. A principal goal for public health advocates and policymakers, therefore, has been to reduce the consumption of cigarettes by youths. Numerous studies have shown that more than 90 percent of current smokers begin the habit before they reach 18 years of age. Each day, approximately 3,000 youths become daily cigarette smokers. This translates to more than one million new smokers annually. Grossman and Chaloupka state that although “taxing cigarettes to reduce smoking by teenagers is a rather blunt instrument because it imposes costs on other smokers . . . an excise tax is a very effective policy with regard to teenagers because they are so sensitive to price.”

While a primary goal in the tobacco public policy debate is to reduce the consumption of tobacco among young people, critics contend that any tax increase is regressive in nature, since it would disproportionately affect individuals who could least afford increased prices. According to Kip Viscusi, professor of law and economics at the Harvard Law School, “Cigarette taxes are regressive not only in terms of the percentage of income going toward the tax, but also in absolute terms.”²⁴ Individuals in lower-income groups pay more in terms of total dollars of cigarette taxes than the more affluent. Viscusi concluded that since cigarette smokers tend to be poorer and are more likely to be blue-collar workers, the higher prices would impose substantial costs on people who can least afford it. “If Congress passes this proposed resolution [the settlement], the maintenance workers at the Capitol will pay more of the taxes than the members of Congress who voted for the legislation,” Viscusi commented. To offset the regressive nature of the tax, some public health advocates suggest that the revenues generated by the tax

could be used to support measures targeted to low-income groups, such as smoking cessation programs or health education programs.

In addition, opponents of tax increases cite Canada as an example where an increase in taxes created a large black market for cigarettes. To curb smoking prevalence, Canadian officials raised taxes on cigarettes significantly during the 1980s and 1990s. By 1994, the price of a pack of cigarettes in Canada had risen (in U.S. dollars) to \$5.26—and a carton of cigarettes ranged from \$44.00 to \$57.00, one of the highest prices for cigarettes in developed countries. In comparison, the cost of a carton of cigarettes averaged \$17.00 in the United States. The price disparity between the two countries led to smuggling of cigarettes from the United States to Canada and a loss of more than \$2 billion (in Canadian dollars) in tax revenues for Canada.²⁵ According to Canadian officials, efforts to reduce cigarette smoking through increased taxes were negated by the large-scale smuggling problem. Consequently, Canada reduced the tax on cigarettes later that year. Proponents of federal tax increases contend that once a federal tax increase is realized in the United States, Canada is likely to increase its cigarette taxes as well.

It has been suggested that Mexico may pose a more serious threat of cigarette smuggling, partly because some amount of smuggling is already taking place across the southern U.S. border. A black market for cigarettes may arise if a large price disparity develops between Mexico and the United States. Practically speaking, though, given the bulkiness of cigarette cartons and the relatively low return that cigarettes would yield even on a black market, smuggling of cigarettes would not be as easily masked or as profitable as smuggling illegal drugs, such as cocaine and heroin. Proponents of increased federal taxes contend that smuggling from Mexico would not generate significant profits and might thus be a self-limiting phenomenon.

Another argument against any increase in taxes is the already-existing decline in cigarette sales, even at the current tax rates. In addition, any tax increase is to some degree politically unpopular—although some recent surveys indicate a greater public tolerance for increased taxes on cigarettes in comparison to taxes on other items. Furthermore, any tax increase will affect tobacco farmers in the Southeast whose incomes are tied directly to tobacco. According to a congressional staffer from a tobacco state, “Tobacco has paid the bill and has provided the opportunities to do other things.” The staffer went on to say:

Farmers do have other crops and livestock, but it is tobacco that makes the money and pays the bills. Taxes are not the answers to curb youth access to cigarettes or to underage smoking. Something needs to be done about youth access, but not at the expense of tobacco farmers, who are older than the national average.

Thomas Schelling, professor of economics at the University of Maryland, wrote in a 1986 paper, however:

If farming does become less rewarding . . . we can expect a continuation of a phenomenon that has been going on for the last 100 years, namely, gradual reduction in the farming population and growth of the population in other industries.²⁶

Despite the possible adverse impact of a reduction in cigarette consumption to farmers, Schelling cautioned:

We should keep in mind that the number of people who earn most of their living from growing tobacco is smaller than the number of smokers who are estimated to die annually as a result of the tobacco they smoke. One premature death per year is a high social cost for keeping a tobacco farmer's children from having to shift to another crop or another occupation.

While any strategy to reduce tobacco consumption may result in lower tobacco sales, employment, and revenues for small businesses, Kenneth Warner and his colleagues have suggested that, contrary to tobacco supporters' claims, reductions in spending and manufacturing of tobacco products would not have a dramatically negative impact on the U.S. economy. In 1996, they examined whether declines in tobacco product sales would significantly reduce employment in the United States.²⁷ Using a computer simulation of the economies of the Southeast tobacco region and eight nontobacco regions in the United States, the number of jobs was projected, given a reduction in tobacco expenditures. The authors found that, while a reduction in tobacco spending would reduce the number of jobs in the Southeast region, it would increase employment in nontobacco regions. They concluded:

The amount of economic activity would not disappear; rather, it would be redistributed as consumers, having no less income, would use the same money to purchase other goods and services. Just like spending on tobacco, this alternative spending would generate employment associated with production, distribution, and sale of purchased goods and services.

Nevertheless, tax increases alone—at least at politically feasible levels—may not achieve a desired level of smoking reduction. During a hearing by the House Commerce Subcommittee on Health and Environment

held in December 1997, Leonard Jason, professor of psychology at DePaul University, testified “The best approach (towards reducing cigarette consumption) is a combination of tools, including restricting access and advertising, school-based programs, and price increases.”

THE ECONOMIC COSTS OF SMOKING REDUCTION

A major consideration in evaluating costs associated with reduced smoking is the amount that government has spent on smoking-related diseases. When negotiations that led to the settlement were under way, a major goal for the 40 state attorneys general was to recover Medicaid funds spent on treating smoking-related illnesses.²⁸ The Office on Smoking and Health in the Centers for Disease Control and Prevention estimated smoking-attributable costs for medical care to be \$50 billion annually in 1993.²⁹ This cost includes prescription drugs, hospitalization, physician care, and nursing home care. If indirect costs—such as costs associated with reduced worker productivity because of cigarette-induced illnesses—were included, total smoking-attributable costs would double.

The healthcare costs associated with cigarette smoking have been extensively studied, but with inconclusive results. On the one hand, the added medical care required by smokers for smoking-induced illnesses means that smokers accrue greater medical expenses while they are alive. On the other hand, some studies have demonstrated that if people stopped smoking, savings in healthcare costs would result, but only in the short term.³⁰ Eventually, smoking cessation would lead to greater public and private outlays for former smokers, as mortality among smokers declined and their average life spans increased, leading to greater total costs for medical care as well as for pensions and Social Security.

Yet, as Thomas Schelling notes, the “idea that people who smoke and die 15 years early are net financial benefactors to the rest of society by living most of a normal tax-paying life and dying before they can claim their retirement benefit is somewhat paradoxical.” Moreover, the argument seems at odds with a basic objective of American medicine—to prolong life.

THE FORUM SESSION

This Forum meeting will focus on the potential effects of cigarette price and/or tax increases on consumption. In addition, it will briefly review the economics of tobacco, including the extent of current demand for tobacco

products (principally cigarettes) and the price responsiveness of that demand; the size and importance of the tobacco industry, both nationally and regionally; and federal, state, and local tax policy with respect to cigarettes. Particular attention will be given to the merits of increased taxes as a means to reduce cigarette consumption, especially among younger Americans.

Among the questions to be considered are:

- How might a federal tax increase be used as one of several weapons to reduce underage smoking? What other options will promote the goal of reducing underage smoking?
- How large would a federal tax increase have to be to yield an appreciable reduction in smoking? Are taxes at this level politically feasible, insofar as they reduce demand for tobacco and tobacco products, which will have a disproportionate impact on the Southeast?
- Would tax or price increases of a high level yield a disproportionate decrease in consumption? That is, is price elasticity of demand for cigarettes arithmetic (straight line) or geometric (curved line) past a certain level?
- Is it desirable to index tobacco tax rates to assure that their deterrent effect is not undermined by inflation?
- How should the revenues from any increase in federal tobacco taxes be allocated? How are concerns about the use of the revenues likely to influence the amount of the tax increase? Is the goal to reduce tobacco consumption and prevent nicotine addiction or to pay for the costs of tobacco-induced illnesses? Might the revenues be used to help tobacco farmers make the transition to other crops and manufacturers retool to produce other products? Or should they be used for other unrelated purposes, such as reducing the national debt or funding unrelated public programs?

Speakers

Kenneth Warner, Ph.D., professor of public health at the University of Michigan, will lead off by reviewing research on the price responsiveness of demand for tobacco, recent developments in tobacco tax policy, and the merits of a tobacco tax increase as a means of reducing smoking, especially among younger Americans. On the School of Public Health faculty since 1972, Dr. Warner has published extensively on economic and policy aspects of disease prevention and

health promotion, with special emphasis on smoking and health. Dr. Warner is also associate director of the University's Robert Wood Johnson Foundation Clinical Scholars Program. He was awarded the Surgeon General's Medallion by Dr. C. Everett Koop in 1989, and served as senior scientific editor for the 25th anniversary surgeon general's report in the same year. He holds a Ph.D. in economics from Yale.

Next, **Stephen Entin**, executive director and chief economist of the Institute for Research on the Economics of Taxation, a pro-free market economic policy research organization, will offer a critique of current and proposed federal tobacco excise tax policy. A former deputy assistant secretary for economic policy at the Department of the Treasury, Mr. Entin joined the agency with the incoming Reagan administration in 1981. He participated in the preparation of economic forecasts for the president's budgets and the development of the 1981 tax cuts. Prior to joining Treasury, he was a staff economist with the Joint Economic Committee of Congress, where he developed legislation for tax rate reduction and incentives to encourage savings. Mr. Entin received his graduate economics training at the University of Chicago.

Finally, **Thomas Schelling**, professor of economics and public affairs at the University of Maryland, will respond to the presentations of both previous speakers and place them in the broader context of economic policy. Dr. Schelling also holds the position of professor of political economy emeritus at Harvard University, where he taught from 1958 to 1990. From 1983 to 1989, he served as director of Harvard's Institute for the Study of Smoking Behavior and Policy and, from 1976 to 1982, was a member of the National Academy of Sciences Committee on Substance Abuse and Habitual Behavior. Before going to Harvard, Dr. Schelling taught economics at Yale and served in various capacities in the Truman administration. He has published extensively on a broad range of topics, including military strategy and arms control, energy and environmental policy, and tobacco and drug policy.

ENDNOTES

1. The other four major tobacco states—Kentucky, Virginia, North Carolina, and Tennessee—did not participate in the suit. Other states not participating in the suit were Alabama, Delaware, Nebraska, North Dakota, South Dakota, and Wyoming.

2. Sandra Torry and John F. Harris, "White House Will Support Tough Tobacco Settlement Legislation," *The Washington Post*, February 10, 1998, A4.
3. U.S. Department of Health, Education, and Welfare, *Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service*, PHS Publication No. 1103 (Rockville, Md.: Department of Health, Education, and Welfare, Public Health Service, 1964).
4. Centers for Disease Control and Prevention, "Cigarette Smoking—Attributable Mortality and Years of Potential Life Lost—United States, 1990," *Morbidity and Mortality Weekly Report*, 42, no. 33:645-649.
5. Centers for Disease Control and Prevention, "Cigarette Smoking Among Adults—United States, 1995," *Morbidity and Mortality Weekly Report*, 46, no. 51:1217-1220.
6. Centers for Disease Control and Prevention, "State Specific Prevalence of Cigarette Smoking— United States, 1995," *Morbidity and Mortality Weekly Report*, 45, no. 44:962-966.
7. Alan J. Flint and Thomas E. Novotny, "Poverty Status and Cigarette Smoking Prevalence and Cessation in the United States, 1983-1993: The Independent Risk of Being Poor," *Tobacco Control*, 6 (1997):14-18.
8. The tobacco industry's estimates of consumption derived from industry shipments adjusted for trade inventory movements.
9. National Monitoring the Future Study, "Cigarette Smoking Rates May Have Peaked among Younger Teens" (press release), University of Michigan, December 18, 1997.
10. Tobacco Institute, "Tobacco Industry Profile 1997," Washington, D.C.
11. World Health Organization, *Tobacco or Health: A Global Status Report* (Geneva, Switzerland: World Health Organization, 1997), 55.
12. World Health Organization, *Tobacco or Health*, 57.
13. Data presented in this section are primarily from the Tobacco Institute, "Tobacco Industry Profile 1997."
14. These figures on yield per acre should not be interpreted to reflect the profit realized from each crop. Because it is so labor-intensive, tobacco farming is very costly. Thus, the relative profit from raising tobacco is lower than these figures would seem to indicate.
15. Annie Tin, "Tobacco Conflict Smoldering as Critics Step Up Assaults," *Congressional Quarterly*, July 22, 1995, 2137.
16. Tobacco Institute, *The Tax Burden on Tobacco: Historical Compilation* (vol. 31), (Washington, D.C.: Tobacco Institute, 1996).
17. Michael Grossman and Frank Chaloupka, "Cigarette Taxes: The Straw to Break the Camel's Back," *Public Health Reports*, 112 (July/August 1997):291-297.
18. Federal Trade Commission, "Competition and the Financial Impact of the Proposed Tobacco Industry Settlement," September 1997 (staff report, requested by the Congressional Task Force on Tobacco and Health), Washington, D.C.
19. Bozzell Sawyer Miller Group, "The Tobacco Industry Analysis of the Impact of the Proposed Resolution on the U.S. Cigarette Industry," October 9, 1997.
20. Federal Trade Commission, "Competition and Financial Impact."
21. Bozzell Sawyer Miller, "Tobacco Industry Analysis."
22. Grossman and Chaloupka, "Cigarette Taxes," 291-297.
23. Kenneth Warner, personal communication, February 1998.
24. W. Kip Viscusi, "Smoke and Mirrors," *The Brookings Review*, Winter 1998, 14-19.
25. Juliana Gruenwald, "U.S. Looks to Canada's Example in Efforts to Curb Tobacco Use," *Congressional Quarterly*, November 8, 1997, 2734-2737.
26. Thomas Schelling, "Economics and Cigarettes," *Preventive Medicine*, 15 (1986):549-560.
27. Kenneth E. Warner, George A. Fulton, Peter Nicolas, and Donald R. Grimes, "Employment Implications of Declining Tobacco Sales," *Journal of the American Medical Association*, 275, no. 16:1241-1246.
28. There seems to be some disagreement between state authorities and DHHS Secretary Donna Shalala over whether the states would be able to retain the full amount of Medicaid recoveries included in the settlement. She contends that the federal government should get its share—roughly 53 percent on average across all 50 states—of the Medicaid monies, since that is the share of initial outlays furnished from the federal treasury. State officials argue that since they took the initiative in bringing suit against the tobacco industry and have incurred the legal costs for the litigation, the federal government should not share in the fruits of the settlement.
29. Centers for Disease Control and Prevention, "Medical Care Expenditures Attributable to Cigarette Smoking—United States, 1993," *Morbidity and Mortality Weekly Report*, 43, no. 26 (July 8, 1994):469-472.
30. Jan J. Barendregt, "The Health Care Costs of Smoking," *New England Journal of Medicine*, 337, no. 15 (October 9, 1997):1052-1057.