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CRS Report for Congress

The Cigarette Tax Increase to Finance SCHIP

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Summary

H.R. 976 increased cigarette taxes from 39 cents to $1.00 to finance the State Children's Health Insurance Program (SCHIP), raising about $7.6 billion a year, but costing state and local governments over $1 billion. The original House-passed bill (H.R. 3162) had smaller increases, but the Senate proposal was adopted. A justification is to discourage teenage smoking, but this effect is probably small; a reservation is that the burden falls heavily on low-income individuals. Taxes on other tobacco products are also increased, although cigarette taxes account for most tobacco revenues. The President vetoed the proposal on October 3, the House failed to override the veto and a new bill, H.R. 3963 passed the House and Senate, with no changes in the cigarette tax, but changes in spending rules, and the President vetoed that version on December 12.

Introduction

This report discusses proposals to raise the cigarette tax to help pay for re-authorization of the State Children's Health Insurance Program. This report describes current taxes, discusses potential revenue gains, and discusses some of the basic issues surrounding a tax increase. It also briefly discusses the tax increase on cigars.

Tax Changes and Revenue Effects

The vast majority of tobacco taxes are on cigarettes, which account for 90% of tobacco sales (totaled $88 billion in 2005).[1] Federal cigarette taxes are $0.39 per pack, accounting for 97% of federal tobacco tax revenue. There is a 4 cent tax on a package of small cigars. Large cigars carry a tax of 20.719% of sales price, not to exceed $48.75 per 1,000 units, leading to a maximum tax of almost 5 cents per cigar. Per ounce, the tax is 7 cents on pipe tobacco; 1 cent on chewing tobacco; 4 cents on snuff; and 7 cents on pipe and roll-your-own tobacco. There are also taxes on cigarette paper and cigarette tubes.

[1] *Standard and Poor's Industry Surveys: Alcoholic Beverages and Tobacco*, November 30, 2006.

The 61 cents cigarette tax increase in the Senate plan (adopted) would lead to a tax about 2.5 times the current tax while the 45 cent increase in the House proposal was 2.15 times the current tax; these same proportions are proposed for snuff, chewing, tobacco and pipe tobacco. Roll your own tobacco's tax increases about eight fold and seven fold and the relatively small taxes on small cigars are increased to those on cigarettes. Large cigars are the only tobacco product with a tax based on price, but they also have a cap; the price-based tax rises in proportionally, but the cap increases by much more, from 5 cents per cigar to $3.00 in the Senate proposal and $1.00 in the House proposal.

Tobacco tax receipts in the United States in 2005 include $7.8 billion in federal tax, $13.6 billion in state and local taxes, and $7.5 billion in payments from the Master Tobacco Settlement.[2] State and local taxes, therefore, are roughly 68 cents per pack and the tobacco settlement payment is approximately the same as the federal tax, 39 cents per pack. Although the tobacco settlement payments resulted from negotiations between the tobacco companies and the states to settle state lawsuits, the payments function as if they were a national tobacco excise tax that is allocated to the states, and any changes that alter consumption would affect these payments. Some of the states have securitized their payments (exchanged the stream of payment for a fixed up-front amount). According to estimates, about a quarter of payments are made to private investors, rather than to state and local governments.[3] As a percentage of sales revenues, the federal, state and local, and tobacco settlement payments are respectively 8.8%, 15.5% and 8.5%, for a total of 32.5%.

The Joint Committee on Taxation projects an FY2009 revenue gain of $7.6 billion from the 61 cent increase and $5.8 billion for the 45 cent increase (including increases in other products). There will also be a loss of revenue to the states, estimated at over $1 billion for the Senate proposal (about $0.8 billion for the House).[4]

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[2] Data on federal tax revenues from Alcohol and Tobacco Tax and Trade Bureau, Cumulative Summary, Fourth Quarter FY2006. Data on state and local taxes from U.S. Census Bureau tables: *State Government Tax Collections: 2005* and *State and Local Government Finances by Level of Government and by State: 2003-04*. Data on tobacco settlement payments for 2005 are from Nieman Watchdog, "Not Much Tobacco Settlement Money Goes to Reducing Smoking," December 6, 2006, at [http://niemanwatchdog.org/index.cfm?fuseaction=ask_this.view&askthisid=00156].

[3] Payments received by the states are estimated at $5.8 billion in FY2005 and $5.4 billion in FY2006, because many states have securitized their tobacco settlement payments. Data on state tobacco payments are from Government Accountability Office, *Tobacco Settlement: States' Allocation of FY2005 and Expected FY2006 Payments*, GAO-06-502, April 2006.

[4] Joint Committee on Taxation, JCX-44-07 and JCX-55-07, July 13 and 26, 2007: [http://www.house.gov/jct/pubs07.html]. To explain revenue effects, consider the effects in the same year, 2005, as the data above, and an estimate by the Joint Committee on Taxation in that year of 46.7 billion for a 50 cent increase. This gain may appear low, since a 50 cent increase is 1.28 times the current tax of 39 cents per pack, and would appear to raise around $10 billion (1.28 times $7.8 billion). The revenue gain is reduced by the consumers' quantity response, generally an elasticity (percentage change in quantity divided by percentage change in price) of 0.4, so a 10% increase in price will reduce quantity consumed by 4%. In the example considered here, given the tax as a share of price, the price increase would be 11.3% (1.28 times 8.8), and the quantity consumed would fall by 4.5%. That reduction in quantity is applied to both the old ($7.8 billion) and the new ($10 billion), yield a fall in revenues of approximately $0.8 billion and

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Issues Surrounding Tobacco Taxes

There are many alternative sources of revenue (or offsetting spending) for funding the child health program. Are tobacco taxes the most desirable source of revenue? Compared to other taxes, the incentive effects may be desirable. At the same time, the burden falls heavily on lower income people, which may be of concern. Thus, there is a trade-off between the objective of discouraging smoking, and particularly discouraging youth smoking, and the distributional effects of the tax. The remaining issue involves an economic efficiency question relating to arguments that have been made that additional taxes are appropriate to cover costs smokers impose on others. A number of economic studies have questioned that proposition. The following sections discuss these issues.

Effect on Smoking and Health

A large body of literature has suggested that increases in the price of tobacco reduce smoking. However, this response is not very large (in economists' parlance, the response is relatively "inelastic"). Most of the evidence has found the price elasticity to be between 0.3 and 0.5 in absolute value, meaning that a 10% increase in price would cause a 3% to 5% decrease in the number of cigarettes smoked.[5] For older adult smokers, about half of this effect was due to fewer smokers (a participation response) and about half due a reduction in smoking (a quantity response). For younger smokers, the participation response was more important. There is some evidence that the response declines with age and that it rises with income, and that it is higher for women, African-Americans, and Hispanics.[6] A recent study, however, found no variation with income.[7]

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[4] (...continued)
a net gain of $9.2 billion. The number should also be multiplied by 0.97 to eliminate the tax levied on other tobacco products and by 0.75 to account for the effect of excise taxes on corporate income taxes. The net yield is projected at $9.2 billion times 0.97 times 0.75 or $6.7 billion. This behavioral response from a federal tax increase would reduce state and local taxes absent other changes — by 4.5% in the case of the 50 cent tax increase. Therefore, state and local revenues of $13.6 billion would fall by $0.61 billion, and tobacco settlement payments of $7.8 billion would fall by $0.35 billion, for a total of almost $1 billion. There has been a slight downward trend in consumption as indicated by tobacco tax revenues that have decreased from $7.9 billion in 2004 to $7.7 billion in 2006. Were this decline to continue, the revenue gain would fall to $6.4 billion by FY2008. The Joint Committee on Taxation projects a gain for a 50 cent increase of $6.4 billion for FY2009, falling to $6.1 billion by FY2012. Applying the same methodology to a 61 cent increase, which would reduce quantity by 5.5%, the loss would be $7.7 billion, similar to the Joint Committee's estimate. The effect on state and local governments should be in excess of $1 billion. The House bill would reduce quantity by 4.0%.

[5] For a review of the literature on price elasticities for cigarettes, See CRS Report 94-214, *Cigarette Taxes to Fund Health Care Reform: An Economic Analysi*s, by Jane G. Gravelle and Dennis Zimmerman, and CRS Report 97-995, *The Proposed Tobacco Settlement: Effects on Prices, Smoking Behavior, and Income Distribution*, by Jane G. Gravelle (out of print and available from the author). For a review, see also Badi H. Baltagi and Rageev K. Goel, "State Tax Changes and Quasi-Experimental Price Elasticities of U.S. Cigarette Demand: An Update," *Journal of Economics and Finance*, vol. 28, fall 2004, pp. 422-429.

[6] The previous CRS reports cited provide evidence of the age effect; see also Matthew C. Farrelly, Jeremy W. Bray, Terry Pechacek, and Trevor Woolery, "Response by Adults to (continued...)

Some recent studies suggest that the response may be less, or that the benefits of reducing smoking may be less. There is some evidence that the response has been declining, an unsurprising outcome since, given a decline in smoking, the remaining smokers are more resistant to price signals. In addition, there is evidence that elasticities might be overstated in studies that compare state smoking levels because states with higher taxes may also have populations more hostile to smoking.[8] Also, recent studies found that smokers may respond to price increases by increasing the intensity of smoking by buying cigarettes with more nicotine and tar, inhaling more deeply and smoking closer to the filter, which could have deleterious effects since more intensive smoking can be more harmful.[9]

Due to the limited effects on adult smoking, some arguments have been made that the increased taxes on adults are necessary over the interim to discourage teenage smoking. Evidence has suggested that teenage smoking is more responsive to price; the original responses were estimated at elasticities over one, but subsequent analysis led to an estimate of around 0.7 and a number of recent studies have confirmed this general range.[10] Other studies have found smaller responses,[11] or a very small response by younger teenagers.[12] One recent study replicated the 0.7 elasticity using one statistical approach, but in using another the authors consider superior, they found essentially no response of the initiation

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[6] (...continued)
Increases in Cigarette Prices by Sociodemographic Characteristics," *Southern Economic Journal*, vol. 38, July 2001, pp. 156-165.

[7] Greg Colman and Dahlia K. Remler, *Vertical Equity Consequences of Very High Cigarette Tax Increases: If the Poor are the Ones Smoking: How Could Cigarette Tax Increases be Progressive?*, National Bureau of Economic Research Working Paper 10906, November 2004.

[8] Baltagi and Goel, "State Tax Changes and Quasi-Experimental Price Elasticities of U.S. Cigarette Demand: An Update;" Theodore E. Keeler, The-wei Hu, Williard G. Manning, and Hai-Yen Sung, "State Tobacco Taxation, Education and Smoking: Controlling for the Effects of Omitted Variables," *National Tax Journal*, vol. 54, March, 2001, pp. 83-102. Both studies found a decline over time and the latter study found an overstatement of elasticities because of state effects. Another study found variations in elasticities across states; Macki Aissoko, "Cigarette Consumption in Different U.S. States, 1955-1998: An Empirical Analysis of the Potential Use of Excise Taxation to Reduce Smoking," *Journal of Consumer Policy*, vol. 25, March 2002, pp. 89-106.

[9] Jerome Adda and Grancesca Cornaglia, "Taxes, Cigarette Consumption, and Smoking Intensity," *American Economic Review*, vol. 96, September 2006, pp. 1013-1028. This study reviews other studies that also found smoking intensity effects.

[10] Jonathan Gruber and Jonathan Zinman, *Youth Smoking in the U.S.: Evidence and Implications*, National Bureau of Economic Research Working Paper 7780, July 2000; John A. Tauras, Patrick M. O'Malley, and Lloyd D. Johnston, *Effects of Price and Access Laws on Teenage Smoking Initiation: A National Longitudinal Analysis*, National Bureau of Economic Research Working Paper 8331, June 2001; Hana Ross and Frank Chaloupka, *The Effect of Cigarette Prices on Youth Smoking*, ImpacTeen, Research Paper Series No. 7, February 2001.

[11] William Evans and Lynn Huang, *Cigarette Taxes and Teen Smoking: New Evidence from Panels of Repeated Cross Sections*, Working Paper, University of Maryland, April 15, 1998.

[12] Jonathan Gruber, *Youth Smoking in the U.S.: Prices and Policies*, National Bureau of Economic Research Working Paper 7506, January 2000.

of smoking to price.[13] Another paper found a weak and insignificant effect after controlling for anti-smoking sentiment.[14] While much evidence suggests that teenagers are more responsive to prices, these recent studies raise some questions about the effectiveness of tax increases on teenage smoking, especially among young teenagers.

The evidence on smoking indicates that higher prices will decrease smoking participation and quantity. It is possible, however, that other types of interventions, such as stricter regulations on sales to teenagers, counseling, education, and assistance with smoking cessation might be more effective.

Distributional Effects

It is generally recognized that cigarette taxes are one of the most regressive taxes, that is, a tax that falls more heavily on lower income individuals as a percentage of income. Indeed, it is probably the most regressive of the federal taxes. Smokers tend to smoke a fixed amount of cigarettes, so that they pay a fixed amount of tax. (Since the tax is a fixed amount per pack, lower income individuals who buy cheaper brands still pay the same amount of tax.) In addition, smoking is more prevalent among lower income individuals.

To illustrate, in 1998 the Joint Committee on Taxation estimated that a 76 cent tax increase (brought about through a proposed federal tobacco settlement) would raise the effective tax rate on average by 0.3% of income, but would increase the burden of those with incomes below $10,000 by 2% of income and the burden of those in the $10,000-$20,000 income by 0.6% of income.[15] Since this rate applies to all families, those families with smokers would pay more. For example, a family with one smoker who smokes 1.5 packs a day would pay, with a 76 cent tax, an additional $417 in taxes, which is 4.2% of a $10,000 income and 8.4% of a $5,000 income.

To the extent the burden of the tax falls on low-income families and the individuals in those families continue to smoke, low-income children in some families could be harmed even though the child health care provision helps low-income children in general.

Economic Efficiency

A final issue that may arise relevant to cigarette taxes is the argument that higher taxes should be imposed on smokers because they impose costs on others largely through higher health care costs paid for through government and private insurance plans, lost days at work, and some other costs. Some economists have questioned this argument, however, because smokers' premature deaths, while harmful to smokers and their families, reduce

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[13] Philip DeCicca, Donald Kenkel, and Alan Mathios, "Putting Out the Fires: Will Higher Taxes Reduce the Onset of Teenage Smoking?," *Journal of Political Economy*, vol. 110, February 2002, pp. 144-169.

[14] Philip DeCicca, Donald Kenkel, Alan Mathios, Yoon-Jeong Shin, and Jae-Young Lim, *Youth Smoking, Cigarette Prices, and Anti-smoking Sentiment*, National Bureau of Economic Research Working Paper 12548, August 2006.

[15] Joint Committee on Taxation, *Description and analysis of revenue-related provisions of S. 1415 relating to the national tobacco policy as modified by the manager's amendment*, JCX-45-98, June 3, 1998.

costs of certain government programs such as Social Security, Medicare, and Medicaid.[16] These calculations do not account for more subjective effects such as irritation to others, although such problems might be better addressed through private market mechanisms (provision of smoking and non-smoking commercial establishments) and regulation. Some disputes about the magnitude of environmental tobacco smoke remain.

If smokers are not imposing costs on others, or imposing costs that are less than existing taxes, and if they are making rational decisions to engage in an activity which, while damaging to their health, is nevertheless pleasurable, then an additional tax would not increase economic efficiency. It is not clear, however, whether young smokers, where smoking is generally initiated, are able to fully assess the costs of smoking.

Cigar Tax Increases

Although taxes on other products are a small part of total tobacco taxes, there has been some controversy about the increases for cigars in the Senate proposal and their potential disruption of the industry , as reported in the media.[17] Small cigar taxes increase by a factor of 27. They are apparently viewed by some as substitute for cigarettes who argue they should bear the same tax. Small cigars constitute less than 1/10 of 1% of cigarette sales. For large cigar taxes, which are currently a maximum of 5 cents, the tax could rise to as much as $10 in the original Senate Finance Committee proposal. The ceiling was lowered to $3 on the Senate floor; the ceiling in the House bill was $1.

According to tax data, large cigar sales above the cap (premium cigars) account for about half the total. According to the Cigar Association of America, the average manufacturer's price is about $1.90 for these cigars; the average tax on these cigars would be almost a dollar (0.5313 times $1.90 minus $.05) in the original Senate proposal, but much smaller in the House bill because of lower rate and cap and smaller in the final proposal. Most state cigar taxes are based on value and would apply to the federal tax; they are estimated by the Cigar Association of America at about 30%. If retail prices are twice the manufacturer's price the price of large cigars under the cap in the original Senate proposal would have risen by 20.8% and the price of large cigars over the cap, while varying considerably, would have averaged a 33% increase. Prices would rise more if there is also a retailers markup on the tax.

There is less information on the effects of other tobacco products on health or the behavioral response. If the purpose of the tax on cigars is to account for health costs, a per unit rather than a price based tax would seem appropriate. Cigars may differ from cigarettes in that a larger share may be likely to be smoked only occasionally and would therefore be less harmful to health. They may also be less concentrated at lower incomes. The occasional usage (lack of addictiveness) may mean a larger price response, but the usage by higher income consumers may mean a smaller response.

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[16] See W. Kip Viscusi, "Tobacco Taxes," In *The Encyclopedia of Taxation and Tax Policy*, Ed. Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle, Washington, DC, Urban Institute, 2005.

[17] See for example James Thorner, Cigarmakers in a Panic, *St. Petersburg Times*, June 17, 2007, [http://www.sptimes.com/2007/07/17/Business/Cigarmakers_in_a_pani.shtml] and Sarah Lueck, "Does the Country Neet a $10 Cigar Tax?" *Wall Street Journal*, July 19, 2007, p. D7.