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CIGARETTE TAX INCREASES: CAUTIONS AND CONSIDERATIONS

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Summary

As states deal with their fiscal crises and search for ways to close large gaps between revenues and expenditures, few states have yet enacted significant tax increases — with the exception of cigarette tax increases. So far this year, 14 states have increased their excise taxes on cigarettes, and cigarette tax increases are under active consideration in several other states. Before the year is over, it is likely that at least one-third of the states will have enacted cigarette tax increases. The willingness to increase cigarette taxes may be due in large measure to the fact that people don't mind cigarette tax hikes; smoking is acknowledged to be bad for health and so most people think it is reasonable for governments to tax this type of bad behavior.

There certainly is a role for states to play in increasing cigarette taxes in order to discourage smoking. As noted, states also find raising cigarette taxes a convenient way to close budget gaps or even support new programs. States considering these actions, however, should be mindful of some problems associated with cigarette excise tax increases, including the effect on revenue stability and adequacy over time and the impact of higher taxes on lower-income residents. Cigarette taxes may not be an appropriate revenue source for every purpose because the revenue from cigarette taxes declines rather than grows over time. Thus use of cigarette taxes always requires appropriate policy design to overcome the problems cigarette taxes pose for maintaining adequate and stable program funding; failure to address these issues can have long-term adverse consequence. It is also important to offset the impact on the poor with a state EITC or other mechanism.

Revenue Declines and Program Funding

Higher tobacco taxes discourage smoking. Most studies find that a 25 percent increase in the cost of a pack of cigarettes causes a decline in cigarette purchases of about 11 percent. Over the longer term, the decline may be deeper.

The effect of higher state taxes on smoking is layered on top of other monetary and non-monetary factors that are causing smoking to decline. The monetary factors include continuing increases in the wholesale price of cigarettes and recent increases in federal excise taxes. In addition, people are quitting smoking because health risks are more widely understood and because restrictions have made smoking more inconvenient. Looking at all the factors together, the U.S. Department of Agriculture forecasts that aggregate U.S. cigarette consumption will

decline by between 1.5 percent and 2.5 percent per year through 2005. This means that cigarette taxes can be especially poor choice for funding regular government operations, which normally increase in cost from year to year.

- State financial problems develop when cigarette taxes are used — and particularly if they are earmarked — to fund education, health services, or other programs that inevitably grow in cost over time as a result of inflation, population growth, and other factors. A revenue source that declines over time cannot support a program that naturally increases in cost over time.
- When this type of mismatch between revenues and program costs is not acknowledged, confidence in government often is undermined. The public — or voters in states with direct votes on ballot initiatives — think they have been promised a secure funding stream for a desired program. When the funding runs short, as it inevitably does if cigarette taxes are used to fund a program that grows with inflation and population changes, suspicion is aroused that the money has been wasted or diverted or that the spending has been excessive.
- This suggests that policymakers and advocates should carefully consider whether a cigarette tax increase is the most appropriate way to meet their funding need, and, if it is determined that the cigarette tax is the most desirable revenue source, whether there are ways the mismatch between revenues and program costs could be mitigated.

For example, a portion of revenues from increased cigarette taxes could be budgeted as if it were a one-time or short-term revenue gain. Thus new cigarette tax revenues could appropriately be used to fill a recession-induced gap in a state budget or in a particular program such as Medicaid that tends to increase in cost when the economy is weak, if it were anticipated that the gap would be filled with other revenues once the economy recovers. Care would have to be taken to redirect the cigarette tax revenues when the other revenue sources have returned to their normal levels.

Similarly, it could be appropriate to use cigarette tax revenues to support smoking cessation programs for which need might decline as smoking behavior declines, for one-time capital projects such as specified school repairs, to replenish rainy day funds or state reserve funds, or for any other one-time or short-term use — especially if the concerns raised below about the impact of cigarette taxes on low-income populations also are addressed.

- Another approach to reducing the mismatch between revenues and program costs could be to couple a cigarette tax increase with an increase in another tax that tends to grow faster than the economy, such as the income tax, and then to use

Table 1
States Increasing Cigarette Excise Taxes in 2002
(as of June, 2002)

	Amount of Increase Per Pack
Connecticut	61¢
Illinois	40¢
Indiana	40¢
Kansas	46¢ + 9¢ in 2003
Louisiana	12¢
New York	39¢
Maryland	34¢
Nebraska	30¢ temporary
New Jersey	70¢
Ohio	31¢
Pennsylvania	69¢
Vermont	49¢ + 26¢ in 2003
Rhode Island	32¢
Utah	18¢

both sources for the same purpose or for general revenue. In this case, revenues from the total tax increase package would grow, on average, at a rate that could support the normal growth of the program it is funding.

- Similarly, revenues from tobacco tax increases could simply be mingled with other general fund revenues. In states in which revenues and expenditures generally are in long-term balance — that is, in which there are sufficient rapidly growing revenues such as income taxes to offset the “drag” of slow-growing or declining revenues such as excise taxes, lottery revenues, and narrow-based sales taxes — additional cigarette tax revenues probably would not cause a problem. Not all states, however, have such a balance. When states instead have structural deficits — the inability of current revenue sources to fund the normal year-to-year growth in programs — increased cigarette taxes would add to those deficits.

Impact on Low-Income Populations

A further problem is that cigarette taxes fall heavily on low-income people. In part, this is because lower-income segments of the population tend to smoke in greater proportions than higher-income people. One study of smoking behavior in 1995 shows that 28.8 percent of people with family incomes below \$15,000 and 27.2 percent of people with family incomes between \$15,000 and \$25,000 smoked, as contrasted with 17.2 percent of people with incomes above \$50,000.

In addition, cigarette taxes — like all consumption taxes — are regressive; they represent a greater proportion of the income of poor and near-poor households than they do of higher-income households. A study found that expenditures on cigarettes amount to 3.2 percent of the income of people in the bottom fourth of the income distribution, but only 0.4 percent of the income of people in the top fourth. Thus increases in cigarette taxes particularly burden the poor.

- Research does show that lower-income people are more likely than those at higher incomes to quit smoking or reduce cigarette consumption in response to a tax increase. This leads some to argue that the regressive nature of cigarette tax increases is mitigated by these smoking declines. One new study claims that the “self-control value” of the taxes — the extent to which the higher taxes help low-income people quit at some time in the future — reverses the regressivity. This line of reasoning, however, looks at low-income people as a group. It does not address the high burden on low-income individuals who cannot immediately change their behavior in response to a cigarette tax increase because of the addictive nature of cigarettes. Moreover, helping someone quit at some time in the future does not relieve the burden relative to income today.
- One way to obtain the positive health effects of higher taxes without unduly burdening lower-income people is to provide offsetting tax relief targeted generally toward poor (or poor and near-poor) households. For example, a portion of the incremental revenue from the cigarette tax — or from other taxes that might be raised at the same time — could be used to institute or increase a state Earned Income Tax Credit, a state sales tax credit, or a property tax/rent credit for low-income families.

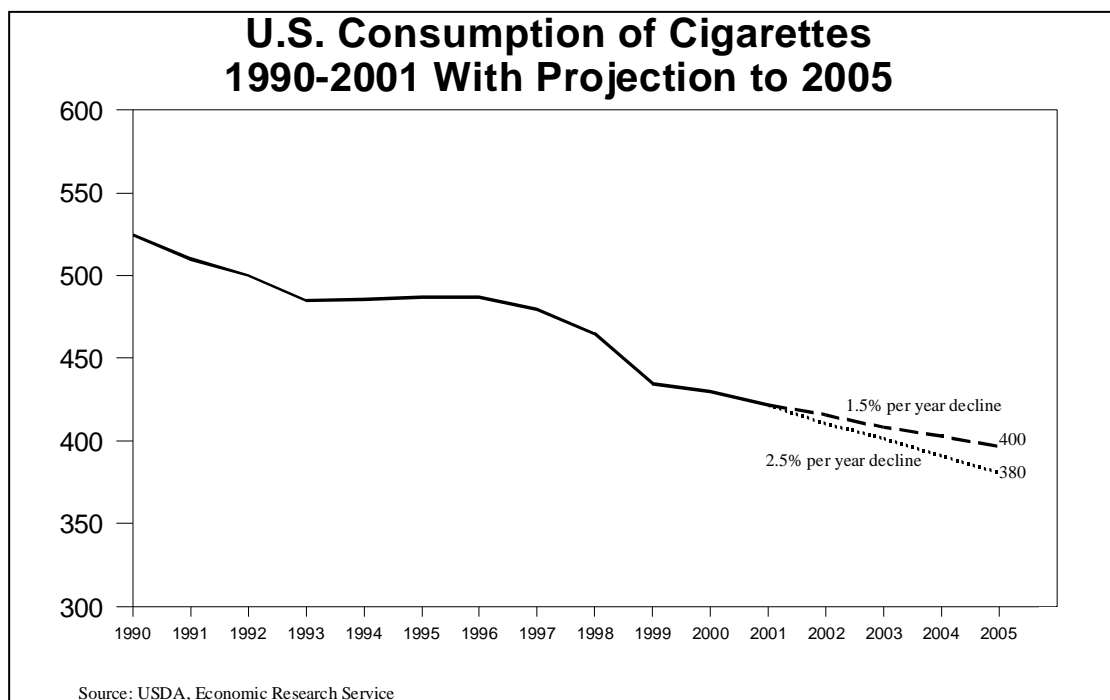
Taxes, Prices, and the Demand for Cigarettes

When the price of cigarettes goes up, demand drops substantially. And increasing cigarette excise taxes is one way to cause the price of cigarettes to go up; most research suggests that cigarette companies pass the full amount of the tax increases through to consumers in the form of higher prices.¹

There have been many studies that have measured the relationship between prices and the consumption of cigarettes, and most have similar results. In the short run, most studies find that

¹ William N. Evans, Jeanne S. Ringel, and Diana Stech, “Tobacco Taxes and Public Policy to Discourage Smoking,” *Tax Policy and the Economy*, J. Poterba, ed. Cambridge, MA, MIT Press, 1999.

Figure 1



a 25 percent increase in the price of cigarettes due to a tax increase will reduce consumption of cigarettes by just over 11 percent.² So if a state in which cigarettes now cost an average of \$4 a pack enacts an additional dollar of cigarette excise tax to raise the price to \$5 a pack, it could expect to see the demand for cigarettes drop by around 11 percent.

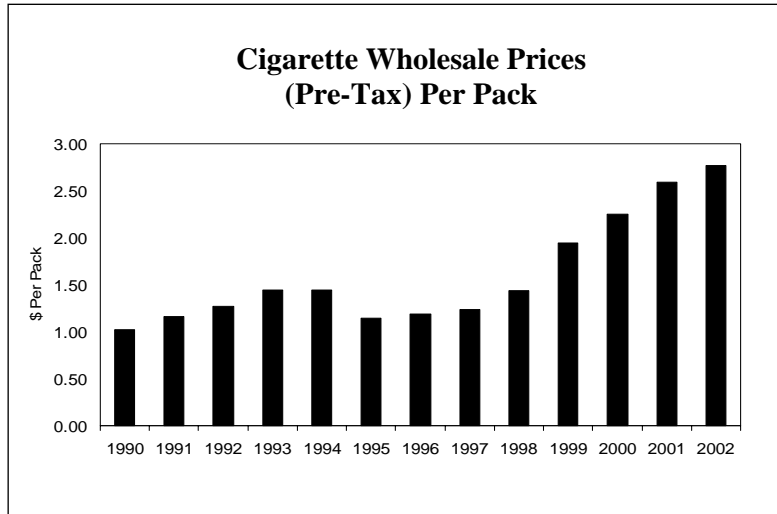
These are relatively immediate effects on consumption. One study notes that in states such as Arizona, Massachusetts, Michigan, and New York that enacted tax increases in the mid-1990s that were considered rather large at the time, consumption continued to fall relative to aggregate U.S. consumption for the first few years after the tax increase. The study finds that over three years, a 25 percent increase in the price of cigarettes leads to a drop in consumption of

² Evans *et.al.* find the short term demand elasticity to be between -0.30 and -0.50. Jonathan Gruber and Botond Koszegi note that “Standard micro-data estimates for the elasticity of consumption center around -0.45,” although they posit an even higher elasticity, -0.66, which would imply a 16.5 percent drop in demand for a 25 percent price increase. Gruber and Koszegi, *A Theory of Government Regulation of Addictive Bads: Optimal Tax Levels and Tax Incidence for Cigarette Excise Taxation*, NBER Working Paper No. 8777, February 2002

nearly 18 percent.³ Other studies also find that the long-term effects of cigarette price increases on consumption exceed the short-term effects.⁴

State tax increases are only one of the forces that are contributing to the decline in cigarette consumption. According to the U.S. Department of Agriculture experts, part of the decline is due to non-economic factors. Some people are stopping smoking or not beginning to smoke because the health risks of smoking are becoming more widely acknowledged, and because smoking is becoming less acceptable to society as evidenced by the shrinking number of places in which one is permitted to smoke. There also are monetary factors other than state tax increases contributing to the decline in smoking. The federal excise tax on cigarettes was increased on January 1, 2000 and again on January 1, 2002.⁵ In addition, manufacturers continue to raise the wholesale price of cigarettes.⁶

Figure 2



Over the five years from 1996 to 2001, cigarette consumption dropped by more than 13 percent, from 487 billion to 422 billion cigarettes a year. (See Figure 1.) That is a 2.8 percent annual rate of decline. During that period, the Master Settlement Agreement between the cigarette companies and the states was reached, and, as part of the agreement, wholesale prices for cigarettes were raised substantially, as shown in Figure 2.⁷ Thus, the future decline will likely

³ Evans, et. al., p. 23. The enacted tax increases were 40 cents in Arizona, 25 cents in Massachusetts, 50 cents in Michigan, and 27 cents in New York. The three-year elasticity is -0.71.

⁴ See, for example, David Merriman, "Do Cigarette Excise Tax Rates Maximize Revenue?" *Economic Inquiry*, Vol. XXXII, July, 1994, pp. 423-424.

⁵ The federal excise tax increases were enacted in the Balanced Budget Act of 1997 (H.R. 2155).

⁶ Tom Capehart, *Tobacco Outlook*, Economic Research Service, U.S. Department of Agriculture, TBS-252, April 26, 2002.

⁷ Ibid.

not be quite as precipitous. Nevertheless, the Agriculture Department forecasts that cigarette consumption will decline by between 1.5 percent and 2.5 percent a year between 2001 and 2005.⁸

Effect on Revenue

The acceleration of the decline in consumption following cigarette tax increases can be highly desirable when viewed from the perspective of health promotion. From the point of view of those concerned about the adequacy of state revenues to maintain programs, on the other hand, the implications of the consumption decline are problematic.

State revenues support state expenditures. State expenditures generally rise each year — even if no new programs are created — because population grows, inflation drives up the costs of everything government purchases (especially health care), and state employee wages must be increased to be reasonably competitive with private sector wages. This means that state revenues have to rise each year if they are to support adequately the continuation of existing state spending policies.

When cigarette taxes are a component of state revenue — as they are to some degree in every state — a problem is created. Even when specific tax increases do not drive down cigarette consumption, cigarette taxes do not keep pace with spending needs. Excise taxes, such as taxes on cigarettes, alcohol, and gasoline are levied at a specified rate based on the quantity of the good purchased, rather than as a percentage of the price of a good. A cigarette tax could be levied, for example, at \$1.50 per pack. Thus if demand for cigarettes is not growing — that is, even if demand is stable rather than declining — the revenue yield from the excise tax does not grow. Unlike a general sales tax or an income tax, the cigarette tax revenue cannot grow in tandem with growth in the state economy.⁹ Moreover, as discussed above, the long-term trend in demand is not stable but rather declining.

When the tax on cigarettes is increased, the problem often is exacerbated. There is a tendency for states to include in their budget the full amount the cigarette tax increase is expected to raise the first year, or to dedicate or earmark the additional revenues to support a specific program. As consumption declines due to the higher tax, however, the incremental revenues

⁸ Tom Capehart, *Trends in the Cigarette Industry After the Master Settlement Agreement*, Economic Research Service, U.S. Department of Agriculture, TBS-250-01, October 2001. This forecast assumes that states will continue to increase their taxes at about the same rate as they have in the past. If many states enact large cigarette tax increases as a result of the current fiscal crisis, it is likely that the consumption decline would be close to the upper bound of the forecast or even greater.

⁹ In theory, states could set the cigarette tax rate to adjust upward automatically every year to account for this erosion of the tax revenue. No state, however, has done so. Moreover, each small tax increase would be accompanied by a small decrease in demand.

raised by the tax increase also decline. Especially when the tax is earmarked, as discussed below, revenues can rapidly become inadequate to support program spending.

Excise taxes are one of several elements in the revenue systems of the various states that generally do not grow in tandem with the economy. When states rely on substantial amounts of revenues that do not grow adequately, they develop what is known as “structural deficits.”¹⁰ If a state has a structural deficit, it cannot support the normal year-to-year growth in its expenditures and thus must either reduce spending or raise tax rates in most years — even when the economy is healthy and not in recession. A majority of states have such structural deficits.¹¹

More and Less Problematic Uses of Cigarette Tax Revenues

When cigarette taxes are increased to support spending, the resulting drop in consumption aggravates structural deficits. In that case, the normal rise in cost of providing government programs and services depends, at least in part, on a declining revenue source. As noted, it can be even more problematic when the increase in the cigarette taxes is dedicated to support a specific expenditure that is certain to increase over time. This section discusses uses of cigarette tax revenues that illustrate the problems that can be caused, and suggests ways the problems can be mitigated or avoided.

Problematic Uses

In November 2001, Washington voters decided to use a cigarette tax increase to support an increase in the number of persons covered through the state's Basic Health Plan, which provides subsidized health insurance for persons with family incomes below 200 percent of the poverty line. The voter initiative increases the cigarette tax by 60 cents a pack, from 82.5 cents to \$1.425 per pack. The vast majority of the revenue will be devoted to increasing the number of people covered under the health plan by 50,000 persons, from 125,000 to 175,000 people. Other portions of the revenue will be used to compensate for the decline in revenues in other programs currently supported by cigarette taxes, and some will be used for smoking cessation programs.

¹⁰ Other revenue sources that may not grow in tandem with the economy include lottery revenues, and sales taxes that are levied on a narrow base of goods and that exclude services from taxation.

¹¹ A 1998 study by the late fiscal expert Hal Hovey found that about three-quarters of the states have structural deficits, defined as a difference between projected spending needed to maintain the current level of services and anticipated tax revenues. Hovey also noted that the primary cause of structural deficits is on the revenue side of the budget, because state and local revenue growth lags behind growth in personal income [a measure of state economic activity]. Hal Hovey, *The Outlook for State and Local Finances: The Dangers of Structural Deficits to the Future of American Education*, National Education Association, November, 1998. Similar points were made in an earlier study issued by the National Conference of State Legislatures and the National Governors' Association, *Financing State Government in the 1990s*, December, 1993.

The Tobacco Settlement and State Revenue

In November 1998, 46 states, the District of Columbia, and six territories entered into an agreement with the four largest cigarette manufacturers to recoup monies spent on “tobacco related costs.” This Master Settlement Agreement provides the states with settlement payments totaling more than \$200 billion over the next 25 years, in exchange for which the states agreed to drop their lawsuits against the manufacturers. (The other four states already had settled out of court with the cigarette companies for \$39.8 billion.)

The Master Settlement set specific amounts for payment to the states each year. Those amounts are subject to adjustment annually, however, based on three factors: inflation, the number of cigarettes sold, and the gain in market share by cigarette manufacturers that are not participating in the agreement. As a result of these adjustments — the vast majority of which are due to the decline in consumption — the states received \$1.6 billion less by April 2001 than the projections made in the Master Settlement Agreement, according to a U.S. General Accounting Office survey.

Instead of the projected \$15.4 billion, they received \$13.8 billion, a shortfall of more than 10 percent.

The Council of State Governments projects a deepening of this shortfall in future years. As more and more people quit smoking, tobacco settlement payments will also decrease. The CSG projects the drop in the number of smokers and shift in market share will result in a 20 percent reduction in scheduled payments over the period from the beginning of the settlement through 2010.

Source: James B. Carroll and David A. Moss, *Tobacco Settlement and Declining State Revenues*, The Council of State Governments, March 2002.

The official estimates from the Washington Department of Revenue suggest that the revenues available to the state’s “Health Services Account” from the cigarette tax increase will be essentially constant in fiscal years 2003 through 2007 — approximately \$135 million each year. According to a report by the state Senate, however, premiums for the state’s Basic Health Plan have increased an average of 10 percent a year over the past four years. If costs in the health program continue to increase rapidly — as health care costs are increasing throughout the economy — then a constant amount of dollars from the cigarette tax increase will not be able to sustain the additional enrollment contemplated. The Senate report shows that if health care costs grow by just 8 percent a year and additional enrollment reaches the planned 50,000 in FY 2005, annual costs would exceed annual revenues in that year and every year thereafter.¹²

¹² Washington State Senate Committee Services, “Summary of Initiative 773,” October 2001. http://www.leg.wa.gov/senate/scs/Initiatives/I_773_redo.pdf. The situation could be worse because tobacco revenues are more likely to decline than remain constant, as the Senate report assumes.

In other words, using a non-growing revenue source such as a cigarette tax to finance a health care program with growing costs is a serious mismatch. It sets up a scenario in which promises made to the public about services that will be delivered almost certainly will be broken.

Advocates for higher cigarette taxes sometimes suggest that the health improvements brought about by fewer people smoking will reduce health care costs, so the declining revenue support does not pose a problem. If higher taxes prevent a teen-ager from beginning to smoke today, however, the gain from lower health care costs may not be realized until 30, 40 or 50 years in the future.¹³ To the extent that health care costs today are related to smoking, they are in significant part the consequence of decisions to smoke made many years in the past. One cannot expect a substantial near-term decline in the cost of health services from a tax increase enacted now.

Use of cigarette taxes to fund education can create similar problems, albeit often less severe because the cigarette taxes are typically used in conjunction with other revenue sources dedicated to or used for education. Michigan, for example, raised its cigarette tax by 50 cents — from 25 cents to 75 cents a pack — in 1994 as part of an education finance reform. The new cigarette tax revenues were dedicated to K-12 education spending, along with an increase in the sales tax and certain other new revenue. This allowed the property taxes that had been supporting the education spending to be substantially reduced. Not surprisingly, cigarette tax revenue declined markedly subsequent to this tax increase. In 1995, the tobacco tax contributed \$397 million of the \$7 billion dedicated state school aid fund revenues, or 5.7 percent of the school aid funds. By 2001, the tobacco tax flowing to the fund had decreased to \$383 million out of the nearly \$10 billion state school aid fund revenue, reducing the contribution of tobacco taxes from 5.7 percent to 3.8 percent of the fund.¹⁴ The fund was able to continue to grow sufficiently to support education expenditures because income tax revenues and other more rapidly growing revenue sources dedicated to the fund were able to offset the decline in the tobacco taxes, which supply a small part of the total school aid fund. In addition, some general revenues are added to the dedicated funds whenever they are needed for education funding.

Maryland has recently enacted a six-year phased-in plan to increase school funding by \$1.3 billion. It has decided to use the revenues from increasing the cigarette tax to support the first stage of the plan. The 2003 funding will come from a 34 cent increase in the cigarette tax. In this case, however, the fiscal note to the legislation clearly states that the cigarette tax revenue

¹³ Younger smokers are more likely than older smokers to quit smoking in response to a price increase. M.C. Farrelly and J.W. Bray, "Response to Increases in Cigarette Prices by Race/Ethnicity, Income, and Age Groups — United States, 1976 - 1993," Research Triangle Institute, Research Triangle Park, North Carolina for the Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, CDC, reported in U.S. Department of Health and Human Services, *Morbidity and Mortality Weekly Report*, Vol. 47, No. 29, July 31, 1998, p. 606.

¹⁴ Michigan Legislature, Senate Fiscal Agency, "Restricted State School Aid Fund Revenue: FY 1970-71 To FY 2000-01," June 17, 2002.

Table 2
State Excise Tax Rates on Cigarettes Before Recent Increases

STATE	2002 TAX RATE (¢ per pack)	1992 TAX RATE (¢ per pack)	STATE	2002 TAX RATE (¢ per pack)	1992 TAX RATE (¢ per pack)
Alabama	16.5	16.5	Nevada	35	35
Alaska	100	29	New Hampshire	52	25
Arizona	58	18	New Jersey	80	40
Arkansas	31.5	22	New Mexico	21	15
California	87	35	New York	111	39
Colorado	20	20	North Carolina	5	5
Connecticut	50	45	North Dakota	44	29
Delaware	24	24	Ohio	24	18
Florida	33.9	33.9	Oklahoma	23	23
Georgia	12	12	Oregon	68	28
Hawaii	100	30	Pennsylvania	31	31
Idaho	28	18	Rhode Island	100	37
Illinois	58	30	South Carolina	7	7
Indiana	15.5	15.5	South Dakota	33	23
Iowa	36	36	Tennessee	13	13
Kansas	24	24	Texas	41	41
Kentucky	3	3	Utah	51.5	23
Louisiana	24	20	Vermont	44	20
Maine	100	37	Virginia	2.5	2.5
Maryland	66	36	Washington	142.5	34
Massachusetts	76	26	West Virginia	17	17
Michigan	75	25	Wisconsin	77	38
Minnesota	48	48	Wyoming	12	12
Mississippi	18	18	Dist. Of Colombia	65	50
Missouri	17	13			
Montana	18	18			
Nebraska	34	27			

Source: 2002: Federation of Tax Administrators, 1992: U.S. Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalisms*, 1993, p. 118. Taxes as of 10/1/92 and 1/1/02.

will be stagnant or decline slightly in future years, and policymakers are aware that other types of funding will have to be found for future years. (Most of the public, however, is likely not aware that the cigarette tax cannot sustain the school improvements.) If the funding streams established for the further phase-in of the plan are not ones that grow sufficiently relative to the economy to offset the “drag” of the cigarette tax, the use of the cigarette tax as a portion of the funding could become problematic in future years.

Alternatives to Problematic Uses

One way to overcome the mismatch between revenues and spending is to use cigarette tax revenues — and particularly to use most of the additional revenues from an increase in the cigarette tax rate — as if they were one-time or temporary revenues. If tobacco tax revenues are not used to support the cost of ongoing state programs, then their decline would not create structural deficits.

For example, assume a state is experiencing a sharp increase in Medicaid costs. Further assume that some of the cost increase is due to increased enrollment because of a weak economy, some is related to increased demand for long-term care, and some is for the increased cost of prescription drugs. It could be appropriate to raise cigarette tax rates to fund the portion of the increased caseload that is related to the cyclical economy. Since the caseloads and the costs will presumably drop again once the economy improves, the decline in cigarette tax revenues over time can be reasonably expected to track the decline in the need for the funds generated by the cigarette tax.

Using increased cigarette taxes to substitute for other revenues in a recession does run the risk, however, that policymakers inappropriately build the revenues permanently into the funding base. This could leave a rapidly growing health program, for example, with a revenue support that does not increase with program costs over time. One way to avoid this may be to give the incremental cigarette tax revenue a special designation in the budget to indicate that it will be redirected to a more suitable use (such as a one-time expenditure or the rainy day fund, as described below) once the fiscal crisis passes.

One-time or short-lived expenditures, or expenditures that can be adjusted to match revenue each year, are particularly appropriate uses for cigarette tax revenues. Cigarette tax revenues could be used for an activity such as school repairs or reconstruction, because the amount that is appropriated for that activity each year could simply match the expected revenues. If revenues decline, so could the level of scheduled repairs. Similarly, any one-time capital project could be financed with the incremental cigarette tax revenue.

Another reasonable use for incremental cigarette tax revenue would be to build up a state's "rainy day" fund. The rainy day funds and other reserves that states accumulated during the years of strong economic growth in the 1990s proved insufficient in many states to prevent major budget cuts and tax increases as the economy turned down and caused state fiscal stress in 2001 and 2002. Moreover, most states have now depleted or used substantial portions of those reserves. A cigarette tax increase could be used to rebuild the reserves. Since it is not particularly important to be able to forecast ahead of time the exact amount of funds that will be available for the reserves, declines in cigarette consumption would not cause problems if cigarette tax revenues were used in this way.

Use of cigarette tax revenue to meet recession-induced costs, to support one-time projects, or for rainy day fund replenishment is quite different than using cigarette tax revenues for ongoing government programs such as education or health insurance subsidies.

Still another possibility is to budget for the average amount of funds a tobacco tax increase is expected to yield over a period of time. In Massachusetts in 1996, for example, tobacco taxes were increased and the proceeds were dedicated to the Children's and Seniors Fund to expand access to health care. The money flowing into the fund in the first years exceeded the amount that was budgeted to be used for the program, so the fund built up a balance that could be drawn down when the tobacco tax revenues began to dwindle. The intention was to use each year only the average amount of revenue expected from the tobacco tax increase over a ten year period. Over the past few years, however, the state failed to deposit other types of revenues initially designated for the fund, so the fund is in deficit. The potential weakness of this strategy is that few states can reliably plan the use of funds for periods as long as ten years. The temptation to fully use the revenues in the early years can be irresistible.

Use in Combination with Other Tax Increases

In some states, there may be another way to prevent cigarette taxes from creating a budget gap over time. If a state has a tax that grows at a rate substantially greater than the rate of growth of spending, and if both the rapidly-growing revenue source and the cigarette tax are increased at the same time and for the same purpose, then the revenue from the two sources combined may, on average, grow at a rate sufficient to support the normal growth of spending.

In Massachusetts, for example, the fiscal year 2003 budget that passed both houses of the legislature includes \$1.2 billion in new revenue to offset the state's shortfall.¹⁵ While the package includes a 75 cent per pack cigarette excise tax increase, it also freezes an income tax reduction and postpones a charitable deduction, both of which had been phasing in as a result of a voter initiative, and increases the tax rate on capital gains income. Because income taxes and capital gains taxes were increased along with the cigarette tax, the higher cigarette tax probably will not contribute to a structural deficit in the state.

Use as General Fund Revenue

In some cases, revenues from a cigarette tax increase are used to shore up general fund revenues, rather than for a particular purpose. Whether or not the tobacco tax causes a problem in this situation largely depends on the status of the overall tax system in the state.

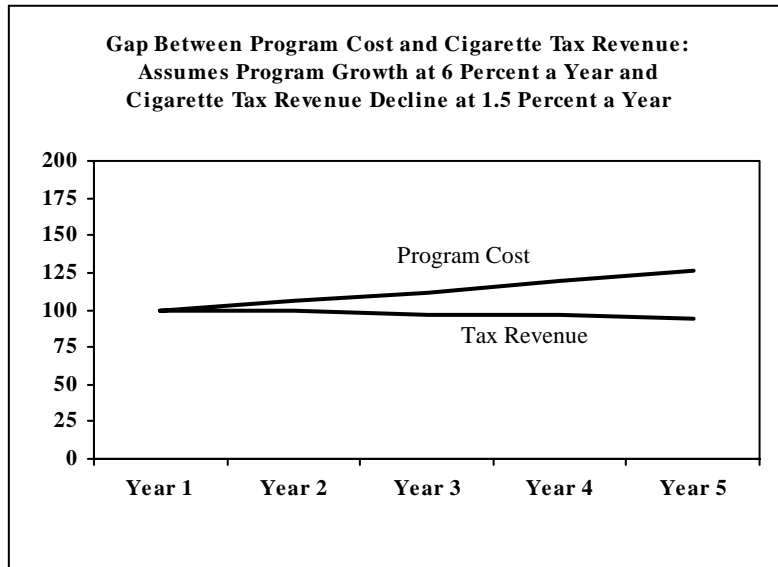
Tobacco taxes accounted for only about 1.5 percent of all state revenues in 2001.¹⁶ Because tobacco tax revenues contribute only a small proportion of all general revenues, the

¹⁵ As of this writing, it is unclear whether the Governor will sign the legislation.

¹⁶ U.S. Census Bureau, United States State Government Tax Collections: 2001,

declines in tobacco tax revenues over time theoretically can be offset by the more rapid increases in other general fund tax sources such as income taxes. This works in some states in which the tobacco taxes and other revenue sources that tend to decline over time — such as lotteries and gambling, other “sin” taxes and excise taxes — represent a small part of total revenues, and in which other revenues grow sufficiently to offset the declining revenues. In these states, non-earmarked cigarette tax increases may not pose much of a problem for program funding.

Figure 3



In other states, however, the portion of total revenue that is derived from sources that decline over time is high enough in relation to more rapidly growing sources that total revenues are inadequate to support the normal growth of program spending. These are states that rely heavily on the types of revenues that tend to decline, and that also rely heavily on revenues that do not grow as rapidly as the economy — including the sales tax in many states. In these latter types of states, a further increase in the cigarette tax can exacerbate existing structural deficits and widen the gaps between the normal growth of revenues and the normal growth of spending. Unfortunately, there are more states that already have structural deficits, which increased cigarette taxes can exacerbate, than there are states that have tax systems healthy enough to compensate for the long-term revenue problems cigarette taxes cause.¹⁷

Structural Deficits and Public Perception

When cigarette tax increases (or increases in other revenue streams that are likely to decline over time, such as lottery revenues) are dedicated or earmarked as the sole or primary support for particular programs or program expansions, the funding for those programs generally becomes inadequate over time. Most often, the new program or the additional initiative is designed to cost an amount equal to most or all of the revenues that are expected to be raised in the first full year after the cigarette tax hike. Advocates for a program, within or outside of the government, naturally want to make their new program or initiative as large and comprehensive

<http://www.census.gov/govs/statetax/0100ustax.html>

¹⁷ Hovey, *op.cit.*

as possible, so they fully utilize the expected revenues. This short-sighted approach is abetted by the tendency of some states to focus only on the upcoming fiscal year, and to pay little attention to — or not even produce — longer-term estimates of revenues and the cost of maintaining current spending policies.

By the second year of the program, it is likely that the cigarette tax revenues will have declined due to a drop in consumption. Even if there is no drop in consumption, the revenues would at best be stagnant. If there are longer term declines in consumption due to the tax increase lowering demand, the revenues will drop still further. If other factors such as manufacturer price increases cause the price of cigarettes to increase, further drops in revenues would be expected. The cost of the program or initiative, however, likely will have increased due to inflation, population growth, or other factors. Thus the gap between cost and funding is likely to begin to develop quickly, and grow over time. Figure 3 illustrates the funding gap that would develop if the cost of a program supported by a cigarette tax grows by six percent per year, and the cigarette tax revenue declines by 1.5 percent per year. By the fifth year, the cigarette tax can support only 75 percent of the program costs.

As cost and funding diverge, there are two basic choices that can be made. Either the program has to be cut back, or additional revenues have to be found.

In either case, there is likely to be public disappointment. If policymakers or supporters of a voter initiative had made the case that a cigarette tax hike would allow a certain number of additional people to receive health care, for example, there is bound to be disappointment when the public finds that the promises have fallen short within a few years. The public is unlikely to understand the dynamics of declining cigarette tax revenues, particularly because the promises made to gain support for the tax increase almost always skip over this critical point. The public is more likely to conclude that the money has been wasted in some way or that spending has not been controlled adequately — adding fuel to anti-government sentiments and potentially making it more difficult to obtain funding for human services programs in the future.

The experience with lottery revenues to support programs is instructive, because lottery revenues, like cigarette taxes, usually decline over time unless actions are taken regularly to institute new games with larger payoffs. In a recent article, for example, the head of a Florida state university discusses the failure of the public to understand that education did not have adequate revenues, because Florida has earmarked its lottery proceeds for education. He said:

During my five years of service as President of the University of South Florida...I guided USF through trying financial times when the public response to my expressions of concern was “What’s the problem? You’re getting the lottery money.”¹⁸

¹⁸ Chancellor Francis Borkowski, “The Lottery’s Impact on Education,” *North Carolina Political Review*, November-December, 2001 at <http://www.ncpoliticalreview.com/1101/lottery/borkowski.htm>

He goes on to note that people don't understand that the productivity of lotteries as a revenue source decreases over time, or that the rate of growth in lottery revenues tends to be flatter than the rate of growth in other sources, such as sales and income taxes.¹⁹ So they expect higher education to have adequate revenues because it has the dedicated lottery revenue. As a result, the public is not receptive to providing additional revenues to meet the education need.

Impact on Low-Income People

Cigarette taxes generally are viewed as highly regressive; that is, they absorb a much higher proportion of the incomes of lower-income households than of higher-income ones. This is still another reason why caution should be exercised in using cigarette taxes as a revenue source.

Low-income people are more likely to smoke than higher-income people. One study of smoking behavior in 1995 shows that 28.8 percent of people with family incomes below \$15,000 and 27.2 percent of people with family incomes between \$15,000 and \$25,000 smoked, as contrasted with 17.2 percent of people with incomes above \$50,000.²⁰

Cigarettes also appear to absorb a larger proportion of the budgets of lower-income people than of higher-income people, who make many different kinds of discretionary purchases and who tend to save a significant portion of their income. According to one study, cigarette expenditures amount to 3.2 percent of the income of people in the bottom fourth of the income distribution, but only 0.4 percent of the income of people in the top fourth of the income distribution.²¹ Other studies have found similar results.

On the other hand, some researchers have noted that lower-income smokers are more price sensitive than higher-income smokers, and thus more likely to quit smoking in response to a tax increase that raises the price of cigarettes. One study, sponsored by the Center for Disease Control, found that the drop in consumption as a result of a given price increase was 70 percent greater among people with income below the median than for people with income above the median. Another study found the consumption drop among people with below-median income to be 90 percent greater than among higher-income people.²² The greater likelihood that lower-

¹⁹ When a lottery or tobacco tax is earmarked for education, it always provides only a small portion of education funding. The earmarking may not increase total funds for education, since the state can divert some other revenues previously used for education to other purposes. This is an additional problem raised by Borkowski.

²⁰ From the Behavior Risk Factors Surveillance Surveys, cited in Evans, Ringel, and Stech, p. 7.

²¹ Gruber and Koszegi, p. 5

²² M.C., Farrelly and J.W. Bray, p. 606. The total price elasticity was 0.29 for lower-income persons compared with 0.17 for higher-income persons. In Evans, Ringel, and Stech, p. 25, the price elasticity was .322 for those

income people will reduce cigarette consumption in response to a tax increase has led some proponents of higher cigarette taxes to argue that cigarette taxes are less regressive than they appear to be.

One recent study has taken that concept somewhat farther. MIT Professor Jonathan Gruber and Botond Koszegi from University of California at Berkeley argue that the incidence of the cigarette tax should be measured not just with respect to its effect on income, but rather with respect to its effect on total well being (what economists call “utility”). They further argue that smokers want to cut down or quit sometime in the future (even if not today), and that higher prices will help them exert self-control on their smoking behavior. Given that the poor are more price sensitive, the “self-control tax” is more valuable to them and so the utility they derive is greater. Gruber and Koszegi find that the incidence including utility may even in some cases be reversed from the incidence that just considers the effect on income. In other words, they find that the burden of cigarette taxes, including “utility,” is lower on lower-income people than on those at higher income levels. Thus they conclude that cigarette taxes are (or at least can be) beneficial on net to low-income people.²³

Even if Gruber and Koszegi are theoretically correct that higher taxes are valuable self-control mechanisms that increase the probability that someone will quit in the future, however, the problem remains of the low-income person who is too addicted to quit smoking — or even to reduce the quantity of cigarettes smoked — the day the price increase goes into effect. The low-income person, who may have limited or no access to assistance for quitting, will be paying a larger share of his or her income for cigarettes at the higher price. Because it is an addiction, the low-income person may prioritize the cigarette costs ahead of other consumption important to his or her family.

Moreover, the assistance the higher tax provides for a low-income person to quit sometime in the future does not change the fact that the tax absorbs a high percentage of his or her income today. That still poses a problem. One way to obtain the positive health effects of higher taxes without unduly burdening lower-income people is to provide offsetting tax relief targeted generally toward poor (or poor and near-poor) households. For example, a portion of the incremental cigarette tax revenue or other revenues that might be raised at the same time could be used to institute or increase a state Earned Income Tax Credit, or to institute or increase a state sales tax credit for lower-income families.²⁴ A property tax/rent credit for low-income families would be another possibility. The cost of such highly-targeted tax relief is often quite modest,

below the median income and .17 for people with incomes above the median.

²³ Gruber and Koszegi, 2002

²⁴ See, for example, Nicholas Johnson, *A Hand Up: How State Earned Income Tax Credits Help Working Families Escape Poverty*, Center on Budget and Policy Priorities, 12/27/01, <http://www.cbpp.org/12-27-01sfp.pdf> and Nicholas Johnson and Iris Lav, *Should States Tax Food: Examining the Policy Issues and Options*, Center on Budget and Policy Priorities, May, 1998, <http://www.cbpp.org/stfdtax98.pdf>

and many models exist in various states across the country.²⁵ Since the low-income tax relief would not be tied in any way to smoking behavior, it should not reduce the incentives the higher cigarette prices provide to quit smoking or reduce cigarette consumption.

In enacting its budget this year, Kansas used two types of low-income tax relief to counterbalance increases in its cigarette tax rate and sales tax rate. Kansas raised its cigarette tax rate from 24 cents to 70 cents per pack effective July 1, 2002, and scheduled a further nine cent rise for the beginning of 2003. It also increased its sales tax rate from 4.9 percent to 5.3 percent, with the sales tax rate scheduled to decline gradually back to five percent in 2005. At the same time, it increased by 50 percent the amount of state Earned Income Tax Credit for which its qualified low-income residents are eligible, from 10 percent to 15 percent of the federal credit, and also increased the sales tax rebate it gives to residents with incomes up to \$25,000.

Indiana also increased its cigarette and sales tax rates this year. To help offset the impact of these changes on low-income residents, it enacted a state EITC set at six percent of the federal credit and increased the deduction available to renters.

Conclusion

The popularity of cigarette excise tax increases can lead advocates and policymakers to ignore the problems that use of these revenues to support public programs can pose for state finances. Even if a cigarette tax increase seems to be the most convenient way to raise revenues, it is important to pause to consider whether another type of revenue — one that grows with the economy and is less regressive — would be a more appropriate one to use. If a cigarette tax *is* the most desirable revenue increase because of political considerations or for the purpose of reducing smoking behavior, then careful thought should be given to the way in which the monies from the increased cigarette taxes will be used. As described in this report, there are strategies for budgeting cigarette tax revenues that minimize the potential for creating or increasing state structural deficits and that do not engender false expectations of program support. In addition, there are a number of methods through which the impact of increased cigarette taxes on low-income residents can be mitigated.

²⁵ Steven D. Gold & David S. Liebschutz, *State Tax Relief for the Poor, Second Edition*, Rockefeller Institute of Government, Albany, N.Y., 1996.