Tobacco: Regulation and Taxation through Litigation

Cigarettes are subject to considerable government regulation, taxation, and litigation. The social institutions of the regulatory agencies, the legislature, and the courts exert substantial control over the marketing of cigarettes and the economic incentives facing the cigarette industry. The involvement of multiple institutions is not necessarily undesirable. Different social institutions have different strengths and potentially can target different aspects of the performance of the cigarette industry. Moreover, cigarettes remain by far the most hazardous consumer product in terms of the total mortality associated with consumption of the product. However, existence of even substantial risks does not necessarily imply that all forms of intervention are necessarily desirable. This chapter explores the different aspects of societal intervention, the incentives they create, and the degree to which there is an appropriate division of labor among these different social institutions.

Although cigarettes have long been the target of substantial regulation by the federal government and legislative restrictions imposed by Congress, it has been the litigation against the cigarette industry that has catapulted tobacco into its current prominence in the risk policy area. As a result of the lawsuits by states against the industry, there was a settlement of $206 billion with forty-six state attorneys general. This amount was in addition to the separate settlements with four individual states for a total $37 billion. Even these record-breaking penalties have not ended the sanctions imposed by litigation, as the Florida class action against the industry led to a punitive damages award in excess of $145 billion, and individual lawsuits against the industry have now begun to succeed in some instances, whereas formerly the industry had an unblemished record of long-term success.1

This transformation in the liability landscape has had profound implications not only for the financial well-being of the cigarette industry and the price of cigarettes but also on the overall character of how regulations are being imposed on the industry. As part of the settlement of the litigation launched by the states, the cigarette industry agreed to a variety of regulatory restrictions as well as a settlement formula that was tantamount to an excise tax. Thus the locus of control for important aspects of cigarette policy has shifted to the judicial arena, rather than being the province of the government entities that have traditionally had responsibility for such matters.

The principal implication of this assessment is not that cigarette regulation is too lenient or too stringent. The nature of the departure from optimal policies varies considerably with the context. For example, there is no clear-cut rationale for raising cigarette taxes based on the social externalities associated with smoking. However, there is a legitimate role for additional regulation of cigarette safety by the Food and Drug Administration provided that this regulation serves a more constructive function than many past government interventions have had.2 The most fundamental shortcoming of this set of government interventions is not in the policy realm. Rather, it is the encroachment on the legitimate functions of the legislative and regulatory agencies that has occurred because of the national settlement of the cigarette litigation on behalf of the state attorneys general. Unfortunately, this phenomenon is not unique, as the tobacco model is now being emulated in other litigation contexts.

2. This proposal is for an extension of FDA authority rather than reliance on its current legal authority, the extent of which is a matter of some debate. See Sunstein (1998) and Merrill (1998) for alternative points of view.
The Social Costs of Smoking

The standard textbook rationale for intervening to regulate a product is that it causes harm through the externalities that it generates. If smokers are making rational choices about their own well-being, then the only externalities to be considered are those imposed on society at large, not the externalities to smokers' future selves. The degree to which smokers are making an informed choice is explored in the following pages. However, for the purposes of assessing the social costs of smoking, I follow the standard approach in the literature. This focus on the social externalities not including the effects on the smoker was also that taken in the lawsuits filed against the cigarette industry by the state attorneys general and in the federal government's suit.

From an economic standpoint, calculating the social costs of cigarettes is a fairly straightforward accounting exercise. The focus is on the financial externalities associated with cigarettes, and these are readily estimable. Excluded from this calculation are the health effects on smokers because these are private costs that are fully internalized if people are making informed decisions. These health effects on smokers themselves have not been part of any of the lawsuits filed by governmental entities against the industry but rather, more appropriately, remain the province of individual lawsuits claiming that consumers of the product have been harmed by the alleged wrongful conduct of the industry. Similarly, the calculations do not include costs associated with low birth weight babies.

While proper economic accounting for the costs of cigarettes follows generally accepted standard methodologies, there are some fundamental economic principles governing the calculation that are often not observed in many of the cost estimates that have been publicized. Two key principles are that costs should be net costs over the lifetime, and these costs should be discounted back to the present.

The first key aspect of the calculations pertains to how costs are tallied within any particular time period. What is pertinent to the social cost calculations is the net costs specifically attributable to cigarettes and, in the case of litigation, the costs attributable to the wrongful conduct of the cigarette industry. Thus what is needed is an analysis of the trajectory of medical costs and other cost impositions of an individual with the demographic profile of a smoker and to compare this stream of costs with that of a person who smokes but is otherwise similarly situated. It is the net difference in these costs that is the cigarette-related cost, not the gross medical costs incurred by smokers. This distinction is important because smokers are risk takers in a variety of dimensions. Smokers are more willing to work on hazardous jobs, more prone to accidents, and less likely to undertake self-protective behaviors such as checking their blood pressure or flossing their teeth.

It is essential to note the different length of the time frame in which costs are incurred. Because smokers die sooner than do nonsmokers, their cost trajectory is shortened. In contrast, nonsmokers will continue to incur medical costs for a period after smokers have died. Recognizing this difference in the cost trajectory is not a "death credit" as it has been labeled by some attorneys in the state cigarette litigation. Rather, it is simply a recognition of what costs are actually incurred. Somewhat surprisingly, the dominant approach taken in the state cigarette litigation against the industry was to ignore the different lifetimes and only assess the relative costs during periods in which both smokers and nonsmokers were alive. That approach will overstate the actual cost generated by cigarette smokers. Recognizing the earlier death of smokers does not imply that this premature mortality is in any way socially desirable. Rather, it is simply a recognition that if one is to undertake a calculation based on the adverse health consequences of cigarettes, then one should recognize the full effects of these consequences and not simply those aspects of these health effects that impose costs on society.

The efforts by the state governments to calculate the costs of cigarettes never addressed the substance of the lifetime cost argument but rather attempted to demonize it. With respect to my analysis, which was not prepared in connection with any litigation, the state of Mississippi offered the following critique:

The contention of entitlement to an "early death" credit is, on its face, void as against public policy. That policy and basic human decency preclude the defendants from putting forth the perverse and depraved argument that by killing Mississippians prematurely, they provide an economic benefit to the State. No court of equity should

3. See analyses such as those in Shoven, Sundberg, and Bunker (1989); Manning and others (1989, 1991); Gravelle and Zimmerman (1994); and Viscusi (1995, 1999).
4. Evans, Ringel, and Stech (1999) provide estimates of these costs.
countenance, condone, or sanction such base, evil, and corrupt arguments... The defendants' argument is indeed ghastly. They are merchants of death. Seeking a credit for a purported economic benefit for early death is akin to robbing the graves of the Mississippi smokers who died from tobacco-related illnesses. No court of law or equity should entertain such a defense or counterclaim. It is offensive to human decency, an affront to justice, uncharacteristic of civilized society, and unquestionably contrary to public policy.6

What the state of Mississippi and other states ignored was that the procedure I adopted simply focuses on the medical costs and other costs of cigarettes that actually occurred. This principle is common to all calculations of damages for wrongful conduct, whether it be a cigarette case or some other kind of action. By assuming that smokers continue to have higher medical costs than nonsmokers throughout a normal life expectancy, ignoring the fact that smokers are already dead, the calculation in effect will make smokers die twice because medical costs are highly concentrated in the last years of life.

Closely related to this principle of looking at the net difference in costs between smokers and nonsmokers is that if the litigation is seeking damages for the harms resulting from alleged wrongful conduct of the industry, the appropriate concept is to focus only on the portion of the cost attributable to the wrongful conduct. This principle is not unique to cigarette litigation but is a fundamental principle of economic damages calculations more generally. In the following analysis I do not attempt to distinguish the portion of costs attributable to wrongful conduct but instead focus only on the overall financial costs associated with smoking. Within the context of any particular litigation, one would then want to examine the amount of smoking during the period under consideration and the extent to which cigarette smoking was influenced by the wrongful conduct during that period.

The second consideration is that the value of these net lifetime costs must be discounted back to present value terms. In effect, what is of concern is the present value of the stream of costs recognizing that deferred cost impacts should receive less weight on a discounted basis than more immediate impacts. Many of the most publicized cost estimates do not include any discounting, leading to an overstatement of the present value of medical costs. For purposes of my calculations, I use a real rate of return of 3 percent to discount the cost effects.

Discounting has effects that involve competing influences. Focusing strictly on the medical costs associated with smoking, using a lower rate of discount, or not discounting at all will increase the present value of these medical costs, making smoking look less attractive from a societal standpoint. Plaintiffs in cigarette litigation focusing only on these medical costs consequently have an incentive to use a low discount rate in calculating these costs. Similarly, estimates by public health groups focusing on medical costs often focus on the undiscounted values.

However, using a very low rate of discount affects other cost implications of cigarette smoking as well. One of the consequences of cigarette smoking is that smokers die sooner, reducing the pension and retirement benefits that smokers will receive. This component appears as a cost reduction in the cost calculations. The chief entity affected by this premature mortality is the Social Security retirement system. A higher rate of discount places a lower weight on these reduced pension and retirement cost reductions attributable to smoking. The net consequence of these discounting influences is that higher rates of discount make cigarette smoking less attractive from a net economic standpoint, whereas lower rates of discount make cigarettes look more attractive financially. Thus, while lower rates of discount boost the cost levels if one is only concerned with medical costs, with a more comprehensive cost focus lower rates of discount have the opposite effect.

Table 2-1 summarizes the cost implications of cigarettes for different components. These costs include those borne by the federal government, state governments, and private insurers. Two sets of estimates appear. Those in the first column do not include any tar adjustment for the riskiness of cigarettes. The second column adjusts the estimates proportionally for cigarette tar levels. The extent of the link between tar and the riskiness of cigarettes remains a matter of debate. Moreover, even if one accepts a linkage of smoking risks to tar levels, whether the adjustment should be proportional or less than proportional is not clear. As a result, the estimates assuming proportionality and the estimates assuming no risk-related properties of tar can be viewed as bracketing the likely social costs of cigarettes. Those wishing to undertake their own weighting can consequently use a weighted average of these cost estimates depending on the extent of the tar adjustment one would like to make. Because the estimates are in terms of costs

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Table 2.1. Social Costs of Smoking
Dollar costs per pack of cigarettes

<table>
<thead>
<tr>
<th>Cost category</th>
<th>Costs with no tar adjustment for cigarette risks</th>
<th>Tar-adjusted estimates of cigarette costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total medical care</td>
<td>0.580</td>
<td>0.481</td>
</tr>
<tr>
<td>Sick leave</td>
<td>0.013</td>
<td>0.012</td>
</tr>
<tr>
<td>Group life insurance</td>
<td>0.144</td>
<td>0.121</td>
</tr>
<tr>
<td>Nursing home care</td>
<td>-0.239</td>
<td>-0.207</td>
</tr>
<tr>
<td>Retirement and pension</td>
<td>-1.259</td>
<td>-1.055</td>
</tr>
<tr>
<td>Fires</td>
<td>0.017</td>
<td>0.017</td>
</tr>
<tr>
<td>Taxes on earnings</td>
<td>0.425</td>
<td>0.344</td>
</tr>
<tr>
<td>Total net costs</td>
<td>-0.319</td>
<td>-0.289</td>
</tr>
</tbody>
</table>

All estimates update the 1993 cost estimates in Viscusi (1995) to 1995 data whenever possible. All estimates involve discounting using a 3 percent real rate of return. These estimates are based on Viscusi (1999).

pack. Thus the tar adjustment raises the net costs of cigarettes to society or, put somewhat differently, reduces the net cost savings.

When assessing the overall net financial externalities, the conclusion is that cigarettes are not a burden on society but in fact lead to a net cost savings. Thus, if there is going to be a rationale for cigarette taxes or other penalties, then presumably it is not because cigarettes impose a net financial burden overall.

Although these calculations address the costs generated by the smokers' medical expenditures, perhaps environmental tobacco smoke externalities also generate medical costs. In my analysis I used estimates by the Environmental Protection Agency and the Occupational Safety and Health Administration of the risks associated with environmental tobacco smoke. The financial costs linked to environmental tobacco smoke, even using these conservative estimates that are likely to overstate the environmental tobacco smoke risks, were negligible. These results are consistent with the direct estimates by Michael J. Moore and Carolyn W. Zhu, who also found that there is no apparent effect on the health costs for those exposed to environmental tobacco smoke.

A higher cigarette cost scenario would also include people's willingness to pay to avoid the health losses associated with exposure to environmental tobacco smoke rather than simply the medical costs. Using the conservative government estimates of the health risks of passive smoking, which are likely to overstate the health risks, I found that cigarettes do not impose a net cost on society from a financial standpoint. Moreover, these estimates are exclusive of the role of excise taxes imposed on cigarettes, which represent an additional financial contribution from this product.

Taxing Cigarettes

Cigarettes are one of the most heavily taxed consumer commodities. In 1998, for example, cigarette taxes were twenty-four cents per pack at

7. Estimates by Cuerer and others (2000) prepared as part of the state attorney general lawsuit in Massachusetts were to the best of my knowledge unique among all of the state estimates in that they used a sound methodology to calculate lifetime costs. These estimates focused, however, only on the costs associated with Medicaid spending, which they found to be about $318 million annually. Unfortunately, they did not report a cost per pack of cigarettes.


the federal level and averaged thirty-five cents per pack at the state level, for a total tax per pack of fifty-nine cents.\textsuperscript{11} Congress revisits the federal tax issue frequently but until recently had not raised cigarette taxes since 1993. In the mid-1990s there were proposals to tax cigarettes at ninety-nine cents per pack at the federal level to fund the Clinton health care plan, with one draft health care bill proposing a tax of two dollars per pack. States have also considered increases in the cigarette tax, and several states have continued to raise the cigarette excise tax level.

Excise taxes can serve various purposes from an economic standpoint. If the product imposes a net economic externality on society, taxes can be used to align the economics incentives of the product purchaser with those that would prevail if the full social costs of the product were borne by the consumer. The taxes on cigarettes and alcohol, which are often referred to as “sin taxes,” at least implicitly involve some belief that the taxes are linked to the health consequences of smoking.

Another rationale for raising taxes on cigarettes or any other product is simply to raise money. In seeking to raise funds through taxation cigarettes may be an increasingly attractive target. Smokers tend to be blue-collar workers, who vote with lower frequency than nonsmokers and consequently may have less political influence. Smokers are also an increasingly small minority of the population and a vulnerable minority given the increased social unacceptability of smoking.

Even before the recent flurry of antismoking efforts, cigarettes ranked as the most heavily taxed major category of consumer purchases.\textsuperscript{12} The tax rate on cigarettes exceeds that on alcohol, is triple the tax rate on gasoline, and more than an order of magnitude greater than the tax rate on automobiles and utilities.

Although there have been repeated proposals to increase cigarette taxes substantially, legislators have often hesitated to impose stark increases in this tax. Two reasons contribute to this hesitancy. First, the cigarette tax is extremely regressive.\textsuperscript{13} It is much more likely that the janitors in the Capitol will bear more of the tax than will the legislators voting for it. The usual definition of regressivity is that the poor pay a higher proportion of their income toward such a tax. For cigarettes, the situation is much worse. The poor certainly pay a higher proportion of their income, as those with incomes below $10,000 pay 1.62 percent of their income in cigarette taxes, compared with 0.08 percent of the income of people making $50,000 or more. More tellingly, the poor pay a greater absolute amount of cigarette taxes than do the wealthy because of their higher smoking rates. Thus the cigarette excise tax is regressive in proportional as well as absolute terms.

A second reason for hesitating to impose a higher tax is that increased taxes will reduce cigarette demand. Most estimates of the elasticity of demand for cigarettes are in the vicinity of -0.4 to -0.7.\textsuperscript{14} Similar estimates of the cigarette demand elasticities for women appear in Joni Hersch and for youths in Jeffrey Wasserman and others, while estimates for the cigarette demand elasticities of minorities are reported by Philip DeCicca, Donald Kenkel, and Alan Mathios.\textsuperscript{15} Because of this negative demand elasticity, the total amount of cigarettes purchased will diminish as the tax increases, thus decreasing the number of packs of cigarettes for which these cigarette tax revenues will be paid. Taxes that are sufficiently great to eliminate cigarette smoking or regulations that prohibit smoking altogether would lead to a loss in revenues of $5.5 billion in 1998, and even greater amounts now given the structure of the tobacco settlement and subsequent tax increases.\textsuperscript{16}

Do the excise taxes levied by the legislators reflect the cost implications of cigarettes? Given the widespread publicity for the reports by the Surgeon General for more than three decades, it is difficult to make the case that the government entities were ignorant of the linkage between smoking and health. Moreover, there have been published economic assessments of the health costs associated with smoking for more than a decade. These studies are in the public domain. Should the state legislators or Congress choose to raise excise taxes in view of these costs, then that is certainly within their province. On a prospective basis, there is little question that the appropriate taxation of cigarettes is a legislatively-issued, not a judicial issue.

Table 2-2 summarizes the costs of the federal government and the state government, when these estimates focus on financial effects excluding excise taxes. The federal excise tax rate of 24.0 cents per pack is almost identical to the total medical costs associated with cigarettes of 23.6 cents per pack. Thus, even if we focus solely on the medical cost component of cigarettes alone, the excise taxes cover this cost.

\textsuperscript{11} See Tobacco Institute (1998).
\textsuperscript{12} See Fullerton and Rodgers (1993, p. 74) for documentation.
\textsuperscript{13} Estimates of regressivity discussed below are based on Viscusi (1995).
\textsuperscript{14} For a survey of these studies, see Viscusi (1992).
\textsuperscript{15} Hersch (2000); Wasserman and others (1991); DeCicca, Kenkel, and Mathios (2000).
\textsuperscript{16} See Tobacco Institute (1998); Viscusi (2002).
Table 2.2. State and Federal Governmental Burden of Insurance Externalities
Dollar costs per pack of cigarettes

<table>
<thead>
<tr>
<th>Cost category</th>
<th>Federal cost estimate</th>
<th>State cost estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total medical care</td>
<td>0.236</td>
<td>0.033</td>
</tr>
<tr>
<td>Sick leave</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Group life insurance</td>
<td>0.004</td>
<td>0.005</td>
</tr>
<tr>
<td>Nursing home care</td>
<td>-0.145</td>
<td>-0.078</td>
</tr>
<tr>
<td>Retirement pension</td>
<td>-0.847</td>
<td>-0.078</td>
</tr>
<tr>
<td>Fires</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Taxes on earnings</td>
<td>0.221</td>
<td>0.027</td>
</tr>
<tr>
<td>Total net costs</td>
<td>-0.529</td>
<td>-0.090</td>
</tr>
</tbody>
</table>

Estimates are in 1995 dollars using a 3 percent real rate of interest. See Viscusi (1999) for discussion of the methodology underlying these estimates.

There are many major components of cost reductions that the federal government reaps because of the premature mortality of cigarette smokers. The chief components are the eighty-five-cent-per-pack savings in retirement pension costs and the fourteen-cent-per-pack savings in nursing home costs. The other cost increase components include the twenty-two-cent-per-pack tax on earnings that is lost because smokers die sooner and under a penny per pack in sick leave and group life insurance costs.

Overall, from the standpoint of the federal government cigarettes generate fifty-three cents per pack in cost reductions. That amount is in addition to the excise tax cigarettes smokers pay for their product.

Estimates for the average state also appear in table 2-2. As can be seen, the scale of the effects on the states is much smaller. On average, the states incur total medical costs associated with smoking of only three cents per pack. This amount is roughly an order of magnitude smaller than the level of state excise taxes on cigarettes.

As with the federal government, states also are affected by the cost reduction components. In this instance, the nursing home care costs and retirement pension cost savings are almost identical, as they are each eight cents per pack. The overall average effect on states is nine cents per pack.

Table 2-3 summarizes the cost per state and the pertinent excise tax rate for each state. In every instance, the state does not incur overall positive external costs because of smoking. Rather, there is a net cost savings. This amount is in addition to the substantial excise taxes, such as those in the

Table 2-3. State Cigarette Smoking Externalities
Dollar costs per pack of cigarettes

<table>
<thead>
<tr>
<th>State</th>
<th>State excise tax rate per pack</th>
<th>External costs per pack</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>0.165</td>
<td>-0.069</td>
</tr>
<tr>
<td>Alaska</td>
<td>0.290</td>
<td>-0.111</td>
</tr>
<tr>
<td>Arizona</td>
<td>0.580</td>
<td>-0.107</td>
</tr>
<tr>
<td>Arkansas</td>
<td>0.315</td>
<td>-0.075</td>
</tr>
<tr>
<td>California</td>
<td>0.370</td>
<td>-0.183</td>
</tr>
<tr>
<td>Colorado</td>
<td>0.200</td>
<td>-0.147</td>
</tr>
<tr>
<td>Connecticut</td>
<td>0.500</td>
<td>-0.147</td>
</tr>
<tr>
<td>Delaware</td>
<td>0.240</td>
<td>-0.078</td>
</tr>
<tr>
<td>Florida</td>
<td>0.339</td>
<td>-0.091</td>
</tr>
<tr>
<td>Georgia</td>
<td>0.120</td>
<td>-0.081</td>
</tr>
<tr>
<td>Hawaii</td>
<td>0.600</td>
<td>-0.091</td>
</tr>
<tr>
<td>Illinois</td>
<td>0.440</td>
<td>-0.122</td>
</tr>
<tr>
<td>Indiana</td>
<td>0.155</td>
<td>-0.084</td>
</tr>
<tr>
<td>Iowa</td>
<td>0.360</td>
<td>-0.142</td>
</tr>
<tr>
<td>Kansas</td>
<td>0.240</td>
<td>-0.127</td>
</tr>
<tr>
<td>Kentucky</td>
<td>0.030</td>
<td>-0.066</td>
</tr>
<tr>
<td>Louisiana</td>
<td>0.200</td>
<td>-0.093</td>
</tr>
<tr>
<td>Maine</td>
<td>0.370</td>
<td>-0.070</td>
</tr>
<tr>
<td>Maryland</td>
<td>0.360</td>
<td>-0.090</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>0.510</td>
<td>-0.128</td>
</tr>
<tr>
<td>Michigan</td>
<td>0.750</td>
<td>-0.073</td>
</tr>
<tr>
<td>Minnesota</td>
<td>0.480</td>
<td>-0.098</td>
</tr>
<tr>
<td>Mississippi</td>
<td>0.180</td>
<td>-0.036</td>
</tr>
<tr>
<td>Missouri</td>
<td>0.170</td>
<td>-0.156</td>
</tr>
<tr>
<td>Montana</td>
<td>0.180</td>
<td>-0.064</td>
</tr>
<tr>
<td>Nebraska</td>
<td>0.340</td>
<td>-0.096</td>
</tr>
<tr>
<td>Nevada</td>
<td>0.350</td>
<td>-0.085</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>0.250</td>
<td>-0.112</td>
</tr>
<tr>
<td>New Jersey</td>
<td>0.400</td>
<td>-0.088</td>
</tr>
<tr>
<td>New Mexico</td>
<td>0.210</td>
<td>-0.066</td>
</tr>
<tr>
<td>New York</td>
<td>0.560</td>
<td>-0.036</td>
</tr>
<tr>
<td>North Carolina</td>
<td>0.050</td>
<td>-0.065</td>
</tr>
<tr>
<td>North Dakota</td>
<td>0.440</td>
<td>-0.050</td>
</tr>
<tr>
<td>Ohio</td>
<td>0.240</td>
<td>-0.104</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>0.230</td>
<td>-0.160</td>
</tr>
<tr>
<td>Oregon</td>
<td>0.380</td>
<td>-0.079</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>0.310</td>
<td>-0.108</td>
</tr>
</tbody>
</table>
Irrespective of the particular state, cigarettes do not impose a net negative financial externality. Moreover, the state excise taxes provide substantial positive revenues. These results do not necessarily imply that the states did not have a valid claim in the litigation against the cigarette industry. Whether there were in fact damages depends in large part on which component costs are calculated. However, from the standpoint of fiscal policy and the desire to find the optimal Pigovian tax to levy because of cigarette externalities, there is no apparent basis for doing so because of the financial externalities generated by smoking. States and the federal government can, however, choose to impose cigarette taxes for other legitimate reasons.

Hazard Warnings

The typical division of responsibility for hazard warnings can rest with one of three different social institutions. The firm within a market context may provide hazard warnings on its own. The government may establish guidelines for hazard warnings or specify the warning language through legislative action or through the efforts of regulatory agencies acting under enabling legislation pertaining to risk information. Finally, warnings are an ongoing concern in litigation. For roughly the past forty years, tort litigation has devoted increasing attention to concerns about hazard warnings.

The rationale for hazard warnings is that they potentially can provide information to consumers to enable them to make sounder decisions about taking risks. This information can be one of two forms. First, the warnings could provide information to consumers with respect to the discrete choice of whether to purchase a product or engage in a risky activity. A second type of warning provides information that is of assistance in enabling people to take precautions within a particular risky activity. Cigarette warnings have generally been of the first type in that they have attempted to alert people to the hazards of smoking rather than indicating how they should smoke. Warning information pertaining to the relative riskiness of cigarettes, such as information about tar and nicotine content, would be closer to being a warning of the second type in that it indicates how people can reduce the risk given that they will be engaging in smoking.

The fundamental principle that should guide the provision of hazard

17. This discussion is based on Viscusi (1999).
18. For reviews of the principles for hazard warnings see Viscusi and Magat (1987); Magat and Viscusi (1992); Viscusi (1991b).
warning information is that such warnings will only be effective to the extent that they provide new information in a convincing manner. If people already know the basic message being conveyed by the warning, then the warning will not be effective. Thus warnings that serve simply as reminder warnings will not alter behavior. Similarly, warnings that are not credible because they are not truthful about the risks or do not seek to provide risk information but rather simply discourage consumption will not be effective forms of risk information.

In legislation passed in 1965, Congress required that beginning in 1966 cigarette packages bear the following warning: “Caution: Cigarette Smoking May Be Hazardous to Your Health.” Congress not only specified the wording of the warning but also the size of the warning lettering and its placement on cigarette packs. This warning followed closely after the release of the landmark 1964 report linking cigarette smoking to lung cancer.

Although warnings are now commonplace, the idea of stamping a product hazardous was relatively novel for the 1960s. Until that time, Congress had passed very few pieces of legislation directed at warning requirements. The 1927 Federal Caustic Poison Act was the first piece of legislation to require labeling of dangerous chemicals, such as sulphuric acid, which had to bear the warning “Poison.” Beginning in 1938, the Federal Food, Drug, and Cosmetic Act began warnings for food and drugs. However, much of this warning effort was directed at mislabeling of products. In some cases dangerous chemicals were being marked as having health-enhancing properties. Moreover, the focus was exclusively on imminent hazards rather than the more deferred risks associated with cigarettes. In 1947 the Federal Insecticide, Fungicide, and Rodenticide Act initiated labeling of insecticides and herbicides. In 1960 Congress extended warning authority to include over-the-counter drugs and, for the first time, passed legislation (the Federal Hazardous Substance Labeling Act) that specified warnings for flammability and radioactivity. Thus, in terms of the overall warning environment, cigarettes were being put into the same kind of category as very dangerous chemicals and other products that posed immediate risks of death or serious injury. Indeed, it was not until 1983, or almost two decades later, that the Occupational Health and Safety Administration enacted warning regulation to require the labeling of dangerous chemicals in the workplace. By almost any measure, cigarettes were at the forefront of the warning effort.

21. For a review of this evidence, see Ringold and Calfee (1989), Calfee (1985, 1986), and Viscusi (1992), which discuss their research and other evidence in the literature.
23. Similar results to those reported below for the United States also hold true for Spain. Compare, for example, the results for the United States in Viscusi (1990, 1991a, 1998a, 1998b, 1998c) with those for Spain in Astolfianzas and others (2000); Rovira and others (2000); and Viscusi and others (2000).
24. The 1985, 1997, and 1998 surveys discussed below were administered by nationally recognized survey research firms, where these surveys were funded by law firms representing the cigarette industry. The 1991 survey was supported by my research funds at Duke University.
to smoking ranges from 0.06 to 0.13 over the smoker's lifetime. The assessed probability of lung cancer based on my analysis of responses to questions about the risk of smoking was 0.43 in a national survey in 1985, 0.38 in a North Carolina survey in 1991, 0.47 in a national survey in 1997, and 0.48 in a large-scale survey of Massachusetts in 1998. The general form of the lung cancer question was in terms of the risk to a group of 100 smokers. For example, in 1985 it was the following: "Among 100 smokers, how many of them do you think will get lung cancer because they smoke?"

The mortality risks associated with smoking are also seriously overestimated. Estimates based on findings by the Surgeon General suggest a total mortality risk to the smoker ranging from 0.18 to 0.36, based on an analysis that takes these health risk estimates at face value. In contrast, public perceptions of the total mortality risks of smoking were 0.54 in North Carolina in 1991, 0.50 in the 1997 national survey, and 0.54 in the Massachusetts 1998 survey. The wording of the total mortality risk question was similar to that for lung cancer. For example, the wording in the 1997 survey was as follows: "Among 100 smokers, how many of them do you think will die from lung cancer, heart disease, throat cancer, or any illness because they smoke?"

Estimates of the life expectancy loss associated with smoking are similar and also indicate overestimation of the risk but not to the same extent as for lung cancer. For example, the 1997 national survey indicated an assessed life expectancy loss of 10.1 for males and 14.8 for females. An example of the life expectancy question used to generate these estimates was the following wording in the 1997 survey: "As you may know, an average 21-year old male (female) would be expected to live to the age of 73 (80). What do you think the life expectancy is for the average male (female) smoker?"

A distinctive feature of these questions is that they elicit risk beliefs with respect to a meaningful quantitative metric. Thus in every instance there is a well-defined reference point for assessing whether risk perceptions are too high, too low, or accurate, given the current state of knowledge about the risks of smoking. In contrast, qualitative risk questions that ask consumers whether smoking, for example, is very dangerous, somewhat dangerous, or not at all dangerous, do not permit comparison with a scientific reference point to assess whether beliefs are sufficiently great, given the risks associated with smoking. These difficulties with qualitative questions are particularly great when different respondents interpret these

qualitative characteristics of risk differently, as is often the case when dealing with risk perceptions across different educational groups and different segments of the population exposed to varying levels of hazards in the context of their work.25

The overwhelming evidence is that based on surveys using meaningful quantitative metrics people either have accurate perceptions of the risk of smoking or overestimate these risks. Thus in terms of creating general awareness about the risk of smoking, there is no need for additional information on risk. A conclusion along these lines is not new but dates back to claims made long ago by the head of the federal agency responsible for disseminating smoking information. Daniel Horn, M.D., a leading smoking lung cancer risk researcher and the director of the National Clearinghouse for Smoking and Health, observed in 1968, "You could stand on the rooftop and shout 'smoking is dangerous' at the top of your lungs and you would not be telling anyone anything they did not already know."26

That it is difficult to quit smoking is also well known.27 Would it, for example, be worthwhile to alert consumers that smoking is now labeled an addiction by the Surgeon General? Overall, 13 percent of smokers, fifteen to twenty years old, believe that smoking is addictive, 26 percent believe that it is a habit, 57 percent believe that it is both a habit and an addiction, and only 4 percent believe that it is neither.28

The government already has substantial mechanisms for providing hazard warning information, including not only product warnings for cigarettes but also regular media coverage of the annual reports by the Surgeon General and general statements by public health officials. Indeed, as the quantitative measures of risk perception indicate, the extent of these efforts has been so great that there seem to be no evident informational gaps. Rather, there is evidence of great overestimation of the risks of smoking. Should there be any perceived need for more warnings in the future, they can presumably be addressed through legislative actions given the fact that currently the on-product warnings for cigarettes and cigarette advertising are dictated by existing laws passed by Congress.

27. For an economic analysis of cigarette addiction, see Becker and Murphy (1988); Becker, Grossman, and Murphy (1996).
Cigarette Riskiness

Although hazard warnings are designed to alert consumers to the overall riskiness of cigarettes, tar and nicotine ratings have a narrower focus in that they address the specific risk attributes of different brands of cigarettes. These tar and nicotine ratings have been the major publicized measure of cigarette hazards and have been associated with the most dramatic changes in smoking behavior. Whereas tar levels per cigarette were 46.1 mg in 1944, these levels dropped to 12 mg of tar by 1994.

In the 1950s companies engaged in a vigorous effort to promote cigarettes based on their comparative riskiness. In the 1957–60 period known as "The Great Tar Derby," market competition led to substantial advertising of low-tar brands as well as substantial switching of consumers to such low-tar cigarettes. To make sound risk-taking decisions, one would want consumers to be informed about the relative riskiness of cigarettes so that they could better match the risk levels of the particular brand to their own risk-taking preferences and willingness to trade off risk against other cigarette attributes, such as taste. Unfortunately, rather than encouraging this market competition on the safety dimension, the government has long discouraged it. In 1960 the Federal Trade Commission brokered an agreement with the industry to eliminate tar and cigarette advertising. The ill-conceived character of this policy was recognized by the American Cancer Society, which ultimately was successful in reversing the FTC position in the late 1960s. The FTC published tar and nicotine levels for cigarettes in 1967, and shortly thereafter disclosure of tar and nicotine levels became a required component of all cigarette advertising. Testing of cigarettes for their tar and nicotine levels and rating of cigarettes along this dimension remains the responsibility of the FTC, which also disseminates tar and nicotine ratings.

The government has continued to have a lack of enthusiasm toward providing information to enable people to choose cigarettes based on their relative riskiness. Rather, the government emphasizes the risk-free characteristics of not smoking at all. Unfortunately, if people are going to choose to smoke, the government does not provide them with the kind of information that might be useful in making such decisions. Indeed, the 1989 Surgeon General's report summarized the official misgivings with respect to the Premier cigarette—a cigarette product that eliminated the carcinogenic risk associated with smoking without any increase in other risk components. By any reckoning, it was clearly a lower-risk product. Nevertheless, the Surgeon General warned:

The marketing of a variety of alternative nicotine delivery systems has heightened concern within the public health community about the future of nicotine addiction.

The most prominent development in this regard was the 1988 test marketing by a major cigarette producer of a nicotine delivery device having the external appearance of a cigarette and being promoted as "the cleaner smoke."

In almost every other area of cigarette policy the government has embraced technological advances that reduce risks. Somewhat surprisingly, the government has long been in a position of discouraging such innovations, as well as hindering information about relative product safety.

One noteworthy new policy on relative cigarette riskiness was the Massachusetts Tobacco Disclosure Law, known as Chapter 234 of the Acts of 1996. The provisions of this law would require the cigarette industry to disclose the toxic ingredients in cigarettes. Although this law was successfully challenged in court by the tobacco industry, the provisions of the law exemplify the kind of risk communication that is not likely to be helpful to consumers. Simply listing cigarette ingredients will not aid consumer understanding, as consumers do not know the quantity of these chemicals and do not have the expertise to map the presence of such chemicals into assessed risk levels. What is consequential is the overall riskiness of cigarettes, not a list of their components.

Perhaps inspired in part by the Massachusetts disclosure law, R. J. Reynolds began to advertise its Winston cigarette brand noting that it contains no additives. Presumably, if additives are a sufficiently great public concern to warrant the Massachusetts legislation, companies should indicate the absence of additives to aid consumers in making their brand choice. Somewhat surprisingly, the FTC filed a complaint against R. J. Reynolds for the no additives claim, indicating that it might mislead consumers into thinking the product was safer. As a result, the additive-free Winstons now include the following statement in all advertisements: "No additives in our tobacco does NOT mean a safer cigarette."

29. Calfee (1985) provides an extensive discussion of this period. Also see Viscusi (1992).
30. The procedure that continues to be used is the Cambridge testing method, which was approved by the FTC in 1966. The FTC updated this testing approach in 1980.
On additives and on tax levels, the industry is often subject to conflicting government policies that often seem to lose sight of what should be the nation’s principal policy objective, which is the promotion of consumer welfare based on informed decisions about possible risks.

The Proposed Federal Settlement

Although cigarette policy has traditionally been the focus of the legislature and regulatory agencies, in 1997 there was a landmark change in the role of the judiciary.33 The legitimate role of the courts has been and will continue to be to provide a venue for individual smokers who claim they were wrongfully injured by cigarettes. However, a different set of cases emerged in the mid-1990s as the states filed a series of lawsuits seeking to recoup Medicaid expenses linked to cigarettes. By 1997 more than forty states had filed lawsuits against the industry, and the industry sought to consolidate these lawsuits through an out-of-court settlement. However, the proposed out-of-court settlement was not a settlement in any conventional sense. Rather, it was a proposal to impose a cigarette tax and additional regulatory restrictions on the industry.

On June 20, 1997, the cigarette industry departed from its past practice of successfully defending itself against lawsuits by offering a $368.5 billion settlement amount over a twenty-five-year period to settle these lawsuits and obtain additional protections.34 Although this proposed resolution was never adopted by Congress, it nevertheless was instructive in that it provided the model for the final settlement that was reached and marked the beginning of this kind of negotiated settlement of other kinds of litigation.

The terms of the settlement were complex and extended far beyond the $368.5 billion price tag that was widely publicized. The industry would be paying $10 billion up front and then making annual payments rising from $8.5 billion a year initially to $15 billion after five years. Although the publicity about the proposed settlement focused on the first twenty-five years of payments, the agreement would continue in perpetuity. The most distinctive component of the settlement is that it did not involve a lump sum payment by the cigarette industry. Rather, it involved payments that varied proportionally with the unit sales volume of tobacco products. In effect, the settlement was a negotiated tobacco tax that was equivalent to sixty-two cents per pack on cigarettes. Given the nature of tax shifting, the brunt of the tax would be borne by smokers rather than by the cigarette industry. To the extent that one was to impose a tax that would discourage smoking, these incentive effects are desirable. Some anti-smoking advocates expressed regret that it would be smokers rather than the industry itself bearing the tax. However, if the penalty had been a lump sum imposition of some form, then that would sacrifice the incentive effects that the antismoking groups also wished to preserve.

Characterizing the imposition of a new cigarette tax as a settlement amount has obvious benefits for marketing the agreement. Because conventional settlements are actually paid for by the defendants themselves, this settlement would have the appearance of imposing a cost solely on the tobacco industry. Attorneys general could sell this settlement to their constituents as a windfall for the state that would be paid for by the industry, whereas in fact it would be paid for in large part by the smokers within their state.

The approach of settling litigation through the imposition of a tax rather than a conventional damages payment bypasses the usual legislative processes for setting taxes. At that time state and federal cigarette taxes were only fifty-six cents per pack so that the tax amount that would be levied through the out-of-court settlement would exceed the total state and federal excise taxes already in place and approved by legislators. The issue that was never addressed as part of the settlement is why there was some kind of governmental failure on the part of the legislature to levy the appropriate tax. In the absence of such a failure, there is no rationale for transferring this responsibility to this group of negotiators including representatives of the tobacco industry and a group of representatives of the states’ interests, including Mississippi Attorney General Mike Moore, Republican Senate Majority Leader Trent Lott’s brother-in-law, and the increasingly newsworthy brother of Hillary Rodham Clinton, Hugh Rodham.

The proposed settlement also was not a settlement in any conventional sense in terms of its other provisions. Rather than Congress extending the regulatory authority of the Food and Drug Administration, this settlement would have given the FDA broad authority to regulate cigarettes as a drug. A preferable outcome would be to have Congress itself

33. See Viscusi (1998a, 1998b) for earlier discussions of these proposed and final cigarette settlements as well as Schwartz (1999, 2000) for a different perspective.

34. The “Proposed Resolution” was released “for settlement discussion purposes only, June 20, 1997, 3:00 p.m.” and can be accessed at www.Stic.neu.edu [August 1, 2002].
focus on broadening the FDA authority if it believes such authority should be expanded.

The Proposed Resolution would have replaced the existing set of warnings with a series of nine rotating warnings, which would have been the following:

WARNING: Cigarettes are addictive
WARNING: Tobacco smoke can harm your children
WARNING: Cigarettes cause fatal lung disease
WARNING: Cigarettes cause cancer
WARNING: Cigarettes cause strokes and heart disease
WARNING: Smoking during pregnancy can harm your baby
WARNING: Smoking can kill you
WARNING: Tobacco smoke causes fatal lung disease in non-smokers
WARNING: Quitting now greatly reduces serious risks to your health

Although warnings such as these may seem innocuous, the drafting of hazard warnings should not be a haphazard exercise. The designers should not clutter the warning space with information that is already well known. Before embarking on a warning program such as this, it is essential to ascertain what information gaps need to be filled and whether these warnings will be successful in addressing them. In the past, Congress has held hearings on tobacco risk information and has also benefited from studies undertaken by federal regulatory agencies in support of such legislation. Moreover, there is an opportunity for open debate and presentation of diverse points of view on the appropriate form that warnings should take. In contrast, the secretive deals such as those embodied in the Proposed Resolution seek to supplant the current warning policy with a negotiated set of new warnings without any evidence whatsoever on the likely effects on consumer choice.

The Proposed Resolution also included numerous other regulatory components. It would have banned outdoor advertising of cigarettes and formally retired cartoon characters such as Joe Camel and human figures such as the Marlboro Man. There also would be a $500 million annual antismoking advertising campaign launched by the federal government as well as bans of cigarette sales through vending machines and all self-service tobacco displays except in adults only facilities.

The agreement would have discouraged unregulated claims about the riskiness of various brands of cigarettes, such as "low tar" and "light" unless the company could prove that such cigarettes would "significantly reduce the risk to health." Companies were to prove that their products were safer. The proposal permitted the FDA to allow "scientifically-based specific health claims" and even would have given the FDA authority to mandate the introduction of "less hazardous tobacco products" that are technologically feasible. Whether the FDA would have encouraged the promotion and marketing of safer cigarettes under this proposal or have continued to oppose those products as nicotine delivery devices is not clear.

The bill also would have had extensive provisions directed at youth smoking, including increased penalties for violations and decreased payments to states that did not meet performance targets for the sale of cigarettes to minors. There would also be "look-back" provisions that would impose additional penalties of up to $2 billion per year if targets for underage use of cigarette products were not met. These targets were often ambitious, such as a 60 percent decline in youth smoking within ten years. The practical difficulties of such provisions arise because the cigarette industry may not have effective policy levers to reduce youth smoking, particularly if, for example, youths obtain cigarettes from their friends or from adults.

In return for these concessions, the cigarette industry not only would obtain settlement of the state tobacco suits but also would have obtained additional legal protections. The settlement would have precluded all future claims for punitive damages, all class actions, and all future claims based on addiction or cigarette dependence. Although the industry could still be sued for past conduct, suits about future conduct would be precluded.

The Proposed Resolution was never adopted by Congress. President Bill Clinton never gave the Proposed Resolution substantial support. Moreover, former public health officials such as David Kessler, former commissioner of the Food and Drug Administration, believed that if the industry could afford an additional tax of sixty-two cents per pack, then it could incur a much greater cost. Public health advocates proposed a $1.50 increase in the tax imposed on each pack of cigarettes. A bill raising federal excise taxes on each pack to $1.50 was introduced in November 1997 by Senator Ted Kennedy, leading to an estimated cost to the industry of more than $600 billion.35 This proposal was never adopted.

Although no version of the Proposed Resolution was ever adopted by Congress, this proposal remains a watershed event in the history of tobacco litigation. For the first time, the industry volunteered to settle pending litigation, and it did so with a proposed settlement that was at a record-breaking level. However, the settlement proposal was not so much a settlement but rather a combination of an excise tax coupled with extensive regulatory provisions. Functions that had usually been addressed through legislation and regulatory policy had now become the province of the legal bargaining process.

The Settlement of the State Lawsuits

After the prospects for adoption of the Proposed Resolution began to fade, the cigarette industry began to negotiate settlements with the individual states. It reached a settlement with the state of Mississippi for $3.5 billion, Florida for $11.3 billion, Texas for $15.3 billion, and Minnesota for $6.6 billion. After these initial settlements and after the prospects for congressional passage of the Proposed Resolution were eliminated, there was a settlement of the state attorneys general suits for $206 billion shortly after the November 1998 elections. This settlement was similar in many respects to the character of the Proposed Resolution except that the stakes were somewhat less, as were the legal protections given to the cigarette industry. However, the key features, which are the functioning of the settlement as an excise tax and the inclusion of some regulatory provisions, were retained.

As with the Proposed Resolution, the settlement did not take the form of a damages payment but rather was a tax linked to the total number of packs of cigarettes sold. For example, the tax level set by the settlement would be $8 billion annually from 2004 to 2007, which is tantamount to a thirty-three-cent-per-pack tax equivalent charge. The tax equivalent value in other years is comparable, though the amounts differ depending on the penalty level specified in each year by the agreement. Thus the first distinctive aspect of the state settlement is that it led to the imposition of an additional per pack tax on cigarettes.

36. All settlement information for the master settlement agreement can be found at www.asic.neu.edu.

37. Recognition of costs of the four separate state settlements would increase these cost-per-pack values further. See Viscusi (1998a).

Imposing a tax on current cigarette producers would, of course, create the potential for new lower-cost entrants. Existing companies would be disadvantaged, and the states would reap fewer penalty dollars than they had expected. To prevent such losses, the master settlement agreement required that new entrants also contribute to a prospective damages fund. Since the settlement was an excise tax on future cigarette sales rather than a lump sum payment for past harms, this aspect of the settlement logic is seemingly consistent. The justification for any such payment derived from the cigarette litigation must, however, be linked to companies' wrongful conduct. New entrants presumably have not yet engaged in such wrongful conduct. The logic of the litigation consequently was abandoned by simply making the settlement a vehicle for an excise tax. Moreover, if the settlement is simply tantamount to an excise tax, why is not such a financial imposition the legitimate province of the state legislatures? Disguising the tax as a damages payment did offer the benefit of being able to sell the agreement to the public more easily than would have been the case had its true structure been better known.

There are additional serious concerns raised about prospective market competition. If new entrants develop safer cigarettes, these new products will be penalized unduly by the settlement formula. If future cigarettes were, for example, risk free, presumably there should be no tax penalty.

The master state settlement also included a wide range of regulatory reforms. Because the state settlement was not an act that would be approved by Congress, it did not include provisions such as a new set of hazard warnings for cigarettes or increased regulatory authority for the FDA. However, it did include many other regulatory actions. These included provisions that prevented the targeting of youths by cigarette marketing, bans on the use of cartoon characters such as Joe Camel in cigarette advertising, no payments by the cigarette industry for product placements in movies, bans on tobacco brand merchandise, and limitation on corporate sponsorship of events. The desirability of such efforts is not at all obvious given the competing policy objectives at stake. Limitations on cigarette advertising in effect lock in the market shares of existing companies. Besides these anticompetitive effects, limitations on cigarette advertising reduce the opportunities firms have to market to consumers cigarettes of different riskiness, thus enabling consumers to make an appropriate choice of the risk level of cigarette that they wish to consume. To the extent that cigarette advertising largely affects brand choice rather than the decision to smoke, these provisions will be an economic benefit
to the existing firms in the industry but will decrease the information available to consumers that might have enabled them to make a better choice among cigarette brands.

The settlement also included funding for antismoking efforts. The cigarette industry was required to fund a foundation to reduce youth smoking, with payments totaling $250 million over ten years. The industry would also contribute funds to a national publication education fund, where the magnitude of such payments was even greater. The industry contribution would begin at $250 million in 1999 and $300 million annually beginning in the year 2000 through the year 2003 for a total of $1.45 billion.

The settlement agreement itself was a political document driven by the relative political strength of the different attorneys general bargaining on behalf of their states. Although the shares of the settlement received by each state were correlated with the medical costs incurred by the state, these costs were not the driving force behind the division of the settlement amount.

Table 2-4 provides a summary for each state of the percentage share of the medical costs related to smoking incurred in each state. The second column of table 2-4 indicates each state's share of the settlement amount specified in the settlement agreement. If states were paid directly in proportion to their medical costs, the medical cost share in the first column of table 2-4 should be identical to the settlement share in the second column. The final column of table 2-4 gives the ratio of the settlement share to the medical cost share. States with a ratio greater than 1.0 reaped a disproportionate share of the settlement relative to their share of medical costs. States with a ratio below 1.0 were not adequately compensated from a proportional standpoint. All states were overcompensated in absolute terms. Clearly there was not a proportional distribution of the settlement amount.

Of particular interest are three states that received very low levels of compensation relative to their medical costs. These include the state of Kentucky, which had a settlement payment share per percentage point of dollar loss of 0.64; North Carolina with a payment relative to medical cost loss of 0.68; and Virginia, which had a payment relative to medical cost loss of 0.75. These are the three leading tobacco-producing states in the country, and each of them received a less than proportional share of the settlement given the level of their medical costs.

Table 2-4  Relationship between Settlement Payments and Medical Care Externalities

<table>
<thead>
<tr>
<th>State</th>
<th>Medical cost share</th>
<th>Share of settlement</th>
<th>Settlement share divided by medical cost share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
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<td>0.016</td>
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<td>0.99</td>
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</table>
expected since the lead individual responsible for structuring the settlement was Washington attorney general Christine Gregoire. Besides putting together a consensus agreement among the forty-six attorneys general, she also succeeded in bringing home more than a fair share of the settlement amount to her state.

What this table demonstrates is that the settlement of the litigation was very much a political settlement. It was not driven strictly by medical costs but also by the relative political power of the various participants. The other provisions of the agreement, including those pertaining to excise taxes and regulations, were also political in character.

### Conclusion

The tobacco settlement led to a record-breaking damages award that functioned as a cigarette excise tax and to extensive regulation of cigarettes from a product safety and marketing standpoint. That such an outcome resulted from a process that was in many respects political in character is not in itself disturbing. Legislation enacted by Congress is also political in character. However, what distinguished the out-of-court settlement of the tobacco litigation was that these tax and regulatory policies were enacted without the usual input that accompanies the development of policies of this type.

Consider, for example, the procedures that are in place for the promulgation of federal regulations. Agencies considering a proposed rule must prepare a regulatory impact analysis of the rule and submit it to the Office of Management and Budget sixty days before posting a notice of proposed rulemaking in the Federal Register. If the regulation is consistent with the priorities of the administration and is published in the Federal Register, the public has thirty to ninety days to be made aware of the regulation and provide comments. Thus there is a formal mechanism at the very early stages of the regulatory process to engage the public in providing information pertaining to the merits of the regulatory proposal. The agency then prepares the final rule and regulatory impact analysis and must send it to the Office of Management and Budget thirty days before publishing it in the Federal Register. If the regulation is approved by the Office of Management and Budget, which is guided by an executive order that establishes well-defined principles for assessing costs and benefits of regulation, then the agency will be permitted to publish the final rule in the Federal Register. At that point, Congress has an opportunity to review the regulatory proposal should it wish to do so, where the rule would go into effect thirty days after being published in the Federal Register.

Even listing these various stages of study and review does not do justice to the scrutiny that regulatory policies receive. The regulatory impact analysis process itself often involves a detailed discussion of the benefits and costs of the regulation. These assessments are often the subject of bitter battles between the Office of Management and Budget and the regulatory agency. Moreover, there are often public hearings associated with regulatory proposals to obtain detailed information and public input on these efforts. Although all regulatory proposals that emerge from this process are not always ideal, there is a much greater opportunity for informational input and for diverse points of view to be expressed than is the case with secret deals negotiated by participants in a litigation process, such as that for the tobacco settlement. Moreover, even within the overall context of this regulatory effort, there are legislative guidelines that provide additional structure to what regulatory agencies can and cannot do, when these guidelines are the results of laws enacted by Congress.
In the case of regulation or taxes that emerged through negotiated settlements to litigation, there is no substantial public input of this type. Nor is there any guarantee that the public interest will be well represented. Consider, for example, an industry faced with the prospect of a substantial damages payment that will emerge from court cases. Other things being equal, it would be attractive to the industry to have a larger portion of that payment shared by consumers. Similarly, because the current resources of tobacco companies are more limited, it might be in the interests of the states to also prefer a tax-like structure over a longer period because they will be able to reap a greater amount of funds from the settlement than they otherwise would. Consumers, especially cigarette smokers, in all likelihood might have different preferences regarding what they view as the optimal structure of such an arrangement. However, they are not represented in this process except to the extent that cigarette companies would like to sell the product to them, and the states typically would like to discourage them from buying the product.

Unfortunately, even though the tobacco settlement was a bad model, it has spurred additional efforts of the same type. One prominent veteran of the tobacco litigation initiated a series of lawsuits against HMOs that he indicated were patterned after the Proposed Resolution. Moreover, the billions of dollars in attorneys’ fees reaped by the lawyers engaged in the tobacco litigation have fueled additional litigation efforts of this type. The harm caused by this settlement consequently extends well beyond the cigarette industry itself.

The Public Health Community and Tobacco Litigation

Support for tobacco litigation had emerged in the public health literature by the 1980s. Not until the mid-1990s, however, did litigation become a prominent part of the public health community’s battle against smoking. A prominent figure in the tobacco litigation community notes that the Food and Drug Administration (FDA) played a decisive role: “The third, and current, wave of tobacco litigation began in the spring of 1994. It was initiated by the February 1994 announcement by Dr. David Kessler that the Food and Drug Administration was considering classifying nicotine and cigarettes as drugs.” Much of the public health community has since adopted the view that tobacco litigation is an essential part of the anti-smoking movement. A prominent 1995 editorial in the Journal of the American Medical Association, for example, concluded its list of the leading items in the American Medical Association’s strategy against tobacco by stating, “All avenues of individual and collective redress should be pursued through the judicial system.” Official AMA statements have reinforced this position, and the AMA played a leading role in the assessment of the 1997 and 1998 global settlements. The Journal of the American Medical Association has published a series of articles taking a favorable view of litigation, as have other American Medical Association journals. Other public health groups have taken similar positions, including the American Heart Association, the American Public Health Association, and nonprofit health insurance entities such as Blue Shield-Blue Cross organizations.

The World Health Organization, which has worked actively with plaintiff counsel in the Minnesota litigation, seeks to make tobacco litigation part of its worldwide strategy on smoking and health, a goal that

38. This is not to say that litigation is invariably given a major role in proposed policies toward tobacco. For example, Dejong (1997), representing the Harvard Center for Cancer Prevention in the Harvard School of Public Health, barely mentions litigation as a separate element.
42. For example, see Giants, Fox, and Lightwood (1997).
is reflected in the WHO’s Framework Treaty Convention on Tobacco Control.43

There are reasons to think this has been of considerable practical importance. The public health community has provided prestigious expert witnesses in the state of Minnesota and Washington cases and other lawsuits. The Minnesota Blue Cross-Blue Shield and other Blue Cross-Blue Shield organizations joined the state attorneys general as plaintiffs in health care cost recovery suits. Public statements and journal articles from the AMA and other prestigious groups advocating litigation have undoubtedly inspired much of the news media’s pervasive editorializing and news accounts favorable to litigation. All this may have influenced judges and jurors to adopt attitudes more favorable toward plaintiffs’ cases. An indication of this influence is that state litigation, and the 1997 and 1998 settlements, seems to have generated little popular or political resistance even though consumer surveys consistently find that most people disagree with the conceptual foundations of this litigation, and attempts to implement similar measures (such as tax increases) through legislation have usually failed.44

**Public Health Goals for Tobacco Litigation**

Why has the public health community so enthusiastically supported tobacco litigation? One reason is simply to advance the main goal of the state government litigation itself, which is compensation for health care costs caused by smoking (ignoring Viscusi’s assessment of the appropriateness of that objective). The most important public health goals for tobacco litigation, however, pertain to smoking itself. One goal is to increase cigarette prices in order to reduce consumption, especially by youth. The 1998 Master Settlement Agreement (MSA) was designed to raise prices in two ways, by requiring large payments (mainly to state governments) and by impeding competition. The latter is achieved by restricting advertising and promotion and by discouraging or penalizing market entry by nonsignatory firms.45 The multitude of lawsuits still under way or yet to come, which typically seek very large damages payments, would also tend to raise prices.

45. See, for example, Ayres (1998); for an updated treatment see O’Brien (2000).

A second public health goal has been to lay the basis for FDA regulation of tobacco products. An earlier global settlement, which was reached in June 1997 but failed for lack of required congressional action, included support for legislation to give the FDA regulatory power over cigarettes.46 Although litigation probably cannot provide a direct route toward FDA regulation, it can still be a decisive influence. Negotiations over legislation creating FDA oversight in the tobacco market could involve trade-offs yielding stronger regulation in return for partial relief against future litigation (as was planned in the 1997 global settlement).

A third public health goal is much broader: to alter the information environment surrounding smoking. One way to do this is through restrictions on advertising and promotion as a remedy in lawsuits. The view that advertising restrictions will reduce smoking is widely accepted in the public health community.47 Another tool for altering the information environment is the funding of antismoking campaigns. The MSA provides unprecedented sums for antismoking activities by the American Legacy Foundation, an independent industry-funded organization dedicated to antismoking campaigns. The MSA also anticipated that state governments would use damages payments to fund their own antismoking campaigns, including intensive school-based campaigns. The Centers for Disease Control has issued guidelines on this topic, but few states have come close to following those guidelines.48

Finally, the public health community sees litigation as a way to implement its view that if the public knew what the cigarette industry knew about smoking and health, knew what the industry was up to in marketing and the design of cigarettes, and learned about the undisclosed ingredients of cigarettes, then many smokers would quit and nonsmokers would not start. In other words, smoking can to a substantial degree be prevented and reduced simply by letting smokers and young people know more about the internal workings of the cigarette industry. This point was emphasized in a 1997 *Journal of the American Medical Association* editorial by two Harvard Medical School faculty members:

> Although it is impossible to put a dollar value on this anti-tobacco publicity, history has shown that such revelations have had an important impact on public attitudes and

practices regarding cigarette smoking. And time has shown that the media attention generated by high-profile trials also provides the public with an education about the hazards of tobacco and industry's duplicity. Public outrage at the greed and deception of the industry provides a powerful incentive for smokers to quit.49

Supporters of the Minnesota litigation argued along the same lines. Thus the litigation process itself, and the release of millions of industry documents as a result of litigation, was expected to have a strong and independent effect on smokers' behavior, a point emphasized by the Journal of the American Medical Association, which has published a series of articles taking a favorable view of litigation, with the focus mainly on the industry documents.50 The World Health Organization has taken a similar view.51 Based on the premise that the industry is the proximate cause of smoking, the essential argument is that litigation will reveal the true magnitude of the harms from smoking, the actual dangers of nicotine addiction, and the previously unknown susceptibility of smokers to hidden marketing techniques including the details of cigarette design.

All this reflects the central tenet of the antismoking movement since the early 1980s, which is that the main causes of smoking are not social forces but cigarette marketing and how cigarettes are designed to induce and maintain nicotine addiction.

The Public Health Effects of Tobacco Litigation

Has tobacco litigation advanced public health goals? There is no reason to assume that it has, inasmuch as the litigation process is bound to involve primarily the interests of the contesting parties, which so far have usually been state governments seeking large sums and defendants seeking to minimize the net present value of those sums.

PRICES AND SMOKING. The main market effect of tobacco litigation so far has been to raise cigarette prices, partly by requiring the payment of several billion dollars annually to state governments, and partly by reducing competition and penalizing entry. The effects of reduced competition are evident in that industry profits and stock prices have increased greatly since the MSA went into effect. Average retail prices increased by $0.96 per pack, or about 44 percent between November 1998 and November 2000, while the CPI increased by only 6 percent.52

The long-run effects of higher prices on smoking behavior are surprisingly uncertain, however. Econometric research consistently finds price elasticities on the order of 0.3 to 0.5, but there are reasons to doubt the long-term validity of these estimates for the 15 to 25 percent of populations in advanced nations who persist in smoking.53 Experience in nations with much higher prices or much lower disposable incomes suggests that many smokers will persist in their habit in the face of prices (relative to income) that are far higher than anything previously seen in the United States. International data collected by the World Health Organization in 1995 reveal only a very loose relationship between prices and youth smoking rates even though prices varied several-fold.54 Smoking rates in the UK, for example, are not greatly different from those in the United States even though UK prices have long been far higher than they are in the United States even today. Smokers in very poor nations such as India and China often pay substantial portions of their disposable income for tobacco (25 percent for Chinese men, in one report).55 Econometric analysis of youth smoking in the United States yields mixed results. The common finding of higher smoking rates in states with lower taxes does not account for social factors that might determine smoking attitudes and tax rates. This leaves open the possibility that taxes and prices may be only weak determinants of youth smoking rates. For alcohol, research has found that the relationship between tax rates and drinking failed to hold up in longitudinal analysis, which found very small effects from changes in tax rates. One careful new study of youth smoking takes a similar approach and finds no significant effect from tax increases on youth smoking rates.56 Another recent study, applying different data but the same idea, does find a significant effect.57 Their results yielded, however, a price elasticity for smoking initiation of approximately 1.0, so that a 10 percent price increase would be predicted to decrease new

50. See Glantz and others (1995); and other articles in the same special edition of the Journal of the American Medical Association on tobacco documents.
55. See Yang and others (1999) on China; and World Bank (1999) showing that the poor in India smoke more than the relatively wealthy.
56. Tauras and others (2001); Dee (1999); DeCicca, Kenkel, and Mathios (1999).
57. Tauras and others (2001).
youth smoking by 10 percent. This result greatly overpredicts the declines in youth smoking that have occurred in the wake of an approximately 40 percent price increase. This is notable because the other components of antismoking activities generated by litigation—antismoking campaigns and a drastically altered information environment—were unmeasured in this study. That should have caused recent large price increases to generate smoking reductions that were greater, rather than smaller, than predicted.

**Institutional Effects from Litigation.** There are reasons to doubt that litigation has strongly affected the information environment of smoking. The limited restrictions on advertising and promotion induced by litigation are unlikely to have substantial effects. Econometric research has consistently found that large fluctuations in cigarette advertising, including the 1970 ban on broadcast advertising, have had no detectable effect on cigarette sales.\(^{58}\) Even before the MSA went into effect, mass media advertising had declined to less than $700 million in 1998, leaving relatively little advertising power to be tamed.\(^{59}\) Whether antismoking campaigns funded by the MSA will have strong effects on youth smoking (the primary target) remains to be seen. Earlier mass media antismoking programs have yielded mixed results, seldom with significant lasting effects.\(^{60}\) Some MSA-funded campaigns have been linked to reductions in smoking by certain populations (eighth graders, for example), but so far there is little reason to expect these effects to persist.

Finally, there is the question of whether the information unleashed by litigation has altered overall attitudes and behavior regarding smoking. Surveys show little change since 1997. The Gallup surveys, for example, have asked very similar questions for many years. The percentage saying they smoked in the previous week in the 1997, 1999, 2000, and 2001 surveys were, respectively, 26 percent, 23 percent, 25 percent, and most recently, 28 percent. Even on whether manufacturers should be held liable for the harms from smoking, the proportion saying tobacco companies are mostly or completely to blame was 25 percent in May 1997 and 25 percent in July 2001, although it dropped to 20 percent in September 1999. The proportion saying smokers are mostly or completely to blame barely declined, from 64 percent in May 1997 to 61 percent in July 2001.

58. A recent review of the literature is in Callen (2000).
59. Data from the Federal Trade Commission (annual reports).
60. Peichmann and Thomas (2000).

**Tobacco**

Youth smoking has decreased slightly in recent years after increasing through most of 1990s, but as noted, the decrease has been far less than predicted from price increases. If litigation had mobilized antismoking sentiment, youth smoking should have declined by more than predicted by demand models incorporating price changes. Even in Minnesota, where litigation was exceptionally prominent and attracted much publicity about what industry documents, youth smoking failed to decline from rates far higher than they were at the start of the 1990s and has not declined relative to smoking in other states.\(^{61}\)

Per capita smoking has declined in the face of price increases but, again, not as much as one would expect from a 40 percent increase in real prices. And, again, declines should have been more than predicted from price changes, not less, if information changes were an independent force. In fact, smoking patterns in the United States have been similar to those in Canada, where antismoking activists have sought to initiate large-scale litigation with little success (so far), and in the UK, where tobacco litigation remains in its infancy.

**The Emerging Costs of Tobacco Litigation**

Set against the doubtful public health benefits of tobacco litigation are its emerging costs. The funding of litigation in other areas, with the litigation often using similar methods as described elsewhere in this volume, is certainly important. Whether the consequent expansion of litigation constitutes a net social cost cannot be settled here, but I note that much of the litigation launched with tobacco proceeds is explicitly couched as attempts to use litigation in place of regulation or legislation.

Tobacco litigation, of course, already comprised arguably the largest example of regulation through litigation, simply by imposing very large taxes without legislation. Others have described in detail the ways in which the MSA was structured to mimic a tax rather than damages payments. Thus payments are generated by future sales rather than past sales and would be required by firms that were not part of the settlement and had not been sued for past behavior. This was done after repeated failures to enact comparable tax increases in Congress and many state legislatures (although some states have succeeded, including California and Massachusetts). The

fact that this litigation was engineered by government agencies in states that had refused to raise tobacco taxes strongly suggests that this by-passing of constitutional methods must be accounted a significant cost of tobacco litigation.

Public health uses of tobacco litigation have also introduced or magnified distortions in the intellectual environment. Public health groups, politicians, and journals, confronted by the arguments posed by Viscusi and other economists on health care costs from smoking, have often greeted those arguments with scorn rather than serious analysis. This response prevails even though some of the research supporting Viscusi's argument has come from prestigious medical journals and the federal government. 62 State and federal health agencies, including HHS (source of the Surgeon General's reports on smoking and health) have argued in court that because they relied on industry marketing and public relations, they had been deceived into lacking a reasonable appreciation of the health harms of smoking until the 1990s. This has introduced an unnecessary element of hypocrisy in public discussions. The same is true of the popular move among state legislatures, with active support from the Clinton administration, to allocate substantial tobacco litigation payments to tobacco farmers as compensation for their loss of business as tobacco sales decline.63 This has been done despite the fact that tobacco farmers, even more so than the general public, have long been aware that the crops they sold to tobacco wholesalers were used to manufacture cigarettes with all their health risks.

Another, quite different cost of tobacco litigation has been to increase government’s stake in smoking itself. It has long been clear to antismoking activists and others that nations in which tobacco was controlled by state monopolies have been especially reluctant to endorse or embark upon antismoking campaigns or publicize the dangers of smoking.64 That the billions of dollars flowing to the states under the MSA work like a sales tax on cigarettes means that state governments have a large stake in the continuation of smoking and the solvency of the industry. Because many states have allocated future revenues for numerous purposes unrelated to smoking, the nexus between MSA payments and government welfare has


tobacco such as snuff and chewing tobacco) severely limit manufacturers' ability to lobby, discuss, or advertise about smoking and health. For example, the chief executive officer of U.S. Tobacco noted in an interview that, as part of a settlement, his firm had agreed not to "debate" the health consequences of smokeless tobacco versus smoking in the "media." These measures were presumably taken in the belief that competitive speech from tobacco manufacturers could not possibly favor public health.

The restrictions on speech, combined with the MSA's severe penalties on the growth of nonsignatory firms and restrictions on advertising and marketing as a result of this and other litigation, has tended to impede discussion of safer tobacco use, including the use of cigarettes employing radical technologies such as smokeless processing of tobacco, safer tobacco variants, and tobacco alternatives such as snuff, cigars, and chewing tobacco. This perspective reflects the dominant view since 1980 in the antismoking movement that public policy should focus exclusively on the cessation of smoking and that marketing of safer cigarettes would be a distraction if not an outright barrier to cessation. Even the minority who see a useful role for safer cigarettes are hostile to the idea of permitting manufacturers to help market or design cigarettes. History shows, however, that competitive marketing increases the salience of the health effects of smoking and accelerates the development of new technologies. Tobacco litigation has essentially implemented the antismoking community's gamble on cessation to the exclusion of harm reduction.

References


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Litigation as Regulation: Firearms

The recent law suits brought by local governments against the gun industry have offered several legal theories for why the industry should be held accountable for the costs of gun violence and compelled to change its practices. The first of these suits, filed by the city of New Orleans on October 30, 1998, asserts among other things that the manufacturers have neglected their duty to incorporate available safety features into the design of their products. The second, filed by Chicago, focused on marketing practices, asserting that the industry had created a "public nuisance" by neglecting to take feasible measures that would help prevent the illegal sale of its products to Chicago residents or to traffickers who supply residents.\(^1\) Following these actions by New Orleans and Chicago, thirty other cities and counties have filed against the gun industry, claiming negligence in its marketing practices, the design of its products, or both.

The public suits against the gun industry were inspired by the success of the states' litigation against the tobacco industry in the 1990s.\(^2\) The cigarette manufacturers ultimately settled those suits with the attorneys general.

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