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There are better ways to address smoking than ever-increasing cigarette taxes.

The New Cigarette Paternalism

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SMOKING IS BY FAR THE LARGEST SINGLE risk that most people take. Perhaps in part because of that prominence, smoking has been the target of a wide variety of regulations and legal actions. The controversy over tobacco products is at least four centuries old, but it has been largely over the past half-century that the diverse wave of public policy initiatives against tobacco products has emerged.

Within a standard economic framework of consumer choice, there would seem to be little impetus for broadly based government efforts to discourage smoking. The risks of smoking are largely borne by the consumers who choose those products. To the extent that smoking harms others, the externalities can often be addressed through focused policy measures such as non-smoking areas.

Over the past decade, cigarettes have been under increasing assault on two fronts. First, there have been claims that the underlying rationality of smoking decisions is in doubt and that smokers need to be protected from themselves. Second, policy concerns over exposures to tobacco smoke escalated as government agencies suggested that smoking does in fact impose considerable health harms on others.

Many anti-smoking advocates would like to prohibit smoking altogether. The prohibitionist concerns may stem from religious fervor, as some have long viewed smoking and drinking as evil. Other prohibitionist concerns stem from a sense of paternalism. The demographic distribution of smoking is more concentrated among the less well educated, such as those in blue-collar occupations rather than the white-collar profes-

sionals who tend to shape public policy. Given that policymakers themselves tend not to smoke, they often view any decision to smoke as mistaken. In their view, some form of irrationality must account for the fact that smokers' choices are different from what the policymakers would choose to do.

DO PEOPLE KNOW THE RISKS OF SMOKING?

It was not until the 1964 report by the U.S. Department of Health, Education, and Welfare that the U.S. government announced a consensus that smoking does significantly increase the risk of lung cancer. Press coverage of the report was tremendous, and the U.S. Congress required that, beginning in 1966, cigarette packs had to bear on-product warnings. The mandatory warning for a consumer product was truly a watershed event; before that time, warnings were primarily restricted to products that posed imminent dangers that typically were fatal. The widespread warnings that we now take for granted simply did not exist. Rather, cigarettes were singled out as a high-risk commodity that was dangerous even if used in the manner intended by the manufacturer.

Policy efforts to inform smokers of the hazards of smoking did not end with the 1966 warnings. There have been two revisions of the cigarette warnings, and the Surgeon General and other public health officials have continued to publicize the risks of smoking over the past four decades.

Given the substantial publicity that smoking risks have received, it would be quite surprising if people had simply not gotten the message about the dangers of smoking. Indeed, even in the mid-1960s, Dr. Francis L. Blasingame, the executive vice president of the American Medical Association, observed in written testimony to the Federal Trade Commission that there seemed to be little need for the new warnings: "With respect to cigarets [sic], cautionary labeling cannot be anticipated to serve the public interest with any particular degree of success.

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The health hazards of excessive smoking have been well publicized for more than 10 years and are common knowledge. Labeling will not alert even the young cigarette [sic] smoker to any risks to which he is not already aware."

Somewhat later in the 1960s, Dr. Daniel Horn voiced a similar sentiment in his capacity as director of the National Clearinghouse for Smoking and Health. Dr. Horn, who in his work with his co-author Dr. Cuyler Hammond was primarily responsible for establishing the link between smoking and cancer, observed, "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."

Overestimation Public knowledge of the risks of smoking is consequently not a recent development. Research on other forms of risk indicates that people tend to overestimate highly publicized risks. Given the tremendous publicity that smoking risks have received, one would expect that people would tend to overestimate the risks of smoking rather than underestimate the dangers.

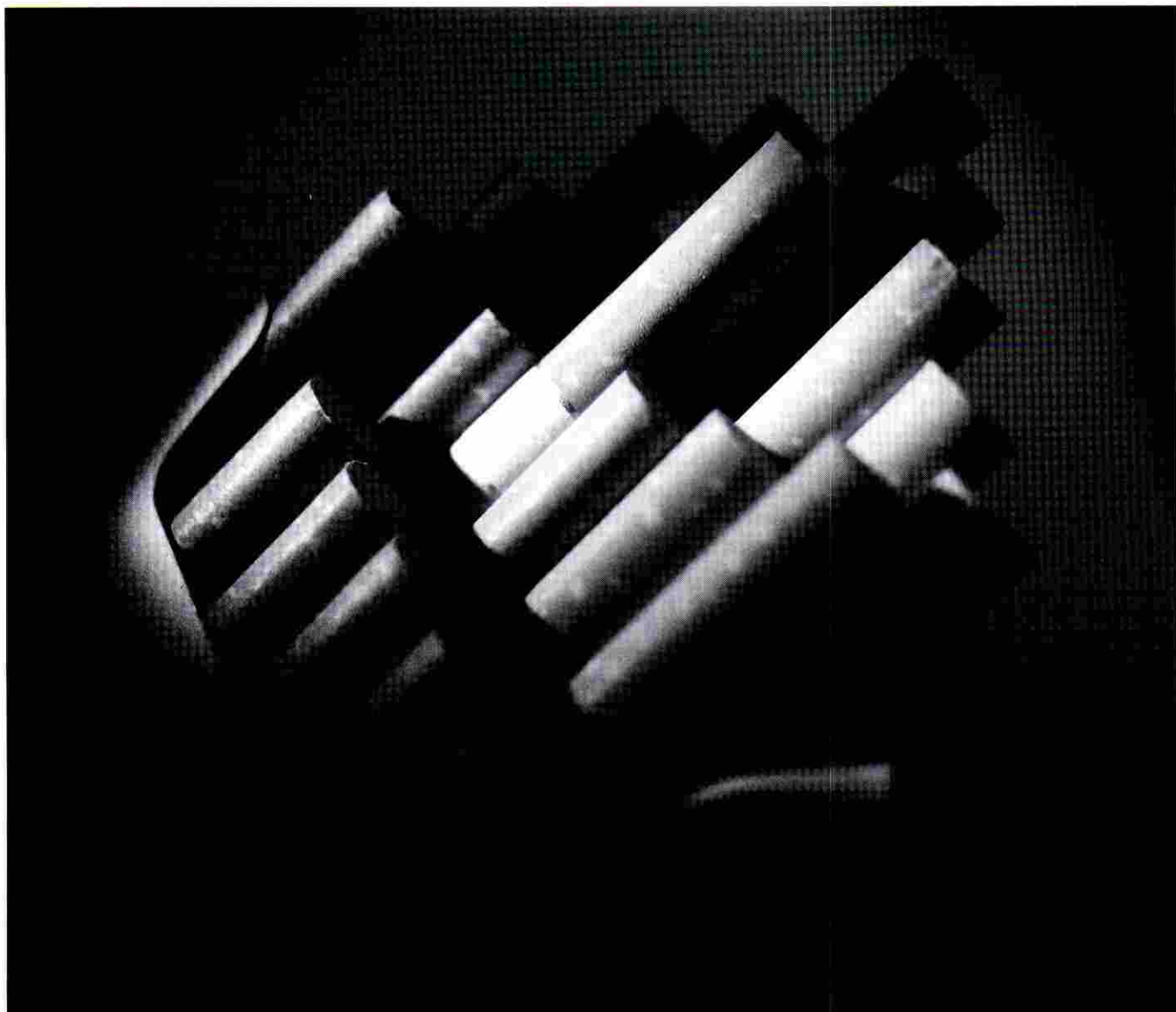
The pattern of overestimation is in fact what we find. I have

examined detailed data on individual risk beliefs based on national surveys from 1985 and 1997, as well as regional surveys that I ran in 1991 and 1998. The results show a consistent pattern over time. For concreteness, I will focus on the 1997 national results. Consider first the risks of lung cancer, which scientists have pegged as being from 0.06 to 0.13 for an average smoker. The public assesses the lung cancer risk to smokers as being 0.47 — a figure that dwarfs scientists' estimates of the extent of the risk.

The perceived overall risk of death from smoking also exceeds actual scientific estimates, but not to the same extent. The public's assessment of the risk of premature mortality from smoking is 0.51. That figure exceeds the available estimates of the death risk based on reports by the Surgeon General and the National Cancer Institute, which range from 0.18 to 0.36.

But do people realize the extent of life that might be lost because of smoking? Scientific estimates of that loss are in the range of six to eight years. However, the public's risk perception is greater, as men believe the life expectancy loss is 10.1 years and women believe that it is 14.8 years.

The adult population seems to be very much on board with



respect to perceiving the risks of smoking, but what about younger age groups? Research suggests that young people brought up in the current informational environment are even more attuned to the risks of smoking than their elders. For example, I found that people aged 16 to 19 have lung cancer risk beliefs that are much higher than adults.

THE OPTIMISM BIAS HYPOTHESIS

Although smokers have clearly gotten the message that smoking is dangerous, some smoking critics have suggested that smokers believe the risks do not pertain to them. It is only other smokers who will be at risk, smokers supposedly believe. This "optimism bias" hypothesis is not curable through warnings or other public information campaigns, but instead is attributable to cognitive failings of individuals. People do not internalize the risk to themselves.

What is the evidence in support of such a theory? Almost

the question, "Do you think smoking is or is not harmful to your health?" Moreover, a 1993 Gallup Poll found that 65 percent of all smokers believe that smoking had already harmed their health, and 78 percent believe that they would be likely or very likely to have serious health problems from smoking if they continue to smoke. Empirical evidence that avoids the framing effects of asking people to compare themselves to the average person invariably indicates substantial personalization of the risk.

ADDICTION TO CIGARETTES

Cigarettes are also different from many consumer products in that they are a potentially addictive good. The Surgeon General had formerly labeled smoking a habituation, but in 1988 he elevated that characterization to a problem of "addiction."

To most of the American public, the nuances of medical definitions are not consequential. What is important is the practical implications of smoking. Smoking is hard to quit. In addi-

Surveys indicate that the public believes the lung cancer rate, death risk, and life expectancy loss from smoking are higher than what science has calculated.

all such studies utilize questions asking people whether they consider themselves to be at average risk, above average risk, or below average risk from some risky activity. The first such studies were done in the 1980s, and asked drivers whether they considered themselves to be average, below average, or above average drivers. Not surprisingly, few people found fault with themselves and admitted that they are below average drivers. Such comparative questions yield results that suggest the presence of optimism bias with respect to almost all kinds of risks. Indeed, smoking risks were a latecomer to the optimism bias literature. Thus, if we are going to regulate cigarette smoking based on the influence of optimism bias, we have to also restrict almost all other forms of risk-taking activity as well.

The optimism bias hypothesis does not, however, hold up if the question is asked in a way that does not require the respondent to find fault with oneself. If you ask people to rate the risk to themselves and the risk to others on a continuous scale rather than asking them to compare themselves to the average, there is no evidence of an optimism bias effect. Moreover, our studies for EPA found that even though people respond to the question asking them to compare themselves to the average person in an optimistic manner, when it comes to actual safety precautions that people take there is no evidence of such an influence. Optimism bias results based on comparative questions do not imply overly optimistic risk-taking decisions.

The survey evidence that pertains to smokers also indicates that smokers are not in a state of risk denial but are in fact very much aware that smoking is potentially harmful to them and not just to others. In 1990, 93 percent of smokers answered "yes" to

the question, "Do you think smoking is or is not harmful to your health?"

tion, if you smoke cigarettes now, it will increase the likelihood that you will consume cigarettes in the future. All addictions are not of equal concern to society. I would rather undergo an operation by a surgeon who is addicted to cigarettes than one who is addicted to heroin. Unlike drug addicts, smokers are productive, functioning members of society and do not generate the same kinds of external costs as victims of other addictions.

Considerable recent literature has emerged in support of the work by Gary Becker and Kevin Murphy indicating that people may be rationally addicted to products. The fact that it is hard to change certain kinds of behavior does not undermine the desirability of those choices, as one could knowingly choose to become addicted to a particular product.

That smoking is difficult to quit is well known. Research indicates that 13 percent of smokers believe smoking is addictive, 26 percent believe it is a habit, 50 percent believe it is both a habit and an addiction, and only four percent believe it is neither.

Although economic models of rational addiction permit the possibility of price responsiveness, many popular notions of addiction view the phenomenon as one in which smokers are locked into their smoking decision. While quitting smoking is often difficult, at present there are almost as many former smokers as current smokers in the U.S. population. In 2000, there were 44.3 million former adult smokers, which is just below the total of 46.5 million current smokers.

Smokers also respond in the expected fashion to increases in the cost of smoking. The price responsiveness of smokers exhibits a demand elasticity of -0.4 to -0.7, which means that

a 10 percent increase in cigarette prices will lead smokers to cut back on the quantity purchased by four to seven percent. The demand elasticities for cigarettes are comparable to those that economists have estimated for consumer products that people generally do not consider addictive, such as theater and opera, legal services, and barber shops and beauty parlors.

Another measure of smokers' responsiveness is how increasing the costs of smoking through restrictions at the workplace have reduced smoking behavior. Do smokers simply make up their lost consumption by smoking more during periodic smoking breaks? The available evidence indicates that workplace restrictions lead to a substantial reduction in smoking behavior and in some cases lead smokers to quit smoking altogether.

INTERTEMPORAL IRRATIONALITY

Beginning with the influential analysis of economist Thomas Schelling, some analysts have suggested that smokers are engaged in a continuing battle for self-control. Smoking conveys short-run pleasures and long-term risks, and there is a continuing need to balance those concerns and properly attend to the well-being of one's future self.

Jonathan Gruber in this issue of *Regulation* has coupled those concerns with recent analyses suggesting that people are subject to hyperbolic discounting, which is a form of intertemporal irrationality. According to the hypothesis, people are subject to time inconsistency and place far too little weight on distant outcomes. Given the substantial latency period associated with smoking and the long-term character of smoking behavior, Gruber suggests that smokers neglect their future selves.

The empirical support for the time-inconsistency hypothesis is quite limited and primarily stems from experimental studies that have nothing whatsoever to do with smoking behavior. Such experimental studies, usually run on student subjects, often provide interesting insights into economic behavior. However, we should be cautious in generalizing based on such studies. First, an experimental context's results may not generalize to the market decision situation that is the counterpart to the experiment because the stakes usually are greater, the incentives to acquire information and make sound choices will be greater, and there will often be the opportunity to learn through experience. Second, we should exercise considerable caution when generalizing to market contexts that have nothing whatsoever to do with the context of the experimental scenarios. None of the experimental studies cited by Gruber have any pertinence to cigarette smoking or other health-related decisions, much less consumption of a potentially addictive commodity. Real world interventions ideally should be based on real world data pertinent to the market context.

What if we were to take at face value the experimental evidence on intertemporal irrationality? If that form of irrationality does exist, then regulating smoking should not be our only target. We should also intervene to control people's educational choices, marriage decisions, car purchases, home purchases, mortgage refinancing decisions, and every other aspect of their lives with a temporal dimension because they fail to account properly for such long-term consequences themselves.

The empirical evidence that we actually have for smokers

indicates that they differ from nonsmokers in their preferences but not a great deal in terms of their forward-looking behavior. Smokers are much more willing to bear risks of all kinds, including job risks and other personal risk that they might face, than nonsmokers. However, the evidence with respect to whether smokers are different with respect to how they discount the future fails to indicate the rampant market failure that Gruber hypothesizes. In a recent study of valuation of long-term environmental risks that I undertook with Harrell Chesson for EPA, we found that the opposite was the case: Smokers exhibited a somewhat lower rate of time preference than did nonsmokers, implying a somewhat greater weight on future consequences.

Intention to quit The smoking-related evidence Gruber cites consists of survey results indicating that smokers expect to quit but do not, and they continue to want to quit their smoking behavior. What are we to make of those surveys? Many quit intentions may simply be the learned response that smokers have adopted to deflect criticism in a strong anti-smoking environment. If critics continually suggest that smoking will kill you and that you should quit, the simplest way to deflect such criticism is to agree and indicate that you intend to quit. Similarly, within the context of a long survey that focuses extensively on the hazards of smoking, by the time the surveyor reaches the quit question, it will tend to evoke the same kind of response.

Although many smokers indicate that they expect to quit smoking, smokers also realize that such statements should not be taken at face value. When asked how many of a group of smokers who indicate that they would quit smoking will actually do so, the teenage respondents in one sample indicated that just over one in five smokers making such a statement would in fact quit. People know such claims should not be taken at face value.

An interesting test of the operational significance of quit intentions is a study that was undertaken in the Philadelphia area. Researchers asked 11,709 adult current smokers whether they would be interested in quitting smoking if a smoking cessation clinic could be arranged. Of that group, 41 percent indicated that they would be interested in such a program. That response rate is below the stated quit intention frequency in the surveys cited by Gruber and others. However, even that figure overstates the real quit intentions. After being informed of the date of a special preliminary meeting for the clinic, only five percent of those who had expressed an interest in the smoking cessation effort actually attended the session. Subsequently, only three percent of those who expressed an interest in the smoking cessation clinic — or 150 people — actually used the clinic. In terms of the total sample of smokers, just over one percent ended up using the smoking clinic that was made available to them. While smokers say that they want to quit, that is not always what they mean.

DO SMOKERS HARM US FINANCIALLY?

One of the many misconceptions about cigarettes is that smokers cost society substantial amounts in terms of insurance costs. Beginning with the debate over the Clinton administration's health insurance proposal in the early 1990s, there have been repeated claims reported in the press that smokers cost us \$1 to

\$2 a pack in medical costs and other insurance expenses. The Centers for Disease Control continue to report such estimates, which are dutifully covered in the press. The calculations fail, however, to take into account the net discounted lifetime costs for medical care and also ignore the reduction in costs that occurs because of smokers' premature mortality. The consensus in the economics literature is that at reasonable rates of discount, such as a real discount rate of three percent, cigarette smokers more than pay their own way excluding the influence of excise taxes.

Savings? My estimates of the national insurance costs associated with smoking indicate that there is a net cost savings of 32¢ a pack excluding the role of excise taxes. To be sure, there are some added costs associated with smoking. Chief among those is that smokers have higher medical care costs on the order of 58¢ per pack. Smokers also have higher group life insurance costs of 14¢ per pack. There are, however, also cost savings associated with smoking. Smokers incur nursing home care costs that are 24¢ per pack less and retirement and pension costs of \$1.26 per pack less. The other major cost component is that because of their premature mortality, smokers contribute less to Social Security and Medicare, leading to a loss of 43¢ per pack. The cost estimates are not much affected by adding in the costs of environmental tobacco smoke. Using government estimates of the magnitude of those risks, the insurance costs of environmental tobacco smoke amount to under a penny a pack.

How is it that many of the published calculations have indicated a substantial cost associated with smoking, whereas my estimates indicate a cost savings? Much of the answer stems from the fact that the other estimates often fail to account for the trajectory of costs over the lifetime of smokers as compared with nonsmokers. Smokers have a shorter life expectancy, so any calculation of the cost actually imposed must account for the difference. That smokers die sooner than nonsmokers is not a good thing. But if we are assessing the cost implications of smoking risks, we also have to recognize the effects of smoking-related mortality on the stream of costs smokers generate.

Tobacco settlement The calculations also might appear to be hard to reconcile with the settlement of the lawsuits by the state attorneys general against the cigarette industry. The lawsuits sought damages for the medical costs incurred by the states from smoking behavior. However, the scope of the lawsuits was restricted to the medical cost component alone, whereas my calculations focus not only on medical insurance costs but also on pension costs, nursing home expenditures, and other financial implications of smoking. How the litigation actually would have played out is unclear. In some states, the courts had ruled that some cost components that would have offset the medical insurance costs, such as excise taxes, could be included in the tally.

Not only was the basis for the state cigarette suits novel, the settlement was as well. The tobacco industry did not make a lump-sum payment for the damages. Rather, the parties negotiated a financial structure that was largely tantamount to a higher excise tax on cigarettes of about 40¢ per pack. That penalty is in addition to all other existing federal and state excise

taxes on cigarettes. It will boost the cost borne by smokers and, as a consequence, will reduce cigarette consumption.

ENVIRONMENTAL TOBACCO SMOKE

For years, people regarded environmental tobacco smoke as a smelly annoyance. Beginning in the 1990s, government agencies began to suggest that the scientific evidence indicated that environmental tobacco smoke could also cause cancer and heart disease. The character of the stakes involved in smoking had changed considerably, as had the moral authority of nonsmokers. The result was a widespread belief that smokers were harming not only themselves but nonsmokers as well.

The watershed event in the assault against secondhand smoke was EPA's designation of environmental tobacco smoke as a group-A carcinogen. No longer was the concern pertaining to environmental tobacco smoke based on aesthetics; lives were at risk as well. Careful review of the studies of the lung cancer-environmental tobacco smoke linkage indicates that none of the studies has ever demonstrated a relationship that passes the usual tests of statistical significance. As a result, there have been a number of critiques of the EPA analysis. (See "Smoke and Mirrors: The EPA's Flawed Study of Environmental Tobacco Smoke and Lung Cancer," Vol. 16, No. 3.)

The federal judiciary has rejected the EPA study of passive smoking as well, notably in the 1998 decision for *Flue-Cured Tobacco Cooperative Stabilization Corp. et al. v. U.S. Environmental Protection Agency*. The court threw out the EPA study for several reasons: "EPA's study selection is disturbing. First, there is evidence in the record supporting the accusation that the EPA 'cherry-picked' its data." Moreover, the court found that "using its normal methodology and its selected studies, EPA did not demonstrate a statistically significant association between [environmental tobacco smoke] and lung cancer." Moreover, "EPA could not produce statistically significant results with its selected studies."

Nevertheless, the public's perception regarding the dangers of passive smoking is far in excess of the risks that actually may be present. In a study of the environmental tobacco risk perceptions that I undertook in Spain, the Spanish population believes that 25 out of 100 members of the population would get lung cancer because of exposures to environmental tobacco smoke, and a similar number would get heart disease because of passive smoking exposures. The dangers of environmental tobacco smoke are consequently believed to be tantamount to the risks posed by the Black Plague.

Smoking restrictions Research studies continue to explore the possibility of the linkage of passive smoking exposures to lung cancer, heart disease, and other ailments. However, even if such linkages can be established, they do not imply that there should be a higher tax on cigarettes. The solution is to adopt smoking restrictions that prevent nonsmokers from being exposed to environmental tobacco smoke. Ideally, such policies should also attempt to accommodate the interests of smokers by providing for smoking lounges.

Smoking restrictions have become increasingly prevalent throughout the United States. Large businesses are particularly likely to have adopted formal smoking restriction policies.

Many states have done so as well. By 1998, 31 states had adopted restrictions on smoking in restaurants, and 23 states imposed statewide restrictions on smoking in indoor arenas. The emergence of targeted policies to address environmental tobacco smoke represents a more sensible solution to those hazards than penalizing smoking activity more broadly. Concerns about environmental tobacco smoke consequently should not serve as a rationale for taxing cigarettes more generally.

CIGARETTE TAX POLICY

The tax component of cigarettes is substantial. As of 2001, the federal tax rate on cigarettes was 34¢ per pack, and the average state tax was 40.8¢ per pack. The state of New York imposed a high value of \$1.11 per pack, which has since been topped by additional taxes imposed by the city of New York. An additional 40¢ per pack of the cigarette price is attributable to the penalties levied as a result of the Master Settlement Agreement as well as the set-

tle amount that would occur if people had accurate risk beliefs.

Rather than grapple with the implications of the risk overestimation, Gruber and Koszegi instead assumed that smokers are uninformed victims of time inconsistency and neglect their future selves. Based on laboratory studies that have nothing whatsoever to do with smoking behavior or the actual decisions that smokers make, they suggest that the appropriate tax on cigarettes could be \$1 to \$2 per pack, which is already in the range of the combined existing tax from federal excise taxes, state taxes, and the tax generated by the settlement of the tobacco litigation. Alternatively, they speculate that there could be severe time inconsistencies warranting a tax on the order of \$5 to \$10 a pack. Each set of estimates is unsupported by any empirical evidence pertaining to smoking behavior.

Because perceptions of the risks of smoking are already inordinately high, any justification for taxes or other policy interventions based on the problems of time inconsistency must

Because perceptions of the risks from smoking are inordinately high, any justification for higher taxes because of “time inconsistency” is questionable.

tlement with four additional states that were not parties to that agreement. The result is that the average national retail price of cigarettes is \$3.57 per pack for full-price cigarettes and \$3.37 per pack if one includes generic cigarettes in the averaging.

Cigarette taxes fall predominantly on the very poor. The usual concerns about regressive taxes involve those that are regressive in percentage terms, that is, the poor pay a higher percentage of their income in taxes than do the wealthy. Cigarette taxes are actually so regressive that the poor pay a much higher absolute level of taxes than do the wealthy. In 1990, people who made under \$10,000 per year paid almost twice as much in cigarette taxes as those who made \$50,000 and above. The people who will bear the cigarette taxes are not the legislators who enact them but rather the janitors and support staff for the legislature. The stark regressivity of cigarette taxes has often led to some hesitancy in imposing cigarette taxes at even higher levels.

Time-inconsistency tax Nevertheless, there have been some advocates of even higher cigarette taxes than are currently imposed. Based on their analysis of time inconsistency, Gruber and Botond Koszegi speculate that the mortality costs of smoking are \$35 per pack. The footwork underlying that calculation is not apparent, and their estimates do not reflect the lower value of life revealed by smokers in their risk choices than non-smokers. Tinkering with the mechanics of the calculation is, however, not the principal issue. As indicated above, smokers currently overestimate the mortality risks of smoking as well as the lung cancer risks and the life expectancy loss. Market forces alone already deter people from smoking by more than

reflect errors that outweigh the well-documented role of excessive risk beliefs. The evidence pertaining to time inconsistency stems from laboratory studies that have nothing whatsoever to do with smoking. If we are launching an actual policy initiative that will interfere with individual choices, we should place greatest weight on actual data that are pertinent to the decisions, which is the risk perception data on smoking. Despite the regressivity of higher taxes, Gruber suggests that such taxes will make poorer smokers better off by preventing them from smoking. That proposal will override the revealed preferences of smokers on the basis of hypothetical failings in individual choice.

One positive feature of the Gruber proposal is that he restricted it to taxes. Although Gruber and I are serving as expert witnesses on opposite sides of the cigarette litigation, he quite correctly did not suggest that time inconsistency has any pertinence to tobacco companies' liability in such litigation. Responsibility for such hypothetical irrationalities in individual behavior does not rest with product manufacturers.

THE YOUTH SMOKING HOOK

When the discussions were ongoing with respect to the settlement of the litigation by the states against the tobacco industry, the attorneys general invoked many fervent pleas that they needed the money to protect youths against the dangers of smoking. Surely, that is a policy objective on which everyone can agree. However, the actual allocation of the windfall received by the states has done little to combat youth smoking. Almost every other possible use for the funds has taken priority. Some states spent the money to reduce crowding in pub-

lic schools, others spent it on rebuilding roads and bridges or on sidewalk repair. In perhaps the most appalling use of the funds, the mayor of Los Angeles proposed using the windfall to pay for the legal defenses of police officers accused of allegedly planting drugs and weapons on subjects and either beating or shooting unarmed suspects.

In much the same vein, Gruber has suggested that boosting cigarette taxes is needed to deter youth smoking. A frequent argument for using taxes to deter underage smoking is the belief that youths exhibit a higher price elasticity for cigarettes — an empirical claim that is a matter of some dispute among economists. Many researchers have failed to find a difference in the price elasticity of youths.

The more fundamental problem is that the policy proposal is too blunt to address the youth smoking problem sensibly. One of the results of the tobacco settlement has been the enactment of laws throughout the United States prohibiting those under the age of 18 from buying cigarettes. Purchasing cigarettes is now illegal for youths, which makes proposals to crank up the tax to deter youth smoking misdirected.

Underage smokers continue to exist notwithstanding the regulations. It is often hypothesized that the weak link is retailers, such as those who operate convenience stores. If that is the case, then presumably a higher tax on cigarettes would affect purchases of cigarettes by youths. A 1998 California survey that took place around the period when many of the age requirements took effect indicated that very few youths actually purchased cigarettes themselves. Only eight percent of eighth graders who smoke cigarettes bought them themselves, and only 10 percent of 10th graders indicated that they bought them themselves. Underage smokers instead get their cigarettes from friends, family members, older friends who purchase cigarettes for them, and by stealing cigarettes. Most of those sources of cigarettes will not be particularly responsive to higher cigarette prices.

Imposing higher taxes on cigarettes for all smokers also imposes costs that will fall largely on adult smokers rather than youths. Empirical estimates peg the percentage of cigarettes smoked by underage smokers as being roughly three percent of all cigarettes sold. Using the youth smoking hook to justify broadly based taxes consequently will impose costs largely on people who have nothing whatsoever to do with youth smoking. Targeted interventions, including enforcement of age restrictions on cigarette purchases and other youth smoking policies, are more appropriate forms of intervention.

POLICY AND PROGNOSIS

Various forms of paternalism have been evident throughout the evolution of U.S. cigarette policy. Most of the population currently does not smoke and is puzzled by the decisions of people who choose to smoke. Surely they must be misinformed. Perhaps they were tricked into smoking when they were young and are now addicted for life. Possibly they are the victims of intertemporal irrationality and suffer from subtle problems of time inconsistency. They may also suffer optimism bias and know that the risks are there, but not believe that they will be pertinent to themselves.

The various forms of hypothesized irrationality on the part of smokers have continued to proliferate. However, the critiques of smoking behavior are not based on sound empirical evidence nor market evidence. Instead, the results are often based on surveys for which the question framing is consequential or on laboratory experiments that do not pertain to smoking.

The available evidence we do have suggests that the hazards of smoking are quite well known to the general public. The dangers of smoking are not closely guarded information available only to nonsmokers. Cigarettes have borne hazard warnings for decades and have been the target of a continuing informational campaign by the Surgeon General and other public health officials. The net effect of those efforts is that the public, including smokers, now greatly overestimates the risks of smoking rather than underestimates the hazards. Moreover, the difficulty of quitting smoking is almost universally understood.

The impetus for boosting cigarette taxes is likely to continue because most voters will not bear the cost. Those who will pay are the minority of the population who are smokers. Smokers are disadvantaged additionally by the fact that they tend to vote with a lower frequency than do nonsmokers. Higher cigarette taxes will simply impose extremely regressive burdens on the poorest members of society who can least afford to bear the cost.

Policymakers should focus on more targeted efforts to address smoking matters of concern. Age restrictions on smoking, the establishment of non-smoking areas and smoking lounges, and similar measures represent the kinds of interventions that are structured in a way that will generate the desired benefits without imposing costs on entire populations of smokers.

Even in the absence of any additional policy interventions, smoking rates will continue to decline just as they have over the past half-century. As individual wealth rises, the value associated with health risks increases as well. People consequently will be less willing to bear risks as they become more affluent. Market forces alone will continue to generate a decline in smoking, but they will do so in a way that is respectful to individual preferences and the choices that people make. **R**

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