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The Use and Abuse of Excise Taxes

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Abstract

Inefficiencies are inherent in any taxation, because taxes distort the economic choices that people make. While the unavoidable inefficiencies imposed by taxation are a necessary cost of providing certain government services, it is obviously desirable to minimize the inefficiencies imposed by taxation.

The most efficient tax system minimizes this type of distortion. But excise taxes are conspicuously at odds with the goal of reducing tax distortions: they are the most distorting of all taxes per dollar raised. Instead of spreading the tax burden as neutrally as possible over a broad tax base, excise taxes single out a few products for a high and discriminatory tax burden that motivates consumers to avoid that burden by shifting away from products that provide them with the greatest value per unit of production cost. Corresponding to this consumption distortion are production distortions as productive resources are shifted out of higher-valued employments and into lower-valued employments.

Only in a very few situations where the consumption of a product is complementary to the use of some other good that cannot easily be priced directly can earmarked excise taxes be efficient. But even here the efficiency of the excise tax depends upon the revenues being unconditionally allocated to the complementary use to reduce the cost of rent seeking. The greater the rent seeking over the allocation of the revenues from a potentially efficient excise tax, the less efficient the tax is and the lower the efficient rate of taxation (under reasonable assumptions about the relevant elasticity of demand).

Once we recognize the necessary requirements for efficient excise taxation, we cannot justify most examples of such taxation on any grounds other than political expediency. No government spending can be exclusively connected to the use of the product being taxed. And, because there is no clear justification for earmarking the revenues to particular government spending, most excise taxes generate revenues that inevitably go up for political auction. The resulting rent-seeking cost makes these taxes even more inefficient than they already are.
Introduction

With few exceptions, there is no serious economic case for the use of excise taxes. And even with the exceptions, excise taxes must be implemented with care if they are to satisfy the conditions required for economic efficiency.

While most economists would agree that an efficient tax system will make only very limited use of excise taxes, two arguments are put forth in defense of these taxes. First, the inefficiency of excise taxes is moderated when they are imposed on inelastically demanded goods. The rationale for this position is that such a tax will do little to distort consumer choices, since consumers will continue to purchase almost as much after a tax-induced price increase as before. But even if you accept the truth of this rationale, the argument ignores important considerations that undermine the case for excise taxes. One such consideration is the strong political temptations to increase an excise tax on an inelastically demanded product far beyond the level considered efficient by standard economic analysis. A second consideration is political rent seeking (political competition for wealth transfers) that, even in situations most conducive to relatively efficient excise taxes, reduces the advantages of such taxes.

The second argument for excise taxation considers situations in which excise taxes can be used efficiently as a proxy; i.e., when the consumption of a product that is easily taxed is connected to the use of another product that is difficult to charge for directly. Sometimes it is reasonable to impose an excise tax on the easily-taxed product and then earmark the revenue to the provision of the complementary product. The best example is the excise tax on gasoline, with the revenues earmarked to the construction and maintenance of the highway system. However, politically organized interest groups often use this argument to justify earmarked excise taxes that violate the most obvious efficiency norms.

This paper reviews why excise taxes are so detrimental to economic efficiency, examines the special circumstances under which an excise tax can be justified, and incorporates the cost of rent seeking into a model of the efficient tax rate in those cases most conducive to an efficient excise tax. Finally, the paper discusses the political temptations to abuse excise taxes by imposing them when they are not justified, increasing their rates to grossly inefficient levels, and earmarking inappropriately the revenues they generate. The paper begins by considering the inherent inefficiencies in taxation of all kinds, and the conditions a tax system should have for minimizing those inefficiencies.

Minimizing the Inefficiency of Taxation

Inefficiencies are inherent in any taxation. Taxation is, of course, necessary to provide revenue for needed government services, and the unavoidable inefficiencies imposed by taxation are a necessary cost of providing those services. But it is obviously desirable to minimize the costs of government, and a necessary requirement for doing so is to minimize the inefficiencies imposed by taxation.

Taxes impose inefficiencies by distorting the economic choices people make. A tax typically drives a wedge between the private value realized from engaging in an activity and the social value created by that activity. For example, when a producer of a product has to pay a tax on each unit of his product, the value he receives from his productive activity is less than it is worth to consumers. The result is that resources and efforts are diverted
out of activities that generate more value and into activities that generate less value. The most efficient tax system minimizes this type of distortion. Reducing these distortions in our current income tax system is the objective of tax reform proposals such as the flat-rate tax.

The income tax is characterized by escalating rates on taxable income and the multiple taxation of saving, but with taxpayers being able to reduce their taxable income by taking advantage of a host of loopholes and exemptions. While taking advantage of opportunities to reduce taxable income makes sense to each taxpayer, it distorts choices in ways that reduce economic productivity and leave taxpayers in general worse off. Moving to a flat-rate tax, for example, can be realized with one tax rate lower than most of the current rates by closing off most of the existing loopholes. This would reduce the distortion between work and leisure by lowering the marginal burden on taxable income. And if loopholes were eliminated, people could no longer achieve tax saving by making investing and spending decisions that do more to create tax breaks than create wealth. Similarly, a consumption-based tax that spreads the marginal tax burden uniformly over all, or almost all, consumption expenditures, would greatly reduce the influence of taxation on consumption choices.

The Most Distorting Tax

Excise taxes are conspicuously at odds with the goal of reducing tax distortions: they are the most distorting of all taxes.
per dollar raised. Instead of spreading the tax burden as neutrally as possible over a broad tax base, excise taxes single out a few products for a high and discriminatory tax burden that motivates consumers to avoid that burden by shifting away from products that provide them with the greatest value per unit of production cost. Corresponding to this consumption distortion are production distortions as productive resources are shifted out of higher-valued employments and into lower-valued employments.

A common argument is that excise-tax distortions can be greatly reduced by imposing the tax on inelastically demanded goods, those whose consumption is not very responsive to price. This argument is illustrated in Figure 1, in which two demand curves are shown (an inelastic demand curve, Di, and an elastic demand curve, De) along with a supply curve, S. As the diagram is constructed, the equilibrium price and quantity without an excise tax is the same with both demand curves, and given by P and Q respectively. Next consider the imposition of an excise tax of E on each good (with the quantity of each good measured in the same unit). This raises the supply curve by a vertical distance of E to S', which results in a price-quantity equilibrium of Pi, Qi for the inelastically-demanded good, and Pe, Qe for the elastically-demanded good. The loss resulting from the tax-induced distortion (the dead-weight loss) is given by the area a'bc' for the inelastically-demanded good and area abc for the elastically-demanded good. As is easily seen, area abc is greater than area a'bc', and so the dead-weight loss is less when a given excise tax is imposed on the good whose demand is
less elastic.

Although this result generalizes, given the assumptions we have made, it is not as robust as it may appear. Under alternative, and equally plausible assumptions, applying an excise tax to an inelastically-demanded good is more inefficient than applying the same tax to an elastically-demanded good. For example, we have been assuming that both goods have exactly the same supply curve. This is highly unlikely. Consider Figure 2, which reproduces demand curves \( D_i \) and \( D_e \). But now there is a different supply curve for each good. To make the point as sharply as possible, assume that the supply curve for the elastically-demanded good is perfectly inelastic, and given by \( S_i \), and the supply curve for the inelastically-demanded good is perfectly elastic, and given by \( S_e \). As constructed, the pre-tax equilibrium is given by a price of \( P \) and a quantity of \( Q \) for both goods. Next, assume, as before, that an excise tax of \( E \) is imposed on each unit of the two goods. This shifts supply curve \( S_e \) up by an amount \( E \) to \( S_e' \), with the new equilibrium given by a price of \( P+E \) and a quantity of \( Q_i \) for the inelastically-demanded good. As shown in Figure 2, the excise tax causes a dead-weight loss given by the area abc for the elastically-demanded good. But notice that the tax has no effect on the vertical supply curve \( S_i \) (you cannot shift up a vertical curve) and so there is no change in the equilibrium for the elastically-demanded good, and therefore no dead-weight loss associated with the tax.

Figure 2 highlights a point too often ignored by those who argue that the cost of excise taxes can be moderated by imposing them on the goods whose demand is least elastic. The costs of distortions imposed by an excise tax also depend on the supply elasticities, and there is no guarantee that confining the application of excise taxes to inelastically-demanded products minimizes the dead-weight loss of those taxes. Also, even if we are confident that a given amount of money could be raised by taxing an inelastically-demanded rather than an elastically-demanded good, it may not be wise to tax the former good. A tax on an inelastically-demanded good presents the possibility of raising a lot more revenue than does a tax on an elastically-demanded good. This creates a temptation to put revenue ahead of efficiency that politicians have difficulty resisting, with the result that the tax rate is increased to a level that is inefficiently high by the conventional standard of efficiency. And for reasons that are presented in Section 5, excise taxes on inelastically-demanded goods should probably be lower than called for by conventional analysis. In any event, because excise taxes single out a few products for a special tax burden they are, with few exceptions, the most distorting taxes.

The Exceptions

Under certain circumstances an efficiency case can be made for an excise tax. Generally, a tax should be as neutral as possible in its influence on the decisions people make, and excise taxes are less neutral than are other taxes. But, in some situations, tax policymakers intend to affect consumption decisions by forcing people to consider the cost of those decisions. Typically, this situation arises when the use of one product is complementary to the use of another and it is easy to charge for the use of the first but not the second. The market price of the first product reflects its production costs, but not the costs associated with its use, the cost of providing and maintaining the complementary good. Given the difficulty of charging for the complementary good
directly, the best alternative may be to put an excise tax on the use of the first good. If set at the proper rate, such an excise tax will motivate consumers to reduce their consumption of the taxed good appropriately by internalizing the cost of the complementary good in their decisions. The excise tax can also raise the revenue necessary to provide and maintain the efficient amount of the complementary good. In this case, the excise tax revenues are specifically earmarked to a particular government function.

The classic example of an earmarked excise tax is the gasoline tax whose revenues are earmarked to the construction and maintenance of the highway system. The use of gasoline is connected directly to the use of highways, which are difficult to charge for directly. So a tax on gasoline that reflects the highway cost of gasoline use can be perfectly efficient if the rate is set properly and the revenues are unequivocally dedicated to highways.

Conceptually it is straightforward to determine the efficient rate for a gasoline excise tax earmarked for highway construction and maintenance. In Figure 3 the demand curve for gasoline is given by D. Assuming that the marginal cost of supplying gasoline is constant, and given by MC, the supply curve is given by a horizontal line at MC, and shown as S. But the use of gasoline requires new highways and maintenance of existing ones. Assuming that the relationship between gasoline use and highway cost is equal to the constant HC, then the entire marginal cost of gasoline use is given by MC+HC. Without an excise tax, the price of gasoline is given by MC and gasoline is consumed at a rate of Q in Figure 3. At this consumption rate the marginal value of gasoline is less than the relevant marginal cost, so gasoline consumption is excessive. Imposing an excise tax of HC increases the price of gasoline to MC+HC, the marginal cost of gasoline use, and the consumption of gasoline declines to Q', which is the efficient rate (the rate at which the marginal value equals the marginal cost). The gasoline excise tax not only motivates customers to consume the efficient amount of gas by considering the highway cost of their consumption decisions, but provides the money necessary to build and maintain the efficient complement of highways.

The gas tax is not only the best example of an efficient earmarked excise tax, it may be the only reasonable example. Given that airports are publicly financed, a case can be made for the practice of imposing an excise tax on airline tickets with the proceeds being earmarked to the construction and maintenance of airports. But it would may be more efficient for the airport authorities to auction off the gates and landing rights to the airlines, who would then pass this cost along to consumers in ticket prices. This approach would could better allocate the use of airports by requiring that those who want to land during periods of peak demand take into consideration the extra cost of doing so. This efficient allocation is not accomplished by the current excise tax, which charges consumers the same percentage of their ticket price whether they land at Atlanta’s Hartsfield International at 5:00 p.m. on Friday or at the Belgrade-Bozeman airport at 10 p.m. on Sunday. As a means of pricing road use, the federal gasoline excise suffers a similar problem, since the excise is the same whether one is driving when roads are congested or are relatively clear of traffic.

No matter how strong the efficiency case for an earmarked excise tax, that case depends on ensuring that the proceeds from the tax are earmarked fully and unequivocally to the government provi-
sion of the good complementary to that being taxed. For example, it may be worthwhile for government to fund economic education. But it would be difficult to justify increasing the excise tax on gasoline or airline tickets (or anything else for that matter) to earmark the additional revenue to additional economic education. The case for the excise taxes on gasoline and airline tickets requires that the revenues they generate go to their complementary goods: highways and airports. Furthermore, there can be no doubt about the assignment of earmarked tax revenues. If the revenues are available for other purposes, they will attract the rent-seeking attention of politically-organized interest groups that will devote time and resources to capturing those revenues. The more the rent seeking for the proceeds from an excise tax that occurs, the weaker the efficiency argument becomes.

### The Effect of Rent Seeking

Earmarked excise taxes are often thought of as user charges, or substitutes for market prices. When market prices cannot be used conveniently to ration and pay for the use of a governmentally provided good or service, a tax can do so for reasons discussed in the previous section. But a crucial difference between taxes and market prices has important implications for the efficiency of taxes as government-imposed user fees. Both market prices and taxes generate revenues. But a market price generates revenue that is privately owned. On the other hand, taxes typically generate revenues that are commonly
owned (going into a general common or public fund), and the issue of who has the right to use them is decided on the basis of political influence. The result is a competition waged through the political system influence, and this competition is costly; it expends, in a fight over existing wealth, resources that could otherwise have been used to create new wealth. This cost is known as rent-seeking cost, and is inextricably associated with discretionary control over wealth by government.

Once the cost of rent seeking is taken into consideration, the case for an excise tax as a price is greatly eroded unless the revenues are clearly and unequivocally earmarked. Without such earmarking reducing, if not eliminating altogether, rent seeking over the tax revenues, an excise tax (even one that would otherwise be justified as efficient) is likely to be a source of inefficiency. And, even if there is a case for an excise tax in a rent-seeking setting, the efficient level for that tax will typically be lower than suggested by traditional analysis. Indeed, the efficient tax will be zero in many cases where efficiency would appear to require a positive tax.

The proposition that rent seeking can be expected to reduce the efficient excise tax can be shown graphically. Consider a situation similar to that examined in the previous section, where the consumption of some product, say X, generates a cost not incorporated in the price of X. Therefore, in the absence of a tax, this cost is external to the calculations of those who consume X. To keep the analysis as simple
as possible, assume that the marginal cost of producing X is zero, so the market price is also zero. But the marginal external cost of consuming X is positive and is given by the horizontal line MEC in Figure 4. Letting the demand curve for X be given by D, at the market price of zero, the amount of X demanded is shown as X₁ where the marginal value of X (given by the height of the demand curve) is also zero. Since the marginal value of X is less than the marginal cost of consumption, MEC, at X₁, consumption is excessive. The efficient level of consumption is given where the demand curve intersects the line MEC, and is given by X* in Figure 4. As easily seen, by imposing an excise tax of T* = MEC on each unit of X, the price is increased to from zero to T* and the consumption of X will decline from X₁ to X*. It appears that, analogous to the situation described in Figure 3, the tax T* is efficient. But T* is efficient only if the tax revenues are clearly and unequivocally earmarked so that they do not motivate rent seeking. If the revenues are not decisively earmarked, the rent seeking they motivate will alter the size of the tax that is efficient.

Assume we begin at X₁ in Figure 4 and that policymakers are considering a tax to increase the price above zero. Also assume that the tax will not be earmarked. Instead, the revenues will go into the general fund and allocated on the basis of political competition. The question is, how high should the tax be? The answer depends on the amount of rent-seeking cost generated by the tax revenues. To be more precise, consider first the marginal tax revenue curve, given by MTR in Figure 4. This curve shows how much additional revenue is raised if the tax is lowered enough to motivate the sale of one more unit of X. As is seen, at X₁ the marginal revenue is quite negative. Of course, if the tax is increased above zero by enough to reduce the sale of one unit less of X, the negative of the MTR curve gives how much additional tax revenue is raised. Therefore, at T = 0 and X = X₁ a marginal increase in tax generates quite a large increase in revenue.

Next, assume that 1/8th of the revenue raised by the tax is dissipated through rent seeking. This is not an unreasonable assumption. To incorporate this assumption into the analysis, I have constructed the curve 1/8MTR in Figure 4, which is obtained by multiplying the value of MTR by 1/8. The negative value of 1/8MTR at X₁ represents the marginal rent-seeking cost of reducing the consumption of X by increasing the tax on X above zero. More generally, the negative value of 1/8MTR is the marginal rent-seeking cost of reducing the consumption of X at all consumption levels by increasing the tax on X.

Returning to the initial position, X₁, to decide whether to increase the tax above zero, the marginal rent-seeking cost of a tax increase should be compared to the marginal rent-seeking benefit of that increase. At X₁ the marginal benefit is given by the vertical distance between the MEC curve and the demand curve, or by the amount by which the marginal external cost of consuming X exceeds the marginal value of doing so. This distance is equal to MEC at X₁, which is greater than the absolute value of 1/8MTR at X₁. Therefore, the marginal benefit of increasing the tax on X above zero exceeds the marginal cost, and efficiency requires a positive tax.

As the tax is increased, the absolute value of 1/8MTR declines, as does the vertical distance between the MEC curve and the demand curve. But the former is declining slower than the latter, which means that the marginal cost of increasing the tax is falling less rapidly than the
marginal benefit. When the tax has been increased to $T^{**}$ and consumption reduced to $X^{**}$, the marginal cost and marginal benefit of increasing the tax are equal, as evidenced by the fact that the distances $ab$ and $cd$ are equal in Figure 4. Any further increase in the tax results in the marginal cost exceeding the marginal benefit. This is apparent from the fact that at $X^*$ the marginal cost of increasing the tax is still positive ($1/8\ MTR$ is still negative) and the marginal benefit has declined to zero (the demand curve intersects MEC at $X^*$). So the efficient tax in the presence of rent seeking is $T^{**}$, which is less than the tax, $T^*$, considered efficient by the standard analysis.

One must point out that incorporating rent-seeking costs into a model of taxation can also lead to the conclusion that the efficient tax is greater than that conventionally considered efficient. Without going into a detailed analysis, the key consideration is the price elasticity of the demand curve at the point where it is intersected by the MEC curve. In Figure 4 that intersection occurs in the inelastic portion of the demand curve, which means the marginal tax revenue is negative and, therefore, the marginal cost of increasing the tax is positive. If, as is possible, intersection between MEC and D occurs in the elastic portion of the demand curve, then the marginal tax revenue is positive, which means that the marginal cost of increasing the tax is negative (increasing the tax reduces tax revenue and thus reduces the rent seeking). This can obviously result in the efficient tax being greater than the one determined by the standard efficiency condition, $T = MEC$. This possibility is surely remote, however, since it would require a marginal external cost over halfway between the horizontal axis and the intercept price in the case of a straight-line demand curve. Also, as discussed in Section 3, there exist conventional economic justifications and political temptations to impose taxes on inelastically-demanded goods.

Confining our attention to the case illustrated in Figure 4, with the efficient tax less than $T^*$, the important consideration is the amount of rent seeking motivated by each dollar of tax revenue, or the rent-seeking coefficient. The greater the rent seeking, the smaller the efficient tax. If the rent-seeking coefficient increases from $1/8$th to $1/4$th, or more, in Figure 4, it can be shown that the efficient tax declines from $T^{**}$ to zero. The specific value of $1/4$th is, of course, determined by the particular representation in Figure 4. But two general propositions hold regarding an excise tax designed to internalize the external cost of consuming a good:

- Increasing the rent-seeking cost associated with the revenue raised by the tax will reduce its efficient level (assuming that we are operating in the inelastic portion of the demand curve);
- As the rent-seeking cost increases, the gain from the efficient tax decreases, and at some point the rent-seeking cost eliminates any gain possible from the tax, at which point its efficient level is zero.

These two propositions return us to the importance of clearly and decisively earmarking the revenues from an excise tax. Such earmarking reduces the payoff to organized lobbying for the control over the tax revenues, and therefore reduces the marginal rent-seeking cost to increasing the tax. Such rent-seeking cost will never be completely eliminated. But clearly obligating the revenues from an excise tax to an appropriate function minimizes rent seeking and increases both the efficient rate of, and the efficient gains from, the tax. Unfortunately, the rent seeking that makes clearing and binding
earmarking desirable also creates political incentives that make such earmarking unlikely.

The Politics of Earmarking

Ideally, taxes would be used to raise only the revenue required to provide essential government services, and to provide them efficiently. In the real world, matters are more complicated. The primary problem is determining what government services are essential. Determining this is the function of the political process: voters can express their preferences at the ballot box and organized interest groups can petition political decision makers. Ideally, the costs and benefits of government programs will be communicated through the political process so that politicians will receive the information and motivation to raise the right amount of tax revenue and allocate it efficiently. Unfortunately, a bias in the political process practically guarantees that: 1) too much tax revenue will be raised; and 2) much of it will be spent on services that cost more than they are worth.

No matter how much revenue is captured through taxes, many politicians and their special interest clients, desire even yet more. All of us, of course, desire more, but those whose interests are served by an ever-expanding public sector are especially insatiable. Most of us are disciplined by the fact that we have to pay the entire cost of satisfying that desire. The political process operates differently, however. Interest groups organized around narrowly-focused concerns can often use political influence to secure benefits concentrated on them while the costs are spread thinly over the general public. Politicians are particularly sensitive to the exaggerated demands for government spending that result, since satisfying them is the source of support from well-organized groups that benefit from that spending. Of course, costs are associated with satisfying special-interest demands, but because these costs are diffused over the general taxpaying public, there is little organized opposition to them. When people organize for political action it is more often almost always in support of more government benefits for their groups and locales, not in opposition to the benefits going to others. Even as voters, people are more concerned with securing more government spending for their districts (which usually means voting for incumbents) than with making sure that spending is increased only when it is worth at least as much as it costs. So the political benefit-cost ratio from government spending programs often invariably exceeds the social benefit-cost ratio from that spending.

Government spending has reached the point, however, where public opposition to taxation is roughly in balance with special-interest demands for more spending. Taxpayers do not have to organize overtly to communicate to their political representatives that there are limits to the tax burdens they will bear, and this communication becomes loud and clear as those limits are approached. But as taxpayer opposition to higher taxes more taxation has intensified, so has political ingenuity at finding ways to circumvent that opposition and reduce the political costs of securing more tax revenue. Examples include the increased number of proposals to impose new, or increase old, taxes with the stipulation that the revenues will be earmarked to programs that are popular either because they generate easily recognized benefits or they seem to promote virtuous objectives, or both. Almost any excise tax is a political target
for this type of earmarking, but taxes on "sinful" products are particularly attractive. By proposing taxes in the name of discouraging "sin" and/or encouraging "virtue," politicians can reduce taxpayer resistance to further tax increases.

Cigarettes have, in recent years, been extremely vulnerable to the "sin" tax justification for raising more government revenue. They have been constantly assaulted by organized anti-smoking groups and the media, with exaggerated claims as to the risks and costs of smoking. Recent work by Duke University economist W. K. Viscusi, for example, shows that the public consistently overestimates the risk of smoking. The claims that smoking imposes costs on society (in the form of health and lost productivity cost paid by the general public) range as high as $3.17 per pack. In fact, more careful studies indicate that, at most, the "social" costs of smoking come to about $.24 per pack, which is far less than the average cigarette excise tax. But the anti-smoking message is so persistent and pervasive that even a significant percentage of smokers claim to favor tax increases on cigarettes.

One of the most effective ways to overcome political resistance to a tax increase is to propose an increased excise tax on cigarettes with the revenues being earmarked to finance virtuous government programs. Sometimes the earmarked programs superficially appear to be needed to pay for, or offset, the cost of smoking, such as health care programs and programs aimed at anti-smoking "education." Such programs, upon closer examination, can be seen to have little to do with the cost of smoking. For example, there is no reason to believe that smokers make more use of life-time health care than do nonsmokers. Even arguments that smokers make use of health care earlier in their lives than nonsmokers, thereby raising the present value of their health care costs relative to nonsmokers, this does not justify additional taxation. If smokers do not live as long as nonsmokers, then the major part of their health demand is more likely to occur before age 65 than it is for nonsmokers. And, of course, at age 65 the big government health subsidies begin with Medicare. The evidence shows that, at existing excise tax rates, smokers are already more than paying their own way. (note: The following text was deemed to be a bit heavy on the cigarette issue, and so we should probably drop it) Certainly there is no justification for increasing those taxes to finance anti-smoking media campaigns. If such programs promote a general public interest, then they should be paid for through general taxation. Such campaigns would appear to be a poor use of public funds, however, since they seem to have no long-run effect on tobacco use. At best, the evidence suggests that media campaigns are just one of many factors that influence decisions to smoke, and that any influence they do have is short-lived.

Many programs to which the revenues from cigarette excise tax increases are earmarked do not have even the superficial appearance of being connected to smoking. For example, in Indiana a portion of the revenues from the state’s cigarette excise tax is earmarked to subsidize day-care centers for school-age children. Indiana also approved a 5-cent per pack increase in the cigarette tax in 1987 to raise money for soil conservation and maternity care. The city of Chicago has its own cigarette excise tax, and it earmarks some of the revenue to provide aid to the homeless. Revenues from California’s cigarette excise tax were earmarked for "smoking-related" purposes by Proposition 99, which greatly increased the tax. But soon after the proposition was passed,
some of the cigarette tax revenues were used to subsidize hospital trauma centers, with no pretense that this had anything to do with illnesses supposedly related to smoking. The state of Washington devotes some of its cigarette tax revenue to cleaning up Puget Sound. Michigan almost passed a cigarette tax increase for the purpose of raising money for AIDS research and building more jails. A 2-cent per pack increase was passed in Nevada and earmarked to the renovation of university buildings.

The message to organized interest groups is clear: rent seeking over cigarette tax revenues pays. Cigarette tax revenues were not allocated to soil conservation, AIDS research, renovating university buildings, and day-care centers because politicians decided in an influence-free setting that there is a complementary relationship between these projects and cigarette consumption. So, even if a principled case could be made for an earmarked excise tax on cigarettes as a user fee (and it cannot), the lack of any clearly appropriate program to be funded by the tax stimulates a level of rent seeking that almost guarantees that the efficient level of the tax would be zero.

Even with the gasoline excise tax, the diversion of revenues to non-highway programs has undermined the efficiency of the tax. According to estimates based on figures from the U.S. Treasury, of the approximately $31.5 billion raised in 1996, primarily by the federal gasoline tax, about $6.5 billion went into the general fund.17 Obviously, these revenues were the object of a significant amount of rent seeking. And, just as obviously, most of the revenues were spent on a multitude of projects and transfers that could not possibly be justified as required because of gasoline consumption. The situation is no better at the state level, where state gas
tax revenues are used for spending that has nothing to do with gasoline consumption. For example, in West Virginia gas tax revenues have been used to restore the capitol dome. In other states the revenues have financed lighthouse renovation and the construction of bike paths and jungle trails.18 Opening up gasoline tax revenues to rent-seeking with such diversions reduces the efficiency of the tax, and lowers the tax rate that is efficient. Unfortunately, the rent-seeking that lowers the efficient tax rate exerts political pressure to raise that rate. The relative inelasticity of demand for gasoline makes it a politically tempting tax target that can be used to finance government projects that promote "virtue" while generating special-interest gratitude.

Conclusion

Excise taxation is an example of bad economics being good politics. As public tolerance for the national tax burden reaches its limits, the political temptation is strong to secure more tax revenues with excise taxes, either by imposing new ones or increasing the rates on existing ones. Excise taxes are politically attractive because they can be made superficially appealing by imposing them on politically unpopular goods with the revenues earmarked for government programs that seem virtuous. Do not expect to see politicians advancing proposals to impose special taxes on Bibles, small family farms, and shelters for battered women, with the revenue earmarked to increase the governor's discretionary slush fund. An excise tax is even easier to justify when it is presented as a user fee, supposedly shifting the tax burden to those consuming "sinful" products to raise the revenue to cover the "social" cost of that consumption.

Unfortunately, excise taxes are almost
always highly inefficient, doing far more to reduce economic prosperity per dollar raised than alternative taxes. By singling out particular products for discriminatory taxation, excise taxes distort economic choices by inserting a tax wedge between the value consumers derive from the product and the cost of producing it. Only in a very few situations where the consumption of a product is complementary to the use of some other good that cannot easily be priced directly can earmarked excise taxes be efficient. The best example of this is the excise tax on gasoline with the revenues used to provide highways. Even in this case, the efficiency of the excise tax depends upon the revenues being unconditionally allocated to highway use to reduce the cost of rent seeking. The greater the rent seeking over the allocation of the revenues from a potentially efficient excise tax, the less efficient it is and the lower the efficient rate of taxation (under reasonable assumptions about the relevant elasticity of demand).

Once we recognize the necessary requirements for efficient excise taxation, we cannot justify most examples of such taxation on any grounds other than political expediency. Even the excise tax on gasoline is of questionable efficiency, given the diversion of the tax revenues into a number of government spending programs that have nothing to do with highway construction and maintenance. Most excise taxes cannot be justified on any principled grounds regardless of how they are earmarked, because no government spending can be exclusively connected to the use of the product being taxed. And, because there is no clear justification for earmarking the revenues to particular government spending, most excise taxes generate revenues that are up for political auction. The resulting rent-seeking cost makes these taxes even more inefficient than they already are.

Given the distortions caused by most excise taxes, and the political temptations created by all of them, they should be purged from the tax system where possible, and otherwise employed only under the strictest of rules and greatest caution.

Endnotes

1 See Brennan and Buchanan (1980; Chapter 4) for a detailed examination of this point.
2 Being clear that revenues from the gasoline excise tax will be used only for highways is crucial to the efficiency of the tax, as shown in Section 5.
3 Until relatively recently the political transfer of wealth was considered socially costless; what one person or group lost another gained. The first to observe that resources would be expended in the competitive struggle for government transfers, and to point out that this represented a net loss, was Tullock (1967). A good sample of the large literature that has developed in response to Tullock’s insight is contained in two volumes, Buchanan, Tollison, and Tullock (1980); and Rowley, Tollison and Tullock (1988). For a good interpretive survey of rent seeking, see Tollison (1982).
4 This assumption is completely innocuous with respect to the conclusion of the analysis, but greatly simplifies that analysis for reasons explained in note 7.
5 Indeed, one-eighth likely understates the amount of rent-seeking waste. Based on experimental evidence from a rent-seeking situation (where people bid for a given amount of money under the stipulation that they have to pay what they bid whether they win or lose), it is not uncommon for the total bids to exceed the prize. See Mateer and Lawson (1995). For a
theoretical model that explains the conditions under which the amount spent on rent seeking exceeds the value of what is at stake, see Tullock (1980). On the other hand, politicians specialize in the transfer of wealth, and there are reasons for believing that they are good at it. This suggests that they can avoid the value of wealth transfers from being entirely dissipated through rent seeking. See Flowers (1987).

6 When MTR, and therefore 1/8MTR, is positive, then 1/8MTR represents the marginal reduction in rent-seeking waste, or the marginal rent-seeking benefit, of increasing the tax and reducing the consumption of X.

7 This statement has to be qualified in the case where the marginal production cost, and market price, of the good under consideration is positive. In that case the relevant demand curve is only that portion above the market price; i.e., that portion that generates the tax revenue. In other words, the elasticity important to the analysis is the tax elasticity of demand. This explains why the analysis is simplified by assuming that the marginal production cost, and market price, of the good is zero.

8 In the case of a positive price, the marginal external cost would have to be over half the distance between the price and the intercept price. Of course, demand curves are seldom straight lines. But reaching the elastic portion of most demand curves, straight line or not, typically requires a price quite a way up the vertical axis.

9 We have the interesting situation where politicians want to tax those goods for which political incentives are calling for a high tax rate and economic efficiency (taking rent seeking into consideration) requires a low tax rate.

10 When political authorities and special-interest groups try to justify higher taxes, they are expansive in their definition of sin. For example, environmental groups have tried to demonize gasoline to justify higher gas taxes. This demonization is illustrated by a 1993 editorial in The New York Times supporting a large increase in the federal gasoline tax which stated, "Lower gas consumption slows the growth of pollution in the cities, where most driving takes place, easing the disproportionate pollution burden on the urban poor." See Schipper (1993).

11 Commenting on the 1990 primary election in California, Newsweek (1990; p. 15) stated: "Voters are likely to resist general tax increases to fund government across the board . . . But polls show that voters are willing to pay higher taxes for specific purposes like building schools or cleaning rivers."

12 Surveys by Viscusi (1992; Chapter 4) indicate that people significantly overestimate both the lung cancer risk and the general mortality risk of smoking. Indeed, it has been estimated that if people accurately assessed the risk of smoking, the rate of smoking would increase by 6.5 to 7.5 percent. Furthermore, young smokers overestimate the risk of smoking by more than do adults.

13 The $3.17-per-pack figure was the high estimate from a report by the Office of Technology Assessment (1985, p. 4). Their "best" estimate was $2.17 per pack. In both estimates, the biggest cost is based on estimates of lost productivity due to smoking; $2.02 per pack in the high estimate and $1.45 per pack in the "best" estimate.

14 See Manning, et al. (1989). The estimate of $.24 per pack is based primarily on medical costs, and assumes that smokers demand more lifetime medical care than nonsmokers, which is a debatable assumption. The figure does not, however, factor in an estimate for lost productivity due to smoking, which is appropriate. First, cigarette smoking does not appear to be a factor in absenteeism once other factors
are considered; for example, see Ault, et al. (1991). Second, even if smoking did cause an increase in absenteeism, this is a private cost (one paid by those who miss work) rather than a social cost (one external to those who miss work). For a good discussion of this point, see Tollison and Wagner (1992; Chapters 4 and 7).

Newsweek (1994, p. 27) reported that "a recent Cancer Society poll suggests that 66 percent of all voters, including a third of those who smoke, support a tax hike of $2 a pack." The $2 a pack tax was being proposed as a means of paying for health care reform.

Certainly there is no justification for cigarette excise taxes as high as they currently are, given the conclusions reached in Manning, et al. (1989) and discussed in note 14. Smokers are already more than paying for any social cost associated with the health effects of smoking.


These examples were given to me by Taylor Bowlden of the American Highway Users Alliance, and come from Federal Highway Administration data.
References


