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Tobacco and Alcohol Taxes:
The importance of evidence on public health effects
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High excise taxes on tobacco and alcoholic beverages are not an attractive source of revenue unless they are effective in reducing use and abuse.

Why? Such taxes tend to be quite regressive by the usual standard, and the high prices that result are a particular burden on the poor and often disabled heavy users.

Of course it could be argued that it is simply fair for the smoker or drinker to compensate the public for negative externalities of their use. But “fairness” in that regard requires that the bad habits are a choice, freely made. That would be a dubious proposition if usage were completely insensitive to prices.

So I believe that high taxes must be justified by evidence that they are effective in reducing abuse and improving the public health.

Making that case persuasively is not easy. When I started working on this problem in 1980, most experts on smoking and alcohol abuse did not believe that prices mattered, nor did the public.

For alcohol abuse, for example, the dominant school of thought was that the main problem was alcoholism, and that alcoholism was an addiction characterized by loss of control. It stood to reason that addicts would find a way to drink their fill even if prices went up. A tax amounting to, say, an extra dime a drink, was not going to make any difference to people who were already suffering great personal losses for the sake of sustaining their habit.

The primary effect of a high tax would be to make their difficult lives even more so.

This argument has intuitive appeal but is incorrect in important ways.

First, the problem of alcohol abuse is not synonymous with alcoholism. Youths and other non-alcoholic drinkers who get drunk occasionally can do a lot of damage, as reflected in statistics on highway safety, injuries, violent crime, domestic violence, and so forth.

Second, even if the direct effect of prices are on the consumption habits of relatively moderate drinkers, heavy drinkers can be affected indirectly. There is good evidence that drinking occurs in a social context, and that drinkers across the spectrum influence each other. So if alcohol prices can affect the drinking patterns at the median, then the upper tail of the distribution will shift inward. That is to say, there will be a reduced prevalence of heavy drinking.

In any event, what I realized in 1980 is that there was no need to just speculate on these matters – that the so-called “laboratory of the states” could provide strong evidence. I began by studying a 20 year period in which there were scores of cases in which states increased their alcohol excise taxes. Those cases could be seen as trials in a sort of natural experiment, with states that did not change their tax as the control group. I utilized administrative data on alcohol sales and health-related outcomes, so that I did not have to rely on survey data -- which are always suspect when it comes to drinking and smoking.

I found that an increase in the state tax consistently resulted in a reduction in tax-paid sales per capita. That was a first step, but not enough, because skeptics could say that some drinkers were avoiding the higher tax by buying their booze in neighboring states. It is also possible that only the moderate drinkers were cutting back, so that the reduction had little effect on the amount of alcohol-related harm.

So in addition to analyzing sales data, I also analyzed the effect on the cirrhosis mortality rate. Cirrhosis mortality is a good indicator of the prevalence of long-term heavy drinking, and in particular alcoholism. What I found was the same pattern as for sales -- cirrhosis mortality dropped when taxes went up. In other words, higher prices postponed or prevented their deaths due to liver disease. That was direct evidence that the tax reduced the consumption of heavy drinkers and a clear indication that the tax was effective with one of the target populations.

In the 35 years since then there have been numerous studies of the effects of alcohol tax changes, by myself and others, for a variety of outcomes – injury mortality, violent crime, STDs, suicide, domestic violence, and so forth. The results are consistently positive. One of my recent studies found that when Congress doubled the federal beer tax in 1991, the result in just the first year was to save 7,000 lives.

These days, most experts are on board with the idea that higher alcohol taxes tend to reduce alcohol abuse and dependence, and the costly consequences thereof. But that conclusion remains a tough sell with the public and the politicians, especially given the alcohol industry’s lobbying and disinformation campaign. And since 1991 Congress and most of the states have done nothing to legislate in this area, letting inflation gradually erode the value of alcohol excises. In fact, inflation has in effect repealed the 1991 legislation that doubled the federal beer tax.

Tobacco taxes have been a very different story in the US in recent years. The politics changed in 1998 with the Master Settlement Agreement. Large increases in federal and state tax rates have

generated many billions in extra revenues despite the resulting decline in smoking. It is widely acknowledged that much of that decline has been induced by the increased tobacco prices.

Interestingly, some of the best evidence that higher taxes are effective in curtailing tobacco use is similar to the evidence for alcohol abuse -- it comes from the laboratory of the states, and in particular analysis of data generated by many instances in which state legislatures changed tobacco taxes. While there is no doubt that nicotine addiction plays a powerful role in smoking careers, higher prices appear helpful in discouraging initiation and encouraging cessation.

Alcohol and tobacco differ in one important respect, namely the public health goal. For tobacco, the best answer is abstention -- there is no safe level of smoking. But for drinking, it is moderation, where some scientists actually believe, as did my German grandmother, that a drink or two a day is good for the health. As a result, one objection to the alcohol excise tax is that even if it is an effective public health measure, it is poorly focused, in effect punishing all drinkers regardless of whether their drinking is problematic.

But in fact the alcohol tax is surprisingly well focused on negative externalities of drinking. Let me explain.

Consider a proposed increase of 10 cents per drink, which would amount to an annual payment of \$60/capita on average. But that average conceals a huge range. One-third of adults in the US abstain, and they would obviously pay nothing if the tax were increased. Most drinkers don't drink much, and for them the tax would be just a few extra dollars per year. The bulk of the extra revenue would come from the top 15% of the drinkers (who average 8 or 9 drinks per day); they consume 75% of all the alcohol and hence would pay 75% of new tax. That is also the group that accounts for most of the alcohol-related damage. Hence the claim that it is well targeted.

If the extra revenue were returned directly to the public as a sort of uniform dividend, most adults would receive more than they paid in. And most everyone would benefit from reduced drinking and abuse, starting with the financial benefit of reduced insurance rates, and a reduced threat of violent crime.

In conclusion, the case for higher excise taxes begins with the evidence that they are effective in controlling excess use. While experts are now in agreement that alcohol and tobacco excises are powerful public health instruments, we are a long way from persuading the public of that truth, especially for alcohol.